# Product Catalogue

RESIDENTIAL, COMMERCIAL & GOLF IRRIGATION | Built on Innovation®

# **VOLUME 39**

# Hunter













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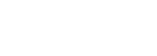
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**Golf Tools** 

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Statement of Warranty



# Your Success Is Our Success

# REFLECTING ON 40 YEARS OF INNOVATION

This year, we reached an incredible milestone: four decades of leadership in the irrigation industry. We could not have achieved this special anniversary without the support of every one of our customers around the globe.

From the earliest days of our company until now, we have always strived to connect with you through open dialogue and meaningful collaboration. **We listen to your needs. We value your opinions. We overcome obstacles together**. Through every shared triumph and challenge, we have kept our focus thanks to mutual trust, flexibility, and respect.

Looking ahead, our commitment to innovation remains as one of our top priorities. In addition to providing you with best-in-class irrigation solutions, we want to be your go-to partner for growing your business. From product training to design tools, our goal is to equip you with the technology, resources, and support you need to work smarter and prepare your business for whatever challenges the future may hold.

**Thank you for supporting Hunter Industries**. We look forward to finding new ways to strengthen our partnership even more over the next 40 years and beyond.





# WORLD-CLASS EDUCATION, TOOLS, AND SUPPORT

# For Green Industry Professionals

As your partner in business development, we know you need more than top-quality products to increase profits, provide excellent customer service, and stand out against the competition. We're proud to provide a full suite of free tools, services, and programmes to help irrigation professionals of all backgrounds succeed. Learn more at **hunter.direct/tools**.







#### SITEREC APP

https://hunter.info/siterecem

Close sales faster! Confidently present proposals to your customers. Add your logo and business details for a professional presentation.



#### **MY LIST**

https://hunter.info/mylistem

Build customised product lists for every project. Email lists to distributors for faster ordering and add pricing and notes to each project.











# WATER SAVINGS CALCULATOR

https://hunter.info/savingscalem

Show your customers how much water — and money — they can save by upgrading to a more efficient irrigation system.



#### **CAD LEGENDS**

https://hunter.info/cadlegendsem

To help you complete projects accurately in CAD software, we offer a range of irrigation legends that show proper specification.



#### **RUN TIME CALCULATOR**

https://hunter.info/runtimeem

Use this helpful calculator to generate the most efficient irrigation schedule for every landscape and prevent wasteful runoff.



#### **CAD DETAILS**

https://hunter.info/caddetailsem

To streamline the irrigation design process, we provide installation CAD details in PDF, DWG, and DXF formats.



#### DRIPLINE CALCULATOR

https://hunter.info/dripcalem

Eliminate guesswork with this handy tool. See site recommendations, determine product quantities, and calculate run times in a simple format.



#### **BIM 3D MODELS**

https://hunter.info/bimmodelsem

BIM uses advanced 3D modelling to develop irrigation specification documents. Find BIM-supported products for your next project.











### **VIRTUAL ENGAGEMENT CENTER**

https://vec.hunterindustries.com

Connect with Hunter reps and learn about our latest irrigation products in a fun, informative, and immersive digital space.



#### THE VAULT

https://vault.hunterindustries.com

Learn new facts, complete tasks to earn coins, and redeem your coins for prizes. Check back each week to see what's new.



#### SITE STUDY LIBRARY

https://hunter.info/sitestudyem

See how Hunter irrigation products have transformed parks, sports fields, and outdoor living spaces around the world.



#### VIDEO LIBRARY

https://hunter.info/videolibraryem

Visit our comprehensive video library to discover key product benefits, hear from experts, find installation tips, and more.













#### **HUNTER UNIVERSITY**

https://hunter.info/hunteruniversityem

Advance your career with our comprehensive online training certificate programmes for irrigation professionals. From fundamental product knowledge to advanced control systems and design techniques, there is a professional development programme waiting for you! Learn more at training.hunterindustries.com.

#### **Find Your Path to Success**

- Access free online product training at training.hunterindustries.com.
- 2. Choose the programmes or courses that best fit your needs.

Earn certificates and badges to show off your expertise and receive continuing education credits from the Irrigation Association to meet professional requirements.

#### **On-Site Expert Workshops**

These interactive, instructor-led courses feature a hands-on approach to learning. Classes are held at the Hunter campus in San Marcos, California, and select locations worldwide. To learn more, contact training@hunterindustries.com.

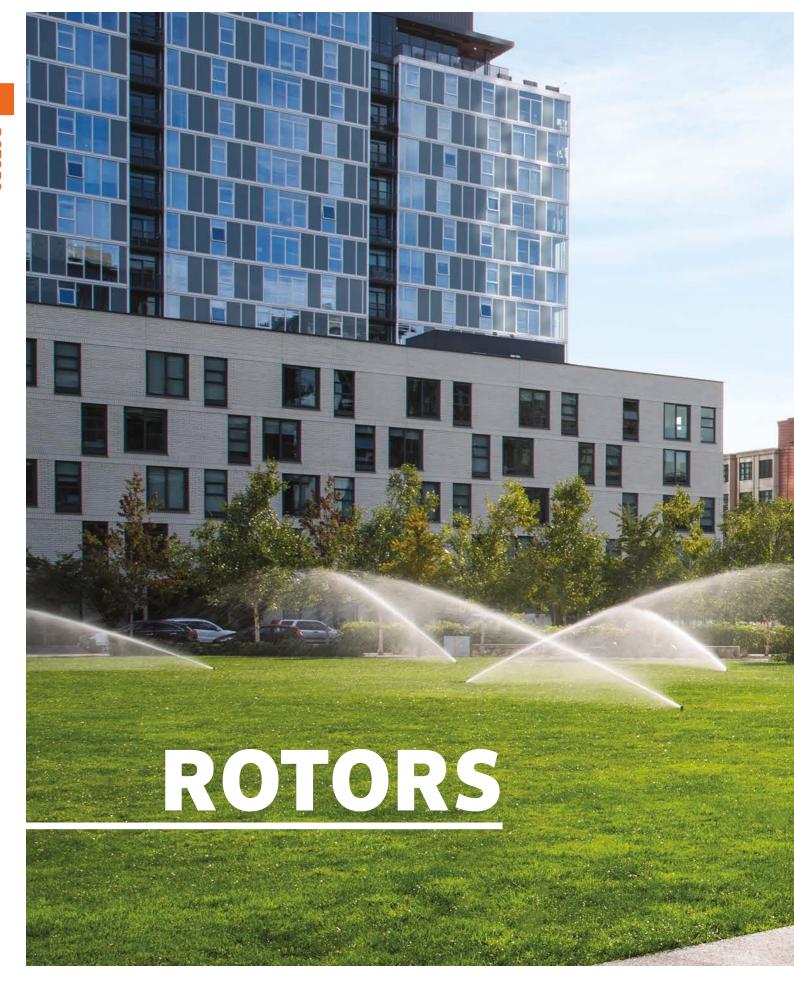
#### **New Training Programme!**

### **Irrigation Installation Fundamentals**

For reliable long-term performance, all irrigation system components must be installed correctly. Learn installation best practices today.

### **Irrigation Certificate Programmes**

- Product Technician
- Irrigation Designer
- Hydrawise® Specialist
- X2<sup>™</sup> Specialist
- S.T.A.R. Distributor





# **ROTORS**

# ADVANCED FEATURES

#### **RELIABLE STRENGTH & DURABILITY**

#### **EASY IN-THE-FIELD IDENTIFICATION**

#### PRESSURE-REGULATED BODY



Reduce high incoming pressure to prevent misting and allow nozzles to operate at peak efficiency. Lower pressure produces larger water droplets that fight the effects of wind.

PGP™ Ultra Shrub and 10 cm, I-20 10 and 15 cm

#### **OPTIONAL RECLAIMED WATER ID**



Purple caps indicate where non-potable irrigation water is being used.

PGJ, PGP Ultra, I-20, I-25, I-40, I-50, I-80, I-90

# STAINLESS STEEL RISER



For unforgiving soil conditions, unpredictable climates, or heavy foot traffic, stainless steel is the best choice.

Standard on I-40, I-50, I-80 Optional on I-20 and I-25

#### **COLOUR-CODED NOZZLES**







Nozzles are easier to differentiate on the field for simple installation and quick organisation.

(I-25, I-40, I-50, I-80, I-90

#### **EASY AS-NEEDED ADJUSTMENTS**

#### **AUTOMATIC ARC RETURN & NON-STRIPPABLE DRIVE**



This patented feature returns the turret to the original arc regardless of where it is turned. The non-strippable drive mechanism is protected from damage, ensuring protection from vandalism.

PGP Ultra, I-20, I-25, I-40

#### **DRAIN CHECK VALVE**



The Drain Check Valve keeps lines from draining when the system is shut off. This saves water, reduces liability, and prolongs system life.

PGJ, PGP Ultra, I-20, I-25, I-40, I-50, I-80, I-90

#### **FLOSTOP™ CONTROL**



FloStop closes the flow of water from individual sprinkler heads while the system is running. This is ideal for changing nozzles or turning off specific heads during maintenance and construction.

#### **VALUE-ADDED OPTIONS**



#### OPPOSING NOZZLE 360° MODEL

The opposing nozzle design offers excellent water distribution. With primary and secondary nozzles on opposing sides of the turret, streams arc in opposite directions as the sprinkler rotates for outstanding midrange and close-in watering.

I-40. I-50. I-80. I-90

#### **HEADED AND SLOTTED SETSCREW**



Use a slotted screwdriver or the Hunter Wrench for easier and simpler adjustments as needed.

PGJ, PGP Ultra, I-20

## **ROTOR COMPARISON CHART**

QUICK SPECS		PGJ	SRM	PGP-ADJ	PGP ULTRA	I-20	I-25	I-40 I-50	I-40-ON I-50-ON	I-80	I-90
INLET SIZE		1/2"	1/2"	3/4"	3/4"	3/4"	1" (25 mm)	1" (25 mm)	1" (25 mm)	1½" (40 mm)	1½" (40 mm)
RADIUS	m	4.3-11.6	4.0-9.4	6.4-15.8	4.9-14.0	4.9-14.0	11.9-21.6	13.1-23.3	15.2-23.2	, ,	22.3-31.7
	m³/hr	0.13-1.23	0.08-0.82	0.10-3.22	0.07-3.23	0.07-3.23	0.82-7.24	1.63-6.84	2.75-7.76	4.6-13.5	6.7-19.0
FLOW	l/min	2.2-20.5	1.4-13.7	1.7-53.7	1.2-53.8	1.2-53.8	13.6-120.7	27.2-114.1	45.8-129.4	76.5-225.6	111.7-317.2
FEATURES											
RECOMMENDED	bar	1.7-3.8	1.7-3.8	1.7-4.5	1.7-4.5	1.7-4.5	2.5-7.0	2.5-7.0	2.5-7.0	3.4-6.9	5.5-8.0
PRESSURE RANGE	kPa	170-380	170-380	170-450	170-450	170-450	250-700	280-700	280-700	340-690	550-800
OPERATING	bar	1.4-7.0	1.4-7.0	1.4-7.0	1.4-7.0	1.4-7.0	2.5-7.0	2.5-7.0	2.5-7.0	3.4-6.9	5.0-8.0
PRESSURE RANGE	kPa	140-700	140-700	140-700	140-700	140-700	250-700	250-700	250-700	340-690	500-800
NOZZLE TRAJECTORY	,	15°	15°	25°	25°	25°	25°	25°	25°	25°	22.5°
SPECIFIC NOZZLES					Optional	Optional	Pre- Installed	Pre- Installed	Pre- Installed	Pre- Installed	Pre- Installed
NOZZLE OPTIONS		8	6	27	34	34	11	6	6	21	16
WARRANTY		2 Years	1 Year	2 Years	5 Years	5 Years	5 Years	5 Years	5 Years	5 Years	5 Years
ADVANCED FEAT	URES										
LOW-ANGLE NOZZLE CHOICES				•	•	•					
AUTOMATIC ARC RETURN					•		•				
NON-STRIPPABLE DR	IVE						•				
PART- AND FULL-CIRC	CLE				•	•	•	•		•	
HEADED AND SLOTTE SETSCREW	D	•			•	•					
RECLAIMED WATER I	)	•					•		•		
AVAILABLE SHORT RADIUS NOZZLES					•	•					
FLOSTOP™ CONTROL											
OPPOSING NOZZLE											
STAINLESS STEEL RISER OPTION						•	•	•	•	•	
OPTIONAL PRESSURE REGULATED BODY	-				•	•					
OPTIONAL OR FACTOR INSTALLED DRAIN CHECK VALVE	RY-	(2 m)			(3 m)	(3 m)	(3 m)	(4.5 m)	(4.5 m)	(1.5 m)	(2 m)

**PGJ** 

Radius: **4.0 to 10.7 m** 

Flow: 0.08 to 1.0 m3/hr; 1.4 to 16.7 l/min

The highly durable PGJ offers all the benefits of a large rotor in a compact, spray-sized package, with water-efficient nozzles and easy arc adjustment.

#### **KEY BENEFITS**

- Headed and slotted setscrew allows radius adjustment with a Hunter Wrench or flat-blade screwdriver
- Adjustable arc from 40° to 360° to keep water in the appropriate areas
- Standard factory-installed 2.0 nozzle speeds installation
- QuickCheck™ Arc Mechanism for fast arc adjustment

#### **OPERATING SPECIFICATIONS**

- · Nozzle choices: 8
- Radius: 4.0 to 10.7 m
- Flow: 0.08 to 1.0 m3/hr; 1.4 to 16.7 l/min
- Recommended pressure range: 1.7 to 3.8 bar; 170 to 380 kPa
- Operating pressure range: 1.4 to 7.0 bar; 140 to 700 kPa
- · Precipitation rate: 15 mm/hr approximately
- Nozzle trajectory: 15° approximately
- Warranty period: 2 years

#### **FACTORY-INSTALLED OPTIONS**

- Drain Check Valve (up to 2.1 m of elevation) excluding PGJ-00
- · Reclaimed water ID

#### **USER-INSTALLED OPTIONS**

- Drain Check Valve (up to 2.1 m of elevation) excluding PGJ-00 (P/N 462078SP)
- HC-50F-50M Check Valve (up to 9.7 m of elevation)



# PGJ - SPECIFICATION BUILDER: ORDER 1 + 2 + 3 1 Model 2 Standard Features 3 Feature Options PGJ-00 = Shrub PGJ-04 = 10 cm pop-up PGJ-06 = 15 cm pop-up PGJ-12 = 30 cm pop-up PGJ-12 = 30 cm pop-up

#### Examples:

**PGJ-04** = 10 cm pop-up, adjustable arc

PGJ-06-V=15 cm pop-up, adjustable arc, with Drain Check Valve

PGJ-12 - R = 30 cm pop-up, adjustable arc, with Drain Check Valve and reclaimed water ID



#### PGJ-00

Overall height: 18 cm Exposed diameter: 3 cm Inlet size: ½"



#### PGJ-04

Overall height: 18 cm Pop-up height: 10 cm Exposed diameter: 3 cm Inlet size: ½"



#### PGJ-06

Overall height: 23 cm Pop-up height: 15 cm Exposed diameter: 3 cm Inlet size: ½"



#### PGJ-12

Overall height: 41 cm Pop-up height: 30 cm Exposed diameter: 3 cm Inlet size: ½"

#### **PGJ PERFORMANCE DATA** Flow Precip mm/hr Nozzle Pressure Radius kPa m³/hr I/min $\blacksquare$ 1.7 170 4.3 0.08 1.4 11 .50 2.0 200 4.3 0.09 1.6 10 12 2.5 250 4.6 0.11 1.8 10 12 3.0 2.0 13 300 4.6 0.12 12 3.5 350 4.9 0.13 2.2 11 13 3.8 2.3 380 4.9 0.14 12 14 1.7 170 4.3 0.13 2.2 14 17 0.75 2.0 200 4.6 0.14 2.4 14 16 2.5 250 4.9 0.16 2.7 13 15 3.0 300 5.2 0.18 3.0 13 15 3.5 350 5.2 3.2 17 0.19 14 3.8 5.5 380 0.20 3.4 13 15 1.7 170 5.2 0.18 3.0 13 15 1.0 2.0 200 5.5 0.19 3.2 15 13 2.5 250 5.5 0.21 3.5 14 16 3.0 300 5.8 0.23 3.8 14 16 3.5 350 5.8 0.24 4.1 15 17 3.8 380 6.1 0.25 4.2 14 16 1.7 170 6.1 0.27 4.5 15 17 1.5 2.0 200 6.4 0.29 4.8 16 14 2.5 250 6.4 0.32 5.4 16 18 3.0 18 300 6.7 0.36 6.0 16 3.5 350 0.39 17 20 6.7 6.4 3.8 380 7.0 0.40 6.7 16 19 1.7 170 7.0 0.34 5.6 14 16 2.0 2.0 200 7.3 0.37 6.2 14 16 2.5 250 7.3 0.42 7.1 16 18 3.0 7.6 0.48 300 8.0 17 19 3.5 350 7.6 0.53 8.8 18 21 0.56 3.8 380 7.9 9.3 18 20 1.7 170 7.9 0.46 7.6 17 2.5 2.0 200 8.2 0.49 8.1 14 17 2.5 250 8.2 0.54 9.0 16 18 3.0 300 8.5 0.59 9.8 16 19 10.5 3.5 350 17 20 8.5 0.63 3.8 380 8.8 0.65 10.9 17 19 1.7 170 8.8 0.51 8.5 13 15 3.0 2.0 200 9.1 0.56 9.3 13 15 2.5 250 9.1 0.64 10.6 15 18 3.0 300 9.4 0.72 12.0 16 19 3.5 350 9.4 0.78 13.1 18 20 3.8 9.8 380 0.82 13.7 17 20 1.7 9.8 170 0.80 13.3 17 19 4.0 2.0 200 10.1 0.83 13.8 16 19 2.5 250 10.1 0.89 14.8 20 3.0 300 10.4 0.94 15.7 17 20 3.5 350 10.4 0.98 16.3 18 21 380 18 3.8 10.7 1.00 16.7 20

Note:

All precipitation rates are calculated for  $180^{\circ}$  operation. For the precipitation rate of a  $360^{\circ}$  sprinkler, divide by 2.

#### **PGJ NOZZLES**





PGJ



#### Compatible with:



SJ Swing Joints Page 72



Hunter FlexS Page 72

# **SRM**

Radius: **4.0 to 10.7 m**Flow: **0.08 to 1.0 m³/hr; 1.4 to 16.7 l/min** 

The SRM is an economical short-range rotor that offers a convenient and efficient alternative to spray heads.

#### **KEY BENEFITS**

- Adjustable arc from 40° to 360° to keep water in the appropriate areas
- Standard factory-installed 2.0 nozzle speeds installation
- QuickCheck™ Arc Mechanism for fast arc adjustment

#### **OPERATING SPECIFICATIONS**

- Nozzle choices: 8
- Radius: 4.0 to 10.7 m
- Flow: 0.08 to 1.0 m<sup>3</sup>/hr; 1.4 to 16.7 l/min
- Recommended pressure range: 1.7 to 3.8 bar; 170 to 380 kPa
- Operating pressure range: 1.4 to 7.0 bar; 140 to 700 kPa
- Precipitation rate: 11 mm/hr approximately
- Nozzle trajectory: 14° approximately
- · Warranty period: 1 year

#### **USER-INSTALLED OPTIONS**

• Drain Check Valve (up to 2.1 m of elevation) (P/N 462078SP)

SRM		SRM NOZZLES
Model	Description	
SRM-04	10 cm pop-up, adjustable arc, 8 standard nozzles	

#### SRM



#### Compatible with:







Hunter FlexSG Page 72



# **SRM-04**Overall height: 18 cm Pop-up height: 10 cm Exposed diameter: 3 cm Inlet size: ½"

Nozzle	Pres	sure	Radius	Flo	w	Precip	in/hr
	bar	kPa	m	m3/hr	I/min		
	1.7	170	4.3	0.08	1.4	9	11
0.50	2.0	200	4.3	0.09	1.6	10	12
	2.5	250	4.6	0.11	1.8	10	12
	3.0	300	4.6	0.12	2.0	12	13
	3.5	350	4.9	0.13	2.2	11	13
	3.8	380	4.9	0.14	2.3	12	14
0.75	1.7	170	4.3	0.13	2.2	14	17
0.75	2.0	200	4.6	0.14	2.4	14	16
	2.5	250	4.9	0.16	2.7	13	15
	3.0	300	5.2	0.18	3.0	13	15
	3.5	350	5.2	0.19	3.2	14	17
	3.8	380	5.5	0.20	3.4	13	15
	1.7	170	5.2	0.18	3.0	13	15
1.0	2.0	200	5.5	0.19	3.2	13	15
	2.5	250	5.5	0.21	3.5	14	16
	3.0	300	5.8	0.23	3.8	14	16
	3.5	350	5.8	0.24	4.1	15	17
	3.8	380	6.1	0.25	4.2	14	16
1 -	1.7	170	6.1	0.27	4.5	15	17
1.5	2.0	200	6.4	0.29	4.8	14	16
	2.5	250	6.4	0.32	5.4	16	18
	3.0	300	6.7	0.36	6.0	16	18
	3.5	350	6.7	0.39	6.4	17	20
	3.8	380	7.0	0.40	6.7	16	19
2.0	1.7	170	7.0	0.34	5.6	14	16
2.0	2.0	200	7.3	0.37	6.2	14	16
	2.5	250	7.3	0.42	7.1	16	18
	3.0	300	7.6	0.48	8.0	17	19
	3.5	350	7.6	0.53	8.8	18	21
	3.8	380	7.9	0.56	9.3	18	20
2.5	1.7	170	7.9	0.46	7.6	15	17
2.5	2.0	200	8.2	0.49	8.1	14	17
	2.5	250	8.2	0.54	9.0	16	18
	3.0	300	8.5	0.59	9.8	16	19
	3.5	350	8.5	0.63	10.5	17	20
	3.8	380	8.8	0.65	10.9	17	19
2.0	1.7	170	8.8	0.51	8.5	13	15
3.0	2.0	200	9.1	0.56	9.3	13	15
	2.5	250	9.1	0.64	10.6	15	18
	3.0	300	9.4	0.72	12.0	16	19
	3.5	350	9.4	0.78	13.1	18	20
	3.8	380	9.8	0.82	13.7	17	20
	1.7	170	9.8	0.80	13.3	17	19
4.0	2.0	200	10.1	0.83	13.8	16	19
	2.5	250	10.1	0.89	14.8	18	20
	3.0	300	10.4	0.94	15.7	17	20
	3.5	350	10.4	0.98	16.3	18	21
	3.8	380	10.4	1.00	16.7	18	20

#### Note:

All precipitation rates are calculated for  $180^{\circ}$  operation. For the precipitation rate of a  $360^{\circ}$  sprinkler, divide by 2.



Radius: **6.4 to 15.8 m** 

Flow: 0.10 to 3.22 m<sup>3</sup>/hr; 1.7 to 53.7 l/min

As Hunter's original rotor, the PGP delivers unsurpassed reliability, durability, versatility, and value, keeping it the professional's choice year after year.

#### **KEY BENEFITS**

- Three types of nozzles available for various landscapes: standard red, standard blue, grey low-angle
- Adjustable arc from 40° to 360° to keep water in the appropriate areas
- Factory-installed rubber cover for safety
- Through-the-top arc adjustment for easy installation
- QuickCheck™ Arc Mechanism for fast arc adjustment

#### **OPERATING SPECIFICATIONS**

Nozzle choices: 27Radius: 6.4 to 15.8 m

• Flow: 0.10 to 3.22 m<sup>3</sup>/hr: 1.7 to 53.7 l/min

- Recommended pressure range: 1.7 to 4.5 bar; 170 to 450 kPa  $\,$ 

• Operating pressure range: 1.4 to 7.0 bar; 140 to 700 kPa

• Precipitation rate: 10 mm/hr approximately

• Nozzle trajectory: standard = 25°, low-angle = 13°

• Warranty period: 2 years

#### **FACTORY-INSTALLED OPTIONS**

• Red #5-#8 Nozzle; Blue #1.5-4.0

#### **USER-INSTALLED OPTIONS**

• Drain Check Valve (up to 1 m of elevation) P/N 142300SP



PGP-ADJ

Easy arc and radius adjustment

# PGP-ADJ - SPECIFICATION BUILDER: ORDER 1 + 2 + 3 1 Model 2 Standard Features 3 Feature Options PGP-ADJ-B = 10 cm pop-up Adjustable arc with blue nozzle rack Adjustable arc with red nozzle rack Adjustable arc with red nozzle number

#### Examples:

**PGP-ADJ** = 10 cm pop-up, adjustable arc

**PGP-ADJ-B-3.0** = 10 cm pop-up, adjustable arc, and #3.0 blue nozzle

PGP-ADJ-07 = 10 cm pop-up, adjustable arc, and #7 red nozzle



#### PGP-ADJ Overall height: 19 cm Pop-up height: 10 cm Exposed diameter: 4 cm Inlet size: ¾"

#### PGP Red Nozzle



#### **PGP GREY LOW-ANGLE NOZZLE PERFORMANCE PGP BLUE NOZZLE PERFORMANCE DATA DATA** Nozzle Radius Flow Precip mm/hr Nozzle Pressure Radius Flow Precip mm/hr Pressure kPa m<sup>3</sup>/hr 1/min bar kPa m<sup>3</sup>/hr bar m m 1/min 0.27 4.5 8 0.30 4.9 14 17 1.7 170 8.8 1.7 170 6.4 1.5 4 2.0 8 20 0.32 200 91 0.29 48 7 200 6.7 53 14 16 LA 2.5 250 9.4 0.32 7 8 2.5 250 7.0 0.35 5.9 14 17 5.4 Blue 3.0 300 9.8 0.35 5.9 7 9 3.0 300 7.3 0.39 6.5 15 17 Grey 3.5 8 9 3.5 350 7.9 7.0 13 15 350 9.8 0.38 6.4 0.42 4.0 400 9.8 0.41 6.8 9 10 4.0 400 8.5 0.45 7.5 12 14 4.5 450 9.4 0.43 7.2 10 11 4.5 450 8.5 0.47 7.9 13 15 1.7 170 10.1 0.32 5.4 6 7 1.7 170 7.3 0.33 5.6 12 14 5 2.0 7.6 2.0 2.0 200 10.1 0.35 5.8 7 8 200 0.36 6.0 12 14 LA 2.5 2.5 250 10.1 0.39 6.5 9 250 7.9 0.40 6.7 15 8 13 Blue 3.0 300 10.4 0.43 7.2 8 9 3.0 300 8.2 0.45 7.4 13 15 Grey 9 10 3.5 15 3.5 350 10.4 0.47 7.8 350 8.5 0.48 8.0 13 4.0 400 10.4 0.50 8.3 9 11 4.0 400 8.8 0.52 8.6 13 15 4.5 450 10.4 0.53 8.8 10 11 4.5 450 9.1 0.55 9.1 13 15 1.7 170 10.1 0.39 6.6 8 9 1.7 170 8.8 0.44 7.3 11 13 2.5 6 9 2.0 2.0 8 0.43 7.1 200 9.1 0.47 79 11 13 200 10.4 LA 2.5 250 0.48 8 10 2.5 250 9.4 0.53 8.8 12 14 10.7 8.0 Blue 3.0 300 0.54 8.9 9 11 3.0 300 9.8 0.59 9.8 12 14 10.7 Grey 3.5 12 3.5 15 350 10.7 0.58 9.7 10 350 10.1 0.64 10.6 13 4.0 0.62 10.4 11 13 4.0 400 10.7 0.68 11.3 12 14 400 10.7 4.5 450 10.7 0.66 11.1 12 13 4.5 450 10.7 0.72 12.0 13 15 1.7 170 10.7 0.50 8.4 9 10 1.7 170 8.5 0.58 9.7 16 18 3.0 7 2.0 2.0 200 0.54 10 11 8.8 10.3 16 18 10.7 9.1 200 0.62 LA 2.5 2.5 250 11.0 0.61 10.2 10 12 250 9.4 0.68 11.4 15 18 Blue 3.0 3.0 10.1 12.5 17 300 11.6 0.68 11.4 10 12 300 0.75 15 Grey 3.5 350 11.9 0.74 12.3 10 12 3.5 350 10.7 0.80 13.3 14 16 4.0 400 11.9 0.79 13.2 11 13 4.0 400 11.3 0.85 14.1 13 15 4.5 450 11.9 0.84 14.0 12 14 4.5 450 11.3 0.89 14.8 14 16 1.7 170 11.3 0.68 11.3 11 12 1.7 170 9.1 0.71 11.8 17 20 4.0 8 2.0 200 0.73 12.2 11 13 2.0 200 12.7 17 11.6 9.4 0.76 20 LA 250 2.5 12 13 2.5 250 9.8 18 Blue 11.9 0.81 13.6 0.84 14.1 20 3.0 300 12.2 0.90 15.0 12 14 3.0 300 0.93 15.5 17 10.4 20 Grey 3.5 350 12.2 0.97 16.2 13 15 3.5 350 11.3 1.00 16.6 16 18 13 15 4.0 400 12.5 1 04 17.3 4.0 400 11.6 1.06 17.6 16 18 4.5 450 12.5 1.10 18.3 14 16 4.5 450 11.6 1.12 18.6 17 19 1.7 170 11.3 0.84 14.0 13 15 1.7 170 9.8 0.89 14.9 19 22 9 5.0 2.0 200 11.6 0.9115.2 14 16 2.0 200 10.1 0.96 16.0 19 LA 250 17 2.5 17.9 2.5 11.9 17.1 15 250 10.7 1.07 19 22 Blue 3.0 300 12.8 1 14 19 0 14 16 3.0 300 11 3 119 19.8 19 22 Grey 3.5 350 12.8 1.24 20.6 15 17 3.5 350 12.2 1.28 21.3 17 20 4.0 400 12.8 1.32 22.1 16 19 4.0 400 12.8 1.37 228 17 19 4.5 4.5 450 12.8 1.41 23.4 17 20 450 12.8 1.45 24.1 18 20 1.7 170 11.6 1.01 16.8 15 17 1.7 170 10.1 1.17 19.5 23 27 10 6.0 2.0 200 11.9 1.09 18 2 15 18 20 200 10.7 126 21.0 22 26 LA 2.5 19 2.5 22 25 250 12.2 1.22 20.4 16 250 11.3 1.40 23.4 Blue 3.0 300 13 1 1.36 22.7 16 18 3.0 300 116 1.55 25.9 23 27 Grey 3.5 350 13.1 1.47 24.5 17 20 3.5 350 12.2 1.67 27.8 22 26 20 22 4.0 400 13.4 1.57 26.2 18 4.0 400 12.8 1.78 29.7 25 4.5 450 13.4 1.67 27.9 19 21 4.5 450 12.8 1.89 31.4 23 27 1.7 170 11.3 1.35 22.5 21 25 8.0 2.0 200 11.9 1.46 24.3 21 24

#### **PGP NOZZLES**

Blue (P/N 665300)



Grev (P/N 233200)



Note:

Blue

All precipitation rates are calculated for 180° operation. For the precipitation rate of a 360° sprinkler, divide by 2.

12.5

13 4

13.7

14.0

14.0

1.63

1.81

1.95

2.09

2.22

27.2

30.2

32.6

34.8

36.9

21

20

21

21

23

24

23

24

25

26

All precipitation rates are calculated for 180° operation. For the precipitation rate of a 360° sprinkler, divide by 2.

2.5

3.0

3.5

4.0

250

300

350

400

450

#### **PGP RED NOZZLE PERFORMANCE DATA** Nozzle Pressure Radius Flow Precip mm/hr m³/hr I/min $\blacktriangle$ bar kPa m 1.7 170 8.2 0.10 1.7 3 3 1 2.0 200 8.5 0.11 1.8 3 3 2.5 250 8.5 0.13 2.1 4 4 Red 3.0 300 8.8 0.15 2.4 4 4 3.5 350 8.8 0.16 2.7 5 4.0 400 9.1 0.18 2.9 4 4.5 450 9.1 0.19 3.2 5 5 1.7 170 8.5 0.14 2.4 4 5 2 2.0 200 8.8 0.16 2.6 5 4 2.5 250 8.8 0.17 2.9 5 4 Red 3.0 300 9.1 0.19 3.2 3.5 350 9.1 0.21 4.0 400 9.4 0.22 3.7 6 4.5 450 9.4 0.23 3.9 5 6 1.7 3.0 5 5 170 8.8 0.18 3 2.0 200 9.1 0.20 3.3 5 2.5 250 9.1 0.22 5 6 3.7 Red 3.0 300 9.4 0.25 4.1 6 3.5 350 9.4 0.27 4.5 7 4.0 400 9.8 0.29 4.8 7 7 4.5 450 9.8 0.31 5.1 1.7 170 9.4 0.24 4.1 5 6 4 2.0 200 9.8 0.27 6 6 4.4 2.5 250 9.8 0.30 5.0 6 7 Red 3.0 300 10.1 0.34 5.6 7 8 3.5 350 10.1 0.37 6.2 8 4.0 400 10.4 0.40 6.6 4.5 450 10.4 0.43 7.1 8 9 170 5.5 1.7 10.1 0.33 7 8 5 2.0 200 10.4 0.36 5.9 7 8 2.5 250 0.39 7 Red 10.4 6.5 8 3.0 300 11.0 0.43 7.2 7 8 3.5 350 11.6 0.46 7.7 7 8 4.0 400 0.49 8 11.6 8.1 4.5 450 11.6 0.51 8.6 8 9 1.7 170 10.1 0.42 6.9 8 10 6 2.0 200 10.4 0.45 7.5 8 10 2.5 250 10 Red 10.7 0.51 8.5 9 3.0 11.0 0.57 9.4 11 300 9 3.5 350 11.6 0.61 10.2 9 11 4.0 400 10 11 11.6 0.66 10.9 4.5 450 11.9 0.70 11.6 10 11 1.7 170 10.1 0.54 9.0 11 12 7 2.0 200 10.4 0.58 97 11 12 2.5 250 10.8 12 Red 11.0 0.65 11 3.0 300 11.6 0.72 12.0 11 12

#### **PGP RED NOZZLE PERFORMANCE DATA**

r	Nozzle	Pres	sure	Radius	Fle	w	Precip	mm/hr
		bar	kPa	m	m³/hr	I/min		
	8 •	1.7	170	11.0	0.66	11.0	11	13
	0	2.0	200	11.3	0.71	11.8	11	13
	Red	2.5	250	11.6	0.79	13.2	12	14
		3.0	300	11.9	0.87	14.5	12	14
		3.5	350	12.5	0.94	15.6	12	14
		4.0	400	12.5	1.00	16.6	13	15
		4.5	450	12.8	1.05	17.6	13	15
	9	1.7	170	11.3	0.73	12.2	11	13
	9	2.0	200	11.6	0.80	13.4	12	14
	Red	2.5	250	11.6	0.92	15.4	14	16
		3.0	300	12.5	1.05	17.5	13	16
		3.5	350	13.4	1.15	19.2	13	15
		4.0	400	13.4	1.25	20.9	14	16
		4.5	450	13.7	1.35	22.4	14	17
	10 •	2.0	200	12.2	1.14	19.0	15	18
	10	2.5	250	12.8	1.29	21.4	16	18
	Red	3.0	300	13.4	1.44	24.0	16	18
		3.5	350	14.0	1.56	26.1	16	18
		4.0	400	14.3	1.68	28.0	16	19
		4.5	450	14.3	1.79	29.9	17	20
		5.0	500	14.6	1.90	31.7	18	21
	11 •	2.0	200	12.8	1.55	25.9	19	22
		2.5	250	13.7	1.73	28.7	18	21
	Red	3.0	300	14.0	1.90	31.7	19	22
		3.5	350	14.6	2.05	34.1	19	22
		4.0	400	14.9	2.18	36.3	20	23
		4.5	450	15.2	2.30	38.4	20	23
		5.0	500	15.5	2.42	40.4	20	23
	12 •	2.0	200	12.8	2.03	33.8	25	29
		2.5	250	13.4	2.26	37.7	25	29
	Red	3.0	300	14.3	2.51	41.8	24	28
		3.5	350	14.6	2.70	45.0	25	29
		4.0	400	14.9	2.88	48.1	26	30
		4.5	450	15.2	3.06	50.9	26	30
		5.0	500	15.8	3.22	53.7	26	30

#### Note:

12

13

14

All precipitation rates are calculated for  $180^\circ$  operation. For the precipitation rate of a  $360^\circ$  sprinkler, divide by 2.

#### **PGP NOZZLES**



Red (P/N 130900)



3.5

4.0

4.5

350

400

450

12.2

12.2

12.2

0.78

0.83

0.88

12.9

13.8

14.6

10

11

12

## **PGP**<sup>™</sup> **ULTRA**

Radius: 4.9 to 14.0 m

Flow: 0.07 to 3.23 m<sup>3</sup>/hr; 1.2 to 53.8 l/min

The PGP Ultra raises the bar for rotor technology with powerful features developed over three decades of research, customer feedback, and lab testing.

#### **KEY BENEFITS**

- Patented automatic arc return feature returns the turret back to the original arc pattern if vandalised; adjustable arc from 50° to 360°
- Non-strippable drive mechanism is protected from damage if turned in the opposite direction of travel
- Part- and full-circle in one model for flexibility across landscapes and reduced inventory
- · Headed and slotted setscrew allows radius adjustment with a Hunter Wrench or flat-blade screwdriver
- Flat-top nozzles allow fast, easy insertion
- QuickCheck™ Arc Mechanism for fast arc adjustment

#### PGP-00

Overall height: 19 cm Exposed diameter: 4.5 cm Inlet size: 3/4"



#### PGP-04



Overall height: 19 cm Pop-up height: 10 cm Exposed diameter: 4.5 cm Inlet size: ¾"



PGP-06 Overall height: 25 cm Pop-up height: 15 cm Exposed diameter: 4.5 cm Inlet size: ¾"

#### **OPERATING SPECIFICATIONS**

- Nozzle choices: 34
- Radius: 4.9 to 14.0 m
- Flow: 0.07 to 3.23 m<sup>3</sup>/hr; 1.2 to 53.8 I/min
- Recommended pressure range: 1.7 to 4.5 bar; 170 to 450 kPa
- Operating pressure range: 1.4 to 7.0 bar; 140 to 700 kPa
- Precipitation rate: 10 mm/hr approximately
- Nozzle trajectory: standard = 25°, low-angle =  $13^{\circ}$
- Nozzle racks: 1.5 to 8.0 blue, 2.0 to 4.5 low-angle grey, 0.50 to 3.0 black, 6.0 to 13.0 green, MPR-25, MPR-30, MPR-35
- · Warranty period: 5 years

#### **FACTORY-INSTALLED OPTIONS**

- Drain Check Valve (up to 3 m of elevation)
- · Reclaimed water ID
- Blue #1.5-4.0 Nozzles

#### **USER-INSTALLED OPTIONS**

- Drain Check Valve (up to 1 m of elevation) PGP-04 only (P/N 142300SP)
- HSJ-0 prefabricated 3/4" PVC Swing Joint



**PGP Ultra Reclaimed** 

Available as a factory-installed option on all models



Easy arc and radius adjustment

#### PGP-ULTRA - SPECIFICATION BUILDER: ORDER 1+2+3+4

Model PGP-00 = Shrub **PGP-04** = 10 cm pop-up **PGP-06** = 15 cm pop-up

**PGP-12** = 30 cm pop-up

**Standard Features** Adjustable arc, plastic riser, 8 standard nozzles, and 4

low-angle nozzles

**Feature Options** 

**Nozzle Options** 

**CV** = Drain Check Valve

CV-R = Drain Check Valve and reclaimed water ID

Blue 1.5-8.0

**Grey low-angle** 

Black short-radius **Green high-flow** 

MPR-25-0, T, H, F

MPR-30-Q, T, H, F

MPR-35-Q, T, H, F

**1.5 to 4.0** = Only nozzles

1.5-4.0 can be factory-installed

Examples:

**PGP-04** = 10 cm pop-up, adjustable arc

**PGP-04-2.5** = 10 cm pop-up, adjustable arc and 2.5 nozzle

PGP-12-CV-R-4.0 = 30 cm pop-up, adjustable arc, with Drain Check Valve and reclaimed water ID with 4.0 nozzle



#### PGP-12

Overall height: 43 cm Pop-up height: 30 cm Exposed diameter: 4.5 cm Inlet size: 341

Hunter

## **I-20**

Radius: 4.9 to 14.0 m

Flow: 0.07 to 3.23 m<sup>3</sup>/hr; 1.2 to 53.8 l/min

The I-20 is loaded with upgraded features such as FloStop Control, check valves, and efficient nozzles that make it the perfect choice in a range of applications.

#### **KEY BENEFITS**

- Patented automatic arc return feature returns the turret back to the original arc pattern if vandalised; adjustable arc from 50° to 360°
- Non-strippable drive mechanism is protected from damage if turned in the opposite direction of travel
- Part and full-circle in one model is flexible for all landscapes and decreases inventory
- · Headed and slotted setscrew allows radius adjustment with a Hunter Wrench or flat-blade screwdriver
- FloStop™ closes the flow of water from individual sprinklers to change the nozzle or perform repairs
- Flat-top nozzles allow fast, easy insertion
- Drain Check Valve prevents low-head drainage (up to 3 m of elevation)

#### **OPERATING SPECIFICATIONS**

- · Nozzle choices: 34
- Radius: 4.9 to 14.0 m
- Flow: 0.07 to 3.23 m $^3$ /hr; 1.2 to 53.8 l/min
- Recommended pressure range: 1.7 to 4.5 bar; 170 to 450 kPa
- · Operating pressure range: 1.4 to 7.0 bar; 140 to 700 kPa
- Precipitation rate: 10 mm/hr approximately

- Nozzle trajectory: standard = 25°, low-angle =  $13^{\circ}$
- Nozzle racks: 1.5 to 8.0 blue, 2.0 to 4.5 low-angle grey, 0.50 to 3.0 black, 6.0 to 13.0 green, MPR-25, MPR-30, MPR-35
- · Warranty period: 5 years



#### I-20 Reclaimed

Available as a factoryinstalled option on all models

#### **FACTORY-INSTALLED OPTIONS**

- No Drain Check Valve (NCV models)
- · Reclaimed water ID

# Blue #1.5-4.0 Nozzles

#### **USER-INSTALLED OPTIONS**

• HSJ-0 prefabricated 3/4" PVC Swing Joint

#### I-20 (PLASTIC) - SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4 Model Standard Features **Feature Options Nozzle Options** Adjustable arc, plastic, Blue 1.5-8.0 I-20-00 = Shrub (blank) = No option **Grey low-angle** check valve, 8 standard Black short-radius **I-20-04** = 10 cm pop-up nozzles, and 4 low-angle NCV = Without check valve Green high-flow nozzles (only available on 10 cm MPR-25-Q, T, H, F I-20-06 = 15 cm pop-up model) MPR-30-Q, T, H, F R = Reclaimed water ID MPR-35-Q, T, H, F 1-20-12 = 30 cm pop-up1.5 to 4.0 = Only nozzles 1.5-4.0 can be factory-installed

I-20 (STAINLESS STE	EL) - S	PECIFICATION BUI	LDE	<b>:R:</b> ORDER1 + 2 + 3 +	- 4	
1 Model	2	Standard Features	3	Feature Options	4	Nozzle Options
<b>I-20-04-SS</b> = 10 cm pop-up <b>I-20-06-SS</b> = 15 cm pop-up	stair valv	ustable arc, nless steel, check e, 8 standard nozzles, 4 low-angle nozzles	NO (or mo	lank) = No option  EV = Without check valve hily available on 10 cm odel)  = Reclaimed water ID	Green Miles	ue 1.5-8.0  ey low-angle ack short-radius een high-flow PR-25-Q, T, H, F PR-30-Q, T, H, F to 4.0 = Only nozzles 1.5-0 can be factory-installed



I-20-04 = 10 cm pop-up, adjustable arc

I-20-12-R-4.0 = 30 cm pop-up, adjustable arc, check valve, with reclaimed water ID, and 4.0 nozzle

I-20-06-SS-R-3.0 = 15 cm pop-up, adjustable arc, stainless steel riser, with reclaimed water ID, and 3.0 nozzle



#### I-20-00

Overall height: 20 cm Exposed diameter: 4.5 cm Inlet size: 3/4"



#### I-20-04

Overall height: 19 cm Pop-up height: 10 cm Exposed diameter: 4.5 cm Inlet size: 3/4"



#### 1-20-06

Overall height: 25 cm Pop-up height: 15 cm Exposed diameter: 4.5 cm Inlet size: 3/4"



#### I-20-12

Overall height: 43 cm Pop-up height: 30 cm Exposed diameter: 4.5 cm Inlet size: 3/4"

## PGP™ ULTRA & I-20 PRB

Radius: 4.9 to 14.0 m

Flow: 0.07 to 2.22 m<sup>3</sup>/hr; 1.2 to 36.0 l/min

The PGP Ultra and I-20 PRB are built to thrive in applications where high water pressure could otherwise lead to inefficient nozzle operation.

#### **KEY BENEFITS**

- Pressure-regulated body (3.1 bar; 310 kPa) reduces high incoming pressure to increase nozzle efficiency (requires dynamic pressure differential: 1.0 bar; 103 kPa)
- · Patented automatic arc return feature returns the turret back to the original arc pattern if vandalised; adjustable arc from 50° to 360°
- Non-strippable drive mechanism is protected from damage if turned in the opposite direction of travel

**OPERATING SPECIFICATIONS** 

• Flow: 0.07 to 2.22 m<sup>3</sup>/hr; 1.2 to 36.0 l/min

Nozzle discharge pressure: 3.1 bar; 310 kPa

Operating pressure range: 4.1 to 7.0 bar;

• Precipitation rate: 10 mm/hr approximately

- · Part- and full-circle in one model for flexibility across landscapes and reduced inventory
- Headed and slotted setscrew allows radius adjustment with a Hunter Wrench or flat-blade screwdriver
- FloStop<sup>™</sup> closes the flow of water from individual sprinklers, to change the nozzle or perform repairs (I-20 only)
- Flat-top nozzles allow fast, easy insertion
- Drain Check Valve prevents low-head drainage (up to 3 m of elevation)





· Warranty period: 5 years



PGP-00-PRB Overall height: 22 cm Exposed diameter: 4.5 cm Inlet size: 3/4"



PGP-04-PRB Overall height: 22 cm Pop-up height: 10 cm Exposed diameter: 4.5 cm Inlet size: 34'



I-20-00-PRB Overall height: 22 cm Exposed diameter: 4.5 cm Inlet size: 341



Overall height: 22 cm Pop-up height: 10 cm

I-20-04-PRB Exposed diameter: 45 cm Inlet size: 34"



I-20-06-PRB Overall height: 27 cm Pop-up height: 15 cm Exposed diameter: 4.5 cm Inlet size: 3/4"

#### **FACTORY-INSTALLED OPTIONS**

· Reclaimed water ID

Nozzle choices: 30

410 to 700 kPa

Radius: 4.9 to 14.0 m

Blue #1.5-4.0 Nozzels

### **USER-INSTALLED OPTIONS**

• HSJ-0 prefabricated 3/4" PVC Swing Joint

PGP-ULTRA & I-20 PRB - S	PECIFICATION BUILDER:	ORDER1+2+3+4	
1 Model	2 Standard Features	3 Feature Options	4 Nozzle Options
PGP-00-PRB = Riser mount PGP-04-PRB = 10 cm pop-up	Adjustable arc, plastic riser, pressure-regulated body, 8 standard nozzles, and 4 low-angle nozzles	(blank) = No option  CV = Drain Check Valve (PGP-04 only)  CV-R = Drain Check Valve and reclaimed water ID	Blue 1.5-8.0 = Grey low-angle Black short-radius MPR-25, 30, 35 - Q, T, H, F
I-20-00-PRB = Riser mount I-20-04-PRB = 10 cm pop-up I-20-06-PRB = 15 cm pop-up	Adjustable arc, plastic riser, pressure-regulated body, 8 standard nozzles, and 4 low-angle nozzles	(blank) = No option  R = Drain Check Valve and reclaimed water ID	Blue 1.5-8.0 = Grey low-angle Black short-radius MPR-25, 30, 35 - Q, T, H, F
I-20-04-SS-PRB = 10 cm pop-up I-20-06-SS-PRB = 15 cm pop-up	Adjustable arc, stainless steel riser, pressure- regulated body, 8 standard nozzles, and 4 low-angle nozzles	(blank) = No option  R = Drain Check Valve and reclaimed water ID	Blue 1.5-8.0 = Grey low-angle Black short-radius MPR-25, 30, 35 - Q, T, H, F

#### **Examples:**

PGP-04-PRB = 10 cm pop-up, adjustable arc, plastic riser with no factory installed-nozzle I-20-04-PRB-3.0-2.5 = 10 cm pop-up, adjustable arc, plastic riser with 3.0 nozzle I-20-06-SS-PRB-R-MPR-25H = 15 cm pop-up, adjustable arc, stainless steel riser with MPR-25H

# PGP ULTRA / I-20 / PRB BLUE STANDARD NOZZLE PERFORMANCE DATA

Nozzle	Pres	sure	Radius	Flow		Precip	mm/hr
	bar	kPa	m	m³/hr	l/min		
	1.7	170	8.8	0.27	4.5	7	8
1.5 •	2.0	200	9.1	0.29	4.8	7	8
Blue	2.5	250	9.4	0.32	5.4	7	8
Biac	3.0	300	9.8	0.35	5.9	7	9
	3.5	350	9.8	0.38	6.4	8	9
	4.0	400	9.8	0.41	6.8	9	10
	4.5	450	9.4	0.43	7.2	10	11
	1.7	170	10.1	0.32	5.4	6	7
2.0	2.0	200	10.1	0.35	5.8	7	8
Blue	2.5	250	10.1	0.39	6.5	8	9
	3.0	300	10.4	0.43	7.2	8	9
	3.5	350	10.4	0.47	7.8	9	10
	4.0	400	10.4	0.50	8.3	9	11
	4.5	450	10.4	0.53	8.8	10	11
2 = -	1.7	170	10.1	0.39	6.6	8	9
2.5	2.0	200	10.4	0.43	7.1	8	9
Blue	2.5	250	10.7	0.48	8.0	8	10
	3.0	300	10.7	0.54	8.9	9	11
	3.5	350	10.7	0.58	9.7	10	12
	4.0	400	10.7	0.62	10.4	11	13
	4.5	450	10.7	0.66	11.1	12	13
2.00	1.7	170	10.7	0.50	8.4	9	10
3.0	2.0	200	10.7	0.54	9.1	10	11
Blue	2.5	250	11.0	0.61	10.2	10	12
	3.0	300	11.6	0.68	11.4	10	12
	3.5	350	11.9	0.74	12.3	10	12
	4.0	400	11.9	0.79	13.2	11	13
	4.5	450	11.9	0.84	14.0	12	14
4.00	1.7	170	11.3	0.68	11.3	11	12
4.0	2.0	200	11.6	0.73	12.2	11	13
Blue	2.5	250	11.9	0.81	13.6	12	13
	3.0	300	12.2	0.90	15.0	12	14
	3.5	350	12.2	0.97	16.2	13	15
	4.0	400	12.5	1.04	17.3	13	15
	4.5	450	12.5	1.10	18.3	14	16
5.0	1.7	170	11.3	0.84	14.0	13	15
	2.0	200	11.6	0.91	15.2	14	16
Blue	2.5	250	11.9	1.02	17.1	15	17
	3.0	300	12.8	1.14	19.0	14 15	16 17
	3.5	350	12.8 12.8	1.24	20.6	15 16	17
	4.0 4.5	400		1.32	22.1	17	19
	1.7	450 170	12.8	1.41	23.4 16.8	15	20 17
6.0	2.0	200	11.9	1.01	18.2	15	18
	2.5	250	12.2	1.22	20.4	16	19
Blue	3.0	300	13.1	1.36	22.7	16	18
	3.5	350	13.1	1.47	24.5	17	20
	4.0	400	13.4	1.57	26.2	18	20
	4.5	450	13.4	1.67	27.9	19	21
	1.7	170	11.3	1.35	22.5	21	25
8.0	2.0	200	11.9	1.46	24.3	21	24
Blue	2.5	250	12.5	1.63	27.2	21	24
Diac	3.0	300	13.4	1.81	30.2	20	23
	3.5	350	13.7	1.95	32.6	21	24
	4.0	400	14.0	2.09	34.8	21	25
	4.5	450	14.0	2.22	36.9	23	26
Note:							

# PGP ULTRA / I-20 / PRB GREY LOW-ANGLE NOZZLE PERFORMANCE DATA

Nozzle	Pres	sure	Radius	Flo	w	Precip	mm/hr
	bar	kPa	m	m³/hr	I/min		
2.0	1.7	170	7.3	0.33	5.6	12	14
2.0	2.0	200	7.6	0.36	6.0	12	14
LA	2.5	250	7.9	0.40	6.7	13	15
Grey	3.0	300	8.2	0.45	7.4	13	15
-	3.5	350	8.5	0.48	8.0	13	15
	4.0	400	8.8	0.52	8.6	13	15
	4.5	450	9.1	0.55	9.1	13	15
2.5	1.7	170	7.9	0.44	7.3	14	16
LA	2.0	200	8.2	0.47	7.9	14	16
LA	2.5	250	8.8	0.53	8.8	14	16
Grey	3.0	300	9.4	0.59	9.8	13	15
	3.5	350	10.1	0.64	10.6	13	15
	4.0	400	10.4	0.68	11.3	13	15
	4.5	450	10.7	0.72	12.0	13	15
25 .	1.7	170	8.5	0.58	9.7	16	18
3.5	2.0	200	8.8	0.62	10.3	16	18
LA	2.5	250	9.1	0.68	11.4	16	19
Grey	3.0	300	10.1	0.75	12.5	15	17
	3.5	350	10.7	0.80	13.3	14	16
	4.0	400	11.0	0.85	14.1	14	16
	4.5	450	11.3	0.89	14.8	14	16
4.5	1.7	170	8.2	0.71	11.8	21	24
LA	2.0	200	8.8	0.76	12.7	19	23
	2.5	250	9.1	0.84	14.1	20	23
Grey	3.0	300	10.1	0.93	15.5	18	21
	3.5	350	10.7	1.00	16.6	18	20
	4.0	400	11.0	1.06	17.6	18	20
	4.5	450	11.3	1.12	18.6	18	20

# PGP ULTRA / I-20 / PRB NOZZLES

# 0000000

Blue Standard / Grey Low-Angle (P/N 782900)

Flat-top nozzle for easy insertion coupled with a headed slotted adjustment screw for quick radius adjustment with a Hunter Wrench or a flat-blade screwdriver.





Pressure Regulation Continual operating pressure of 3.1 bar; 310 kPa

#### I-20 04 with PRB Body





#### PR-075

Overall height: 5.7 cm Inlet/outlet size: ¾" For use with all ¾" inlet sprinklers models, regulates to 3.1 bar; 310 kPa

#### Note:

All precipitation rates are calculated for 180° operation. For the precipitation rate of a 360° sprinkler, divide by 2.

#### PGP ULTRA / I-20 GREEN HIGH-FLOW **NOZZLE PERFORMANCE DATA**

#### PGP ULTRA / I-20 / PRB BLACK SHORT-RADIUS **NOZZLE PERFORMANCE DATA** Radius

m 4.9

5.2

5.2

5.5

5.5

5.5

4.9

5.2

5.2

5.5

5.5

5.5

4.9

5.2

5.2

5.2

5.5

5.5

5.5

6.7

7.0

7.0

7.3

7.6

7.6

7.6

6.7

Flow

m³/hr l/min

1.2

1.3

1.5

1.7

1.9

2.1

2.3

2.7

2.9

3.6

3.8

4.1

4.3

4.7

5.2

6.9

7.6

8.2

8.9

2.0

2.2

2.7

2.9

3.1

33

3.8

0.07

0.08

0.09

0.10

0.12

0.13

0.14

0.16

0.17

0.19

0.21

0.23

0.25

0.26

0.28

0.31

0.36

0.41

0.45

0.49

0.53

0.12

0.13

0.16

0.17

0.19

0.20

0.23

Precip mm/hr 

6

6

8

8

8

9

14

13

14

16

15

16

17

24

23

27

31

30

33

35

5

6

6

7

10

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7

7

8

9

9

10

10

16

15

17

18 18

19

20

27

27

31

35

35

38

41

6

6

7

7

7 7

8

12

Pressure

bar

1.7

2.0

2.5

3.0

3.5

4.0

4.5

1.7

2.0

2.5

3.0

3.5

4.0

4.5

1.7

2.0

2.5

3.0

3.5

4.0

4.5

1.7

2.0

2.5

3.0

3.5

4.0

45

1.7

kPa

170

200

250

300

350

400

450

170

200

250

300

350

400

450

170

200

250

300

350

400

450

170

200

300

350

400

450

170

Nozzle

.50

SR

Black

1.0

SR

Black

2.0

SR

Black

.75

SR

Black

#### PGP ULTRA / I-20 / **PRB NOZZLES**



Dk. Green High-Flow (P/N 444800)



Black Short-Radius (P/N 466100)



Nozzle	Pres	sure	Radius	Flo	w	Precip	mm/hr
	bar	kPa	m	m³/hr	I/min		
10	1.7	170	10.7	1.48	24.6	26	30
10	2.0	200	11.9	1.60	26.7	23	26
	2.5	250	12.5	1.80	30.0	23	27
Dk. Green	3.0	300	12.8	2.01	33.5	25	28
	3.5	350	13.1	2.18	36.3	25	29
	4.0	400	13.7	2.34	39.0	25	29
	4.5	450	14.0	2.49	41.5	25	29
10 -	1.7	170	11.0	1.91	31.9	32	37
13	2.0	200	12.2	2.08	34.6	28	32
Dk. Green	2.5	250	12.8	2.34	38.9	29	33
	3.0	300	13.1	2.61	43.4	30	35
	3.5	350	13.4	2.83	47.1	31	36
	4.0	400	13.7	3.03	50.5	32	37
	4.5	450	14.0	3.23	53.8	33	38
c 0 -	1.7	170	9.1	0.86	14.3	21	24
6.0	2.0	200	9.4	0.94	15.6	21	24
LA	2.5	250	10.1	1.07	17.8	21	24
Dk. Green	3.0	300	10.7	1.20	20.0	21	24
	3.5	350	11.3	1.31	21.9	21	24
	4.0	400	11.6	1.42	23.6	21	24
	4.5	450	11.9	1.52	25.3	21	25
8.0	1.7	170	10.1	1.17	19.5	23	27
_	2.0	200	10.7	1.28	21.3	22	26
LA	2.5	250	11.3	1.44	24.0	23	26
Dk. Green	3.0	300	11.6	1.61	26.9	24	28
	3.5	350	11.9	1.76	29.3	25	29
	4.0	400	12.5	1.89	31.5	24	28
	4.5	450	12.5	2.01	33.6	26	30

#### I-20 with Blue Standard Nozzle



1.5 ●	2.0	200	7.0	0.25	4.1	10	12
SR	2.5	250	7.0	0.28	4.6	11	13
Black	3.0	300	7.3	0.31	5.2	12	13
	3.5	350	7.6	0.34	5.6	12	13
	4.0	400	7.6	0.36	6.0	12	14
	4.5	450	7.6	0.39	6.4	13	15
3.0	1.7	170	6.7	0.53	8.9	24	27
	2.0	200	7.0	0.56	9.3	23	26
SR	2.5	250	7.0	0.60	10.0	24	28
Black	3.0	300	7.3	0.64	10.7	24	28
	3.5	350	7.6	0.67	11.2	23	27
	4.0	400	7.6	0.70	11.7	24	28
	4.5	450	7.6	0.73	12.1	25	29

All precipitation rates are calculated for 180° operation. For the precipitation rate of a 360° sprinkler, divide by 2.

Convenient Nozzle Rack



# PGP ULTRA / I-20 / PRB MPR-25 NOZZLE PERFORMANCE DATA

#### MPR-25 NOZZLE

# PGP ULTRA / I-20 / PRB MPR-35 NOZZLE PERFORMANCE DATA

MPR-35 NOZZLE



Nozzle	Pressure		Radius	Fle	ow	Precip mm/hr			
	bar	kPa	m	m³/hr	I/min		<b>A</b>		
000	1.7	170	7.0	0.17	3.0	13.7	15.8		
90°	2.4	240	7.3	0.20	3.6	14.9	17.3		
	3.1	310	7.6	0.23	3.6	15.6	18.1		
	3.8	380	7.6	0.25	4.2	17.4	20.1		
	4.5	450	7.6	0.27	4.8	18.9	21.9		
120°	1.7	170	7.0	0.23	3.6	13.9	16.0		
	2.4	240	7.3	0.27	4.8	15.4	17.8		
	3.1	310	7.6	0.31	5.4	16.2	18.7		
	3.8	380	7.6	0.35	6.0	18.0	20.7		
	4.5	450	7.6	0.38	6.6	19.6	22.6		
180°	1.7	170	7.0	0.33	5.4	13.3	15.4		
100	2.4	240	7.3	0.39	6.6	14.7	17.0		
	3.1	310	7.6	0.45	7.2	15.5	17.9		
	3.8	380	7.6	0.50	8.4	17.3	20.0		
	4.5	450	7.6	0.55	9.0	18.9	21.8		
360°	1.7	170	7.0	0.63	10.8	12.8	14.8		
	2.4	240	7.3	0.76	12.6	14.2	16.4		
	3.1	310	7.6	0.87	14.4	14.9	17.3		
	3.8	380	7.6	0.97	16.2	16.6	19.2		
	4.5	450	7.6	1.05	17.4	18.1	20.9		

Nozzle Pre	essure	Radius	Flo	2147	Dungin	/1		
bar			Radius Flow			Precip mm/hr		
	kPa	m	m³/hr	l/min				
90° 1.7	170	9.8	0.32	5.4	13.4	15.4		
2.4	240	10.4	0.38	6.6	14.1	16.3		
3.1	310	10.7	0.44	7.2	15.3	17.7		
3.8	380	10.7	0.48	7.8	17.0	19.6		
4.5	450	10.7	0.52	9.0	18.4	21.3		
<b>120°</b> 1.7	170	9.8	0.40	6.6	12.7	14.6		
2.4	240	10.4	0.49	8.4	13.6	15.8		
3.1	310	10.7	0.56	9.6	14.7	17.0		
3.8	380	10.7	0.62	10.2	16.4	18.9		
4.5	450	10.7	0.68	11.4	17.9	20.7		
180° 1.7	170	9.8	0.62	10.2	13.1	15.2		
2.4	240	10.4	0.76	12.6	14.1	16.3		
3.1	310	10.7	0.87	14.4	15.2	17.6		
3.8	380	10.7	0.96	16.2	16.9	19.5		
4.5	450	10.7	1.05	17.4	18.4	21.3		
<b>360°</b> 1.7	170	9.8	1.22	20.4	12.8	14.8		
2.4	240	10.4	1.50	25.2	14.0	16.2		
3.1	310	10.7	1.72	28.8	15.1	17.5		
3.8	380	10.7	1.91	31.8	16.8	19.4		
4.5	450	10.7	2.09	34.8	18.3	21.2		

# PGP ULTRA / I-20 / PRB MPR-30 NOZZLE PERFORMANCE DATA

MPR-30 NOZZLE

PGP-04 Ultra with MPR-30 Nozzle







Radius: 11.9 to 21.6 m

Flow: 0.82 to 7.24 m<sup>3</sup>/hr; 13.6 to 120.2 l/min

The reliable, durable, and versatile I-25 Rotor offers an expansive nozzle selection that makes it the perfect choice for large turf applications.

#### **KEY BENEFITS**

- Patented automatic arc return feature returns the turret back to the original arc pattern if vandalised; adjustable arc from 50° to 360°
- Non-strippable drive mechanism is protected from damage if turned in the opposite direction of travel
- Part- and full-circle in one model for flexibility across landscapes and reduced inventory
- Colour-coded nozzles make identification easy
- Drain Check Valve prevents low-head drainage (up to 3 m of elevation)



- Precipitation rate:
   15 mm/hr approximately
- Nozzle trajectory: standard = 25°



I-25-04 Overall height: 20 cm Pop-up height: 10 cm Exposed diameter: 5 cm Inlet size: 1" (25 mm) BSP



I-25-06 Overall height: 26 cm Pop-up height: 15 cm Exposed diameter: 5 cm Inlet size: 1" (25 mm) BSP

#### **OPERATING SPECIFICATIONS**

- Nozzle choices: 11
- Radius: 11.9 to 21.6 m
- Flow: 0.82 to 7.24 m³/hr; 13.6 to 120.2 l/min
- Recommended pressure range: 2.5 to 7.0 bar; 250 to 700 kPa
- Warranty period: 5 years

#### **FACTORY-INSTALLED OPTIONS**

- · Reclaimed water ID
- High-speed rotation

#### **USER-INSTALLED OPTIONS**

• HSJ-1 prefabricated 1" (25 mm) PVC Swing Joint



I-25 Reclaimed

Available as a factoryinstalled option on all models



I-25 High-Speed

Available as a factory-installed option on all stainless steel models

#### I-25 (PLASTIC) - SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4

1	Model	2 Standard Features	3	Feature Options	4	Nozzle Options
<b>I-25-04</b> = 10 cm pop-up		Adjustable arc, plastic riser, check valve, and 5 nozzles		BSP inlet threads		- #28 = Factory-installed
<b>I-25-06</b> = 15 cm pop-up				= Reclaimed water ID	nozzle number	

#### I-25 (STAINLESS STEEL) - SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4

1-25 (STAINLESS STEEL) - 3	PECIFICATION BUILDER: ORDER	1 + 2 + 3 + 4	
1 Model	2 Standard Features	3 Feature Options	4 Nozzle Options
<b>I-25-04-SS</b> = 10 cm pop-up	Adjustable arc, stainless steel riser,	<b>B</b> = BSP inlet threads	#4 - #28 = Factory-installed
<b>I-25-06-SS</b> = 15 cm pop-up	check valve, and 5 nozzles	R = Reclaimed water ID	nozzle number
	<b>HS</b> = High-speed		
		<b>HS-R</b> = High-speed and reclaimed water ID	

#### Examples:

I-25-04-B = 10 cm pop-up, adjustable arc, BSP inlet threads

I-25-04-SS-R-B-18 = 10 cm pop-up, adjustable arc, stainless steel riser, reclaimed water ID, and #18 nozzle, BSP inlet threads

I-25-06-SS-B = 15 cm pop-up, adjustable arc, stainless steel riser, BSP inlet threads

#### **I-25 STANDARD NOZZLE PERFORMANCE DATA**

Nozzle	Pres	sure	Radius	Fle	ow	Precip	mm/hr	Nozzle
	bar	kPa	m	m³/hr	I/min			
	2.5	250	11.9	0.82	13.6	12	13	15
4	3.0	300	12.2	0.91	15.2	12	14	15
Yellow	3.5	350	12.5	0.98	16.4	13	15	Grey*
	4.0	400	12.5	1.05	17.5	13	16	
	4.5	450	12.8	1.11	18.6	14	16	
	5.0	500	13.1	1.18	19.6	14	16	
	5.5	550	13.4	1.24	20.7	14	16	
7 •	2.5	250	13.4	1.44	24.0	16	19	
7	3.0	300	14.0	1.54	25.6	16	18	18
Orange*	3.5	350	14.3	1.61	26.9	16	18	10
	4.0	400	14.3	1.68	28.0	16	19	Red
	4.5	450	14.6	1.75	29.1	16	19	
	5.0	500	14.9	1.81	30.1	16	19	
	5.5	550	15.2	1.87	31.1	16	19	
0	2.5	250	14.0	1.65	27.5	17	19	
8	3.0	300	14.3	1.81	30.1	18	20	
Lt. Brown	3.5	350	14.9	1.94	32.3	17	20	20 •
Lt. brown	4.0	400	15.2	2.05	34.2	18	20	20
	4.5	450	15.2	2.16	36.0	19	22	Dk.
	5.0	500	15.5	2.27	37.8	19	22	Brown*
	5.5	550	15.8	2.38	39.6	19	22	
10 •	3.0	300	15.2	2.15	35.8	18	21	
10	3.5	350	15.5	2.32	38.6	19	22	
Lt. Green*	4.0	400	15.8	2.48	41.3	20	23	
	4.5	450	16.2	2.63	43.9	20	23	23 •
	5.0	500	16.2	2.78	46.3	21	25	25
	5.5	550	16.5	2.94	48.9	22	25	Dk. Green
	6.0	600	16.8	3.07	51.1	22	25	
13	3.0	300	15.8	2.38	39.6	19	22	
	3.5	350	16.2	2.57	42.8	20	23	
Lt. Blue	4.0	400	16.5	2.75	45.7	20	23	
	4.5	450	16.5	2.91	48.5	21	25	
	5.0	500	16.8	3.04	51.2	22	25	25 •
	5.5	550	16.8	3.24	54.0	23	27	
	6.0	600	17.1	3.39	56.4	23	27	Dk. Blue*

#### **I-25 NOZZLE**







Pressure

bar

3.0

3.5

4.0

4.5

5.0

5.5

6.0

6.2

3.0

3.5

4.0

4.5

5.0

5.5

6.0

6.2

3.5

4.0

4.5

5.0

5.5

6.0

6.5

6.9

3.5

4.0

4.5

5.0

5.5

6.0

6.5

6.9

3.5

4.0

4.5

5.0

5.5

6.0

6.5

6.9

3.5

4.0

4.5

5.0

5.5

6.0

6.5

6.9

kPa

300

350

400

450

500

550

600

620

300

350

400

450

500

550

600

620

400

450

500

550

600

650

690

350

400

450

500

550

600

650

690

350

400

450

500

550

600

650

690

350

400

450

500

550

600

650

690

Radius

m

16.8

17.1

17.4

17.4

17.4

17.7

18.0

18.3

17.4

17.7

18.0

18.3

18.9

19 2

19.5

19.5

18.0

18.6

18.9

19.2

19.5

19.8

20.1

20.4

18.6

19.2

19.5

19.8

20.1

20.1

20.4

20.7

19.2

19.8

20.1

20.4

21.0

21.0

21.3

21.6

18.3

19.2

20.1

20.7

21.3

21.3

21.6

21.6

Flow

m³/hr l/min

47.7

50.8

56.3

58.8

61.5

63.7

64.6

51.4

58.7

62.0

65.2

68 5

71.4

72.5

66.2

70.1

73.7

777

81.0

84.2

76.0

81.3

86.3

911

96.3

100.6

104.8

108.3

80.9

87.1

93.1

98.7

104.9

110.0

115.1

119.2

88.5

93.8

98.8

103.5

108.6

112.8

116.9

120.2

20

21

22

23

24

24

23

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22

22

23

23

23

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2.86

3.05

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3.38

3.53

3.69

3.82

3.88

30.8

3.31

3.52

3.72

3.91

4.11

4.28

4.35

3.72

3.97

4.20

4.42

4.66

4.86

5.05

5.21

4.56

4.88

5.18

5.47

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6.04

6.29

6.50

4.86

5.23

5.58

5.92

6.29

6.60

6.90

7.15

5.31

5.63

5.93

6.21

6.52

6.77

7.01

7.21

28

Black

All precipitation rates are calculated for 180° operation. For the precipitation rate of a 360° sprinkler, divide by 2.

<sup>\*</sup> Five standard nozzles included with each sprinkler.

**I-25 HIGH-SPEED NOZZLE PERFORMANCE DATA** 

#### Nozzle Pressure Radius Flow Precip mm/hr Nozzle Pressure Radius Flow Precip mm/hr kPa m³/hr I/min $\triangle$ kPa m³/hr bar m bar m 31 2.5 250 11.0 0.81 13.6 14 16 3.0 300 14.6 2.86 47.7 27 15 04 • 27 3.0 300 11.3 0.91 15.1 14 16 3.5 350 14.9 3.05 50.8 32 3.5 350 0.99 16.4 15 17 4.0 400 15.2 3.22 53.7 28 32 11.6 Yellow Grey\* 4.0 400 11.6 1.06 17.6 16 18 4.5 450 15.5 3.38 56.3 28 32 5.0 27 31 4.5 450 11.6 1.13 18.8 17 19 500 16.2 3.53 58.8 5.0 500 1.19 17 19 5.5 550 16.5 3.69 61.5 27 31 11 9 19.9 5.5 6.0 600 550 11.9 1.26 21.1 18 21 16.5 3.82 63.7 28 33 2.5 250 11.9 1.32 22.0 19 22 6.2 620 16.5 3.88 64.6 29 33 07 • 3.0 300 12.2 1.46 24.3 20 23 3.0 300 14.9 3.08 51.4 28 32 18 3.5 350 12.5 1.57 26.2 20 23 3.5 350 15.2 3.31 55.2 29 33 Orange\* 4.0 400 12.8 1.68 27.9 20 24 4.0 400 15.5 3.52 58.7 29 34 Red 24 4.5 450 13.1 1.78 29.6 21 4.5 450 16.2 3.72 62.0 29 33 5.0 31.1 21 24 5.0 500 16.8 3.91 28 32 500 13.4 1.87 65.2 5.5 1.97 25 5.5 27 31 550 13.4 32.8 22 550 17.4 4.11 68.5 2.5 250 12.5 1.54 25.7 20 23 6.0 600 17.4 4.28 71.4 28 33 08 3.0 300 12.8 1.72 28.6 21 24 6.2 620 17.4 4.35 72.5 29 33 3.5 350 13.1 1.86 31.0 22 25 3.5 350 15.5 3.72 62.1 31 36 Lt. Brown 20 4.0 400 13.4 2.00 33.3 22 26 4.0 400 16.2 3.97 66.2 30 35 27 4.5 450 13.4 2.13 35.4 24 4.5 450 16.5 4.20 70.1 31 36 Dk 5.0 500 13.7 2.25 37.5 24 28 Brown\* 5.0 500 17.1 4.42 73.7 30 35 5.5 2.38 5.5 550 13.7 39.7 25 29 17.7 777 4.66 30 34 3.0 2.15 6.0 600 17.7 4.86 81.0 13.7 35.8 23 26 31 36 300 10 3.5 350 14.0 2.32 38.6 24 27 6.5 650 18.0 5.05 84.2 31 36 2.48 24 28 6.9 690 18.0 5.21 86.8 4.0 400 14.3 41.3 37 Lt. Green\* 4.5 450 14.6 2.63 43.9 25 28 3.5 350 16.5 4.56 76.0 34 39 23 5.0 500 14.9 2.78 46.3 25 29 4.0 400 17.1 4.88 81.3 33 39 5.18 2.94 48.9 25 29 5.5 550 15.2 Dk. Green 4.5 450 17.4 86.3 34 40 3.07 51 1 26 31 500 5.47 91.1 35 60 600 15 2 5.0 17.7 40 3.0 300 14.3 2.38 39.6 23 27 5.5 550 18.3 5.78 96.3 35 40 13 3.5 350 14.6 2.57 42.8 24 28 6.0 600 18.3 6.04 100.6 36 42 400 2.75 45.7 25 28 6.5 104.8 36 42 4.0 14.9 650 18.6 6.29 Lt. Blue 4.5 450 15.2 2.91 48.5 25 29 6.9 690 18.6 6.50 108.3 38 43 5.0 500 15.5 3.07 51.2 25 29 3.5 350 17.1 4.86 80.9 33 38 25 31 5.5 3.24 54.0 27 4.0 5.23 550 15.5 400 17.7 87.1 33 39 6.0 15.5 3.39 56.4 28 32 93.1 600 4.5 450 18.3 5.58 33 39 Dk. Blue<sup>3</sup> 5.0 500 18.9 5.92 98.7 33 38 5.5 550 19.5 6.29 104.9 33 38 6.0 600 19.8 6.60 110.0 34 39 6.5 650 20.1 6.90 115.1 34 39 6.9 690 20.1 7.15 119.2 35 41 3.5 350 17.4 5.31 88.5 35 41 28 4.0 400 17.7 5.63 93.8 36 42 4.5 450 18.0 5.93 98.8 37 42 Black 5.0 500 18.3 6.21 103.5 37 43 5.5 550 18.9 6.52 108.6 36 42 6.0 36 600 19.5 6.77 112.8 41 6.5 650 19.8 7.01 116.9 36 41 6.9 690 20.4 7.21 120.2 35 40

#### Notes:

All precipitation rates are calculated for  $180^\circ$  operation. For the precipitation rate of a  $360^\circ$  sprinkler, divide by 2.



**I-25 NOZZLE** 

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**O**D **O**D

High-Speed

<sup>\* 5</sup> standard nozzles included with each sprinkler.

**I-40** 

Radius: **13.1 to 23.2 m** 

Flow: 1.63 to 6.84 m<sup>3</sup>/hr; 27.2 to 114.1 l/min

The I-40 Rotor has a comprehensive list of upgraded features that make it the top choice for demanding, large turf projects.

#### **KEY BENEFITS**

- Patented automatic arc return feature returns the turret back to the original arc pattern if vandalised; adjustable arc from 50° to 360°
- Non-strippable drive mechanism is protected from damage if turned in the opposite direction of travel
- Part- and full-circle in one model for flexibility across landscapes and reduced inventory
- Colour-coded nozzles make identification easy
- Available opposing nozzle model for even watering in full-circle applications (I-40-ON model)
- Drain Check Valve prevents low-head drainage (up to 4.5 m of elevation)



#### I-40-04

Overall height: 20 cm Pop-up height: 10 cm Exposed diameter: 5 cm Inlet size: 1" (25 mm) BSP

#### **OPERATING SPECIFICATIONS**

- Nozzle choices: 12
- Radius I-40: 13.1 to 21.3 m
- Radius I-40-ON: 15.2 to 23.2 m
- Flow I-40: 1.63 to 6.84 m³/hr; 27.2 to 114.1 l/min
- Flow I-40-ON: 2.75 to 7.76 m<sup>3</sup>/hr; 45.8 to 129.4 l/min
- · Warranty period: 5 years

- Recommended pressure range: 2.5 to 7.0 bar; 250 to 700 kPa
- Operating pressure range:
   2.5 to 7.0 bar; 250 to 700 kPa
- Precipitation rates: 15 mm/hr approximately
- Nozzle trajectory: standard = 25°



#### -40-06

Overall height: 26 cm Pop-up height: 15 cm Exposed diameter: 5 cm nlet size: 1" (25 mm) BSP

#### **FACTORY-INSTALLED OPTIONS**

- Reclaimed water ID
- High-speed rotation

#### **USER-INSTALLED OPTIONS**

 HSJ-1 prefabricated 1" (25 mm) PVC Swing Joint



I-40 Reclaimed

Available as a factoryinstalled option on all models



I-40 High-Speed

Available as a factoryinstalled option on all models

#### I-40 - SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4

1 40 SPECIFICATION BOIL	DER. ONDER 1 + 2 + 3 + 4		
1 Model	2 Standard Features	3 Feature Options	4 Nozzle Options
<b>I-40-04-SS</b> = 10 cm pop-up	Adjustable arc, stainless	<b>B</b> = BSP inlet threads	<b>#8 to #25</b> = Factory-
<b>I-40-06-SS</b> = 15 cm pop-up	steel riser, check valve, and 6 nozzles	R = Reclaimed water ID	installed nozzle number
		<b>HS</b> = High-speed	
		<b>HS-R</b> = High-speed and reclaimed water ID	

#### I-40-ON - SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4

1 Model	2 Standard Features	3 Feature Options	4 Nozzle Options					
<b>I-40-04-SS-ON</b> = 10 cm pop-up	Full-circle, opposing nozzle,	<b>B</b> = BSP inlet threads	#15 to #28 = Factory-					
<b>I-40-06-SS-ON</b> = 15 cm pop-up	stainless steel riser, check valve, and 6 nozzles	R = Reclaimed water ID	installed nozzle number					
		<b>ON</b> = Full-circle opposing nozzle						
		<b>ON-R</b> = Full circle opposing nozzles, reclaimed water ID						

#### Examples:

I-40-04-SS-B = 10 cm pop-up, BSP inlet threads

I-40-04-SS-ON-R-B-23 = 10 cm pop-up, full-circle opposing nozzles, reclaimed water ID, #23 nozzle, BSP inlet threads

**I-40-06-SS-15-B** = 15 cm pop-up, #15 nozzle, BSP inlet threads

#### I-40 STANDARD NOZZLE PERFORMANCE DATA

#### I-40 HIGH-SPEED NOZZLE PERFORMANCE DATA

#### **I-40 NOZZLES**

Nozzle	Pres	sure	Radius	Flo	wc	Precip	mm/hr	Nozzle	Pres	sure	Radius	Fle	ow	Precip	mm/hr
	bar	kPa	m	m³/hr	I/min				bar	kPa	m	m³/hr	l/min		
	2.5	250	13.1	1.63	27.2	19	22	_	2.5	250	12.2	1.63	27.2	22	25
08 🔍	3.0	300	13.4	1.80	30.0	20	23	08	3.0	300	12.5	1.80	30.0	23	27
	3.5	350	13.7	1.94	32.3	21	24		3.5	350	12.8	1.94	32.3	24	27
Lt. Brown	4.0	400	14.0	2.06	34.4	21	24	Lt. Brown	4.0	400	12.8	2.06	34.4	25	29
	4.5	450	14.0	2.18	36.3	22	26		4.5	450	13.1	2.18	36.3	25	29
	5.0	500	14.3	2.29	38.2	22	26		5.0	500	13.4	2.29	38.2	25	29
	5.5	550	14.6	2.41	40.2	23	26		5.5	550	13.4	2.41	40.2	27	31
	3.0	300	14.6	2.20	36.6	21	24		3.0	300	13.4	2.20	36.6	34	28
10	3.5	350	14.9	2.37	39.4	21	24	10	3.5	350	13.7	2.37	39.4	25	29
	4.0	400	15.2	2.52	42.0	22	25		4.0	400	14.0	2.52	42.0	26	30
Lt. Green	4.5	450	15.5	2.67	44.5	22	25	Lt. Green	4.5	450	14.0	2.67	44.5	27	31
	5.0	500	15.5	2.81	46.8	23	27		5.0	500	14.3	2.81	46.8	27	32
	5.5	550	15.8	2.96	49.3	24	27		5.5	550	14.6	2.96	49.3	28	32
	6.0	600	16.2	3.08	51.4	24	27		6.0	600	14.6	3.08	51.4	29	33
	3.0	300	14.9	2.36	39.4	21	24		3.0	300	13.7	2.36	39.4	25	29
13	3.5	350	15.2	2.55	42.6	22	25	13	3.5	350	14.0	2.55	42.6	26	30
	4.0	400	15.5	2.73	45.5	23	26		4.0	400	14.3	2.73	45.5	27	31
Lt. Blue	4.5	450	15.5	2.90	48.3	24	28	Lt. Blue	4.5	450	14.3	2.90	48.3	28	33
	5.0	500	15.8	3.06	51.0	24	28		5.0	500	14.6	3.06	51.0	29	33
	5.5	550	16.2	3.23	53.9 56.3	25	29		5.5	550	14.9	3.23	53.9	29 30	33
	3.0	300	16.5	3.38 2.93	48.8	25 22	29 26		3.0	300	14.9 15.2	3.38 2.93	56.3 48.8	25	35 29
15	3.5	350	16.5	3.19	53.2	24	27	15	3.5	350	15.5	3.19	53.2	26	30
15	4.0	400	16.8	3.44	57.3	24	28	15	4.0	400	15.8	3.44	57.3	27	32
Grey	4.5	450	17.1	3.67	61.2	25	29	Grey	4.5	450	15.8	3.67	61.2	29	34
Grey	5.0	500	17.4	3.89	64.9	26	30	Grey	5.0	500	16.2	3.89	64.9	30	34
	5.5	550	18.0	4.14	68.9	26	30		5.5	550	16.5	4.14	68.9	31	35
	6.0	600	18.3	4.34	72.4	26	30		6.0	600	16.5	4.34	72.4	32	39
	6.2	620	18.3	4.43	73.8	26	31		6.2	620	16.5	4.43	73.8	33	38
	3.5	350	18.6	4.48	74.6	26	30		3.5	350	16.8	4.48	74.6	32	37
23	4.0	400	18.9	4.76	79.4	27	31	23	4.0	400	17.4	4.76	79.4	32	36
	4.5	450	19.2	5.03	83.9	27	32		4.5	450	17.7	5.03	83.9	32	37
Dk. Green	5.0	500	19.5	5.29	88.1	28	32	Dk. Green	5.0	500	17.7	5.29	88.1	34	39
	5.5	550	19.8	5.56	92.7	28	33		5.5	550	18.0	5.56	92.7	34	40
	6.0	600	20.1	5.79	96.5	29	33		6.0	600	18.3	5.79	96.5	35	40
	6.2	620	20.1	5.89	98.1	29	34		6.2	620	18.6	5.89	98.1	34	39
	6.5	650	20.1	6.01	100.2	30	34		6.5	650	18.6	6.01	100.2	35	40
	6.9	690	20.4	6.19	103.2	30	34		6.9	690	18.6	6.19	103.2	36	41
	3.5	350	19.8	4.98	83.0	25	29		3.5	350	17.4	4.98	83.0	33	38
25	4.0	400	20.1	5.33	88.7	26	30	25	4.0	400	18.0	5.33	88.7	33	38
	4.5	450	20.4	5.65	94.2	27	31		4.5	450	18.3	5.65	94.2	34	39
Dk. Blue	5.0	500	20.7	5.96	99.3	28	32	Dk. Blue	5.0	500	18.6	5.96	99.3	34	40
	5.5	550	21.0	6.29	104.9	28	33		5.5	550	18.9	6.29	104.9	35	41
	6.0	600	21.0	6.57	109.6	30	34		6.0	600	19.2	6.57	109.6	36	41
	6.2	620	21.0	6.69	111.5	30	35		6.2	620	19.5	6.69	111.5	35	41
	6.5	650	21.3	6.84	114.1	30	35		6.5	650	19.5	6.84	114.1	36	42
	6.9	690	21.3	7.07	117.8	31	36		6.9	690	19.5	7.07	117.8	37	43



Standard/ High-Speed



Note:

All precipitation rates are calculated for  $180^\circ$  operation. For the precipitation rate of a  $360^\circ$  sprinkler, divide by 2.

#### I-40 DUAL OPPOSING NOZZLE PERFORMANCE DATA

Nozzle	Pres	sure	Radius	Fle	ow	Precip	mm/hr	
	bar	kPa	m	m³/hr	I/min			
	3.0	300	15.2	2.75	45.8	12	14	
15 •	3.5	350	15.8	2.91	48.5	12	13	
Grey	4.0	400	16.2	3.06	51.0	12	14	
	4.5	450	16.8	3.20	53.3	11	13	
	5.0	500	17.1	3.32	55.4	11	13	
	5.5	550	17.4	3.46	57.7	11	13	
	6.0	600	17.7	3.58	59.6	11	13	-
	6.2	620	17.7	3.62	60.4	12	13	
10 -	3.0	300	17.4	2.90	48.3	10	11	
18 •	3.5	350	17.7	3.15	52.5	10	12	
Red	4.0	400	18.0	3.38	56.4	10	12	
	4.5	450	18.0	3.61	60.1	11	13	
	5.0	500	18.3	3.82	63.7	11	13	
	5.5	550	18.9	4.05	67.5	11	13	
	6.0	600	19.2	4.25	70.8	12	13	
	6.2	620	19.2	4.33	72.1	12	14	
	6.5	650	19.5	4.43	73.9	12	13	
20 •	3.5	350	18.3	3.98	66.2	12	14	
20 •	4.0	400	18.9	4.26	71.1	12	14	
Dk. Brown	4.5	450	19.2	4.54	75.6	12	14	
	5.0	500	19.5	4.80	80.0	13	15	
	5.5	550	20.1	5.08	84.7	13	15	
	6.0	600	19.8	5.32	88.7	14	16	
	6.2	620	19.8	5.42	90.4	14	16	
	6.5	650	20.1	5.55	92.5	14	16	
	6.9	690	20.1	5.74	95.7	14	16	
23 •	3.5	350	18.9	4.23	70.6	12	14	
	4.0	400	19.5	4.55	75.8	12	14	
Dk. Green	4.5	450	19.8	4.85	80.8	12	14	
	5.0	500	20.1	5.14	85.6	13	15	
	5.5	550	20.4	5.45	90.8	13	15	
	6.0	600	20.7	5.71	95.1	13	15	
	6.2	620	20.7	5.82	97.0	14	16	ı
	6.5	650	20.7	5.96	99.4	14 14	16 16	
	6.9 3.5	690 350	21.0	6.17 4.60	102.9 76.7	12	14	I
25 •	4.0	400	20.1	4.00	82.1	12	14	
Dk. Blue	4.5	450	20.1	5.23	87.2	13	14	
DK. blue	5.0	500	20.4	5.52	92.0	13	15	
	5.5	550	21.0	5.84	97.3	13	15	
	6.0	600	21.3	6.10	101.7	13	15	
	6.2	620	21.3	6.22	103.6	14	16	
	6.5	650	21.3	6.36	106.0	14	16	
	6.9	690	21.6	6.57	109.5	14	16	
	3.5	350	19.8	5.73	95.5	15	17	ı
28 ●	4.0	400	20.4	6.07	101.1	15	17	
Black	4.5	450	21.0	6.38	106.4	14	17	
	5.0	500	21.3	6.68	111.3	15	17	
	5.5	550	21.9	7.00	116.7	15	17	
	6.0	600	22.3	7.27	121.1	15	17	
	6.2	620	22.3	7.38	122.9	15	17	
	6.5	650	22.6	7.52	125.3	15	17	
	6.9	690	23.2	7.73	128.8	14	17	
								-

#### **I-40 NOZZLES**



Opposing

Front Back





I-40 Turf Cup Kit Option Available as a field-installed option on all models P/N TURFCUPKITI40

I-40 Opposing Nozzle 360° Model



#### Note:

Precipitation rates for the ON-Opposing Nozzles models are calculated at 360  $^\circ\!.$ 

# **I-50**

Radius: 13.1 to 23.2 m

Flow: 1.63 to 6.84 m<sup>3</sup>/hr; 27.2 to 114.1 l/min

The high-torque I-50 Rotor is engineered to thrive in difficult water-quality conditions within large turf projects.

#### **KEY BENEFITS**

- · Extra-strong, non-strippable, planetary gear drive mechanism is reliable and durable in harsh water conditions
- Tool-free, part- and full-circle arc adjustment mechanism makes fast, easy installation and reduces inventory (60° to 360°)
- · Colour-coded nozzles make identification easy
- Available opposing nozzle model for even watering in full-circle applications (I-50-ON model)
- Drain Check Valve prevents low-head drainage (up to 4.5 m of elevation)

I-50-06-SS Overall height: 26 cm Pop-up height: 15 cm Exposed diameter: 5 cm Inlet size: 1" (25 mm) BSP



I-50-06-SS-ON Overall height: 26 cm Pop-up height: 15 cm Exposed diameter: 5 cm Inlet size: 1" (25 mm) BSP

#### **OPERATING SPECIFICATIONS**

- Nozzle choices: 12
- Radius I-50: 13.1 to 21.3 m
- Radius I-50-0N: 15.2 to 23.2 m
- Flow I-50: 1.63 to 6.84 m<sup>3</sup>/hr; 27.2 to 114.1 I/min
- Flow I-50-ON: 2.75 to 7.76 m<sup>3</sup>/hr: 45.8 to 129.4 I/min
- Recommended pressure range:

2.5 to 7.0 bar; 250 to 700 kPa

- · Operating pressure range: 2.5 to 7.0 bar; 250 to 700 kPa
- Precipitation rate: 15 mm/hr approximately
- Nozzle trajectory: standard = 25°
- Warranty period: 5 years



I-50 Turf Cup **Kit Option** Available as a field-installed option on all models

#### FACTORY-INSTALLED OPTIONS

· Reclaimed water ID

#### **USER-INSTALLED OPTIONS**

HSJ-1 prefabricated 1" (25 mm) PVC Swing Joint



I-50 Reclaimed Available as a factoryinstalled option on all models





#### Examples:

I-50-06-SS-B = 15 cm pop-up, BSP inlet threads

I-50-06-SS-ON-R-B-23 = 15 cm pop-up, full-circle opposing nozzles, reclaimed water ID, #23 nozzle, BSP inlet threads

I-50-06-SS-15-B = 15 cm Pop-up, #15 nozzle, BSP inlet threads



Robust planetary gear drive for extreme conditions

#### I-50 STANDARD NOZZLE PERFORMANCE DATA

Nozzle	Pres	sure	Radius	Flo	ow	Precip	mm/hr
	bar	kPa	m	m³/hr	I/min		
	2.5	250	13.1	1.63	27.2	19	22
08 🔍	3.0	300	13.4	1.80	30.0	20	23
	3.5	350	13.7	1.94	32.3	21	24
Lt. Brown	4.0	400	14.0	2.06	34.4	21	24
	4.5	450	14.0	2.18	36.3	22	26
	5.0	500	14.3	2.29	38.2	22	26
	5.5	550	14.6	2.41	40.2	23	26
	3.0	300	14.6	2.20	36.6	21	24
10	3.5	350	14.9	2.37	39.4	21	24
	4.0	400	15.2	2.52	42.0	22	25
Lt. Green	4.5	450	15.5	2.67	44.5	22	25
	5.0	500	15.5	2.81	46.8	23	27
	5.5	550	15.8	2.96	49.3	24	27
	6.0	600	16.2	3.08	51.4	24	27
	3.0	300	14.9	2.36	39.4	21	24
13	3.5	350	15.2	2.55	42.6	22	25
	4.0	400	15.5	2.73	45.5	23	26
Lt. Blue	4.5	450	15.5	2.90	48.3	24	28
	5.0	500	15.8	3.06	51.0	24	28
	5.5	550	16.2	3.23	53.9	25	29
	6.0	600	16.5	3.38	56.3	25	29
	3.0	300	16.2	2.93	48.8	22	26
15	3.5	350	16.5	3.19	53.2	24	27
	4.0	400	16.8	3.44	57.3	24	28
Grey	4.5	450	17.1	3.67	61.2	25	29
	5.0	500	17.4	3.89	64.9	26	30
	5.5	550	18.0	4.14	68.9	26	30
	6.0	600	18.3	4.34	72.4	26	30
	6.2	620	18.3	4.43	73.8	26	31
	3.5	350	18.6	4.48	74.6	26	30
23	4.0	400	18.9	4.76	79.4	27	31
	4.5	450	19.2	5.03	83.9	27	32
Dk. Green	5.0	500	19.5	5.29	88.1	28	32
	5.5	550	19.8	5.56	92.7	28	33
	6.0	600	20.1	5.79	96.5	29	33
	6.2	620	20.1	5.89	98.1	29	34
	6.5	650	20.1	6.01	100.2	30	34
	6.9	690	20.4	6.19	103.2	30	34
_	3.5	350	19.8	4.98	83.0	25	29
25	4.0	400	20.1	5.33	88.7	26	30
	4.5	450	20.4	5.65	94.2	27	31
Dk. Blue	5.0	500	20.7	5.96	99.3	28	32
	5.5	550	21.0	6.29	104.9	28	33
	6.0	600	21.0	6.57	109.6	30	34
	6.2	620	21.0	6.69	111.5	30	35
	6.5	650	21.3	6.84	114.1	30	35
	6.9	690	21.3	7.07	117.8	31	36

#### Note:

All precipitation rates are calculated for 180° operation. For the precipitation rate of a 360° sprinkler, divide by 2.

#### I-50 Opposing Nozzle 360° Model



#### I-50 DUAL OPPOSING NOZZLE PERFORMANCE DATA

Nozzle		sure	Radius		wo	Precip	mm/hr
	bar	kPa	m	m³/hr	I/min		
15 6	3.0	300	15.2	2.75	45.8	12	14
15 •	3.5	350	15.8	2.91	48.5	12	13
Grey	4.0	400	16.2	3.06	51.0	12	14
	4.5	450	16.8	3.20	53.3	11	13
	5.0	500	17.1	3.32	55.4	11	13
	5.5	550	17.4	3.46	57.7	11	13
	6.0	600	17.7	3.58	59.6	11	13
	6.2	620	17.7	3.62	60.4	12	13
10	3.0	300	17.4	2.90	48.3	10	11
18 •	3.5	350	17.7	3.15	52.5	10	12
Red	4.0	400	18.0	3.38	56.4	10	12
	4.5	450	18.0	3.61	60.1	11	13
	5.0	500	18.3	3.82	63.7	11	13
	5.5	550	18.9	4.05	67.5	11	13
	6.0	600	19.2	4.25	70.8	12	13
	6.2	620	19.2	4.33	72.1	12	14
	6.5	650	19.5	4.43	73.9	12	13
20	3.5	350	18.3	3.98	66.2	12	14
20 •	4.0	400	18.9	4.26	71.1	12	14
Dk.	4.5	450	19.2	4.54	75.6	12	14
Brown	5.0	500	19.5	4.80	80.0	13	15
	5.5	550	20.1	5.08	84.7	13	15
	6.0	600	19.8	5.32	88.7	14	16
	6.2	620	19.8	5.42	90.4	14	16
	6.5	650	20.1	5.55	92.5	14	16
	6.9	690	20.1	5.74	95.7	14	16
	3.5	350	18.9	4.23	70.6	12	14
23 •	4.0	400	19.5	4.55	75.8	12	14
Dk. Green	4.5	450	19.8	4.85	80.8	12	14
DK. GIEEH	5.0	500	20.1	5.14	85.6	13	15
	5.5	550	20.4	5.45	90.8	13	15
	6.0	600	20.7	5.71	95.1	13	15
	6.2	620	20.7	5.82	97.0	14	16
	6.5	650	20.7	5.96	99.4	14	16
	6.9	690	21.0	6.17	102.9	14	16
	3.5	350	19.5	4.60	76.7	12	14
25 •	4.0	400	20.1	4.92	82.1	12	14
Dk. Blue	4.5	450	20.1	5.23	87.2	13	14
DK. DIUE	5.0	500	20.4	5.52	92.0	13	15
	5.5	550	21.0	5.84	97.3	13	15
	6.0	600	21.0	6.10	101.7	13	15
	6.2	620 6E0	21.3	6.22	103.6	14	16
	6.5	650	21.3	6.36	106.0	14	16 16
	6.9	690	21.6	6.57	109.5	14	16
28 ●	3.5	350	19.8	5.73	95.5	15 15	17 17
	4.0	400	20.4	6.07	101.1	15	17 17
Black	4.5	450	21.0	6.38	106.4	14 15	17
	5.0	500	21.3	6.68	111.3	15	17
	5.5	550	21.9	7.00	116.7	15	17
	6.0	600	22.3	7.27	121.1	15	17
	6.2	620	22.3	7.38	122.9	15	17
	6.5	650	22.6	7.52	125.3	15	17
	6.9	690	23.2	7.73	128.8	14	17

#### Nata

Precipitation rates for the ON-Opposing Nozzles models are calculated at 360  $^\circ\!.$ 

#### I-50 STANDARD NOZZLES



Front



I-50 OPPOSING NOZZLES



Front and Back





1-80

Flow: 4.59 to 13.5 m<sup>3</sup>/hr: 76.5 to 225.6 I/min

Radius: 19.2 to 29.6 m

The highly versatile and efficient I-80 Rotor is the first commercial sports turf rotor with no-dig Total-Top-Serviceability.

#### **KEY BENEFITS**

- Exclusive Total-Top-Service (TTS) design provides convenient no-dig servicing
- PressurePort™ Technology and forward-facing triple nozzles (I-80) or opposing triple nozzles (I-80-ON) create exceptional nozzle uniformity in part- and full-circle applications
- · Tool-free, part- and full-circle arc adjustment mechanism makes fast, easy installation and reduces inventory (70° to 360°)
- Ratcheting stainless steel riser allows setting of right-side fixed arc alignment to the landscape without rotor disassembly

#### **OPERATING SPECIFICATIONS**

- I-80 nozzle choices: 7 standard
- I-80-ON nozzle choices: 7 standard
- Radius I-80: 19.8 to 28.7 m
- Radius I-80-ON: 19.2 to 29.6 m
- Flow I-80: 4.6 to 13.5 m<sup>3</sup>/hr; 76.5 to 225.6 I/min

clean and safe installation

**USER-INSTALLED OPTIONS** 

HSJ prefabricated PVC Swing Joints

 Rubber Cover Kit #959300SP • Turf Cup Kit #959400SP

Reclaimed water ID

Flow I-80-ON: 4.9 to 13.3 m<sup>3</sup>/hr; 81.8 to 221.4 I/min

**FACTORY-INSTALLED OPTIONS** 

Exclusive Turf Cup option for an aesthetically

- Recommended pressure range: 3.4 to 6.9 bar; 340 to 690 kPa
- Operating pressure range: 2.7 to 10.3 bar; 275 to 1030 kPa
- Precipitation rates: 10 mm/hr approximately
- · Warranty period: 5 years



I-80-04-SS Pop-Up I-80-04-SS-ON Pop-Up Overall height: 25 cm

Pop-up height: 9.5 cm Exposed diameter: 11 cm Inlet size: 1½" (40 mm)



#### I-80-04-SS-TC Turf Cup I-80-04-SS-ON-TC Turf Cup

Overall height: 29 cm Pop-up height: 9.5 cm Exposed diameter: 8.9 cm Inlet size: 1½" (40 mm)



I-80 Turf Cup Kit P/N 959400SF



I-80 Rubber Cover Kit P/N 959300SP

I-80 - SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4				
1 Model	2 Standard Features	3 Featured Options	4 Nozzle Options	
<b>I-80-04-SS</b> = 10 cm pop-up	Adjustable arc, stainless steel riser, check valve	R = Reclaimed water ID*	#23 to #53 = Factory-installed nozzle number, no nozzle pack	
<b>I-80-04-SS-TC</b> = 10 cm pop-up with turf cup	Adjustable arc, stainless steel riser, check valve, factory-installed turf cup	<b>B</b> = BSP inlet threads		
		* TC reclaimed ID not available		
<b>I-80-04-SS-ON</b> = 10 cm pop-up	Full-circle, opposing nozzle, stainless steel riser, check valve	R = Reclaimed water ID*	#23 to #53 = Factory-installed nozzle number, no nozzle pack	
<b>I-80-04-SS-ON-TC</b> = 10 cm pop-up with turf cup	Full-circle, opposing nozzle, stainless steel riser, check valve, factory-installed turf cup	<b>B</b> = BSP inlet threads		
		* TC reclaimed ID not available		

#### Examples:

I-80-04-SS-B-25 = 10 cm pop-up, adjustable arc, stainless steel riser, check valve, BSP inlet threads, and factory-installed #25 nozzle

I-80-04-SS-ON-R-B-38 = 10 cm pop-up, stainless steel riser, check valve, opposing nozzle full-circle, reclaimed water ID, BSP inlet threads, and factory-installed #38 nozzle I-80-04-SS-ON-TC-B-48 = 10 cm pop-up, stainless steel riser, check valve, opposing nozzle full-circle, factory-installed turf cup, BSP inlet threads, and factory-installed #48 nozzle

#### I-80-ON NOZZLE PERFORMANCE DATA\* **I-80 NOZZLE PERFORMANCE DATA** Nozzle Set Radius Flow Precip mm/hr Nozzle Set Pressure Radius Flow Precip mm/hr Pressure $\mathbf{A}$ kPa bar kPa m m<sup>3</sup>/hr I/min bar m m3/hr 1/min 13.3 19.8 4.59 13.5 3.4 344 19.2 4.91 81.8 15.4 Orange Lt. Green 3.4 344 76.5 11.7 5.22 Tan Lt. Blue 4.1 413 19.8 87.1 13.3 15.4 4.1 413 20.1 5.02 83.7 12.4 14.3 4.5 450 20.1 5.45 90.8 13.5 15.6 45 450 20.4 5 43 905 13.0 15.0 23 23 4.8 482 20.4 5.66 94.3 13.6 15.7 803603 315313 4.8 482 20.4 5.50 91.6 13.2 15.2 803611 315311 5 5 Green 551 20.7 6.04 100.7 14 1 16 2 Green 55 551 21.0 5 88 98 0 13 3 15 4 4.5 450 21.6 6.50 108.3 13.9 16.0 Orange 4.5 450 21.6 6.43 107.1 13.7 15.8 Lt. Green Tan Lt. Blue 4.8 482 22.3 6.75 112.5 13.6 15.7 4.8 482 21.9 6.66 110.9 13.8 16.0 5 5 551 7 19 119.8 14 1 5.5 551 226 163 22.3 7.16 119.2 14.5 16.7 25 25 6.2 620 22.9 7.65 127.5 14.6 16.9 803603 315313 6.2 620 22.6 7.59 126.4 14.9 17.2 Blue 803611 315311 6.9 689 23.5 8.12 135.3 14.7 17.0 lacktriangleBlue lacktriangle6.9 689 22.9 8.04 134.0 15.4 17.8 45 450 226 7.02 117 0 13.8 15 9 6.95 Orange Lt. Green 4.5 450 21.9 115.8 14 4 16.7 Tan Lt. Blue 4.8 482 22.9 7.27 121.1 13.9 16.1 4.8 482 22.3 7.18 119.6 14.5 16.7 5.5 551 23.5 7.77 129.5 14.1 16.3 5.5 551 22.9 7.70 128.3 14.7 17.0 0 33 33 6.2 620 241 8 22 137 0 14 2 16 4 803603 315313 6.2 620 23.5 8.13 135 5 14.8 17 0 803611 Grey 315311 6.9 24.7 144.6 689 8.68 14.2 16.4 • Grey 6.9 689 24.1 8.61 143.5 14.8 17.1 4.5 Orange 450 23.5 7.97 132.9 14.5 16.7 Lt. Green 4.5 450 23.2 7.93 132.1 14.8 17.1 Lt. Blue 4.8 482 24.1 8.31 138.5 14.3 16.6 Tan 4.8 482 8.22 137.0 14.5 16.8 23.8 O 5.5 551 25.0 8.84 147.3 14.1 16.3 5.5 24.4 148.0 14.9 17.2 551 8.88 0 38 38 25.6 803603 315313 6.2 9.38 156.3 14.3 16.5 6.2 620 25.0 17.3 620 9.36 156.0 15.0 315311 803611 Red 6.9 689 26.5 9.90 165.0 14.1 16.3 • Red 6.9 689 25.6 9.88 164.7 15.1 17.4 Orange Lt. Green 16.9 Tan Lt. Blue 4.8 482 25.3 9.38 156.3 14 7 4.8 482 247 9.36 156.0 15 4 17 7 O 551 25.9 9.90 14.8 17.0 5.5 165.0 5.5 551 25.3 9.88 164.7 15.4 17.8 0 43 43 6.2 620 26.5 10.52 175.3 15.0 17.3 803603 315313 6.2 620 26.2 10.49 174.9 15.3 17.6 Dk. Brown 315311 803611 6.9 11.09 15.1 17.4 Dk. Brown • 27.1 689 27.1 184.7 6.9 689 11.06 184.3 15.0 17.4 Orange Lt. Green Tan Lt. Blue 4.8 482 27.4 10.65 177.5 14 2 16.3 4.8 482 253 10.52 175.3 16.4 19.0 O 5.5 551 28.0 11.11 185.1 14.1 16.3 5.5 551 25 9 10 99 183 2 16.4 18 9 0 48 48 6.2 620 28.7 11.46 191.0 14.0 16.1 803603 315313 6.2 620 27.1 11.74 195.7 16.0 18.4 803611 Dk Green 315311 6.9 689 29.3 12.15 202.5 14.2 16.4 • Dk. Green 6.9 689 27.7 12.38 206.3 16.1 18.6 Orange Lt. Green Tan Lt. Blue 4.8 482 27.7 11.31 188.5 14.7 17.0 4.8 482 26.5 11.52 191.9 16.4 18.9 55 551 283 11.86 1977 14.8 17.0 55 551 271 12 06 2010 16.4 18 9 0 53 53 6.2 620 29.0 12.61 210.1 15.0 17.4 803603 315313 6.2 620 28.0 12.81 213.5 16.3 18.8 803611 315311 Dk. Blue 6.9 689 29.6 13.29 221.4 15.2 17.6 • Dk. Blue 6.9 689 28.7 13.54 225.6 16.5 19.0





ullet = Nozzle Plug P/N 315300 installed in the back side of the nozzle housing.

 <sup>\*</sup> Complies to ASAE standard. All precipitation rates calculated for 360° operation. All triangular rates are equilateral.

# **I-90**

Radius: **22.3 to 31.4 m** 

Flow: 6.7 to 19.04 m<sup>3</sup>/hr; 111.7 to 317.2 l/min

The robust I-90 Rotor is built for long-distance natural turf applications in large parks, open spaces, and sports fields.

#### **KEY BENEFITS**

- PressurePort<sup>™</sup> Technology, forward-facing triple nozzles (I-90), opposing triple nozzles (I-90-ON) create exceptional nozzle uniformity in part- and full-circle applications
- Part- and full-circle in one model provides flexible installation options and reduces inventory (I-90)
- Drain Check Valve prevents low-head drainage (up to 2 m of elevation)

#### **OPERATING SPECIFICATIONS**

- I-90 nozzle choices: 8
- Radius I-90 ADV: 20.1 to 29.6 m
- Radius I-90 36V: 22.3 to 31.4 m
- Flow I-90 ADV: 6.7 to 19.04 m<sup>3</sup>/hr; 111.7
- Flow I-90 36V: 6.93 to 18.92 m<sup>3</sup>/hr; 115.5 to 315.3 l/min
- Recommended pressure range: 5.5 to 8.3 bar; 550 to 830 kPa
- Operating pressure range: 5.5 to 8.3 bar; 550 to 1030 kPa
- Precipitation rate: 19 mm/hr approximately
- Warranty period: 5 years

#### **FACTORY-INSTALLED OPTIONS**

Reclaimed water ID

#### **USER-INSTALLED OPTIONS**

- Rubber Cover Kit #234201
- Turf Cup Kit #467955
- HSJ prefabricated PVC 1½" (40 mm) Swing Joints



**I-90 Reclaimed**Available as a factory-installed option on all models



I-90 Overall height: ADV/36V: 28 cm Pop-up height: 8 cm Exposed diameter: 9 cm Inlet size: 11/2" (40 mm) BSP



**Turf Cup Kit** P/N 467955



**Rubber Cover Kits** 190-ADV: P/N 234200 190-36V: P/N 234201

<b>I-90 - SPECIFICATION BUILDER:</b> ORDER1 + 2 + 3 + 4				
1 Model	2 Standard Features	3 Feature Options	4 Nozzle Options	
and 8	Plastic riser, check valve,	ADV = Adjustable arc	#25 to #73 = Factory-installed nozzle number	
	and 8 standard trajectory nozzles	<b>ARV</b> = Adjustable arc and reclaimed water ID		
		<b>36V</b> = Full-circle, opposing nozzles		
		<b>3RV</b> = Full-circle, opposing nozzles and reclaimed water ID		
		<b>B</b> = BSP inlet threads		

#### Examples:

I-90-ADV-B = 8 cm pop-up, adjustable arc, with BSP inlet threads

I-90-36V-B-43 = 8 cm pop-up, full-circle, opposing nozzles, with BSP inlet threads, and #43 nozzle

**I-90-3RV-B-63** = 8 cm pop-up, full-circle, opposing nozzles, reclaimed water ID, with BSP inlet threads, and #63 nozzle

### I-90-ADV NOZZLE PERFORMANCE DATA I-90-36V NOZZLE PERFORMANCE DATA Precip mm/hr Nozzle Pressure Radius Flow Nozzle Pressure Radius Flow Precip mm/hr kPa m³/hr I/min kPa m³/hr I/min bar m bar 5.5 16.2 550 20.1 6.70 111.7 33.1 38.2 5.5 550 22.3 6.93 115.5 14.0 25 25 6.0 600 20.4 7.16 119.2 34.3 39.6 6.0 600 22.9 7.36 122.6 14.1 16.3 Lt. Blue 7.0 700 20.7 7.54 125.7 35.1 40.5 7.0 700 23.2 7.79 129.8 14.5 16.8 Lt. Blue 7.5 7.5 16.9 750 21.0 8.09 134.8 36.6 42.2 750 23.8 8.29 138.2 14.7 5.5 5.5 15.0 550 20.7 8.22 137.0 38.3 44.2 550 23.5 8.25 137.4 17.3 33 • 33 • 6.0 600 21.0 8.68 144.6 39.2 45.3 6.0 600 23.8 8.72 145.4 15.4 17.8 7.0 700 21.3 9.18 152.9 40.3 46.6 7.0 700 24.4 9.22 153.7 15.5 17.9 Grey Grey 7.5 750 21.6 9.68 161.3 41.3 47.7 7.5 750 24.7 9.70 161.6 15.9 18.4 5.5 550 9.22 38.3 44.2 5.5 24.4 9.22 17.9 21.9 153.7 153.7 38 • 38 6.0 600 22.3 9.77 162.8 39.5 45.6 6.0 600 25.0 9.75 162.4 15.6 18.0 Red 7.0 700 22.9 10.31 171.9 39.5 45.6 7.0 700 25.3 10.29 171.5 16.1 18.6 Red 75 750 25 9 23.2 10.81 180.2 403 465 75 750 10.84 180.6 16.1 18.6 5.5 550 226 10 47 174 5 41 2 47 5 55 550 25.3 10 49 174 9 16 4 18 9 43 • 43 • 6.0 600 22.6 11.02 183.6 43.3 50.0 6.0 600 25.6 11.04 184.0 16.8 19.4 7.0 700 22.9 11.52 191.9 44.1 50.9 7.0 700 25.9 11.56 192.7 17.2 19.9 Dk. Brown Dk. Brown 7.5 750 23.5 12.13 202.1 44.0 50.9 7.5 750 26.2 12.13 202.1 17.7 20.4 5.5 550 23.5 11.40 190.0 41.4 47.8 5.5 550 26.2 11.27 187.8 16.4 18.9 48 • 48 • 6.0 600 24.1 11.95 199.1 41.2 47.6 6.0 600 27.1 11.93 198.7 16.2 18.7 Dk. Green 7.0 700 24.7 12.52 208.6 41.1 47.4 7.0 700 27.4 12.45 207.4 16.5 19.1 Dk. Green 75 75 750 25.0 13.06 217.7 41.8 48.3 750 277 13.02 216.9 16.9 19.5 5.5 24.7 47.2 5.5 27.1 12.31 205.2 550 12.47 207.8 40.9 550 16.7 19.3 53 • 53 • 6.0 600 25.6 12.99 216.5 39.6 45.8 6.0 600 27.4 12.88 214.6 17.1 19.8 7.0 7.0 700 225.2 45.4 28.0 224.1 17.1 19.7 Dk. Blue\* Dk. Blue\* 7.5 750 26.5 14.11 235.1 40.1 46.3 7.5 750 28.3 14.02 233.6 17.4 20.1 8.0 800 26.8 14.63 243.8 40.7 47.0 8.0 800 28.7 14.58 243.0 17.8 20.5 5.5 550 26.2 14.15 235.8 41.2 47.6 5.5 550 28.0 14.36 239.2 18.3 21.1 63 • 63 • 6.0 14.88 6.0 600 26.8 247.9 414 47.8 600 28.7 14.97 2495 18 2 211 Black 7.0 700 15.67 261.2 41.7 48.1 7.0 700 29.3 15.76 262.7 18.4 27.4 21.3 Black 7.5 750 27.7 16.33 272.2 42.5 49.0 7.5 750 29.6 16.36 272.5 18.7 21.6 8.0 800 28.0 16.97 282.8 49.8 8.0 800 29.9 17.01 283.5 19.1 22.0 5.5 51.8 27.1 16.51 275.2 5.5 29.3 16.38 272.9 19.1 73 73 6.0 600 27.7 17.13 285.4 44.5 51.4 6.0 600 29.9 17.04 283.9 19.1 22.0 Orange 7.0 700 28.3 17.74 295.6 44.2 51.0 Orange 7.0 700 30.2 17.67 294.5 19.4 22.4 75 75 21.8

### 8.0 \* Factory-installed nozzle

### Notes:

Precipitation rates for ADV models are calculated for 180° operation. Precipitation rates for 36V models are calculated for 360° operation. All triangular rates are equilateral. Complies to ASAE standard.

29.0

29.6

18.38

19.04

306.2

317.2

43.8

43.5

50.6

50.3

750

800

8.0

311

31.4

18.29

18.92

3047

315.3

18.9

19.2

22.2

750

800

### I-90





ADV & 36V

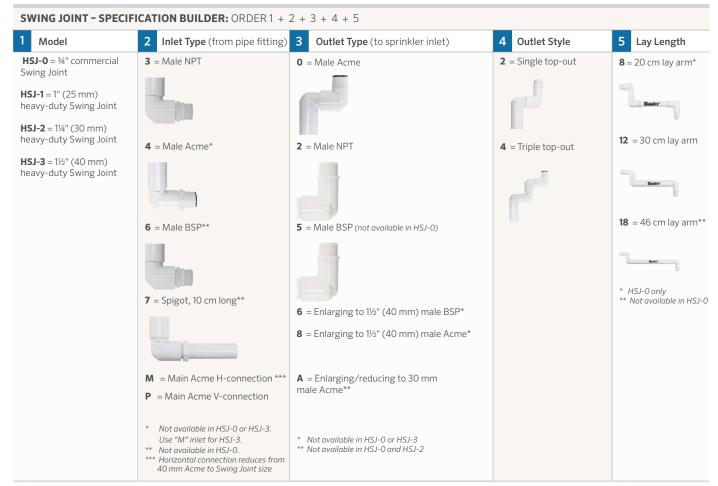
# **SWING JOINTS**

With swivel ells on both ends, SJ Swing Joints easily adjust sprinklers to proper height and position in any configuration.

### **KEY BENEFITS**

- Strength, longevity and contamination resistance
  - Prefabricated PVC design with O-ring seals
- Configurations to meet every installation requirement
  - Available in all popular inlet and outlet configurations
  - Choose from 20 cm, 30 cm, or 46 cm lay arm lengths
  - Single top-out or triple top-out designs

# Swing Joints HSJ-0 = Model ¾" HSJ-1 = Model 1" (25 mm) HSJ-2 = Model 1¼" (30 mm) HSJ-3 = Model 1½" (40 mm)



### Example:

 $\textbf{HSJ-1-3-2-2-12} = \text{HSJ} \ 1" \ (25 \ \text{mm}) \ \text{heavy-duty Swing Joint}, \ 1" \ (25 \ \text{mm}) \ \text{NPT inlet}, \ 1" \ (25 \ \text{mm}) \ \text{male NPT single top-out outlet}, \ 30 \ \text{cm} \ \text{lay arm length}$ 

SnapLok is a trademark of LASCO Fittings Inc.

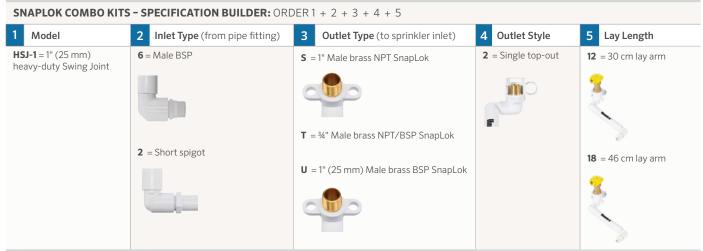
# SNAPLOK COMBO KITS

These kits are designed for applications that demand sturdy installation due to frequent Quick Coupler use.

### **KEY BENEFITS**

- Versatile and cross-compatible for heavy-duty Quick Couplers
- Highly effective solution for Quick Coupler stabilisation
- SnapLok<sup>™</sup> design includes:
  - Heavy-duty PVC and brass outlet construction
  - Anti-rotation coupler locking feature
  - Accommodates both rebar and pipe stabilisation
- · Solves common quick-coupler stabilisation and unthreading concerns
  - Unique SnapLok outlet with integrated brass thread outlet
- See the HSJ Swing Joints on page 42





Example:

HSJ-1-6-S-2-12 = HSJ 1" (25 mm) heavy-duty Swing Joint, 1" (25 mm) BSP inlet, 1" (25 mm) male brass outlet, single top-out, 30 cm lay arm length

# **HUNTER CHECK VALVES**

Eliminate low-head drainage for both rotor and spray shrub systems with the adjustable Hunter Check Valve.

### **KEY BENEFITS**

- · Adjustment access from top of valve
- Adjusts to compensate for elevational changes up to 11 m
- Variety of inlet and outlet options reduces need for additional fittings
- Meets Schedule 80 specifications for durability under high pressure
- Pressure loss charts for HCV products on page 257

HUNTER CHE	CK VALVES			
Model	Description			
HC-50F-50F	½" female inlet x ½" female outlet			
HC-50F-50M	½" female inlet x ½" male outlet			
HC-75F-75M	¾" female inlet x ¾" male outlet			



**HCV** Overall height: 7.5 cm





# ST-90-B

The ST-90-B Synthetic Turf Rotor is designed for installation in natural turf adjacent to the playing surface — the perfect solution for small and midsize fields.

### **KEY BENEFITS**

- Arc setting: 40° to 360°
- QuickCheck™ Arc Mechanism
- · Through-the-top arc adjustment
- · Water-lubricated gear drive
- · Factory-installed rubber logo cap
- Nozzle trajectory: 22.5°

### **OPERATING SPECIFICATIONS**

- Radius: 31.4 m to 36.6 m
- Flow: 16.9 to 20.9 m<sup>3</sup>/hr; 282 to 348 l/min
- Operating pressure range: 6.9 to 8.3 bar; 690 to 830 kPa
- Precipitation rate: 35 mm/hr approximately
- Warranty period: 5 years for component parts

### **USER-INSTALLED OPTIONS**

Rubber Cover Kit ST-90: P/N 234200SP

ST ROTOR	
Model	Description
ST-90-B-XX	8 cm pop-up, jar-top cap, adjustable arc, plastic riser, and BSP inlet threads, #73 or #83 preinstalled nozzle



# ST-90-B\* Overall height: 29 cm Pop-up height: 8 cm Diameter: 14 cm Inlet size: 1½" (40 mm) BSP

\* Not for use with the ST Vault

### ST-90-B NOZZLE PERFORMANCE DATA

	Nozzle	Pressure		Radius	Flow		Precip mm/hr	
		bar	kPa	m	m³/hr	I/min		
7	72	7.0	700	31.4	16.9	282	34.3	39.6
	73 •	7.5	750	33.2	17.5	291	31.7	36.6
	Orange	8.0	800	35.1	18.1	301	29.4	34.0
	83	7.0	700	34.1	19.1	319	32.8	37.9
	03	7.5	750	35.4	20.0	333	32.0	37.0
	Tan	8.0	800	36.6	20.9	348	31.2	36.1

### Notes:

All precipitation rates calculated for 180° operation. For precipitation rate of a 360° sprinkler, divide by 2.

Requires minimum 7.0 bar; 700 kPa dynamic pressure supplied to Swing Joint inlet.

# **HIGH-FLOW SWING JOINTS**

These durable Swing Joints are easy to position and ensure correct rotor installation height.

### **KEY BENEFITS**

- Heavy-duty, high-flow Swing Joints with O-ring seals
- HSJ-4 for high-flow I-90 and ST-90 Rotors with 2" (50 mm) inlets

**High-Flow Swing Joints** HSJ-4 = 50 mm model



HSJ HIGH-FLOW SWING JOINT - SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4									
1 Model	2 Inlet Type (from pipe fitting) 3 Outlet Type (to sprinkler inlet) 4 Outlet Style 5 Lay Len								
<b>HSJ-4</b> = 50 mm heavy-duty Swing Joint	D	= 1½" (40 mm) male BSP	2	= Single top-out		= 12" (30 cm) arm			

### Example:

HSJ-4-6-D-2-12 = HSJ 50 mm heavy-duty Swing Joint, 50 mm male BSP horizontal side connection to piping, 40 mm male BSP outlet to sprinkler, single top-out, and 30 cm lay arm

# ST-1200-BR

The cost-effective ST-1200-BR Synthetic Turf Rotor is the ideal riser-mounted solution for pastures, corrals, arenas, dust control, and wash-down watering.

### **KEY BENEFITS**

• Nozzle choices: 5 (included)

• Standard nozzle: #12

• Nozzle range: #10 to #18

• Nozzle trajectory: 22.5°

• Isolated, grease-lubricated gear drive

Nozzle barrels: short and long (included)

• Movable stops (left and right) arc adjustment

• Arc setting: 40° to non-reversing 360°

• Ratcheting nozzle turret

### **OPERATING SPECIFICATIONS**

• Radius: 20.4 m to 35.1 m

• Flow: 6.13 to 29.76 m<sup>3</sup>/hr; 102.1 to 495.9 l/min

• Recommended pressure range: 2.0 to 6.0 bar; 200 to 600 kPa



ST-1200-BR NOZZLE PERFORMANCE DATA										
Nozzle	Pres	sure	Radius	Flo	ow	Precip	in/hr			
	Bar	kPa	m	m³/hr	l/min					
10 •	2.0	200	20.4	6.13	102.2	29.4	34.0			
10	3.0	300	22.9	7.45	124.2	28.5	32.9			
Black	4.0	400	25.9	8.65	144.2	25.8	29.8			
	5.0	500	27.4	9.88	164.7	26.3	30.3			
12 •	2.0	200	20.7	7.63	127.2	35.5	41.0			
12	3.0	300	23.8	9.36	156.0	33.1	38.2			
Black	4.0	400	26.8	10.81	180.2	30.1	34.7			
	5.0	500	29.9	12.06	201.0	27.0	31.2			
14 •	2.0	200	21.3	10.38	173.0	45.6	52.7			
14 •	3.0	300	26.2	12.72	212.0	37.0	42.8			
Black	4.0	400	30.5	14.70	244.9	31.6	36.5			
	5.0	500	33.5	16.47	274.4	29.3	33.8			
16 ●	2.0	200	21.9	13.52	225.2	56.1	64.8			
10	3.0	300	28.3	16.58	276.3	41.3	47.7			
Black	4.0	400	31.4	19.15	319.1	38.9	44.9			
	5.0	500	35.4	18.38	306.2	29.4	33.9			
18 •	3.0	300	29.0	21.01	350.1	50.1	57.9			
10	4.0	400	31.7	24.31	405.0	48.4	55.9			
Black	5.0	500	33.8	27.15	452.4	47.4	54.8			
	6.0	600	35.1	29.76	495.9	48.4	55.9			

### ST-1200-BR Installed

connect to 11/2" (40 mm) PVC pipe

if needed



# **ST-1600-HS-BR**

In addition to synthetic turf, this heavy-duty rotor is designed for irrigating pastures, horse arenas, dust control, and natural turf areas.

### **KEY BENEFITS**

- · Nozzle choices: 6
- Standard nozzle: #20
- Nozzle range: #16 to #26
- Nozzle trajectory: 25°
- · Movable stops with left and right arc adjustment
- Arc setting: 40° to non-reversing 360°
- Ratcheting nozzle turret

### **OPERATING SPECIFICATIONS**

- Radius: 32.5 to 50.3 m
- Flow: 21.8 to 74.2 m<sup>3</sup>/hr; 364 to 1,237 l/min
- Operating pressure range: 4.0 to 8.0 bar; 400 to 800 kPa
- Precipitation rate: 60 mm/hr approximately
- Warranty period: 5 years for component parts



### ST-1600-HS-BR (High-Speed)

(Riser-Mounted Model) Overall height: 22 cm Diameter: 21 cm Inlet size: 2" (50 mm) BSP\*

\*Use P/N 241400SP adapter to connect to 2" (50 mm) PVC pipe if needed

### ST-1600-HS-BR NOZZLE PERFORMANCE DATA\*

Nozzle	Pres	sure	Radius	Flo	ow	v Precip mm/hr		
	bar	kPa	m	m³/hr	l/min			
16 •	4.0	400	32.5	21.8	364	41.4	47.8	
16 ●	5.0	500	35.0	24.4	406	39.8	45.9	
Black	6.0	600	37.0	26.8	446	39.1	45.1	
	7.0	700	39.0	28.9	482	38.0	43.9	
	8.0	800	41.0	31.2	520	37.1	42.9	
18 •	4.0	400	34.0	24.3	405	42.0	48.6	
10	5.0	500	37.0	27.1	452	39.6	45.8	
Black	6.0	600	39.0	29.8	496	39.1	45.2	
	7.0	700	40.5	32.1	535	39.1	45.2	
	8.0	800	43.0	34.8	580	37.6	43.5	
20 ●	4.0	400	35.0	32.7	545	53.4	61.7	
20 •	5.0	500	39.0	36.5	609	48.1	55.5	
Black	6.0	600	43.0	40.1	668	43.4	50.1	
	7.0	700	44.0	43.3	721	44.7	51.6	
	8.0	800	45.0	46.4	773	45.8	52.9	
22 •	4.0	400	36.0	38.9	649	60.1	69.4	
22	5.0	500	39.5	43.6	726	55.8	64.5	
Black	6.0	600	44.0	47.7	795	49.3	56.9	
	7.0	700	47.0	51.5	859	46.7	53.9	
	8.0	800	48.0	55.2	920	47.9	55.3	
24 ●	4.0	400	37.0	45.9	765	67.1	77.4	
	5.0	500	40.5	51.3	855	62.6	72.2	
Black	6.0	600	45.0	56.2	937	55.5	64.1	
	7.0	700	47.5	60.7	1012	53.8	62.2	
	8.0	800	48.7	65.0	1084	54.9	63.3	
26 ●	4.0	400	38.4	53.0	883	71.8	82.9	
	5.0	500	41.4	59.2	986	68.8	79.5	
Black	6.0	600	46.0	64.6	1077	61.0	70.4	
	7.0	700	48.7	69.7	1162	58.6	67.7	
	8.0	800	50.3	74.2	1237	58.7	67.8	

<sup>\*</sup>All radius measurements are taken at standard rotation speeds. Slowing rotation to the minimum rotation speed will add 3+ meters to the radius.

### ST-1600-HS-BR Installed



# ST-1700-V

This ST System includes a valve-in-head design for faster installation and maintenance.

### **KEY BENEFITS**

• Nozzle choices: 5

• Standard nozzle: #20

• Nozzle range: #16 to #24

• Nozzle trajectory: 25°

- Total-Top-Service (TTS) design provides convenient no-dig servicing
- · Valve-in-head configuration simplifies installation
- · Isolated, grease-lubricated gear drive
- Factory-installed rubber logo cap
- Arc adjustment: movable stops for left/right arc adjustment
- Ratcheting nozzle turret

### **OPERATING SPECIFICATIONS**

- Radius: 32 to 48 m
- Flow: 21.0 to 58.8 m<sup>3</sup>/hr; 350 to 980 l/min
- Operating pressure range: 4.0 to 8.0 bar; 400 to 800 kPa
- Arc setting: 40° to non-reversing 360°
- Speed of rotation: 80 seconds at 6.0 bar; 600 kPa (single 180° sweep)
- Precipitation rate: 45 mm/hr approximately
- Warranty period: 5 years for component parts

ST-1700-V NOZZLE PERFORMANCE DATA



### ST-1700-V

Overall height: 68 cm Pop-up height: 13 cm Top: 33 cm x 39 cm Inlet size: 2" (50 mm) BSP\*

\*Use P/N 241400SP adapter to connect to 2" (50 mm) PVC pipe if needed



**ST-1700-V Valve Tool** P/N 10000100SP For installation and removal of inlet valve



**Snap-Ring Tool** P/N 251000SP



**ST1600/ST1700 Tool** P/N 517600SP For gear-drive installation and removal

31-1/00	- V 140	ZZLE	EKFOKI	VIAITCE	DAIA			
Nozzle		sure	Radius	Flo		Precip	mm/hr	
	bar	kPa	m	m³/hr	l/min		_	
16 •	4.0	400	32.0	21.0	350	41.0	47.3	
10	5.0	500	35.0	22.7	379	37.1	42.8	
Black	6.0	600	37.0	25.9	432	37.8	43.7	
	7.0	700	38.5	28.1	469	38.0	43.9	
	8.0	800	40.0	30.4	508	38.1	43.9	
18 •	4.0	400	34.0	24.3	405	42.0	48.5	
10	5.0	500	36.5	26.1	435	39.2	45.3	
Black	6.0	600	38.5	28.8	481	38.9	44.9	
	7.0	700	40.0	31.1	519	38.9	44.9	
	8.0	800	42.0	33.8 564		38.3	44.3	
20 •	4.0	400	35.0	30.4	508	49.7	57.4	
20 •	5.0	500	39.0	34.3	572	45.1	52.0	
Black	6.0	600	41.0	37.2	621	44.3	51.1	
	7.0	700	43.0	40.9	681	44.2	51.0	
	8.0	800	45.0	44.0	733	43.4	50.1	
22 •	4.0	400	35.5	34.9	582	55.4	63.9	
<b>ZZ</b> •	5.0	500	39.0	39.5	659	51.9	60.0	
Black	6.0	600	43.0	42.9	715	46.4	53.6	
	7.0	700	45.5	46.8	780	45.2	52.2	
	8.0	800	47.0	50.4	841	45.7	52.7	
24 ●	4.0	400	37.0	40.2	671	58.8	67.9	
Z4 U	5.0	500	40.5	45.6	761	55.6	64.2	
Black	6.0	600	44.0	50.4	840	52.1	60.1	
	7.0	700	47.0	54.5	908	49.3	57.0	

48.0

58.9

# STG-900-KIT-B / STG-900

This top-quality, long-range system is specially designed for synthetic turf sports field irrigation.

### **KEY BENEFITS**

- Arc setting: 40° to 360°
- QuickCheck™ Arc Mechanism
- Through-the-top arc adjustment
- Water-lubricated gear drive
- Factory-installed rubber logo cap
- Nozzle trajectory: 22.5°

### **OPERATING SPECIFICATIONS**

- Radius: 31.4 m to 36.6 m
- Flow: 16.9 to 20.9 m<sup>3</sup>/hr; 282 to 348 l/min
- Operating pressure range: 6.9 to 8.3 bar; 690 to 830 kPa
- Precipitation rate: 35 mm/hr approximately
- Warranty period: 5 years for component parts

### **USER-INSTALLED OPTIONS**

• Rubber cover kit STG-900: P/N 473900SP



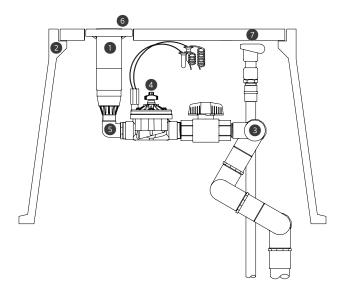
### STG-900\*

Overall height: 36 cm Pop-up height: 8 cm Diameter: 20 cm

Inlet size: 1½" (40 mm) Acme

\*For use with the ST-173026-B Vault

### STG-900-KIT-B



STG-900	STG-900-KIT-B COMPONENTS									
FIGURE	COMPONENTS	QTY	DESCRIPTION							
1	STG-900-83	1	Pop-up, top serviceable, adjustable arc (40°–360°), 1½" (40 mm) Acme inlet							
2	ST-173026-B	1	Composite vault, pre-cast hole for rotor and quick coupler							
3	ST-2008-VA	1	Vertical alignment PVC Swing Joint, seven pivot points, 2" (50 mm) female slip inlet, 1½" (40 mm) female Acme outlet							
4	ST-VBVF-K	1	ICV-151G valve, manifold ball valve, 1½" (40 mm) Acme inlet, 1½" (40 mm) Acme outlet							
5	239800	1	1½" (40 mm) elbow, female Acme to male Acme, connects STG-900 rotor to ST-VBVF-K							
6	473900SP	1	STG-900 rubber cover kit							
7	HQ-5-RC-BSP	1	Quick coupler, 1" BSP inlet, 1¼" outlet for key							

### STG-900 Rotor



### **STG-900 NOZZLE PERFORMANCE DATA**

Nozzle	Pressure		Radius	Flow		Precip mm/hr	
	bar	kPa	m	m³/hr	l/min		
73	7.0	700	31.4	16.9	282	34.3	39.6
/5	7.5	750	33.2	17.5	291	31.7	36.6
Orange	8.0	800	35.1	18.1	301	29.4	34.0
83	7.0	700	34.1	19.1	319	32.8	37.9
05	7.5	750	35.4	20.0	333	32.0	37.0
Tan	8.0	800	36.6	20.9	348	31.2	36.1

### Notes:

All precipitation rates are calculated for  $180^{\circ}$  operation. For the precipitation rate of a  $360^{\circ}$  sprinkler, divide by 2.

Requires minimum 7.0 bar; 700 kPa dynamic pressure supplied to the Swing Joint inlet.

### **ST SWING JOINTS**

Multiaxis 22 bar; 2,200 kPa rated vertical alignment PVC Swing Joints with seven O-ring sealed pivot points allow the rotor to be perfectly placed within the ST Vault's cover set opening.

**ST-2008-VA:** 2" (50 mm) for STG-900

Inlet: 2" (50 mm) slip\* Outlet: 1½" (40 mm) Acme

\*Use P/N 241400 adapter to connect to male BSP threads

### Adapter fitting 239300

Connects 239800 elbow fitting to STG-900 Acme inlet rotor



### **ST VALVE SETS**

Heavy-duty control valves are configured to complement the ST Rotors and ST Vaults.

ST-VBVF-K: for STG-900-KIT-B

Valve: 1½" (40 mm) NPT ICV Ball valve: 22 bar (2,200 kPa) rating

Inlet: 1½" (40 mm) Acme Outlet: 1½" (40 mm) Acme

Low-pressure-loss design:~0.7~bar;~70~kPa

at 22.7 m $^3$ /hr; 378 l/min from Swing Joint inlet through to rotor

Includes: 1½" (40 mm) connection fittings

### **ST VAULTS**

Heavy-duty tapered fibreglass and polymer-concrete construction with pre-cast holes for rotor and quick-coupler valve.

# ST-173026-B for STG-900-KIT-B includes 50 mm thick, 3-piece cover set

Main cover: 43 cm x 76 cm Overall height: 66 cm Body weight: 47 kg Total weight: 73 kg Base pad: 68 cm x 104 cm Quick-access ports: 1





All ST Vaults include convenient quick-access ports. Quick couplers provide a convenient source of water for washing down spills and water-soluble paint. The integrated in-vault design eliminates the need for additional quick-coupler enclosures.

1 Quick Coupler

# ST-1600-KIT-B / ST-1600-HS-B

This all-in-one solution offers unmatched cleaning, cooling, and flushing capabilities to prepare synthetic sports fields for play.

### **KEY BENEFITS**

- · Nozzle choices: 6
- Standard nozzle: #20
- Nozzle range: #16 to #26
- Nozzle trajectory: 25°
- Isolated, grease-lubricated gear drive
- Movable stops (left and right) arc adjustment
- Arc setting: 40° to non-reversing 360°
- · Ratcheting nozzle turret
- Adjustable speed of rotation: 0 to 65 seconds (high-speed models, 180° at 8 bar; 800 kPa)



### ST-1600-HS-B (High-Speed)

Overall height: 57 cm Pop-up height: 13 cm Diameter: 36 cm Inlet size: 2" (50 mm) BSP\*

\* Use P/N 241400SP adapter to 2" (50 mm) PVC pipe if needed



**ST1600/ST1700 Tool** P/N 517600SP For gear-drive installation and removal

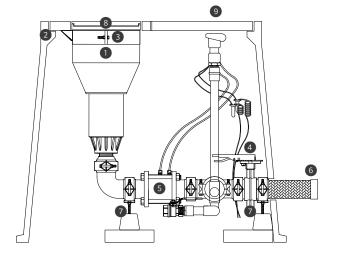
### **OPERATING SPECIFICATIONS**

- Radius: 32.5 to 50.3 m
- Flow: 21.8 to 74.2 m³/hr; 364 to 1,237 l/min
- Operating pressure range: 4.0 to 8.0 bar; 400 to 800 kPa
- · Precipitation rate: 60 mm/hr approximately
- Warranty period: 5 years for component parts

### **USER-INSTALLED OPTIONS**

- Simulated concrete cover for attachment for flattened ISB (used with vault): P/N ST-FRP-1600
- ST approved adhesive for attaching artificial turf, track, or ST-FRP-1600 to infill barrier system: P/N ST-ADH-K
- ST-1600 short-radius nozzle kit: P/N 959900
- Adapter, 2" (50 mm) slip x 2" (50 mm) male BSP: P/N 241400SP
- DC-latching solenoid kit: P/N ST-LSA

### ST-1600-KIT-B



ST-1600-KIT-B COMPONENTS									
FIGURE	COMPONENTS	QTY	DESCRIPTION						
1	ST-1600-HS-B	1	High-speed pop-up, adjustable arc (40°-360°), 2" (50 mm) BSP inlet						
2	ST-243636-B	1	Composite vault						
3	ST-BKT-1600	1	Rotor vault hanger and grade adjustment bracket for ST-1600-HS-B rotor						
4	ST-BVF30-K	1	Manifold butterfly valve and Victaulic® coupling fitting kit						
5	ST-V30-KV	1	3" (80 mm) metal control valve, 80 mm grooved Victaulic inlet/ outlet fitting, 91 cm remotely located solenoid and on-off-auto selector manifold						
6	ST-H30-K	1	Stainless steel inlet hose 3" (80 mm) female NPT inlet						
7	ST-SPT-K	2	Adjustable manifold support stand; two required per vault						
8	ST-IBS-1600	1	Infill barrier system rubber cover kit for ST-1600-HS-B rotor						
9	HQ-5-RC-BSP	1	Quick coupler, 1" (25 mm) BSP inlet, 1¼" (32 mm) outlet for key						

Victaulic is a trademark of Victaulic Company.

### ST Infill Barrier System

### ST-IBS-1600

Rubber cover kit with infill barrier system surface area.

### ST Adjustable Hanger Bracket

### ST-BKT-1600

This bracket supports the rotor within the vault and provides vertical elevation adjustments allowing for a perfect surface transition.

### ST Manifold and Isolation Valve

### ST-BVF30-K

Galvanized iron manifold, including 3" (80 mm) fitting, isolation valve, and drain valve.



### ST H-Block Manifold Supports

### ST-SPT-K

Adjustable support stands include a large footprint base made from recycled tire rubber and a 50 mm vertically adjustable support rail (two required under manifold).



### ST Flexible Stainless Inlet Hose

### ST-H30-K

3" (80 mm) ultra-flexible stainless steel corrugated hose with stainless steel support braiding.

### ST Heavy-Duty, Slow-Opening Valve

### ST-V30-KV

 $3^{\circ}$  (80mm) Ultra-low-pressure-loss valve (0.15 bar; 15kPa at 65.0 m³/hr;1082 l/min).Includes on-off-auto selector and solenoid (not shown).

### **ST-1600 NOZZLE PERFORMANCE DATA\***

Nozzle	Pres	sure	Radius	Flo	Flow		mm/hr
	bar	kPa	m	m³/hr	l/min		
16	4.0	400	32.5	21.8	364	41.4	47.8
16 ●	5.0	500	35.0	24.4	406	39.8	45.9
Black	6.0	600	37.0	26.8	446	39.1	45.1
	7.0	700	39.0	28.9	482	38.0	43.9
	8.0	800	41.0	31.2	520	37.1	42.9
18 ●	4.0	400	34.0	24.3	405	42.0	48.6
10	5.0	500	37.0	27.1	452	39.6	45.8
Black	6.0	600	39.0	29.8	496	39.1	45.2
	7.0	700	40.5	32.1	535	39.1	45.2
	8.0	800	43.0	34.8	580	37.6	43.5
20 ●	4.0	400	35.0	32.7	545	53.4	61.7
20 •	5.0	500	39.0	36.5	609	48.1	55.5
Black	6.0	600	43.0	40.1	668	43.4	50.1
	7.0	700	44.0	43.3	721	44.7	51.6
	8.0	800	45.0	46.4	773	45.8	52.9
22 ●	4.0	400	36.0	38.9	649	60.1	69.4
22 •	5.0	500	39.5	43.6	726	55.8	64.5
Black	6.0	600	44.0	47.7	795	49.3	56.9
	7.0	700	47.0	51.5	859	46.7	53.9
	8.0	800	48.0	55.2	920	47.9	55.3
24 ●	4.0	400	37.0	45.9	765	67.1	77.4
	5.0	500	40.5	51.3	855	62.6	72.2
Black	6.0	600	45.0	56.2	937	55.5	64.1
	7.0	700	47.5	60.7	1012	53.8	62.2
	8.0	800	48.7	65.0	1084	54.9	63.3
26 ●	4.0	400	38.4	53.0	883	71.8	82.9
	5.0	500	41.4	59.2	986	68.8	79.5
Black	6.0	600	46.0	64.6	1077	61.0	70.4
	7.0	700	48.7	69.7	1162	58.6	67.7
	8.0	800	50.3	74.2	1237	58.7	67.8

\*All radius measurements are taken at standard rotation speeds. Slowing rotation to the minimum rotation speed will add 3+ metres to the radius.

### **SEAMLESS INTEGRATION**

Blends in perfectly with the surrounding synthetic surface



### **ST VAULTS**

The heavy-duty tapered fibreglass and polymer-concrete construction includes pre-cast holes for the rotor, quick-coupler valve, and remote manifold assembly.

Quick couplers provide a convenient source of water for washing down spills and water-soluble paint. The integrated in-vault design eliminates the need for additional quick-coupler enclosures.

The ST-V30-KV valve kit includes a remotely located on-off-auto selector and solenoid manifold assembly. These convenient features bring valve manual control functions and solenoid splice connections closer to the surface for easy access.

### ST-243636-B: includes 76 mm thick, 4-piece PC cover set



1 Quick Coupler 2 On-Off-Auto Selector





# **ADVANCED**FEATURES

### **AUTOMATIC MATCHED PRECIPITATION**

MP Rotator Nozzles adjust the flow rate through the nozzle as the radius and arc are changed, resulting in the same matched precipitation rate regardless of the nozzle setting.

### **DOUBLE-POP FEATURE**

MP Rotator Nozzles pop up from their protected position only after the riser is fully extended, providing superior defense against dirt and debris.





### HIGH DISTRIBUTION UNIFORMITY

The multiple streams of the MP Rotator target all areas of the landscape evenly, resulting in superior uniformity over traditional spray nozzles and better wind resistance.

### **LOW PRECIPITATION RATE**

Since the majority of soils have a water infiltration rate of less than 25 mm/hr, irrigating at a low precipitation rate is essential to reduce runoff and increase efficiency.

The Standard MP Rotator applies water at 10 mm/hr, while the MP800 has a precipitation rate of 20 mm/hr. Either choice will avoid runoff, save water, and prevent erosion.

### STANDARD

MP Rotator



### 2.5-10.7 m

- Maximum water efficiency
- Slowest precipitation rate

### MP800



### 1.8-4.9 m

- Small spaces
- Tight water windows

### MP STRIPS



### 1.5 m wide

- Rectangular spaces
- Pair with either option

# **ECO-ROTATOR**

This compact sprinkler comes with a pre-installed MP Rotator® Nozzle that provides up to 30% more water savings over traditional spray nozzles.

### **KEY BENEFITS**

- · Automatic matched precipitation for simplified irrigation design and flexibility
- · High distribution uniformity for a healthy landscape and maximum water efficiency
- Double-pop feature protects the nozzle from external debris
- Large inlet filter screen protects the nozzle from internal debris in the system
- Heavy-duty spring for consistent riser retraction

### **ADDITIONAL FEATURES**

- · Wind-resistant, multi-stream technology prevents misting
- For vandal resistance, the arc is adjustable only when the MP Rotator is running
- · Colour-coded for easy field identification
- Two-piece ratcheting riser

### **OPERATING SPECIFICATIONS**

- · Low precipitation rate
- Radius range: 1.8 to 9.1 m
- Operational pressure range: 1.7 to 3.8 bar; 170 to 380 kPa
- Recommended operating pressure: 2.8 bar; 280 kPa
- · Warranty period: 2 years

### **USER-INSTALLED OPTION**

 Drain Check Valve (up to 2 m of elevation; P/N 462237SP)





### Eco-Rotator Retracted height: 18 cm Pop-up height: 10 cm Exposed diameter: 3 cm Inlet size: ½"

### **ECO-ROTATOR PERFORMANCE DATA**

### ECO-04 MP800SR

Radius: 1.8 to 3.5 m

Adjustable Arc and Full-Circle

Orange and Grey: 90° to 210°Lime Green and Grey: 360°

1	MAX RA	ADIUS		Lillie	OI CCIT	anu Gre	y. 500		MINR	ADIUS	
	Arc	Pres	sure	Radius	Fle	ow	Precip	. mm/hr	Radius	Fle	ow
		bar	kPa	m	m³/hr	I/min			m	$m^{3/}hr$	I/min
		2.1	200	2.6	0.04	0.61	22	25	1.8	0.03	0.49
	90°	2.5	250	2.9	0.04	0.72	21	24	2.1	0.03	0.55
		2.8	280	3.1	0.05	0.87	21	24	2.4	0.04	0.61
		3.0	300	3.4	0.06	0.95	20	23	2.4	0.04	0.68
		3.5	350	3.5	0.06	1.02	20	23	2.7	0.04	0.72
		3.8	380	3.5	0.06	1.06	20	23	3.0	0.05	0.76
	1000	2.1	200	2.6	0.07	1.21	22	25	1.8	0.06	0.98
	180°	2.5	250	2.8	0.08	1.40	21	24	2.1	0.07	1.10
		2.8	280	3.0	0.10	1.59	21	24	2.4	0.07	1.21
		3.0	300	3.3	0.10	1.74	19	22	2.4	0.08	1.36
		3.5	350	3.4	0.11	1.82	19	22	2.7	0.09	1.44
		3.8	380	3.5	0.11	1.89	18	21	3.0	0.09	1.51
	2100	2.1	200	2.6	0.08	1.40	22	25	1.8	0.07	1.15
	210°	2.5	250	2.8	0.10	1.67	22	25	2.1	0.08	1.28
		2.8	280	3.0	0.11	1.85	21	24	2.4	0.08	1.41
		3.0	300	3.2	0.12	2.01	20	23	2.4	0.10	1.59
		3.5	350	3.4	0.13	2.12	19	22	2.7	0.10	1.68
		3.8	380	3.5	0.13	2.20	18	21	3.0	0.11	1.77
	2600	2.1	200	2.6	0.14	2.38	22	25	1.8	0.11	1.78
-	360°	2.5	250	2.8	0.16	2.65	20	23	2.1	0.12	1.97
		2.8	280	3.0	0.18	2.95	20	23	2.4	0.13	2.12
		3.0	300	3.1	0.19	3.22	20	23	2.4	0.13	2.23
		3.5	350	3.3	0.20	3.33	19	21	2.7	0.14	2.38
_		3.8	380	3.5	0.22	3.71	18	21	3.0	0.16	2.65

**Bold** = Recommended pressure

ECO-ROTATOR	
Model	Description
ECO-04-800SR-90	10 cm pop-up, MP800SR 1.8 to 3.5 m radius, adjustable from 90° to 210°
ECO-04-800SR-360	10 cm pop-up, MP800SR 1.8 to 3.5 m radius, 360°
ECO-04-1090	10 cm pop-up, MP1000 2.5 to 4.5 m radius, adjustable from 90° to 210°
ECO-04-10360	10 cm pop-up, MP1000 2.5 to 4.5 m radius, 360°
ECO-04-2090	10 cm pop-up, MP2000 4.0 to 6.4 m radius, adjustable from 90° to 210° $$
ECO-04-20360	10 cm pop-up, MP2000 4.0 to 6.4 m radius, 360°
ECO-04-3090	10 cm pop-up, MP3000 6.7 to 9.1 m radius, adjustable from 90° to 210°
ECO-04-30360	10 cm pop-up, MP3000 6.7 to 9.1 m radius, 360°





			ECO-04 MP1000 Radius: 2.5 to 4.5 m Adjustable Arc and Full-Circle  Maroon: 90° to 210°  Olive: 360°					Radius: Adjusta • Blac	Radius: 4.0 to 6.4 m Adjustable Arc and Full-Circle ● Black: 90° to 210°					ECO-04 MP3000 Radius: 6.7 to 9.1 m Adjustable Arc and Full-Circle Blue: 90° to 210° Grey: 360°				
Arc		ssure	Radius	Flow m <sup>3</sup> /hr	Flow I/min	Precip	mm/hr	Radius	Flow m³/hr	Flow I/min	Precip i		Radius	Flow m³/hr	Flow I/min	Precip	mm/hr	
	bar	kPa	m				_	m				40	m				12	
90°	1.7 2.0	170 200	3.7	0.04	- 0.64	- 11	- 13	5.2 5.5	0.08	1.29 1.44	12 12	13 13	7.6 8.2	0.16 0.17	2.69 2.88	11 10	13 12	
	2.5	250	4.0	0.04	0.64	11	13	5.5	0.09	1.44	12	13	8.2 8.5	0.17	2.88 3.11	10	12	
	2.5 <b>2.8</b>	280	4.0 <b>4.1</b>	0.04	0.72	11	13	6.1	0.09	1.63	11	12	9.1	0.19	3.26	10	11	
	3.0	300	4.3	0.05	0.87	11	13	6.4	0.10	1.74	10	12	9.1	0.20	3.41	10	12	
	3.5	350	4.5	0.06	0.95	11	13	6.4	0.11	1.78	11	12	9.1	0.22	3.60	11	12	
	3.8	380	4.5	0.06	1.02	12	14	6.4	0.11	1.82	11	12	9.1	0.23	3.83	11	13	
4000	1.7	170	-	-	-	-	-	4.9	0.14	2.27	11	13	7.6	0.33	5.46	11	13	
180°	2.0	200	3.7	0.08	1.29	11	13	5.2	0.15	2.43	11	13	8.2	0.36	5.99	11	12	
	2.5	250	4.0	0.09	1.44	11	13	5.5	0.16	2.69	11	12	8.5	0.39	6.44	11	12	
	2.8	280	4.1	0.10	1.59	11	13	5.8	0.18	2.92	11	12	9.1	0.42	6.90	10	12	
	3.0	300	4.3	0.10	1.67	11	13	6.1	0.20	3.22	11	12	9.1	0.44	7.31	11	12	
	3.5	350	4.5	0.12	1.90	11	13	6.4	0.21	3.45	10	12	9.1	0.47	7.73	11	13	
	3.8	380	4.5	0.12	1.93	12	13	6.4	0.22	3.60	11	12	9.1	0.49	8.07	12	14	
210°	1.7	170	-	-	-	-	-	4.9	0.17	2.73	12	14	7.6	0.39	6.37	11	13	
210	2.0	200	3.7	0.09	1.52	12	13	5.2	0.17	2.84	11	13	8.2	0.42	6.97	11	12	
	2.5	250	4.0	0.10	1.71	11	13	5.5	0.19	3.07	11	12	8.5	0.46	7.54	11	13	
	2.8	280	4.1	0.11	1.86	11	13	5.8	0.20	3.26	10	12	9.1	0.49	8.03	10	12	
	3.0	300 350	4.3 4.5	0.12 0.13	1.93 2.16	11 11	13 13	6.1 6.4	0.21	3.45 3.71	10 9	11 11	9.1 9.1	0.52 0.55	8.53 8.98	11 11	12 13	
	3.5	380	4.5	0.13	2.16	11	13	6.4	0.23	3.71	10	11 11	9.1	0.55	8.98 9.44	12	13 14	
	1.7	170	4.5	- 0.14	2.24	- 11	-	4.9	0.23	4.55	11	13	7.6	0.57	10.92	11	13	
360°	2.0	200	3.7	0.16	2.62	12	13	5.2	0.28	4.85	11	13	8.2	0.00	11.94	11	12	
	2.5	250	4.0	0.18	2.92	11	13	5.5	0.23	5.19	10	12	8.5	0.72	12.89	11	12	
	2.8	280	4.1	0.19	3.18	11	13	5.8	0.34	5.61	10	12	9.1	0.84	13.80	10	12	
_	3.0	300	4.3	0.20	3.34	11	13	6.1	0.36	5.95	10	11	9.1	0.89	14.63	11	12	
	3.5	350	4.5	0.23	3.71	11	13	6.4	0.39	6.37	9	11	9.1	0.94	15.43	11	13	
	3.8	380	4.5	0.23	3.83	11	13	6.4	0.40	6.59	10	11	9.1	0.98	16.18	12	14	

**Bold** = Recommended pressure

# **MP ROTATOR®**

Radius: 2.5 to 10.7 m



The MP Rotator Nozzle is the most trusted high-efficiency solution on the market, offering up to 30% water savings over traditional spray nozzles.

### **KEY BENEFITS**

- Lowest precipitation rate in the industry of approximately 10 mm/hr
- · Matched precipitation for simplified irrigation design and flexibility
- Double-pop feature protects the nozzle from external debris
- High distribution uniformity for a healthy landscape with maximum water efficiency

### **ADDITIONAL FEATURES**

- · Wind-resistant, multi-stream technology prevents misting
- For vandal resistance, the arc is adjustable only when the MP Rotator is running
- · Removable filter screen prevents nozzle from clogging
- · Colour-coded for easy identification

### **OPERATING SPECIFICATIONS**

- · Radius reduction up to approximately 25% on all models
- · Recommended operating pressure: 2.8 bar; 280 kPa
- Minimum radius setting achieved at 2.1 bar; 210 kPa
- Warranty period: 3 years

### **OPTIONS**

- Pair with Pro-Spray<sup>™</sup> PRS40 Sprinkler Body for pressure regulation to 2.8 bar; 280 kPa for nominal radius settings
- Pair with Pro-Spray PRS30 Sprinkler Body for pressure regulation to 2.1 bar;210 kPa for minimum radius settings

### MP ROTATOR - SPECIFICATION BUILDER: ORDER 1 + 2 Model Options MP1000-90 = 2.5 to 4.5 m radius,(blank) = No option adjustable from 90° to 210° **MP1000-210** = 2.5 to 4.5 m radius, HT = Male threaded version adjustable from 210° to 270° (Not available in 3500 and 1000-210) **MP1000-360** = $2.5 \text{ to } 4.5 \text{ m radius, } 360^{\circ}$ MP2000-90 = 4.0 to 6.4 m radius,adjustable from 90° to 210° MP2000-210 = 4.0 to 6.4 m radius,adjustable from 210° to 270° $MP2000-360 = 4.0 \text{ to } 6.4 \text{ m radius, } 360^{\circ}$ MP3000-90 = 6.7 to 9.1 m radius,adjustable from 90° to 210° MP3000-210 = 6.7 to 9.1 m radius,adjustable from 210° to 270° $MP3000-360 = 6.7 \text{ to } 9.1 \text{ m radius}, 360^{\circ}$ MP3500-90 = 9.4 to 10.7 m radius,adjustable from 90° to 210° **MPLCS-515** = Left corner strip, $1.5 \text{ m} \times 4.6 \text{ m}$ MPRCS-515 = Right corner strip, 1.5 m x 4.6 m MPSS-530 = Side strip, 1.5 m x 9.1 mMP-CORNER = 2.5 to 4.5 m radius, adjustable from 45° to 105°

### MP1000: 2.5 to 4.5 m radius







MP1000-90 90° to 210°

MP1000-210 210° to 270°

MP1000-360 360°

### MP2000: 4.0 to 6.4 m radius







MP2000-90 90° to 210°

MP2000-210 210° to 270°

MP2000-360 360°

### MP3000: 6.7 to 9.1 m radius







MP3000-90 90° to 210°

MP3000-210 210° to 270°

MP3000-360 360°

### MP3500: 9.4 to 10.7 m radius



MP3500-90 90° to 210°

### MP1000

Radius: 2.5 to 4.5 m Adjustable Arc and Full-Circle

- Maroon: 90° to 210°
- Lt. Blue: 210° to 270°
- Olive: 360°

### MP2000

Radius: 4.0 to 6.4 m Adjustable Arc and Full-Circle

- Black: 90° to 210°
- Green: 210° to 270°
- Red: 360°

### MP3000

Radius: 6.7 to 9.1 m Adjustable Arc and Full-Circle

- Blue: 90° to 210°
- Yellow: 210° to 270°
- Grey: 360°

	• Olive: 360°					● Red: 360°						Grey: 360°					
Arc	Pres	sure	Radius	Flow	Flow	Precip	mm/hr	Radius	Flow	Flow	Precip	mm/hr	Radius	Flow	Flow	Precip	mm/hr
	bar	kPa	m	m³/hr	l/min		<b>A</b>	m	m³/hr	l/min		$\blacktriangle$	m	m³/hr	l/min		$\blacktriangle$
000	1.7	170	-	-	-	-	-	5.2	0.08	1.29	12	13	7.6	0.16	2.69	11	13
90°	2.0	200	3.7	0.04	0.64	11	13	5.5	0.09	1.44	12	13	8.2	0.17	2.88	10	12
	2.5	250	4.0	0.04	0.72	11	13	5.8	0.09	1.52	11	13	8.5	0.19	3.11	10	12
	2.8	280	4.1	0.05	0.80	11	13	6.1	0.10	1.63	11	12	9.1	0.20	3.26	10	11
	3.0	300	4.3	0.05	0.87	11	13	6.4	0.11	1.74	10	12	9.1	0.21	3.41	10	12
	3.5	350	4.5	0.06	0.95	11	13	6.4	0.11	1.78	11	12	9.1	0.22	3.60	11	12
	3.8	380	4.5	0.06	1.02	12	14	6.4	0.11	1.82	11	12	9.1	0.23	3.83	11	13
180°	1.7	170	-	-	-	-	-	4.9	0.14	2.27	11	13	7.6	0.33	5.46	11	13
100	2.0	200	3.7	0.08	1.29	11	13	5.2	0.15	2.43	11	13	8.2	0.36	5.99	11	12
	2.5	250	4.0	0.09	1.44	11	13	5.5	0.16	2.69	11	12	8.5	0.39	6.44	11	12
	2.8	280	4.1	0.10	1.59	11	13	5.8	0.18	2.92	11	12	9.1	0.42	6.90	10	12
	3.0	300	4.3	0.10	1.67	11	13	6.1	0.20	3.22	11	12	9.1	0.44	7.31	11	12
	3.5	350	4.5	0.12	1.90	11	13	6.4	0.21	3.45	10	12	9.1	0.47	7.73	11	13
	3.8	380	4.5	0.12	1.93	12	13	6.4	0.22	3.60	11	12	9.1	0.49	8.07	12	14
210°	1.7	170	-	-	-	-	-	4.9	0.17	2.73	12	14	7.6	0.39	6.37	11	13
210	2.0	200	3.7	0.09	1.52	12	13	5.2	0.17	2.84	11	13	8.2	0.42	6.97	11	12
	2.5	250	4.0	0.10	1.71	11	13	5.5	0.19	3.07	11	12	8.5	0.46	7.54	11	13
	2.8	280	4.1	0.11	1.86	11	13	5.8	0.20	3.26	10	12	9.1	0.49	8.03	10	12
	3.0	300	4.3	0.12	1.93	11	13	6.1	0.21	3.45	10	11	9.1	0.52	8.53	11	12
	3.5	350	4.5	0.13	2.16	11	13	6.4	0.23	3.71	9	11	9.1	0.55	8.98	11	13
	3.8	380	4.5	0.14	2.24	11	13	6.4	0.23	3.83	10	11	9.1	0.57	9.44	12	14
270°	1.7	170	-	-	-	-	-	4.9	0.20	3.30	11	13	7.6	0.50	8.30	12	13
2/0	2.0	200	3.7	0.11	1.82	11	12	5.2	0.22	3.60	11	12	8.2	0.55	8.98	11	12
	2.5	250	4.0	0.12	2.01	10	12	5.5	0.24	3.90	10	12	8.5	0.59	9.66	11	12
	2.8	280	4.1	0.14	2.39	11	13	5.8	0.25	4.17	10	12	9.1	0.63	10.35	10	12
	3.0	300	4.3	0.15	2.54	11	13	6.1	0.27	4.43	10	11	9.1	0.66	10.95	11	12
	3.5	350	4.5	0.17	2.73	11	13	6.4	0.28	4.66	9	11	9.1	0.70	11.60	11	13
	3.8	380	4.5	0.17	2.84	11	13	6.4	0.30	4.93	10	11	9.1	0.74	12.20	12	14
360°	1.7	170	-	-	-	-	-	4.9	0.28	4.55	11	13	7.6	0.66	10.92	11	13
300	2.0	200	3.7	0.16	2.62	12	13	5.2	0.29	4.85	11	13	8.2	0.72	11.94	11	12
	2.5	250	4.0	0.18	2.92	11	13	5.5	0.32	5.19	10	12	8.5	0.78	12.89	11	12
	2.8	280	4.1	0.19	3.18	11	13	5.8	0.34	5.61	10	12	9.1	0.84	13.80	10	12
	3.0	300	4.3	0.20	3.34	11	13	6.1	0.36	5.95	10	11	9.1	0.89	14.63	11	12
	3.5	350	4.5	0.23	3.71	11	13	6.4	0.39	6.37	9	11	9.1	0.94	15.43	11	13
	3.8	380	4.5	0.23	3.83	11	13	6.4	0.40	6.59	10	11	9.1	0.98	16.18	12	14

**Bold** = Optimal pressure for the MP Rotator is 2.8 bar; 280 kPa. This can easily be achieved by using the MP Rotator with the Pro-Spray PRS40, pressure-regulated spray body at 2.8 bar; 280 kPa.

### Works best with Pro-Spray PRS40





Smart Approved

**Smart WaterMark** Recognised as a responsible water-saving tool

### Compatible with:



Pro-Spray PRS40 Page 71

For Pro-Spray PRS40 information, see page 71

### MP3500

Radius: 9.4 to 10.7 m Adjustable Arc

Light Brown: 90° to 210°

Arc	Pr	essure	Radius	Flow	Flow	Precip	. mm/hr
	bar	kPa	m	m³/hr	l/min		<b>A</b>
000	1.7	170	10.1	0.24	3.94	9	11
90°	2.0	200	10.4	0.26	4.28	10	11
	2.5	250	10.4	0.28	4.58	10	12
	2.8	280	10.7	0.29	4.84	10	12
	3.0	300	10.7	0.31	5.22	11	13
	3.5	350	10.7	0.33	5.41	11	13
	3.8	380	10.7	0.34	5.68	12	14
180°	1.7	170	10.1	0.50	8.36	10	11
100	2.0	200	10.4	0.51	8.48	9	11
	2.5	250	10.4	0.60	10.03	11	13
	2.8	280	10.7	0.65	10.83	11	13
	3.0	300	10.7	0.70	11.73	12	14
	3.5	350	10.7	0.73	12.15	13	15
	3.8	380	10.7	0.75	12.41	13	15
210°	1.7	170	10.1	0.59	9.80	10	12
210	2.0	200	10.4	0.65	10.75	10	12
	2.5	250	10.4	0.70	11.66	11	13
	2.8	280	10.7	0.75	12.45	11	13
	3.0	300	10.7	0.80	13.40	12	14
	3.5	350	10.7	0.85	14.23	13	15
	3.8	380	10.7	0.90	14.91	13	16

### MP3500



**Bold** = Optimal pressure for the MP Rotator is 2.8 bar; 280 kPa. This can easily be achieved by using the MP Rotator with the Pro-Spray PRS40, pressure-regulated spray body at 2.8 bar; 280 kPa.

### **MP ROTATOR PERFORMANCE DATA**

- MPLCS-515: Ivory, MP Left Corner Strip
- MPRCS-515: Copper, MP Right Corner Strip
- MPSS-530: Brown, MP Side Strip

	Pres	ssure		Radius	Flow	Flow
	bar	kPa		m	m³/hr	l/min
	1.7	170		1.1 x 4.2	0.04	0.67
MP Left	2.0	200		1.2 x 4.3	0.04	0.72
Corner	2.5	250		1.4 x 4.5	0.05	0.79
Strip	2.8	280		1.5 x 4.6	0.05	0.84
51115	3.0	300		1.6 x 4.7	0.06	0.87
	3.5 350		1.7 x 4.8	0.06	0.94	
	3.8	380		1.8 x 4.9	0.06	0.99
	1.7	170		1.1 x 4.2	0.04	0.67
<b>MP Right</b>	2.0	200		1.2 x 4.3	0.04	0.72
Corner	2.5	250	1.4 x 4.5		0.05	0.79
Strip	2.8	280		1.5 x 4.6	0.05	0.84
эшр	3.0	300		1.6 x 4.7	0.05	0.87
	3.5	350		1.7 x 4.8	0.06	0.94
	3.8	380		1.8 x 4.9	0.06	0.99
	1.7	170		1.1 x 8.3	0.08	1.34
MP Side	2.0	200		1.2 x 8.6	0.09	1.43
Strip	2.5	250		1.4 x 8.9	0.09	1.57
- ti ip	2.8	280		1.5 x 9.1	0.10	1.66
	3.0	300		1.6 x 9.3	0.10	1.72
	3.5	350		1.7 x 9.6	0.11	1.87
	3.8	380		1.8 x 9.9	0.12	1.96

### **MP Strips**



**MPLCS-515** Left Corner Strip 1.5 x 4.6 m



MPRCS-515 Right Corner Strip 1.5 x 4.6 m



MPSS-530 Side Strip 1.5 x 9.1 m



### Notes:

To match the precipitation rate of Standard MP Rotator models, use single-row or triangular spacing. To match the MP800, use rectangular spacing.

See page 242 for precipitation rate calculation.

### MP Corner

Radius: 2.5 to 4.5 m Adjustable Arc

Turquoise: 45° to 105°

Arc	Pres	sure	Radius	Flow	Flow
	bar	kPa	m	m³/hr	I/min
45°	1.7	170			
45	2.0	200	3.5	0.04	0.61
	2.5	250	4.0	0.04	0.68
	2.8	280	4.1	0.04	0.70
	3.0	300	4.3	0.04	0.73
	3.5	350	4.4	0.05	0.78
	3.8	380	4.5	0.05	0.81
000	1.7	170	3.2	0.07	1.15
90°	2.0	200	3.5	0.08	1.27
	2.5	250	4.0	0.08	1.40
	2.8	280	4.1	0.09	1.44
	3.0	300	4.3	0.09	1.57
	3.5	350	4.4	0.10	1.67
	3.8	380	4.5	0.10	1.73
105°	1.7	170	3.2	0.08	1.34
105	2.0	200	3.5	0.09	1.48
	2.5	250	4.0	0.10	1.63
	2.8	280	4.1	0.10	1.70
	3.0	300	4.3	0.11	1.83
	3.5	350	4.4	0.12	1.94
	3.8	380	4.5	0.12	2.00

### MP Corner



**MP-CORNER** Corner 2.5 to 4.5 m

### Male Threaded



**MP-HT** Male Threaded





**MPTOOL** Adjusts all MP Rotator Nozzles



MPSTICK
Snaps onto any length of
1" (25 mm) PVC to allow
standing adjustment.
PVC pipe not included.

### MP Corner



### MP Tool for easy adjustments



# MP ROTATOR® 800

Radius: 1.8 to 4.9 m

20 mm/hr

The MP800 offers a higher precipitation rate perfect for small spaces and spray retrofits.

### **KEY BENEFITS**

- Precipitation rate of approximately 20 mm/hr for spray retrofit applications
- Automatic matched precipitation for simplified irrigation design and flexibility
- Double-pop feature protects the nozzle from external debris
- High distribution uniformity for a healthy landscape with maximum water efficiency

### **ADDITIONAL FEATURES**

- · Wind-resistant, multi-stream technology prevents misting
- For vandal resistance, the arc is adjustable only when the MP Rotator is running
- · Removable filter screen prevents nozzle clogging
- Colour-coded for easy identification

### **OPERATING SPECIFICATIONS**

- Radius reduction up to approximately 25% on all models
- · Recommended operating pressure: 2.8 bar; 280 kPa
- · Minimum radius setting achieved at 2.1 bar; 210 kPa
- · Filtration recommended on dirty water applications
- · Warranty period: 3 years

### **OPTIONS**

- Pair with Pro-Spray™ PRS40 Sprinkler Body for pressure regulation to 2.8 bar; 280 kPa for nominal radius settings
- Pair with Pro-Spray PRS30 Sprinkler Body for pressure regulation to 2.1 bar; 210 kPa for minimum radius settings

### MP800SR: 1.8 m to 3.5 m radius





**MP800SR-90** 90° to 210°

**MP800SR-360** 360°

### MP815: 2.5 m to 4.9 m radius







**MP815-90** 90° to 210°

**MP815-210** 210° to 270°

**MP815-360** 360°

### Compatible with:





HY Filter Page 163

PRS30 and PRS40 Page 70 and Page 71

### MP800SR-90



### MP815-90



### MP800SR

Radius: 1.8 to 3.5 m

Adjustable Arc and Full-Circle

Orange and Grey: 90° to 210°

Lime Green and Grey: 360°

MAXI	RADIUS	5						MINR	RADIUS	
Arc	Pres	sure	Radius	FI	ow	Precip	. mm/hr	Radius	Fle	ow
	bar	kPa	m	m³/hr	l/min			m	$m^{3/}hr$	I/min
000	2.1	200	2.6	0.04	0.61	22	25	1.8	0.03	0.49
90°	2.5	250	2.9	0.04	0.72	21	24	2.1	0.03	0.55
	2.8	280	3.1	0.05	0.87	21	24	2.4	0.04	0.61
	3.0	300	3.4	0.06	0.95	20	23	2.4	0.04	0.68
	3.5	350	3.5	0.06	1.02	20	23	2.7	0.04	0.72
	3.8	380	3.5	0.06	1.06	20	23	3.0	0.05	0.76
1000	2.1	200	2.6	0.07	1.21	22	25	1.8	0.06	0.98
180°	2.5	250	2.8	0.08	1.40	21	24	2.1	0.07	1.10
	2.8	280	3.0	0.10	1.59	21	24	2.4	0.07	1.21
	3.0	300	3.3	0.10	1.74	19	22	2.4	0.08	1.36
	3.5	350	3.4	0.11	1.82	19	22	2.7	0.09	1.44
	3.8	380	3.5	0.11	1.89	18	21	3.0	0.09	1.51
2100	2.1	200	2.6	0.08	1.40	22	25	1.8	0.07	1.15
210°	2.5	250	2.8	0.10	1.67	22	25	2.1	0.08	1.28
	2.8	280	3.0	0.11	1.85	21	24	2.4	0.08	1.41
	3.0	300	3.2	0.12	2.01	20	23	2.4	0.10	1.59
	3.5	350	3.4	0.13	2.12	19	22	2.7	0.10	1.68
	3.8	380	3.5	0.13	2.20	18	21	3.0	0.11	1.77
2609	2.1	200	2.6	0.14	2.38	22	25	1.8	0.11	1.78
360°	2.5	250	2.8	0.16	2.65	20	23	2.1	0.12	1.97
	2.8	280	3.0	0.18	2.95	20	23	2.4	0.13	2.12
	3.0	300	3.1	0.19	3.22	20	23	2.4	0.13	2.23
	3.5	350	3.3	0.20	3.33	19	21	2.7	0.14	2.38
	3.8	380	3.5	0.22	3.71	18	21	3.0	0.16	2.65

 ${f Bold} = {\sf Optimal}\ {\sf pressure}\ {\sf for}\ {\sf the}\ {\sf MP}\ {\sf Rotator}\ {\sf is}\ 2.8\ {\sf bar};\ 280\ {\sf kPa}.$  This can easily be achieved by using the MP Rotator with the Pro-Spray PRS40, pressure-regulated at 2.8 bar; 280 kPa.

### MP ROTATOR PERFORMANCE DATA

### MP815

Radius: 2.5 to 4.9 m

Adjustable Arc and Full-Circle

- Maroon and Grey: 90° to 210°
  Lt. Blue and Grey: 210° to 270°
- Olive and Grey: 360°

Arc	Pre	ssure	Radius		ow	Precip.	mm/hr
	bar	kPa	m	m³/hr	l/min		
90°	2.1	210	4.3	0.10	1.59	21	24
90	2.5	250	4.5	0.10	1.74	21	24
	2.8	280	4.6	0.11	1.85	21	24
	3.1	310	4.8	0.12	1.97	21	24
	3.5	350	4.9	0.12	2.08	21	24
	3.8	380	4.9	0.13	2.20	22	25
1000	2.1	210	4.0	0.17	2.84	21	25
180°	2.5	250	4.3	0.20	3.26	21	24
	2.8	280	4.5	0.21	3.52	21	24
	3.1	310	4.6	0.22	3.63	21	24
	3.5	350	4.8	0.24	4.01	21	24
	3.8	380	4.9	0.25	4.20	21	24
2100	2.1	210	4.0	0.20	3.33	21	25
210°	2.5	250	4.3	0.22	3.63	20	23
	2.8	280	4.5	0.25	4.16	21	24
	3.1	310	4.6	0.26	4.39	21	25
	3.5	350	4.8	0.28	4.69	21	24
	3.8	380	4.9	0.30	4.92	21	24
2700	2.1	210	4.0	0.26	4.31	22	25
270°	2.5	250	4.3	0.28	4.69	20	23
	2.8	280	4.5	0.32	5.30	21	24
	3.1	310	4.6	0.33	5.56	21	24
	3.5	350	4.8	0.35	5.83	20	23
	3.8	380	4.9	0.37	6.09	20	23
2000	2.1	210	4.0	0.35	5.75	22	25
360°	2.5	250	4.3	0.39	6.43	21	24
	2.8	280	4.5	0.42	7.08	21	24
	3.1	310	4.6	0.45	7.57	21	25
	3.5	350	4.8	0.48	8.06	21	24
	3.8	380	4.9	0.51	8.55	21	25

# **MP STAKE**

Models: Standard and Pressure-Regulating Staking Kits

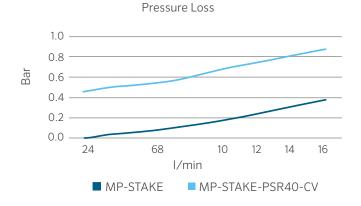
Designed for easy implementation with any water-efficient MP Rotator Nozzle, MP Stake Kits come preassembled for quick installation in the field.

### **KEY BENEFITS**

- Pair with any high-efficiency MP Rotator Nozzle to simplify temporary irrigation
- Preassembled for fast and easy installation in the field
- Standard kit includes a 66 cm stake, nozzle adapter, 0.345" (9 mm) tubing, and  $\frac{1}{2}$ " threaded male fitting for quick connection
- For maximum water savings, upgrade to a 2.8 bar (280 kPa) pressure regulator and Hunter Check Valve

### **OPERATING SPECIFICATIONS**

• Operational pressure range: 2.1 to 4.8 bar (210 to 480 kPa)





MP-STAKE Total height: 71 cm Male threaded connection: ½"

MP-STAKE-PRS40-CV Total height: 86 cm Male threaded connection: ½"

### Compatible with:



All MP Rotator Nozzles Page 54 and 58



Spray Nozzles Page 74

MP-STAKE MODELS	
Model	Description
MP-STAKE	66 cm stake, 0.345" (9 mm) tubing to ½" male fitting, PROS-00 shrub adapter (total height: 71 cm)
MP-STAKE-PRS40-CV	66 cm stake, 0.345" (9 mm) tubing to ½" male fitting, Hunter Check Valve, PROS-00-PRS40 pressure-regulated shrub adapter (total height: 86 cm)

### MP-STAKE-PRS40-CV Installation





# **ENGINEERED FOR** MAXIMUM EFFICIENCY

### **DURABLE**

With only one moving part, the MP Rotator is built with the highest-quality materials to ensure long-lasting performance in every installation.

### **FLEXIBLE**

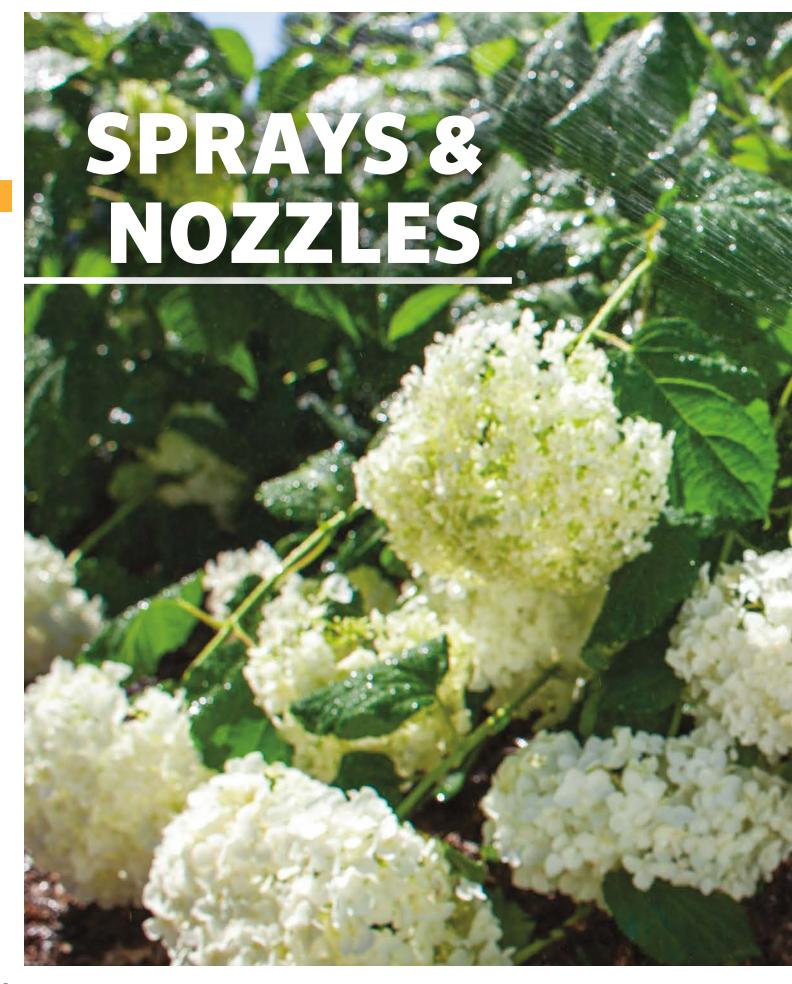
Matched precipitation across 1.5 m wide strips to 10.7 m radius allows the MP Rotator to fit a wide range of landscapes with uniform coverage for healthy plants.

### **EFFICIENT**

The rotating streams of water cut through wind, reduce misting, and distribute water at a slow, even rate that soils can better absorb, preventing runoff.

### **RELIABLE**

With more than 10 years of proven performance with Hunter Industries, the MP Rotator is the most trusted high-efficiency nozzle on the market.





# **SPRAYS**

# ADVANCED FEATURES

### **STRENGTH & DURABILITY**



### **CO-MOULDED WIPER SEAL**

Moulded with two types of chemicaland chlorine-resistant materials, this multi-function wiper seal reduces flow-by, allowing more heads on one zone, and prevents debris from entering the seal, reducing riser stick-ups.

### FLOGUARD™ TECHNOLOGY



In the event of a missing nozzle, FloGuard Technology reduces the flow of water from the riser to a 1.9 l/min (3 m tall) indicator stream, eliminating water waste and preventing landscape erosion while providing a visual indicator for repair.



### **HEAVY-DUTY SPRING**

The industry's strongest spring offers positive retraction under any conditions.



### **CHECK VALVE**

Optional field- or factory-installed check valves eliminate leaks and puddles at the lower heads, protecting landscapes from damage and erosion while reducing water waste.



# PRESSURE-REGULATED TO 2.1 & 2.8 BAR

Pressure-regulated Pro-Spray Sprinkler Bodies optimise the performance of the nozzle, reducing flow rates and preventing misting. The PRS30 (brown) regulates pressures to 2.1 bar; 210 kPa for spray nozzles. The PRS40 (grey) is designed for the efficient MP Rotator Nozzle at 2.8 bar; 280 kPa.

### INDUSTRY'S STRONGEST SPRAY BODY



The Pro-Spray line incorporates a heavy-duty ribbed body and durable cap engineered to withstand the harshest environments, including the rigors of foot traffic and the abuses of heavy machinery. In addition, the buttress thread design provides superior strength in cap-to-body gripping capacity, helping the head to withstand high inlet surge pressures.

### PRO-SPRAY

### COMPETITOR





### **INNOVATIVE SEAL DESIGN**

Pedestrian traffic, landscape equipment, temperature changes, and cycling pressures can cause body caps to loosen. The Pro-Spray caps can withstand more than one full 360° turn and remain sealed at any pressure, preventing excess runoff.

Pro-Spray: Seal remains intact

Competitor: Significant leaking at the body cap

## **SPRAY BODY COMPARISON CHART**

QUICK SPECS		PS ULTRA	PRO-SPRAY®	PRS30	PRS40
		<u>U</u>			
		Good	Better	Best for Spray Nozzles	
POP-UP HEIGHT	cm	5, 10, 15	Shrub, 5, 7.5, 10, 15, 30	Shrub, 10, 15, 30	Shrub, 10, 15, 30
PRESSURE-REGULATED	bar	N/A	N/A	2.1	2.8
	kPa	N/A	N/A	210	280
FEATURES					
PREINSTALLED NOZZLE		5SS, 8A, 10A, 12A, 15A, 17A	N/A	N/A	N/A
CAP COLOUR		Black	Black	Brown	Grey
CHECK VALVES		Field-Installed	Field-Installed or Factory-Installed	Field-Installed or Factory-Installed	Field-Installed or Factory-Installed
WARRANTY		2 Years	5 Years	5 Years	5 Years
ADVANCED FEATURES					
BODY STYLE		Slim Line	Rugged Body	Rugged Body	Rugged Body
SPRING		Standard	Heavy-Duty	Heavy-Duty	Heavy-Duty
CO-MOULDED WIPER SEAL			•		•
RECLAIMED CAP			•		•
PRESSURE REGULATION					•
FLOGUARD™ TECHNOLOGY					•
APPLICATIONS					
TURFGRASS			•		•
TURFGRASS: TALL MOWING HEIGHT			•		•
SHRUBS: SPRINKLERS ON RISERS					•
SHRUBS: TALL POP-UP SPRINKLERS			•		•
RESIDENTIAL					•
COMMERCIAL/MUNICIPALITIES			•		•
HIGH-TRAFFIC AREAS					•
RECLAIMED WATER			•	•	•

# **PS ULTRA**

The PS Ultra is a compact, slim-line spray sprinkler with the option of preinstalled nozzles for faster installation.

### **KEY BENEFITS**

- · Enhanced cap for more durability, easier handling, and extended riser seal life
- · Large inlet filter screen for increased debris resistance
- · Check valve option eliminates low-head drainage
- Heavy-duty spring for consistent riser retraction

### **ADDITIONAL FEATURES**

- Directional flush plug design for cleaner installation
- Two-piece ratcheting riser
- 5 cm and 10 cm models can retrofit into older style PS models
- · Compatible with all female-threaded nozzles

### **OPERATING SPECIFICATIONS**

- Operational pressure range: 1.4 to 4.8 bar; 140 to 480 kPa
- Warranty period: 2 years

### **FACTORY-INSTALLED OPTIONS**

- Flush plug (large filter screen not included)
- Nozzles 2.4 m, 3.0 m, 3.7 m, 4.6 m, 5.2 m, 1.5 x 9.0 m side strip
- Large inlet filter screen included in 10 cm and 15 cm preinstalled nozzle models

### **USER-INSTALLED OPTIONS**

- Check valve installs in filter screen for 10 cm and 15 cm models (up to 2 m of elevation; P/N 462237SP)
- Large inlet filter screen (P/N 162900SP)
- Shutoff nozzle (P/N 916400SP)



### PSU-02

Retracted height: 12 cm Pop-up height: 5 cm Exposed diameter: 3 cm Inlet size: ½"



### PSU-04

Retracted height: 18 cm Pop-up height: 10 cm Exposed diameter: 3 cm Inlet size: ½"



### PSU-06

Retracted height: 24 cm Pop-up height: 15 cm Exposed diameter: 3 cm Inlet size: ½"

### **PS ULTRA - SPECIFICATION BUILDER:** ORDER 1 + 2 + 3 (OPTIONAL)

1 Model	2 Nozzles	3 Optional
<b>PSU-02</b> = 5 cm pop-up	(blank) = Flush plug, no large filter screen	NFO = Nozzle filter only
<b>PSU-04</b> = 10 cm pop-up	<b>8A</b> = 2.4 m adjustable nozzle	(available for 10 cm model only). Substitute standard installation
<b>PSU-06</b> = 15 cm pop-up	<b>10A</b> = 3.0 m adjustable nozzle	of large inlet filter screen and receive unit with the nozzle
	<b>12A</b> = 3.7 m adjustable nozzle	filter only.
	<b>15A</b> = 4.6 m adjustable nozzle	
	17A = 5.2 m adjustable nozzle  5SS = 1.5 m x 9.1 m side strip	
	(not available for PSU-06)	

### Examples:

**PSU-04 - 15A** = 10 cm pop-up, with a 4.6 m adjustable nozzle

**PSU-02 - 5SS** = 5 cm pop-up, with a  $1.5 \text{ m} \times 9.0 \text{ m}$  side strip

**PSU-06 - 10A** = 15 cm pop-up, with a 3.0 m adjustable nozzle

PSU-04 - 12A - NFO = 10 cm pop-up, with a 3.7 m adjustable nozzle, nozzle filter only

### PS ULTRA STANDARD NOZZLES PERFORMANCE DATA

8A 2.4 m radius Adjustable from 0° to 360° Brown Trajectory: 15° 10A 3.0 m radius
Adjustable from 0° to 360°
Red Trajectory: 15°

12A 3.7 m radius
Adjustable from 0° to 360°
Green Trajectory: 28°

Arc	Pres	sure	Radius	s Fl	ow	Precip	mm/hr	Radius	Flo	ow	Precip	mm/hr	Radius	FI	ow	Precip	mm/hr
	bar	kPa	m	m³/hr	l/min			m	m³/hr	I/min			m	m³/hr	l/min		
450	1.0	100	2.0	0.04	0.62	77	89	2.6	0.04	0.68	49	56	3.2	0.04	0.73	34	40
45°	1.5	150	2.2	0.04	0.72	72	83	2.8	0.05	0.80	49	57	3.4	0.06	0.97	40	46
	2.1	210	2.4	0.05	0.83	67	77	3.0	0.06	0.94	49	56	3.7	0.07	1.23	44	51
	2.5	250	2.6	0.05	0.91	63	73	3.2	0.06	1.06	48	56	3.9	0.09	1.44	46	54
	3.0	300	2.9	0.06	1.01	59	68	3.5	0.07	1.18	47	54	4.1	0.10	1.68	48	56
90°	1.0	100	2.0	0.07	1.24	77	89	2.6	0.08	1.35	49	56	3.2	0.09	1.46	34	40
90	1.5	150	2.2	0.09	1.44	72	83	2.8	0.10	1.61	49	57	3.4	0.12	1.93	40	46
	2.1	210	2.4	0.10	1.65	67	77	3.0	0.11	1.89	49	56	3.7	0.15	2.46	44	51
	2.5	250	2.6	0.11	1.82	63	73	3.2	0.13	2.11	48	56	3.9	0.17	2.88	46	54
	3.0	300	2.9	0.12	2.02	59	68	3.5	0.14	2.37	47	54	4.1	0.20	3.36	48	56
120°	1.0	100	2.0	0.10	1.66	77	89	2.6	0.11	1.80	49	56	3.2	0.12	1.94	34	40
120	1.5	150	2.2	0.11	1.92	72	83	2.8	0.13	2.14	49	57	3.4	0.15	2.58	40	46
	2.1	210	2.4	0.13	2.20	67	77	3.0	0.15	2.52	49	56	3.7	0.20	3.28	44	51
	2.5	250	2.6	0.15	2.43	63	73	3.2	0.17	2.82	48	56	3.9	0.23	3.84	46	54
	3.0	300	2.9	0.16	2.69	59	68	3.5	0.19	3.16	47	54	4.1	0.27	4.48	48	56
180°	1.0	100	2.0	0.15	2.49	77	89	2.6	0.16	2.71	49	56	3.2	0.17	2.91	34	40
100	1.5	150	2.2	0.17	2.87	72	83	2.8	0.19	3.21	49	57	3.4	0.23	3.86	40	46
	2.1	210	2.4	0.20	3.30	67	77	3.0	0.23	3.78	49	56	3.7	0.30	4.92	44	51
	2.5	250	2.6	0.22	3.65	63	73	3.2	0.25	4.23	48	56	3.9	0.35	5.76	46	54
	3.0	300	2.9	0.24	4.03	59	68	3.5	0.28	4.73	47	54	4.1	0.40	6.71	48	56
240°	1.0	100	2.0	0.20	3.32	77	89	2.6	0.22	3.61	49	56	3.2	0.23	3.88	34	40
240	1.5	150	2.2	0.23	3.83	72	83	2.8	0.26	4.28	49	57	3.4	0.31	5.15	40	46
	2.1	210	2.4	0.26	4.40	67	77	3.0	0.30	5.03	49	56	3.7	0.39	6.56	44	51
	2.5	250	2.6	0.29	4.86	63	73	3.2	0.34	5.64	48	56	3.9	0.46	7.68	46	54
	3.0	300	2.9	0.32	5.38	59	68	3.5	0.38	6.31	47	54	4.1	0.54	8.95	48	56
270°	1.0	100	2.0	0.22	3.73	77	89	2.6	0.24	4.06	49	56	3.2	0.26	4.37	34	40
270	1.5	150	2.2	0.26	4.31	72	83	2.8	0.29	4.82	49	57	3.4	0.35	5.80	40	46
	2.1	210	2.4	0.30	4.95	67	77	3.0	0.34	5.66	49	56	3.7	0.44	7.38	44	51
	2.5	250	2.6	0.33	5.47	63	73	3.2	0.38	6.34	48	56	3.9	0.52	8.65	46	54
	3.0	300	2.9	0.36	6.05	59	68	3.5	0.43	7.10	47	54	4.1	0.60	10.07	48	56
360°	1.0	100	2.0	0.30	4.97	77	89	2.6	0.32	5.41	49	56	3.2	0.35	5.83	34	40
300	1.5	150	2.2	0.34	5.75	72	83	2.8	0.39	6.43	49	57	3.4	0.46	7.73	40	46
	2.1	210	2.4	0.40	6.61	67	77	3.0	0.45	7.55	49	56	3.7	0.59	9.84	44	51
	2.5	250	2.6	0.44	7.29	63	73	3.2	0.51	8.45	48	56	3.9	0.69	11.53	46	54
	3.0	300	2.9	0.48	8.07	59	68	3.5	0.57	9.47	47	54	4.1	0.81	13.43	48	56

Bold = Recommended pressure

### PS ULTRA STANDARD NOZZLES PERFORMANCE DATA

4.6 m radius 15A

Adjustable from 0° to 360° Black Trajectory: 28°

5.2 m radius 17A

Adjustable from 0° to 360° • Grey Trajectory: 28°

Arc	Pres	sure	Radius	Flo	ow	Precip mm/hr		Radius	Radius Flow		Precip mm/hr	
	bar	kPa	m	m³/hr	l/min			m	m³/hr	l/min		
450	1.0	100	4.0	0.08	1.27	38	43	4.6	0.10	1.68	38	43
45°	1.5	150	4.3	0.09	1.51	39	45	4.9	0.12	1.94	38	44
	2.1	210	4.6	0.11	1.79	40	46	5.2	0.13	2.23	39	45
	2.5	250	4.9	0.12	2.00	40	46	5.5	0.15	2.46	39	45
	3.0	300	5.2	0.14	2.25	40	46	5.8	0.16	2.72	39	45
90°	1.0	100	4.0	0.15	2.53	38	43	4.6	0.20	3.36	38	43
90	1.5	150	4.3	0.18	3.03	39	45	4.9	0.23	3.88	38	44
	2.1	210	4.6	0.21	3.57	40	46	5.2	0.27	4.45	39	45
	2.5	250	4.9	0.24	4.01	40	46	5.5	0.30	4.92	39	45
	3.0	300	5.2	0.27	4.50	40	46	5.8	0.33	5.44	39	45
120°	1.0	100	4.0	0.20	3.38	38	43	4.6	0.27	4.48	38	43
120	1.5	150	4.3	0.24	4.03	39	45	4.9	0.31	5.17	38	44
	2.1	210	4.6	0.29	4.76	40	46	5.2	0.36	5.94	39	45
	2.5	250	4.9	0.32	5.34	40	46	5.5	0.39	6.56	39	45
	3.0	300	5.2	0.36	6.00	40	46	5.8	0.43	7.25	39	45
180°	1.0	100	4.0	0.30	5.07	38	43	4.6	0.40	6.71	38	43
100	1.5	150	4.3	0.36	6.05	39	45	4.9	0.47	7.75	38	44
	2.1	210	4.6	0.43	7.14	40	46	5.2	0.53	8.91	39	45
	2.5	250	4.9	0.48	8.02	40	46	5.5	0.59	9.83	39	45
	3.0	300	5.2	0.54	9.00	40	46	5.8	0.65	10.87	39	45
240°	1.0	100	4.0	0.41	6.76	38	43	4.6	0.54	8.95	38	43
240	1.5	150	4.3	0.48	8.07	39	45	4.9	0.62	10.34	38	44
	2.1	210	4.6	0.57	9.52	40	46	5.2	0.71	11.88	39	45
	2.5	250	4.9	0.64	10.69	40	46	5.5	0.79	13.11	39	45
	3.0	300	5.2	0.72	12.00	40	46	5.8	0.87	14.50	39	45
270°	1.0	100	4.0	0.46	7.60	38	43	4.6	0.60	10.07	38	43
	1.5	150	4.3	0.54	9.08	39	45	4.9	0.70	11.63	38	44
_	2.1	210	4.6	0.64	10.71	40	46	5.2	0.80	13.36	39	45
	2.5	250	4.9	0.72	12.03	40	46	5.5	0.89	14.75	39	45
	3.0	300	5.2	0.81	13.50	40	46	5.8	0.98	16.31	39	45
360°	1.0	100	4.0	0.61	10.13	38	43	4.6	0.81	13.43	38	43
	1.5	150	4.3	0.73	12.10	39	45	4.9	0.93	15.51	38	44
	2.1	210	4.6	0.86	14.28	40	46	5.2	1.07	17.82	39	45
	2.5	250	4.9	0.96	16.03	40	46	5.5	1.18	19.67	39	45
	3.0	300	5.2	1.08	18.00	40	46	5.8	1.30	21.75	39	45

**Bold** = Recommended pressure

STRIP PATTERN	NOZZLE PERFORMANCE DATA

Model	Pres	sure	Width x Length	Flow		
	bar	kPa	m	m³/hr	l/min	
	1.0	100	1.2 x 8.5	0.21	3.5	
SS-530	1.5	150	1.5 x 9.0	0.25	4.2	
00 000	2.0	200	1.5 x 9.0	0.29	4.9	
	2.1	210	1.5 x 9.1	0.30	5.0	
	2.5	250	1.5 x 9.1	0.33	5.5	

**Bold** = Recommended pressure

# PRO-SPRAY™

Meet the strongest, most versatile sprinkler body in the industry.

### **KEY BENEFITS**

- · Industry's strongest spray body for years of reliable performance
- · Co-moulded wiper seal made from chemical- and chlorine-resistant materials
- · Innovative seal design prevents cap-to-body leaks
- Heavy-duty spring for consistent riser retraction
- · Check valve option eliminates low-head drainage

### **ADDITIONAL FEATURES**

- · Directional flush plug design for cleaner installation
- · Interchangeable components for easier servicing, retrofits, and upgrades

### **OPERATING SPECIFICATIONS**

- Operational pressure range: 1.0 to 7.0 bar; 100 to 700 kPa
- Warranty period: 5 years

### **FACTORY-INSTALLED OPTIONS**

- Check valve available for 10 cm, 15 cm, and 30 cm models (up to 3 m of elevation)
- · Reclaimed water ID cap

### **USER-INSTALLED OPTIONS**

- Drain check valve (up to 3 m of elevation; P/N 437400SP)
- Reclaimed water ID cap (P/N 458520SP)
- Snap-on reclaimed cover (P/N PROS-RC-CAP-SP)
- Shutoff cap (P/N 213600SP)
- Shutoff nozzle (P/N 916400SP)



PROS-00

Inlet size: 1/2"

Retracted height: 4 cm

PROS-03

Retracted height: 12.5 cm Pop-up height: 7.5 cm Exposed diameter: 5.7 cm Inlet size: 1/2"



PROS-02

Retracted height: 10 cm Pop-up height: 5 cm Exposed diameter: 5.7 cm Inlet size: ½"



PROS-04

Retracted height: 15.5 cm Pop-up height: 10 cm Exposed diameter: 5.7 cm Inlet size: 1/2"



### **Pro-Spray Reclaimed**

Pro-Spray models include optional factory-installed purple reclaimed caps.

## PRO-SPRAY - SPECIFICATION BUILDER: ORDER 1 +

PRO-SPRAY - SPECIFICATION BUILDER: ORDER 1 + 2						
1 Model	2 Options					
PROS-00 = Shrub adapter	(blank) = No option					
<b>PROS-02</b> = 5 cm pop-up						
<b>PROS-03</b> = 7.5 cm pop-up	<b>CV</b> = Factory-installed drain check valve (Pop-up models only)					
<b>PROS-04</b> = 10 cm pop-up	(r op ap modele emy)					
<b>PROS-06</b> = 15 cm pop-up (no side inlet)	R = Factory-installed reclaimed body cap (shrub moulded in purple)					
<b>PROS-12</b> = 30 cm pop-up (no side inlet)						



### **Examples:**

PROS-06-CV = 15 cm pop-up, drain check valve

PROS-12-CV-R = 30 cm pop-up, drain check valve, reclaimed body cap



[A] PROS-06-SI

[B] **PROS-06** 

Retracted height: 22.5 cm Pop-up height: 15 cm Exposed diameter: 5.7 cm Inlet size: 1/21



[A] PROS-12-SI

[B] **PROS-12** 

Retracted height: 41 cm Pop-up height: 30 cm Exposed diameter: 5.7 cm Inlet size: 1/21

# PRS30

To maintain consistent performance and reduce water waste, the Pro-Spray PRS30 is pressure-regulated to an optimal pressure of 2.1 bar; 210 kPa.

### **KEY BENEFITS**

- · Industry's strongest spray body for years of reliable performance
- Pressure-regulated to 2.1 bar; 210 kPa for optimal nozzle performance
- Brown cap for easy field identification
- Co-moulded wiper seal made from chemical- and chlorine-resistant materials
- Innovative seal design prevents cap-to-body leaks, even with a loose cap
- · FloGuard Technology option eliminates water waste in the event of a missing nozzle

### **ADDITIONAL FEATURES**

- Directional flush plug design for cleaner installation
- · Interchangeable components for easier servicing, retrofits, and upgrades
- · Heavy-duty spring for consistent riser retraction
- · Check valve option eliminates low-head drainage

### OPERATING SPECIFICATIONS

- Operational pressure range: 1.0 to 7.0 bar; 100 to 700 kPa
- · Warranty period: 5 years

### **FACTORY-INSTALLED OPTIONS**

- Check valve available for 10 cm, 15 cm, and 30 cm models (up to 4.3 m of elevation)
- Reclaimed water identification
- FloGuard Technology available for check valve models

### **USER-INSTALLED OPTIONS**

- Check valve (up to 4.3 m of elevation; P/N 437400SP)
- Reclaimed water ID cap (P/N 458560SP)
- Snap-on reclaimed cover (P/N PROS-RC-CAP-SP)
- Shutoff cap (P/N 213600SP)
- Shutoff nozzle (P/N 916400SP)



**FloGuard** Technology



PROS-00-PRS30

Inlet size: 1/2"

Retracted height: 11 cm

[A] PROS-06-SI-PRS30 [B] **PROS-06-PRS30** Retracted height: 22.5 cm Pop-up height: 15 cm Exposed diameter: 5.7 cm Inlet size: 1/21



PROS-04-PRS30 Retracted height: 15.5 cm Pop-up height: 10 cm Exposed diameter: 5.7 cm Inlet size: 1/2"



[A] PROS-12-SI-PRS30 [B] **PROS-12-PRS30** Retracted height: 41 cm Pop-up height: 30 cm Exposed diameter: 5.7 cm Inlet size: 1/5"

### PRO-SPRAY PRS30 - SPECIFICATION BUILDER: ORDER 1 + 2 + 3

PRS30 models include optional factory-installed purple

Model

**Feature Options** 

PROS-00-PRS30 = 2.1 bar regulated shrub adapter

**PRS30 Reclaimed** 

reclaimed caps.

**PROS-04-PRS30** = 2.1 bar regulated 10 cm pop-up

PROS-06-PRS30 = 2.1 bar regulated 15 cm pop-up

PROS-12-PRS30 = 2.1 bar regulated 30 cm pop-up

(blank) = No option

**CV** = Factory-installed drain check valve (pop-up models only)

(blank) = No option

R = Factory-installed reclaimed body cap

F = FloGuard Technology

**Specialty Options** 

F-R = FloGuard Technology with reclaimed body cap

### **PRO-SPRAY PRS30 (SIDE INLET) MODELS**

PROS-06-SI-PRS30 = 2.1 bar regulated 15 cm pop-up with side inlet

**PROS-12-SI-PRS30** = 2.1 bar regulated 30 cm pop-up with side inlet

### Examples:

PROS-06-SI-PRS30 = 15 cm pop-up with side inlet regulated at 2.1 bar; 210 kPa PROS-06-PRS30-CV = 15 cm pop-up regulated at 2.1 bar; 210 kPa, drain check valve PROS-12-PRS30-CV-F-R = 30 cm pop-up regulated at 2.1 bar; 210 kPa, drain check valve, and FloGuard Technology with reclaimed body cap

### Compatible with:



**Pro Adjustable Nozzles** Page 74 Pro-Spray Fixed Arc Nozzles Page 78

# **PRS40**

To optimise MP Rotator Nozzle performance, the Pro-Spray PRS40 is pressure-regulated to 2.8 bar; 280 kPa.

### **KEY BENEFITS**

- · Industry's strongest spray body for years of reliable performance
- Pressure-regulated to 2.8 bar; 280 kPa for the MP Rotator
- · Grey cap for easy field identification
- · Co-moulded wiper seal made from chemical- and chlorine-resistant materials
- Innovative seal design prevents cap-to-body leaks, even with a loose cap
- FloGuard Technology option eliminates water waste in the event of a missing nozzle

### **ADDITIONAL FEATURES**

- Directional flush plug design for cleaner installation
- Interchangeable components for easier servicing, retrofits, and upgrades
- · Heavy-duty spring for consistent riser retraction
- Check valve option eliminates low-head drainage

PROS-00-PRS40 Retracted height: 11 cm Inlet size: 1/21



Retracted height: 15.5 cm Pop-up height: 10 cm Exposed diameter: 5.7 cm Inlet size: 1/2"

### **OPERATING SPECIFICATIONS**

- Check valve available for 10 cm, 15 cm, and 30 cm models (up to 4.3 m of elevation)
- Operational pressure range: 1.0 to 7.0 bar; 100 to 700 kPa
- · Warranty period: 5 years

### **FACTORY-INSTALLED OPTIONS**

- · Reclaimed water identification
- FloGuard Technology available for pop-up models

### **USER-INSTALLED OPTIONS**

- Reclaimed water ID cap (P/N 458562SP)
- Snap-on reclaimed cover (P/N PROS-RC-CAP-SP)
- Shutoff cap (P/N 213600SP)
- Shutoff nozzle (P/N 916400SP)



**FloGuard Technology** 



PROS-06-PRS40-CV Retracted height: 22.5 cm Pop-up height: 15 cm Exposed diameter: 5.7 cm Inlet size: 1/2"



PROS-12-PRS40-CV Retracted height: 41 cm Pop-up height: 30 cm Exposed diameter: 5.7 cm Inlet size: 1/2"

### PRS40 Reclaimed

PROS-00-PRS40 = 2.8 bar regulated shrub adapter

PROS-04-PRS40 = 2.8 bar regulated 10 cm pop-up

PROS-06-PRS40 = 2.8 bar regulated 15 cm pop-up

PROS-12-PRS40 = 2.8 bar regulated 30 cm pop-up

PRS40 models include optional factory-installed purple reclaimed caps.

### PRO-SPRAY PRS40 - SPECIFICATION BUILDER: ORDER 1 + 2 + 3

Model

**Feature Options** 

(blank) = No option

**CV** = Factory-installed drain check valve (pop-up models only)

**Specialty Options** (blank) = No option

R = Factory-installed reclaimed body cap

F = FloGuard Technology

**F-R** = FloGuard Technology with reclaimed body cap

### PRO-SPRAY PRS40 (SIDE INLET) MODELS

PROS-06-SI-PRS40 = 2.8 bar regulated 15 cm pop-up with side inlet

PROS-12-SI-PRS40 = 2.8 bar regulated 30 cm pop-up with side inlet

### Examples:

PROS-06-SI-PRS40 = 15 cm pop-up with side inlet regulated at 2.8 bar; 280 kPa PROS-06-PRS40-CV = 15 cm pop-up regulated at 2.8 bar; 280 kPa, drain check valve PROS-12-PRS40-CV-F-R = 30 cm pop-up regulated at 2.8 bar; 280 kPa, drain check valve, and FloGuard Technology with reclaimed body cap

### Compatible with:



# SPRAY ACCESSORIES

Spray accessories provide additional flexibility for installation and maintenance of spray systems.

### SJ SWING JOINTS

- · Unique swivel ells on both ends for easy installation in any configuration
- · Swing joints are built with air-tight connection points for long-term reliability

- SJ-506: ½" threaded x 15 cm length
- SJ-7506: ½" x ¾" threaded x 15 cm length SJ-7512: ½" x ¾" threaded x 30 cm length
- SJ-706: 3/4" threaded x 15 cm length
- SJ-512: ½" threaded x 30 cm length
- SJ-712: 3/4" threaded x 30 cm length

### **Operating Specifications**

- Pressure-rated to 10 bar; 1000 kPa
- Warranty period: 2 years

### **HUNTER SPIRAL BARB ELBOWS**

### **Features**

- · Improved bigger, stronger design
- · Spiral to barb design for easier installation
- Acetal material for sharp barbs
- · Compatible with FlexSG and other brands for a customised swing joint

- HSBE-050: ½" male x spiral barb elbow
- HSBE-075: 3/4" male x spiral barb elbow

### **Operating Specifications**

- Operating pressure: Up to 5.5 bar; 550 kPa
- · Warranty period: 2 years

### FlexSG TUBING

### **Features**

- · Engineered to resist kinking
- Textured for easy grip
- · Linear low-density polyethylene material
- Meets ASTM D2104, D2239, D2737

### Models

- FLEXSG: 30 m roll
- FLEXSG-18: 45 cm pre-cut lengths

### **Operating Specifications**

- Operating pressure: up to 5.5 bar; 550 kPa
- Warranty period: 2 years

### **PRO-SPRAY SHUTOFF CAP**

### **Features**

- Caps off the Pro-Spray for maintenance or drip conversions
- · Maintains a clean look to the landscape

### Models

213600SP

### SHUTOFF NOZZLE

- Easy shutoff for spray systems
- · Allows heads to pop-up for easy visibility
- · Use with Pro-Spray and PS Ultra models

### Models

• 916400SP



SJ Swing Joint 15 cm or 30 cm links



**Spiral Barb Elbows** HSBE-050, HSBE-075



FlexSG Tubing 30 m and 45 cm pre-cut lengths Inside diameter: 1.2 cm



**Pro-Spray Shutoff Cap** P/N 213600SP



Shutoff Nozzle P/N 916400SP



## **PRO ADJUSTABLE NOZZLES**

Choose Pro Adjustable Nozzles for optimal landscape coverage in any setting.

#### **KEY BENEFITS**

- Adjustable from 0° to 360° for maximum design flexibility
- Easy-grip top for simple adjustment
- Strong edges for a defined pattern with better wind resistance
- Large water droplets minimise misting with better uniformity

#### **ADDITIONAL FEATURES**

- Matched precipitation rate on each nozzle from 8A to 17A
- Even distribution results in better coverage
- Colour-coded for easy field identification

#### **OPERATING SPECIFICATIONS**

- Recommended operating pressure: 2.1 bar; 210 kPa
- Pair with Pro-Spray PRS30 pop-up for pressure regulation to 2.1 bar; 210 kPa
- Warranty period: 2 years



**4A Nozzle** Radius: 1.2 m



**6A Nozzle** Radius: 1.8 m



**8A Nozzle**Radius: 2.4 m



**10A Nozzle** Radius: 3.0 m



**12A Nozzle** Radius: 3.7 m



**15A Nozzle** Radius: 4.6 m



**17A Nozzle** Radius: 5.2 m

#### Pro Adjustable Nozzle



#### PRO ADJUSTABLE NOZZLES PERFORMANCE DATA







4A 1.2 m radius
Adjustable from 0° to 360°
Lt. Green Trajectory: 0°

6A 1.8 m radius Adjustable from 0° to 360° Lt. Blue Trajectory: 0° 8A 2.4 m radius Adjustable from 0° to 360°Brown Trajectory: 15°

Arc	Pres	sure	Radius	Flo	w	Precip	mm/hr	Radius	Flo	ow	Precip	mm/hr	Radius	Fle	ow	Precip	mm/hr
	bar	kPa	m	m³/hr	l/min			m	m³/hr	l/min			m	m³/hr	l/min		
450	1.0	100	0.9	0.02	0.31	187	216	1.5	0.03	0.54	117	136	2.0	0.04	0.62	77	89
45°	1.5	150	1.0	0.02	0.39	178	206	1.6	0.04	0.60	108	124	2.2	0.04	0.72	72	83
	2.1	210	1.2	0.03	0.48	167	193	1.8	0.04	0.65	98	114	2.4	0.05	0.83	67	77
	2.5	250	1.3	0.03	0.56	158	183	1.9	0.04	0.70	92	106	2.6	0.05	0.91	63	73
	3.0	300	1.4	0.04	0.64	149	172	2.1	0.05	0.75	86	99	2.9	0.06	1.01	59	68
90°	1.0	100	0.9	0.04	0.72	213	246	1.5	0.06	1.08	116	134	2.0	0.07	1.24	77	89
90	1.5	150	1.0	0.05	0.76	182	210	1.6	0.07	1.21	109	126	2.2	0.09	1.44	72	83
	2.1	210	1.2	0.05	0.83	139	160	1.8	0.08	1.35	102	118	2.4	0.10	1.65	67	77
	2.5	250	1.3	0.05	0.91	129	149	1.9	0.09	1.47	97	112	2.6	0.11	1.82	63	73
	3.0	300	1.4	0.06	0.95	116	134	2.1	0.10	1.61	92	106	2.9	0.12	2.02	59	68
120°	1.0	100	0.9	0.06	0.97	221	255	1.5	0.08	1.26	102	118	2.0	0.10	1.66	77	89
120	1.5	150	1.0	0.07	1.10	188	217	1.6	0.09	1.43	97	112	2.2	0.11	1.92	72	83
	2.1	210	1.2	0.07	1.25	162	187	1.8	0.10	1.61	91	105	2.4	0.13	2.20	67	77
•	2.5	250	1.3	0.08	1.36	146	168	1.9	0.11	1.76	87	100	2.6	0.15	2.43	63	73
	3.0	300	1.4	0.09	1.49	131	151	2.1	0.12	1.93	82	95	2.9	0.16	2.69	59	68
180°	1.0	100	0.9	0.07	1.18	178	206	1.5	0.10	1.70	92	106	2.0	0.15	2.49	77	89
	1.5	150	1.0	0.08	1.38	157	181	1.6	0.12	1.96	88	102	2.2	0.17	2.87	72	83
	2.1	210	1.2	0.10	1.60	139	160	1.8	0.13	2.24	84	97	2.4	0.20	3.30	67	77
	2.5 3.0	250 300	1.3 1.4	0.11	1.78	127	146	1.9	0.15	2.47 2.72	81	94 90	2.6 2.9	0.22	3.65	63 59	73
				0.12	1.98	115	133	2.1	0.16		78			0.24	4.03		68
240°	1.0 1.5	100 150	0.9 1.0	0.12 0.13	1.94 2.24	220 192	254 221	1.5 1.6	0.15 0.17	2.44 2.83	99 96	114 111	2.0	0.20	3.32 3.83	77 72	89 83
	2.1	210	1.2	0.15 <b>0.16</b>	2.59	168	194	1.8	0.17	3.28	90 <b>92</b>	107	2.2	0.25	4.40	67	77
	2.5	250	1.3	0.10	2.86	153	177	1.9	0.20	3.63	89	107	2.4	0.29	4.86	63	73
	3.0	300	1.4	0.17	3.17	139	160	2.1	0.24	4.03	86	99	2.9	0.23	5.38	59	68
	1.0	100	0.9	0.13	2.09	211	244	1.5	0.18	3.08	111	128	2.0	0.22	3.73	77	89
270°	1.5	150	1.0	0.14	2.40	183	211	1.6	0.21	3.52	106	122	2.2	0.26	4.31	72	83
	2.1	210	1.2	0.16	2.75	159	183	1.8	0.24	4.02	101	116	2.4	0.30	4.95	67	77
	2.5	250	1.3	0.18	3.02	144	166	1.9	0.27	4.42	97	112	2.6	0.33	5.47	63	73
_	3.0	300	1.4	0.20	3.33	130	150	2.1	0.29	4.87	92	107	2.9	0.36	6.05	59	68
2000	1.0	100	0.9	0.14	2.26	171	197	1.5	0.21	3.57	96	111	2.0	0.30	4.97	77	89
360°	1.5	150	1.0	0.16	2.60	148	171	1.6	0.24	4.07	92	106	2.2	0.34	5.75	72	83
	2.1	210	1.2	0.18	2.98	129	149	1.8	0.28	4.62	87	100	2.4	0.40	6.61	67	77
	2.5	250	1.3	0.20	3.29	117	135	1.9	0.30	5.06	83	96	2.6	0.44	7.29	63	73
	3.0	300	1.4	0.22	3.63	106	122	2.1	0.33	5.56	79	92	2.9	0.48	8.07	59	68

Bold = Recommended pressure

**Note:** The Pro-Spray PRS30's built-in pressure regulator controls output to a maximum of 2.1 bar; 210 kPa. Adjusting the radius reduction screw may be required to achieve catalogue radius and flow.

#### PRO ADJUSTABLE NOZZLES PERFORMANCE DATA







**10A**• Red

3.0 m radius Adjustable from 0° to 360° Trajectory: 15° 3.7 m radius
Adjustable from 0° to 360°Green Trajectory: 28°

15A 4.6 m radius Adjustable from 0° to 360°● Black Trajectory: 28°

Arc	Pres	sure	Radius	Fle	ow	Precip	mm/hr	Radius	FI	ow	Precip	mm/hr	Radius	FI	ow	Precip	mm/hr
	bar	kPa	m	m³/hr	l/min			m	m³/hr	l/min			m	m³/hr	l/min		
450	1.0	100	2.6	0.04	0.68	49	56	3.2	0.04	0.73	34	40	4.0	0.08	1.27	38	43
45°	1.5	150	2.8	0.05	0.80	49	57	3.4	0.06	0.97	40	46	4.3	0.09	1.51	39	45
	2.1	210	3.0	0.06	0.94	49	56	3.7	0.07	1.23	44	51	4.6	0.11	1.79	40	46
	2.5	250	3.2	0.06	1.06	48	56	3.9	0.09	1.44	46	54	4.9	0.12	2.00	40	46
	3.0	300	3.5	0.07	1.18	47	54	4.1	0.10	1.68	48	56	5.2	0.14	2.25	40	46
90°	1.0	100	2.6	0.08	1.35	49	56	3.2	0.09	1.46	34	40	4.0	0.15	2.53	38	43
90°	1.5	150	2.8	0.10	1.61	49	57	3.4	0.12	1.93	40	46	4.3	0.18	3.03	39	45
	2.1	210	3.0	0.11	1.89	49	56	3.7	0.15	2.46	44	51	4.6	0.21	3.57	40	46
	2.5	250	3.2	0.13	2.11	48	56	3.9	0.17	2.88	46	54	4.9	0.24	4.01	40	46
	3.0	300	3.5	0.14	2.37	47	54	4.1	0.20	3.36	48	56	5.2	0.27	4.50	40	46
1200	1.0	100	2.6	0.11	1.80	49	56	3.2	0.12	1.94	34	40	4.0	0.20	3.38	38	43
120°	1.5	150	2.8	0.13	2.14	49	57	3.4	0.15	2.58	40	46	4.3	0.24	4.03	39	45
	2.1	210	3.0	0.15	2.52	49	56	3.7	0.20	3.28	44	51	4.6	0.29	4.76	40	46
	2.5	250	3.2	0.17	2.82	48	56	3.9	0.23	3.84	46	54	4.9	0.32	5.34	40	46
	3.0	300	3.5	0.19	3.16	47	54	4.1	0.27	4.48	48	56	5.2	0.36	6.00	40	46
180°	1.0	100	2.6	0.16	2.71	49	56	3.2	0.17	2.91	34	40	4.0	0.30	5.07	38	43
100	1.5	150	2.8	0.19	3.21	49	57	3.4	0.23	3.86	40	46	4.3	0.36	6.05	39	45
	2.1	210	3.0	0.23	3.78	49	56	3.7	0.30	4.92	44	51	4.6	0.43	7.14	40	46
	2.5	250	3.2	0.25	4.23	48	56	3.9	0.35	5.76	46	54	4.9	0.48	8.02	40	46
	3.0	300	3.5	0.28	4.73	47	54	4.1	0.40	6.71	48	56	5.2	0.54	9.00	40	46
240°	1.0	100	2.6	0.22	3.61	49	56	3.2	0.23	3.88	34	40	4.0	0.41	6.76	38	43
240	1.5	150	2.8	0.26	4.28	49	57	3.4	0.31	5.15	40	46	4.3	0.48	8.07	39	45
	2.1	210	3.0	0.30	5.03	49	56	3.7	0.39	6.56	44	51	4.6	0.57	9.52	40	46
	2.5	250	3.2	0.34	5.64	48	56	3.9	0.46	7.68	46	54	4.9	0.64	10.69	40	46
	3.0	300	3.5	0.38	6.31	47	54	4.1	0.54	8.95	48	56	5.2	0.72	12.00	40	46
270°	1.0	100	2.6	0.24	4.06	49	56	3.2	0.26	4.37	34	40	4.0	0.46	7.60	38	43
2/0	1.5	150	2.8	0.29	4.82	49	57	3.4	0.35	5.80	40	46	4.3	0.54	9.08	39	45
	2.1	210	3.0	0.34	5.66	49	56	3.7	0.44	7.38	44	51	4.6	0.64	10.71	40	46
	2.5	250	3.2	0.38	6.34	48	56	3.9	0.52	8.65	46	54	4.9	0.72	12.03	40	46
	3.0	300	3.5	0.43	7.10	47	54	4.1	0.60	10.07	48	56	5.2	0.81	13.50	40	46
360°	1.0	100	2.6	0.32	5.41	49	56	3.2	0.35	5.83	34	40	4.0	0.61	10.13	38	43
300	1.5	150	2.8	0.39	6.43	49	57	3.4	0.46	7.73	40	46	4.3	0.73	12.10	39	45
	2.1	210	3.0	0.45	7.55	49	56	3.7	0.59	9.84	44	51	4.6	0.86	14.28	40	46
	2.5	250	3.2	0.51	8.45	48	56	3.9	0.69	11.53	46	54	4.9	0.96	16.03	40	46
	3.0	300	3.5	0.57	9.47	47	54	4.1	0.81	13.43	48	56	5.2	1.08	18.00	40	46

Bold = Recommended pressure

**Note:** The Pro-Spray PRS30's built-in pressure regulator controls output to a maximum of 2.1 bar; 210 kPa. Adjusting the radius reduction screw may be required to achieve catalogue radius and flow.

#### PRO ADJUSTABLE NOZZLES PERFORMANCE DATA



17A 5.2 m radius Adjustable from 0° to 360° Grey Trajectory: 28°

Arc	Pres	sure	Radius	Fle	ow	Precip	mm/hr
	bar	kPa	m	m³/hr	I/min		<b>A</b>
450	1.0	100	4.6	0.10	1.68	38	43
45°	1.5	150	4.9	0.12	1.94	38	44
	2.1	210	5.2	0.13	2.23	39	45
	2.5	250	5.5	0.15	2.46	39	45
	3.0	300	5.8	0.16	2.72	39	45
000	1.0	100	4.6	0.20	3.36	38	43
90°	1.5	150	4.9	0.23	3.88	38	44
	2.1	210	5.2	0.27	4.45	39	45
	2.5	250	5.5	0.30	4.92	39	45
	3.0	300	5.8	0.33	5.44	39	45
120°	1.0	100	4.6	0.27	4.48	38	43
120	1.5	150	4.9	0.31	5.17	38	44
	2.1	210	5.2	0.36	5.94	39	45
•	2.5	250	5.5	0.39	6.56	39	45
	3.0	300	5.8	0.43	7.25	39	45
180°	1.0	100	4.6	0.40	6.71	38	43
100	1.5	150	4.9	0.47	7.75	38	44
	2.1	210	5.2	0.53	8.91	39	45
	2.5	250	5.5	0.59	9.83	39	45
	3.0	300	5.8	0.65	10.87	39	45
240°	1.0	100	4.6	0.54	8.95	38	43
2-10	1.5	150	4.9	0.62	10.34	38	44
	2.1	210	5.2	0.71	11.88	39	45
	2.5	250	5.5	0.79	13.11	39	45
	3.0	300	5.8	0.87	14.50	39	45
270°	1.0	100	4.6	0.60	10.07	38	43
	1.5	150	4.9	0.70	11.63	38	44
_	<b>2.1</b> 2.5	210	<b>5.2</b> 5.5	0.80	13.36	39	45
	3.0	250	5.5	0.89 0.98	14.75	39 39	45 45
		300 100	4.6		16.31	39	45
360°	1.0 1.5	150	4.6	0.81 0.93	15.43	38 38	43 44
	2.1	210	5.2	1.07	17.82	39	44 <b>45</b>
	2.5	250	5.5	1.18	19.67	<b>39</b>	<b>45</b>
	3.0	300	5.8	1.30	21.75	39	45

Bold = Recommended pressure

**Note:** The Pro-Spray PRS30's built-in pressure regulator controls output to a maximum of 2.1 bar; 210 kPa. Adjusting the radius reduction screw may be required to achieve catalogue radius and flow.

## PRO-SPRAY™ FIXED ARC NOZZLES

Pro-Spray Fixed Arc Nozzles are designed for high accuracy within a variety of landscape shapes and sizes.

#### **KEY BENEFITS**

- Clean edges for a defined pattern with better wind resistance
- · Large water droplets minimise misting with better uniformity
- Sturdy construction ensures reliable performance
- Colour-coded for easy field identification

#### **OPERATING SPECIFICATIONS**

- Recommended operating pressure: 2.1 bar; 210 kPa
- Pair with Pro-Spray PRS30 pop-up for pressure regulation to 2.1 bar; 210 kPa
- Warranty period: 2 years

PRO-SI	PRAY FIXED AR	C NOZZLES				
ARC	5	8	10	12	15	17
Q						
Т	Use 4A/6A Nozzle					Use 17A Nozzle
Н						
TT	Use 4A/6A Nozzle	Use 8A Nozzle	Use 10A Nozzle			Use 17A Nozzle
TQ	Use 4A/6A Nozzle	Use 8A Nozzle	Use 10A Nozzle			Use 17A Nozzle
F	<b>©</b>					Use 17A Nozzle
	(1.5 m)	(2.4 m)	(3.0 m)	(3.7 m)	(4.6 m)	(5.2 m)

#### PRO-SPRAY FIXED ARC NOZZLES PERFORMANCE DATA







5 1.5 m radius Fixed: ¼, ½, Full Blue Trajectory: 0° 8 2.4 m radius Fixed: ¼, ½, ½, Full Brown Trajectory: 15° 10 3.0 m radius Fixed: ¼, ⅓, ½, Full • Red Trajectory: 15°

Arc	Position	Pres	sure	Radius	Flo	ow	Precip	mm/hr	Radius	Flo	ow	Precip	mm/hr	Radius	Fle	ow	Precip	mm/hr
		bar	kPa	m	m³/hr	I/min			m	m³/hr	l/min			m	m³/hr	I/min		
		1.0	100	1.1	0.02	0.30	60	69	1.8	0.04	0.62	46	53	2.4	0.07	1.08	45	52
90°	Q	1.5	150	1.3	0.02	0.38	54	62	2.1	0.05	0.84	46	53	2.7	0.08	1.33	44	51
	•	2.1	210	1.5	0.03	0.46	49	57	2.4	0.05	0.91	38	44	3.0	0.09	1.57	42	48
		2.5	250	1.7	0.03	0.51	42	49	2.7	0.06	0.98	32	37	3.3	0.10	1.71	38	44
		3.0	300	1.8	0.03	0.53	39	45	2.7	0.06	1.10	36	42	3.4	0.11	1.85	38	44
		1.0	100						1.8	0.05	0.83	46	53	2.4	0.09	1.44	45	52
120°	T	1.5	150						2.1	0.07	1.10	45	52	2.7	0.11	1.77	44	50
		2.1	210		Use 4	A or 6A I	Nozzle		2.4	0.07	1.21	38	44	3.0	0.13	2.09	42	48
7		2.5	250						2.7	0.08	1.32	33	38	3.3	0.14	2.31	38	44
		3.0	300						2.7	0.09	1.44	36	41	3.4	0.15	2.50	39	45
		1.0	100	1.1	0.04	0.60	60	69	1.8	0.08	1.33	49	57	2.4	0.13	2.17	45	52
180°	Н	1.5	150	1.3	0.05	0.76	54	62	2.1	0.10	1.63	44	51	2.7	0.16	2.65	44	50
		2.1	210	1.5	0.06	0.87	49	57	2.4	0.11	1.80	38	43	3.0	0.19	3.14	42	48
		2.5	250	1.7	0.06	0.95	42	49	2.7	0.12	1.93	32	37	3.3	0.22	3.60	40	46
		3.0	300	1.8	0.06	1.04	39	44	2.7	0.13	2.10	35	40	3.4	0.23	3.90	40	47
		1.0	100															
240°	Y TT	1.5	150															
		2.1	210		Use 4	A or 6A I	Nozzle			Use	e 8A Noz	zle			Use	10A No	zzle	
		2.5	250															
		3.0	300															
		1.0	100															
270°	TQ	1.5	150															
		2.1	210		Use 4	A or 6A I	Nozzle			Use	e 8A Noz	zle			Use	10A No	zzle	
		2.5	250															
		3.0	300															
2000		1.0	100	1.1	0.07	1.20	60	69	1.8	0.16	2.67	49	57	2.4	0.26	4.33	45	52
360°	' F	1.5	150	1.3	0.09	1.52	54	62	2.1	0.20	3.33	45	52	2.7	0.32	5.31	44	50
		2.1	210	1.5	0.11	1.85	49	57	2.4	0.22	3.67	38	44	3.0	0.38	6.28	42	48
		2.5	250	1.7	0.12	2.04	42	49	2.7	0.24	4.01	33	38	3.3	0.41	6.85	38	44
		3.0	300	1.8	0.12	2.10	39	45	2.7	0.26	4.35	36	41	3.4	0.42	6.97	36	42

Bold = Recommended pressure

#### PRO-SPRAY FIXED ARC NOZZLES PERFORMANCE DATA







12 3.7 m radius Fixed: ¼, ½, ½, ½, ¾, Full • Green Trajectory: 28° **15**4.6 m radius
Fixed: ¼, ⅓, ⅓, ⅓, ⅓, ¾, Full
■ Black
Trajectory: 28°

**17** 5.2 m radius Fixed: ¼, ½
■ Grey Trajectory: 28°

Arc	Position	Pres	sure	Radius	Flo	ow	Precip	mm/hr	Radius	FI	ow	Precip	mm/hr	Radius	FI	ow	Precip	mm/hr
		bar	kPa	m	m³/hr	l/min		<b>A</b>	m		l/min		<b>A</b>	m	m³/hr	l/min		<b>A</b>
		1.0	100	3.0	0.10	1.58	42	49	3.9	0.15	2.50	39	46	4.7	0.19	3.17	34	40
90°	Q	1.5	150	3.4	0.12	2.00	42	48	4.2	0.18	3.06	42	48	4.9	0.23	3.88	39	45
	•	2.1	210	3.7	0.15	2.43	43	49	4.6	0.22	3.62	41	47	5.2	0.28	4.59	41	47
_		2.5	250	4.0	0.16	2.69	40	47	4.9	0.24	3.95	39	46	5.5	0.30	5.01	40	46
		3.0	300	4.0	0.18	2.95	44	51	5.2	0.26	4.32	38	44	5.8	0.32	5.30	38	44
		1.0	100	3.0	0.13	2.11	42	49	3.9	0.20	3.33	39	46					
120°	T	1.5	150	3.4	0.16	2.67	42	48	4.2	0.24	4.08	42	48					
		2.1	210	3.7	0.19	3.25	43	49	4.6	0.29	4.83	41	47		Use	e 17A No	zzle	
7		2.5	250	4.0	0.22	3.67	41	48	4.9	0.32	5.27	40	46					
		3.0	300	4.0	0.24	3.94	44	51	5.2	0.35	5.75	38	44					
		1.0	100	3.0	0.19	3.17	42	49	3.9	0.30	5.00	39	46	4.7	0.38	6.33	34	40
180°	Н	1.5	150	3.4	0.24	4.01	42	48	4.2	0.37	6.12	42	48	4.9	0.47	7.76	39	45
		2.1	210	3.7	0.29	4.87	43	49	4.6	0.43	7.25	41	47	5.2	0.55	9.18	41	47
		2.5	250	4.0	0.32	5.39	40	47	4.9	0.47	7.91	40	46	5.5	0.60	10.01	40	46
		3.0	300	4.0	0.35	5.75	43	50	5.2	0.49	8.18	36	42	5.8	0.64	10.06	38	44
		1.0	100	3.0	0.25	4.22	42	49	3.9	0.40	6.67	39	46					
240°	Y TT	1.5	150	3.4	0.32	5.34	42	48	4.2	0.49	8.16	42	48					
		2.1	210	3.7	0.39	6.49	43	49	4.6	0.58	9.66	41	47		Use	e 17A No:	zzle	
		2.5	250	4.0	0.43	7.18	40	47	4.9	0.63	10.54	40	46					
		3.0	300	4.0	0.46	7.68	43	50	5.2	0.65	10.90	36	42					
0=00		1.0	100	3.0	0.29	4.75	42	49	3.9	0.45	7.50	39	46					
270°	TQ	1.5	150	3.4	0.36	6.01	42	48	4.2	0.55	9.19	42	48					
		2.1	210	3.7	0.44	7.30	43	49	4.6	0.65	10.87	41	47		Use	e 17A No	zzle	
		2.5	250	4.0	0.48	8.08	40	47	4.9	0.71	11.86	40	46					
		3.0	300	4.0	0.53	8.82	44	51	5.2	0.78	12.95	38	44					
2000		1.0	100	3.0	0.38	6.33	42	49	3.9	0.60	10.00	39	46					
360°	F	1.5	150	3.4	0.48	8.01	42	48	4.2	0.73	12.25	42	48					
		2.1	210	3.7	0.58	9.74	43	49	4.6	0.87	14.49	41	47		Use	e 17A No	zzle	
		2.5	250	4.0	0.65	10.78	40	47	4.9	0.95	15.81	40	46					
		3.0	300	4.0	0.70	11.73	44	51	5.2	0.99	16.50	37	42					

**Bold** = Recommended pressure

## **SHORT-RADIUS MICRO SPRAY NOZZLES**

These highly accurate nozzles are perfect for small spaces and can support a robust micro spray system with Pro-Spray Sprinkler Bodies.

#### **KEY BENEFITS**

- Low flow for controlled irrigation of tight spaces
- Meets micro spray requirement of 114 I/hr max flow at 2.1 bar; 210 kPa
- Built to last for a robust overhead solution for small spaces

#### **OPERATING SPECIFICATIONS**

- Recommended operating pressure: 2.1 bar; 210 kPa
- Pair with Pro-Spray PRS30 pop-up for pressure regulation to 2.1 bar; 210 kPa



**2Q Nozzle** Radius: 0.6 m



**2H Nozzle** Radius: 0.6 m



**4Q Nozzle** Radius: 1.2 m



**4H Nozzle** Radius: 1.2 m



**6Q Nozzle** Radius: 1.8 m



**6H Nozzle** Radius: 1.8 m

#### SHORT-RADIUS NOZZLES PERFORMANCE DATA

				<ul><li>No</li></ul>	zzle Lt.	Brown	
Arc	Pres	sure	Position	Radius	Flo	w	*Precip
	bar	kPa		m	l/min	l/hr	mm/hr
	1.0	100		0.6	0.34	20	57
90°	1.5	150	2Q	0.6	0.38	23	63
	2.1	210		0.6	0.42	25	70
	2.5	250		0.6	0.49	29	82
	3.0	300		0.6	0.53	32	88
	1.0	100		0.6	0.53	32	44
180°	1.5	150	2H	0.6	0.57	34	48
	2.1	210		0.6	0.76	46	63
	2.5	250		0.6	0.77	46	64
	3.0	300		0.6	0.80	48	67

#### Nozzle Lt. Green

Arc	Pres	sure	Position	Radius	Flo	w	*Precip
	bar	kPa		m	l/min	l/hr	mm/hr
	1.0	100		1.2	0.68	41	28
90°	1.5	150	4Q	1.2	0.76	46	32
	2.1	210		1.2	0.76	46	32
	2.5	250		1.2	0.83	50	35
	3.0	300		1.2	0.91	55	38
	1.0	100		1.2	1.25	75	26
180°	1.5	150	4H	1.2	1.29	77	27
	2.1	210		1.2	1.51	91	31
	2.5	250		1.2	1.52	91	32
	3.0	300		1.2	1.67	100	35

#### Nozzle Lt. Blue

Arc	Pres	sure	Position	Radius	Flo	w	*Precip
	bar	kPa		m	l/min	I/hr	mm/hr
	1.0	100		1.8	0.83	50	15
90°	1.5	150	6Q	1.8	0.91	55	17
	2.1	210		1.8	1.14	68	21
_	2.5	250		1.8	1.14	68	21
	3.0	300		1.8	1.14	68	21
	1.0	100		1.8	1.52	91	14
180°	1.5	150	6H	1.8	1.67	100	15
	2.1	210		1.8	1.90	114	18
	2.5	250		1.8	1.97	118	18
	3.0	300		1.8	2.05	123	19

**Bold** = Recommended pressure

\*Precipitation rate shown without overlap

#### Short-Radius Micro Spray Nozzle



## **STRIP PATTERN NOZZLES**

Irrigate narrow turf and planter areas accurately with fixed arc Strip Pattern Nozzles.

#### **KEY BENEFITS**

- Designed for accurate coverage of strip areas
- Available in a variety of models for unique, rectangular spaces
- Built to last in harsh conditions

#### **OPERATING SPECIFICATIONS**

- Recommended operating pressure: 2.1 bar; 210 kPa
- Pair with Pro-Spray PRS30 pop-up for pressure regulation to 2.1 bar; 210 kPa
- Warranty period: 2 years

STRIP PATTERN NO771 F



**Left Corner Strip** Rectangle: 1.5 m x 4.5 m



**Right Corner Strip** Rectangle: 1.5 m x 4.5 m



**Side Strip** Rectangle: 1.5 m x 9.1 m



**Side Strip** Rectangle: 2.7 m x 5.5 m

PERFORMA					
Arc	Pres	sure	Width x Length	Fle	ow
	bar	kPa	m	m³/hr	l/min
	1.0	100	1.2 x 4.2	0.10	1.7
LCS-515	1.5	150	1.2 x 4.3	0.13	2.1
	2.1	210	1.5 x 4.5	0.15	2.5
_	2.5	250	1.5 x 4.5	0.16	2.7
	3.0	300	1.5 x 4.5	0.17	2.8
	1.0	100	1.2 x 4.2	0.10	1.7
RCS-515	1.5	150	1.2 x 4.3	0.13	2.1
	2.1	210	1.5 x 4.5	0.15	2.5
_	2.5	250	1.5 x 4.5	0.16	2.7
	3.0	300	1.5 x 4.5	0.17	2.8
	1.0	100	1.2 x 8.5	0.21	3.5
SS-530	1.5	150	1.5 x 9.0	0.25	4.2
	2.1	210	1.5 x 9.1	0.30	5.0
	2.5	250	1.5 x 9.1	0.33	5.5
	3.0	300	1.5 x 9.1	0.34	5.7
	1.0	100	2.4 x 5.2	0.27	4.5
SS-918	1.5	150	2.7 x 5.5	0.33	5.5
	2.1	210	2.7 x 5.5	0.39	6.5
	2.5	250	2.7 x 5.5	0.43	7.1
	3.0	300	2.7 x 5.5	0.47	7.9
	1.0	100	1.2 x 8.5	0.21	3.5
CS-530	1.5	150	1.5 x 9.0	0.25	4.2
	2.1	210	1.5 x 9.1	0.30	5.0
	2.5	250	1.5 x 9.1	0.33	5.5
	3.0	300	1.5 x 9.1	0.34	5.7
	1.0	100	1.1 x 4.2	0.10	1.7
ES-515	1.5	150	1.2 x 4.3	0.13	2.1
	2.1	210	1.5 x 4.5	0.15	2.5
	2.5	250	1.5 x 4.5	0.16	2.7

1.5 x 4.5

0.17

2.8

**Bold** = Recommended pressure



**Center Strip** Rectangle: 1.5 m x 9.1 m



**End Strip** Rectangle: 1.5 m x 4.5 m

#### RCS-515



3.0

## **STREAM NOZZLES**

Prevent runoff for slope, groundcover, and shrub applications with the low precipitation rate of these adjustable arc Stream Nozzles.

#### **KEY BENEFITS**

- Low application rate to avoid runoff
- Ideal for slopes, ground cover, and shrub applications
- Multiple streams provide even coverage
- Adjustable arc from 25° to 360° for design flexibility

#### **OPERATING SPECIFICATIONS**

- Recommended operating pressure: 2.1 bar; 210 kPa
- Pair with Pro-Spray PRS30 pop-up for pressure regulation to 2.1 bar; 210 kPa
- Warranty period: 2 years

		STREA!	M SPRAY A	NOZZI	.E		
Arc	Pres	sure	Radius	Fle	ow	Precip	mm/hr
	bar	kPa	m	m³/hr	l/min		
000	1.0	100	2.1	0.05	0.9	49	57
90°	1.5	150	2.2	0.07	1.1	55	63
1/2	2.1	210	2.4	0.09	1.4	58	67
•	2.5	250	2.6	0.10	1.6	57	66
	3.0	300	2.7	0.12	2.0	66	76
180°	1.0	100	2.1	0.12	1.9	52	60
100	1.5	150	2.2	0.13	2.1	52	60
<b>W</b>	2.1	210	2.4	0.14	2.3	48	55
•	2.5	250	2.6	0.15	2.4	43	49
	3.0	300	2.7	0.15	2.5	41	48
2600	1.0	100	2.1	0.24	4.0	54	63
360°	1.5	150	2.2	0.25	4.2	52	60
	2.1	210	2.4	0.26	4.4	46	53
	2.5	250	2.6	0.27	4.5	40	46
	3.0	300	2.7	0.28	4.6	38	44

Bold = Recommended pressure

		STREA	M SPRA	Y NOZZ	LE		
Arc	Pres	sure	Radius	Fle	ow	Precip	mm/hr
	bar	kPa	m	m³/hr	l/min		
000	1.0	100	4.3	0.08	1.4	18	21
90°	1.5	150	4.6	0.10	1.6	18	21
<u> </u>	2.1	210	5.0	0.11	1.9	18	21
	2.5	250	5.3	0.12	2.1	18	21
	3.0	300	5.5	0.13	2.2	17	20
1000	1.0	100	4.3	0.14	2.3	15	17
180°	1.5	150	4.6	0.17	2.8	16	18
<b>W</b>	2.1	210	5.0	0.20	3.4	16	19
•	2.5	250	5.3	0.23	3.8	16	19
	3.0	300	5.5	0.24	4.0	16	18
2600	1.0	100	4.3	0.23	3.9	13	15
360°	1.5	150	4.6	0.30	5.0	14	16
<b>W</b>	2.1	210	5.0	0.38	6.3	15	17
	2.5	250	5.3	0.43	7.2	15	18
	3.0	300	5.5	0.45	7.5	15	17

**Bold** = Recommended pressure



**S-8A** Radius: 2.1 m to 2.6 m



**S-16A** Radius: 4.3 m to 5.3 m





## **BUBBLER NOZZLES**

Deliver a consistent flow regardless of inlet pressure with pressure-compensating Bubbler Nozzles.

#### **KEY BENEFITS**

- Pressure-compensating for constant water flow at any pressure
- Designed for deep watering of planted areas

- · Nozzle threaded for use with Pro-Spray
- · Warranty period: 2 years

## MULTI-STREAM BUBBLER PERFORMANCE DATA

Arc	Model	Flo	wc	Radius
		m³/hr	l/min	m
10	MSBN-25Q	0.06	0.9	0.30
<b>&amp;</b>	MSBN-50Q	0.11	1.9	0.46
14.	MSBN-50H	0.11	1.9	0.30
<b>~~</b>	MSBN-10H	0.23	3.8	0.46
*	MSBN-10F	0.23	3.8	0.30
1	MSBN-20F	0.45	7.6	0.46

#### Multi-Stream Bubbler



#### **MULTI-STREAM BUBBLER NOZZLES**



**MSBN-25Q** Flow: 0.06 m<sup>3</sup>/hr; 0.9 l/min



**MSBN-10H/10F** Flow: 0.23 m<sup>3</sup>/hr; 3.8 l/min



**MSBN-50Q/50H** Flow: 0.11 m<sup>3</sup>/hr; 1.9 l/min



**MSBN-20F** Flow: 0.45 m<sup>3</sup>/hr; 7.6 l/min

#### Notes:

Notes:

Typical spacing 0.6 to 1.2 m. Flows shown for pressures between 1.0 and 4.8 bar; 100 and 480 kPa.



#### MSBN Installed on PROS-04

Combining Hunter Bubbler Nozzles with the Pro-Spray provides the watering precision of pressure-compensating bubblers paired with the benefit of retracting the nozzle out of sight.

#### **PCN PERFORMANCE DATA**

		Model	Flow		Pattern
			m³/hr	I/min	Type
		25	0.06	0.9	Trickle
		50	0.11	1.9	Trickle
V	•	10	0.23	3.8	Umbrella
	0	20	0.46	7.6	Umbrella

Typical spacing 0.3 to 0.9 m. Flows shown for

pressures between 1.0 and 4.8 bar; 100 and 480 kPa.

#### PCN



#### **PCN BUBBLER NOZZLES**



**PCN-25** Flow: 0.06 m<sup>3</sup>/hr; 0.9 l/min



**PCN-10** Flow: 0.23 m<sup>3</sup>/hr; 3.8 l/min



**PCN-50** Flow: 0.11 m<sup>3</sup>/hr; 1.9 l/min



**PCN-20** Flow: 0.46 m<sup>3</sup>/hr; 7.6 l/min

## 5-CST-B BUBBLER NOZZLE PERFORMANCE DATA

	Pressure		Radius	Flow	
	bar	kPa	m	m³/hr	l/min
	1.0	100	1.5	0.07	1.1
	1.5	150	1.5	0.07	1.2
-0-	2.0	200	1.5	0.09	1.4
	2.1	210	1.5	0.09	1.5
	2.5	250	1.5	0.10	1.6

#### 5-CST-B



#### **DUAL-STREAM BUBBLER NOZZLE**



5-CST-B

## **BUBBLERS**

Ensure consistent flow regardless of pressure with above-ground, pressure-compensating Bubblers.

#### **KEY BENEFITS**

- Pressure-compensating for constant water flow at any pressure
- Designed for deep watering of planted areas
- ½" threaded inlet for easy installation on a ½" riser
- Warranty period: 2 years

PCB PERFORMANCE DATA							
	Model	Flow		Pattern			
		m³/hr	I/min	Type			
	25	0.06	0.9	Trickle			
	50	0.11	1.9	Trickle			
	10	0.23	3.8	Umbrella			
	20	0.45	7.6	Umbrella			

#### Notes:

Typical spacing 0.6 to 1.2 m. Flows shown for pressures between 1.0 and 4.8 bar; 100 and 480 kPa.

#### PCB



#### PRESSURE-COMPENSATING BUBBLERS





PCB-R

PCB

#### AFB PERFORMANCE DATA

	Model	Flow		Pattern
		m³/hr	I/min	Type
0	AFB	< 0.45	< 7.6	Trickle/ Umbrella

#### AFB

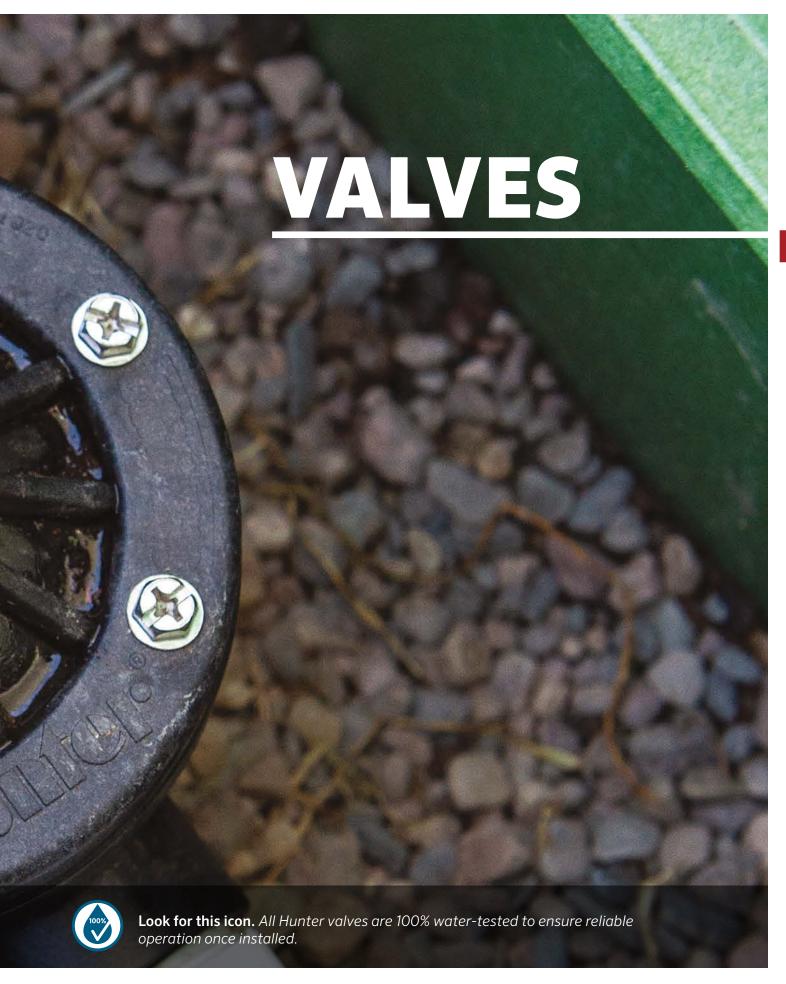


#### ADJUSTABLE FLOOD BUBBLER



**AFB** 





#### **VALVE COMPARISON CHART**

QUICK SPECS	1" PGV & JAR-TOP	PGV	ICV	ICV FILTER SENTRY	IBV FILTER SENTRY
SIZE	1" BSP (25 mm)	1½", 2" BSP (40, 50 mm)	1", 1½", 2", 3" BSP (25, 40, 50, 80 mm)	1", 1½", 2", 3" BSP (25, 40, 50, 80 mm)	1", 1½", 2", 3" BSP (25, 40, 50, 80 mm)
FLOW (I/min)	0.05-9 0.7-150	0.05-34 0.7-570	0.05-68 0.4-1135	0.05-68 0.4-1135	0.05-68 0.4-1135
FEATURES	0.7 150	0.7 070	0.1.1100	0.1 1150	0.1.1100
CAPTIVE BONNET BOLTS			•	•	
EPDM DIAPHRAGM AND SEAT			Standard	Standard	Standard
WARRANTY	2 Years	2 Years	5 Years	5 Years	5 Years
ADVANCED FEATURES					
FLOW CONTROL	Optional		•	•	•
FILTER SENTRY™ MECHANISM			User-Installed	Factory-Installed	Factory-Installed
ACCU SYNC™ CAPABLE			•	•	•
RECLAIMED WATER ID HANDLE	User-Installed	User-Installed	User-Installed	User-Installed	
RECLAIMED WATER ID TAG			User-Installed	User-Installed	User-Installed
APPLICATIONS		i			
RESIDENTIAL	•		•		
COMMERCIAL		•		•	•
POTABLE WATER					•
RECLAIMED WATER					•
SECONDARY WATER					
PRESSURE REGULATION				•	•
HIGH-PRESSURE SYSTEMS					
LOW-PRESSURE SYSTEMS				•	•
HIGH-TEMPERATURE LOCATIONS			•	•	•
USE AS MASTER VALVE					

#### **Advanced Features**



## ACCU SYNC PRESSURE REGULATORS

Available on: PGV, ICV, IBV

Avoid sprinkler over-pressure conditions and gain significant water savings with Accu Sync Pressure Regulators. This option is available in adjustable or fixed pressure models.



#### **FILTER SENTRY MECHANISM**

For use with: ICV, IBV

The Filter Sentry Mechanism scours the filter clean twice during each valve cycle. Since it is attached to the diaphragm, the Filter Sentry feature can be easily added after a valve has been installed.

## 11/2" AND 2" PGV



These reliable valves provide long-lasting performance for larger systems.

#### **KEY BENEFITS**

- External/internal manual bleed allows for quick and easy activation at the valve
- Double-beaded diaphragm seal design ensures leak-free performance
- Captive bonnet screws eliminate the possibility of lost parts during disassembly
- Flow control maximises efficiency and prolongs the life of the system
- Triple-tool bonnet screws are compatible with standard or Phillips screwdrivers as well as a nut driver
- Each valve available with globe or angle configuration for convenient placement
- Encapsulated solenoid with captive plunger used on every Hunter valve provides hassle-free service



PGV-151 Inlet diameter: 1½" (40 mm) Height: 19 cm Length: 15 cm Width: 11 cm



PGV-201 Inlet diameter: 2" (50 mm) Height: 20 cm Length: 17 cm Width: 13 cm

#### **USER-INSTALLED OPTIONS**

- Accu Sync™ Pressure Regulator at the valve\*
- DC-Latching Solenoid for battery-operated controllers (P/N 458200)
- Reclaimed flow control handle (P/N 607105)

#### **FACTORY-INSTALLED OPTIONS**

- DC: DC-Latching Solenoid for battery-operated controllers; see page 261
- · LS: Valve without solenoid

#### **OPERATING SPECIFICATIONS**

- Flow
  - PGV-151: 5 to 27  $m^3/hr$ ; 75 to 450 l/min
  - PGV-201: 5 to 34 m³/hr;
     75 to 570 l/min
- Recommended pressure range: 1.5 to 10 bar; 150 to 1000 kPa
- Temperature rating: 66°C
- · Warranty period: 2 years
- \* Accu Sync product information on page 98

#### **SOLENOID SPECIFICATIONS**

- 24 VAC solenoid
  - 350 mA inrush, 190 mA holding, 60 Hz
  - 370 mA inrush, 210 mA holding, 50 Hz

#### **PGV** Installed



PGV P	RESSURE LO			
Flow I/min	1½" (40 mm) Globe	<b>1½" (40 mm)</b> Angle	<b>2" (50 mm)</b> Globe	<b>2" (50 mm)</b> Angle
75	20	22	4	9
95	20	21	5.5	9
115	21	21	7.5	9.5
135	22	21	9	10
150	25	23	12	11
200	27	24	14	12
325	47	41	26	19
400	65	59	33	24
500	96	92	43	32
625			56	45
775			74	64

#### PGV 11/2" & 2" - SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4 Standard Model **Feature Options User-Installed Options Features** PGV-151-B = Globe / Angle (blank) = No option AS-ADJ = Accu Sync 1½" (40 mm) valve with flow adjustable **DC** = DC-Latching **BSP** control Solenoid battery-**458200** = DC-Latching operated controllers PGV-201-B = Solenoid for battery-operated 2" (50 mm) controllers LS = Less solenoid BSP **607105** = Reclaimed flow control handle LIT-700 = Reclaimed ID tag

#### Examples:

PGV-201-B-AS-ADJ = 2" (50 mm) BSP PGV globe/angle valve with flow control, user-installed Accu Sync Pressure Regulator

#### **PGV PRESSURE LOSS IN BAR**

Flo m <sup>3</sup>	ow 3/hr	<b>1½" (40 mm)</b> Globe	<b>1½" (40 mm)</b> Angle	<b>2" (50 mm)</b> Globe	<b>2" (50 mm)</b> Angle
4	1.5	0.2	0.2	0.1	0.1
5	5.5	0.2	0.2	0.1	0.1
6	5.5	0.2	0.2	0.1	0.1
8	8.0	0.2	0.2	0.1	0.1
9	9.0	0.2	0.2	0.1	0.1
11	1.0	0.3	0.2	0.1	0.1
13	3.5	0.3	0.3	0.1	0.1
18	3.0	0.4	0.4	0.2	0.1
2:	2.5	0.6	0.5	0.3	0.2
2	7.0	0.8	0.8	0.4	0.3
30	0.5			0.6	0.5
3.	4.0			0.7	0.6

## 1" PGV AND PGV JAR-TOP



These versatile and robust valves offer simple serviceability.

#### **KEY BENEFITS**

- External/internal manual bleed allows for quick and easy activation at the valve
- · Double-beaded diaphragm seal design ensures leak-free performance
- Captive bonnet screws eliminate the possibility of lost parts during disassembly
- Triple-tool bonnet screws are compatible with standard or Phillips screwdrivers as well as a nut driver
- Jar-top models provide easy access without tools
- Encapsulated solenoid with captive plunger used on every Hunter valve provides hassle-free service
- Flow control maximises efficiency and prolongs the life of the system

#### **USER-INSTALLED OPTIONS**

- Accu Sync™ Pressure Regulator at the valve\*
- DC-Latching Solenoid for battery-operated controllers (P/N 458200)

#### **FACTORY-INSTALLED OPTIONS**

- · LS: Valve without solenoid
- DC: DC-Latching Solenoid for battery-operated controllers; see page 261
- · JT: Jar-top models

#### **OPERATING SPECIFICATIONS**

- Flow: 0.05 to 9 m<sup>3</sup>/hr; 0.7 to 150 l/min
- Recommended pressure range: 1.5 to 10 bar; 150 to 1000 kPa
- Temperature rating: 66°C
- Warranty period: 2 years

#### **SOLENOID SPECIFICATIONS**

- 24 VAC solenoid
  - 350 mA inrush, 190 mA holding, 60 Hz
  - 370 mA inrush, 210 mA holding, 50 Hz
- \* Accu Sync product information on page 98



PGV-100G Inlet diameter: 1" (25 mm) Height: 13 cm Length: 11 cm Width: 6 cm



PGV-101G Inlet diameter: 1" (25 mm) Height: 13 cm Length: 11 cm Width: 6 cm



PGV-100JT-G Inlet diameter: 1" (25 mm) Height: 14 cm Length: 11 cm Width: 8 cm



PGV-101JT-G Inlet diameter: 1" (25 mm) Height: 14 cm Length: 11 cm Width: 8 cm







**AC Solenoid** (P/N 606800) Two red wires



**DC-Latching Solenoid** (P/N 458200) One black (common) wire and one red (station) wire

1 Model	2 Standard Features	3 Feature Options	4 Options	5 User-Installed Options
<b>PGV-100</b> = 1" (25 mm)	Globe valve, without flow control, threaded inlet/outlet	<b>G-B</b> = BSP female threaded inlet/outlet	<b>DC</b> = DC-Latching Solenoid for battery-operated controllers	AS-ADJ = Accu Sync adjustable
<b>PGV-101</b> = 1" (25 mm)	Globe valve, with flow control, threaded inlet/outlet			<b>458200</b> = DC-Latching Solenoid for battery-operated controllers
				269205 = Reclaimed flow control handl
				LIT-700 = Reclaimed ID tag

**Example: PGV-101-G-B-DC** = 1" (25 mm) PGV globe valve, with flow control, with female BSP inlet and outlet, with DC-Latching Solenoid

1 Model	2	Standard Features	3 Feature Options	4 Options	5 User-Installed Options
<b>PGV-100-JT</b> = 1" (25 mm)	with	ne valve, jar-top bonnet, out flow control, threaded /outlet	<b>G-B</b> = BSP female threaded inlet/outlet	<b>DC</b> = DC-Latching Solenoid for battery-operated controllers	AS-ADJ = Accu Sync adjustable
<b>PGV-101-JT</b> = 1" (25 mm)	Globe valve, jar-top bonnet, with flow control, threaded inlet/outlet		<b>MM-B =</b> BSP male threaded inlet/outlet	<b>LS</b> = Less solenoid	<b>458200</b> = DC-Latching Solenoid for battery-operated controllers
					269205 = Reclaimed flow control hand
					LIT-700 = Reclaimed ID tag

Example:

PGV-101-JT-MM-B-DC = 1" (25 mm) PGV globe valve, with jar-top bonnet, with flow control, with male BSP inlet and outlet, with DC-Latching Solenoid

1" (25 MM) PGV VALVE			1" (25 MM	) PGV VALVE
Flow Pressure Loss m <sup>3</sup> /hr bar			Flow I/min	Pressure Loss kPa
0.3	0.08		4	8
1.0	0.11		20	11
2.5	0.13		40	13
3.5	0.16		55	16
4.5	0.23		75	23
5.5	0.43		95	43
6.5	0.62		115	62
8.0	1.10		135	110
9.0	1.48		150	148





## **ICV**



This valve is the perfect choice for high-pressure systems and dirty water conditions.

#### **KEY BENEFITS**

- Optional Filter Sentry™ Mechanism scours the filter screen in dirty water conditions
- External/internal manual bleed allows for quick and easy activation at the valve
- Glass-filled nylon construction provides high pressure rating and reliability
- Double-beaded diaphragm seal design ensures leak-free performance
- Fabric-reinforced EPDM diaphragm and seat ensure greater performance in all water conditions
- Captive bonnet screws eliminate the possibility of lost parts during disassembly
- Triple-tool bonnet screws are compatible with standard or Phillips screwdrivers as well as a nut driver
- · Encapsulated solenoid with captive plunger used on every Hunter valve provides hassle-free service
- Flow control maximises efficiency and prolongs the life of the system

#### **USER-INSTALLED OPTIONS**

- Accu Sync™ Pressure Regulator at the valve\*
- DC-Latching Solenoid for battery-operated controllers (P/N 458200)
- · Filter Sentry easily added to an installed valve

#### **FACTORY-INSTALLED OPTIONS**

- · LS: Valve without solenoid
- DC: DC-Latching Solenoid for battery-operated controllers; see page 261
- FS: Filter Sentry
- FS-R: Reclaimed option with Filter Sentry, purple control knob, and purple chlorine-resistant diaphragm

#### **OPERATING SPECIFICATIONS**

- Flow:
  - ICV-101G: 0.03 to  $9 \, m^3/hr$ ; 0.4 to  $150 \, I/min$
  - ICV-151G: 0.03 to 34 m<sup>3</sup>/hr; 0.4 to 568 l/min
  - ICV-201G: 0.03 to 45 m<sup>3</sup>/hr; 0.4 to 757 l/min
  - ICV-301: 0.03 to 68 m<sup>3</sup>/hr; 0.4 to 1,135 l/min
- Recommended pressure range: 1.5 to 15.0 bar; 150 to 1500 kPa
- Temperature rating: 66°C
- Warranty period: 5 years

#### **SOLENOID SPECIFICATIONS**

- 24 VAC solenoid
  - 350 mA inrush, 190 mA holding, 60 Hz
  - 370 mA inrush, 210 mA holding, 50 Hz
- Accu Sync product information on page 98



ICV-101G Inlet diameter: 1" (25 mm) Height: 14 cm Length: 12 cm Width: 10 cm



ICV-151G Inlet diameter: 1½" (40 mm) Height: 18 cm Length: 17 cm Width: 14 cm



**ICV-201G** Inlet diameter: 2" (50 mm) Height: 18 cm Length: 17 cm Width: 14 cm



ICV-301 Inlet diameter: 3" (80 mm) Height: 27 cm Length: 22 cm Width: 19 cm



**ICV-R** Inlet diameter: 1" (25 mm), 1½" (40 mm), 2" (50 mm), and 3" (80 mm) Height: 18 cm Length: 17 cm Width: 14 cm





IC\	ICV 1", 1½", 2" AND 3" - SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4								
1	Model	2	Standard Features	3	Feature Options	4	User-Installed Options		
	/-101-G-B =		be valve with	(bl	ank) = No option	AS	-ADJ = Accu Sync adjustable		
	25 mm) BSP <b>/-151-G-B</b> =	†IO	w control	pu	= Filter Sentry rple reclaimed phragm and ID tag	Sol	<b>8200</b> = DC-Latching enoid for battery-operated atrollers		
11/2"	(40 mm) BSP					COI	itrollers		
	<b>/-201-G-B</b> = (50 mm) BSP			DC = DC-Latching Solenoid battery- operated controllers LS = Less solenoid		flov (25	7105 = Reclaimed w control handle 5, 40, 50 mm only) 7-700 = Reclaimed ID tag		
	<b>/-301-B</b> = (80 mm) BSP	val	obe / Angle ve with flow ntrol						



**Captive Bonnet Bolts** 



#### Example:

 $\label{lcv-201G-B-AS-ADJ} \hbox{ = } 2" \ (50 \ \text{mm}) \ \ BSP \ ICV \ globe \ valve \ with \ flow \ control, \ user-installed \ adjustable \ Accu \ Sync \ Pressure \ Regulator$ 

					IN BAR
Flow m³/hr	1" (25 mm) Globe	1½" (40 mm) Globe	2" (50 mm) Globe	3" (80 mm) Globe	3" (80 mm) Angle
0.05	0.1				
0.1	0.1				
0.3	0.1				
1.0	0.2				
2.5	0.2				
3.5	0.2				
4.5	0.2	0.1			
7.0	0.4	0.1			
9.0	1.0	0.1	0.1		
11.0		0.2	0.1		
13.5		0.2	0.1		
17.0		0.3	0.1		
20.5		0.4	0.2		
23.0		0.5	0.3		
27.0		0.7	0.4		
30.5		0.9	0.5		
34.0		1.2	0.6	0.2	0.1
40.0			0.9	0.2	0.2
45.5			1.2	0.3	0.2
51.0				0.3	0.3
57.0				0.4	0.4
62.5				0.5	0.5
68.0				0.6	0.6

ICV PF	RESSURE	LOSS (AT	OPTIMA	L FLOWS	) IN kPa
Flow I/min	1" (25 mm) Globe	1½" (40 mm) Globe	2" (50 mm) Globe	3" (80 mm) Globe	3" (80 mm) Angle
1	14				
2	14				
4	14				
20	17				
40	20				
60	20				
75	20	9.6			
115	62	10			
150	139	12	5.0		
190		15	7.0		
225		18	9.3		
280		26	14		
340		37	20		
380		46	26		
450		65	36		
510		84	47		
565		104	57	16	12
660			79	22	17
750			103	29	23
850				38	30
950				47	38
1,050				58	47
1,135				69	56



AC Solenoid (P/N 606800) Two red wires



**DC-Latching Solenoid** (P/N 458200) One black (common) wire and one red (station) wire

## **IBV**



Built of solid brass, this valve can power through the fiercest irrigation conditions.

#### **KEY BENEFITS**

- Factory-installed Filter Sentry<sup>™</sup> Mechanism scours the filter screen in dirty water conditions
- External/internal manual bleed allows for quick and easy activation at the valve
- · Heavy-duty brass construction provides high pressure rating and reliability
- Double-beaded diaphragm seal design ensures leak-free performance
- Fabric-reinforced EPDM diaphragm and seat ensure greater performance in all water conditions
- Triple-tool bonnet screws are compatible with standard or Phillips screwdrivers as well as a nut driver
- Encapsulated solenoid with captive plunger used on every Hunter valve provides hassle-free service
- Flow control maximises efficiency and prolongs the life of the system

#### **USER-INSTALLED OPTIONS**

- Accu Sync™ Pressure Regulator at the valve\*
- DC-Latching Solenoid for battery-operated controllers (P/N 458200)

#### **FACTORY-INSTALLED OPTIONS**

• DC: DC-Latching Solenoid for battery-operated controllers; see page 261

#### **OPERATING SPECIFICATIONS**

- · Flow rate:
  - IBV-101G-FS: 0.03 to 9  $\rm m^3/hr$ ; 0.4 to 150  $\rm l/min$
  - IBV-151G-FS: 0.03 to 34 m<sup>3</sup>/hr; 0.4 to 568 l/min
  - IBV-201G-FS: 0.03 to  $45 \, \text{m}^3/\text{hr}$ ; 0.4 to  $757 \, \text{l/min}$
  - IBV-301G-FS: 0.03 to 68  $m^3/hr$ ; 0.4 to 1,135 l/min
- Recommended pressure range: 1.5 to 15 bar; 150 to 1500 kPa  $\,$
- Temperature rating: 66°C
- Warranty period: 5 years

#### **SOLENOID SPECIFICATIONS**

- 24 VAC solenoid
  - 350 mA inrush, 190 mA holding, 60 Hz
  - 370 mA inrush, 210 mA holding, 50 Hz  $\,$
- \* Accu Sync product information on page 98



IBV-101G-FS Inlet diameter: 1" (25 mm) Height: 14 cm Length: 12 cm Width: 8 cm



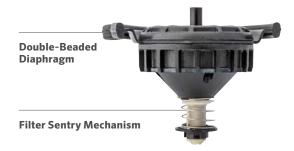
IBV-151G-FS Inlet diameter: 1½" (40 mm) Height: 17 cm Length: 15 cm Width: 15 cm

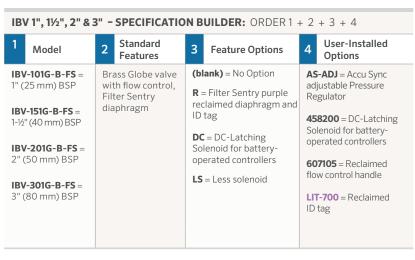


IBV-201G-FS Inlet diameter: 2" (50 mm) Height: 18 cm Length: 15 cm Width: 15 cm



IBV-301G-FS Inlet diameter: 3" (80 mm) Height: 23 cm Length: 22 cm Width: 18 cm







#### Example:

 $\label{eq:BV-201G-B-FS-AS-ADJ} \textbf{J} = 2" (50 \text{ mm}) \text{ BSP IBV brass globe valve with flow control, Filter Sentry diaphragm, user-installed adjustable Accu Sync Pressure Regulator$ 

	ESSURE LO		2			ESSURE LO	SS WS) IN kPa		
Flow m³/hr	1" (25 mm) Globe	1½" (40 mm) Globe	2" (50 mm) Globe	3" (80 mm) Globe	Flow I/min	1" (25 mm) Globe	1½" (40 mm) Globe	2" (50 mm) Globe	3" (80 mm) Globe
0.05	0.1				0.1	14			
0.1	0.1				0.5	14			
0.3	0.1				4	14			
1.0	0.2				20	17			
2.5	0.2				40	20			
3.5	0.2				60	20			
4.5	0.2	0.1			75	20	9.6		
7.0	0.4	0.1			115	62	10		
9.0	1.0	0.1	0.1		150	139	12	5	
11.0		0.2	0.1		190		15	7	
13.5		0.2	0.1		225		18	9.3	
17.0		0.3	0.2		280		26	14	
20.5		0.4	0.2		340		37	20	
23.0		0.5	0.3		380		46	26	
27.0		0.7	0.4		450		65	36	
30.5		0.9	0.5		510		84	47	
34.0			0.6	0.2	565			57	16
40.0				0.2	660				22
45.5				0.3	750				29
51.0				0.3	850				38
57.0				0.4	950				47
62.5				0.5	1,050				58
68.0				0.6	1,135				69

## **QUICK COUPLERS**

The sturdy red brass and stainless steel construction of Quick Couplers strengthens any project.

#### **FEATURES**

- 100% interchangeable with major brands
- Red brass and stainless steel construction
- Heavy-duty thermoplastic locking and non-locking covers
- · Optional winged stabilisation and Acme key connection
- Stainless steel lug on 1" (25 mm) and 11/4" (32 mm) keys
- Spring-loaded covers with stainless steel springs for positive closing and protection of valve's sealing components
- Warranty period: 5 years



**Quick Couplers** 

#### **HQ QUICK COUPLER - SPECIFICATION BUILDER:** ORDER 1 + 2 + 3 Model **Cover Options Additional Options** $HQ-3 = \frac{3}{4}$ " inlet, 1-piece body, 2 slots RC = Yellow rubber cover (blank) = No option **HQ-5** = 1" (25 mm) inlet, 1-piece body, 1 slot **LRC** = Yellow locking rubber cover AW = Acme key with anti-rotation wings (Not available for HQ-3 body) (Only available for HQ-44 body) $\mathbf{HQ-33D} = \frac{3}{4}$ " inlet, 2-piece body, 2 slots **BSP** = BSP threads **HQ-44** = 1" (25 mm) inlet, 2-piece body, 1 slot or Acme (Only available for HQ-5 body) R = Purple locking cover (reclaimed water ID; only available for LRC models)

#### Examples:

HQ-3-RC = HQ-3 valve with rubber cover

**HQ-44-LRC** = HQ-44 valve with locking rubber cover

**HQ-44-LRC-**R = HQ-44 valve with locking rubber cover and purple locking cover

HQ-44-LRC-AW-R = HQ valve, with locking rubber cover, Acme key socket, anti-rotation wings and purple locking cover

**HQ-5-LRC-BSP** = HQ-5 valve with locking rubber cover and BSP threads



HQ-3-RC HQ-5-RC



HQ-33-DLRC-R HQ-44-LRC HK-44









Non-locking Locking

Reclaimed



HQ-44-RC-AW HK-44A



All locking models have an optional purple cover for sites using reclaimed water.

**Reclaimed Water Option** 

HK KEYS		
Key Model	Compatible Valve	Compatible Swivel
HK-33 = ¾" valve, ¾" key inlet	HQ-3, HQ-33	HS-0
HK-44 = 1" (25 mm) valve, 1" (25 mm) key inlet	HQ-44	HS-1, HS-2, HS-1-B, HS-2-B
HK-44A = 1" (25 mm) valve, Acme key inlet	HQ-44-AW	HS-1, HS-2, HS-1-B, HS-2-B
HK-55 = 1" (25 mm) valve, 1¼" (32 mm) key inlet	HQ-5	HS-1, HS-2, HS-1-B, HS-2-B

HS HOSE SWIVELS				
Hose Swivel	Compatible Key			
HS-0 = 3/4" inlet, 3/4" hose outlet	HK-33			
HS-1 = 1" (25 mm) inlet, ¾" hose outlet	HK-44, HK-44A, HK-55			
HS-2 = 1" (25 mm) inlet, 1" (25 mm) hose outlet	HK-44, HK-44A, HK-55			
HS-1-B = 1" (25 mm) inlet, ¾" (20 mm) BSP outlet	HK-44, HK-44A, HK-55			
HS-2-B = 1" (25 mm) inlet, 1" (25 mm) BSP outlet	HK-44, HK-44A, HK-55			

QUICK COUPLER, KEY, AND HOSE SWIVEL CHARTS							
Model	Inlet Threads	Slots	Body	Colour*	Locking	Key	Swivels
HQ-3-RC	3/4"	2	1-piece	Yellow	No	HK-33	HS-0
HQ-33-DRC	3/4"	2	2-piece	Yellow	No	HK-33	HS-0
HQ-33-DLRC	3/4"	2	2-piece	Yellow	Yes	HK-33	HS-0
HQ-44-RC	1" (25 mm) NPT	1	2-piece	Yellow	No	HK-44	HS-1 or HS-2
HQ-44-LRC	1" (25 mm) NPT	1	2-piece	Yellow	Yes	HK-44	HS-1 or HS-2
HQ-44-RC-AW	1" (25 mm) NPT	Acme	2-piece wing**	Yellow	No	HK-44A	HS-1 or HS-2
HQ-44-LRC-AW	1" (25 mm) NPT	Acme	2-piece wing**	Yellow	Yes	HK-44A	HS-1 or HS-2
HQ-5-RC	1" (25 mm) NPT	1	1-piece	Yellow	No	HK-55	HS-1 or HS-2
HQ-5-LRC	1" (25 mm) NPT	1	1-piece	Yellow	Yes	HK-55	HS-1 or HS-2
HQ-5-RC-BSP	1" (25 mm) BSP	1	1-piece	Yellow	Yes	HK-55	HS-1 or HS-2
HQ-5-LRC-BSP	1" (25 mm) BSP	1	1-piece	Yellow	Yes	HK-55	HS-1 or HS-2

 $^{\ast}$  All locking cover models are available with purple covers for reclaimed water applications  $^{\ast\ast}$  Anti-rotation stabilisation wings

HQ PRE	HQ PRESSURE LOSS IN BAR					SSURE	LOSS II	N kPa	
Flow m³/hr	HQ-3	HQ-33	HQ-44	HQ-5	Flow I/min	HQ-3	HQ-33	HQ-44	HQ-5
1	0.06	0.07			18.9	5.5	6.9		
2.3	1.12	0.14			37.9	12.4	13.8		
3.4	0.28	0.30	0.15		56.8	28.3	29.6	15.2	
4.5	0.50	0.52	0.30	0.07	75.7	49.6	52.4	30.3	6.9
6.8			0.79	0.21	113.6			79.3	20.7
9.1				0.43	151.4				43.4
11.4				0.63	189.3				63.4
13.6				0.90	227.1				89.6
15.9				1.37	265.0				136.5





HS-1-B HS-2-B

## **ACCU SYNC™ PRESSURE REGULATORS**

Gain unparalleled pressure regulation for any Hunter valve.

#### **OPERATING SPECIFICATIONS**

- Regulation from 1.4 to 7.0 bar; 140 to 700 kPa
- Static pressure: 10 bar; 1,000 kPa
- Required dynamic pressure differential: 1.0 bar; 100 kPa
- Works with AC and DC-Latching Solenoids
- · Works with any Hunter valve
- · Warranty period: 2 years

### ACCU SYNC VALVE RECOMMENDED FLOW RANGE

Valve	FI	ow
	m³/hr	l/min
PGV-100/101	1.2-6.8	19-114
PGV-151	4.5-28	75-454
PGV-201	9.0-34	150-750
ICV-101	1.2-9.0	19-150
ICV-151	4.5-31	75-510
ICV-201	9.0-34	150-560
ICV-301	34-68	565-1135
IBV-101	1.2-9.0	19-150
IBV-151	4.5-31	75-510
IBV-201	9.0-46	150-560
IBV-301	34-68	565-1135

### ADJUSTABLE



**AS-ADJ** Height with solenoid: 8 cm

#### **ADAPTER**



**SOLENOID ADAPTER** 

#### **FIXED**



**AS-30** Height with solenoid: 8 cm



**AS-40** Height with solenoid: 8 cm

# Adjustable 1.4 to 7.0 bar For full customisation, the adjustable Accu Sync can regulate pressure from 1.4 to 7.0 bar; 140 to 700 kPa Fixed 2.1 bar Ideal for spray systems, pressure-regulated to 2.1 bar; 210 kPa Ideal for MP Rotator Nozzles and large in-line drip systems, pressure-regulated to 2.8 bar; 280 kPa

# ACCU SYNC PRESSURE REGUALTORS- SPECIFICATION BUILDER: ORDER 1 + 2 1 Model 2 Inlet/Outlet ACCU SYNC ADJ = Adjustable Pressure Regulator (1.4 to 7.0 bar) 30 = Fixed Pressure Regulator (2.1 bar) 40 = Fixed Pressure Regulator (2.8 bar)

#### Example:

ICV-201G-B-AS-ADJ = 2" (50 mm) BSP ICV globe valve with flow control, user-installed adjustable Accu Sync Pressure Regulator





Installation

Accu Sync shown installed on ICV and PGV Valves.



## **HUNTER VALVES** *BUILT TO THRIVE UNDER PRESSURE*

From residential to commercial applications, high pressure to low pressure, and clean water to dirty water, Hunter valves keep your system running flawlessly day in and day out.

#### **ULTIMATE RELIABILITY**

- Fewer parts means greater longevity and simple operation
- AC and DC models for flexibility
- Residential models handle up to 10 bar; 1000 kPa
- Commercial models handle up to 15 bar; 1500 kPa

#### SIMPLE PRESSURE REGULATION

- Regulating at the valve greatly enhances efficiency
- Accu Sync™ Pressure Regulators provide simple regulation from 1.4 to 7.0 bar; 140 to 700 kPa





## **CONTROLLER**

## SELECTION GUIDE

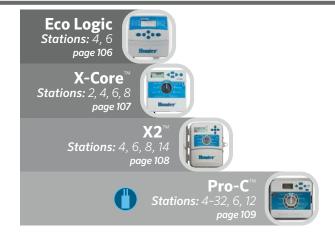
#### **Platform**

#### **AC-Powered Controllers**

#### **STANDARD**

Details on page 104

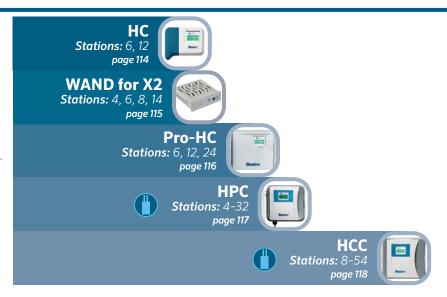
Button and dial-based controllers are standalone systems that offer water-saving features and convenient remote control operation for faster maintenance.



#### **HYDRAWISE®**

Details on **page 110** 

The Wi-Fi controller solution designed for contractors. Hydrawise is simple to set up, easy to use, and packed with helpful features, to help you remotely manage your customers' irrigation systems. Built-in system monitoring and a suite of powerful tools make saving water and managing customers or multiple sites easy.



#### **CENTRALUS™**

Details on page 120

Add cloud-based control and monitoring for ICC2 and ACC2 Controllers with the mobile-friendly Centralus Irrigation Management Platform.



Use this guide to quickly compare Hunter controller power needs, station counts, and software platforms to ensure you choose the best controller for every installation.

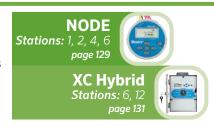
#### **Platform**

#### **Battery-Operated Controllers**

#### **INDEPENDENT**

Details on page 126

Battery-operated controllers allow automatic irrigation for power-restricted valve locations and areas where hardscape blocks the ability to run wire affordably.



#### **BLUETOOTH®**

Details on page 126

Bluetooth enabled, batteryoperated controllers have all the benefits of independent battery controllers with convenient, on-site wireless control from a smartphone.











Standard controllers are self-contained irrigation systems designed for simple installation and programming. They offer locally measured weather monitoring capabilities for automatic schedule adjustments, the option of modular station flexibility, and convenient remote control operation for faster maintenance.

#### STANDARD CONTROLLER COMPARISON CHART

CONTROLLER MODELS	MAXIMUM STATIONS	SENSOR INPUTS	TWO-WIRE	REMOTE CONTROL	WEB ACCESS
ECO LOGIC	6	1	N/A	N/A	N/A
X-CORE	8	1	N/A	ROAM, ROAM XL	N/A
X2	14	1	N/A	ROAM, ROAM XL, Hydrawise App	Hydrawise, Wi-Fi
PRO-C	32	1	EZDS	ROAM, ROAM XL	N/A

## **ECO LOGIC**

The reliable Eco Logic Controller is the first choice for small residential areas and has the option for water-saving accessories.

#### **KEY BENEFITS**

- Number of stations:
   4 or 6 (fixed models)
- 2 programs with 4 start times each, and up to 4-hour run times
- QuickCheck™ Technology provides simple diagnostics of faulty field wiring
- Suspend irrigation up to 7 days during the off-season
- Short-circuit protection detects wiring faults and skips the station without system damage
- Seasonal adjustment for quicker schedule adjustments without changing run times

#### **OPERATING SPECIFICATIONS**

- Transformer input: 230 VAC
- Transformer output (24 VAC): 0.625 A
- Station output (24 VAC): 0.56 A
- P/MV output (24 VAC): 0.28 A
- · Sensor inputs: 1
- Approvals: UL, cUL, FCC, CE, RCM, ISED
- Warranty period: 2 years

ECO LOGIC	
Model	Description
ELC-401i-E	4-station indoor controller, 230 VAC wall adapter
ELC-601i-E	6-station indoor controller, 230 VAC wall adapter



#### Plastic Indoor Height: 12.6 cm Width: 12.6 cm Length: 3.2 cm

#### Compatible with:



#### ECO LOGIC



## X-CORE™

This simple irrigation controller offers optional on-site smart ET watering adjustments and handheld remote operation.

#### **KEY BENEFITS**

- · Number of stations:
  - 2, 4, 6, or 8 (fixed models)
- • Add a Solar Sync • Sensor to save water based on local weather conditions
- · Built-in key lock on outdoor models protects against vandalism
- 3 flexible programs with 4 start times each and up to 4-hour run times
- QuickCheck™ Technology provides simple diagnostics of faulty field wiring
- Hide Programs setting shows 1 program and 1 start time for simplification
- Suspend irrigation up to 99 days during the off-season
- Short-circuit protection detects wiring faults and skips the station without system damage
- Easy Retrieve<sup>™</sup> Memory backs up the full irrigation schedule
- Delay Between Stations for slow-closing valves or pump recharge
- Cycle and Soak prevents water waste and runoff in areas with elevation changes or tight soils
- Seasonal adjustment for quicker schedule adjustments without changing run times

#### **OPERATING SPECIFICATIONS**

- Transformer input: 120 VAC or 230 VAC
- Transformer output (24 VAC): 1 A
- Station output (24 VAC): 0.56 A
- P/MV output (24 VAC): 0.28 A
- Sensor inputs: 1
- Approvals: Plastic IP54 (outdoor), UL, cUL, FCC, CE, RCM, ISED
- Warranty period: 2 years

X-CORE - SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4						
1 Model	2 Transformer	3 Indoor/Outdoor	4 Plug			
<b>XC-2</b> = 2-station (indoor only)	<b>00</b> = 120 VAC	(blank) = Outdoor model	(blank) = American plug			
<b>XC-4</b> = 4-station	<b>01</b> = 230 VAC	i = Indoor model	<b>E</b> = European connections, no plug			
<b>XC-6</b> = 6-station			<b>A</b> = Australian plug			
<b>XC-8</b> = 8-station						

#### Examples:

**XC-801i-E** = 8-station controller, 230 VAC European wall adapter, indoor

XC-801-A = 8-station controller, 230 VAC internal transformer, outdoor with Australian plug



#### **Plastic Indoor**

Height: 16.5 cm Width: 14.6 cm Depth: 5 cm



#### **Plastic Outdoor**

Height: 22 cm Width: 17.8 cm Depth: 9.5 cm

#### Compatible with:



Solar Sync Sensor Page 153



ROAM Remote Page 140 ROAM XL Remote Page 141



Soil-Clik Sensor Page 150



#### Smart WaterMark

Recognised as a responsible water-saving tool when used with a Solar Sync Sensor  $\,$ 



This online-capable controller offers rapid schedule programming and advanced water-saving features.

#### **KEY BENEFITS**

- Number of stations:
  - 4, 6, 8, or 14 (fixed models)
- · Wi-Fi capable controller automatically managed by Hydrawise® Software
- Backlit display provides optimal visibility in any light
- 3 flexible programs with 4 start times each and up to 6-hour run times
- QuickCheck™ Technology provides simple diagnostics of faulty
- Hide Programs option shows 1 program and 1 start time for simplification

- Suspend irrigation up to 99 days during the off-season
- Short-circuit protection detects wiring faults and skips the station without system damage
- Easy Retrieve<sup>™</sup> Memory backups the full irrigation schedule
- Delay Between Stations for slowclosing valves or pump recharge
- Cycle and Soak prevents water waste and runoff in areas with elevation changes or tight soils
- Seasonal adjustment for quicker schedule adjustments without changing run times

#### WI-FI MODULE BENEFITS

- Provides online irrigation management with controller status and faulty wiring alerts
- Standard ABC programming allows for 3 independent programs with 6 start times per program and 24-hour maximum run times
- Predictive Watering™ provides precise weather adjustments for maximum water savings
- Compatibility with Amazon Alexa™, Control4®, and HomeSeer
- See complete WAND Wi-Fi Module benefits and specifications on page 115

#### **OPERATING SPECIFICATIONS**

- Transformer input: 120 VAC or 230 VAC
- Transformer output (24 VAC): 1 A
- Station output (24 VAC): 0.56 A
- P/MV output (24 VAC): 0.28 A
- Sensor inputs: 1

- Approvals (controller): Plastic IP55 (outdoor), UL, cUL, FCC, CE, RCM, ISED
- Approvals (module): Wi-Fi b/g/n, Bluetooth® 5.0, UL, cUL, FCC, CE, RCM, ISED
- · Warranty period: 2 years



**X2** 

Height: 23 cm Width: 19 cm Depth: 10 cm



WAND Bluetooth and Wi-Fi Module

Height: 2 cm Width: 5 cm Depth: 5 cm

#### Compatible with:



Hydrawise Software **Page 112** 



**ROAM Remote Page 140 ROAM XL Remote Page 141** 



Rain-Clik Sensor **Page 148** 



#### Smart WaterMark

Recognised as a responsible water-saving tool when used with the WAND Module

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG Inc. and any use of such marks by Hunter Industries is under licence. Amazon Alexa is a trademark of Amazon.com Inc. or its affiliates. Control4 is a registered trademark of Control4 Corporation in the United States and/ or other countries. HomeSeer is a trademark of HomeSeer Technologies LLC.



X2-1401-E = 14-station controller, 230 VAC internal transformer with no plug X2-1401-A = 14-station controller, 230 VAC internal transformer with Australian plug

WAND MODULE			
Model	Description		
WAND	Bluetooth and Wi-Fi Module for Hydrawise Irrigation Management Platform		

# PRO-C™

Simple programming and flexible station expansion make Pro-C the professional's choice for residential and light commercial systems.

#### **KEY BENEFITS**

- · Number of stations:
  - Modular Pro-C
    - Conventional wiring from 4 to 23 stations
    - Hybrid EZ Decoder option up to 32 total stations (28 stations max. if two-wire only)
  - Fixed PCC with 6- and 12-station options
- 3 independent irrigation programs (4 start times each) allow for customised scheduling
- 1 sensor input available for use with Solar Sync™ or any Clik sensors
- 1P/MV output for pump start relay and master valve activation
- Add a Solar Sync<sup>™</sup> Sensor to save water based on local weather conditions
- Easy Retrieve™ Memory allows for manual backup and retrieval of preferred settings and programming
- QuickCheck™ Technology provides simple diagnostics of faulty field wiring

#### **OPERATING SPECIFICATIONS**

- Transformer input: 120 VAC or 230 VAC
- Transformer output (24 VAC): 1 A
- Station output (24 VAC): 0.56 A
- P/MV output (24 VAC): 0.28 A
- Approvals: IP44 (outdoor), UL, cUL, FCC, CE, RCM, ISED
- Warranty period: 2 years

PRO-C - SPECIFICAT	<b>PRO-C - SPECIFICATION BUILDER:</b> ORDER 1 + 2 + 3 + 4					
1 Model	2 Transformer	3 Indoor/Outdoor	4 Options			
<b>PC-4</b> = 4-station base module controller	<b>00</b> = 120 VAC	(blank) = Outdoor model (internal transformer)	(blank) = No option <b>E</b> = 230 VAC with			
<b>PCC-6</b> = 6-station <b>PCC-12</b> = 12-station	<b>01</b> = 230 VAC	i = Indoor model (plug-in transformer)	European connections, no plug <b>A</b> = 230 VAC with			
			Australian connections (outdoor models have internal transformer with plug)			

#### Examples:

PC-400 = Modular 4-station outdoor base unit, internal 120 VAC transformer, and plastic cabinet PCC-601i-E = Fixed 6-station indoor controller, plug-in 230 VAC transformer with European connections, and plastic cabinet

PCC-1200 = Fixed 12-station outdoor controller, internal 120 VAC transformer, and plastic cabinet

PC-SERIES STATION EXPANSION		
Modules	Description	
PCM-300	3-station plug-in module	
PCM-900	9-station plug-in module	
PCM-1600	16-station plug-in module	
PC-DM	EZ Decoder output module	
PCM-1600-KIT	Upgrade kit for 16-station plug-in module	
PC-DM-KIT	Upgrade kit for EZ Decoder output module	



**Plastic Indoor** Height: 22.9 cm

Width: 25.4 cm Depth: 11.4 cm



#### **Plastic Outdoor**

Height: 22.9 cm Width: 25.4 cm Depth: 11.4 cm

#### Compatible with:







Solar Sync Sensor **Page 153** 

**ROAM Remote Page 140 ROAM XL Remote Page 141** 

EZ Decoder System **Page 136** 



#### Smart WaterMark

Recognised as a responsible water-saving tool when used with a Solar Sync Sensor







A healthy, beautiful garden needs just the right amount of water to thrive. The Hydrawise Irrigation Management Platform automatically adjusts watering based on local weather data. Choose from a complete lineup of Hydrawise enabled controllers to maximise water and money savings in any setting.

#### **HYDRAWISE CONTROLLER COMPARISON CHART**

CONTROLLER MODELS	MAXIMUM STATIONS	SENSOR INPUTS	TWO-WIRE	REMOTE CONTROL	WEB ACCESS	FLOW
НС	12	2	N/A	Hydrawise App	Hydrawise: Wi-Fi	HC Flow Meter (wired or wireless)
WAND for X2	14	1	N/A	ROAM, ROAM XL, Hydrawise App	Hydrawise: Wi-Fi	N/A
PRO-HC	24	2	N/A	Hydrawise App	Hydrawise: Wi-Fi	HC Flow Meter (wired or wireless)
НРС	32	1	EZDS	ROAM, ROAM XL, Hydrawise App	Hydrawise: Wi-Fi	HC Flow Meter (wired or wireless)
НСС	54	2	EZDS	ROAM, ROAM XL, Hydrawise App	Hydrawise: Wi-Fi	HC Flow Meter (wired or wireless)

# HYDRAWISE® SOFTWARE

As the industry's best Wi-Fi control solution, the Hydrawise Irrigation Management Platform allows for professional multi-site management and provides a range of helpful water-saving features for end users.



#### **Save Water**

#### PREDICTIVE WATERING™

Predictive Watering Technology uses past, current, and forecast weather data sourced from the internet to automatically adjust to local, real-time conditions and provide homeowners and end users with tremendous water savings.

#### **VIRTUAL SOLAR SYNC™**

Virtual Solar Sync uses daily ET measurements from your selected weather stations to supplement the Predictive Watering adjustments on your controller, working to save even more water.



#### **Protect the Landscape**

#### **SYSTEM MONITORING**

Flow rate and valve monitoring alert you in the event of a problem, so you can quickly prevent landscape degradation before significant damage occurs.

#### **WEATHER MONITORING**

Web-based climate monitoring automatically adjusts irrigation systems to local weather conditions, ensuring plants remain healthy — rain or shine.



#### Save Time and Labour

#### **REMOTE MANAGEMENT**

Make changes to a program and know the status of the controller and the irrigation plan without a site visit.

#### STORE CUSTOMER PLANS AND DESIGNS

Attach irrigation system layouts to your customers' controllers for quick reference in the field. Never forget the location of the pipes or valve box again.

#### **ON-SITE REMOTE**

Turn your smartphone into a remote control to make changes and check the irrigation system without visiting the controller.

All trademarks are property of their respective owners.



#### **Build a Stronger Business**

#### **BUILD A STRONGER BUSINESS**

Add services, grow revenue, increase customer satisfaction, and rest assured that Hydrawise has your back as you expand your business.

#### **BUSINESS BRANDING**

Gain instant recognition from your customers by including your business logo and details in your Hydrawise account.

#### **MULTI-SITE MANAGER**

Manage customers or multiple sites with our unique business tools.

- Summary of all controllers
- Map view of controllers
- · List view of customers/sites
- Search for customers and controllers
- View all controller events and logs
- · View all controller alerts
- Branded automatic email reporting to customers

- · Global control settings
- Alerts
- Watering Schedules
- Start Times
- Watering Triggers
- Quick select controllers
- · Generate job sheets
- Manage subcontractors or regions

#### **BUSINESS ACCOUNT**

Manage staff access with different levels of permission. Remove or add staff easily and quickly. Add and store files, irrigation plans, layouts, or other documents for access by your staff.

#### **MESSAGING**

Receive messages from and send messages to customers and staff through the Hydrawise App.



### Manage from Anywhere

#### **GLOBAL APP AND WEB ACCESS**

Sit back and relax. With Hydrawise, everything you need is in the palm of your hand. Remote access allows you to view, manage, and monitor irrigation controllers from your smartphone, tablet, or computer at your convenience.

#### **SMART-HOME COMPATIBILITY**

Hydrawise integrates seamlessly with Amazon Alexa  $^{\text{TM}}$ , Control  $4^{\circ}$ , and Home Seer.



#### What's New with Hydrawise

- HPC Controller now compatible with the EZ Decoder System up to 32 stations Create custom reports for water savings and forecasts and automatically email them to your customers
- WAND Module for X2 Controllers provides super-fast Bluetooth remote, Wi-Fi setup, and a convenient copy-paste function
- Nine new updates to the Contractor Portal
- Controller touchscreen enhancements



Smart WaterMark

Access to Hydrawise Software is free for all users worldwide.

To learn more, visit hydrawise.com.

Hunter



#### **HC Controller**

6- and 12-station count



#### X2 Controller with WAND Module

4-, 6-, 8-, and 14-station count



Recognised as a responsible water-saving tool

#### **Pro-HC Controller**

6-, 12-, and 24-station count



#### **HPC Controller**

4- to 32-station count, EZDS two-wire option



#### **HCC Controller**

8- to 54-station count, EZDS two-wire option



#### **HC Flow Meter**

Add an optional flow meter to receive flow alerts and monitor water consumption

Not available for X2

# HC

The cost-effective solution for residential projects, the HC Controller provides smart water savings and remote irrigation management capabilities.

#### **KEY BENEFITS**

- Number of stations:
   6 or 12 (fixed models)
- Standard programming option allows for 6 independent irrigation programs and 6 start times per program
- Advanced programming option provides station-based programming with up to 6 total start times available
- 2 sensor inputs available for use with any Clik sensors and HC Flow Meter
- Station outputs can also be used to activate a pump start relay or master valve
- · Wi-Fi enabled for quick connection to Hydrawise Software
- 7 cm full-colour touchscreen display for simple programming at the control panel
- Built-in milliamp sensor for wire fault detection and alerts (12-zone models)

#### **OPERATING SPECIFICATIONS**

- Transformer input: 120 VAC or 230 VAC
- Transformer output (24 VAC): 1 A
- Station output (24 VAC): 0.56 A
- P/MV output (24 VAC): 0.28 A
- 2.4 GHz (only) Wi-Fi router compatible, 802.11 b/g/n 20 MHz
- Supported security protocols: WPA/WPA2 Personal (only) TLS, SSL
- · Approvals: UL, cUL, FCC, CE, RCM, ISED
- · Warranty period: 2 years

#### **USER-INSTALLED OPTIONS**

 Wireless HC Flow Meter option permits wireless flow monitoring for Hydrawise enabled systems; see page 155

# Try Hydrawise Software today, hardware-free at hydrawise.com



#### HC

(plastic indoor) Height: 15.2 cm Width: 17.8 cm Depth: 3.3 cm

#### Compatible with:







Soil-Clik Sensor Page 150



Rain-Clik Sensor Page 148



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нс	
Model	Description
HC-600i	Fixed 6-station, plastic indoor wall mount, 120 VAC wall adapter
HC-601i-E	Fixed 6-station, plastic indoor wall mount, 230 VAC European wall adapter
HC-601i-A	Fixed 6-station, plastic indoor wall mount, 230 VAC Australian wall adapter
HC-1200i	Fixed 12-station, plastic indoor wall mount, 120 VAC wall adapter
HC-1201i-E	Fixed 12-station, plastic indoor wall mount, 230 VAC European wall adapter
HC-1201i-A	Fixed 12-station, plastic indoor wall mount, 230 VAC Australian wall adapter

# WAND FOR X2™

This Wi-Fi upgrade option equips X2 Controllers with remote management capabilities from anywhere with an internet connection.

#### **KEY BENEFITS**

- This simple, plug-in device enables Hydrawise irrigation management capabilities for any X2 Controller to provide maximum water savings
- Provides controller status updates and faulty wiring alerts to signify the need for maintenance before costly landscape damage occurs
- Standard programming allows for 3 independent programs with 6 start times per program and 24-hour maximum run times
- Transfer X2 programming to Hydrawise for faster software setup
- Rapid Programming™ allows an existing Hydrawise schedule to be copied to any standalone X2 Controller for full schedule set up in seconds without touching the dial or buttons
- Use your smartphone as a manual remote when Wi-Fi is unavailable or the controller is hard to access
- Compatible with Amazon Alexa<sup>™</sup>, Control4<sup>®</sup>, and HomeSeer
- See complete X2 Controller key benefits and specifications on page 108

#### **OPERATING SPECIFICATIONS**

- Flexible setup options: Bluetooth® Wi-Fi tether, Wi-Fi direct, or WPS push-button connection
- Bluetooth 5.0
- 2.4 GHz (only) Wi-Fi router compatible, 802.11 b/g/n 20 MHz
- Supported security protocols: WPA/WPA2 Personal (only) TLS, SSL
- Approvals: UL, cUL, FCC, CE, RCM, ISED
- Warranty period: 2 years

# Try Hydrawise Software today, hardware-free at hydrawise.com



**WAND** Bluetooth and Wi-Fi Module Height: 2 cm

Width: 5 cm Depth: 5 cm



**WAND Module installed in X2 Controller** 

WAND MODULE		
Model	Description	
WAND	Bluetooth and Wi-Fi Module for Hydrawise Irrigation Management Platform	
X2	See page 108 for model chart	

#### WAND INSTALLATION



#### Compatible with:



X2 Controller Page 108



ROAM Remote Page 140 ROAM XL Remote Page 141



Rain-Clik Sensor Page 148



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# PRO-HC

Use this rugged, professional-grade Wi-Fi controller for residential and light commercial applications.

#### **KEY BENEFITS**

- Number of stations:
   6, 12, or 24 (fixed models)
- Standard programming option allows for 6 independent irrigation programs and 6 start times per program
- Advanced programming option provides station-based programming with up to 6 total start times available
- · 2 sensor inputs available for use with any Clik sensor and HC Flow Meter
- 1 P/MV output for pump start relay and master valve activation
- Wi-Fi enabled for quick connection to Hydrawise software
- 7 cm full-colour touchscreen display for simple programming at the control panel
- · Built-in milliamp sensor for wire fault detection and alerts

#### **OPERATING SPECIFICATIONS**

- Transformer input: 120 VAC or 230 VAC
- Transformer output (24 VAC): 1 A
- Station output (24 VAC): 0.56 A
- P/MV output (24 VAC): 0.28 A
- 2.4 GHz (only) Wi-Fi router compatible, 802.11 b/g/n 20 MHz
- · Supported security protocols: WPA/WPA2 Personal (only) TLS, SSL
- Approvals: IP44 (outdoor), UL, cUL, FCC, CE, RCM, ISED
- · Warranty period: 2 years

#### **USER-INSTALLED OPTIONS**

 Wireless HC Flow Meter option permits wireless flow monitoring for Hydrawise enabled systems; see page 155

#### PRO-HC - SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4 Model Transformer Indoor/Outdoor Options PHC-6 = 6-station **00** = 120 VAC (blank) = Outdoor model (blank) = No option controller (internal transformer) **E** = 230 VAC with **01** = 230 VAC **PHC-12** = 12-station i = Indoor model European connections, (plug-in transformer) controller no plug **PHC-24** = 24-station A = 230 VAC with controller Australian connections (outdoor model has internal transformer with plug)

Example:

PHC-2400 = 24-station, 120 VAC, outdoor plastic controller

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#### Pro-HC

(plastic indoor) Height: 21 cm Width: 24 cm Depth: 8.8 cm



#### Pro-HC

(plastic outdoor) Height: 22.8 cm Width: 25 cm Depth: 10 cm

#### Compatible with:







Soil-Clik Sensor Page 150



Rain-Clik Sensor Page 148



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This smart and flexible control solution combines the modularity of the popular  $Pro-C^{TM}$  Controller with the power of Hydrawise® Software.

#### **KEY BENEFITS**

- · Number of stations:
  - Conventional wiring from 4 to 23 stations
  - Hybrid EZ Decoder option up to 32 total stations (28 stations maximum if two-wire only)
- Standard programming option allows for 6 independent irrigation programs and 6 start times per program
- Advanced programming option provides station-based programming with up to 6 total start times available
- 1 sensor input available for use with any Clik sensor or HC Flow Meter
- 1 P/MV output for pump start relay and master valve activation
- Wi-Fi enabled for quick connection to Hydrawise software
- 7 cm full-colour touchscreen display for simple programming at the control panel
- Built-in milliamp sensor for wire fault detection and alerts

#### **OPERATING SPECIFICATIONS**

- · Transformer input: 120 or 230 VAC
- Transformer output (24 VAC): 1 A
- Station output (24 VAC): 0.56 A
- P/MV output (24 VAC): 0.28 A
- 2.4 GHz (only) Wi-Fi router compatible, 802.11 b/g/n 20 MHz
- Supported security protocols: WPA/WPA2 Personal (only) TLS, SSL
- · Approvals: IP44 (outdoor), UL, cUL, FCC, CE, RCM, ISED
- Warranty period: 2 years

#### **USER-INSTALLED OPTIONS**

• Wireless HC Flow Meter option permits wireless flow monitoring for Hydrawise enabled systems; **see page 155** 

НРС	
Model	Description
HPC-400	4-station base: 120 VAC indoor/outdoor controller, and plug
HPC-401-E	4-station base: European 230 VAC indoor/outdoor controller, and plug
HPC-401-A	4-station base: Australian 230 VAC indoor/outdoor controller, and plug
HPC-FP	Hydrawise retrofit face panel for Pro-C Controllers (March 2014 or newer models)

	PC-SERIES STATION EXPANSION		
Model	Description		
PCM-300	3-station plug-in module		
PCM-900	9-station plug-in module		
PCM-1600	16-station plug-in module		
PC-DM	EZ Decoder output module		

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#### **HPC**

(plastic indoor/outdoor) Height: 22.9 cm Width: 25.4 cm Depth: 11.4 cm



**HPC Face Panel** 

#### Compatible with:



HC Flow Meter Page 155



ROAM Remote Page 140 ROAM XL Remote Page 141



EZ Decoder System Page 136



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# HCC

Bring the power of Hydrawise® to residential, commercial, and public-sector projects with this affordable powerhouse.

#### **KEY BENEFITS**

- Number of stations:
  - Conventional: 8 to 38 (plastic), 8 to 54 (metal and pedestals)
  - With two-wire EZDS: up to 54 (all enclosure options)
- Any 2 programs or stations can operate simultaneously
- 2 sensor inputs available for use with any Clik sensors and HC Flow Meter
- 1 P/MV output for pump start relay and master valve activation
- 8 cm full-colour touchscreen display for simple programming at the control panel
- Built-in milliamp sensor for wire fault detection and alerts

#### **OPERATING SPECIFICATIONS**

- Transformer input: 120/230 VAC
- Transformer output (24 VAC): 1.4 A
- Station output (24 VAC): 0.56 A
- P/MV output (24 VAC): 0.56 A
- 2.4 GHz (only) Wi-Fi router compatible, 802.11 b/g/n 20 MHz

**USER-INSTALLED OPTIONS** 

- Supported security protocols: WPA/
- Approvals: Plastic Wall Mount IP55 (outdoor), Plastic Pedestal IP24, UL, cUL, FCC, CE, RCM, ISED
- · Warranty period: 2 years

# WPA2 Personal (only) TLS, SSL

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#### **Plastic**

Height: 30.5 cm Width: 35 cm Depth: 12.7 cm

#### Metal

(grey or stainless) Height: 40.6 cm Width: 33 cm Depth: 12.7 cm



**Metal Pedestal** 

(metal/stainless) Height: 91.4 cm Width: 29.2 cm Depth: 12.7 cm



Plastic Pedestal

Height: 99 cm Width: 61 cm Depth: 43 cm

НСС	
Model	Description
HCC-800-PL	8-station base model, plastic outdoor, wall mount
HCC-800-M	8-station base model, grey metal outdoor, wall mount
HCC-800-SS	8-station base model, stainless steel, wall mount
HCC-800-PP	8-station base model, plastic pedestal
HCC-FPUP	Retrofit upgrade kit for ICC and ICC2
ICC-PED	Grey pedestal for metal wall mount cabinet
ICC-PED-SS	Stainless steel pedestal for stainless wall mount
ICC-PWB	Optional pedestal wiring board for metal pedestals
ANT-EXT-KIT	Universal antenna extension kit

· Wireless HC Flow Meter option permits wireless flow monitoring

Compatible with ROAM Remote and ROAM XL Remote; see pages 140 and 141

for Hydrawise enabled systems; see page 155

#### **HCC SERIES STATION EXPANSION**

Model	Description
ICM-400	4-station plug-in module with enhanced surge protection
ICM-800	8-station plug-in module with enhanced surge protection
ICM-2200	22-station expansion module (maximum one per controller)
EZDS	See <b>page 136</b> for model chart

#### Compatible with:



**HC Flow Meter Page 155** 



EZ Decoder System Page 136

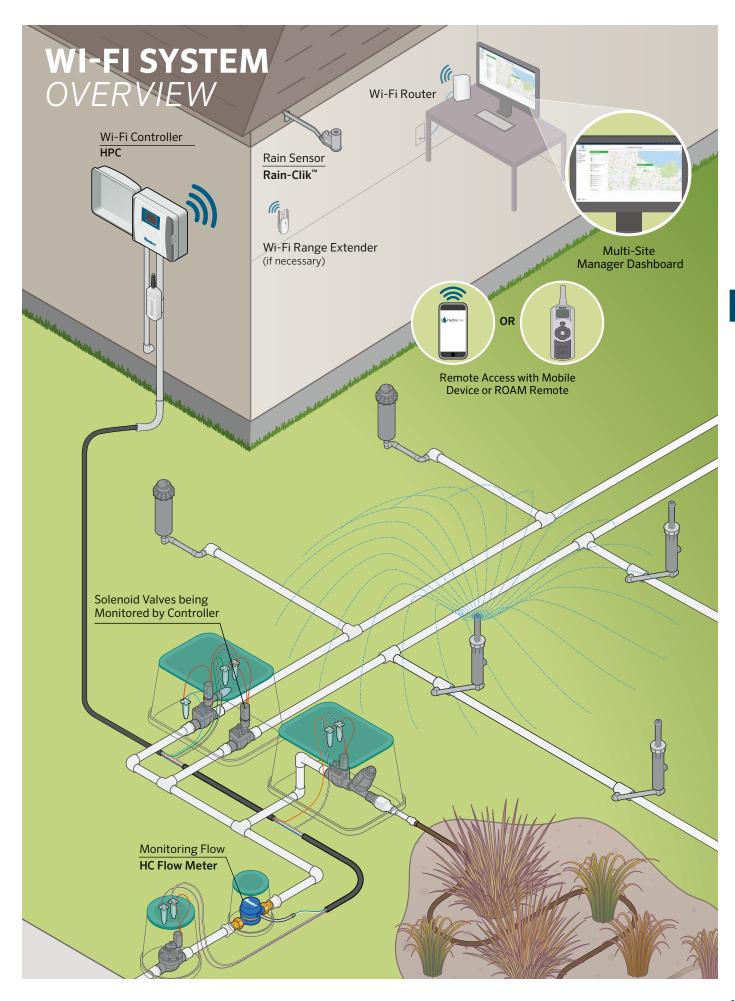


Rain-Clik Sensor **Page 148** 



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# CENTRALUS<sup>TM</sup> CONTROLLERS





# 6

#### **Centralus Software**

Enable ICC2 and ACC2 Controllers with next-generation management technology. To learn more, visit **centralus.hunterindustries.com** 



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#### Mobile-Friendly

The mobile-friendly Centralus Irrigation Management Platform provides highly secure, comprehensive cloud-based control and monitoring features. The connectivity allows you to view a controller's status, change settings, view forecasts, save water, and receive instant notification of important system alarms.

#### **User-Friendly**

The addition of internet access brings dial-based ICC2 and ACC2 Controllers seamlessly into the world of next-generation irrigation control. From the intuitive Centralus dashboard, it is now easier than ever before to add alarm monitoring, location information, remote operation, and scheduling to ICC2 and ACC2 Controllers.

#### Easy to Upgrade

To upgrade to Centralus control, add a simple Wi-Fi, Ethernet (LAN), or Cellular communication module to the controller:

- ICC2: Add WIFIKIT, LANKIT, or CELLKIT
- ACC2: A2C-WIFI, A2C-LAN, or A2C-CELL-E

#### **CENTRALUS CONTROLLER COMPARISON CHART**

CONTROLLER MODELS	MAXIMUM STATIONS	SENSOR INPUTS	TWO-WIRE	FLOW	REMOTE CONTROL	WEB ACCESS
ICC2	54	1 Clik or Solar Sync™	EZDS, 54 stations	Flow-Clik™ for catastrophic high-flow shutdown	ROAM, ROAM XL, Smartphone	Centralus: Wi-Fi, LAN, Cellular
ACC2	54, 225 two-wire	3 Clik, 1 Solar Sync 6 Flow	ICD, 225 stations	HFS, WFS	ROAM, ROAM XL, Smartphone	Centralus: Wi-Fi, LAN, Cellular

# **CENTRALUS™ SOFTWARE**

Add cloud-based control and monitoring for ICC2 and ACC2 Controllers with the mobile-friendly Centralus Irrigation Management Platform.

View Centralus Software today, at centralus.hunterindustries.com

#### **KEY BENEFITS**

- · Browser-based programming and communication software
- · Highly secure cloud access
- Map-based navigation and status
- · Instant remote control from mobile device
- · Flow monitoring and reporting
- Alarm reporting and detailed irrigation history reports
- Responsive web design configures for your device, allowing the same controls from your smartphone, tablet, or desktop
- · Wi-Fi, Ethernet, or cellular connectivity options
- Manage Solar Sync™ adjustments and delay settings for greater water savings
- · Organise maintenance teams and their controllers into management groups

#### **OPERATING SPECIFICATIONS**

- · Operates in most modern browsers
- Secure internet connection for web-hosted application

#### **USER-INSTALLED OPTIONS**

- ET-based Solar Sync Sensor (one per controller); see page 153
- Flow sensors including Flow-Sync, WFS, and other approved equals
- Connected controllers are compatible with licence-free ROAM/ROAM XL Remotes (pre-wired controller connection)

#### **COMMUNICATION OPTIONS**

**COMMUNICATIONS** 

Model

WIFIKIT

LANKIT

**CELLKIT** 

A2C-WIFI

A2C-LAN

- Ethernet with RJ-45 connection, low data requirements
- 2.4 GHz (only) Wi-Fi router compatible, 802.11 b/g/n 20 MHz
- Supported security protocols: WPA/WPA2 Personal (only) TLS, SSL
- · Cellular connectivity with ICC2 and ACC2 Controllers

#### **WIFIKIT**

Height: 10.8 cm Width: 6.4 cm (installed) Depth: 3.5 cm



LANKIT

Height: 10.8 cm Width: 6.4 cm (installed) Depth: 3.5 cm

#### ACC2 COMMUNICATION MODULE INSTALLATION







Manage and monitor controllers from anywhere

#### ICC2 WIFIKIT INSTALLATION



# A2C-CELL-E Cellular communication module for ACC2 (service plan required)

**COMMUNICATIONS ACCESSORIES** 

Description

ICC2 Wi-Fi connection

ICC2 cellular connection

(service plan required)

ACC2 Wi-Fi connection

ICC2 LAN (Ethernet) connection

ACC2 LAN (Ethernet) connection

Model	Description
ANT-EXT-KIT	Universal Antenna Extension Kit

# ICC2

This flexible control system can run any combination of conventional or two-wire outputs with the option to upgrade to cloud-based Centralus<sup>TM</sup> control.

#### **KEY BENEFITS**

- · Number of stations:
  - Conventional: 8 to 38 (plastic), 8 to 54 (metal and pedestal)
  - With two-wire EZDS: up to 54 (all enclosure options)
- 4 independent irrigation programs (8 start times each)
- Any 2 programs can operate

#### simultaneously

- 1 sensor input available for use with Solar Sync™ or any Clik sensors
- 1 P/MV output for pump start relay and master valve activation
- Upgradeable to Centralus Software for web-based central control options

#### OPERATING SPECIFICATIONS

- Transformer input: 120/230 VAC
- Transformer output (24 VAC): 1.4 A
- Station output (24 VAC): 0.56 A
- P/MV output (24 VAC): 0.56 A
- Approvals: Wall Mounts IP55 (outdoor), Plastic Pedestal IP24, UL, cUL, FCC, CE, RCM, ISED
- · Warranty period: 5 years

#### **USER-INSTALLED OPTIONS**

- WIFIKIT, LANKIT, or CELLKIT communications for cloud-based Centralus control
- Compatible with Flow-Clik<sup>™</sup> Sensor for catastrophic high-flow shutdown; see page 157
- Compatible with Solar Sync Sensor; see page 153

#### ICC2 Model Description 12C-800-PL 8-station base model, plastic outdoor wall mount 12C-800-M 8-station base model, grey metal outdoor, wall mount 12C-800-SS 8-station base model, stainless steel, wall mount I2C-800-PP 8-station base model, plastic pedestal ICC-FPUP2 ICC2 Retrofit Kit for original ICC Controllers ICC-PED Grey pedestal for metal controller mount **ICC-PED-SS** Stainless steel pedestal for stainless controller mount **ICC-PWB** Optional pedestal wiring board for metal pedestals

ICC2 SERIES STATION EXPANSION		
Description		
4-station plug-in module with enhanced surge suppression		
8-station plug-in module with enhanced surge suppression		
22-station expansion module (one per controller)		
See page 136 for model chart		

## View Centralus Software today, at centralus.hunterindustries.com



#### **Plastic**

Height: 30.5 cm Width: 35 cm Depth: 12.7 cm

#### Metal

(grey or stainless steel) Height: 40.6 cm Width: 33 cm Depth: 12.7 cm



#### Metal Pedestal

(grey or stainless steel) Height: 91.4 cm Width: 29.2 cm Depth: 12.7 cm



#### Plastic Pedestal

Height: 99 cm Width: 61 cm Depth: 43 cm

#### Compatible with:



ROAM Remote Page 140 ROAM XL Remote Page 141



EZ Decoder System Page 136



Solar Sync Sensor Page 153



#### Smart WaterMark

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# ACC2

The multi-flow monitoring and management capabilities of ACC2, with the option to upgrade to cloud-based Centralus control, make it the best choice for complex projects.

#### **KEY BENEFITS**

- · Number of stations:
  - 12 to 225, for large projects
- Up to 6 flow sensor inputs and 6 P/MV outputs
- 32 automatic programs (10 start times each) for precise plant management
- · Block function to group stations and consolidate large systems
- Add a Solar Sync<sup>™</sup> Sensor to save water based on local weather conditions
- Real-time flow monitoring detects and diagnoses leaks in up to 6 flow zones
- Flow management optimises watering at safe velocities
- · High-visibility, full-colour display with reversible facepack
- Conditional Response "if/then" programming for active responses to sensor inputs
- User management password protection, with two levels of access
- · Optional plug-in communications modules for cloud or network control
- · Detailed alarm logs in plain language
- Extreme service lightning protection
- Easy Retrieve<sup>™</sup> Memory programming backup and restore
- · Non-Water Windows to inhibit accidental irrigation

#### **OPERATING SPECIFICATIONS**

- Transformer input: 120/230 VAC
- Maximum AC current draw: 120 VAC, 2 A/230 VAC, 1 A
- Transformer output: 24 VAC, ~3 A
- P/MV outputs (24 VAC): Up to 6; 3 included, 0.8 A each
- Sensor inputs: 3 Clik, 1 Solar Sync, and up to 6 Flow sensors (3 included)
- Approvals: Wall Mounts IP55 (outdoor), Plastic Pedestal IP24, UL, cUL, FCC, CE, RCM, ISED
- · Warranty period: 5 years

#### **USER-INSTALLED OPTIONS**

· Centralus central control available with Wi-Fi, LAN, and cellular connections

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**Metal Wall Mount** 

(grey or stainless steel) Height: 40 cm Width: 40 cm Depth: 18 cm



**Plastic Wall Mount** 

Height: 42 cm Width: 42 cm Depth: 17 cm



**Metal Pedestals** 

(grey or stainless steel) Height: 94 cm Width: 39 cm Depth: 13 cm



**Plastic Pedestal** 

Height: 97 cm Width: 55 cm Depth: 40 cm

#### Compatible with:



Solar Sync Sensor Page 153



Flow-Sync Sensor Page 154 WFS Sensor Page 156



ROAM Remote Page 140 ROAM XL Remote Page 141



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#### ADDITIONAL SPECIFICATIONS BY MODEL

#### **ACC2 CONVENTIONAL**

- Number of stations:
  - 12 to 54, for large projects
- Simultaneous station operation: up to 14 solenoids
- Expands in 6-station increments
- Extreme service lightning protection, standard on all A2M-600 Output Modules
- Station outputs: 0.8 A each

ACC2 CONVENTIONAL MODELS			
Model	Description		
A2C-1200-M	12-station base unit controller, expands to 54 stations grey steel wall mount, outdoor		
A2C-1200-P	12-station base unit controller, expands to 54 stations, plastic outdoor wall mount		
A2C-1200-SS	12-station base unit controller, expands to 54 stations, stainless steel wall mount, outdoor		
A2C-1200-PP	12-station base unit controller, expands to 54 stations, plastic pedestal		
A2M-600	6-station plug-in module for use with the A2C-1200 series controllers		

#### **ACC2 DECODER**

- · Number of stations:
  - 75, 150, or 225, for large projects
- Simultaneous station operation: up to 30 solenoids
- Operates Hunter's premium ICD Decoders over ID wire:
  - Up to 3 km (2 mm<sup>2</sup> wire)
  - Up to 4.5 km (3 mm<sup>2</sup> wire)
- See complete ICD Decoder key benefits and specifications on page 134
- Up to 3 two-wire paths per output module
- Diagnostics including decoder inventory, wire tracker, solenoid finder, and more

ACC2 DECODER MODELS			
Model	Model Description		
A2C-75D-M	75-station base model, grey metal outdoor, wall mount		
A2C-75D-P	75-station base model, plastic outdoor, wall mount		
A2C-75D-SS	75-station base model, stainless steel, wall mount		
A2C-75D-PP	75-station base model, plastic pedestal		
A2C-D75	75-station decoder expansion module		

#### **ACC2 ACCESSORIES FOR ALL MODELS**

ACC2 ACCESS	ACC2 ACCESSORIES		
Model	Description		
A2C-F3	Optional flow meter expansion module (adds 3 inputs)		
A2C-LEDKT	External status light shows controller status with door closed		
A2C-WIFI	ACC2 Wi-Fi connection		
A2C-LAN	ACC2 LAN (Ethernet) connection		
A2C-CELL-E	ACC2 international cell connection (monthly service plan required)		
ACC-PED	Grey pedestal for wall mount		
PED-SS	Stainless steel pedestal for wall mount		

#### ACC2 REVERSIBLE FACEPACK AND AUTOMATIC DIAGNOSTIC MODE









When locations are difficult to access, lack electrical power, or demand cost-prohibitive wire runs, battery-operated controllers can make irrigation effective and affordable. Unlike traditional irrigation systems, they save time and money because there's no need to run wire, obtain construction permits, or lease equipment to tunnel under concrete or other hardscape elements. Since these systems are less intrusive, they can also help you win bids where specifications are strict about AC power requirements.

#### **BATTERY-OPERATED CONTROLLER COMPARISON CHART**

CONTROLLER MODELS	MAXIMUM STATIONS	SENSOR INPUTS	REMOTE CONTROL	SOLAR
BTT	2	N/A	BTT Bluetooth App	N/A
NODE	6	1	N/A	SPNODE
NODE-BT	4	2	NODE-BT Bluetooth App	Coming 2022
XC HYBRID	12	1	N/A	SPXCH, XCH-600-SSP, XCH-1200-SSP

# BTT

Take advantage of smartphone-controlled, above-ground irrigation for easier access to the hose tap.

#### **KEY BENEFITS**

- · Number of zones:
  - 1 or 2 (fixed models)
- Battery-operated tap timer with Bluetooth® control
- 1 smartphone manages an unlimited number of controllers
- 1-second to 24-hour run time with 4 start times
- Cycling mode repeats continuously within user-defined water windows, perfect for drip systems or germinating seeds
- Suspend irrigation up to 99 days during the off-season, perfect for seasonal markets
- · Manual push-button operation for quick operation without a smartphone
- · Automatic water shutoff after 1 hour prevents water waste
- · Blinking LED low-battery alert indicates battery replacement
- Alkaline batteries included for quicker installation
- · Includes quick coupler adapter

#### **OPERATING SPECIFICATIONS**

- Two 1.5V AA alkaline batteries (included)
- Flow rate: 1.9 to 2,271 L/H
- Recommended pressure: 0.5 to 8 bar (50 to 800 kPa)
- See friction loss chart on page 258
- Bluetooth 4.0/4.2 (BLE)
- · Approvals: Plastic IPX6 (outdoor), UL, cUL, FCC, CE, RCM, ISED
- · Warranty period: 2 years

#### **APP SPECIFICATIONS**

- iOS® 9.0 or above, Android™ 4.4 or above
- · Maximum communication distance: 10 m
- See all app features at hunter.info/BTT



BTT-101 Inlet diameter: ¾" and 1" Outlet diameter: ¾" Height: 16.8 cm Width: 12 cm Depth: 6 cm



BTT-LOC (optional) Inlet diameter: ¾" Outlet diameter: 16-18 mm dripline Height: 7 cm Width: 3 cm



BTT-201 Inlet diameter: ¾" and 1" Outlet diameter: ¾" Height: 15.7 cm Width: 13.5 cm Depth: 7.6 cm



Pressure Regulator (optional) Inlet diameter: ¾" Outlet diameter: ¾" Height: 7 cm Width: 4 cm

#### втт



To control drip irrigation applications with BTT, use the BTT-LOC Drip Adapter, which connects BTT to HDL surface and subsurface systems.

#### Compatible with:



HDL Dripline Page 167

BTT		
Model	Description	
BTT-101	1-zone Bluetooth Tap Timer, 1" BSP and ¾" hose thread, quick coupler adapter	
BTT-201	2-zone Bluetooth Tap Timer, 1" BSP and ¾" hose thread, quick coupler adapter	

BTT ACCESSORIES			
Model	Description		
BTT-LOC	BTT adapter for 16-18 mm dripline  1.4 bar (140 kPa) pressure regulator, ¾" hose thread  1.7 bar (170 kPa) pressure regulator, ¾" hose thread		
PRLG203FH3MH			
PRLG253FH3MH			
PRLG303FH3MH	2 bar (200 kPa) pressure regulator, ¾" hose thread		
PRLG403FH3MH	2.8 bar (280 kPa) pressure regulator, ¾" hose thread		

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# **NODE**

This battery-operated, waterproof controller offers automatic irrigation control for temporary irrigation and sites without electricity.

#### **KEY BENEFITS**

- · Number of stations:
  - -1, 2, 4, or 6 (fixed models)
- Battery-operated controller for automatic irrigation
- · Battery-life indicator for battery replacement
- Waterproof enclosure seal protects against water ingress
- 3 flexible programs with 4 start times each and up to 6-hour run times
- Suspend irrigation up to 99 days during the off-season
- Easy Retrieve<sup>™</sup> Memory backs up the full irrigation schedule if ever changed
- · Seasonal adjustment for quicker schedule adjustments without changing run times
- Solar panel provides maintenance-free operation
- Mounts to Hunter solenoids, pipes, flat surfaces, or inside the valve box

#### **OPERATING SPECIFICATIONS**

- · One or two 9V alkaline batteries or 1800 mAh solar panel with charging cell
- Operates Hunter DC-Latching Solenoids; see page 261
- 30 m maximum wire runs, 1 mm<sup>2</sup> wire only
- Solar panel includes 12 m of direct-burial wire
- Station output: 9-11 VDC
- P/MV output: 9-11 VDC (multi-station models)
- Sensor inputs: 1 (wired rain, freeze, or wind only)
- Approvals: IP68 (submersible), UL, cUL, FCC, CE, RCM, ISED
- Warranty period: 2 years

NODE	
Model	Description
NODE-100	Single-station battery controller and DC-Latching Solenoid
NODE-100-LS	Single-station battery controller
NODE-200	2-station battery controller
NODE-400	4-station battery controller
NODE-600	6-station battery controller
NODE-100-VALVE	Single-station battery controller with PGV-101G Valve and DC-Latching Solenoid (NPT threads)
NODE-100-VALVE-R	Single-station battery controller with PGV-101G-B Valve

and DC-Latching Solenoid (BSP threads)

DC-Latching Solenoid (for all Hunter valves)

Solar panel kit for NODE controllers



#### NODE Height: 6.4 cm Diameter: 8.9 cm



#### **SPNODE**

Solar Panel Kit (optional) Height: 8 cm Length: 25 cm Width: 8 cm

Controller to solar panel: 30 m maximum

1 mm<sup>2</sup> direct-burial wire

#### NODE



#### Compatible with:



Mini-Clik Sensor **Page 149** 



Freeze-Clik Sensor **Page 151** 



Waterproof Wire Connector **Page 139** 

NODE-100-VALVE-B

**SPNODE** 

458200

# **NODE-BT**

Manage gardens, greenhouses, traffic medians, and temporary irrigation sites from a smartphone without opening the valve box.

#### **KEY BENEFITS**

- · Number of stations:
  - 1, 2, or 4 (fixed models)
- · Bluetooth® battery-operated controller for automatic irrigation
- · 1 smartphone manages an unlimited number of controllers
- Waterproof enclosure seal protects against water ingress
- Active station LEDs and battery-life LED indicator for replacement
- 3 programs with 8 start times each and 1 second to 12-hour run times
- Suspend irrigation up to 99 days during the off-season
- Manual push-button operation for quick operation without a smartphone
- Delay Between Stations for slow-closing valves or pump recharge
- Soil moisture sensor prevents water waste; see page 150
- Cycle and Soak prevents water waste and runoff in areas with elevation changes or tight soils
- Monthly and global seasonal adjustment for quicker schedule adjustments without changing run times
- Solar recharging option available in 2022
- Mounts to Hunter solenoids, pipes, flat surfaces, or inside the valve box

#### **OPERATING SPECIFICATIONS**

- · One or two 9V alkaline batteries
- · Operates Hunter DC-Latching Solenoids; see page 261
- \* 30 m maximum wire runs,  $1\,\text{mm}^2$  wire only
- Station output: 9-11 VDC
- P/MV output: 9-11 VDC (multi-station models)
- Sensor inputs: 2 (wired rain, freeze, or wind only)
- Bluetooth 5.0 (BLE)
- Approvals: IP68 (submersible), UL, cUL, FCC, CE, RCM, ISED
- · Warranty period: 2 years

#### **APP SPECIFICATIONS**

- iOS<sup>®</sup> 9.0 or above, Android<sup>™</sup> 5.0 or above
- Maximum communication distance: 15 m
- See all app features at hunter.info/NodeBT

NODE-BT	
Model	Description
NODE-BT-100	Single-station Bluetooth battery controller and DC-Latching Solenoid
NODE-BT-100-LS	Single-station Bluetooth battery controller
NODE-BT-200	2-station Bluetooth battery controller
NODE-BT-400	4-station Bluetooth battery controller
NODE-BT-100-VALVE	Single-station Bluetooth battery controller with PGV-101G Valve and DC-Latching Solenoid (NPT threads)
NODE-BT-100-VALVE-B	Single-station Bluetooth battery controller with PGV-101G-B Valve and DC-Latching Solenoid (BSP threads)
SC-PROBE	Soil probe for moisture sensing (module is not used)
458200	DC-Latching Solenoid

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**NODE-BT** Height: 8.3 cm Diameter: 8.9 cm



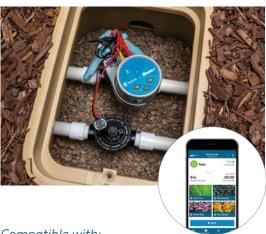
**SC-PROBE** Soil Moisture Sensor Probe (optional)

Height: 8.3 cm Diameter: 2.5 cm

Controller to probe: 30 m maximum

1 mm<sup>2</sup> direct-burial wire

#### NODE-BT



#### Compatible with:



Mini-Clik Sensor Page 149



Freeze-Clik Sensor Page 151



Waterproof Wire Connector Page 139

# **XC HYBRID**

Effectively manage landscapes where electricity is unavailable with this economical battery-operated or solar-powered controller.

#### **KEY BENEFITS**

- · Number of stations:
  - 6 or 12 (fixed models)
- 3 power options: AC power, battery, or solar panel compatible with ambient light
- Stainless steel enclosure protects against vandalism
- 3 programs with 4 start times each and up to 4-hour run times
- Suspend irrigation up to 99 days during the off-season
- Easy Retrieve™ Memory backs up the full irrigation schedule
- Delay Between Stations for slow-closing valves or pump recharge
- Seasonal adjustment for quicker schedule adjustments without changing run times
- Solar panel provides maintenance-free operation
- · Mounts to flat surfaces or steel posts

#### **OPERATING SPECIFICATIONS**

- Plastic model operates six 1.5V AA alkaline batteries
- Stainless steel model operates six 1.5V C alkaline batteries
- Stainless steel solar model operates 1800 mAh solar panel with charging cell
- Solar panel includes 12 m of direct-burial wire
- Controller to solar panel: 30 m maximum 1 mm<sup>2</sup> direct-burial wire
- All models operate optional 24 VAC plug-in wall adapter:
  - 120 VAC P/N 526500
  - 230 VAC Australian P/N 545500
  - 230 VAC European P/N 545700
- · Operates Hunter DC-Latching Solenoids; see page 261
- Station output: 9-11 VDC
- P/MV output: 9-11 VDC
- Sensor inputs: 1 (wired rain, freeze, or wind only)
- Approvals: Plastic IP54 (outdoor), Stainless Steel IP24 (outdoor), UL, cUL, FCC, CE, RCM, ISED
- Warranty period: 2 years

XC HYBRID	
Model	Description
XCH-600	6-station battery controller
XCH-600-SS	6-station battery controller, stainless steel
XCH-600-SSP 6-station controller, stainless steel, with mounted solar	
XCH-1200	12-station battery controller
XCH-1200-SS	12-station battery controller, stainless steel
XCH-1200-SSP	12-station controller, stainless steel, with mounted solar panel
DCREL2	Latching sensor relay switch for pumps
458200	DC-Latching Solenoid (for all Hunter valves)



**Plastic** Height: 22 cm Width: 18 cm Depth: 10 cm



Stainless Steel Height: 25 cm Width: 19 cm Depth: 11 cm





**SPXCH**Solar Panel Kit (optional)
Height: 8 cm
Length: 25 cm
Width: 8 cm



**XCHSPB**Mounting bracket and hardware only (optional)



#### Pole-Mounting Kit (optional) Height: 1.2 m

#### Compatible with:



Mini-Clik Sensor Page 149



Freeze-Clik Sensor Page 151



MWS Sensor Page 152

MAXIMUM WIRE RUNS		
Wire Size	Max. Distance (m)	
1.0 mm <sup>2</sup>	168	
1.2 mm <sup>2</sup>	265	
1.6 mm <sup>2</sup>	420	
2.0 mm <sup>2</sup>	670	







Hunter's premium two-wire decoders for long-distance, high-station-count ACC2 applications include two-way communications and integrated surge protection.

#### **KEY BENEFITS**

- ICD Decoders are compatible with ACC2 Decoder Controllers and legacy ACC-99D Decoder Controllers
- 1-, 2-, 4-, and 6-station versions provide maximum flexibility
- Sensor decoders allow flow and Clik sensor monitoring via the two-wire paths
- Field-programmable decoders accept station numbers directly, and do not require entering serial numbers into the control panel
  - Decoders can be programmed before installation at the controller interface
  - Wireless programming with ICD-HP allows for decoder programming or re-programming after installation to the two-wire path
- Integrated surge protection eliminates the need for extra surge protection devices
- Colour-coded wiring connections simplify installation
- Industrial-grade DBRY-6 waterproof connectors included for two-wire path splices

#### **OPERATING SPECIFICATIONS**

- Maximum recommended distance, decoder to solenoid: 45 m
- Maximum distance to decoder via two-wire path:
  - 2 mm<sup>2</sup> wire path: 3 km
  - 3.3 mm<sup>2</sup> wire path: 4.5 km
- Approvals: UL, cUL, FCC, CE, RCM
- Decoder rating: IP68 (submersible)
- Warranty period: 5 years

#### **USER-INSTALLED OPTIONS**

- Wireless handheld ICD-HP Programmer; see page 135
- DECSTAKE10 Universal Decoder Stake Kit, 10-pack; see page 138



#### ICD-100, 200, ICD-SEN

Height: 92 mm Width: 38 mm Depth: 12.7 mm

#### ICD-400, 600

Height: 92 mm Width: 46 mm Depth: 38 mm

DECODER	MODELS
Model	Description
ICD-100	Single-station decoder with surge suppression and ground wire
ICD-200	2-station decoder with surge suppression and ground wire
ICD-400	4-station decoder with surge suppression and ground wire
ICD-600	6-station decoder with surge suppression and ground wire
ICD-SEN	2-input sensor decoder with surge suppression and ground wire

ID WIRE MODEL GUIDE			
2 mm <sup>2</sup> Decoder Cable		3.3 mm² Long-Range, Heavy-Duty Decoder Cable	
ID1GRY	Grey jacket	ID2GRY	Grey jacket
ID1PUR	Purple jacket	ID2PUR	Purple jacket
ID1YLW	Yellow jacket	ID2YLW	Yellow jacket
ID10RG	Orange jacket	ID2ORG	Orange jacket
ID1BLU	Blue jacket	ID2BLU	Blue jacket
ID1TAN	Tan jacket	ID2TAN	Tan jacket

ID WIRE MAXIMUM WIRE RUNS		
ID 1 Wire	ID 2 Wire	
1500 m with legacy DUAL™ systems	2300 m with legacy DUAL systems	
3 km with ICD systems	4.5 km with ICD systems	

#### Compatible with:



Splice Kit Page 139

# ICD-HP PROGRAMMER

Gain wireless, handheld programming and diagnostic capabilities for Hunter ICD and  $DUAL^{TM}$  Decoders.

#### **KEY BENEFITS**

- Program or re-program decoder stations, whether new or installed\*
- Program any station numbers in any order, or skip stations for future expansion
- Simplifies setup and diagnostics for sensor decoders
- Sensor test functions for Clik and Flow sensors, plus built-in multimeter
- Communicates with decoder through plastic case: wireless electromagnetic induction saves waterproof connectors
- • Compatible with Hunter ICD and legacy DUAL Decoders, as well as Pilot  $^{\text{IM}}$  Two-Way Modules
- USB powered for shop or office use; 4 AA batteries for field use
- · All test leads and cables included in durable, foam-padded carrying case
- Turn decoder stations on and view solenoid status, current in milliamps, and more
- · Waterproof programming cup
- · Backlit adjustable display
- 6 operating languages
- \* Note: ICD-HP is not compatible with EZ-1 Decoders

#### **ELECTRICAL SPECIFICATIONS**

- Power input: 4 AA batteries, or standard USB connector (included)
- Communications: wireless induction, range 25 mm
- · Fused test leads for unpowered decoder functions

#### **APPROVALS**

• UL, cUL, FCC, CE, RCM

ICD-HP	
Model	Description
ICD-HP	Wireless handheld decoder programmer, includes all test and power leads, programming cup, and rugged carrying case





#### ICD-HP Height: 21 cm Width: 9 cm Depth: 5 cm

Packaged in an outdoor carrying case, this complete kit includes probes, induction cup, cable, USB power cable for bench use, and 4 AA batteries for fieldwork.

#### ICD-HP



# **EZ DECODER SYSTEM**

Bring two-wire technology to more projects than ever before with the revolutionary, low-cost, and hassle-free EZ Decoder System for  $Pro-C^{T}$ , HPC, ICC2, and HCC Controllers.

#### **KEY BENEFITS**

- · Number of stations:
  - Pro-C/HPC: Up to 28, plus master valve
  - ICC2/HCC: Up to 54, plus master valve
- · No special wire or connectors required
- No special grounding or surge arrestors required in-line
- Programmable decoders with no need to input individual serial numbers
- P/MV can activate via the two-wire path for distant installations
- EZ-1 Decoders have built-in status LED for positive diagnostics

#### **OPERATING SPECIFICATIONS**

- Electrical output on two-wire path: 24 VAC, 50/60 Hz
- Two-wire paths to the field:
  - EZ-DM: 2
  - PC-DM: 1
- Wire paths possible up to 1 km (see Wiring Table below)
- Each EZ-1 Decoder can activate two standard 24 VAC solenoids
- Operate any two decoders simultaneously for more efficient watering (ICC2 and HCC only)
- · Approvals: UL, cUL, FCC, CE, RCM, ISED
- EZ-1 Decoders are IP68 rated, submersible
- · Warranty period: 3 years

#### **USER-INSTALLED OPTIONS**

- Centralus<sup>™</sup> with ICC2
- · Hydrawise® with HPC and HCC
- EZ-DT EZ Decoder Diagnostic Tool for wireless diagnostics with EZ-1 Decoders
- DECSTAKE10 Universal Decoder Stake Kit, 10-pack; see page 138
- Compatible with Waterproof Wire Connector; see page 139

WIRING TABLE		
International Wire Gauge (mm²)	Distance, single solenoid (m)	Distance, 2 solenoids per output
0.5 mm <sup>2</sup>	167	83
0.8 mm <sup>2</sup>	267	133
1 mm²	333	167
1.5 mm <sup>2</sup>	500	250
2.5 mm <sup>2</sup>	833	417
4 mm <sup>2</sup>	1,333	667

#### Note

Distances in the Wiring Table are calculated based on 50 Hz with a wire temperature of  $50\,^\circ\text{C}$  and a 10% safety factor.

Description
Decoder output module for ICC2 and HCC Controllers
Decoder output module for Pro-C and HPC Controllers
Single-station decoder with status LED
EZ Decoder Diagnostic Tool



#### **Single-Station Decoder**

Height: 73 mm Width: 42 mm Depth: 16 mm



#### **Decoder Output Module: EZ-DM**

Height: 115 mm Width: 64 mm Depth: 42 mm



#### **Decoder Output Module: PC-DM**

Height: 76 mm Width: 76 mm Depth: 32 mm

#### Compatible with:



HCC Controller Page 118



ICC2 Controller Page 123



Pro-C Controller Page 109

# **EZ-DT**

Simplify maintenance of EZ Decoder Systems with the handheld, wireless EZ Decoder Diagnostic Tool.

#### **KEY BENEFITS**

- Wireless, handheld diagnostic tool for EZ-1 Decoders
- Detect faults and perform electrical troubleshooting in the field without uninstalling decoders
- Quickly read decoder status, station address, current draw, and two-wire voltage to simplify maintenance
- Program decoder station address via the wired connection to speed up installation and save time on-site
- Update controller facepack or decoder module firmware via ribbon cable connection for flexibility when updating systems
- Communicate in your preferred language using the multilingual user interface
- Work reliably and efficiently on the go with power supplied by 4 AAA batteries

#### **OPERATING SPECIFICATIONS**

- Power input: 4 x AAA batteries (included)
- Communications: Wireless induction, 25 mm range from decoder to EZ-DT
- 46 mm full-colour, backlit TFT display

#### **USER-INSTALLED OPTIONS**

- Centralus<sup>™</sup> with ICC2
- Hydrawise® with HCC and HPC
- Pro-C™
- DECSTAKE10 Universal Decoder Stake Kit, 10-pack; see page 138

DECODER MODELS	
Model	Description
EZ-DM	Decoder output module for ICC2 and HCC Controllers
PC-DM	Decoder output module for Pro-C and HPC Controllers
EZ-1	Single-station decoder with status LED
EZ-DT	EZ Decoder Diagnostic Tool



#### **EZ Decoder Diagnostic Tool**

Height: 197 mm Width: 70 mm Depth: 22 mm

#### **EZ-DT DECODER DIAGNOSTIC TOOL**



#### Compatible with:



HCC Controller Page 118



ICC2 Controller
Page 123



EZ Decoder System Page 136

# UNIVERSAL DECODER STAKE KIT

The Universal Decoder Stake Kit raises the decoder off the ground to keep two-wire installations organised, clean, and easily accessible during routine maintenance.

#### **KEY BENEFITS**

- Raises decoder off the ground, so contractors don't have to dig the device out of the mud
- Holds Hunter decoders in end-up position for convenient access and wireless programming without removal
- Works with all Hunter decoders and most other brands, so contractors only need to stock one item
- Zip ties conveniently included to secure the stake during installation
- Sturdy construction ensures the stake won't break or bend when hammered into the dirt
- Made primarily from recycled materials with minimal packaging to prevent waste and minimise carbon footprint

#### **OPERATING SPECIFICATIONS**

- · Fits all Hunter decoders and most other brands
- · Zip ties included
- · Made of recycled materials

UNIVERSAL DECODER STAKE KIT	
Model	Description
DECSTAKE10	Universal Decoder Stakes (10 per carton), zip ties included



#### UNIVERSAL DECODER STAKE KIT



# ANTENNA EXTENSION KITS

Use these flexible Antenna Extension Kits when buildings, terrain, or other obstructions prevent reliable wireless communications.

#### **KEY BENEFITS**

- Universal Antenna Extension Kit option for Wi-Fi and cellular communications (ANT-EXT-KIT)
  - Wi-Fi: HCC Controller, A2C-WIFI
  - Cell: A2C-CELL-E
- For ROAM XL Remotes, extend the receiver antenna up to 7.6 m with a convenient extension cable (ROAMXL-EXT)
- Simplify Plastic Pedestal installations with a flexible pedestal lid mounting option (PED-LID-ANT-BRKT)



ROAMXL-EXT

ANTENNA EXTENSION OPTIONS	
Model	Description
ANT-EXT-KIT	Universal Antenna Extension Kit for Wi-Fi and cellular communication hardware (2.7 m cable and mounting hardware)
ROAMXL-EXT	ROAM XL Antenna Extension Kit (7.6 m cable and mounting hardware)
PED-LID-ANT-BRKT	Plastic Pedestal Antenna Mount

# WATERPROOF WIRE CONNECTOR

Use this approved waterproof connector for EZ Decoder and all above-grade solenoid and sensor wiring connections.

#### **KEY BENEFITS**

- 100% silicone-based sealant protects against moisture and corrosion
- Designed as a single-use only connection
- UL Listed for 600 V and 486G for use in damp/wet locations or above-grade applications
- Easy to apply, pre-filled twist-on wire connectors
- · Eliminates the need for heat-shrink or excessive taping
- Not for use in continual submersion applications, use DBRY-6
- · Approvals: UL, cUL, FCC, CE, RCM, RoHS, ISED

|--|

#### **Waterproof Wire Connector**

Height: 3.5 cm

Minimum wire: 3 #0.8 mm<sup>2</sup>

Maximum wire: 2 #6 mm<sup>2</sup> with 1 #3 mm<sup>2</sup>

#### WC100 WIRE CONNECTOR



WIRE CONNECTOR	
Model	Description
WC100	Bulk 100 connectors in canister

# WATERPROOF SPLICE KIT

Use this approved splice kit for all direct-burial two-wire ICD and legacy DUAL™ Decoder wiring connections, as well as Pilot™ Two-Way Modules.

#### **KEY BENEFITS**

- UL Listed for 600 V and 486D for use in damp/wet location or direct-burial applications
- Waterproof, corrosion-proof, UV-rated, and impact resistant
- Snap-fit lid provides strain relief and three-wire exits
- Pre-filled with silicone that never hardens
- Two part system includes red/yellow winged wire connector and silicone-filled tube
- Compatible with EZ Decoder connections, but not a requirement
- Approvals: UL, cUL, FCC, CE, RCM, RoHS, ISED

Model Description  Bulk 100 connectors (100 tubes loose in box, plus inner box with 100 Wire Nuts)	DBRY-6 SPLICE KIT	
	Model	Description
	DBRY100	
<b>DBRY2X25</b> 25 x 2-packs (2 tubes and 2 Wire Nuts in a plastic bag, x 25 unit	DBRY2X25	25 x 2-packs (2 tubes and 2 Wire Nuts in a plastic bag, x 25 units)



#### **Waterproof Splice Kit**

Height: 9.5 cm

Minimum wire: 2-7 #0.8 mm<sup>2</sup> Maximum wire: 2-3 #6 mm<sup>2</sup>

#### **DBRY-6 WATERPROOF SPLICE KIT**



**ROAM** 

Model

ROAM-KIT

ROAM-R

ROAM-TR

# **ROAM REMOTE**

Enable convenient controller management from a distance with this handheld wireless remote.

#### **KEY BENEFITS**

- Compatibility with Hunter X-Core<sup>™</sup>, X2<sup>™</sup>, Pro-C<sup>™</sup>, HPC, ICC2, HCC, ACC2, and legacy ACC and I-Core<sup>™</sup> Controllers to enable remote management for projects of any size
- Manually start individual stations or programs for quick maintenance checks and troubleshooting
- 128 programmable addresses available prevents cross-communication between multiple remotes within close proximity of each other
- Programmable run times from 1 to 90 minutes, which will not overwrite regular automatic programming
- Manual operation up to 240 stations provides flexibility for larger projects

#### **OPERATING SPECIFICATIONS**

- · Range: 300 m from transmitter to receiver
- Transmitter power source: 4 x AAA batteries included
- Receiver power source: 24 VAC, 0.010 A
- · System operating frequency: 433 MHz
- SmartPort™ installation: Maximum 15 m from controller

Description

Receiver unit

batteries included

- FCC and CE approved for use in the United States and internationally
- · Warranty period: 2 years



**ROAM XL Transmitter and Receiver** 

Height: 18 cm Width: 6 cm Depth: 3 cm



#### **SmartPort**

Hunter remotes require the installation of a SmartPort Wiring Harness. The SmartPort is a connector that is wired to the terminals on the controller, and allows quick connection to any Hunter receiver.



Wall-Mount Bracket for SmartPort P/N 258200

# Wodel Description ROAM-WH SmartPort Wiring Harness (length: 1.8 m) ROAM-SCWH Shielded SmartPort Wiring Harness (length: 7.6 m) 258200 Wall-mount bracket for SmartPort

Transmitter unit and 4 AAA batteries included

Transmitter, receiver, SmartPort Wiring Harness, and 4 AAA

# ROAM XL REMOTE

Add professional, licence-free remote control to projects of any size with this long-range remote.

#### **KEY BENEFITS**

- Compatibility with Hunter X-Core<sup>™</sup>, X2<sup>™</sup>, Pro-C<sup>™</sup>, HPC, ICC2, HCC, ACC2, and legacy ACC and I-Core<sup>™</sup> Controllers to enable remote management for projects of any size
- Manually start individual stations or programs for quick maintenance checks and troubleshooting
- 128 programmable addresses available prevents cross-communication between multiple remotes within close proximity of each other
- Programmable run times from 1 to 90 minutes, which will not overwrite regular automatic programming
- Manual operation up to 240 stations provides flexibility for larger projects
- Rugged and water-resistant transmitter includes a large LCD display with simple push-button operation and a battery-life indicator

#### **OPERATING SPECIFICATIONS**

- Range: 3 km (line of sight) from transmitter to receiver
- Transmitter power source: 4 x AAA batteries included
- Receiver power source: 24 VAC, 0.010 A
- System operating frequency: 27 MHz
- SmartPort<sup>™</sup> installation: Maximum 15 m from controller
- FCC approved (not available in EU and some other countries, check local regulations)
- Warranty period: 3 years

ROAM XL	
Model	Description
ROAMXL-KIT	Transmitter, receiver, SmartPort Wiring Harness, 4 AAA batteries and plastic carrying case included
ROAMXL-R	Receiver unit (SmartPort Wiring Harness included)
ROAMXL-TR	Handheld transmitter and 4 AAA batteries included

USER-INSTALLED OPTIONS	
Model	Description
258200	Wall-mount bracket for SmartPort
ROAM-WH	SmartPort Wiring Harness (length: 1.8 m)
ROAM-SCWH	Shielded SmartPort Wiring Harness (length: 7.6 m)
ROAMXL-EXT	ROAM XL Antenna Extension Kit (7.6 m cable and mounting hardware included)



#### **ROAM XL Transmitter and Receiver**

(without antenna) Height: 16 cm Width: 8 cm Depth: 3 cm



#### **SmartPort**

Hunter remotes require the installation of a SmartPort Wiring Harness. The SmartPort is a connector that is wired to the terminals on the controller, and allows quick connection to any Hunter receiver.



Wall-Mount Bracket for SmartPort P/N 258200

# **PSR**

This reliable and economical Pump Start Relay family is perfect for systems that require pump activation.

#### **KEY BENEFITS**

- Pump Start Relay family for a variety of voltage and power requirements
- · 24 VAC flying leads make connection to the controller quick and easy
- Suitable for conventional wiring or two-wire decoder activation

#### **OPERATING SPECIFICATIONS**

- Recommended installation: Minimum 4.5 m from irrigation controller; see chart on page 259 for maximum distances
- Approvals: IP44 (outdoor), UL, cUL, FCC, CE, RCM, ISED
- Warranty period: 2 years



#### **Pump Start Relay**

Height: 17 cm Width: 19 cm Depth: 12 cm

PUMP START RELAY				
Model Description				
PSR-22	Double-pole/single-throw Pump Start Relay for 120 VAC pumps up to 1.5 kW or 230 VAC pumps up to 2.2 kW			
PSR-52	Double-pole/single-throw Pump Start Relay for 120 VAC pumps up to 2.2 kW or 230 VAC pumps up to 5.6 kW			
PSR-53	Triple-pole/single-throw Pump Start Relay for 120 VAC pumps up to 2.2 kW, 230 VAC pumps up to 5.6 kW, or 230 VAC pumps up to 7.5 kW (3-phase)			

PUMP S	PUMP START RELAY ELECTRICAL SPECIFICATIONS												
Model	Single-Phase		3-Phase**	Max. Full Load	Max. Resistive		Coil	VA		Coil VA			
	kW AT 120 VAC	kW AT 230 VAC	kW AT 230 VAC	AMPS	AMPS	INRUSH		AMPS		HOLDING		AMPS	
						50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz
PSR-22	1.5*	2.2*	N/A	30	40	33	30	1.38	1.25	8	6.5	0.33	0.27
PSR-52	2.2	5.6	N/A	40	50	65	60	2.71	2.50	7.5	5	0.31	0.21

50

65

60

2.71

2.50

7.5

5

0.31

0.21

Note: \*Approximate power

2.2

40

# **PSR-B**

PSR-53

For distant pump starts that require more power, choose the PSR-B.

5.6

7.5

#### **KEY BENEFITS**

- Provides a solution for pump start relay installations that have insufficient power to activate the pump
- Includes solid state relay and local 24 VAC transformer for simple PSR activation

#### **OPERATING SPECIFICATIONS**

- Primary AC power input: 120/230 VAC,
- Secondary AC power output: 24 VAC, 1.6 A
- Relay rating: Double-pole, double-throw solid state (10 A)
- Approvals: IP54 (outdoor), UL, cUL, FCC, CE, RCM, ISED
- Warranty period: 2 years

PUMP START RELAY BOOSTER				
Model	Description			
PSR-B	Use to boost controller output power for Pump Start Relays			



**PSR-B Pump Start Relay Booster** 

Height: 22 cm Width: 18 cm Depth: 9.5 cm

<sup>\*\* 3-</sup>phase power at 230 VAC is not commonly available in some international markets. Check local electrical codes for compatibility.

# CONNECT YOUR WAY

Choose from a range of Wi-Fi, LAN (Ethernet), and cellular connection accessories to enable remote irrigation management on standalone controllers anytime, anywhere.

#### Controller

#### Compatible Accessories

#### **X2**



X2 Controller with WAND Module installed



#### WAND

Wi-Fi accessory for X2 Controllers, managed by Hydrawise Software

page 115

#### ICC2



ICC2 Controller with LANKIT Module installed



#### WIFIKIT

Wi-Fi accessory for ICC2 Controllers, managed by Centralus Software

page 122



#### LANKIT

Ethernet accessory for ICC2 Controllers, managed by Centralus Software

page 122



#### CELLKIT

Cellular accessory for ICC2 Controllers, managed by Centralus Software

page 122

#### ACC2



ACC2 Controller with A2C-CELL-E Module installed



#### A2C-WIFI

Wi-Fi accessory for ACC2 Controllers, managed by Centralus Software

page 125



#### A2C-LAN

Ethernet accessory for ACC2 Controllers, managed by Centralus Software

page 125



#### A2C-CELL-E

Cellular accessory for ACC2 Controllers, managed by Centralus Software

page 125





## **SENSOR AND CONTROLLER COMPATIBILITY CHART**

AC CONTROLLERS	SENSOR INPUTS	RAIN	SMART WEATHER ADJUST	FLOW	HIGH-FLOW SHUTOFF
ECO LOGIC page 106	1	Mini-Clik, Rain-Clik	N/A	N/A	Flow-Clik
X-CORE page 107	1	Mini-Clik, Rain-Clik	Solar Sync	N/A	Flow-Clik
<b>X2</b> page 108	1	Mini-Clik, Rain-Clik	Hydrawise Software	N/A	Flow-Clik
PRO-C page 109	1	Mini-Clik, Rain-Clik	Solar Sync	N/A	Flow-Clik
HC page 114	2	Mini-Clik, Rain-Clik	Hydrawise Software	HC Flow Meter	HC Flow Meter
HPC page 117	1	Mini-Clik, Rain-Clik	Hydrawise Software	HC Flow Meter	HC Flow Meter
PRO-HC page 116	2	Mini-Clik, Rain-Clik	Hydrawise Software	HC Flow Meter	HC Flow Meter
HCC page 118	2	Mini-Clik, Rain-Clik	Hydrawise Software	HC Flow Meter	HC Flow Meter
ICC2 page 123	1	Mini-Clik, Rain-Clik	Centralus Software, Solar Sync	N/A	Flow-Clik
ACC2 page 124	1 Solar Sync, 3 Clik, 6 Flow	Mini-Clik, Rain-Clik	Centralus Software, Solar Sync	Flow-Sync, WFS, HC Flow Meter, Other (K-Factor or Scaled Pulse)	Built-in Real-Time Flow Monitoring
BATTERY-OPERATED CONTROLLERS					
NODE page 129	1	Mini-Clik, Rain-Clik	N/A	N/A	N/A
NODE-BT page 130	2	Mini-Clik, Rain-Clik	N/A	N/A	N/A
XC HYBRID page 131	1	Mini-Clik, Rain-Clik	N/A	N/A	N/A

SOIL MOISTURE	FREEZE	WIND	
Soil-Clik	Freeze-Clik, WRF-Clik	Wind-Clik, MWS	
Soil-Clik	Freeze-Clik, WRF-Clik	Wind-Clik, MWS	
Soil-Clik	Freeze-Clik, WRF-Clik, Online Forecast Option	Wind-Clik, MWS, Online Forecast Option	
Soil-Clik	Freeze-Clik, WRF-Clik	Wind-Clik, MWS	
Soil-Clik	Freeze-Clik, WRF-Clik, Online Forecast Option	Wind-Clik, MWS, Online Forecast Option	
Soil-Clik	Freeze-Clik, WRF-Clik, Online Forecast Option	Wind-Clik, MWS, Online Forecast Option	
Soil-Clik	Freeze-Clik, WRF-Clik, Online Forecast Option	Wind-Clik, MWS, Online Forecast Option	
Soil-Clik	Freeze-Clik, WRF-Clik, Online Forecast Option	Wind-Clik, MWS, Online Forecast Option	
Soil-Clik	Freeze-Clik, Wind-WRF-Clik, MW.		
Soil-Clik	Freeze-Clik, WRF-Clik, Online Forecast Option	Wind-Clik, MWS	
N/A	Freeze-Clik	N/A	
SC-Probe	Freeze-Clik	N/A	
N/A	Freeze-Clik	N/A	



Rain-Clik™



Mini-Clik™



Soil-Clik™



Freeze-Clik™



Freeze-Clik™



MWS



Solar Sync™



Flow-Sync™



HC Flow Meter

Available wireless!



WFS



Flow-Clik™

# RAIN-CLIK™

To prevent water waste, built-in Quick Response™ Technology instantly shuts down irrigation as soon as it starts raining.

### **KEY BENEFITS**

- · Quick Response Technology triggers instant rain shutoff
- Freeze sensing model halts system operation at 3°C
- Wireless sensor kit simplifies installation
- · Maintenance-free design with integrated battery for wireless models
- · Adjustable vent ring allows for shorter or longer reset period
- Includes gutter bracket and wall mount with wireless models
- Compatible with most normally open or normally closed irrigation controllers

### **OPERATING SPECIFICATIONS**

- · Quick Response Technology:
  - Time to turn off irrigation system: approximately 2 to 5 minutes for Quick Response
  - Time to reset Quick Response: approximately 4 hours under dry, sunny conditions
  - Time to reset when fully wet: approximately 3 days under dry, sunny conditions
- All models switch rating (24 VAC): 3 A
- Wired models include 7 m of 0.5 mm<sup>2</sup> sheathed, UL-approved wire
- Wireless model operating frequency: 433 MHz
- · Wireless model range is 243 m line of sight from sensor to receiver
- Multiple wireless receivers can be operated from a single wireless sensor
- Approvals: UL, cUL, FCC, CE, RCM
- · Warranty period: 5 years

### **USER-INSTALLED OPTIONS**

- Optional Gutter Mount for wired models (included with WR-CLIK and WRF-CLIK)
- Vandal-resistant Wireless Sensor Guard for flat surfaces or pole mounting (order sensor separately)
- Vandal-resistant Wireless Receiver Guard for pedestal mounting (order receiver separately)





(with mounting arm) Height: 6 cm Length: 18 cm Width: 2.5 cm



SGM

Height: 1.2 cm Length: 7.6 cm Width: 1.2 cm



### Wireless Rain-Clik Sensor

(with mounting arm) Height: 7.6 cm Length: 20 cm Width: 2.5 cm



### Wireless Receiver

(with wall mounting hardware) Height: 8 cm Length: 10 cm Width: 3 cm



### Wireless Sensor Guard

(with mounting hardware) Height: 7 cm Length: 9.5 cm Width: 3.2 cm



### Wireless Receiver Guard

(with mounting hardware) Height: 12.7 Length: 10.2 cm Width: 3.2 cm

Compatible with:



Waterproof Wire Connector Page 139



### Smart WaterMark

Recognised as a responsible water-saving tool

# RAIN-CLIKModelDescriptionRAIN-CLIKWired Rain-Clik SensorRAIN-CLIK-NOWired Rain-Clik Sensor, normally open switchRFCWired Rain/Freeze-Clik SensorWR-CLIKWireless Rain-Clik Sensor and Receiver, and Gutter MountWRF-CLIKWireless Rain/Freeze-Clik Sensor and Receiver, and Gutter Mount



This sensor halts scheduled irrigation when it detects a preset level of rain has fallen to stop water waste.

### **KEY BENEFITS**

- Shuts off irrigation automatically when the sensor detects rainfall from 3 mm to 19 mm
- Debris tolerant for reliable operation and no unnecessary shutdowns
- Compatible with most normally open or normally closed irrigation controllers

### **OPERATING SPECIFICATIONS**

- Switch rating (24 VAC): 3 A
- Includes 7 m of 0.5 mm<sup>2</sup> sheathed, UL-approved wire
- Approvals: UL, cUL, FCC, CE, RCM
- Warranty period: 5 years

### **USER-INSTALLED OPTIONS**

• Optional Gutter Mount (P/N SGM)



Mini-Clik Sensor (with mounting arm) Height: 5 cm Length: 15 cm Width: 2.5 cm



Mini-Clik Sensor (with stainless steel enclosure) Height: 13.9 cm Length: 7.6 cm Width: 10.1 cm

MINI-CLIK	
Model	Description
MINI-CLIK	Mini-Clik Sensor
MINI-CLIK-NO	Mini-Clik Sensor, normally open switch
MINI-CLIK-C	Mini-Clik Sensor, conduit mount
SG-MC	Mini-Clik Sensor in a stainless steel sensor enclosure



Waterproof Wire Connector Page 139

# SOIL-CLIK™

This sensor prevents water waste by measuring soil moisture and shutting off irrigation when a pre-set level is reached.

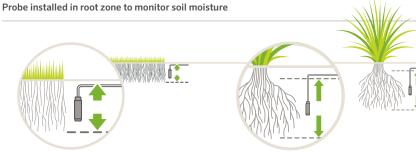
### **KEY BENEFITS**

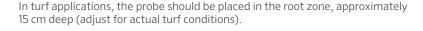
- · View current soil moisture level and status at a glance
- One-touch override allows soil moisture bypass for special conditions
- · Low-voltage outdoor enclosure powered by host controller
- Connect to Hunter sensor inputs, or use to interrupt common wires in virtually any 24 VAC irrigation system
- Use with Solar Sync<sup>™</sup> Sensor for maximum water savings; see page 153

### **OPERATING SPECIFICATIONS**

- Switch rating (24 VAC): 5 A
- Input power (24 VAC): 100 mA
- · Normally closed dry-contact closure
- 2 m maximum distance from Soil-Clik module to controller
- 300 m maximum distance from Soil-Clik module to sensor probe for AC installations
- 30 m maximum distance for NODE-BT installations
- Sensor probe includes 80 cm of direct-burial wire
- Approvals: UL, cUL, FCC, CE, RCM
- · Warranty period: 5 years

SOIL-CLIK	
Model	Description
SOIL-CLIK	Soil-Clik moisture sensor module and probe
SC-PROBE	Soil moisture probe sensor for NODE-BT (module is not used)





For shrubs or trees, select a deeper depth that matches the root zone. For new plantings, choose a spot halfway down the root ball, adjacent to native soil.

### Soil-Clik Module

Height: 11.4 cm Width: 8.9 cm Length: 3.2 cm



### Soil-Clik Probe

Height: 8.3 cm Diameter: 2 cm





Waterproof Wire Connector **Page 139** 



**NODE-BT** Controller **Page 130** 

# FREEZE-CLIK™

Sensor: Freeze

Use this sensor to stop sprinklers from running during a freeze event and protect landscapes, walkways, and roadways from icy conditions.

### **KEY BENEFITS**

- Automatically shuts off irrigation system when temperatures fall below 3°C
- · Installs easily on automatic irrigation systems with no adjustments needed
- Use with other sensors to enhance overall efficiency of irrigation systems

Note: Not intended for agricultural applications

### **SPECIFICATIONS**

- Switch rating (24 VAC): 5 A
- Includes 7 m of 0.5 mm<sup>2</sup> sheathed, two-conductor, UL-approved wire
- · Approvals: UL, cUL, FCC, CE, RCM
- Warranty period: 5 years

FREEZE-CLIK	
Model	Description
FREEZE-CLIK	Wired freeze sensor



### FREEZE-CLIK Height: 5 cm Length: 11 cm Width: 3.5 cm

### Compatible with:



Waterproof Wire Connector Page 139

# WIND-CLIK™

This sensor keeps water coverage efficient and pedestrian paths and roadways safe by shutting down irrigation when wind speeds increase.

### **KEY BENEFITS**

- · Shuts off irrigation when winds are high
- Works well with fountains to eliminate overspray in windy conditions
- · Installs easily on automatic irrigation systems with quick adjustments
- · Compatible with most normally open or normally closed irrigation controllers

### **SPECIFICATIONS**

- Switch rating (24 VAC): 5 A maximum
- Wind vane diameter: 13 cm
- Reset speed: 13 to 38 kph
- Mounts: Slip fits over 5 cm PVC pipe or attaches to 1 cm conduit with adapter (included)
- · Approvals: UL, cUL, FCC, CE, RCM
- Warranty period: 5 years

WIND-CLIK	
Model	Description
WIND-CLIK	Wired wind sensor



Sensor: Wind



WIND-CLIK Height: 10 cm Wind vane diameter: 13 cm



Waterproof Wire Connector Page 139



This all-in-one wind, rain, and freeze sensor prevents water waste when any sensor triggers a stop to the system.

### **KEY BENEFITS**

- Compact sensor with built-in wind, rain, and freeze sensors
- · Installs easily on automatic irrigation systems with limited adjustment
- Set wind actuation speed shutdown from 13 to 38 kph
- Set system shutdown from 3 mm to 19 mm of rainfall
- Automatically shuts off system when temperatures fall below 3°C
- Mounts: Slip fits over 5 cm PVC pipe or attaches to 1 cm conduit with adapter (included)

### **OPERATING SPECIFICATIONS**

- Switch rating (24 VAC): 5 A maximum
- Wind vane diameter: 13 cm
- Reset speed: 13 to 38 kph
- Approvals: UL, cUL, FCC, CE, RCM
- Warranty period: 5 years

MWS	
Model	Description
MWS	Weather station combines wind and rain sensors
MWS-FR	Weather station combines wind and rain sensors with a freeze sensor



MWS Height: 20 cm Wind vane diameter: 13 cm



**MWS-FR** Height: 20 cm Wind vane diameter: 13 cm



# **SOLAR SYNC™**

Sensor: ET, Rain, Freeze

This sensor automatically adjusts controller run times daily based on local climate conditions to reduce water usage and improve plant health.

### **KEY BENEFITS**

- · Automatically adjusts irrigation run times based on weather conditions using on-site solar radiation and air temperature
- Quick Response<sup>™</sup> Technology triggers instant rain shutoff
- Freeze sensing halts system operation at 3°C
- · Wireless sensor kit simplifies installation
- · Maintenance-free design with integrated battery for wireless models
- · Adjustable vent ring allows for shorter or longer reset period
- Use with X-Core, Pro-C, ICC2, ACC2, and legacy ACC and I-Core™ Controllers
- Manage remotely with Centralus<sup>™</sup> Software for ICC2 and ACC2 installations

### **OPERATING SPECIFICATIONS**

- · Solar Sync Technology:
  - Adjusts run times daily 3 minutes before midnight using the last 3 days of ET (evapotranspiration) data
- Quick Response Technology:
  - Time to turn off irrigation system: approximately 2 to 5 minutes for **Quick Response**
  - Time to reset Quick Response: approximately 4 hours under dry, sunny conditions
  - Time to reset when fully wet: approximately 3 days under dry, sunny conditions
- All models switch rating (24 VAC): 3 A
- Wired models include 7 m of 0.5 mm<sup>2</sup> sheathed, UL-approved wire
- Wireless model operating frequency: 433 MHz
- Wireless model range is 243 m line of sight from sensor to receiver
- · Multiple wireless receivers can be operated from a single wireless sensor
- · Approvals: UL, cUL, FCC, CE, RCM
- · Warranty period: 5 years

### **USER-INSTALLED OPTIONS**

- Vandal-resistant Wireless Sensor Guard for flat surfaces or pole mounting (order sensor separately)
- · Vandal-resistant Wireless Receiver Guard for pedestal mounting (order receiver separately)

SOLAR SYNC	
Model	Description
SOLAR-SYNC-SEN	Wired Solar Sync Sensor and Gutter Mount
WSS-SEN	Wireless Solar Sync Sensor, Receiver, and Gutter Mount



Wired Solar Sync Sensor (with mounting arm)

Height: 8 cm Length: 22 cm Width: 2 cm



Wireless Solar Sync Sensor

(with mounting arm) Height: 11 cm Length: 22 cm Width: 2.5 cm



Wireless Solar Sync Receiver

(with wall-mounting kit) Height: 14 cm Length: 4 cm Width: 4 cm



**Wireless Sensor Guard** 

(with mounting hardware) Height: 7 cm Length: 9.5 cm Width: 3.2 cm



### **Wireless Receiver Guard**

(with mounting hardware) Height: 12.7 cm Length: 10.2 cm Width: 3.2 cm

### Compatible with:



**Centralus** Software **Page 122** 



Waterproof Wire Connector **Page 139** 



Smart WaterMark Recognised as a responsible

water-saving tool

# FLOW-SYNC™

This cost-effective flow sensor is designed for use with commercial controllers.

### **KEY BENEFITS**

- Simple-insertion flow sensor for metering and reacting to real-time flow conditions
- Provides station-level flow monitoring for reaction to high- or low-flow conditions, helping to protect against flood damage and erosion
- Compatible with Hunter ACC2 and legacy ACC and I-Core™ Controllers, as well
  as ICD-SEN Sensor Decoders, for installation flexibility in a variety of settings
- Easy connection up to 300 m from controller or sensor decoder
- Sensor is pre-calibrated for K-factor and Offset based on pipe size, allowing for quick setup and programming within the controller

### **OPERATING SPECIFICATIONS**

- Recommended pressure range: 1.5 to 15.0 bar; 150 to 1500 kPa
- Pressure loss: < 0.009 bar; 0.9 kPa
- Sensor wiring: 2 x direct burial, 0.75 mm<sup>2</sup> or greater, colour-coded or marked for polarity, up to 300 m from controller
- · Warranty period: 5 years



Impeller-type flow meter, requires FCT fitting for pipe installation (order separately)

### Compatible with:







ICD-SEN Decoder Page 134



Waterproof Wire Connector Page 139

FLOW-SYN	с
Model	Description
HFS	Hunter Flow-Sync Sensor for use with ACC2 and legacy ACC and I-Core Controllers; sensor requires FCT fitting for pipe installation

REQUIRED USER-INSTALLED OPTION (SPECIFY SEPARATELY)		
Model	Description	
FCT-100	1" (25 mm) Schedule 40 sensor receptacle tee	
FCT-150	1½" (40 mm) Schedule 40 sensor receptacle tee	
FCT-158	1½" (40 mm) Schedule 80 sensor receptacle tee	
FCT-200	2" (50 mm) Schedule 40 sensor receptacle tee	
FCT-208	2" (50 mm) Schedule 80 sensor receptacle tee	
FCT-300	3" (80 mm) Schedule 40 sensor receptacle tee	
FCT-308	3" (80 mm) Schedule 80 sensor receptacle tee	
FCT-400	4" (100 mm) Schedule 40 sensor receptacle tee	

BSP ADAPTERS FOR FCT FITTINGS				
Diameter Model				
1" (25 mm)	795700			
1½" (40 mm)	795800			
2" (50 mm)	241400			
3" (80 mm)	477800			

FLOW RANGE				
Dina		Operati	ng Range	
Pipe Diameter	Minimum		Suggested Maximum*	
Diameter	l/min	m³/hr	I/min	m³/hr
1" (25 mm)	7.6	0.45	64	3.84
1½" (40 mm)	19	1.14	132	8.0
2" (50 mm)	37.8	2.26	208	12.5
3" (80 mm)	106	6.36	450	27.0
4" (100 mm)	129	7.74	750	45.0

### Notes:

\* Good design practice dictates the maximum velocity not to exceed 1.5 m/sec. Suggested maximum velocity is based upon Class 200 IPS plastic pipe.

# **HC FLOW METER**

Detect, monitor, and report critical flow zone data via wired or wireless connection with this robust and simple-to-install flow sensor.

### **KEY BENEFITS**

- Compatible with Hydrawise® enabled HC, HPC, Pro-HC, and HCC Controllers
- · Provides station-level flow rates and totals
- Sends automatic alerts in the event of high-flow, low-flow, or unscheduled flow conditions
- Flow reports within Hydrawise Software can display total system water use and individual station water use for accurate water budgeting and tracking
- Robust brass construction with union fittings for easy installation and removal for winterisation
- Analogue dial on the face of the meter displays daily flow totals and a leak detector

### **OPERATING SPECIFICATIONS**

- Scaled pulse output is pre-calibrated based on the size of the meter
- When wired directly to the controller, the meter must be installed with shielded, minimum 0.75 mm<sup>2</sup> wire, up to 300 m from the controller
- · Accuracy: ± 2% of reading at recommended flow
- HC Flow Meter pressure loss chart; see page 258
- Warranty period: 2 years

### **WIRELESS HC FLOW METER BENEFITS**

- Add wireless communication to any HC Flow Meter (sensor sold separately)
- Send flow data wirelessly from the sensor to the controller, without the need to run wire or dig trenches

HC FLOW METER SPECIFICATIONS				
	HC-075-FLOW-B (20 mm)	HC-100-FLOW-B (25 mm)	HC-150-FLOW-B (40 mm)	HC-200-FLOW-B (50 mm)
Minimum flow (I/min)	0.83	1.16	3.33	7.5
Maximum recommended flow (I/min)	60	110	250	400
Maximum flow rate (I/min)	80	130	330	500
Dial reading (m³)	1 pulse per 1 litre	1 pulse per 10 litres	1 pulse per 10 litres	1 pulse per 10 litres

### WIRELESS HC FLOW METER OPERATING SPECIFICATIONS

- 152 m range (line of sight) from transmitter to receiver
- Communication frequency: 868 MHz for international use; 915 MHz for use in Australia/New Zealand
- Transmitter power supply: 3 AA batteries
- · Receiver power supply: 24 VAC from host controller
- Warranty period: 2 years

Sensor: Flow



### HC-075-FLOW-B

(20 mm male BSP thread) Height: 8 cm Length: 23.2 cm Depth: 8 cm Weight: 0.9 kg

### HC-100-FLOW-B

(25 mm male BSP thread) Height: 9.3 cm Length: 26.2 cm Depth: 8 cm Weight: 1.4 kg

### HC-150-FLOW-B

(40 mm male BSP thread) Height: 16.2 cm Length: 43.1 cm Depth: 12.5 cm Weight: 6.6 kg

### HC-200-FLOW-B

(50 mm male BSP thread) Height: 16.2 cm Length: 44.7 cm Depth: 12.5 cm Weight: 7.4 kg

### WIRELESS HC FLOW METER



WIRELESS HC FLOW METER MODELS		
Model	Description	
W-HC-FLOW-INT	Wireless HC Flow Meter Kit, includes transmitter and received (international 868 MHz)	
W-HC-FLOW-TR-INT	Wireless HC Flow Meter, transmitter only (international 868 MHz)	
W-HC-FLOW-R-INT	Wireless HC Flow Meter, receiver only (international 868 MHz)	
W-HC-FLOW-AU	Wireless HC Flow Meter Kit, includes transmitter and receiver (AU/NZ 915 MHz)	
W-HC-FLOW-TR-AU	Wireless HC Flow Meter, transmitter only (AU/NZ 915 MHz)	
W-HC-FLOW-R-AU	Wireless HC Flow Meter, received only (AU/NZ 915 MHz)	
HC-075-FLOW-B	HC Flow Meter with 20 mm male BSP thread, m <sup>3</sup> reading	
HC-100-FLOW-B	HC Flow Meter with 25 mm male BSP thread, m³ reading	
HC-150-FLOW-B	HC Flow Meter with 40 mm male BSP thread, m³ reading	
HC-200-FLOW-B	HC Flow Meter with 50 mm male BSP thread, m³ reading	

# **WFS**

Use this sensor to retrofit flow to existing systems that cross under asphalt, concrete, or other hardscapes.

### **KEY BENEFITS**

- · Wireless flow sensor saves time, materials, and labour
- Simple-insertion flow sensor for monitoring and reacting to real-time flow conditions
- Provides station-level flow monitoring for reaction to high- or low-flow conditions, helping to protect against waste and damage from leaks
- Compatible with Hunter ACC2 and legacy ACC and I-Core™ Controllers for installation flexibility in a variety of settings
- Sensor is pre-calibrated for K-factor and Offset based on pipe size, allowing for quick setup and programming within the controller
- Multi-colour LED on the receiver indicates proper communication to the transmitter, as well as remaining battery life

### **OPERATING SPECIFICATIONS**

- Recommended pressure range: 0 to 15.0 bar; 0 to 1500 kPa
- Pressure loss: < 0.009 bar; 0.9 kPa</li>
- Maximum distance sensor to receiver: 152 m
- Operating frequency: 868 MHz
- FCC and CE approved
- Warranty period: 5 years

### **USER-INSTALLED OPTIONS**

• FCT tee fittings for pipe installation



WFS

### Compatible with:



ACC2 Controllers Page 124

WIRELESS FLOW SENSOR		
Model	Description	
WFS-INT	Wireless Flow Sensor Kit (international 868 MHz)	
WFS-T-INT	Wireless Flow Sensor Kit transmitter only (international 868 MHz)	
WFS-R-INT	Wireless Flow Sensor Kit receiver only (international 868 MHz)	
WFS-ALKBATT	Wireless Flow Sensor alkaline battery with cage	

REQUIRED USER-INSTALLED OPTION (SPECIFY SEPARATELY)			
Model	Description		
FCT-100	1" (25 mm) Schedule 40 sensor (white) receptacle tee		
FCT-150	1½" (40 mm) Schedule 40 sensor (white) receptacle tee		
FCT-158	1½" (40 mm) Schedule 80 sensor (grey) receptacle tee		
FCT-200	2" (50 mm) Schedule 40 sensor (white) receptacle tee		
FCT-208	2" (50 mm) Schedule 80 sensor (grey) receptacle tee		
FCT-300	3" (80 mm) Schedule 40 sensor (white) receptacle tee		
FCT-308	3" (80 mm) Schedule 80 sensor (grey) receptacle tee		

4" (100 mm) Schedule 40 sensor (white) receptacle tee

Operating Range			
Mini	mum	Suggest	ed Max*
I/min	m³/hr	I/min	m³/hr
7.6	0.45	64	3.84
19	1.14	132	8.0
37.8	2.26	208	12.5
106	6.36	450	27.0
129	7.74	750	45.0
	I/min 7.6 19 37.8 106	Minimum   I/min m³/hr   7.6 0.45   19 1.14   37.8 2.26   106 6.36	Minimum         Suggest           I/min         m³/hr         I/min           7.6         0.45         64           19         1.14         132           37.8         2.26         208           106         6.36         450

### Notes:

\* Good design practice dictates the maximum velocity not to exceed 1.5 m/sec. Suggested maximum velocity is based upon Class 200 IPS plastic pipe.



FCT-400

# FLOW-CLIK™

Add high-flow shutoff capabilities to any irrigation controller with this simple, adjustable device.

### **KEY BENEFITS**

- Automatically shuts down entire system if an overflow condition occurs, helping to protect against flood damage and erosion
- Single-button calibration to set highest flow rate
- User-adjustable timing and delay for sensor response
- Compatible with all Hunter AC-powered controllers for a variety of applications
- Multi-colour LED indicates system status and if flow is within limits

### **OPERATING SPECIFICATIONS**

- Recommended pressure range: 1.5 to 15.0 bar; 150 to 1500 kPa
- Current draw (24 VAC): 0.025 A
- · Switching current: 2 A maximum
- Sensor wiring: 2 x direct burial, 0.75 mm<sup>2</sup> or greater, colour-coded or marked for polarity, up to 300 m from the interface module
- Programmable start up delay: 0 to 300 seconds (allows for system hydraulics to stabilise and prevents false flow readings)
- Programmable interrupt period: 5 to 60 minutes (or option to reset manually)
- Warranty period: 5 years

### **USER-INSTALLED OPTIONS**

• FCT fittings for 25 mm to 100 mm pipe diameters



Flow-Clik Sensor and Module shown with required FCT fitting for pipe installation (sold separately)

### Compatible with:



Waterproof Wire Connector Page 139

FLOW-CLIK	
Model	Description
FLOW-CLIK	Standard kit for all 24 VAC controllers. <i>Includes sensor and interface module, sensor requires FCT for pipe installation.</i>

REQUIRED USER-INSTALLED OPTION (SPECIFY SEPARATELY)		
Model	Description	
FCT-100	1" (25 mm) Schedule 40 sensor receptacle tee	
FCT-150	1½" (40 mm) Schedule 40 sensor receptacle tee	
FCT-158	1½" (40 mm) Schedule 80 sensor receptacle tee	
FCT-200	2" (50 mm) Schedule 40 sensor receptacle tee	
FCT-208	2" (50 mm) Schedule 80 sensor receptacle tee	
FCT-300	3" (80 mm) Schedule 40 sensor receptacle tee	
FCT-308	3" (80 mm) Schedule 80 sensor receptacle tee	
FCT-400	4" (100 mm) Schedule 40 sensor receptacle tee	

BSP ADAPTERS FOR FCT FITTINGS			
Diameter	Model		
1" (25 mm)	795700		
1½" (40 mm)	795800		
2" (50 mm)	241400		
3" (80 mm)	477800		

FLOW RANGE					
Dina		Operating Range			
Pipe Diameter	Mini	mum	Suggested	Maximum*	
Diameter	l/min	m³/hr	I/min	m³/hr	
1" (25 mm)	7.6	0.45	64	3.84	
1½" (40 mm)	19	1.14	132	8.0	
2" (50 mm)	37.8	2.26	208	12.5	
3" (80 mm)	106	6.36	450	27.0	
4" (100 mm)	129	7.74	750	45.0	

### Notes:

\* Good design practice dictates the maximum velocity not to exceed 1.5 m/sec. Suggested maximum velocity is based upon Class 200 IPS plastic pipe.



# MICRO IRRIGATION

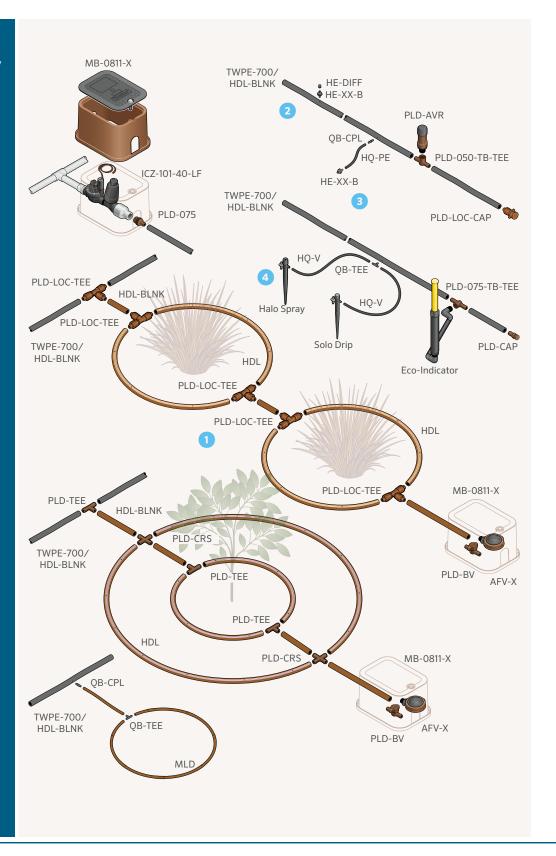
From ultra-durable Hunter Dripline to our innovative Root Zone Watering System, Hunter's micro irrigation solutions are designed to apply water efficiently and precisely where it's needed. Choose the combination of products best suited for your application and plant type using the chart below.

COMMON MICRO APPLICATIONS GUIDE				
APPLICATION	STANDARD DESIGN	ADVANCED DESIGN		
TREES	MLD, Emitters, Micro Sprays	HDL, PLD, Eco-Wrap, IH Risers, RZWS		
MIXED PLANTINGS	MLD, Micro Sprays, HDL, PLD, Single-Port Emitters	HDL-COP, Multi-Port Emitters, Eco-Wrap		
SLOPED AREAS	MLD, Micro Sprays, HDL-PC, HDL-R, Emitters, RZB	HDL-CV, Eco-Mat, Eco-Wrap, HDL-COP, IH Risers, RZWS		
TURF	HDL-COP	Eco-Wrap, Eco-Mat		
SUBSURFACE	HDL-COP	Eco-Wrap, Eco-Mat		
SPARSE PLANTING ** **	Emitters, RZB	IH Risers		
DENSE PLANTING	Micro Sprays, HDL, PLD	HDL-COP, Eco-Wrap, Eco-Mat		
GREEN ROOFS	Eco-Mat	Eco-Mat		
POTTED PLANTS	Single-Port Emitters, Micro Sprays	MLD		
RECLAIMED	MLD, Micro Sprays, Emitters	HDL-R, IH Risers, RZWS		

# **SOFT PIPE**SYSTEMS

Using soft pipe to distribute irrigation water is acceptable in both commercial and residential applications. Polyethylene tubing is used in place of PVC and may be 1",  $\frac{3}{4}$ ", or  $\frac{1}{2}$ ". Hunter offers a full suite of products that are compatible with soft pipe systems.

- 1 Tree and Shrub Rings:
- Convenient and efficient way to irrigate sparse plantings
- Use HDL or MLD to form the irrigation ring
- Connect with LOC Fittings for faster installation
- 2 6 mm PE Tubing:
- Use HDL-BLNK to distribute water
- Use 6 mm PE polyethylene (HQPE) or vinyl (HQV) to connect to emitters and micro sprays
- 3 Point-Source Emitters:
  - Barbed emitters insert directly into PE tubing or at the end of 6 mm vinyl/PE
- Colour-coded flows (2, 4, 8, 15, 23 l/hr)
- 4 Micro Spray Stakes:
- Use when higher flows are needed (0-114 l/hr)
- Throw water from 0-3.6 m



# HARD PIPE SYSTEMS

From multi-port emitters to micro sprays, Hunter offers a wide variety of products and accessories that are designed to complement hard pipe systems.

### 11 IH Risers:

- Ultra-durable point-to-point emitters
- Built-in check valve screen makes them great for slopes
- Wide variety of flows

### 2 Point-Source Emitters:

- Colour-coded flows (2, 4, 8, 23 l/hr)
- HEB (½" threaded emitter bubblers install directly onto ½" risers)
- HE-T (10-32 threaded emitters install onto rigid risers)

### 3 Multi-Port Emitters:

- Colour-coded flows (0-119 l/hr)
- Swivel barbs for directional flow
- Install directly onto ½" risers

### 4 Micro Sprays:

- Ideal for higher flows (0-114 l/hr)
- Diameter of throw (0-3.4 m)
- Install directly onto rigid risers or on ¼" tubing

### 5 Root Zone Watering System:

- For deep root irrigating
- Allows oxygen to penetrate the soil
- Encourages healthier root growth



# PCZ DRIP CONTROL ZONE KITS

Make installations quick and easy with this robust, preassembled kit with stainless steel filtration and pressure regulation.

### **KEY BENEFITS**

- Factory-assembled for quick and easy installation
- Valves 100% water-tested to ensure dependable operation
- Senninger regulator provides precise regulation to protect system from high pressure
- 150 mesh (100 microns) stainless steel screen for years of reliable filtration

### **USER-INSTALLED OPTIONS**

Reclaimed water ID handle for PCZ-101 (P/N 269205)

### **OPERATING SPECIFICATIONS**

- Pressure regulation: 1.7 or 2.8 bar; 170 or 280 kPa
- Flow: 2 to 55 I/min
- Operating pressure: 1.4 to 8.0 bar; 140 to 800 kPa
- Operating temperature: up to 66°C
- 150 mesh; 100 microns stainless steel screen

### **SOLENOID OPERATING SPECIFICATIONS**

- Heavy-duty solenoid 24 VAC
  - 350 mA inrush current, 190 mA holding current, 60 Hz
  - 370 mA inrush current, 210 mA holding current, 50 Hz
- · Warranty period: 2 years



### PCZ-101 Height: 18 cm Width: 7 cm Length: 26 cm

1" BSP (25 mm) inlet x 3/4" outlet

### PCZ-101 Installed



DRIP CONTROL ZONE KITS		
Model	Description	
PCZ-101-25-B	1" flow control PGV Valve with HFR; 1.7 bar; 170 kPa regulator, ¾" outlet	
PCZ-101-40-B	1" flow control PGV Valve with HFR; 2.8 bar; 280 kPa regulator, ¾" outlet	

PCZ CONTROL ZO	NE KITS:	
PRESSURE REQUI	REMENTS BASED ON	FLOW
System Flow	PC7-101-25-B	PC

System Flow

System Flow		System Flow PCZ-101-25-B (170 kPa outlet)	
I/min	m³/hr	Inlet pressure required to achieve desired outl pressure (kPa)	
1.9	0.14	234	283
3.8	0.28	235	290
19.0	1.14	234	310
37.8	2.27	255	358
56.8	3.41	283	407

System Flow		(1.7 bar outlet)	(2.8 bar outlet)
I/min	m³/hr		to achieve desired outlet re (bar)
1.9	0.14	2.3	2.8
3.8	0.28	2.3	2.9
19.0	1.14	2.3	3.1
37.8	2.27	2.6	3.6
56.8	3.41	2.8	4.1

DC7-101-25-B

DC7-101-40-B

# FILTERS & FILTER REGULATORS

Choose rugged filters and filter regulators with stainless steel screens for maximum performance.

### **KEY BENEFITS**

- HFR-075 (Hunter Filter Regulator)
  - Compact, all-in-one filter and regulator minimise required valve box space
  - Senninger regulator provides precise regulation to protect system from high pressure
  - 150 mesh (100 microns) stainless steel screen for years of reliable filtration
  - Wide flow range covers most drip applications
- HY-075 (Hunter Y-Filter)
  - 150 mesh (100 microns) stainless steel screen for years of reliable filtration
  - Wide flow range covers most drip applications

### **OPERATING SPECIFICATIONS**

- HFR-075
  - Pressure regulation: 1.7 or 2.8 bar; 170 or 280 kPa
  - Flow: 2 to 55 I/min
  - Operating pressure: 1.4 to 8.0 bar; 140 to 800 kPa
  - Operating temperature: up to 66°C
- HY-075
  - Flow: up to 75 I/min
  - Operating pressure: up to 8.0 bar; 800 kPa
  - Operating temperature: up to 66°C
- Warranty period: 2 years



### HFR-075-25 HFR-075-40

Height: 18 cm Width: 7 cm Length: 16 cm



### HY-075 Height: 15 cm Width: 7 cm Length: 13 cm

HUNTER FILTERS				
Model	Description			
HFR-075-25	Filter regulator, ¾" inlet/outlet, 1.7 bar; 170 kPa			
HFR-075-40	Filter regulator, ¾" inlet/outlet, 2.8 bar; 280 kPa			
HY-075	¾" filter with ¾" inlet/outlet			

### PCZ-101 installed in a Multi-Purpose Box



# **SENNINGER™ PRESSURE REGULATORS**

Choose the most consistent and reliable pressure regulators in the industry.

### **KEY BENEFITS**

- · Maintain consistent preset outlet pressure to prevent damage to system components
- 100% water-tested to ensure accuracy and dependable operation
- · Install above or below ground for convenience of design
- · Tamper-proof construction provides reliability and long life

### **OPERATING SPECIFICATIONS**

- PRL (3/4"):
  - Flow range: 2 to 30 I/min
  - Maximum inlet pressure\*: 6.9 to 8.3 bar; 690 to 830 kPa
- PRLV (¾"):
  - Flow range: 2 to 68 I/min
  - Maximum inlet pressure: 8.6 bar; 860 kPa
- PRLG
  - Flow range: 2 to 27 I/min
  - Maximum inlet pressure: 8.3 bar; 830 kPa
- · Warranty period: 2 years

# PRL (¾") USE FOR STANDARD LOW-FLOW IRRIGATION APPLICATIONS

Model	Outlet Pressure	Inlet	Outlet
PRL203F3F	1.38 bar; 138 kPa	¾" FNPT	¾" FNPT
PRL253F3F	1.72 bar; 172 kPa	¾" FNPT	¾" FNPT
PRL303F3F	2.07 bar; 207 kPa	¾" FNPT	¾" FNPT
PRL353F3F	2.41 bar; 241 kPa	¾" FNPT	¾" FNPT
PRL403F3F	2.76 bar; 276 kPa	¾" FNPT	34" FNPT

# PRLV (¾") LIMITS STATIC PRESSURE TO 0.7 TO 1.0 BAR (70 TO 100 KPA) ABOVE PRESSURE RATING WHEN INSTALLED PRIOR TO VALVE

Model	Outlet Pressure	Inlet	Outlet
PRLV20MF3F3FV	1.38 bar; 138 kPa	¾" FNPT	¾" FNPT
PRLV30MF3F3FV	2.07 bar; 207 kPa	¾" FNPT	¾" FNPT
PRLV40MF3F3FV	2.76 bar; 276 kPa	¾" FNPT	¾" FNPT

PRLG ¾" HOSE THREAD						
Model	Outlet Pressure	Inlet	Outlet			
PRLG203FH3MH	1.38 bar; 138 kPa	3⁄4" FHT	3⁄4" MHT			
PRLG253FH3MH	1.72 bar; 172 kPa	3⁄4" FHT	3⁄4" MHT			
PRLG303FH3MH	2.07 bar; 207 kPa	34" FHT	3⁄4" MHT			
PRLG403FH3MH	2.76 bar; 276 kPa	34" FHT	3⁄4" MHT			



PRL - Pressure-Regulating Low-Flow

Width: 4.8 cm Length: 11.4 cm

34" FNPT inlet x 34" FNPT outlet



## PRLV - Pressure-Regulating Limit Valve Wide-Range Flow

Width: 6.4 cm Length: 14.7 cm ¾" FNPT inlet x ¾" FNPT outlet



PRLG - Pressure-Regulating Low-Flow 3/4" hose thread

Width: 4.8 cm Length: 11.4 cm ¾" FNPT inlet x ¾" FNPT outlet

The pressure regulator will maintain the predetermined operating pressure provided that the inlet pressure is at least 0.35 bar; 35 kPa above the expected outlet pressure, but not exceeding the maximum operating pressure.

<sup>\*</sup>Maximum recommended inlet pressure should not exceed 5.5 bar; 550 kPa above nominal model pressure

Choose the most consistent and reliable pressure regulators in the industry.

### **KEY BENEFITS**

- Each regulator maintains a constant preset outlet pressure based on its flow/inlet pressure
- 100% water-tested for accuracy at Senninger's facilities
- Very low hysteresis and friction loss helps maintain accurate regulation
- Can be installed above or below ground
- · Patented tamper-proof design
- · No external metal parts for excellent corrosion resistance

### **OPERATING SPECIFICATIONS**

- PMR-MF (3/4"):
  - Flow range: 7.5 to 75.7 I/min
  - Maximum inlet pressure\*: 6.9 to 9.0 bar; 690 to 900 kPa
- Warranty period: 2 years on materials, workmanship, and performance



PMR-MF - Pressure-Master Regulator Medium-Flow

Width: 6.4 cm Length: 14.0 cm

34" Female inlet x 34" female outlet

PMR-MF (¾")			
Model	Pressure	Inlet	Outlet
PMR20MF3F3FV	1.38 bar; 138 kPa	34" NPT	34" NPT
PMR25MF3F3FV	1.72 bar; 172 kPa	34" NPT	34" NPT
PMR30MF3F3FV	2.07 bar; 207 kPa	34" NPT	34" NPT
PMR35MF3F3FV	2.41 bar; 241 kPa	34" NPT	34" NPT
PMR40MF3F3FV	2.76 bar; 276 kPa	34" NPT	34" NPT
PMR50MF3F3FV	3.45 bar; 345 kPa	34" NPT	34" NPT

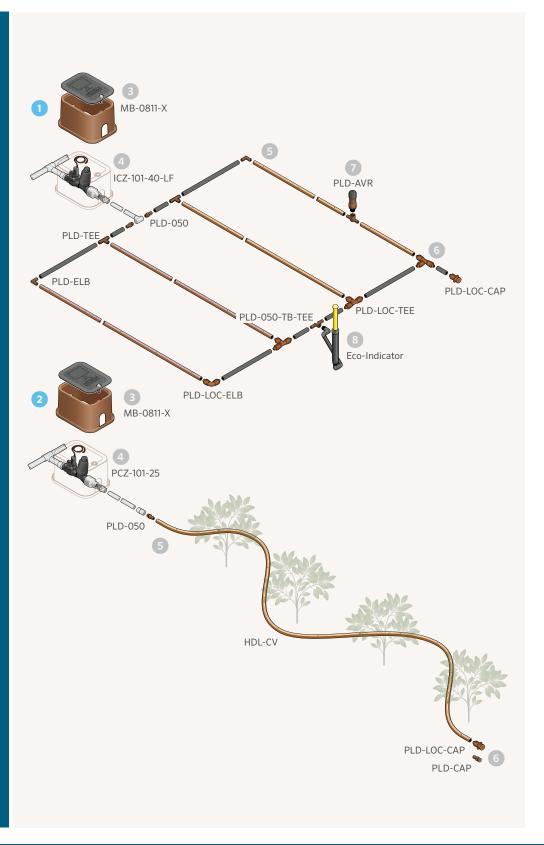
The pressure regulator will maintain the predetermined operating pressure provided that the inlet pressure is at least 0.35 bar; 35 kPa above the expected outlet pressure, but not exceeding the maximum operating pressure.

<sup>\*</sup>Maximum recommended inlet pressure should not exceed 5.5 bar; 550 kPa above nominal model pressure

# **DRIPLINE**SYSTEMS

Ultra-durable Hunter Dripline solutions are easy to install and provide maximum longevity in the field. HDL and PLD work efficiently and effectively to use as little water as possible and keep plants thriving.

- 1 The dripline grid is a common installation practice either at grade or subsurface. Establishing consistent laterals in dense plantings provides a quick and simple approach to irrigating a planted area.
- 2 Arranging the dripline through a series of plants is an accepted and reliable method of irrigation. Ensure the dripline has emission points near or around each plant.
- 3 Multi-Purpose Box:
  - 25 cm x 18 cm opening
  - Five colour options for lids
- 4 Control Zone Kit:
  - Factory-assembled for quick and easy installation
  - Low-, medium-, and high-flow kits
- 5 PLD/HDL:
  - All versions are pressurecompensating
- Check valve options available
- 6 Fittings:
- Double-barb holds fittings tight
- LOC Fittings can be reused
- 7 Air/Vacuum Relief Valve:
  - Helps prevent water hammer and tubing collapse
  - Use at high point(s) in zone
- 8 Eco-Indicator:
- Pops up at 0.85 bar; 85 kPa and shows system is running
- Reveals when system pressure drops too low



# **HDL-CV**

Increase drip system efficiency with pressure compensation, flow indication stripes, and a 1.8 m check height.

### **KEY BENEFITS**

- Pressure-compensating emitters for consistent flow and uniform coverage
- Non-draining check valve (CV-ND) prevents low-point pooling and allows all emitters to open/close at the same time for greater system efficiency
- Check height of 1.8 m minimises system drainage and runoff
- Anti-siphon feature prevents debris from entering emitter at system shutdown
- Colour-coded stripes provide easy identification of flow
- UV resistance facilitates product longevity
- Stretch-wrapped coils stay intact and make installation quick and easy
- Superior grit tolerance provided by proprietary emitter design with multiple inlet filters, a wide turbulent labyrinth, and a full-size outlet pool



HDL-CV



**Coil with Stretch Wrap** 

### PRODUCT SPECIFICATIONS

- Available flow rates: 1.5, 2.1, 3.4 l/hr
- Available emitter spacing: 30 cm, 45 cm, 60 cm
- Tubing dimensions: 16.76 mm x 14.22 mm (outside/inside diameter)
- Available without emitter (HDL-BLNK)

### **OPERATING SPECIFICATIONS**

- Operating range: 1 to 4.2 bar; 100 to 420 kPa
  Minimum filtration: 120 mesh (125 microns)
- Warranty period: 5 years

HDL-CV - SPECIFICATION BUILDER: ORDER1 + 2 + 3 + 4							
1 Model	2 Spacing	3 Length	4 Options				
<b>HDL-04</b> = 1.5 l/hr flow	<b>12"</b> = 30 cm	<b>100</b> = 30 m*	CV = Pressure-compensating				
<b>HDL-06</b> = 2.1 l/hr flow	<b>18"</b> = 45 cm	<b>250</b> = 75 m	with check valve				
<b>HDL-09</b> = 3.4 l/hr flow	<b>24"</b> = 60 cm	<b>500</b> = 150 m					
		<b>1K</b> = 300 m					

### Example:

**HDL-06-12-250-CV** = 2.1 l/hr, 30 cm emitter spacing, 75 m coil with check valve **Note:** \*30 m coils available in the following HDL models only: HDL-06-12-100-CV, HDL-09-12-100-CV

HDL-BLNK - SPECIFICATION BUILDER: ORDER 1 + 2 + 3						
1 Model 2 Length 3 Options						
HD	HDL-BLNK = No emitters 100 = 30 m (blank)			lank) = Brown		
		25	<b>0</b> = 75 m	R	= Purple stripes	
		50	<b>0</b> = 150 m			
		1K	= 300 m			



### STRIPE COLOUR

- 3.4 l/hr Black
- 2.1 I/hr Grey1.5 I/hr Tan

### TUBING COLOUR

 HDL-CV - Dark brown tubing, pressure-compensating with check valve

### Examples:

HDL-BLNK-250 = No emitters, 150 m coil with purple stripes HDL-BLNK-500-R = No emitters, 75 m coil

### **MAXIMUM RUN LENGTHS**

HDL-CV - 1.5 I/hr					
Pressure Emitter Spacing (cm)					
(bar; kPa)	30	45	60		
1.0; 100	62	88	112		
2.0; 200	116	163	207		
3.0; 300	142	200	255		
4.0; 400	161	228	289		

er Spacing	` ′
45	
73	60
73	93
134	171
166	210
189	239
	166

HDL-CV - 3.4 I/hr						
Pressure	Emi	itter Spacing	(cm)			
(bar; kPa)	30	45	60			
1.0; 100	36	50	64			
2.0; 200	66	94	119			
3.0; 300	81	115	146			
4.0; 400	92	131	165			

# HDL-PC & HDL-R

Maximise drip system longevity with robust material construction and pressure compensation for standard and reclaimed applications.

### **KEY BENEFITS**

- Pressure-compensating emitters for consistent flow and uniform coverage
- Colour-coded stripes provide easy identification of flow
- UV resistance facilitates product longevity
- Stretch-wrapped coils stay intact and make installation quick and easy
- Superior grit tolerance provided by proprietary emitter design with multiple inlet filters, a wide turbulent labyrinth, and a full-size outlet pool
- Reclaimed product (HDL-R) identified by purple stripes assists in visual identification when using non-potable water



### **HDL-PC**



HDL-R (Reclaimed)

Optional colour for reclaimed water sources, available for 17 mm only.

### PRODUCT SPECIFICATIONS

- Available flow rates: 2.1, 3.4 l/hr
- Available emitter spacing: 30 cm, 45 cm, 60 cm
- Tubing dimensions: 16.76 mm x 14.22 mm (outside/inside diameter)
- Available without emitter (HDL-BLNK)

### **OPERATING SPECIFICATIONS**

• Operating range: 1 to 4.2 bar; 100 to 420 kPa • Minimum filtration: 120 mesh (125 microns)

· Warranty period: 5 years

HDL - SPECIFICATION BUILDER: ORDER1 + 2 + 3 + 4						
1 Model	2	Spacing	3	Length	4	Options
<b>HDL-06</b> = 2.1 l/hr flow	<b>12</b> = 30 cm		25	<b>0</b> = 75 m	PC	= Pressure-compensating
<b>HDL-09</b> = 3.4 l/hr flow	<b>18</b> = 45 cm		50	<b>0</b> = 150 m		= Reclaimed (available in
	24	= 60 cm	<b>1K</b> = 300 m		2.1	and 3.4 I/hr models only)

HDL-09-12-1K-PC = 3.4 l/hr, 30 cm emitter spacing, 300 m coil with PC emitter Note: Two HDL-PC products are available in 30 m coils: HDL-06-12-100-PC and HDL-09-12-100-PC



### **HUNTER DRIPLINE COLOUR CODE**

### STRIPE COLOUR

- 3.4 l/hr Black
- 2.1 I/hr GPH Grey Reclaimed - Purple
  - - pressure-compensating • HDL-R - Light brown with

HDL-PC - Light brown tubing,

**TUBING COLOUR** 

purple stripe, pressurecompensating, reclaimed

### **MAXIMUM RUN LENGTHS**

HDL-PC/F	IDL-R - 1.	5 l/hr		HDL-PC/F	IDL-R - 2.	.1 I/hr
Pressure	Emit	tter Spacing	(cm)	Pressure	Emit	tter Spaci
(bar; kPa)	30	45	60	(bar; kPa)	30	45
0; 100	87	123	156	1.0; 100	72	101
0; 200	125	177	224	2.0; 200	103	147
.0; 300	149	210	266	3.0; 300	123	174
.0; 400	167	235	299	4.0; 400	137	194

HDL-PC/HDL-R - 3.4 I/hr				
Pressure	Emi	tter Spacing	(cm)	
(bar; kPa)	30	45	60	
1.0; 100	50	71	89	
2.0; 200	72	101	128	
3.0; 300	85	120	153	
4.0; 400	96	134	171	

# **HDL-COP**

Minimise the risk of root intrusion by adding copper to industry-leading Hunter Dripline.

### **KEY BENEFITS**

- Copper oxide in the emitter provides Colour-coded stripes provide easy root intrusion resistance
- Copper will not leach into soil possibly creating an unhealthy plant environment
- Slow-draining check valve (CV) emitters prevent low-point pooling and add to system efficiency
- Pressure-compensating emitters provide consistent flow over the entire lateral length
- Anti-siphon feature prevents debris from entering emitter

- identification of flow
- UV resistance facilitates product longevity
- · Stretch-wrapped coils stay intact and make installation quick and easy
- Multiple inlet filters in the emitter and a wide turbulent labyrinth provide superior grit tolerance
- Full-sized emitter outlet pool and raised wall inhibit debris and roots from entering the emitter



**HDL-COP** 



**Coil with Stretch Wrap** 

### **PRODUCT SPECIFICATIONS**

- · Available flow rates: 2.1, 3.4 l/hr
- · Available emitter spacing: 30 cm
- Tubing dimensions: 16.76 mm x 14.22 mm (outside/inside diameter)

### OPERATING SPECIFICATIONS

- Operating range: 1.0 to 4.2 bar; 100 to 420 kPa
- Minimum filtration: 120 mesh (125 microns)
- Warranty period: 5 years (plus 2 additional years for environmental stress cracking)

### **AVAILABLE MODELS**

- HDL-09-12-250-COP
- HDL-09-12-1K-COP
- HDL-06-12-250-COP
- HDL-06-12-1K-COP
- HDL-09-18-250-COP
- HDL-09-18-1K-COP
- HDL-06-18-250-COP
- HDL-06-18-1K-COP

### **MAXIMUM RUN LENGTHS**

HDL-COP - 2.1 I/hr		
Pressure (bar)	Emitter Spacing (cm)	
1.0	52	
2.0	96	
3.0	117	
4.0	134	

HDL-COP - 3.4 I/hr		
Pressure	Emitter Spacing (cm)	
(bar)	30	
1.0	36	
2.0	66	
3.0	81	
4.0	92	

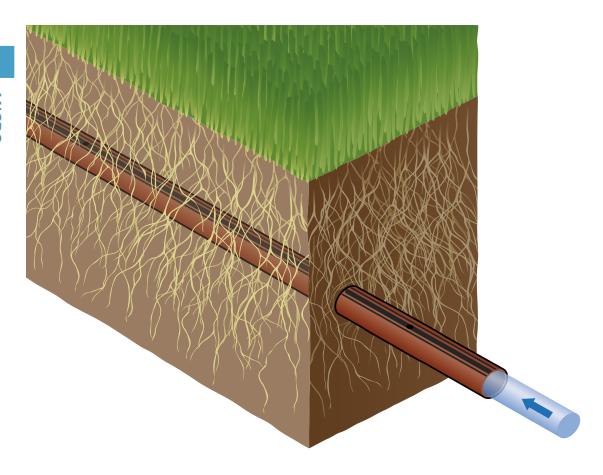
# **HDL-COP**

### **HOW IT WORKS**

Hunter Dripline is known for having an industry-leading emitter with a high level of grit tolerance, accurate flows, and very high burst ratings. This robust emitter is now provided with the added protection of copper, which has been scientifically proven to inhibit root growth. HDL-COP is designed with copper particles infused directly into the emitter. These benefits are long-lasting and provide an effective, nontoxic, and noncorrosive method for aiding in the prevention of root intrusion.

### **HOW TO IRRIGATE SUBSURFACE**

Effective subsurface irrigation requires a different technique than overhead irrigation. Shorter cycles and more frequent watering will assist in maintaining proper soil moisture, oxygenation of the soil, and the prevention of root intrusion. For more information, visit hunter.info/hdlsubsurfacepdf.





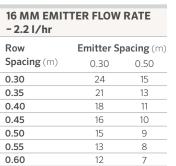
High-quality, pressure-compensating emitters make PLD a great choice for most landscapes.

### **KEY BENEFITS**

- · Pressure-compensating emitters
- Flow rates of 2.2, 3.8 I/hr
- Emitter spacing at 30 cm and 50 cm
- Use with PLD-LOC or barbed PLD Fittings
- · Strong UV resistance
- Check valves keep the line charged up to 1.5 m and prevent low-point drainage
- Anti-siphon prevents debris from entering emitters when used subsurface



- · Pressure-compensating, non-draining emitters
- Operating pressure range: 1.0 to 3.5 bar; 100 to 350 kPa
- Minimum filtration: 120 mesh; 125 microns
- Warranty period: 5 years



- 3.8 l/hr	TERTEON	NAIL
Row	Emitter S	pacing (m)
Spacing (m)	0.30	0.50
0.30	42	25
0.35	36	22
0.40	32	19
0.45	28	17
0.50	25	15
0.55	23	14
0.60	21	13

**16 MM DRIPLINE MAX** 

**Emitter Spacing** (m)

0.50

54 91

112

0.30

35

59 72

LENGTH - 3.8 I/hr

Pressure

(bar; kPa)

1.0; 100

2.0; 200

3.0; 300

16 MM FMITTER FLOW RATE

### **16 MM DRIPLINE MAX** LENGTH - 2.2 I/hr Pressure Emitter Spacing (m) (bar; kPa) 0.30 0.50 1.0; 100 47 73 2.0; 200 84 131 3.0; 300 104 162

CHART - I/min PER 100 M			
Emitter (I/hr)	Emitter Spacing (m		
	0.30	0.50	
1.5	12.2	7.3	

21.1

12.7

**16 MM QUICK REFERENCE** 

3.8

### Notes:

PLD is subject to order minimums. Please contact your distributor for more information.



PLD-CV

### PLD Installed



# PLD 16 MM - SPECIFICATION BUILDER: ORDER 1 + 2 + 3

1	Model	2	Spacing	3	Length	
PL	<b>D-22</b> = 2.2 l/hr flow	30	cm	10	0 = 100 m	CV = Pressure-
PL	<b>D-38</b> = 3.8 l/hr flow	50	cm	20	0 = 200 m	compensating, check valve
				40	0 = 400 m	

### Examples:

**PLD-22-30-100-CV** = 2.2 l/hr dripline with 30 cm spacing in a 100 m roll **PLD-22-50-200-CV** = 2.2 l/hr dripline with 50 cm spacing in a 200 m roll **PLD-38-50-400-CV** = 3.8 l/hr dripline with 50 cm spacing in a 400 m roll

# **16 MM FITTINGS**

Ensure a superior hold with robust acetal construction.

### **KEY BENEFITS**

- Acetal material provides a secure connection
- Dual barb removes the need for clamps

### **PRODUCT SPECIFICATIONS**

• Use with PLD or other 16 mm dripline

### **OPERATING SPECIFICATIONS**

- Pressure range: up to 7 bar; 700 kPa
- Warranty period: 1 year





**PLD-CPL-16**16 mm barb x barb



**PLD-050-16**½" (12 mm) MPT x 16 mm



**PLD-ELB-16** 16 mm barb x barb elbow



**PLD-TEE-16**16 mm barb x barb tee



**PLD-BV-16**16 mm barb x barb ball valve

# **LOC FITTINGS**

LOC Fittings are compatible with any nominal ½" tubing and dripline for quicker installs and easier repairs.

### **KEY BENEFITS**

- · Glass-filled polypropylene for added durability
- Thread lock connection method provides a secure connection while still allowing flexibility for service and system changes

### PRODUCT SPECIFICATIONS

- Use with PLD, HDL, or other 16-18 mm dripline
- Install with PLD-IAC/PLD-IAE grommet and a 17.5 mm spade drill bit

### **OPERATING SPECIFICATIONS**

- Operating pressure range: up to 10 bar; 1,000 kPa
- Warranty period: 2 years



PLD-LOC 075 3/4" male pipe thread x LOC



PLD-LOC CPL Locking coupler



PLD-LOC 050 ½" male pipe thread x LOC



PLD-LOC FHS
3/4" female hose
swivel x LOC



**PLD-LOC CAP** End cap x LOC



PLD-LOC TEE Locking tee

# 17 MM BARB FITTINGS

Acetal construction holds vinyl and PE tubing for an ideal low-cost choice when installing dripline.

### **KEY BENEFITS**

- Acetal material provides a secure connection
- Dual barb removes the need for clamps

### **PRODUCT SPECIFICATIONS**

- Use with HDL or other 17 mm dripline
- Install with PLD-IAC/PLD-IAE grommet and a 17.5 mm spade drill bit

### **OPERATING SPECIFICATIONS**

- Operating pressure range: up to 7 bar; 700 kPa
- · Warranty period: 1 year



**PLD-050** ½" MPT x 17 mm barb



17 mm barb elbow



**PLD-075** 34" MPT x 17 mm barb



Locking elbow

PLD-CPL 17 mm barb coupling



PLD-CAP 17 mm barb x ½" MPT with cap



PLD-075-TB-TEE 17 mm barb tee x 3/4" thread



PLD-BV 17 mm barb shut-off valve



**PLD-TEE** 17 mm barb tee



**PLD-075-TB-ELB** 34" FPT x 17 mm barb elbow



**PLD-050-TB-TEE** ½" FPT x 17 mm barb tee



**PLD-IAC** (with *grommet*) Insert adapter x 17 mm coupling



**PLD-IAE** (with *grommet*) Insert adapter x 17 mm elbow



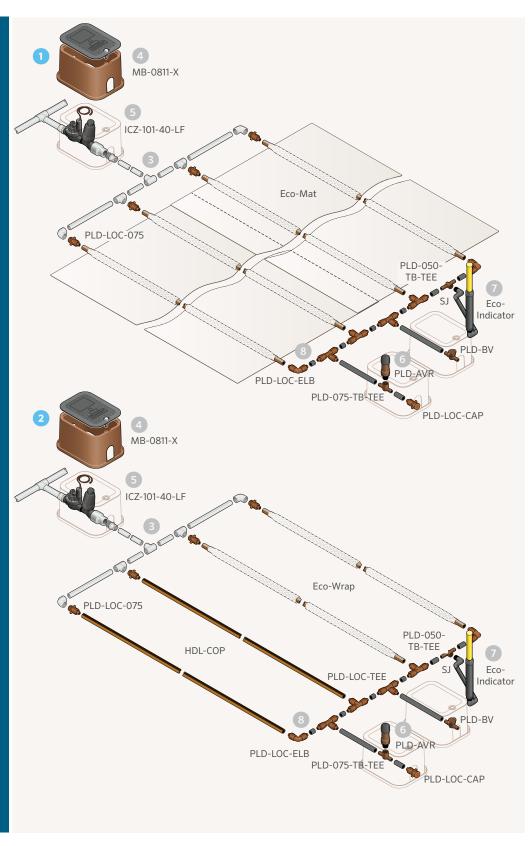
PLD-CRS 17mm barb cross

# SUBSURFACE

# SYSTEMS

Subsurface drip irrigation systems can be extremely effective at saving water and encouraging root growth. Hunter is the only manufacturer to offer three tiers of top-quality subsurface irrigation solutions: HDL-COP Dripline, the Eco-Wrap System, and the Eco-Mat System.

- 1 Eco-Mat offers 30% greater efficiency than any other bare subsurface dripline product. It installs under the soil like a blanket of water, ready for the roots to absorb what they need.
- 2 Eco-Wrap provides
  resistance to root intrusion
  while enhancing the
  capillary action and
  efficiency of the system.
  Eco-Wrap combines the
  quality of HDL with the
  wicking properties of
  polyethylene fleece.
- 3 Entry Manifold:
- PVC (for stability) or polyethylene
- Assemble with either 17 mm or LOC Fittings
- 4 Multi-Purpose Box:
  - 25 cm x 18 cm opening
  - Five colour options for lids
- **5** Control Zone Kit:
- Factory-assembled for quick and easy installation
- Low-, medium-, and high-flow kits
- 6 Air/Vacuum Relief Valve:
- Helps prevent water hammer and tubing collapse
- Use at high point(s) in zone
- **7** Eco-Indicator:
  - Pops up at 0.85 bar; 85 kPa and shows system is running
  - Reveals when system pressure drops too low
- 8 Fittings:
  - Double-barb holds fittings tight
  - LOC Fittings can be reused



# **ECO-MAT™**

Irrigate plants below the root zone for maximum efficiency with a combination of fleece-wrapped dripline and fleece blanket.

### **KEY BENEFITS**

- Anti-siphon feature and fleece wrap protect against debris and root intrusion
- Saves 20-40% more water than standard products due to superior capillary movement of water to the entire root zone, promoting healthier root growth
- Non-draining, pressure-compensating emitters open/close simultaneously, maximising efficiency
- Check height of 1.5 m minimises system drainage and runoff

### **PRODUCT SPECIFICATIONS**

- Flow rate: 2.2 l/hr; 0.13 m<sup>3</sup>/hr
- Emitter spacing: 30 cm
- Lateral row spacing: 35 cm
- Product width: 0.80 m
- Roll length: 16 mm = 100 m; 17 mm = 90 m
- Tubing dimensions: 0.660" x 0.560" (outside/inside diameter)
- Accepts 16/17 mm barb (depending on Eco-Mat selection) or LOC Fittings
- Water-holding capacity: 1.89 I/m<sup>3</sup>
- Approximate coverage per roll: 100 m roll = 75 m<sup>2</sup>; 90 m roll = 67 m<sup>2</sup>
- Example calculation based on area 12 m x 24 m:

Roll Qty. = 
$$\frac{\text{Irrigated landscape area}}{\text{Area of roll coverage}} = \frac{288 \text{ m}^2}{67 \text{ m}^2} = 4.3 \text{ (round up to 5 rolls)}$$

### **OPERATING SPECIFICATIONS**

- Operating range: 1.0 to 3.5 bar; 100 to 350 kPa
- Minimum filtration: 120 mesh; 125 microns
- Air relief recommended for sloping conditions greater than 1.5 m
- Recommended installation depth: turf (10–15 cm); other (10–30 cm)
- May use in conjunction with the Eco-Wrap System
- Warranty period: 5 years

### **Eco-Mat Installed**



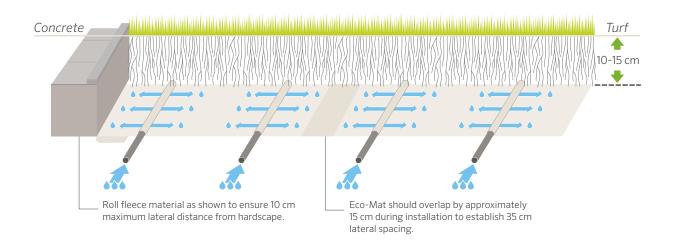
ECO-MAT			
Model	Description		
ECO-MAT-16	PLD (16 mm) fleece drip mat, 100 m roll		
ECO-MAT-17	HDL (17 mm) fleece drip mat, 90 m roll		







Eco-Indicator Page 177



# **ECO-WRAP**<sup>™</sup>

Irrigate more efficiently than blank dripline with fleece-wrapped dripline.

### **KEY BENEFITS**

- Perfect for narrow areas that are difficult to irrigate with standard methods
- Anti-siphon feature and fleece wrap protect against debris and root intrusion
- Saves 20-40% more water than standard products due to superior capillary movement of water to the entire root zone, promoting healthier root growth
- Non-draining, pressure-compensating emitters open/close simultaneously, maximising efficiency
- · Check height of 1.5 m minimises system drainage and runoff

### **PRODUCT SPECIFICATIONS**

- Flow rate: 2.1 I/hr
- Emitter spacing: 30 cm
- Tubing dimensions: 0.660" x 0.560" (outside/inside diameter)
- Roll length: 16 mm = 100 m; 17 mm = 90 m
- Accepts 16 mm barb or LOC Fittings

### **OPERATING SPECIFICATIONS**

- Operating range: 1.0 to 3.5 bar; 100 to 350 kPa
- Minimum filtration: 120 mesh; 125 microns
- Air relief recommended for sloping conditions greater than 1.5 m
- Recommended installation depth: turf (10–16 cm); other (10–30 cm)
- Compatible with the Eco-Mat System
- Warranty period: 5 years

MAXIMUM RUN LENGTH FOR ECO-MAT AND ECO-WRAP		
Pressure	Length	
(bar; kPa)	(m)	
1.0; 100	52	
1.5; 150	75	
2.0; 200	95	
2.5; 250	106	
3.5; 350	126	
4.0; 400	130	



**Eco-Wrap** 

ECO-WRAP	
Model	Description
ECO-WRAP-16	PLD (16 mm) fleece drip wrap, 100 m roll
ECO-WRAP-17	HDL (17 mm) fleece drip wrap, 75 m roll

### **Eco-Wrap Installed**





Soil-Clik Page 150



# **SUPPLY TUBING**

UV-resistant polyethylene makes this 0.700" x 0.600" solution a useful addition to drip systems.

### **KEY BENEFITS**

- Thick wall and UV resistance provide durability and longevity
- Kink resistance for added flexibility and quicker installation

### **PRODUCT SPECIFICATIONS**

• 17.8 mm x 15.2 mm (outside x inside diameter)

### **OPERATING SPECIFICATIONS**

- 0 to 4.1 bar; 0 to 410 kPa
- · Warranty period: 2 years

SUPPLY TUBING (THICK-WALLED POLYETHYLENE)			
Model	Description		
TWPE-700-100	½" PE tubing - 30 m		
TWPE-700-250	½" PE tubing - 75 m		
TWPE-700-500	½" PE tubing - 150 m		
TWPE-700-1K	½" PE tubing - 300 m		

### Example:

TWPE-700-250 = 17 mm polyethylene tubing in a 76 m roll



17 mm PE Tubing

# **ECO-INDICATOR**

Confirm system operation and adequate pressure with this handy visual tool.

### **KEY BENEFITS**

- Visible yellow stem indicates when system is in operation
- Stem pops up when pressure exceeds 0.85 bar; 85 kPa and assists in confirming low pressures if not raised

### **OPERATING SPECIFICATIONS**

- Operating pressure: up to 5.5 bar; 550 kPa
- Indication of system operation: above 0.85 bar; 85 kPa
- · Warranty period: 2 years

### Eco-Indicator Installed





ECO-ID

Pair with subsurface Eco-Mat<sup>™</sup> and Eco-Wrap<sup>™</sup> Systems.



Use this 6 mm dripline solution for tight spaces and raised planters.

### **KEY BENEFITS**

- Superior flexibility makes MLD an excellent choice for small spaces and raised containers
- Properly irrigates without being intrusive to the landscape

### **PRODUCT SPECIFICATIONS**

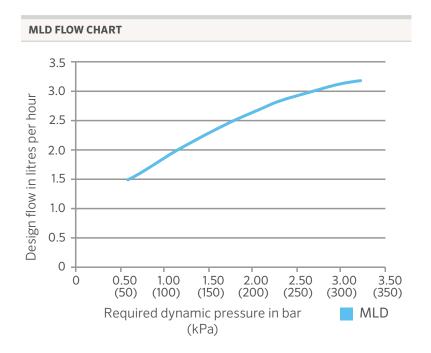
- Colours: brown or black polyethylene
- Emitter spacing: 15 cm or 30 cm
- Coil sizes: 30 m or 75 m
- 6.4 mm x 4.5 mm (outside/inside diameters)
- Use with 6 mm barb fittings

### **OPERATING SPECIFICATIONS**

- Pressure range: 0.7 to 2.8 bar; 70 to 280 kPa
- Minimum filtration: 150 mesh; 120 microns
- Maximum run lengths: 15 cm = 4.6 m; 30 cm = 9.2 m
- Warranty period: 2 years



Example: MLD-05 - 12 - 250 = 1.9 l/hr mini dripline with 30 cm spacing in a 76 m roll, brown





MLD

### MLD Installed



# **DISTRIBUTION TUBING**

Add stability and flexibility when using point-source emitters or micro sprays.

### **KEY BENEFITS**

- High-quality vinyl or polyethylene securely connects to acetal (6 mm) fittings
- Vinyl is more flexible, but it softens in high heat and should be used in cooler climates
- Polyethylene performs well in warmer climates

### **PRODUCT SPECIFICATIONS**

- · Material: polyethylene or vinyl
- Coil sizes: 30 m, 75 m, and 300 m

### **OPERATING SPECIFICATIONS**

- Operating pressure range: up to 4.1 bar; 410 kPa
- Warranty period: 2 years



6 mm Tubing

<b>6 MM TUBING - SPECIFICATION BUILDER:</b> ORDER 1 + 2 + 3				
1 Model	2	Tubing Diameter	3	Length
<b>HQPE</b> = Polyethylene tubing	25	<b>0</b> = 6 mm barb	100	<b>0</b> = 30 m
<b>HQV</b> = Vinyl tubing			25	<b>0</b> = 75 m
			1K	= 300 m

Example:

**HQPE-250-1K** = 6 mm polyethylene tubing in a 300 m roll

# **6 MM FITTINGS**

Ensure a superior hold with robust acetal construction.

### **KEY BENEFITS**

- Acetal material provides a secure connection
- Goof plug lays flat to help prevent leaking

### PRODUCT SPECIFICATIONS

· Fits Hunter MLD and distribution tubings

### **OPERATING SPECIFICATIONS**

- Pressure range: up to 4 bar; 400 kPa
- · Warranty period: 2 years



### 6 mm Barb Fittings

Use with MLD or any vinyl or polyethylene 6 mm tubing, UV-stabilised materials, and durable single barb connection.

# **IH RISERS**

Simplify point-to-point irrigation with vandal-resistant, heavy-duty IH Risers.

### **KEY BENEFITS**

- · Heavy-duty, military-grade, vandal-resistant design
- Made of flexible PVC for durability
- Brown components blend in with landscape
- Accepts any ½" FPT emitter
- · Ideal for slopes
- At-grade or below-grade installation
- Pre-assembled with ½" MPT adapter and specified emitter with check valve
- Available as components for custom assemblies
- Check valve holds back 3.6 m of head

### **OPERATING SPECIFICATIONS**

- Maximum flow: 26.5 I/min
- · Maximum pressure: 4.1 bar; 410 kPa
- Warranty period: 2 years

IH Risers with Emitters - SPECIFICATION BUILDER: ORDER 1 + 2 + 3				
1 Riser Length	2 Emitter Flow with Check Valve Screen	3 Fitting Options		
<b>IH-06</b> = 15 cm riser	<b>05-CV</b> = 2 l/hr	(blank) = Brown		
<b>IH-12</b> = 30 cm riser	<b>10-CV</b> = 4 l/hr	R = Reclaimed		
<b>IH-18</b> = 45 cm riser	<b>20-CV</b> = 8 l/hr	(purple fitting)		
<b>IH-24</b> = 60 cm riser	<b>40-CV</b> = 15 l/hr			
<b>IH-36</b> = 90 cm riser	<b>60-CV</b> = 23 l/hr			

### Example:

IH-12-10-CV = 30 cm irrigation hose riser with 4 l/hr emitter with brown fittings

Preassembled IH Risers with Emitters are built to order. Please check with your distributor and/or Hunter Customer Service for lead times.

IH RISER COMPONENTS SOLD SEPARATELY		
Model	Description	
SCREEN-CV	Filter screen with 2.7 m check valve	
IH-FIT-3850	¾" x ½" MPT IH fitting	
IH-FIT-3850-R	¾" x ½" MPT IH fitting (reclaimed)	
IH-250	75 m length of irrigation hose	
IPS-050-250	75 m length of ½" IPS	





**FACTORY ASSEMBLED IH RISERS** Riser, filter screen, and emiter



**SCREEN-CV** Filter screen with 3.6 m check valve



IH-FIT-3850. IH-FIT-3850-R 3/8" x 1/2" MPT IH fitting (reclaimed)



IPS-050-250



IH-250 Flexible PVC for creating headers or custom risers

### **POINT-SOURCE EMITTERS**

Ensure accurate irrigation for mixed and sparse plantings with a wide range of flow rates.

#### **KEY BENEFITS**

- · Pressure-compensating for consistent and reliable flow
- · Colour-coded by flow for easy identification in the field
- · Earth-tone colours blend in well with the surrounding environment
- Three inlet variations: 6 mm barb, 10-32 thread, 1/2" FPT
- · Coined edges for easy grip
- Self-piercing barb
- · Optional diffuser cap
- · Self-flushing diaphragm

#### **OPERATING SPECIFICATIONS**

- Recommended pressure range: 1.4 to 3.5 bar; 140 to 350 kPa
- Minimum filtration: 150 mesh; 100 microns
- Warranty period: 2 years

1/2" FEMALE THREAD (BROWN BASE)						
	Model	Inlet Type	Flow (I/hr)			
<ul><li>Blue</li></ul>	HEB-05-BR	½" female thread	2.0			
<ul><li>Red</li></ul>	HEB-20-BR	½" female thread	8.0			
<ul><li>Tan</li></ul>	HEB-40-BR	½" female thread	15.0			
Orange	HEB-60-BR	½" female thread	23.0			



Pocket Punch
P/N POCKETPUNCH
(Punches, inserts, and removes emitters)



Hunter Emitter
Multi-Tool
P/N HEMT
(Punches pilot holes and pellets, inserts and removes emitters, cuts tubing)

EMITTER MODEL CHART						
	Model	Inlet Type	Flow (I/hr)			
<ul><li>Blue</li></ul>	HE-050-B	Self-piercing barb	2.0			
Black	HE-10-B	Self-piercing barb	4.0			
<ul><li>Red</li></ul>	HE-20-B	Self-piercing barb	8.0			
<ul><li>Tan</li></ul>	HE-40-B	Self-piercing barb	15.0			
<ul><li>Orange</li></ul>	HE-60-B	Self-piercing barb	23.0			
<ul><li>Blue</li></ul>	HE-050-T	10-32 thread	2.0			
Black	HE-10-T	10-32 thread	4.0			
<ul><li>Red</li></ul>	HE-20-T	10-32 thread	8.0			
<ul><li>Tan</li></ul>	HE-40-T	10-32 thread	15.0			
<ul><li>Orange</li></ul>	HE-60-T	10-32 thread	23.0			
<ul><li>Blue</li></ul>	HEB-05	½" female thread	2.0			
Black	HEB-10	½" female thread	4.0			
<ul><li>Red</li></ul>	HEB-20	½" female thread	8.0			
<ul><li>Tan</li></ul>	HEB-40	½" female thread	15.0			
Orange	HEB-60	½" female thread	23.0			

#### **DIFFUSER CAP**

(HE-DIFF)

Gently diffuses water on higher flow emitters to prevent erosion.



1/2" FEMALE THREAD (brown base)



#### **Inlet Options**



① Self-piercing barb





③ ½" female thread

### **MULTI-PORT EMITTERS**

Use these emitters to irrigate groups of plants effectively from one source.

#### **KEY BENEFITS**

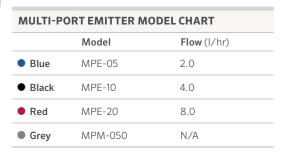
- Six pressure-compensating emitter ports provide consistent and reliable flow
- · Colour-coded by flow for easy identification
- Earth-tone colours blend in with surrounding landscape
- · Swivel elbows assist in placing water directly to plant
- · MPM (Multi-Port Manifold) provides unrestricted flow for each outlet

#### PRODUCT SPECIFICATIONS

- Available in ½" FNPT
- Available flows: 2, 4, 8 l/hr
- · PVC cap plugs port when not being used

#### **OPERATING SPECIFICATIONS**

- Pressure range: 1.4 to 3.5 bar; 140 to 350 kPa
  Minimum filtration: 150 mesh; 100 microns
- Warranty period: 2 years





**Multi-Port Emitter** 



#### **Multi-Port Manifold**

(MPM-050)

Unrestricted flow through outlets as indicated by grey colour. Use with 6 mm distribution tubing and a barbed emitter at the end (available in  $\frac{1}{2}$ " FPT). Allows water to be directed to as many as six different locations.

#### **Emitter Caps**

(MPE-CAPS)

Plug unused 6 mm barbed emitter outlets. Use with Hunter Multi-Port Emitters.



### RIGID RISERS

These risers maintain their stiffness even when used with micro sprays, making them a perfect choice for high-throw applications.

#### **KEY BENEFITS**

- Provide a rigid connection for emitters and micro sprays
- · Increase the height of sprays for flower beds

#### **PRODUCT SPECIFICATIONS**

• Inlet configurations: blank, 6 mm barb,  $\frac{1}{2}$ " FNPT

#### **OPERATING SPECIFICATIONS**

Pressure range: 1.4 to 4.1 bar; 140 to 410 kPa

• Warranty period: 1 year



30 cm Rigid Riser

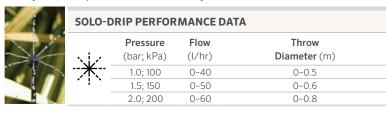
RIGID RISER MODEL CHART				
Model Description				
RR12	30 cm rigid riser			
RR12-T 30 cm rigid riser with ½" threaded base				
RR12-B	30 cm rigid riser with 6 mm barb base			

### **MICRO SPRAYS**

Apply water accurately for small-area coverage.

#### **SOLO-DRIP**

- · Eight streams of water for thorough coverage
- · Adjustable cap for flow and radius adjustment



Note: Adjustable to maximum (approx. 20 clicks)

#### **HALO-SPRAY**

- · Adjustable umbrella of water
- · Adjustable cap for flow and radius adjustment

H	HALO-S	PRAY PERFO	RMANC	E DATA
		Pressure (bar; kPa)	Flow (I/hr)	Throw Diameter (m)
		1.0; 100	0-52	0-1.7
		1.5; 150	0-65	0-2.8
AL CLASS		2.0; 200	0-74	0-3.4

Note: Adjustable to maximum (approx. 14 clicks)

#### **TRIO-SPRAY**

- Full-, half-, and quarter-circle configurations
- · Adjustable cap for flow and radius adjustment

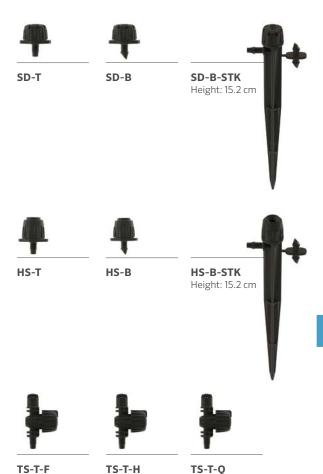
	TRIO-SI	PRAY PERF	ORMAN	ICE DATA		
		Pressure	Flow	Spray Pattern (m)		
		(bar; kPa)	(l/hr)	Diameter in Throw	Radius	of Throw
				360° x 18 Hole	180°	90°
		0.5; 50	0-54	0-5.0	0-2.0	0-1.5
		1.0; 100	0-77	0-5.8	0-2.5	0-2.1
		1.5; 150	0-94	0-6.4	0-2.9	0-2.6
A STATE OF		2.0; 200	0-105	0-7.0	0-3.2	0-3.0
		2.5; 250	0-119	0-7.5	0-3.5	0-3.3

#### **PRODUCT SPECIFICATIONS**

 Inlet configurations: 6 mm barb, 10-32 thread, 6 mm barb stake

#### **OPERATING SPECIFICATIONS**

- Pressure range: 0.5 to 2.5 bar; 50 to 250 kPa
  Minimum filtration: 100 mesh; 150 microns
- Warranty period: 1 year



B = Barbed, F = Full, H = Half, Q = Quarter, STK = Stake, T = Threaded



For a more robust overhead micro spray system, pair Short-Radius Micro Spray Nozzles with Pro-Spray Sprinkler Bodies:



### **MULTI-PURPOSE BOX**

This sturdy box is just right size to provide protection and easy access to essential irrigation components.

#### **KEY BENEFITS**

- Small footprint in a sturdy, durable box
- · Five colour offerings blend in with any environment
- Overlapping lid prevents debris from entering box
- Knock-out bolt hole
- · UV-protected, non-slip lid
- Warranty period: 2 years

#### **PRODUCT SPECIFICATIONS**

- Fits small control zone kits and other assorted components
- Durable HDPE construction
- 3/8" bolt included with every box

MULTI-PURPOSE BOX					
Model	Description				
MB-0811	Multi-Purpose Box with standard brown lid				
MB-0811-G	Multi-Purpose Box with green lid				
MB-0811-T	Multi-Purpose Box with tan lid				
MB-0811-R	Multi-Purpose Box with purple lid				
MB-0811-B	Multi-Purpose Box with black lid				
MB-BOX	Multi-Purpose Box (box only)				
MB-LID	Multi-Purpose Box (lid only), brown				
MB-LID-G	Multi-Purpose Box (lid only), green				
MB-LID-T	Multi-Purpose Box (lid only), tan				
MB-LID-R	Multi-Purpose Box (lid only), purple				
MB-LID-B	Multi-Purpose Box (lid only), black				



#### Multi-Purpose Box

Top

Width: 19.0 cm Length: 26.7 cm

Bottom Width: 21.6 cm Length: 29.2 cm Height: 20 cm







MB-LID-B

MB-LID-G

ID-G MB-LID





MB-LID-R

MB-LID-T





### AIR/VACUUM RELIEF VALVE

Prevent water hammer and system collapse by discharging air during startup and allowing air to enter during shutdown.

#### **KEY BENEFITS**

- · Releases air pockets without premature closure
- · Leak-free closure after release
- · Helps prevent system collapse through vacuum relief

#### **PRODUCT SPECIFICATIONS**

• UV-protected and corrosion-resistant material

#### **OPERATING SPECIFICATIONS**

- Pressure range: up to 5.5 bar; 550 kPa
- Warranty period: 2 years



AVR-075 Height: 13 cm Width: 5 cm Inlet: ¾" MPT



PLD-AVR ½" Air/Vacuum Relief Valve

#### Air/Vacuum Relief Valve Installed



### **AUTOMATIC FLUSH VALVE**

Keep laterals clean by automatically flushing water, air, and debris at each system startup.

#### **KEY BENEFITS**

- Flushes debris automatically at every system startup
- · Reversible diaphragm to coordinate with low or high flow
- Lateral placement provides better grit tolerance

#### PRODUCT SPECIFICATIONS

· Removable top for diaphragm maintenance

#### **OPERATING SPECIFICATIONS**

- Pressure range: up to 4.1 bar; 410 kPa
- Low-flow diaphragm side: 7.6 to 18.9 l/m
- High-flow diaphragm side: 18.9 to 45.4 l/m
- Warranty period: 1 year



**AFV-B**Automatic Flush Valve with 17 mm barb connection



**AFV-T**Automatic Flush Valve with ½" MPT connection

#### Automatic Flush Valve Installed



### **RZWS**

Deliver water across all levels of the root zone for high-efficiency subsurface irrigation of trees and shrubs.

#### **KEY BENEFITS**

- Patented StrataRoot™ Baffles divert water to all levels of the root zone while adding strength to the unit
- Durable locking cap for vandal resistance
- · Pressure-compensating bubbler for accurate water flow
- Built-in Hunter Swing Joint for direct installation to ½" PVC fitting
- · Pre-assembled for fast installation

#### **OPERATING SPECIFICATIONS**

- Bubbler flow rates: 0.9 I/min or 1.9 I/min
- Recommended pressure range: 1.0 to 4.8 bar; 100 to 480 kPa
- Warranty period: 2 years

#### **FACTORY-INSTALLED OPTIONS**

- Hunter check valve (HCV)
- · Locking reclaimed water purple cap

#### **USER-INSTALLED OPTIONS**

- Fabric sleeve to prevent soil intrusion in sandy areas for 45 cm and 90 cm models (P/N RZWS-SLEEVE)
- Replacement cap for 45 and 90 cm models (P/N 913300SP)
- Locking reclaimed purple cap for 45 and 90 cm models (P/N 913301SP)
- Reclaimed water purple cap for 25 cm model (P/N RZWS10-RCC)

#### **RZWS** patented StrataRoot Baffles





# **RZWS-10**Diameter: 5.1 cm Length: 25 cm

#### RZWS-18

Tube diameter: 7.6 cm Cap diameter: 12 cm Length: 45 cm

#### RZWS-36

Tube diameter: 7.6 cm Cap diameter: 12 cm Length: 90 cm



Reclaimed models available (Add -R to model number)

#### **RZWS - SPECIFICATION BUILDER:** Order 1 + 2 + 3

NEWS SPECIFICATION BUILDER. Order 17275							
1 Model	2	Bubbler Flow Rate	3	Options			
<b>RZWS-10</b> = 25 cm Root Zone Watering System	25	<b>i</b> = 0.9 l/min	(bl	ank) = No option			
<b>RZWS-18</b> = 45 cm Root Zone Watering System	50	) = 1.9 l/min	CV	= Check valve			
<b>RZWS-36</b> = 90 cm Root Zone Watering System	(b	(blank) = No bubbler or swing joint		R = Reclaimed cap			
			CV-	-R = Check valve with reclaimed cap			

#### Examples

RZWS-18 -25-CV = 45 cm Root Zone Watering System at 0.9 I/min, with check valve RZWS-10-50-R = 25 cm Root Zone Watering System at 1.9 I/min, with reclaimed cap

RZWS-36-25-CV-R = 90 cm Root Zone Watering System at 0.9 l/min, with check valve and reclaimed cap

#### **ADDITIONAL OPTION (SPECIFY SEPARATELY)**

RZWS-SLEEVE = Field-installed sleeve made from filter fabrication

### **RZWS-E**

Cultivate stronger, deeper roots by delivering water and oxygen directly to the root zone of trees and shrubs.

#### **KEY BENEFITS**

- Top serviceable cap design
- · Pressure-compensating bubbler for accurate water flow
- Built-in Hunter Swing Joint for direct installation to ½" PVC fitting
- Pre-assembled for fast installation

#### **OPERATING SPECIFICATIONS**

- Bubbler flow rates: 0.9 I/min or 1.9 I/min
- Recommended pressure range: 1.0 to 4.8 bar; 100 to 480 kPa
- Warranty period: 2 years

RZ	RZWS-E - SPECIFICATION BUILDER: Order 1 + 2						
1	Model	2	Bubbler Flow Rate				
RZWS-E-18 = 45 cm Root Zone Watering System			= 0.9 I/min				
RZ	<b>WS-E-36</b> = 90 cm Root Zone Watering System	50	= 1.9 l/min				

#### Examples:

RZWS-E-18-50 = 45 cm Root Zone Watering System, 1.9 l/min bubbler RZWS-E-36-25 = 90 cm Root Zone Watering System, 0.9 l/min bubbler



**RZWS-E-18** Diameter: 7.6 cm Length: 45 cm

RZWS-E-36 Diameter: 7.6 cm Length: 90 cm

### **RZB**

This accessory for small trees and shrubs assists in delivering water to roots.

#### **KEY BENEFITS**

- Solid mesh tube with perforated top to complement overhead or drip irrigation systems
- Allows oxygen and natural precipitation to reach the root zone
- · Easy installation that directs overhead and drip irrigation to the root zone
- · Warranty period: 1 year



**RZB** Diameter: 5 cm Length: 23 cm







### Hunter's Full Line of

### **RECLAIMED WATER PRODUCTS**

### **ROTORS**







**PGP ULTRA** PGP-00-CV-R PGP-00-CV-R-PRB PGP-04-CV-R PGP-04-CV-R-PRB PGP-06-CV-R PGP-12-CV-R



**I-20** I-20-00-R I-20-00-R-PRB I-20-04-R I-20-04-SS-R I-20-04-R-PRB I-20-04-SS-R-PRB I-20-06-R I-20-06-SS-R I-20-06-R-PRB I-20-06-SS-R-PRB I-20-12-R



I-25-04-B-R I-25-04-SS-B-R I-25-06-B-R I-25-06-SS-B-R



I-40-04-SS-B-R I-40-04-SS-ON-B-R I-40-06-SS-B-R I-40-06-SS-ON-B-R



I-50-06-SS-B-R I-50-06-SS-ON-B-R

**Rotors** Key

**00** - Shrub

**04** - 10 cm pop-up **06** - 15 cm pop-up 12 - 30 cm pop-up CV - Check valve

SS - Stainless steel

**ON** - Opposing nozzles PRB - Pressure-regulated

body

ARV - Adjustable arc

3RV - Full-circle **RB** - Reclaimed BSP

### **ROTORS**



I-80-04-SS-R-B I-80-04-SS-ON-R-B



I-90-ARV-B I-90-3RV-B

### **SPRAYS**



**PRO-SPRAY** PROS-00-R PROS-04-CV-R PROS-06-CV-R PROS-12-CV-R PROS-RC-CAP-SP (snap-on) 458520SP = ID cap (threaded)



**PRO-SPRAY PRS30** PROS-00-PRS30-R PROS-04-PRS30-CV-R PROS-06-PRS30-CV-R PROS-12-PRS30-CV-R PROS-04-PRS30-CV-F-R PROS-06-PRS30-CV-F-R PROS-12-PRS30-CV-F-R **458560** = ID cap



**PRO-SPRAY PRS40** PROS-00-PRS40-R PROS-04-PRS40-CV-R PROS-06-PRS40-CV-R PROS-12-PRS40-CV-R PROS-04-PRS40-CV-F-R PROS-06-PRS40-CV-F-R PROS-12-PRS40-CV-F-R 458562 = ID cap

Sprays Key

00 - Shrub **04** - 10 cm pop-up

06 - 15 cm pop-up 12 - 30 cm pop-up CV - Check valve

### **BUBBLERS VALVES**



#### **BUBBLERS**

PCB-25-R PCB-50-R

PCB-10-R

PCB-20-R

#### **Bubblers** Key

**25** - 0.9 l/min **10** - 3.8 l/min **50** - 1.9 l/min **20** - 7.6 l/min



### ICV

ICV-101G-FS-R ICV-151G-B-FS-R

ICV-201G-B-FS-R

ICV-301-FS-R

**561205** = ICV-101-201 series

ID handle

**515005** = ICV-301 series

ID handle



#### **IBV**

IBV-101G-B-FS-R IBV-151G-B-FS-R IBV-201G-B-FS-R

IBV-301G-B-FS-R



#### **QUICK COUPLERS**

**HQ-33-DLRC-R** 

HQ-44-LRC-R

HQ-44-LRC-AW-R

HQ-5-LRC-R

HHQ-5-LRC-BSP-R

#### Valves Key

B - BSP threads

FS - Filter Sentry™ Mechanism

**LRC** - Locking rubber cover

RC - Rubber cover

AW - Acme key with anti-rotation wheels

\* Note: IBV purple tags are user-installed options.

#### **Quick Couplers** Key

LRC - Locking rubber cover

RC - Rubber cover

AW - Acme key with anti-rotation wheels

### **MICRO**



#### **IH RISERS**

IH-RISER-XX-R IH-XX-YY-CV-R IH-FIT-3850-R



#### **RZWS**

RZWS-10-R RZWS-36-R RZWS-10-25-R RZWS-36-25-R RZWS-10-50-R RZWS-36-50-R RZWS-10-25-CV-R RZWS-36-25-CV-R RZWS-10-50-CV-R RZWS-36-50-CV-R RZWS-18-R 913301SP (purple cap for RZWS-18-25-R

RZWS-18-50-R RZWS10-RCC RZWS-18-25-CV-R (purple cap for 25 cm)

RZWS-18-50-CV-R



#### HDL

HDL-06-12-250-R HDL-09-12-1K-R HDL-06-12-500-R HDL-09-18-250-R HDL-06-12-1K-R HDL-09-18-500-R HDL-06-18-250-R HDL-09-18-1K-R HDL-06-18-500-R HDL-09-24-250-R HDL-06-18-1K-R HDL-09-24-250-R HDL-06-24-250-R HDL-09-24-1K-R HDL-06-24-1K-R HDL-BLNK-250-R HDL-09-12-250-R HDL-BLNK-500-R HDL-09-12-500-R HDL-BLNK-1K-R



#### **MULTI-PURPOSE BOX**

MB-0811-R

MB-LID-R (lid only)

#### Micro Key

**IH Risers** 12 - 30 cm XX - Riser length (15, 30, 45, 61, 91) cm **18** - 45 cm YY - Emitter flow (2, 4, 8, 15, 23) I/hr

**24** - 61 cm CV - Check valve (standard)

#### **RZWS**

45 cm and 90 cm)

10 - 25 cm 25 - 0.9 I/min **18** - 45 cm **50** - 1.9 l/min **36** - 90 cm **CV** - Check valve

#### HDL

**BLNK** - No emitter

HDL-04 - 1.5 l/hr **12** - 12 cm HDL-06 - 2.1 l/hr 18 - 18 cm

**HDL-09** - 3.4 l/hr **24** - 24 cm 1K - 300 m **250** - 75 m

**500** - 150 m

191



#### SPOTSHOT HOSE-END NOZZLE

#### **MODELS**

- $\frac{3}{4}$ " hose thread inlet P/N 160700
- 1" (25 mm) hose thread inlet P/N 160705

#### **KEY BENEFITS**

- Variable nozzle stream choices:
  - Fan: Broad, light stream for turf hot spots
  - Soak: Medium stream for dust-control areas
  - Jet: Tight, focused stream for power washing



- Flow: 132 I/min; 8 m<sup>3</sup>/hr at 5.5 bar; 551 kPa\*
- \* Not recommended for residential use with regulated, low-pressure, or low-flow conditions



**SpotShot Hose-End Nozzle** 34" P/N 160700SP 1" (25 mm) P/N 160705



**Pitot Gauge**P/N 280100SP
Used to check operating pressure of rotor sprinklers



**MP Gauge Assembly** P/N MPGAUGE Used to check operating pressure on spray body sprinklers



**Hand Pump** P/N 217500SP Used to remove water from flooded areas during service and installation



**Nozzle Insertion Collar** P/N 123200SP



**Hunter Wrench** P/N 172000SP



**T-Handle Tool** P/N 319100SP



Nozzle Removal/ Installation Tool P/N 803700 I-80, G-85B, G-885 short- and mid-range nozzles



**Snap Ring Tool** P/N 251000SP I-80 installation and removal





# **MAKE LIFE EASIER**

# WITH A NEW APPROACH TO GOLF IRRIGATION

#### **Pilot CCS**

#### Command Center Software

With next-generation Pilot software, you can create hydraulically safe and efficient daily course watering plans faster than ever before. Pilot helps manage thousands of individually controlled sprinklers in seconds. It's the ideal management tool for an Integrated Hub System.

#### **Pilot IHS**

#### Integrated Hub System

Integrated Hub Systems help you save time and money from day one. Compared to a Field Controller System, an Integrated Hub System uses less copper wire and requires fewer splices, valve boxes, and concrete pads. This means lower costs, faster installation, and easier system diagnosis and repair if needed. You can also easily expand the system if desired.

#### **TTS Rotors**

#### with Two-Way Modules

Two-way module (TWM) technology built into every TTS rotor permits highly efficient control of complex irrigation systems. The rotors are connected to the system via low-voltage, direct-burial communication cable.

#### **ICD-HP PROGRAMMER**

#### Communicate Directly with TWMs

Program and troubleshoot two-way modules with no digging or wires required. The handy device communicates directly through the plastic without barcodes, saving you time in the field.

### **PILOT™ COMMAND CENTER SOFTWARE**

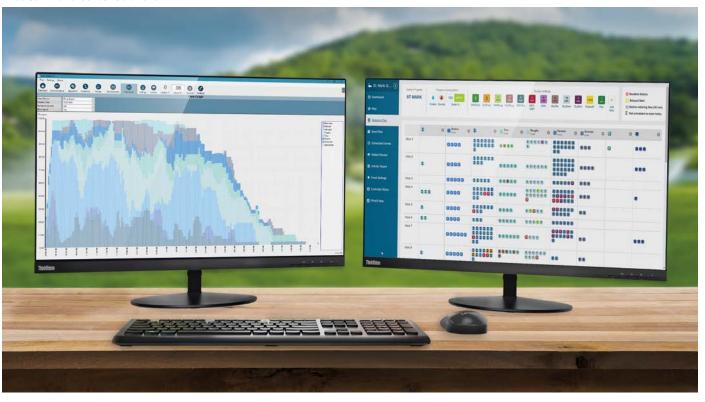
Enjoy simple yet powerful irrigation management and control with revolutionary Pilot CCS.

**Pilot Command Center Software (CCS) is easy to use and has all the features you need to reliably and automatically water your course.** Run times can be adjusted manually or determined automatically using ET. You create watering plans directly in the Command Center — a powerful irrigation planning tool that shows you every sprinkler on the course organised according to your management style.

#### **PILOT SPECIFICATIONS**

- Operating system: 64-bit Windows®
- · Maximum controllers or hubs: about 1,000
- Maximum two-way module stations: about 1 million
- Sprinkler run time options: minutes, millimetres, inches, or ET
- · Hydraulic management: fully customisable down to individual stations
- Mapping: interactive and based on scalable vector graphics (SVG)

#### **Pilot Command Center Software**



Windows is a trademark of Microsoft Corporation in the United States and/or other countries. Lenovo® and ThinkVision® are trademarks of Lenovo in the United States, other countries, or both

#### **COMMAND CENTER**

Planning daily watering for your course has never been simpler. The Command Center shows every sprinkler on the course, logically arranged according to your personal management requirements. You can easily make daily adjustments with just a few clicks of the mouse.



**Command Center** 

#### SPEND LESS TIME RUNNING YOUR PUMP

Pilot CCS uses your electrical and hydraulic data to efficiently balance sprinkler demand while maintaining flow at safe velocities. To protect your pump station and maintain optimal sprinkler uniformity, you can gradually step up irrigation in safe increments.



**Flow Optimisation** 

#### **MAPPING YOUR COURSE**

Although having a map is not required, adding one allows you to run water by simply clicking the station symbols on the map. With this helpful feature, you can also monitor stations as they are running.



Maps

### PILOT™ FIELD CONTROLLER SYSTEMS

The sleek, clean design of Pilot Field Controllers makes them easy to install, use, and maintain.

#### **KEY BENEFITS**

- · Five languages
- Up to 80 station outputs in 10-station increments
- Up to three Hunter golf Valve-in-Head Technology rotors per station output
- Up to 20 simultaneous Hunter golf Valve-in-Head Technology rotors
   active per controller
- 32 automatic schedules with eight start times per schedule
- Exclusive Safe-Toggle™ Technology for mechanical on-off-auto station switches
- 1-31 day skip-day scheduling

- One-touch rain shutdown up to 30 days or indefinitely
- One-touch Safe-Pause<sup>™</sup> Technology with 30-minute safety timer
- 1–300% run time seasonal adjustment
- Seasonal start time adjustment is used to quickly change all start times plus or minus 30 minutes
- PilotFCP Utility enables remote scheduling from a computer or tablet for basic course irrigation management



#### **Pilot-FC Plastic Pedestal**

Height: 100 cm Width: 60 cm Depth: 44 cm Weight: 32 kg

#### **POWER SUPPLY INPUT**

Two voltage settings:

- 120 VAC nominal voltage at 60/50 Hz (100 to 132 VAC)
- 230 VAC nominal voltage at 50/60 Hz (200 to 260 VAC)

Current requirement:

- 1 A under load at 110 VAC
- · 0.7 A under load at 230 VAC

For additional information, see electrical data on page 248



#### Pilot-FI Field Interface

One is required with any Pilot Network system. It is used to link the central computer to the field equipment. For indoor locations only.

Height: 30 cm Width: 30 cm Depth: 11 cm Weight: 2 kg

#### **OUTPUT VOLTAGE**

Station: 1 A at 24 VAC

Hot post: 0.4 A at 24 VAC

Capacity: Three standard 24 VAC Hunter golf rotors per output;
 20 maximum simultaneously running stations

#### **RADIO SYSTEMS**

 UHF radio: 450-490 MHz; other UHF frequencies available for selected markets

#### **WIRED SYSTEMS**

- GCBL: Shielded two twisted pairs, 0.82 mm<sup>2</sup>
- GCBLA: Armoured, shielded two twisted pairs, 0.82 mm<sup>2</sup>

PILOT-FI - SPECIFICATION BUILDER: ORDER 1 + 2 + 3						
1 Model	2 Standard Features	3 Communication Options				
Pilot-Fl	Plastic pedestal (grey)	HWR UHF UHFA	Hardwire communications  UHF radio communications (licence required)  UHF radio (licence required, Australia only)			

#### **Examples:**

**Pilot-FI-HWR** = Field Interface with hardwire communications **Pilot-FI-UHF** = Field Interface with UHF radio communications

### THE PILOT FIELD CONTROLLER IS ENGINEERED EXCLUSIVELY FOR GOLF COURSE IRRIGATION MANAGEMENT

#### Water-Resistant Keypad

Large backlit display with convenient function buttons for the most commonly used features. Built-in system diagnostics make troubleshooting your system a breeze.

#### Safe-Toggle Station Switches and Diagnostic LED Indicators

Standard for all station outputs, these features provide quick troubleshooting and watering tools.

### Conveniently Located Dual-Voltage (120/230 VAC) Junction Box

Features heavy-duty surge protection and even includes a spare fuse.



#### Easy to Service

The only tool required is a Phillips screwdriver, which is included with every controller.

#### Modular 10-Station Expansion Boards

Colour-coded modular components have captured screws. This means no more lost screws, which simplifies assembly and troubleshooting.

#### Spacious Wiring Area

No exposed circuitry or loose wires. All circuit boards are encapsulated in polyurethane to protect them from moisture, insects, and temperature extremes.

#### PILOT-FC - SPECIFICATION BUILDER: ORDER 1 + 2 + 3

1 Model	2 Standard Features	3 Co	ommunication Options
Pilot-FC20 (20-station)		S	Standalone Field Controller with no central communications
Pilot-FC30 (30-station)		HWR	Wired communications
Pilot-FC40 (40-station)		UHF	UHF radio (licence required)
		UHFA	UHF radio (licence required, Australia only)
Pilot-FC50 (50-station)	Plastic pedestal (grey)		
Pilot-FC60 (60-station)	120/230 VAC, 60/50 Hz dual-voltage transformer		
Pilot-FC70 (70-station)			
Pilot-FC80 (80-station)			

#### Examples:

**Pilot-FC40-S** = 40-station, standalone Field Controller with no central communications

**Pilot-FC70-HWR** = 70-station Field Controller with wired communications

### **PILOT™ INTEGRATED HUB SYSTEMS**

Save money without sacrificing in-field sprinkler control with highly flexible and reliable Pilot Integrated Hub Systems.

Integrated Hub Systems use significantly less wire than conventional systems. This means lower costs, faster installation, and easier system diagnosis and repair if needed. They can be easily expanded — with minimal digging and disruption of turf — by adding more two-way modules (TWMs) instead of running additional wires.

Pilot Two-Way Modules are available with 1-, 2-, 4-, and 6-station outputs, making it possible to run each head on an entire green with a single device. In all, TWMs let you operate about 1,000 stations up to approximately  $2\frac{1}{2}$  km from a single hub.

Pilot Two-Way Modules include built-in surge suppression, wirelessly programmable station addresses using the ICD-HP Programmer, and two-way communication with confirmation and status indication. Pilot-SG Surge Suppressors are required when the system is installed with integrated TWMs.

PilotFCP Utility enables remote scheduling from a computer or tablet for basic course irrigation management. It can be directly connected to a Pilot controller, eliminating the need for a Pilot-FI and communication module in smaller systems.

# Pilot TWMs 1- and 2-station: Height: 9 cm Width: 4 cm Depth: 2.5 cm Weight: 150 g 4- and 6-station: Height: 9 cm Width: 4.5 cm Depth: 4.5 cm Depth: 4 cm Weight: 250 g

The distinct yellow design makes it much easier to find the modules in dark valve boxes or buried in the soil.



#### **TWM Hub**

#### Water-Resistant Keypad

The backlit display and illuminated control panel mean you can easily access the hub, day or night

#### Diagnostic LED Indicators

For all functions on 250-station output modules

#### 250-Station Output Modules

Enable your Integrated Hub System to expand with your course; start with 250 and grow to 999

#### **PILOT-SG Surge Suppressor**

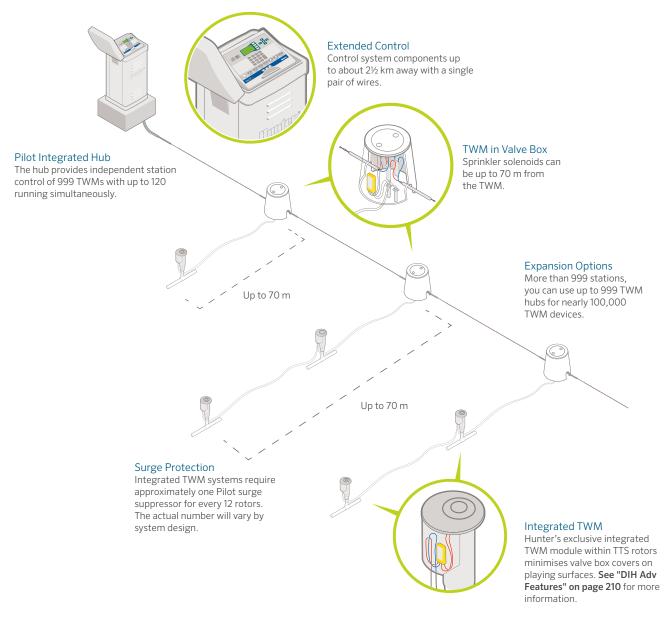
All integrated TWM rotors include two 3M DBRY-6 splices for connection to the two-wire path. Integrated TWM systems require grounding with Pilot Surge Suppressors coupled to an appropriate grounding plate or rod. Hunter recommends a minimum of one Pilot-SG for every 12 installed rotors or as per project specification.



PILOT-DH - SPECIFICATION BUILDER: ORDER 1 + 2 + 3						
1 Model	2 Standard Features	3 Communication Options				
Pilot-DH250 (250-station)		S	Standalone TWM hub with no central communications			
<b>Pilot-DH500</b> (500-station)		HWR	Wired communications			
<b>Pilot-DH750</b> (750-station)	Plastic pedestal (grey)	UHF	UHF radio (licence required)			
	120/230 VAC, 60/50 Hz switching transformer	UHFA	UHF radio (licence required, Australia only)			
<b>Pilot-DH999</b> (999-station)						

#### **Examples:**

**Pilot-DH250-S** = 250-station, standalone TWM hub with no central communications **Pilot-DH999-HWR** = 999-station TWM hub with wired communications



TWM - SPECIFICATION BUILDER: ORDER 1						
1 Model		2 Standard Features				
Pilot-100 1-station TWM		Built-in surge suppressor				
Pilot-200	2-station TWM	DBRY-6 waterproof connectors				
Pilot-400	4-station TWM	included				
Pilot-600 6-station TWM						
Pilot-SG	Inline surge suppression (for integrated TWM rotor systems)					

Example:

Pilot-100 = 1-station TWM



#### Wireless Programming

The ICD-HP Programmer is used to test, troubleshoot, and program integrated TWMs. It allows you to wirelessly link directly to TWMs without removing the TTS cover. You can also use it to update the coding inside the TWM's microprocessor.

See the ICD-HP on page 203

### **WEATHER STATION**

Achieve and maintain the highest-quality playing surface with consistent, local weather data.

#### **KEY BENEFITS**

- Includes built-in 60-day data logger: With onboard evapotranspiration (ET) calculation (modified Penman-Monteith equation for turfgrass)
- Wireless package uses 2.4 GHz licence-free technology
  - 2.4 GHz radio systems can reach up to 3 km
  - In rural areas, try the licence-free, 900 MHz radio for links up to 800 m
- Wired systems use Hunter GCBL, direct-bury cable with a range of 1.25 km (dedicated nine-pin serial computer port required)
- Optional solar panel kit provides wireless power
  - Simple installation and versatile mounting with onboard 800 mAh rechargeable gel cell battery with 18 VDC transformer and
- · Weatherproof construction: With UV-stabilised enclosure, weatherproof external connectors, and long-life coated circuit boards
- UL, cUL, and CE certifications

COMPLETE PACKAGES INCLUDE HUNTER WEATHER SOFTWARE				
Model	Description			
TWHW	Wired communications to central computer (GCBL cable required)			
TW24	2.4 GHz licence-free radio communication to central computer			
TW916	916 MHz licence-free radio communication to central computer			
TW922A	922 MHz licence-free radio communication to central computer			
TWSUN	Optional Solar Power Kit for all TurfWeather models			



TurfWeather® Station Height: 61 cm Width: 40.5 cm Depth: 38 cm . Weight: 6 kg

TurfWeather is a trademark of Campbell Scientific Inc.

### **MAINTENANCE RADIO**

Save time and money with seamlessly integrated remote radio control.

#### **KEY BENEFITS**

- Hunter's innovative StraightTalk™ Technology enables wireless remote control at ranges up to 3.5 km whether or not the central computer is turned on
- · Instant control of stations, blocks, and programs
- · Instant audio confirmation of commands
- · Easy commands that show in display before sending
- · Compact size, industrial construction
- · Suitable for two-way voice communication with crews and office
- High signal output: 2 W, UHF (450-490 MHz)\*
- \* Licence required



TRNR Radio Height: 10.25 cm Width: 5.25 cm Depth: 3 cm Weight: 200 g

### ICD-HP PROGRAMMER

Gain wireless, handheld programming and diagnostic capabilities for Pilot Two-Way Modules.

#### **KEY BENEFITS**

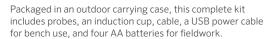
- · Wirelessly program TWM addresses
- Program TWM station numbers in any order, or skip stations for future expansion
- Turn stations on and view solenoid status, current in milliamps, and more
- Built-in voltmeter for testing communication path
- Communicates with TWMs directly through plastic case; wireless electromagnetic induction saves waterproof connectors
- Communicates through the top of integrated TWM rotor cases; no cover removal required













### **ROTOR SOLUTIONS**

### FOR EVERY GOLF COURSE

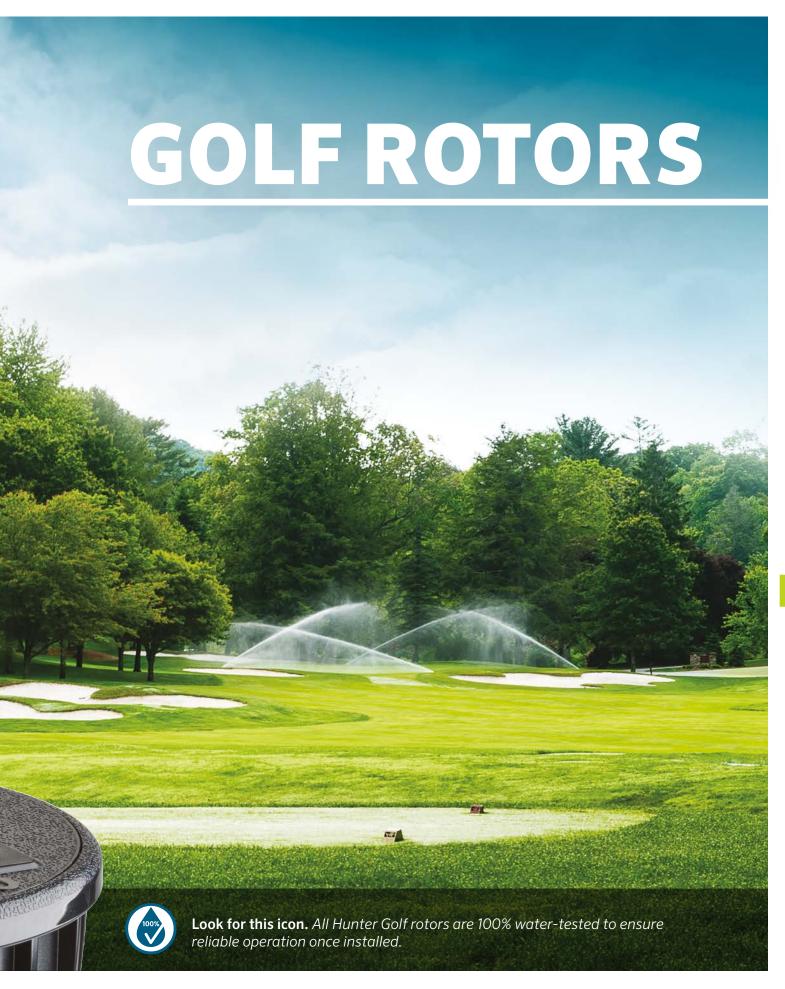
### INTRODUCING THE TTS-800 SERIES: THE MOST ADVANCED ROTORS IN THE GOLF INDUSTRY

Over the last three decades, Hunter Industries has built a longstanding reputation for innovation in the golf industry. Introductions such as the first Windows-based central control system, the first Total-Top-Service (TTS) rotors, the first Decoder-in-Head (DIH) rotors with integrated two-way modules, and the powerful and water-efficient G-85 gear drives are among these revolutionary innovations.

Now, we are proud to advance our legacy of firsts with our all-new TTS-800 Series Golf Rotors — the most innovative and technologically advanced rotors in the industry. TTS-800 Series Golf Rotors provide maximum uniformity and longevity in the field. The high-torque gear drives are the strongest in the industry, so the potential challenges of reclaimed water use or poor water quality are mitigated. The fast-access flange compartment is the largest in the industry and can accommodate full-sized DBRY-6 splice connectors. And with no-dig Total-Top-Serviceability, TTS-800 Series Golf Rotors provide solenoid and pressure regulator servicing without mainline depressurisation, making routine maintenance a breeze.

So, whether your golf rotor needs fall into our budget-conscious B Series, the advanced G-800 Series, or our top-of-the-line TTS-800 Series, Hunter Industries offers total solutions that will exceed your expectations and ensure beautiful, playable courses for years to come.







# UNIFORMITY YOU CAN COUNT ON

Playability and water efficiency go hand-in-hand when it comes to golf course management. This means great distribution uniformity and proper irrigation scheduling are crucial to ensuring world-class performance and beautiful results.

Healthy, playable turf starts with top-level irrigation products — like Hunter's ultra-reliable TTS-800 Series Golf Rotors, with their superior distribution uniformity. Couple this with the best support team in the business, and Hunter's golf solutions are second to none.

At Hunter Golf, we pride ourselves in providing products that set the standard in efficiency. Each year, we work directly with golf course superintendents worldwide to conduct comprehensive irrigation system audits that maximise water savings, reduce operating costs, and enhance the golf experience for players and course managers alike.

Choose Hunter Golf products for best-in-class performance and enhanced playability.

### **BEST-IN-CLASS GEAR DRIVES**

# POWER, PERFORMANCE, AND VFRSAT



#### **HIGHLY POWERFUL GEAR DRIVES**

#### MEET THE G-80 FULL-CIRCLE DIRECT-DRIVE DYNAMO

In 2013, Hunter introduced the revolutionary G-85 gear drive, the most powerful in the golf industry. Since then, the G-85's reputation for power, performance, and versatility have earned the respect of professionals industry-wide. While the G-85 has an adjustable arc drive with triple forward-facing nozzles, it can also be adjusted to non-reversing, full-circle rotation. In addition, the G-85 can be configured at the factory as a G-84 in an opposing-nozzle, full-circle configuration.

Now, Hunter completes the trilogy with the direct-drive G-80 full-circle dynamo — with power to spare. The dedicated full-circle G-80 melds the tried-and-proven 2006 to 2018 G-80 gearbox with the G-85's outstanding platform to create the best full-circle gear drive in the golf industry.

#### **DUAL-TRAJECTORY FLEXIBILITY**







Low-Angle Nozzles

The G-80 and the G-84/G-85 gear drives share the same primary nozzle sets. Each gear drive has dedicated short- and mid-range nozzles that when combined with the primary nozzles create the uniformity you can count on. Choose from a wide assortment of efficient wind-fighting 22.5° standard trajectory nozzles, or 15° low-angle trajectory nozzles.

Either way, there is a perfect match for your unique course conditions and problem-solving needs. Regardless of the version you choose, changing nozzles is fast and easy with Hunter's exclusive QuickChange Technology.

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### **TTS-800 SERIES GOLF ROTORS**

# ADVANCED FEATURES

### Total-Top-Service (TTS)



### Access Everything Through the Top

This no-dig solution is appreciated by golfers, management, and especially the superintendent



### Large and Flexible Yardage Marker Capabilities

Oversized marker plates with standard black or red, white, blue, and purple options



#### Largest Flange Compartment in the Industry

Spacious cavity with enough room for full-sized 3M DBRY-6 splice connectors



#### Unitized Inlet Valve Design Includes Serviceable Components

Contamination damage is quickly resolved with replaceable valve seat and seat-seal



#### Easy Access and Servicing of Solenoid and Pressure Regulators

Colour-coded components are removed and replaced without mainline depressurisation



# Exclusive Inlet Valve Includes Self-Cleaning Capabilities

Proprietary Filter Sentry™ Mechanism wipes debris from the stainless steel screen with every activation



### Single-Point Fast-Access to Flange Compartment

Extra-thick compartment lid is retained with stainless steel ¼-turn fastener



### Two-Stage Serviceable Filtration in Valve Circuitry

Oversized stainless steel screens at inlet valve and pilot valve are easily cleaned or replaced



### Heavy-Duty Flanged and Ribbed Body Design

Impact-resistant and ultra-durable design includes extra-strength PVC Acme inlet



# Three Cable Entry Ports at Base of Flange Compartment

Makes splice and cable connections fast, easy, and organised



### Low-Bounce Rubber Cover Kit

Impact-absorbing design reduces ball ricochet around the greens



#### **No-Bounce Turf Cup Kit**

Recessed turf cup design is aesthetically clean and eliminates ball ricochet







#### Access Everything, Including Two-Way Modules, Through the Top

This no-dig solution is appreciated by golfers, management, and especially the superintendent



#### Largest Flange DIH Compartment in the Industry

Spacious cavity with enough room for two-way modules and full-sized 3M DBRY-6 splice connectors



#### Two-Way Modules Are Housed in the DIH Rotor's Spacious Flange Compartment

Improves playability and eliminates unsightly enclosures around the course



#### Programming Two-Way Modules Wirelessly From the Surface with No Disassembly

Quick and easy to program and perform diagnostics before or after installation with ICD-HP

# **TTS-800 SERIES GOLF ROTORS**

# ADVANCED FEATURES



#### Individual Two-Way Module and Solenoid Components Within Flange Compartment

Isolated/separated configuration minimises yearly maintenance costs



### Two-Station DIH Rotor Option

Perfect cost-effective solution for back-to-back heads around greens



### State-of-the-Art Surge Suppression

Earth grounding is easily added with the Pilot-SG Surge Suppressor



#### DIH Rotors Include All the Unique Features and Benefits of TTS Rotors

Makes splice and cable connections fast, easy, and clean



#### Seamless No-Splice Connection Between Two-Way Module and Solenoid

With no connectors, maintains ongoing electrical continuity



#### Durability, Efficiency, and Reliability from the Makers of the Industry's First TTS and DIH Rotors

Peace of mind from the world's leading producer of gear-driven rotors

### TTS-800 SERIES



These rotors have Total-Top-Serviceability, powerful high-torque gear drives, and the largest flange compartment in the industry to accommodate all two-way module components.

#### **KEY BENEFITS**

- · Dedicated, true full-circle model distinguished by a black collar
- Extra-large, fast access flange compartment to accommodate full-size DBRY-6 splice connectors and an integrated two-way module
- Solenoid and pressure regulator are serviceable without system depressurization
- Exclusive PressurePort<sup>™</sup> Technology optimizes incoming pressure at each nozzle to increase consistency and maximize distribution uniformity
- High-torque gear drive is the strongest in the industry to mitigate the challenges of debris infiltration
- Proprietary Filter Sentry® Mechanism cleans the filter with every opening and closing cycle
- All TTS-800 Series Golf Rotors advanced features listed on pages 208 to 211

#### **OPERATING SPECIFICATIONS**

- Radius: 14.9 to 29.6 m
- Flow: 3.23 to 13.29 m<sup>3</sup>/hr; 53.8 to 221.4 l/min
- Pressure range: 3.4 to 6.9 bar; 340 to 690 kPa
- All TTS rotors are pressure-rated at 10 bar; 1,000 kPa
- Nozzle range: #15 to #53
  - 10 standard trajectory (22.5°)
  - 9 low-angle trajectory (15°)

#### **OPTIONS**

- C Check-o-Matic Technology checks up to 8 m in elevation change and readily converts to normally open hydraulic with through-the-top connections
- D Decoder Valve-in-Head Technology with all "E" specifications below\*
- DD Two-station decoder Valve-in-Head Technology with all "E" specifications below\*
- E Electric Valve-in-Head Technology with adjustable pressure regulation, on-off-auto selector, 210 mA (370 mA inrush) 50 Hz; 190 mA (350 mA inrush) 60 Hz solenoid with captive plunger and internal downstream bleed
- \* All DIH rotors include two 3M DBRY-6 splices for connection to the two-wire path. See page 200 for critical recommendations on grounding DIH rotors.



**GT-880**Pop-up height: 9.5 cm
Overall height: 30 cm
Flange diameter: 18 cm
Female inlet: 1½" (40 mm) Acme

GT-880 - SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4						
1 Model	2 Valve Options	3 Nozzle	4	Regulation		
GT-880 = Full-circle	C = Check-o-Matic Technology*	<b>15 to 53</b> = Installed G-880 nozzle	<b>P5</b> = 50 PSI; 3.4 bar; 340 kPa (nozzles 15 to 18) <b>P6</b> = 65 PSI; 4.5 bar; 450 kPa (nozzles 18 to 25)			
	<b>D</b> = Decoder Valve-in-Head Technology					
	<b>DD</b> = Two-station decoder Valve-in-Head Technology		P8 =	80 PSI; 5.5 bar; 550 kPa (nozzles 25 to 53)		
	<b>E</b> = Electric Valve-in-Head Technology					
	*Converts to N.O. hydraulic Valve-in-Head Technology					

Example:

GT-880-E-48-P8 = GT-880 full-circle electric Valve-in-Head Technology, installed #48 nozzle, 80 PSI; 5.5 bar; 550 kPa regulation

#### **GT-880 NOZZLE PERFORMANCE DATA\***

Nozzle Set			Pres	sure	Radius	Fle	ow	Precip	mm/hr
			bar	kPa	m	m³/hr	I/min		
•		•	3.4	344	14.9	3.23	53.8	14.5	16.7
Tan		Grey	4.1	413	15.5	3.57	59.4	14.8	17.0
	15		4.5	450	15.9	3.73	62.1	14.8	17.1
	ıɔ		4.8	482	16.2	3.86	64.4	14.8	17.1
803611	White	315317	5.5	551	16.8	4.13	68.9	14.7	17.0
_		•	3.4	344	17.1	3.91	65.1	13.4	15.5
Tan		Grey	4.1	413	17.7	4.28	71.3	13.7	15.8
	18		4.5	450	18.0	4.48	74.6	13.8	16.0
			4.8	482	18.3	4.54	75.7	13.6	15.7
803611	Orange	315317	5.5	551	18.6	4.82	80.3	13.9	16.1
•			3.4	344	17.4	4.18	69.7	13.8	16.0
Tan		Grey	4.1	413	18.0	4.61	76.8	14.3	16.5
	20		4.5	450	18.6	4.86	81.0	14.1	16.2
000011		215247	4.8	482	19.2	4.91	81.8	13.3	15.4
803611	Brown	315317	5.5	551	19.5	5.16	85.9	13.5	15.6
Ton		L+ Di	3.4	344	19.2	4.91	81.8	13.3	15.4
Tan		Lt. Blue	4.1	413	19.8	5.22	87.1	13.3	15.4
	23		4.5 4.8	450 482	20.1 20.4	5.45 5.66	90.8 94.3	13.5 13.6	15.6 15.7
803611	Green	315311	5.5	551	20.4	6.04	100.7	14.1	16.2
003011	Green	313311	4.5	450	21.6	6.50	108.3	13.9	16.0
Tan		Lt. Blue	4.8	482	22.3	6.75	112.5	13.6	15.7
- Tan	<u> </u>	Lt. Dide	5.5	551	22.6	7.19	119.8	14.1	16.3
0	25		6.2	620	22.9	7.65	127.5	14.6	16.9
803611	Blue	315311	6.9	689	23.5	8.12	135.3	14.7	17.0
•		•	4.5	450	22.6	7.02	117.0	13.8	15.9
Tan		Lt. Blue	4.8	482	22.9	7.27	121.1	13.9	16.1
	22		5.5	551	23.5	7.77	129.5	14.1	16.3
	33		6.2	620	24.1	8.22	137.0	14.2	16.4
803611	Grey	315311	6.9	689	24.7	8.68	144.6	14.2	16.4
•		•	4.5	450	23.5	7.97	132.9	14.5	16.7
Tan		Lt. Blue	4.8	482	24.1	8.31	138.5	14.3	16.6
	38		5.5	551	25.0	8.84	147.3	14.1	16.3
			6.2	620	25.6	9.38	156.3	14.3	16.5
803611	Red	315311	6.9	689	26.5	9.90	165.0	14.1	16.3
			-	-	- 2F.2	- 0.20	150.0	- 147	10.0
Tan		Blue	4.8	482	25.3	9.38	156.3	14.7	16.9
	43		5.5	551	25.9	9.90	165.0	14.8	17.0
803611	Dk. Brown		6.2 6.9	620 689	26.5 27.1	10.52 11.09	175.3 184.7	15.0 15.1	17.3 17.4
003011	DK. DIOWII	313300	-	- 009	-	-	-	- 15.1	-
Dk. Brown		Dk. Blue	4.8	482	27.4	10.65	- 177.5	14.2	16.3
DIV. DIOWII			5.5	551	28.0	11.11	185.1	14.1	16.3
0	48		6.2	620	28.7	11.46	191.0	14.0	16.1
803610	Dk. Green	833500	6.9	689	29.3	12.15	202.5	14.2	16.4
•		•	-	-	-	-	-	-	-
Dk. Brown		Dk. Blue	4.8	482	27.7	11.31	188.5	14.7	17.0
			5.5	551	28.3	11.86	197.7	14.8	17.0
lue	53	0	6.2	620	29.0	12.61	210.1	15.0	17.4
803610	Dk. Blue	833500	6.9	689	29.6	13.29	221.4	15.2	17.6

 $<sup>^*</sup>$  Complies to ASAE standard. All precipitation rates calculated for 360° operation. All triangular rates are equilateral. To calculate precipitation rates for 180° operation, multiply by 2.

#### **GT-880 STANDARD NOZZLES**

#### **GT-880 LOW-ANGLE NOZZLES\*\***



<sup>\*\*</sup> Low-angle nozzles reduce the radius by 15%.



#### **Easy-Access Servicing**

An extra-thick compartment lid is retained with a ¼-turn, stainless steel, single-point fastener.



#### **Spacious Flange Compartment**

The largest and deepest compartment in the industry offers plenty of room for full-sized DBRY-6 splice connectors.

### TTS-800 SERIES



These rotors have Total-Top-Serviceability, powerful high-torque gear drives, and the largest flange compartment in the industry to accommodate all two-way module components.

#### **KEY BENEFITS**

- Adjustable model distinguished by a grey collar that comes factory set in a true full-circle configuration
- Extra-large, fast access flange compartment to accommodate full-size DBRY-6 splice connectors and an integrated two-way module
- Solenoid and pressure regulator are serviceable without system depressurization
- Exclusive PressurePort™ Technology optimizes incoming pressure at each nozzle to increase consistency and maximize distribution uniformity
- High-torque gear drive is the strongest in the industry to mitigate the challenges of debris infiltration
- Proprietary Filter Sentry® Mechanism cleans the filter with every opening and closing cycle
- All TTS-800 Series Golf Rotors advanced features listed on pages 208 to 211

#### **OPERATING SPECIFICATIONS**

- Radius: 14.9 to 29.6 m
- Flow: 3.23 to 13.29 m<sup>3</sup>/hr; 53.8 to 221.4 l/min
- Pressure range: 3.4 to 6.9 bar; 340 to 690 kPa
- All TTS rotors are pressure-rated at 10 bar; 1,000 kPa
- Nozzle range: #15 to #53
  - 10 standard trajectory (22.5°)
  - 9 low-angle trajectory (15°)

#### **OPTIONS**

- C Check-o-Matic Technology checks up to 8 m in elevation change and readily converts to normally open hydraulic with through-the-top connections
- D Decoder Valve-in-Head Technology with all "E" specifications below\*
- DD Two-station decoder Valve-in-Head Technology with all "E" specifications below\*
- E Electric Valve-in-Head Technology with adjustable pressure regulation, on-off-auto selector, 210 mA (370 mA inrush) 50 Hz; 190 mA (350 mA inrush) 60 Hz solenoid with captive plunger and internal downstream bleed
- \* All DIH rotors include two 3M DBRY-6 splices for connection to the two-wire path. See page 200 for critical recommendations on grounding DIH rotors.



GT-884
Pop-up height: 9.5 cm
Overall height: 30 cm
Flange diameter: 18 cm
Female inlet: 1½" (40 mm) Acme

#### GT-884 - SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4

1 Model	2 Valve Options	3 Nozzle	4 Regulation
<b>GT-884</b> = Full-circle (convertible to forward-facing adjustable arc rotor)	<b>C</b> = Check-o-Matic Technology*	<b>15 to 53</b> = Installed G-880 nozzle	<b>P5</b> = 50 PSI; 3.4 bar; 340 kPa (nozzles 15 to 18)
	<b>D</b> = Decoder Valve-in-Head Technology		<b>P6</b> = 65 PSI; 4.5 bar; 450 kPa (nozzles 18 to 25)
	<b>DD</b> = Two-station decoder Valve-in-Head Technology		<b>P8</b> = 80 PSI; 5.5 bar; 550 kPa (nozzles 25 to 53)
	<b>E</b> = Electric Valve-in-Head Technology		
	* Converts to N.O. hydraulic Valve-in-Head Technology		

#### Example:

 $\textbf{GT-884-E-48-P8} = \textbf{GT-884} \text{ full-circle electric Valve-in-Head Technology, installed \#48 nozzle, 80 PSI; 5.5 bar; 550 kPa regulation and the state of the$ 

#### **GT-884 NOZZLE PERFORMANCE DATA\*** Pressure Flow Nozzle Set Radius Precip mm/hr m³/hr I/min kPa m bar 3.4 344 14.9 3.23 53.8 14.5 16.7 Grey 4.1 413 15.5 3.57 59.4 14.8 17.0 Tan 4.5 450 15.9 3.73 62.1 14.8 17.1 0 15 4.8 17.1 482 16.2 3.86 64.4 14.8 803611 White 315317 5.5 551 16.8 4.13 68.9 14.7 17.0 • 3.4 344 17.1 3.91 13.4 15.5 65.1 4.1 413 17 7 4 28 71.3 13 7 Tan Grey 15.8 4.5 450 18.0 4.48 74.6 13.8 16.0 18 0 4.8 482 18.3 4.54 75.7 13.6 15.7 803611 551 315317 5.5 4.82 80.3 Orange 18.6 13.9 16.1 3.4 344 17.4 4.18 69.7 13.8 16.0 Tan Grey 4.1 413 18.0 4.61 76.8 14.3 16.5 4.5 450 18.6 4.86 81.0 14.1 16.2 20 4.8 482 19.2 4.91 81.8 13.3 15.4 803611 Brown 315317 5.5 551 19.5 5.16 13.5 15.6 85.9 3.4 344 19.2 4.91 81.8 13.3 15.4 Tan Lt. Blue 4.1 413 19.8 5.22 87.1 13.3 15.4 45 450 20.1 5 45 90.8 13 5 15.6 23 4.8 482 20.4 5.66 94.3 13.6 15.7 803611 Green 315311 5.5 551 20.7 6.04 100.7 14.1 16.2 4.5 21.6 13.9 16.0 450 6.50 1083 Tan Lt. Blue 4.8 482 22.3 6.75 112.5 13.6 15.7 5.5 551 22.6 7.19 119.8 14.1 16.3 25 0 62 620 7 65 1275 14 6 229 16 9 803611 315311 6.9 689 23.5 8.12 135.3 14.7 17.0 4.5 450 22.6 7.02 117.0 13.8 15.9 Tan It Blue 48 482 229 7 2 7 1211 13 9 16.1 5.5 551 23.5 7.77 129.5 14.1 16.3 33 6.2 620 241 8 22 137.0 14 2 16.4 803611 Grey 315311 6.9 689 24.7 8.68 14.2 16.4 144.6 4.5 450 23.5 7.97 132.9 14.5 16.7 Lt. Blue 48 482 241 8 31 138 5 143 16.6 Tan 5.5 551 25.0 8.84 147.3 14.1 16.3 38 6.2 620 25.6 9.38 156.3 14.3 16.5 803611 Red 315311 6.9 689 26.5 990 165.0 14 1 163 Tan Blue 4.8 482 25.3 9.38 156.3 14.7 16.9 5.5 551 25.9 9.90 165.0 14.8 17.0 43 6.2 175.3 15.0 17.3 620 26.5 10.52 803611 Dk. Brown 315300 6.9 689 27.1 11.09 184.7 15.1 17.4 Dk. Brown Dk. Blue 4.8 482 27.4 10.65 177.5 14.2 16.3 5.5 551 185.1 28.0 11.11 14.1 16.3 0 48 0 6.2 620 28.7 11.46 191.0 14.0 16.1 803610 Dk. Green 833500 6.9 689 29.3 12.15 202.5 14.2 16.4 Dk. Brown Dk. Blue 4.8 482 27.7 11.31 188.5 14.7 17.0 5.5 551 28.3 11.86 197.7 14.8 17.0 0 53 0 6.2 620 29.0 210.1 15.0 17.4 12.61

689

29.6

13.29

221.4

15.2

17.6

6.9

#### **GT-884 STANDARD NOZZLES**

#### **GT-884 LOW-ANGLE NOZZLES\*\***





<sup>\*\*</sup> Low-angle nozzles reduce the radius by 15%.





#### **Room to Spare**

Adding a two-way module does not reduce flange compartment space. The exclusive configuration provides extra room for full-sized DBRY-6 splice connectors and multiple cables.

803610 Dk. Blue 833500

<sup>\*</sup> Preliminary performance data. Complies to ASAE standard. All precipitation rates calculated for 360° operation. All triangular rates are equilateral. To calculate precipitation rates for 180° operation, multiply by 2.

### TTS-800 SERIES



These rotors have Total-Top-Serviceability, powerful high-torque gear drives, and the largest flange compartment in the industry to accommodate all two-way module components.

#### **KEY BENEFITS**

- Adjustable model distinguished by a grey collar that comes factory set in a part-circle configuration (60° to 360°)
- Extra-large, fast access flange compartment to accommodate full-size DBRY-6 splice connectors and an integrated two-way module
- Solenoid and pressure regulator are serviceable without system depressurization
- Exclusive PressurePort<sup>™</sup> Technology optimizes incoming pressure at each nozzle to increase consistency and maximize distribution uniformity
- High-torque gear drive is the strongest in the industry to mitigate the challenges of debris infiltration
- Proprietary Filter Sentry® Mechanism cleans the filter with every opening and closing cycle
- All TTS-800 Series Golf Rotors advanced features listed on pages 208 to 211

#### **OPERATING SPECIFICATIONS**

- Radius: 11.3 to 28.7 m
- Flow: 2.02 to 13.54 m<sup>3</sup>/hr; 33.7 to 225.6 l/min
- Pressure range: 3.4 to 6.9 bar; 340 to 690 kPa
- All TTS rotors are pressure-rated at 10 bar; 1,000 kPa
- Nozzle range: #10 to #53
  - 12 standard trajectory (22.5°)
  - 9 low-angle trajectory (15°)

**GT-885**Pop-up height: 9.5 cm
Overall height: 30 cm
Flange diameter: 18 cm

Female inlet: 1½" (40 mm) Acme

#### **OPTIONS**

- C Check-o-Matic Technology checks up to 8 m in elevation change and readily converts to normally open hydraulic with through-the-top connections
- D Decoder Valve-in-Head Technology with all "E" specifications below\*
- DD Two-station decoder Valve-in-Head Technology with all "E" specifications below\*
- E Electric Valve-in-Head Technology with adjustable pressure regulation, on-off-auto selector, 210 mA (370 mA inrush) 50 Hz; 190 mA (350 mA inrush) 60 Hz solenoid with captive plunger and internal downstream bleed
- \* All DIH rotors include two 3M DBRY-6 splices for connection to the two-wire path. See page 200 for critical recommendations on grounding DIH rotors.

GT-885 - SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4						
1 Model	2 Valve Options	3 Nozzle	4 Regulation			
GT-885 = Full/part-circle, 60°-360° arc range	<b>C</b> = Check-o-Matic Technology*	<b>10 to 53</b> = Installed G-885 nozzle	<b>P5</b> = 50 PSI; 3.4 bar; 340 kPa (nozzles 10 to 18)			
	<b>D</b> = Decoder Valve-in-Head Technology		<b>P6</b> = 65 PSI; 4.5 bar; 450 kPa (nozzles 18 to 25)			
	<b>DD</b> = Two-station decoder Valve-in-Head Technology		<b>P8</b> = 80 PSI; 5.5 bar; 550 kPa (nozzles 25 to 53)			
	<b>E</b> = Electric Valve-in-Head Technology					
	*Converts to N.O. hydraulic Valve-in-Head Technology					

Example:

GT-885-E-48-P8 = GT-885 full/part-circle electric Valve-in-Head Technology, installed #48 nozzle, 80 PSI; 5.5 bar; 550 kPa regulation

### **GT-885 NOZZLE PERFORMANCE DATA\*** Nozzle Set Pressure Radius Flow Precip mm/hr bar kPa m³/hr I/min A m 344 11.3 2.02 33.7 15.9 18.4 Orange Dk. Green 4.1 413 11.9 2.23 37.1 15.8 18.2 4.5 450 12.5 2.32 38.6 14.8 17.1 10 803603 315312 Lt. Green Orange White 3.4 344 14.3 2.59 43.2 12.6 14.6 4.1 413 14.6 2.79 46.6 13.1 15.1 0 450 14.9 2.93 48.8 4.5 13.1 15.2 13 803603 315314 Lt. Blue Orange White 3.4 344 15.9 2.93 48.8 11.7 13.5 4.1 413 15.9 3.29 54.9 13.1 15.1 4.5 450 16.2 3.38 56.4 13.0 15.0 15 803603 315314 4.8 482 16.2 3.52 58.7 13.5 15.6 5.5 551 62.5 13.8 16.5 3.75 16.0 Orange Lt. Green 3.4 344 17.4 3.77 62.8 12.5 14.4 4.1 413 17.7 4.04 67.4 12.9 14.9 O 4.5 450 18.0 4.23 70.4 13.1 15.1 18 803603 315313 4.8 482 183 4 41 73.4 13.2 15 2 5.5 551 18.6 4.66 77.6 13.5 15.6 Orange Orange Lt. Green 3.4 344 18.0 4.07 67.8 12.6 14.5 4.1 413 73.8 12.8 14.8 18.6 4.43 4.5 450 18.9 4.50 75.0 12.6 14.5 20 803603 315313 4.8 482 19.2 4.68 78.0 12.7 14.7 5.5 551 19.5 Tan 5.02 83.7 13.2 15.2 Orange Lt. Green 3.4 344 19.8 4.59 76.5 11.7 13.5 4.1 413 20.1 5.02 83.7 12.4 14 3 4.5 450 20.4 5.43 90.5 13.0 15.0 23 803603 315313 4.8 482 20.4 5.50 91.6 15.2 13.2 Green 55 5.88 98.0 551 21.013 3 15 4 4.5 450 21.6 6.43 107.1 13.7 15.8 Red Green 4.8 482 21.9 6.66 110.9 13.8 16.0 O 55 551 7.16 223 119.2 14 5 16.7 25 803602 315310 6.2 620 22.6 7.59 126.4 14.9 17.2 Blue 6.9 689 22.9 8.04 134.0 15.4 17.8 45 450 6 95 Red Green 219 115.8 14 4 16.7 4.8 482 22.3 7.18 119.6 14.5 16.7 O 0 5.5 551 22.9 7.70 128.3 14.7 17.0 33 803602 315310 6.2 23.5 135.5 14.8 17.0 620 8.13 Grey • 6.9 689 24.1 8.61 143.5 14.8 17.1 Red Green 4.5 450 23.2 7.93 132.1 14.8 17.1 4.8 482 23.8 8.22 137.0 14.5 16.8 0 5.5 551 24.4 8.88 148.0 14.9 17.2 38 803602 315310 6.2 620 25.0 9.36 156.0 15.0 17.3 Red • 6.9 689 25.6 9.88 164.7 15.1 17.4 Red Green 4.8 482 24.7 9.36 156.0 15.4 17 7 O 5.5 551 25.3 9.88 17.8 164.7 15.4 43 803602 315310 6.2 620 26.2 10.49 174.9 15.3 17.6 • Dk. Brown 6.9 689 27.1 11.06 15.0 184.3 17.4 Dk. Red Dk. Green 4.8 482 25.3 10.52 175.3 16.4 19.0 0 0 5.5 551 25.9 10.99 183.2 18.9 16.4 48 803601 315312 6.2 620 27.1 11.74 195.7 16.0 18.4 Dk. Green 6.9 689 27.7 12.38 206.3 16.1 18.6 Dk. Red Dk. Green 4.8 482 26.5 11.52 191.9 16.4 18 9 O 55 551 271 12 06 201.0 16.4 18 9 53 803601 315312 6.2 620 28.0 12.81 213.5 16.3 18.8 Dk. Blue • 6.9 689 28.7 13.54 225.6 16.5 19.0

## **GT-885 STANDARD NOZZLES**

## **GT-885 LOW-ANGLE NOZZLES\*\***



<sup>\*\*</sup> Low-angle nozzles reduce the radius by 15%.



## **Reduced Downtime**

There is no need to depressurise the mainline for solenoid and pressure regulator servicing.



## Total-Top-Service Solution

From the originators of TTS technology, Hunter's no-dig TTS-800 Series Golf Rotors provide total-top-servicing of every serviceable component.

 $<sup>\</sup>bullet$  = Nozzle plug P/N 315300 installed in the back side of the nozzle housing.

<sup>\*</sup> Complies to ASAE standard. All precipitation rates calculated for 360° operation. All triangular rates are equilateral. To calculate precipitation rates for 180° operation, multiply by 2.

# TTS-800 SERIES



These rotors have Total-Top-Serviceability, shorter-radius, lower-flow internals, and the largest flange compartment in the industry to accommodate all two-way module components.

## **KEY BENEFITS**

- Adjustable, shorter radius model (50° to 360°)
- Extra-large, fast access flange compartment to accommodate full-size DBRY-6 splice connectors and an integrated two-way module
- Solenoid and pressure regulator are serviceable without system depressurization
- Proprietary Filter Sentry® Mechanism cleans the filter with every opening and closing cycle
- All TTS-800 Series Golf Rotors advanced features listed on pages 208 to 211

## **OPERATING SPECIFICATIONS**

- Radius: 5.5 to 15.2 m
- Flow: 0.43 to 2.91 m<sup>3</sup>/hr; 7.2 to 48.5 l/min
- Pressure range: 2.8 to 4.5 bar; 280 to 450 kPa
- · All TTS rotors are pressure-rated at 10 bar; 1,000 kPa
- Nozzle range: #2 to #12

## **OPTIONS**

- C Check-o-Matic Technology checks up to 8 m in elevation change and readily converts to normally open hydraulic with through-the-top connections
- D Decoder Valve-in-Head Technology with all "E" specifications below\*
- DD Two-station decoder Valve-in-Head Technology with all "E" specifications below\*
- E Electric Valve-in-Head Technology with adjustable pressure regulation, on-off-auto elector, 210 mA (370 mA inrush) 50 Hz; 190 mA (350 mA inrush) 60 Hz solenoid with captive plunger and internal downstream bleed
- \* All DIH rotors include two 3M DBRY-6 splices for connection to the two-wire path. See **page 200** for critical recommendations on grounding DIH rotors.



GT-835
Pop-up height: 8 cm
Overall height: 30 cm
Flange diameter: 18 cm
Female inlet: 1½" (40 mm) Acme

GT-835 - SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4										
Model	2 Valve Options	3 Nozzle	4	Regulation						
<b>GT-835</b> = Full/part-circle, 50° to 360°	<b>C</b> = Check-o-Matic Technology*	<b>6</b> = Installed G-835 nozzle (includes 8-nozzle rack)	P5 =	50 PSI; 3.4 bar; 340 kPa (nozzles 18 to 25)						
	<b>D</b> = Decoder Valve-in-Head Technology		<b>P6</b> =	65 PSI; 4.5 bar; 450 kPa (nozzles 18 to 25)						
	<b>E</b> = Electric Valve-in-Head Technology									
	*Converts to N.O. hydraulic Valve-in-Head Technology									

## Example:

GT-835-6-P5 = GT-835 full/part-circle electric Valve-in-Head Technology, installed #6 nozzle, 50 PSI; 3.4 bar; 340 kPa regulation

## **GT-835 NOZZLE PERFORMANCE DATA\***

Nozzle	Pres	sure	Radius	FI	ow	Precip	mm/hr
	bar	kPa	m	m³/hr	l/min		
	2.8	280	5.5	0.43	7.2	14.3	16.6
2 •	3.4	340	6.1	0.48	7.9	12.8	14.8
Yellow	4.1	410	6.7	0.55	9.1	12.1	14.0
	4.5	450	7.0	0.59	9.8	12.0	13.9
2	2.8	280	7.0	0.68	11.4	13.9	16.0
3	3.4	340	7.6	0.73	21.1	12.5	14.5
Yellow	4.1	410	8.2	0.80	13.2	11.7	13.6
	4.5	450	8.5	0.82	13.6	11.2	13.0
4 0	2.8	280	7.6	0.89	14.8	15.3	17.6
4	3.4	340	8.5	0.93	15.5	12.8	14.8
Yellow	4.1	410	9.1	1.00	16.7	12.0	13.8
	4.5	450	9.4	1.04	17.4	11.7	13.5
5 0	2.8	280	8.8	1.07	17.8	13.7	15.8
5	3.4	340	9.8	1.14	18.9	11.9	13.8
Yellow	4.1	410	10.1	1.20	20.1	11.9	13.7
	4.5	450	10.7	1.23	20.4	10.8	12.4
6 •	2.8	280	9.8	1.36	22.7	14.3	16.5
•	3.4	340	10.7	1.43	23.8	12.6	14.5
Yellow	4.1	410	11.3	1.50	25.0	11.8	13.6
	4.5	450	11.9	1.54	25.7	10.9	12.6
8 •	2.8	280	11.0	1.77	29.5	14.7	17.0
•	3.4	340	11.9	1.82	30.3	12.9	14.8
Yellow	4.1	410	12.8	1.89	31.4	11.5	13.3
	4.5	450	13.1	1.93	32.2	11.2	13.0
10 •	2.8	280	11.9	2.20	36.7	15.6	18.0
	3.4	340	13.1	2.29	38.2	13.4	15.4
Yellow	4.1	410	13.7	2.34	39.0	12.4	14.4
	4.5	450	14.3	2.39	39.7	11.6	13.4
12 •	2.8	280	13.4	2.73	45.4	15.2	17.5
	3.4	340	14.3	2.77	46.2	13.5	15.6
Yellow	4.1 4.5	410 450	14.6 15.2	2.84 2.91	47.3 48.5	13.3 12.5	15.3 14.5
		.50	.5.2		.0.0	.2.0	

## **GT-835 NOZZLES**



153



201



258

226 235 244

## **Optional Yardage Marker Colours**

Extra-large snap-in marker plates are available in standard black as well as optional red, white, and blue to meet every golf course preference. Or, choose the purple plate for identification when courses are using reclaimed water.



Low-Bounce Rubber Cover Kit - PN 987200SP

Reduce the incoming bounce from balls hitting rotors that are surrounding the greens.



No-Bounce Turf Cup Kit - PN 987100SP

Eliminate errant bounces from balls hitting greens surrounding rotors with this subsurface rotor-mounting solution.

# G-800 SERIES



These rotors feature convenient no-dig Total-Top-Serviceability and powerful, high-torque gear drive.

## **KEY BENEFITS**

- · Dedicated, true full-circle model distinguished by a black collar
- Exclusive PressurePort<sup>™</sup> Technology optimizes incoming pressure at each nozzle to increase consistency and maximize distribution uniformity
- High-torque gear drive is the strongest in the industry to mitigate the challenges of debris infiltration
- Proprietary Filter Sentry® Mechanism cleans the filter with every opening and closing cycle

## **OPERATING SPECIFICATIONS**

- Radius: 14.9 to 29.6 m
- Flow: 3.23 to 13.29 m<sup>3</sup>/hr; 53.8 to 221.4 l/min
- Pressure range: 3.4 to 6.9 bar; 340 to 690 kPa
- All TTS rotors are pressure-rated at 10 bar; 1,000 kPa
- Nozzle range: #15 to #53
  - 10 standard trajectory (22.5°)
  - 9 low-angle trajectory (15°)

## **OPTIONS**

- C Check-o-Matic Technology checks up to 8 m in elevation change and readily converts to normally open hydraulic with through-the-top connections
- D Decoder Valve-in-Head Technology with all "E" specifications below\*
- DD Two-station decoder Valve-in-Head Technology with all "E" specifications below\*
- E Electric Valve-in-Head Technology with adjustable pressure regulation, onoff-auto selector, 210 mA (370 mA inrush) 50 Hz; 190 mA (350 mA inrush)
   60 Hz solenoid with captive plunger and internal downstream bleed
- \* All DIH rotors include two 3M DBRY-6 splices for connection to the two-wire path. See page 200 for critical recommendations on grounding DIH rotors.



## G-880C Pop-up height: 9.5 cm Overall height: 30 cm Flange diameter: 18 cm

Flange diameter: 18 cm Female inlet: 1½" (40 mm) Acme



## **G-880E** Pop-up height: 9.5 cm

Overall height: 30 cm Flange diameter: 18 cm Female inlet: 1½" (40 mm) Acme

G-880 - SPECIFICATION	<b>BUILDER: ORDER 1</b>	+2+3+4
-----------------------	-------------------------	--------

G GGG SI ECH ICATI	ON BOILDEN. ONDER 1 + 2 + 3 + 4		
1 Model	2 Valve Options	3 Nozzle	4 Regulation
<b>G-880</b> = Full-circle	<b>C</b> = Check-o-Matic Technology*	<b>15 to 53</b> = Installed G-880 nozzle	<b>P5</b> = 50 PSI; 3.4 bar; 340 kPa (nozzles 15 to 18)
	<b>D</b> = Decoder Valve-in-Head Technology		<b>P6</b> = 65 PSI; 4.5 bar; 450 kPa (nozzles 18 to 25)
	<b>DD</b> = Two-station decoder Valve-in-Head Technology		<b>P8</b> = 80 PSI; 5.5 bar; 550 kPa (nozzles 25 to 53)
	<b>E</b> = Electric Valve-in-Head Technology		
	*Converts to N.O. hydraulic Valve-in-Head Technology		

## Example:

 $\textbf{G-880-E-33-P8} = \textbf{G-880 full-circle electric Valve-in-Head Technology, installed \#33 nozzle, 80 PSI; 5.5 bar; 550 kPa regulation and the state of the state$ 

### **G-880 NOZZLE PERFORMANCE DATA\*** Nozzle Set Radius Flow Precip mm/hr Pressure $\blacksquare$ kPa m m³/hr I/min bar 3.4 344 14.9 3.23 53.8 14.5 16.7 413 15.5 59.4 14.8 Tan Grey 4.1 3.57 17 0 4.5 450 15.9 3.73 62.1 14.8 17.1 0 15 4.8 482 16.2 3.86 64.4 14.8 17.1 803611 White 315317 5.5 17.0 551 4.13 68 9 14 7 16.8 3.4 344 17.1 3.91 65.1 13.4 15.5 Tan 4.1 413 17.7 4.28 71.3 13.7 15.8 Grey 4.5 450 4 48 74 6 13.8 16.0 18.0 18 4.54 15.7 4.8 482 18.3 75.7 13.6 5.5 803611 Orange 315317 551 18.6 4.82 80.3 13.9 16.1 4.18 3.4 344 17.4 69.7 13.8 16.0 Tan Grey 4.1 413 18.0 4.61 76.8 14.3 16.5 4.5 450 18.6 4.86 81.0 14.1 16.2 20 4.8 482 19.2 4.91 81.8 13.3 15.4 803611 315317 5.5 551 19.5 5.16 85.9 13.5 15.6 3.4 344 19.2 4.91 81.8 13.3 15.4 Lt. Blue 4.1 413 5.22 87.1 13.3 15.4 Tan 19.8 4.5 450 20.1 5.45 90.8 13.5 15.6 23 0 4.8 20.4 482 5.66 943 13.6 15.7 803611 315311 5.5 551 20.7 6.04 100.7 14.1 16.2 4.5 450 21.6 6.50 108.3 13.9 16.0 Lt. Blue 4.8 482 6.75 15.7 Tan 22.3 112.5 13.6 5.5 551 22.6 7.19 119.8 14.1 16.3 25 6.2 620 22.9 7.65 127.5 14.6 16.9 803611 Blue 315311 6.9 689 14.7 23.5 8.12 135.3 17.0 4.5 450 22.6 7.02 117.0 13.8 15.9 Tan Lt. Blue 4.8 482 22.9 7.27 121.1 13.9 16.1 5.5 551 7.77 129.5 14.1 23.5 16.3 33 6.2 8.22 137.0 16.4 620 24.1 14.2 315311 803611 Grey 6.9 247 8.68 1446 14 2 16.4 4.5 450 23.5 7.97 132.9 14.5 16.7 Lt. Blue 4.8 482 24.1 8.31 138.5 14.3 16.6 Tan 5 5 551 25.0 8 84 1473 14 1 163 38 0 6.2 620 25.6 9.38 156.3 14.3 16.5 803611 Red 315311 6.9 689 26.5 9.90 165.0 14.1 16.3 Tan Blue 4.8 482 25.3 9.38 156.3 14.7 16.9 25.9 5.5 551 9.90 165.0 14.8 17.0 43 0 6.2 10.52 175.3 15.0 17.3 620 26.5 803611 Dk. Brown 315300 6.9 689 27.1 11.09 184.7 15.1 17.4 Dk. Brown Dk. Blue 4.8 482 27.4 10.65 177.5 14.2 16.3 5.5 551 28.0 11.11 185.1 14.1 16.3 48 0 0 6.2 11.46 191.0 14.0 620 28.7 16.1 803610 Dk. Green 833500 6.9 689 29.3 12.15 202.5 14.2 16.4 Dk. Brown Dk. Blue 4.8 482 27.7 11.31 188.5 14 7 17.0 5.5 551 28.3 11.86 197.7 14.8 17.0 53 0 0 6.2 620 29.0 12.61 210.1 15.0 17.4 803610 Dk. Blue 833500 6.9 221.4 17.6 689 29.6 13.29 15.2

## **G-880 STANDARD NOZZLES**

## G-880 LOW-ANGLE NOZZLES\*\*



<sup>\*\*</sup> Low-angle nozzles reduce the radius by 15%



## TTS Means Convenience and Versatility

With TTS, every serviceable component of the rotor can be easily accessed anytime with no servicing mess.

<sup>\*</sup> Preliminary performance data. Complies to ASAE standard. All precipitation rates calculated for 360° operation. All triangular rates are equilateral. To calculate precipitation rates for 180° operation, multiply by 2.

# G-800 SERIES



These rotors feature convenient no-dig Total-Top-Serviceability and powerful, high-torque gear drive.

## **KEY BENEFITS**

- Adjustable model distinguished by a grey collar that comes factory set in a true full-circle configuration
- Exclusive PressurePort™ Technology optimizes incoming pressure at each nozzle to increase consistency and maximize distribution uniformity
- High-torque gear drive is the strongest in the industry to mitigate the challenges of debris infiltration
- Proprietary Filter Sentry® Mechanism cleans the filter with every opening and closing cycle

## **OPERATING SPECIFICATIONS**

- Radius: 14.9 to 29.6 m
- Flow: 3.23 to 13.29 m<sup>3</sup>/hr; 53.8 to 221.4 l/min
- Pressure range: 3.4 to 6.9 bar; 340 to 690 kPa
- All TTS rotors are pressure-rated at 10 bar; 1,000 kPa
- Nozzle range: #15 to #53
  - 10 standard trajectory (22.5°)
  - 9 low-angle trajectory (15°)

## OPTIONS

- C Check-o-Matic Technology checks up to 8 m in elevation change and readily converts to normally open hydraulic with throughthe-top connections
- D Decoder Valve-in-Head Technology with all "E" specifications below\*
- DD Two-station decoder Valve-in-Head Technology with all "E" specifications below\*

G-884 - SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4

- E Electric Valve-in-Head Technology with adjustable pressure regulation, on-off-auto selector, 210 mA (370 mA inrush) 50 Hz; 190 mA (350 mA inrush) 60 Hz solenoid with captive plunger and internal downstream bleed
- \* All DIH rotors include two 3M DBRY-6 splices for connection to the two-wire path. See page 200 for critical recommendations on grounding DIH rotors.



G-884C Pop-up height: 9.5 cm Overall height: 30 cm Flange diameter: 18 cm Female inlet: 1½" (40 mm) Acme



# G-884E Pop-up height: 9.5 cm Overall height: 30 cm Flange diameter: 18 cm Female inlet: 1½" (40 mm) Acme

1 Model	2 Valve Options	3 Nozzle	4 Regulation
<b>G-884</b> = Full-circle (convertible to forward- facing adjustable arc rotor)	<b>C</b> = Check-o-Matic Technology*	<b>15 to 53</b> = Installed G-880 nozzle	<b>P5</b> = 50 PSI; 3.4 bar; 340 kPa (nozzles 15 to 18)
	<b>D</b> = Decoder Valve-in-Head Technology		<b>P6</b> = 65 PSI; 4.5 bar; 450 kPa (nozzles 18 to 25)
	<b>DD</b> = Two-station decoder Valve-in-Head Technology		<b>P8</b> = 80 PSI; 5.5 bar; 550 kPa (nozzles 25 to 53)
	<b>E</b> = Electric Valve-in-Head Technology		
	*Converts to N.O. hydraulic Valve-in-Head		

Example:

G-884-E-33-P8 = G-884 full-circle electric Valve-in-Head Technology, installed #33 nozzle, 80 PSI; 5.5 bar; 550 kPa regulation

### **G-884 NOZZLE PERFORMANCE DATA\*** Nozzle Set Pressure Radius Flow Precip mm/hr $\triangle$ kPa m m³/hr I/min bar 3.4 344 14.9 3.23 53.8 14.5 16.7 413 148 Tan Grey 41 15.5 3.57 59.4 17 0 4.5 450 15.9 3.73 62.1 14.8 17.1 0 15 4.8 482 3.86 64.4 14.8 17.1 16.2 803611 White 315317 5.5 551 4.13 68.9 14 7 17.0 16.8 3.4 344 17.1 3.91 65.1 13.4 15.5 Tan 4.1 413 17.7 4.28 71.3 13.7 15.8 Grey 4.5 450 4 48 74 6 16.0 18.0 13.8 18 4.8 482 18.3 4.54 75.7 15.7 13.6 5.5 803611 Orange 315317 551 18.6 4.82 80.3 13.9 16.1 3.4 344 17.4 4.18 69.7 13.8 16.0 Tan Grey 4.1 413 18.0 4.61 76.8 14.3 16.5 4.5 450 18.6 4.86 81.0 14.1 16.2 20 4.8 482 19.2 4.91 81.8 13.3 15.4 803611 Brown 315317 5.5 551 19.5 5.16 85.9 13.5 15.6 3.4 4.91 344 19.2 81.8 13.3 15.4 Tan Lt. Blue 4.1 413 19.8 5.22 87.1 13.3 15.4 4.5 450 20.1 5.45 90.8 13.5 15.6 23 0 4.8 20.4 482 5.66 943 13.6 15.7 803611 315311 5.5 551 20.7 6.04 100.7 14.1 16.2 4.5 450 21.6 6.50 108.3 13.9 16.0 Lt. Blue 4.8 482 6.75 15.7 Tan 22.3 112.5 13.6 5.5 551 22.6 7.19 119.8 14.1 16.3 25 6.2 620 22.9 7.65 127.5 14.6 16.9 803611 Blue 315311 6.9 689 14.7 23.5 8.12 135.3 17.0 4.5 450 22.6 7.02 117.0 13.8 15.9 Tan Lt. Blue 4.8 482 22.9 7.27 121.1 13.9 16.1 5.5 551 23.5 7.77 129.5 14.1 16.3 33 6.2 620 24.1 8.22 137.0 14.2 16.4 803611 Grey 315311 6.9 689 24.7 8.68 144.6 14.2 16.4 4.5 450 23.5 7.97 132.9 14.5 16.7 Tan Lt. Blue 4.8 482 24.1 8.31 138.5 14.3 16.6 5 5 551 25.0 8 84 1473 14 1 163 38 0 6.2 620 25.6 9.38 156.3 14.3 16.5 803611 315311 Red 6.9 689 26.5 9.90 165.0 14.1 16.3 Tan Blue 4.8 482 25.3 9.38 156.3 14.7 16.9 5.5 551 25 9 9.90 165.0 14.8 17.0 43 0 6.2 26.5 175.3 17.3 620 10.52 15.0 803611 Dk. Brown 315300 6.9 689 27.1 11.09 184.7 15.1 17.4 Dk. Brown Dk. Blue 4.8 482 27.4 10.65 177.5 14.2 16.3 5.5 551 28.0 11.11 185.1 14.1 16.3 48 0 0 6.2 620 28.7 11 46 191 0 14 0 16.1 803610 Dk. Green 833500 6.9 689 29.3 12.15 202.5 14.2 16.4 Dk. Brown 11.31 188.5 17.0 Dk. Blue 48 482 277 14 7 5.5 551 28.3 11.86 197.7 14.8 17.0 53 O 0 6.2 620 29.0 12.61 210.1 15.0 17.4 803610 Dk. Blue 833500 6.9 221.4 17.6 689 29.6 13.29 15.2

## **G-884 STANDARD NOZZLES**

G-884 LOW-ANGLE NOZZLES\*\*



\*\* Low-angle nozzles reduce radius by 15%



G-885 Decoder-in-Head TTS Rotor

## TTS Flange Compartment

All TTS rotors include ample room for solenoid splice connections and a two-way module when needed.

 $<sup>^*</sup>$  Complies to ASAE standard. All precipitation rates calculated for 360° operation. All triangular rates are equilateral. To calculate precipitation rates for 180° operation, multiply by 2.

# G-800 SERIES



These rotors feature convenient no-dig Total-Top-Serviceability and powerful, high-torque gear drive.

## **KEY BENEFITS**

- Adjustable model distinguished by a grey collar that comes factory set in a part-circle configuration (60° to 360°)
- Exclusive PressurePort™ Technology optimizes incoming pressure at each nozzle to increase consistency and maximize distribution uniformity.
- High-torque gear drive is the strongest in the industry to mitigate the challenges of debris infiltration
- Proprietary Filter Sentry® Mechanism cleans the filter with every opening and closing cycle

## **OPERATING SPECIFICATIONS**

- Radius: 11.3 to 28.7 m
- Flow: 2.02 to 13.54 m<sup>3</sup>/hr; 33.7 to 225.6 l/min
- Pressure range: 3.4 to 6.9 bar; 340 to 690 kPa
- All TTS rotors are pressure-rated at 10 bar; 1,000 kPa
- Nozzle range: #10 to #53
  - 12 standard trajectory (22.5°)
  - 9 low-angle trajectory (15°)

## **OPTIONS**

- C Check-o-Matic Technology checks up to 8 m in elevation change and readily converts to normally open hydraulic with through-the-top connections
- D Decoder Valve-in-Head Technology with all "E" specifications below\*
- DD Two-station decoder Valve-in-Head Technology with all "E" specifications below\*
- E Electric Valve-in-Head Technology with adjustable pressure regulation, on-off-auto selector, 210 mA (370 mA inrush) 50 Hz; 190 mA (350 mA inrush) 60 Hz solenoid with captive plunger and internal downstream bleed
- \* All DIH rotors include two 3M DBRY-6 splices for connection to the two-wire path. See page 200 for critical recommendations on grounding DIH rotors.



## G-885C Pop-up height: 9.5 cm Overall height: 30 cm Flange diameter: 18 cm Female inlet: 1½" (40 mm) Acme



## **G-885E**Pop-up height: 9.5 cm

Overall height: 30 cm Flange diameter: 18 cm Female inlet: 1½" (40 mm) Acme

G-885 - SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4											
1 Model	2 Valve Options	3 Nozzle	4 Regulation								
<b>G-885</b> = Full/part-circle 60°-360° arc range	<b>C</b> = Check-o-Matic Technology*	<b>10 to 53</b> = Installed G-885 nozzle	<b>P5</b> = 50 PSI; 3.4 bar; 340 kPa (nozzles 10 to 18)								
	<b>D</b> = Decoder Valve-in-Head Technology		<b>P6</b> = 65 PSI; 4.5 bar; 450 kPa (nozzles 18 to 25)								
	<b>DD</b> = Two-station decoder Valve-in-Head Technology		<b>P8</b> = 80 PSI; 5.5 bar; 550 kPa (nozzles 25 to 53)								
	<b>E</b> = Electric Valve-in-Head Technology										
	*Converts to N.O. hydraulic Valve-in-Head Technology										

Example:

 $\textbf{G-885-E-33-P8} = G-885 \text{ full/part-circle electric Valve-in-Head Technology, installed $\#33$ nozzle, $\$0$ PSI; 5.5 bar; 550 kPa regulation and the statement of the stateme$ 

### **G-885 NOZZLE PERFORMANCE DATA\*** Nozzle Set Radius Flow Precip mm/hr Pressure kPa m<sup>3</sup>/hr I/min Orange Dk. Green 3.4 344 11.3 2.02 33.7 15.9 18.4 4.1 413 11.9 2.23 37.1 15.8 18.2 $oldsymbol{O}$ 2.32 4.5 450 12.5 38.6 14.8 17.1 10 803603 315312 Lt. Green 344 14.3 2.59 43.2 12.6 14.6 Orange White 3.4 4.1 413 14.6 2.79 46.6 13.1 15.1 45 450 14.9 2.93 48.8 13.1 15.2 13 803603 315314 Lt. Blue 3 4 15 9 2 93 48 8 11 7 13 5 Orange White 344 4.1 413 15.9 3.29 54.9 13.1 15.1 M 4.5 450 16.2 3.38 56.4 13.0 15.0 15 803603 315314 48 482 16 2 3 52 58.7 13 5 15.6 White 5.5 551 16.5 3.75 62.5 13.8 16.0 Orange Lt. Green 3.4 344 17.4 3.77 62.8 12.5 14.4 413 17 7 4 04 674 14 9 41 12 9 O 4.5 450 18.0 4.23 70.4 13.1 15.1 18 803603 315313 4.8 482 18.3 4.41 73.4 13.2 15.2 Orange 55 551 18 6 4 66 776 13 5 15.6 Orange Lt. Green 3.4 344 18.0 4.07 67.8 12.6 14.5 4.1 413 18.6 4.43 73.8 12.8 14.8 4.5 450 18.9 4.50 75.0 12.6 14.5 20 803603 315313 4.8 482 19.2 4.68 78.0 12.7 14.7 5.5 Tan 551 19.5 5.02 83.7 13.2 15.2 Lt. Green 3.4 344 19.8 4.59 76.5 11.7 13.5 Orange 4.1 413 20.1 5.02 83.7 12.4 14.3 45 450 20.4 5 43 90 5 13.0 15.0 23 803603 315313 4.8 482 20.4 5.50 916 13.2 15 2 Green • 5.5 551 21.0 5.88 98.0 13.3 15.4 6.43 Red 4.5 450 21.6 107.1 13.7 15.8 Green 4.8 482 21.9 6.66 110.9 13.8 16.0 O 5.5 551 22.3 7.16 119.2 14.5 16.7 25 803602 315310 6.2 620 22.6 7.59 126.4 14.9 17.2 6.9 689 22.9 8.04 134.0 15.4 17.8 Red Green 45 450 219 6.95 115.8 14 4 16.7 4.8 482 22.3 7.18 119.6 14.5 16.7 O 5.5 551 22.9 7.70 128.3 14.7 17.0 33 803602 315310 6.2 620 235 8 13 135 5 148 17.0 • 6.9 689 24.1 8.61 143.5 14.8 17.1 Grev Red 4.5 450 23.2 7.93 132.1 14.8 17.1 Green 4.8 482 23.8 8 22 137.0 14 5 16.8 O 5.5 551 24.4 8.88 148.0 14.9 17.2 38 803602 315310 6.2 620 25.0 9.36 156.0 15.0 17.3 Red • 689 25.6 6.9 9.88 164.7 15.1 17.4 Red Green 48 482 24 7 936 156.0 15 4 17 7 O 5.5 551 25.3 9.88 164.7 15 4 17.8 43 803602 315310 620 26.2 10.49 174.9 15.3 17.6 6.2 Dk. Brown 184.3 6.9 689 27.1 11.06 15.0 17.4 Dk. Green Dk. Red 4.8 482 25.3 10.52 175.3 16.4 19.0 O 55 551 25 9 10 99 183 2 16.4 18 9 48 803601 315312 6.2 620 27.1 11.74 195.7 16.0 18.4 Dk. Green 6.9 689 27.7 12.38 206.3 16.1 18.6 Dk. Red Dk. Green 48 482 26.5 11.52 191.9 16.4 18.9 O 5.5 551 27.1 12.06 201.0 16.4 18.9 53 803601 315312 6.2 620 28.0 12.81 213.5 16.3 18.8 Dk. Blue 6.9 689 28.7 13.54 225.6 19.0 16.5

## **G-885 STANDARD NOZZLES**

## G-885 LOW-ANGLE NOZZLES\*\*



 $^{**}$  Low-angle nozzles reduce the radius by 15%.



## **Contour Back-Nozzle Capabilities**

Whether you want a little extra green behind your adjustable arc TTS rotors or a more modeled look to your fairway's hard edges, contour back-nozzles are here to make your vision a reality. Choose from four short-range or four mid-range nozzles to suit your needs.

CONTOUR BACK-NOZZLE PERFORMANCE DATA											
			4.5	Bar	5.5	Bar					
P/N	Colour	Profile	Metres	L/M	Metres	L/M					
803604	Peach		7.6	12.9	8.2	14.8					
803603	Orange		8.5	14.4	8.8	15.9					
803602	Red		9.4	15.9	10.1	17.0					
803601	Dk. Red		10.4	17.4	11.0	18.5					
315314	White		11.3	10.6	11.6	11.0					
315313	Lt. Green		12.8	16.3	13.4	17.8					
315310	Green		14.0	19.7	14.6	21.6					
315312	Dk. Green		14.9	29.9	15.5	33.3					

## GT-885/G-885 CONTOUR BACK-NOZZLES





## QuickSet-360 with Ratcheting Riser

Setting up your adjustable arc TTS rotor is fast and simple. The integrated ratcheting mechanism allows a simple twist of the riser to align the right-side reversing point. These rotors are also easily convertible to a true non-reversing full-circle with our exclusive QuickSet-360 feature.

 $<sup>\</sup>bullet$  = Nozzle plug P/N 315300 installed in the back side of the nozzle housing.

<sup>\*</sup> Complies to ASAE standard. All precipitation rates calculated for 360° operation. All triangular rates are equilateral. To calculate precipitation rates for 180° operation, multiply by 2.

# G-800 SERIES



These rotors feature convenient no-dig Total-Top-Serviceability and shorter-radius, lower-flow internals.

## **KEY BENEFITS**

- Adjustable, shorter radius model (50° to 360°)
- Proprietary Filter Sentry® Mechanism cleans the filter with every opening and closing cycle

## **OPERATING SPECIFICATIONS**

- Radius: 5.5 to 15.2 m
- Flow: 0.43 to 2.91 m<sup>3</sup>/hr; 7.2 to 48.5 l/min
- Pressure range: 2.8 to 4.5 bar; 280 to 450 kPa
- All TTS rotors are pressure-rated at 10 bar; 1,000 kPa

G-835 - SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4

• Nozzle range: #2 to #12

## **OPTIONS**

- C Check-o-Matic Technology checks up to 8 m in elevation change and readily converts to normally open hydraulic with through-the-top connections
- D Decoder Valve-in-Head Technology with all "E" specifications below\*
- DD Two-station decoder Valve-in-Head Technology with all "E" specifications below\*
- E Electric Valve-in-Head Technology with adjustable pressure regulation, on-off-auto selector, 210 mA (370 mA inrush) 50 Hz; 190 mA (350 mA inrush)
   60 Hz solenoid with captive plunger and internal downstream bleed
- \* All DIH rotors include two 3M DBRY-6 splices for connection to the two-wire path. See **page 200** for critical recommendations on grounding DIH rotors.



# G-835C Pop-up height: 8 cm Overall height: 30 cm Flange diameter: 18 cm Female inlet: 1½" (40 mm) Acme



# G-835E Pop-up height: 8 cm Overall height: 30 cm Flange diameter: 18 cm Female inlet: 1½" (40 mm) Acme

1 Model	2	Valve Options	3	Nozzle	4	Regulation
<b>G-835</b> = Full/part-circle, 50° to 360°	C =	= Check-o-Matic Technology *	6 =	Installed G-835 nozzle (includes 8-nozzle rack)	P5	= 50 PSI; 3.4 bar; 340 kPa
		= Decoder Valve-in-Head Technology			P6	= 65 PSI; 4.5 bar; 450 kPa
	*C	= Electric Valve-in-Head Technology onverts to N.O. hydraulic Valve-in- and Technology				

## Example:

 $\textbf{G-835E-6-P6} = G-835 \text{ full/part-circle electric Valve-in-Head Technology, installed $\#6$ nozzle, $50$ PSI; $3.4$ bar; $340$ kPa regulation and $40$ kPa regulation are supported by the support of the property of the support of$ 

## **G-835 NOZZLE PERFORMANCE DATA**

Pressure Radius

Flow

Precip mm/hr

Nozzle

INOZZIC	1103	Juic	Rudius		344	i i ccip	/
	bar	kPa	m	m³/hr	l/min		
	2.8	280	5.5	0.43	7.2	14.3	16.6
2	3.4	340	6.1	0.48	7.9	12.8	14.8
Yellow	4.1	410	6.7	0.55	9.1	12.1	14.0
	4.5	450	7.0	0.59	9.8	12.0	13.9
•	2.8	280	7.0	0.68	11.4	13.9	16.0
3	3.4	340	7.6	0.73	21.1	12.5	14.5
Yellow	4.1	410	8.2	0.80	13.2	11.7	13.6
	4.5	450	8.5	0.82	13.6	11.2	13.0
4	2.8	280	7.6	0.89	14.8	15.3	17.6
4	3.4	340	8.5	0.93	15.5	12.8	14.8
Yellow	4.1	410	9.1	1.00	16.7	12.0	13.8
	4.5	450	9.4	1.04	17.4	11.7	13.5
_	2.8	280	8.8	1.07	17.8	13.7	15.8
5	3.4	340	9.8	1.14	18.9	11.9	13.8
Yellow	4.1	410	10.1	1.20	20.1	11.9	13.7
	4.5	450	10.7	1.23	20.4		12.4
<b>C</b> •	2.8	280	9.8	1.36	22.7	14.3	16.5
6	3.4	340	10.7	1.43	23.8	12.6	14.5
Yellow	4.1	410	11.3	1.50	25.0	11.8	13.6
	4.5	450	11.9	1.54	25.7	10.9	12.6
0	2.8	280	11.0	1.77	29.5	14.7	17.0
8	3.4	340	11.9	1.82	30.3	12.9	14.8
Yellow	4.1	410	12.8	1.89	31.4	11.5	13.3
	4.5	450	13.1	1.93	32.2	11.2	13.0
10.0	2.8	280	11.9	2.20		15.6	18.0
10 •	3.4	340	13.1	2.29		13.4	15.4
Yellow	4.1	410	13.7	2.34	39.0	12.4	14.4
	4.5	450	14.3	2.39	39.7	11.6	13.4
12	2.8	280	13.4	2.73	45.4	15.2	17.5
12 •	3.4	340	14.3		46.2	13.5	15.6
Yellow	4.1	410	14.6	2.84	47.3	13.3	15.3
	4.5	450	15.2	2.91	48.5	12.5	14.5

## **G-835 NOZZLES**







## QuickSet-360

With Hunter's QuickCheck Arc Mechanism and patented QuickSet-360 non-reversing full-circle feature in a variable arc rotor, adjustments are fast, easy, and more flexible than ever before. Now available on all TTS-800 Series, G-800 Series and B Series adjustable arc rotors.

# **B SERIES**



These highly efficient block rotors have a powerful gear drive backed by the reliability synonymous with the Hunter name.

## **KEY BENEFITS**

- · Dedicated, true full-circle model distinguished by a black collar
- Exclusive PressurePort<sup>™</sup> Technology optimizes incoming pressure at each nozzle to increase consistency and maximize distribution uniformity
- High-torque gear drive is the strongest in the industry to mitigate the challenges of debris infiltration

## **OPERATING SPECIFICATIONS**

- G-80-B
  - Radius: 14.9 to 29.6 m
  - Flow: 3.23 to 13.29 m³/hr; 53.8 to 221.4 l/min
     Pressure range: 3.4 to 6.9 bar; 340 to 690 kPa
- All B Series Golf Rotors are pressure-rated at 10 bar; 1,000 kPa
- Check height up to 2 m in elevation change
- Nozzle range: #15 to #53
  - 10 standard trajectory (22.5°)
  - 9 low-angle trajectory (15°)



**G-80-B**Pop-up height: 9.5 cm
Overall height: 24.5 cm
Flange diameter: 13.7 cm
Female inlet: 1¼" (32 mm) Acme

G-80-B - SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4									
1 Model	2 Valve Options	3 Nozzle	4 Options*						
G-80 = Full-circle	<b>B</b> = Block rotor with check valve	<b>15 to 53</b> = Installed G80 nozzle*	<b>S</b> = SSU*						
		*SSU = #18, #25, or #48	*Standard stocking unit						

Example:

**G-80-B-25-S** = G-80 full-circle block rotor, installed #25 nozzle, standard stocking unit model

N	lozzle Se	t	Pres	sure	Radius	Fle	Flow		mm/hı
			bar	kPa	m	m³/hr	I/min		
•		•	3.4	344	14.9	3.23	53.8	14.5	16.7
Tan		Grey	4.1	413	15.5	3.57	59.4	14.8	17.0
	15	0	4.5	450	15.9	3.73	62.1	14.8	17.1
			4.8	482	16.2	3.86	64.4	14.8	17.1
803611	White	315317	5.5	551	16.8	4.13	68.9	14.7	17.0
_			3.4	344	17.1	3.91	65.1	13.4	15.5
Tan		Grey	4.1	413	17.7	4.28	71.3	13.7	15.8
	18		4.5	450	18.0	4.48	74.6	13.8	16.0
803611	Orange	315317	4.8 5.5	482 551	18.3 18.6	4.54 4.82	75.7 80.3	13.6 13.9	15.7 16.1
003011	Orange	313317	3.4	344	17.4	4.02	69.7	13.8	16.0
Tan		Grey	4.1	413	18.0	4.61	76.8	14.3	16.5
4			4.5	450	18.6	4.86	81.0	14.1	16.2
	20		4.8	482	19.2	4.91	81.8	13.3	15.4
803611	Brown	315317	5.5	551	19.5	5.16	85.9	13.5	15.4
•	<b>6</b>	<b>6</b>	3.4	344	19.2	4.91	81.8	13.3	15.4
Tan		Lt. Blue	4.1	413	19.8	5.22	87.1	13.3	15.4
4	22	_	4.5	450	20.1	5.45	90.8	13.5	15.6
	23		4.8	482	20.4	5.66	94.3	13.6	15.7
803611	Green	315311	5.5	551	20.7	6.04	100.7	14.1	16.2
•		•	4.5	450	21.6	6.50	108.3	13.9	16.0
Tan		Lt. Blue	4.8	482	22.3	6.75	112.5	13.6	15.7
	25		5.5	551	22.6	7.19	119.8	14.1	16.3
	25	0	6.2	620	22.9	7.65	127.5	14.6	16.9
803611	Blue	315311	6.9	689	23.5	8.12	135.3	14.7	17.0
•		•	4.5	450	22.6	7.02	117.0	13.8	15.9
Tan		Lt. Blue	4.8	482	22.9	7.27	121.1	13.9	16.1
	33	<b>6</b>	5.5	551	23.5	7.77	129.5	14.1	16.3
	33		6.2	620	24.1	8.22	137.0	14.2	16.4
803611	Grey	315311	6.9	689	24.7	8.68	144.6	14.2	16.4
•		•	4.5	450	23.5	7.97	132.9	14.5	16.7
Tan		Lt. Blue	4.8	482	24.1	8.31	138.5	14.3	16.6
	38		5.5	551	25.0	8.84	147.3	14.1	16.3
			6.2	620	25.6	9.38	156.3	14.3	16.5
803611	Red	315311	6.9	689	26.5	9.90	165.0	14.1	16.3
_			-	-	-	-	-	-	-
Tan		Blue	4.8	482	25.3	9.38	156.3	14.7	16.9
	43		5.5	551	25.9	9.90	165.0	14.8	17.0
803611	Dk. Brown		6.2 6.9	620 689	26.5	10.52	175.3	15.0	17.3
003011	DK. Brown	315300	-	- 009	27.1	11.09	184.7	15.1	17.4
k. Brown		Dk. Blue	4.8	482	27.4	10.65	- 177.5	14.2	16.3
K. DIOWII		Dr. blue	5.5	551	28.0	11.11	185.1	14.2	16.3
0	48	0	6.2	620	28.7	11.46	191.0	14.1	16.1
803610	Dk. Green	833500	6.9	689	29.3	12.15	202.5	14.0	16.4
003010	Sitt Sitteri	033300	-	-	- 29.3	- 12.13	-	-	-
k. Brown		Dk. Blue	4.8	482	27.7	11.31	188.5	14.7	17.0
_		_	5.5	551	28.3	11.86	197.7	14.8	17.0
	53		6.2	620	29.0	12.61	210.1	15.0	17.4
803610	Dk. Blue	833500	6.9	689	29.6	13.29	221.4	15.2	17.6

 $<sup>^*</sup>$  Complies to ASAE standard. All precipitation rates calculated for 360° operation. All triangular rates are equilateral.

## **G-80-B NOZZLES**



## **LOW-ANGLE NOZZLES\*\***



<sup>\*\*</sup> Low-angle nozzles reduce the radius by 15%.

# **B SERIES**



These highly efficient block rotors have a powerful gear drive backed by the reliability synonymous with the Hunter name.

## **KEY BENEFITS**

- G-84-B
  - Adjustable model distinguished by a grey collar that comes factory set in a true full-circle configuration
  - Exclusive PressurePort  $^{\!\top\!\!}$  Technology optimizes incoming pressure at each nozzle to increase consistency and maximize distribution uniformity
  - High-torque gear drive is the strongest in the industry to mitigate the challenges of debris infiltration
- G-85-B
  - Adjustable model distinguished by a grey collar that comes factory set in a part-circle configuration (60° to 360°)
  - Exclusive PressurePort  $^{\!\top\!\!}$  Technology optimizes incoming pressure at each nozzle to increase consistency and maximize distribution uniformity
  - High-torque gear drive is the strongest in the industry to mitigate the challenges of debris infiltration



- G-84-B
  - Radius: 14.9 to 29.6 m
  - Flow: 3.23 to 13.29 m<sup>3</sup>/hr; 53.8 to 221.4 l/min
  - Pressure range: 3.4 to 6.9 bar; 340 to 690 kPa
  - Check height up to 2 m in elevation change
  - Nozzle range: #15 to #53
    - 10 standard trajectory (22.5°)
    - 9 low-angle trajectory (15°)
- G-85-B
  - Radius: 11.3 to 28.7 m
  - Flow: 2.02 to 13.54 m<sup>3</sup>/hr; 33.7 to 225.6 l/min
  - Pressure range: 3.4 to 6.9 bar; 340 to 690 kPa
  - Check height up to 2 m in elevation change
  - Nozzle range: #10 to #53
    - 12 standard trajectory (22.5°)
    - 9 low-angle trajectory (15°)
- All B Series Golf Rotors are pressure-rated at 10 bar; 1,000 kPa



G-84-B Pop-up height: 9.5 cm Overall height: 24.5 cm

Flange diameter: 13.7 cm Female inlet: 11/4" (30 mm) Acme



### G-85-B

Pop-up height: 9.5 cm Overall height: 24.5 cm Flange diameter: 13.7 cm

Female inlet: 11/4" (30 mm) Acme

G-	84-B & C	3-92-B .	- SPECIFIC	ATION B	UILDER:	JKDEK I +	2 + 3	+ 4

G-84-B & G-85-B - SPECIFICATION BUILDER: ORDER I + 2 + 3 + 4									
1 Model	2 Valve Options	3 Nozzle	4 Options*						
<b>G-84</b> = Full-circle	<b>B</b> = Block rotor with check valve	<b>15 to 53</b> = Installed G84 nozzle*	<b>S</b> = SSU*						
		*SSU = #18, #25, or #48	*Standard stocking unit						
<b>G-85</b> = Full/part-circle, 60°-360°	<b>B</b> = Block rotor with check valve	<b>10 to 53</b> = Installed G85 nozzle**	<b>S</b> = SSU*						
		**SSU = #18, #25, or #48	*Standard stocking unit						

G-85-B-25-S = G-85 part-circle block rotor, installed #25 nozzle, standard stocking unit model

N	lozzle Se	t	Pres	sure	Radius	Fle	ow	Precip	mm/hr	1	Nozzle Se	t	Pres	sure	Radius	FI	ow	Precin	mm/h
.,	OLLIC DC		bar	kPa	m	m³/hr	I/min		<b>A</b>		TOLLIC DO		bar	kPa	m	m³/hr	I/min	T recip	<b>A</b>
•		•	3.4	344	14.9	3.23	53.8	14.5	16.7	Orange		Dk. Green	3.4	344	11.3	2.02	33.7	15.9	18.4
Tan		Grey	4.1	413	15.5	3.57	59.4	14.8	17.0			<b>6</b>	4.1	413	11.9	2.23	37.1	15.8	18.2
	15		4.5 4.8	450 482	15.9 16.2	3.73 3.86	62.1 64.4	14.8 14.8	17.1 17.1	803603	10	315312	4.5	450	12.5	2.32	38.6	14.8	17.1
303611	White	315317	5.5	551	16.8	4.13	68.9	14.7	17.1	003003	Lt. Green	0	_	_	_	_	_	_	_
•		•	3.4	344	17.1	3.91	65.1	13.4	15.5	Orange		White	3.4	344	14.3	2.59	43.2	12.6	14.6
Tan		Grey	4.1	413	17.7	4.28	71.3	13.7	15.8			(i)	4.1	413	14.6	2.79	46.6	13.1	15.1
	18	0	4.5 4.8	450 482	18.0 18.3	4.48 4.54	74.6 75.7	13.8 13.6	16.0 15.7	803603	13	315314	4.5 -	450 -	14.9	2.93	48.8	13.1	15.2
303611	Orange	315317	5.5	551	18.6	4.82	80.3	13.9	16.1	•	Lt. Blue	•	-	-	-	-	-	-	-
•		•	3.4	344	17.4	4.18	69.7	13.8	16.0	Orange		White	3.4	344	15.9	2.93	48.8	11.7	13.5
Tan		Grey	4.1 4.5	413 450	18.0 18.6	4.61 4.86	76.8 81.0	14.3 14.1	16.5 16.2				4.1 4.5	413 450	15.9 16.2	3.29 3.38	54.9 56.4	13.1 13.0	15.1 15.0
	20	0	4.8	482	19.2	4.00	81.8	13.3	15.4	803603	15	315314	4.8	482	16.2	3.52	58.7	13.5	15.6
303611	Brown	315317	5.5	551	19.5	5.16	85.9	13.5	15.6	•	White	•	5.5	551	16.5	3.75	62.5	13.8	16.0
-		•	3.4	344	19.2	4.91	81.8	13.3	15.4	Orange		Lt. Green	3.4	344	17.4	3.77	62.8	12.5	14.4
Tan		Lt. Blue	4.1 4.5	413 450	19.8 20.1	5.22 5.45	87.1 90.8	13.3 13.5	15.4 15.6				4.1 4.5	413 450	17.7 18.0	4.04 4.23	67.4 70.4	12.9 13.1	14.9 15.1
	23		4.8	482	20.1	5.66	94.3	13.6	15.7	803603	18	315313	4.8	482	18.3	4.41	73.4	13.1	15.1
03611	Green	315311	5.5	551	20.7	6.04	100.7	14.1	16.2	•	Orange	•	5.5	551	18.6	4.66	77.6	13.5	15.6
-			4.5	450	21.6	6.50	108.3	13.9	16.0	Orange		Lt. Green	3.4	344	18.0	4.07	67.8	12.6	14.5
Tan		Lt. Blue	4.8 5.5	482 551	22.3 22.6	6.75 7.19	112.5 119.8	13.6 14.1	15.7 16.3				4.1 4.5	413 450	18.6 18.9	4.43 4.50	73.8 75.0	12.8 12.6	14.8 14.5
0	25		6.2	620	22.9	7.65	127.5	14.6	16.9	803603	20	315313	4.8	482	19.2	4.68	78.0	12.7	14.7
03611	Blue	315311	6.9	689	23.5	8.12	135.3	14.7	17.0	•	Tan	•	5.5	551	19.5	5.02	83.7	13.2	15.2
-			4.5	450	22.6	7.02	117.0	13.8	15.9	Orange		Lt. Green	3.4	344	19.8	4.59	76.5	11.7	13.5
Tan		Lt. Blue	4.8 5.5	482 551	22.9 23.5	7.27 7.77	121.1 129.5	13.9 14.1	16.1 16.3	0			4.1 4.5	413 450	20.1 20.4	5.02 5.43	83.7 90.5	12.4 13.0	14.3 15.0
	33		6.2	620	24.1	8.22	137.0	14.2	16.4	803603	23	315313	4.8	482	20.4	5.50	91.6	13.2	15.2
303611	Grey	315311	6.9	689	24.7	8.68	144.6	14.2	16.4	•	Green	•	5.5	551	21.0	5.88	98.0	13.3	15.4
Tan		Lt. Blue	4.5 4.8	450 482	23.5 24.1	7.97 8.31	132.9 138.5	14.5 14.3	16.7 16.6	Red		Green	4.5	450 482	21.6 21.9	6.43 6.66	107.1	13.7	15.8
4			5.5	551	25.0	8.84	147.3	14.5	16.3	0	0.5		4.8 5.5	551	22.3	7.16	110.9 119.2	13.8 14.5	16.0 16.7
	38		6.2	620	25.6	9.38	156.3	14.3	16.5	803602	25	315310	6.2	620	22.6	7.59	126.4	14.9	17.2
303611	Red	315311	6.9	689	26.5	9.90	165.0	14.1	16.3	•	Blue	•	6.9	689	22.9	8.04	134.0	15.4	17.8
Tan		Blue	- 4.8	- 482	25.3	- 9.38	- 156.3	- 14.7	- 16.9	Red		Green	4.5 4.8	450 482	21.9 22.3	6.95 7.18	115.8 119.6	14.4 14.5	16.7 16.7
_	42		5.5	551	25.9	9.90	165.0	14.8	17.0	0	22		5.5	551	22.9	7.70	128.3	14.7	17.0
	43	0	6.2	620	26.5	10.52	175.3	15.0	17.3	803602	33	315310	6.2	620	23.5	8.13	135.5	14.8	17.0
303611	Dk. Brown	_	6.9	689	27.1	11.09	184.7	15.1	17.4		Grey	•	6.9	689	24.1	8.61	143.5	14.8	17.1
. Brown		Dk. Blue	4.8	482	- 27.4	10.65	- 177.5	14.2	16.3	Red		Green	4.5 4.8	450 482	23.2 23.8	7.93 8.22	132.1 137.0	14.8 14.5	17.1 16.8
4			5.5	551	28.0	11.11	185.1	14.1	16.3	0	20	0	5.5	551	24.4	8.88	148.0	14.9	17.2
0	48	0	6.2	620	28.7	11.46	191.0	14.0	16.1	803602	38	315310	6.2	620	25.0	9.36	156.0	15.0	17.3
03610	Dk. Green	833500	6.9	689	29.3	12.15	202.5	14.2	16.4		Red	•	6.9	689	25.6	9.88	164.7	15.1	17.4
. Brown		Dk. Blue	- 4.8	- 482	- 27.7	- 11.31	188.5	- 14.7	- 17.0	Red		Green	- 4.8	482	- 24.7	9.36	156.0	- 15.4	- 17.7
4	F2		5.5	551	28.3	11.86	197.7	14.8	17.0	0	42	0	5.5	551	25.3	9.88	164.7	15.4	17.8
0	53	0	6.2	620	29.0	12.61	210.1	15.0	17.4	803602	43	315310	6.2	620	26.2	10.49	174.9	15.3	17.6
03610	Dk. Blue	833500	6.9	689	29.6	13.29	221.4	15.2	17.6		Dk. Brown		6.9	689	27.1	11.06	184.3	15.0	17.4
										Dk. Red		Dk. Green	- 4.8	- 482	- 25.3	- 10.52	- 175.3	- 16.4	- 19.0
5-84-B	NOZZL	ES		G-	-85-B N	OZZLE	:5			0	40	0	5.5	551	25.9	10.99	183.2	16.4	18.9
				6						803601	48	315312	6.2	620	27.1	11.74	195.7	16.0	18.4
<b>/</b>	<b>Y</b>		<b>P</b>	C.			' <b>"</b>	<b>Y</b>		Dk Dad	Dk. Green	_	6.9	689	27.7	12.38	206.3	16.1	18.6
										Dk. Red		Dk. Green	- 4.8	- 482	- 26.5	- 11.52	- 191.9	- 16.4	- 18.9
<b>*</b>	<b>Y Y</b>	<b>Y</b>	Y	-	7 4	<b>*</b>	Y	Ÿ	Y	0	E2	0	5.5	551	27.1	12.06	201.0	16.4	18.9
										803601	53	315312	6.2	620	28.0	12.81	213.5	16.3	18.8
			<b>*</b> *							•	Dk. Blue		6.9	689	28.7	13.54	225.6	16.5	19.0

<sup>\*\*</sup> Low-angle nozzles reduce the radius by 15%.

Nozzle plug P/N 315300 installed in the back side of the nozzle housing.
 Complies to ASAE standard, All precipitation rates calculated for 260°.

 $<sup>^{\</sup>star}$  Complies to ASAE standard. All precipitation rates calculated for 360° operation. All triangular rates are equilateral.

# **B SERIES**



These cost-effective block rotors have a powerful gear drive backed by the reliability synonymous with the Hunter name.

## **KEY BENEFITS**

- G-70-B is a dedicated, true full-circle model
- G-75-B is an adjustable part-circle model (50° to 360°)

## **OPERATING SPECIFICATIONS**

- G-70-B
  - Radius: 16.2 to 22.9 m
  - Discharge rate: 2.95 to 7.66 m<sup>3</sup>/hr; 49.2 to 127.6 l/min
  - Pressure range: 3.4 to 6.9 bar; 340 to 690 kPa
- G-75-B
  - Radius: 14.3 to 21.6 m
  - Discharge rate: 1.75 to 7.34 m<sup>3</sup>/hr; 29.1 to 122.3 l/m
  - Pressure range: 2.8 to 6.9 bar; 280 to 690 kPa
- All B Series Golf Rotors are pressure-rated at 10 bar; 1,000 kPa

**G-70-B & G-75-B - SPECIFICATION BUILDER:** ORDER 1 + 2 + 3 + 4

- Check height up to 2 m in elevation change
- Nozzle range: #8 to #28
  - G-70-B has 6 standard trajectory (25°)
  - G-75-B has 9 standard trajectory (25°)



## G-70-B

Pop-up height: 8 cm Overall height: 23 cm Flange diameter: 12 cm Female inlet: 1¼" (30 mm) Acme



## G-75-B

Pop-up height: 8 cm Overall height: 23 cm Flange diameter: 12 cm Female inlet: 1¼" (30 mm) Acme

1 Model	2 V	/alve Options	3	Nozzle	4	Options					
<b>G-70</b> = Full-circle	<b>B</b> = Blo	<b>B</b> = Block rotor with check valve		Installed G70 nozzle *	<b>S</b> = SSU *						
			* Available in SSU model only SSU = #25 (includes nozzle pack)			indard stocking unit					
<b>G-75</b> = Full/part-circle, 50°-360° arc range	<b>B</b> = Block rotor with check valve		25 = Installed G75 nozzle **			<b>S</b> = SSU *					
			** Available in SSU mo SSU = #25		* Sta	undard stocking unit					

(includes nozzle pack)

Example:

G-70-B-25-S = G-70 full-circle block rotor, installed #25 nozzle with nozzle pack, standard stocking unit model

### **G-70-B NOZZLE PERFORMANCE DATA\* G-75-B NOZZLE PERFORMANCE DATA\*** Precip mm/hr Pressure Precip mm/hr Nozzle Pressure Radius Flow Nozzle Radius Flow kPa m<sup>3</sup>/hr I/min $\mathbf{A}$ kPa m³/hr I/min m 11.3 13.1 29.1 8.5 3 4 340 16.2 2.95 49.2 2.8 280 14.3 1.75 15 • 8 4.1 410 16.5 3.20 53.4 11.8 13.7 3.4 340 14.9 1.89 8.5 Grey 4.5 450 16.8 3.36 56.0 12.0 13.8 Lt. Brown 4.1 410 15.2 2.09 34.8 9.0 4.8 480 17.1 3.52 58.7 12.1 14.0 4.5 450 15.2 2.16 36.0 9.3 5.5 550 17.7 3.70 61.7 11.8 13.7 4.8 480 15.5 2.25 375 9.3 3.4 340 17.7 3.23 53.8 10.3 11.9 340 16.2 2.48 413 9.5 3.4 18 10 4.1 410 18.0 3.61 60.2 11.2 12.9 4.1 410 16.5 2.73 45.4 10.1 4.5 450 18.3 3.70 61.7 11.1 12.8 4.5 450 16.5 2.84 47.3 10.5 Red Lt. Green 4.8 480 18.3 3.84 64.0 11.5 13.3 4.8 480 16.8 2.98 49.6 10.6 5.5 550 18.6 4.04 67.4 11.7 13.5 5.5 550 17.1 3.25 54.1 11.1 3.4 340 18.6 4.27 71.2 12.4 14.3 3.4 340 16.8 2.54 42.4 9.1 20 • 13 4.1 410 4.1 18.9 4.45 74.2 12.5 14.4 410 17.1 2.79 46.6 9.6 4.5 450 19.2 4.66 77.6 12.6 4.5 450 17.1 2.91 48.5 10.0 Dk. Brown 14.6 Lt. Blue 4.8 480 19 5 5.00 83 3 13 1 15.2 48 480 17 4 3.02 50.3 10.0 5.5 550 19.5 5.32 88.6 14.0 16.1 5.5 550 17.4 3.25 541 10.8 3.4 340 19.2 4.57 76.1 12.4 14.3 3.4 340 17.4 3.04 50.7 10.1 23 • 15 • 4.1 410 19.8 4.77 79.5 12.2 14.0 4.1 410 17.7 3.25 54.1 10.4 4.5 450 19.8 4.97 82.9 12.7 14.6 Grey 4.5 450 18.0 3.36 56.0 10.4 Dk. Green 4.8 15.2 4.8 480 20.1 5.32 88.6 13.1 480 18.0 3.48 57.9 10.7 5.5 5.5 550 550 20.4 5.66 94.3 13.6 15.7 18.3 3.73 62.1 11.2 3 4 340 19.8 4 95 82 5 12 6 14 6 3.4 340 18 3 3 29 54 9 98 25 • 18 4.1 410 20.4 5.11 85.2 12.3 14.1 4.1 59.4 410 18.6 3.57 10.3 Dk. Blue 4.5 450 20.4 5.36 89.3 12.9 14.8 Red 4.5 450 18.6 3.70 61.7 10.7 4.8 480 21.0 5.75 95.8 13.0 15.0 4.8 480 18.9 3.84 64.0 10.7 5.5 550 21.6 6.11 101.8 13.0 15.1 5.5 550 19.2 4.13 68.9 11.2 4.1 4.8 480 21.6 6.38 106.4 13.6 15.7 410 18.9 4.04 67.4 11.3 28 ● 20 • 5.5 550 16.7 4.5 68.9 21.6 6.79 113.2 14.5 450 18.9 4.13 11.6 6.2 22.3 7.22 19 2 4.36 72 7 620 120.4 14.6 16.8 Dk. Brown 4.8 480 11.8 Black 6.9 690 22.9 7.66 127.6 14.6 16.9 5.5 19.5 77.6 550 4.66 12.2 6.2 620 19.8 4.95 82.5 12.6 \* Complies to ASAE standard. All precipitation rates calculated 4.1 410 19.5 4.97 82.9 13.1 for 360° operation. All triangular rates are equilateral. 23 4.5 450 19.8 4.86 81.0 12.4 To calculate precipitation rates for 180° operation, multiply by 2 Dk. Green 4.8 480 19.8 5.36 89.3 13.7 5.5 550 20.1 5.82 96.9 14.4 6.2 620 20.4 6.13 102 2 14.7 4.1 410 13.6 19.8 5.34 89.0 25 • 4.5 450 19.8 5.63 93.9 14.4 4.8 480 20.4 5.82 96.9 13.9 Dk. Blue

5.5

6.2

4.8

5.5

6.2

6.9

28 •

Black

550

620

480

550

620

690

21.0

21.6

20.1

20.7

21.3

21.6

6.20

6.59

6.11

6.56

6.95

7.34

103.3

109.8

101.8

1094

115.8

122.3

14.0

14.1

15.1

15.3

15.3

15.7

G-70-B & G-75-B NOZZLES



 $\blacksquare$ 

9.8

9.8

10.4

10.7

10.7

11.0

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12.1

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16.2

16.2

17.4

17.6

17.6

18.1



G-75-B

# **B SERIES**



These cost-effective block rotors have shorter-radius, lower-flow nozzles for use in smaller areas.

## **KEY BENEFITS**

• Adjustable, shorter-radius model (50° to 360°)

## **OPERATING SPECIFICATIONS**

- Radius: 5.5 to 15.2 m
- Flow: 0.43 to 2.91 m<sup>3</sup>/hr; 7.2 to 48.5 l/min
- Pressure range: 2.8 to 4.5 bar; 280 to 450 kPa
- All B Series Golf Rotors are pressure-rated at 10 bar; 1,000 kPa
- Check height up to 2 m in elevation change
- Nozzle range: #2 to #12



**G-35-B**Pop-up height: 8 cm
Overall height: 23 cm
Flange diameter: 12 cm
Female inlet: 11¼" (30 mm) Acme

G-35-B - SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4									
1 Model	2 Valve Options	3 Nozzle	4 Options*						
<b>G-35</b> = Full/part-circle 50° to 360°	<b>B</b> = Block rotor with check valve	6 = Installed G35 nozzle*  * Available in SSU model only  SSU = #6 (includes nozzle rack)	<b>S</b> = SSU*  * Standard stocking unit						

Example:

G-35-B-6-S = G-35 full/part-circle block rotor, installed #6 nozzle with nozzle rack, standard stocking unit model

## G-35-B NOZZLE PERFORMANCE DATA\*

Nozzle	Pres	sure	Radius	Fle	ow	Precip	mm/hr
	bar	kPa	m	m³/hr	l/min		
	2.8	280	5.5	0.43	7.2	14.3	16.6
2	3.4	340	6.1	0.48	7.9	12.8	14.8
Yellow	4.1	410	6.7	0.55	9.1	12.1	14.0
	4.5	450	7.0	0.59	9.8	12.0	13.9
	2.8	280	7.0	0.68	11.4	13.9	16.0
3	3.4	340	7.6	0.73	21.1	12.5	14.5
Yellow	4.1	410	8.2	0.80	13.2	11.7	13.6
	4.5	450	8.5	0.82	13.6	11.2	13.0
4	2.8	280	7.6	0.89	14.8	15.3	17.6
4	3.4	340	8.5	0.93	15.5	12.8	14.8
Yellow	4.1	410	9.1	1.00	16.7	12.0	13.8
	4.5	450	9.4	1.04	17.4	11.7	13.5
-	2.8	280	8.8	1.07	17.8	13.7	15.8
5	3.4	340	9.8	1.14	18.9	11.9	13.8
Yellow	4.1	410	10.1	1.20	20.1	11.9	13.7
	4.5	450	10.7	1.23	20.4	10.8	12.4
	2.8	280	9.8	1.36	22.7	14.3	16.5
6	3.4	340	10.7	1.43	23.8	12.6	14.5
Yellow	4.1	410	11.3	1.50	25.0	11.8	13.6
	4.5	450	11.9	1.54	25.7	10.9	12.6
0	2.8	280	11.0	1.77	29.5	14.7	17.0
8	3.4	340	11.9	1.82	30.3	12.9	14.8
Yellow	4.1	410	12.8	1.89	31.4	11.5	13.3
	4.5	450	13.1	1.93	32.2	11.2	13.0
10	2.8	280	11.9	2.20	36.7	15.6	18.0
10 •	3.4	340	13.1	2.29	38.2	13.4	15.4
Yellow	4.1	410	13.7	2.34	39.0	12.4	14.4
	4.5	450	14.3	2.39	39.7	11.6	13.4
10 0	2.8	280	13.4	2.73	45.4	15.2	17.5
12 •	3.4	340	14.3	2.77	46.2	13.5	15.6
Yellow	4.1	410	14.6	2.84	47.3	13.3	15.3
	4.5	450	15.2	2.91	48.5	12.5	14.5

 $<sup>^{\</sup>ast}$  Complies to ASAE standard. All precipitation rates calculated for 360° operation. All triangular rates are equilateral. To calculate precipitation rates for 180° operation, multiply by 2.

## **G-35-B NOZZLES**



## G-35-B ROTOR



# G-900 SERIES



These rotors are simple to install and perfect for retrofits. Total-Top-Serviceability makes field maintenance quick and easy.

## **KEY BENEFITS**

- G-990 is a dedicated, true full-circle model
- G-995 is an adjustable part-circle model (40° to 360°)
- Higher flow, longer radius rotor designed for single row systems
- · Contour back nozzle capability for special applications

## **OPERATING SPECIFICATIONS**

- G-990
  - Radius: 27.1 to 31.4 m
  - Flow: 12.31 to 18.92 m³/hr; 205.2 to 315.3 l/min
     Pressure range: 5.5 to 8.3 bar; 550 to 830 kPa
- G-995
  - Radius: 24.7 to 29.6 m
  - Flow: 12.47 to 19.04 m<sup>3</sup>/hr; 207.8 to 317.2 l/min
  - Pressure range: 5.5 to 8.3 bar; 550 to 830 kPa
- All TTS rotors are pressure-rated at 10 bar; 1,000 kPa
- · Check height up to 2 m in elevation change
- Nozzle range: #53 to #73
  - 3 standard trajectory (22.5°)
  - 3 low-angle trajectory (15°)

## **OPTIONS**

- C Check-o-Matic Technology checks up to 8 m in elevation change and readily converts to normally open hydraulic with through-the-top connections
- D Decoder Valve-in-Head Technology with all "E" specifications below\*
- DD Two-station decoder Valve-in-Head Technology with all "E" specifications below\*
- E Electric Valve-in-Head Technology with adjustable pressure regulation, on-off-auto selector, 210 mA (370 mA inrush) 50 Hz; 190 mA (350 mA inrush)
   60 Hz solenoid with captive plunger and internal downstream bleed
- \* All DIH rotors include two 3M DBRY-6 splices for connection to the two-wire path. See page 200 for critical recommendations on grounding DIH rotors.



## G-990C

Pop-up height: 8 cm Overall height: 34 cm Flange diameter: 19 cm Female inlet: 1½" (40 mm) Acme



## G-995E

Pop-up height: 8 cm Overall height: 34 cm Flange diameter: 19 cm Female inlet: 1½" (40 mm) Acme

G-990 & G-995 - SPECIFICATION BUILDER: ORDER 1 +	- 2	+ 3	+ 4	+ 5
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G-990 & G-995 - SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4 + 5										
1 Model	2 Valve Options	3 Nozzle	4 Regulation*	5 Options						
<b>G-990</b> = Full-circle	<b>C</b> = Check-o-Matic Technology*	<b>53 to 73</b> = Installed G-990 nozzle*	<b>P8</b> = 80 PSI; 5.5 bar; 550 kPa (nozzle 53)	<b>S</b> = SSU*						
	<b>D</b> = Decoder Valve-in-Head Technology		<b>P1</b> = 100 PSI; 6.9 bar; 690 kPa (nozzles 53 to 73)							
	<b>DD</b> = Two-station decoder Valve-in-Head Technology		<b>P2</b> = 120 PSI; 8.3 bar: 830 kPa (nozzle 73)							
	<b>E</b> = Electric Valve-in-Head Technology									
<b>G-995</b> = Adjustable arc, 40°-360°	<b>C</b> = Check-o-Matic Technology*	<b>53 to 73</b> = Installed G-995 nozzle*	<b>P8</b> = 80 PSI; 5.5 bar; 550 kPa (nozzle 53)	<b>S</b> = SSU*						
	<b>D</b> = Decoder Valve-in-Head Technology		<b>P1</b> = 100 PSI; 6.9 bar; 690 kPa (nozzles 53 to 73)							
	<b>DD</b> = Two-station decoder Valve-in-Head Technology		<b>P2</b> = 120 PSI; 8.3 bar: 830 kPa (nozzle 73)							
	<b>E</b> = Electric Valve-in-Head Technology									
	*Converts to N.O. hydraulic Valve-in-Head Technology	* SSU = #53	* SSU = P8/#53	*Standard stocking unit						

Example:

G-990-E-53-P8-S = G-990 full-circle electric Valve-in-Head Technology, installed #53 nozzle, 80 PSI; 5.5 bar; 550 kPa regulation, standard stocking unit model

### **G-990 NOZZLE PERFORMANCE DATA\* G-995 NOZZLE PERFORMANCE DATA\* G-900 NOZZLES** Precip mm/hr Nozzle Pressure Radius" Flow Precip mm/hr Nozzle Pressure Radius\* Flow **(9)** kPa m I/min $\mathbf{A}$ kPa m m³/hr l/min 5.5 550 27.1 12.31 205.2 16.7 19.3 5.5 550 24.7 12.47 207.8 20.5 23.6 **G-900 LOW-ANGLE** 53 • 53 • 6.2 620 27.4 12.88 214.6 17.1 19.8 6.2 620 25.6 12.99 216.5 19.8 22.9 **NOZZLES\*\*** 6.9 690 28.0 13.45 224.1 17.1 19.7 6.9 690 26.2 13.52 225.2 19.7 22.7 Dk. Blue Dk. Blue 7.6 760 28.3 14.02 233.6 17.4 20.1 7.6 760 26.5 14.11 235.1 20.1 23.2 🔞 🔞 🔞 8.3 830 28.7 14.58 243.0 17.8 20.5 8.3 830 26.8 14.63 243.8 20.3 23.5 5.5 550 26.2 14.15 235.8 20.6 23.8 5.5 550 28.0 14.36 23.92 18.3 21.1 \*\* Low-angle nozzles 63 • 63 ● 620 26.8 6.2 620 28.7 14.97 249.5 18.2 21.1 62 14 88 2479 20.7 239 reduce the radius by 15%. Black 6.9 690 293 15 76 265.7 18 4 21.3 Black 6.9 690 27.4 15.67 261.2 20.8 24.0 7.6 760 29.6 16.36 272.5 18.7 21.6 7.6 760 27.7 16.33 272.2 21.2 24.5 8.3 830 29.9 17.01 283.5 19.1 22.0 8.3 830 28.0 16.97 282.8 21.6 24.9 5.5 550 29.3 16.38 272.9 19.1 22.1 5.5 550 27.1 16.51 275.2 22.4 25.9 73 73 • 6.2 620 29.9 17.04 283.9 19.1 22.0 6.2 620 27.7 17.13 285.4 223 25.7 690 17.74 295.6 22.1 25.5 Orange 6.9 690 30.2 17.67 297.5 19.4 22.4 6.9 28.3 Orange 76 760 290 18 38 306.2 21.9 25.3 7.6 760 31.1 18.9 21.8 18.29 304.7 8.3 830 31.4 18.92 315.3 19.2 22.2 8.3 830 29.6 19.04 317.2 21.8 25.1



## **Contour Back-Nozzle Capabilities**

Choose any nozzle from the I-40, and G-70 nozzle racks, or from the short- and mid-range G-900 nozzles.

<sup>\*</sup> Complies to ASAE standard. All precipitation rates calculated for 360° operation. All triangular rates are equilateral.

To calculate precipitation rates for 180° operation, multiply by 2.

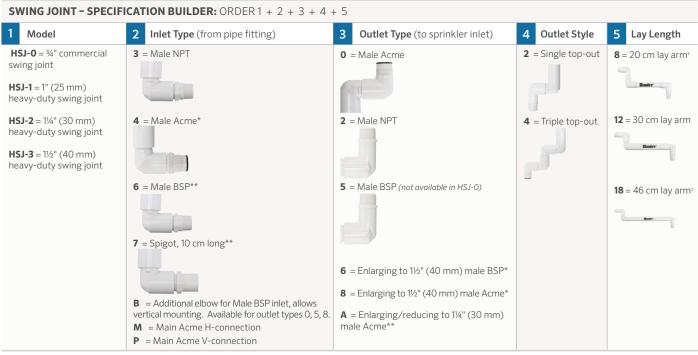
# **GOLF SWING JOINTS**

With swivel ells on both ends, SJ Swing Joints easily adjust sprinklers to proper height and position in any configuration.

## **KEY BENEFITS**

- Strength, longevity and contamination resistance
  - Prefabricated PVC design with O-ring seals
- · Configurations to meet every installation requirement
  - Available in all popular inlet and outlet configurations
  - Choose from 20 cm, 30 cm, or 46 cm lay arm lengths
  - Single top-out or triple top-out designs

# Swing Joints HSJ-0 = Model 3/4" HSJ-1 = Model 1" (25 mm) HSJ-2 = Model 11/4" (30 mm) HSJ-3 = Model 11/2" (40 mm)



## Example:

 $\textbf{HSJ-3-M-0-2-12} = \text{HSJ } 11/2" \ (40 \text{ mm}) \text{ heavy-duty swing joint, } 1/2" \ (40 \text{ mm}) \text{ male Acme horizontal connection to mainline tee, } 1/2" \ (40 \text{ mm}) \text{ male Acme single top outlet, } 30 \text{ cm lay arm length.}$ 

\* Not available in HSJ-0 or HSJ-3. Use "M" inlet for HSJ-3. \*\* Not available in HSJ-0. \*\*\* Horizontal connection reduces from 1½" (40 mm) Acme to swing joint size. † HSJ-0 only.

# **ACME ADAPTER FITTINGS**

Choose Hunter Acme Adapter Fittings for maximum system design flexibility.



## 11/4" (30 mm) Models

 1¼" (30 mm) male Acme x 1" (25 mm) female NPT
 P/N 109325

 1¼" (30 mm) male Acme x 1" (25 mm) female BSP
 P/N 105329

 1¼" (30 mm) male Acme x 1¼" (30 mm) female NPT
 P/N 474800

 1½" (30 mm) male Acme x 1½" (30 mm) female BSP
 P/N 474900

 1½" (30 mm) male Acme x 1½" (40 mm) female NPT
 P/N 104153

 1½" (30 mm) male Acme x 1½" (40 mm) female BSP
 P/N 107262



## 11/2" (40 mm) Models

 1½" (40 mm) male Acme x 1" (25 mm) female NPT
 P/N 475400

 1½" (40 mm) male Acme x 1" (25 mm) female BSP
 P/N 475500

 1½" (40 mm) male Acme x 1¼" (30 mm) female NPT
 P/N 475200

 1½" (40 mm) male Acme x 1¼" (30 mm) female BSP
 P/N 475300

 1½" (40 mm) male Acme x 1½" (40 mm) female NPT
 P/N 475000

 1½" (40 mm) male Acme x 1½" (40 mm) female BSP
 P/N 475100



## **Acme x Acme Models**

 1½" (40 mm) male Acme x 1" (25 mm) Acme female
 P/N 225300

 1½" (40 mm) male Acme x 1½" (30 mm) Acme female
 P/N 225400

 1½" (30 mm) male Acme x 1" (25 mm) Acme female
 P/N 225500



## **B2B Tee Assembly**

1½" (40 mm) Acme threaded tee and 40 mm adapter for connecting two swing joints to a single mainline connection in back-to-back installations around greens.

P/N = HSJ-305-015-3 = NPT inlet

P/N = HSJ-305-015-6 = BSP inlet

P/N = HSJ-305-015-M = Acme inlet (shown)

lot available in HSI-0

# **ROTOR ACCESSORIES**

Customise golf rotors according to course needs with these useful accessories.

## **HOSE SWIVEL ADAPTERS**

## Models

- Hose Swivel Adapter for G-900 Series (fits ¾" and 1" hose)
- Hose Swivel Adapter for G-800 Series (fits 3/4" and 1" hose)

P/N G90HS100 P/N G800HS100

P/N 987200SP

P/N 987201SP

P/N 987100SP

P/N 473800



## **Hose Swivel Adapters**

## **RUBBER COVER KITS**

## Models

- TTS-800 Series Low-Bounce Rubber Cover Kit
- TTS-800 Series Low-Bounce Rubber Cover Kit (Green)
- TTS-800 Series No-Bounce Turf Cup Kit
- G-990 Series Rubber Cover Kit (date codes 06/11 and prior only)
- G-995 Series Rubber Cover Kit (also G990 date codes 07/11 and after) P/N 473900



**Rubber Cover Kit** 



# **GOLF TOOLS**

Use these helpful tools to simplify installation and maintenance.



Arc Adjustment/ Riser Holdup Tool P/N 382800SP G-85B/GT-885



Valve Insertion/ Removal Tool P/N 604000SP TTS-800 and G-800 Series



Valve Insertion/ Removal Tool P/N 280500SP G-900 Series

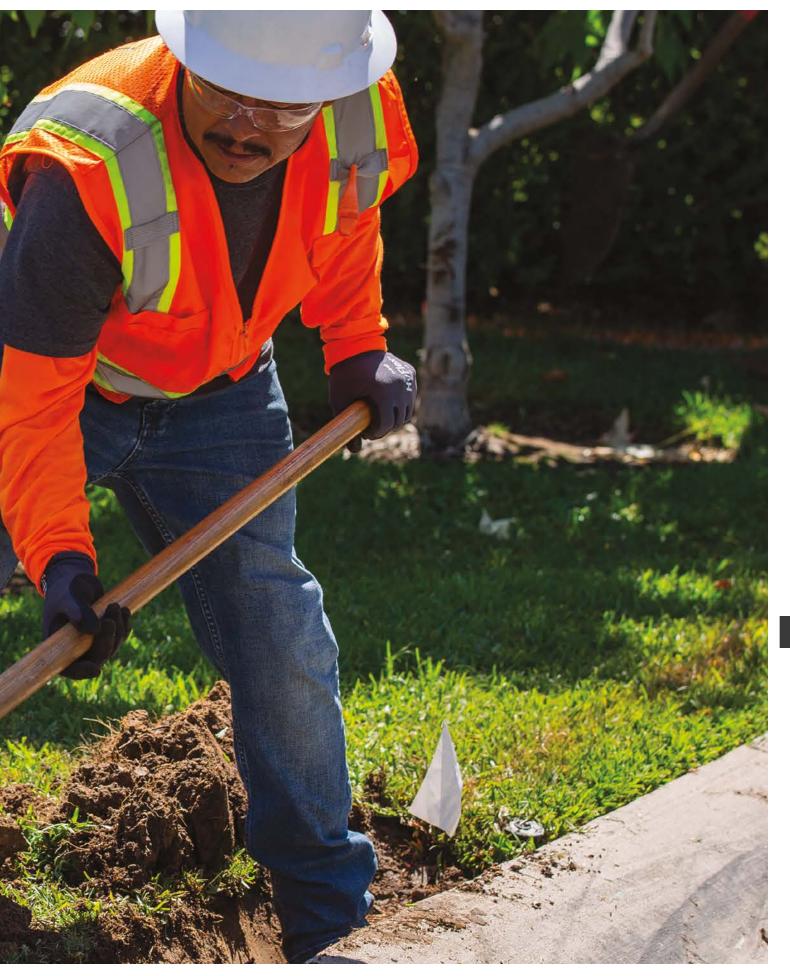


Valve & Snap Ring Insertion/Removal Pliers P/N 475600SP TTS-800 and G-800 Series



**Snap Ring Removal Tool** P/N 251000SP All Golf Models





## PRECIPITATION RATES

In this section, the "Sprinkler Spacing Method-Any Arc and Any Spacing" equation is used to calculate precipitation rates. The first set of equations with the shows the precipitation rate for the sprinklers when they are laid out in a square pattern. The next set with the shows the precipitation rate for the sprinklers laid out in an equilateral triangular spacing pattern. This is the "Sprinkler Spacing Method-Equilateral Triangular Spacing" equation.

## WHAT IS PRECIPITATION RATE?

If someone said they were caught in a rainstorm that dropped 25 mm of water in an hour, you would have some idea of how hard or heavily the rain came down. A rainstorm that covers an area with 25 mm of water in one hour has a precipitation rate of 25 mm per hour. Similarly, the precipitation rate is the speed at which a sprinkler or an irrigation system applies water.

## **MATCHED PRECIPITATION RATES**

A zone or system in which all the heads have similar precipitation rates is said to have "matched precipitation rates." Systems that have matched precipitation rates reduce wet and dry spots and minimise run times, which reduces water consumption and lowers costs. Knowing that sprinkler spacing, flow rates, and arcs of coverage affect precipitation rates, a general guideline is: as the spray arc doubles, so should the flow.



90° Arc = 1 GPM; 0.23 m<sup>3</sup>/hr; 3.8 l/min



 $180^{\circ} \text{ Arc} = 2 \text{ GPM}; 0.45 \text{ m}^3/\text{hr}; 7.6 \text{ l/min}$ 



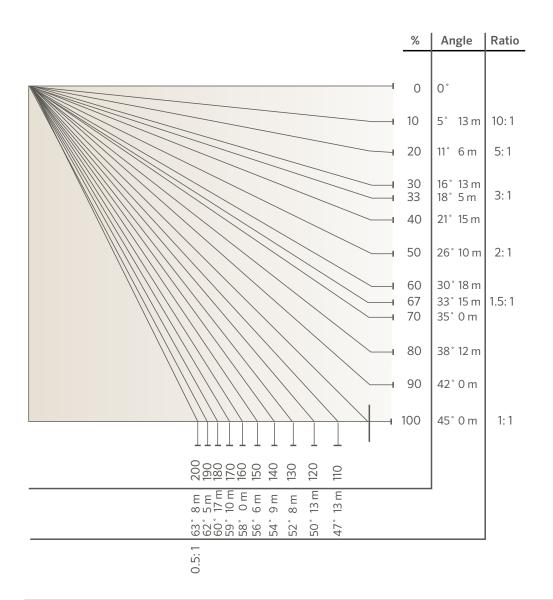
Total Area (m<sup>2</sup>)

 $360^{\circ} \text{ Arc} = 4 \text{ GPM}; 0.91 \text{ m}^3/\text{hr};$  15.1 l/min

The flow rate of half-circle heads must be two times the flow rate of the quarter-circle heads, and the full-circle heads must have two times the flow rate of the half-circle heads. In the illustration, the same amount of water is applied to each quarter circle area and precipitation is therefore matched.

CALCULATING PRECIPITATION RATES							
Depending upon the construction of the irrigation system, the p	precipitation rate may be calculated by	either a Sprinkler Spacing or a Total Area method.					
Sprinkler Spacing Method (■)	Any Arc and Any Spacing (■):						
The precipitation rate should be calculated for each individual zone. If all sprinkler heads on the zone have the same spacing, flow rate, and arc of coverage, use	P.R. (in/hr) =	Flow Rate (GPM) for any Arc x 34,650 Degrees of Arc x Head Spacing (ft.) x Row Spacing (ft.)					
one of the following formulas:	P.R. (mm/hr) =	Flow Rate (m³/hr) for any Arc x 360,000 Degrees of Arc x Head Spacing (m) x Row Spacing (m)					
	P.R. (mm/hr) =	Flow Rate (I/min) for any Arc x 21,600  Degrees of Arc x Head Spacing (m) x Row Spacing (m)					
Sprinkler Spacing Method (▲)	Equilateral Triangular Spacing (▲):						
The precipitation rate should be calculated for each individual zone. If all sprinkler heads on the zone have the same spacing, flow rate, and arc of coverage, use	P.R. (in/hr) =	Flow Rate (GPM) for any Arc x 34,650 Degrees of Arc x (Head Spacing) <sup>2</sup> x 0.866					
one of the following formulas:	P.R. (mm/hr) =	Flow Rate (m³/hr) for any Arc x 360,000 Degrees of Arc x (Head Spacing) <sup>2</sup> x 0.866					
	P.R. (mm/hr) =	Flow Rate (I/min) for any Arc x 21,600 Degrees of Arc x (Head Spacing) <sup>2</sup> x 0.866					
Total Area Method							
The precipitation rate for a "system" is the average precipitation rate of all sprinklers in an area, regardless of the spacing, flow rate, or arc for each head. The Total Area Method	P.R. (in/hr) =	Flow (GPM) x 96.25 Total Area (ft.)					
calculates all the flows of all of the heads in any given area.	P.R. (mm/hr) =	Flow (m³/hr) x 1,000 Total Area (m²)					
	PR (mm/hr) =	Flow (I/min) x 60					

# **SLOPE EQUIVALENTS/IRRIGATION**



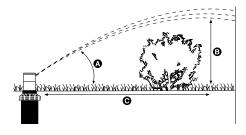
SLOPE IRRIGATION: Maximum precipitation rates for slopes in mm/hr										
Soil Texture	0 to 5%	Slope	5 to 8% Slope		8 to 12% Slope		12%+ Slope			
	Cover	Bare	Cover	Bare	Cover	Bare	Cover	Bare		
Coarse sandy soils	51	51	51	38	38	25	25	13		
Coarse sandy soils over compact subsoils	44	38	32	25	25	19	19	10		
Light sandy loams uniform	44	25	32	20	25	15	19	10		
Light sandy loams over compact subsoils	32	19	25	13	19	10	13	8		
Uniform silt loams	25	13	20	10	15	8	10	5		
Silt loams over compact subsoil	15	8	13	6	10	4	8	3		
Heavy clay or clay loam	5	4	4	3	3	2	3	2		

## Notes

The maximum precipitation values listed below are those suggested by the United States Department of Agriculture. The values are average and may vary with respect to actual soil and groundcover conditions.

# **HEIGHT OF SPRAY**

The trajectory and spray height of the water stream leaving a sprinkler nozzle is important information when designing and installing irrigation systems.



These rotor nozzle trajectory charts are designed to help determine how close a sprinkler can be placed to an object such as a fence or hedge without obstructing the spray pattern. All information shown is at optimum operating pressures.

HUNTER NOZ	ZLE HEIGHT	AND T	RAJECTO	DRY CHART		
Model	Nozzle No.	<b>Pres</b>	<b>sure</b> kPa	Degrees of Trajectory	Max Height of Spray (m)	Distance from Head to Maximum Height (m)
MP ROTATOR®	800SR	2.8	280	18	0.5	Varies
	815	2.8	280	15	0.3	Varies
	1000	2.8	280	20	0.5	Varies
	2000	2.8	280	26	1.1	Varies
	3000	2.8	280	26	2.0	Varies
	3500	2.8	280	28	2.5	Varies
	Corner	2.8	280	14	0.4	Varies
	Side Strip	2.8	280	16	0.5	Varies
	Left Strip	2.8	280	16	0.5	Varies
PGJ/SRM	0.50	2.8	280	10	0.6	1.2
	0.75	2.8	280	10	0.6	1.2
	1.0	2.8	280	10	0.6	2.4
	1.5	2.8	280	10	0.9	3.7
	2.0	2.8	280	15	1.5	4.9
	2.5	2.8	280	12	1.5	6.1
	3.0	2.8	280	15	1.5	6.1
	4.0	2.8	280	15	1.5	6.7
PGP® RED	1.0	3.5	350	26	2.1	6.7
NOZZLES	2.0	3.5	350	26	2.1	6.7
	3.0	3.5	350	26	2.4	7.0
	4.0	3.5	350	26	2.4	7.0
	5.0	3.5	350	27	2.7	7.9
	6.0	3.5	350	27	3.0	8.5
	7.0	3.5	350	26	3.4	9.1
	8.0	3.5	350	26	3.4	9.1
	9.0	3.5	350	27	3.7	9.8
	10.0	4.0	400	25	4.0	9.8
	11.0	4.0	400	25	4.0	11.6
	12.0	4.0	400	25	4.0	12.2
PGP LOW-	4.0	3.5	350	15	1.5	6.7
ANGLE GREY	5.0	3.5	350	15	1.2	6.7
NOZZLES	6.0	3.5	350	14	1.2	6.7
	7.0	3.5	350	14	1.2	6.7
	8.0	3.5	350	14	1.5	7.3
	9.0	3.5	350	15	1.5	7.9
	10.0	4.0	400	15	1.8	9.1
PGP BLUE	1.5	3.0	300	25	2.4	7.0
NOZZLES	2.0	3.0	300	25	2.4	7.0
	2.5	3.0	300	25	2.7	7.9
	3.0	3.0	300	25	3.0	8.5
	4.0	3.0	300	25	3.4	9.1
	5.0	3.0	300	25	3.4	9.1
	6.0	3.8	380	25	3.7	9.8
202	8.0	3.8	380	25	4.0	9.8
PGP ULTRA/I-20	1.0	3.5	350	26	2.4	7.0
DARK BLUE	1.5	3.5	350	26	2.4	7.0
NOZZLES	2.0	3.5	350	27	2.7	7.9
NOLLLIS	3.0	3.5	350	27	3.0	8.5
	3.5	3.5	350	26	3.4	9.1
	4.0	3.5	350	26	3.4	9.1
	6.0	3.5	350	27	3.7	9.8
DCD	8.0	4.0	400	25	4.0	9.8
PGP ULTRA/I-20	1.5	3.0	300	25	2.4	7.0
BLUE NOZZLES	2.0	3.0	300	25	2.4	7.0
DEGE NOZZEES	2.5	3.0	300	25	2.7	7.9
	3.0	3.0	300	25	3.0	8.5
	4.0	3.0	300	25	3.4	9.1
	5.0	3.0	300	25	3.4	9.1
	6.0	3.8	380	25 25	3.7	9.8
	8.0	3.8	380	25	4.0	9.8

# **HEIGHT OF SPRAY**

Model	Nozzle No.	Pres	sure	Degrees of	Max Height	Distance from Head to
		bar	kPa	Trajectory	of Spray (m)	Maximum Height (m)
PGP™ Ultra/I-20	2.0 LA	3.5	350	13	1.5	6.7
Low-Angle	2.5 LA	3.5	350	13	1.2	6.7
Grey Nozzles	3.5 LA	3.5	350	13	1.2	6.7
	4.5 LA	3.5	350	13	1.2	6.7
PGP Ultra/I-20	0.5	3.5	350	15	1.5	2.4
Short Radius	1.0	3.5	350	14	1.8	2.7
Black Nozzles	2.0	3.5	350	3	0.3	1.8
PGP Ultra/I-20	0.75	3.5	350	22	2.1	4.0
Short Radius	1.5	3.5	350	18	2.1	4.0
Black Nozzles	3.0	3.5	350	8	0.3	1.8
PGP Ultra/I-20	Q - 90	3.0	300	22	0.9	4.6
MPR-25 Red Nozzles	T - 120	3.0	300	21	1.2	4.2
WIFK-25 Keu NOZZIES	H - 180	3.0	300	24	1.2	4.2
	F - 360	3.0	300	22	1.2	3.0
PGP Ultra/I-20	0 - 90	3.0	300	28	1.5	5.4
	T - 120	3.0	300	14	0.9	5.1
MPR-30 Lt. Green	H - 180	3.0	300	16	1.2	4.8
Nozzles	F - 360	3.0	300	18	0.6	3.9
DCD 1114 /1 20	Q - 90	3.0	300	28	1.8	5.7
PGP Ultra/I-20	T - 120	3.0	300	28	1.8	5.4
MPR-35 Tan Nozzles	H - 180	3.0	300	16	1.2	5.1
	F - 360	3.0	300	14	0.9	3.6
I-25	4	3.5	350	25	2.7	6.7
	7	3.5	350	25	3.0	8.5
	8	3.5	350	25	3.4	8.5
	10	4	400	25	3.7	9.1
	13	4	400	25	4.0	9.4
	15	4	400	25	3.7	9.4
	18	4	400	25	4.6	10.4
	20	5	500	25	4.6	10.7
	23	5	500	25	4.9	11.6
	25	5	500	25	4.9	11.6
	28	5	500	25	5.2	12.2
	8	3.5	350	25	3.7	9.8
I-40/I-50	10	4.0	400	25	4.3	9.8
Adjustable	13	4.0	400	25	4.3	10.4
	15	4.0	400	25	4.6	12.8
	23	5.0	500	25	5.2	14.0
	25 25	5.0	500	25 25	5.2	14.6
I-40/I-50-0N	15	4.0	400	25	4.6	12.8
70/130 011	18	4.0	400	25	4.8	13.1
	20	5.0	500	25 25	5.2	13.7
	23	5.0	500	25 25	5.2	14.0
	25	5.0	500	25	5.2	14.6

# **HEIGHT OF SPRAY**

HUNTER NOZZLE H	HEIGHT AND TR	RAJECTOR	Y CHART			
Model	Nozzle No.	Pres	ssure	Degrees of Trajectory	Max Height of Spray (m)	Distance from Head to Maximum Height (m)
		bar	kPa	.,,		3 ( )
I-80 & I-90 ADV	23	5.5	550	22.5	4.3	11.3
	25	5.5	550	22.5	4.6	12.2
	33	5.5	550	22.5	4.6	12.8
	38	5.5	550	22.5	4.9	14.6
	43	5.5	550	22.5	4.9	14.6
	48	5.5	550	22.5	5.2	16.5
	53	5.5	550	22.5	5.2	17.1
	63	5.5	550	22.5	5.5	19.5
	73	5.5	550	22.5	5.8	20.7
I-80-ON & I-90 36V	23	5.5	550	22.5	4.3	12.5
	25	5.5	550	22.5	4.6	14.0
	33	5.5	550	22.5	4.6	14.0
	38	5.5	550	22.5	4.9	15.3
	43	5.5	550	22.5	4.9	16.5
	48	5.5	550	22.5	5.2	17.1
	53	5.5	550	22.5	5.2	17.7
	63	5.5	550	22.5	5.5	18.9
	73	5.5	550	22.5	5.8	20.7

## PILOT-FC FIELD CONTROLLER ELECTRICAL SPECIFICATIONS

## **ELECTRICAL SPECIFICATIONS**

## Supply Voltage

Auto-sensing frequency (50 or 60 Hz) 120 VAC nominal (100 to 132 VAC)<sup>1</sup> 230 VAC nominal (200 to 260 VAC)<sup>1</sup> Station output: 24 VAC at 1.0 A

## **CAPACITIES**

## **Station Capacity**

80 stations

Up to 20 stations can run simultaneously

## Station Solenoid Load

Up to four 24 VAC Hunter golf solenoids per station output<sup>3</sup>

- 1. To prevent damage, all Pilot-FC controllers are shipped with the supply voltage set to 230 VAC.
- 2. One 24 VAC Hunter golf solenoid per station.
- 3. Multiple solenoids connected to a single station will reduce total simultaneous stations.

## PILOT-DH TWO-WAY HUB ELECTRICAL SPECIFICATIONS

## **ELECTRICAL SPECIFICATIONS**

## Supply Voltage

Auto-sensing frequency (50 or 60 Hz)
Auto-switching 120/230 VAC nominal (100 to 277 VAC at 50/60 Hz)<sup>1</sup>

## **CAPACITIES**

## **Integrated Two-Way Module Capacity**

Up to 999 integrated two-way modules per Pilot-DH two-way hub Up to 120 24 VAC Hunter golf solenoids on at one time $^2$ 

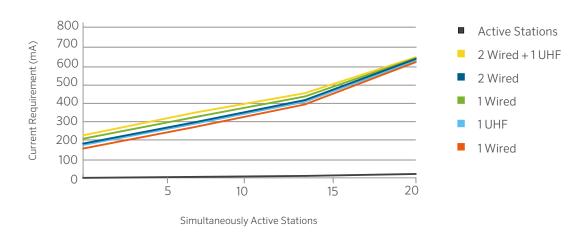
## Integrated Two-Way Module Solenoid Load

Up to two 24 VAC Hunter golf solenoids per integrated two-way module<sup>3</sup>

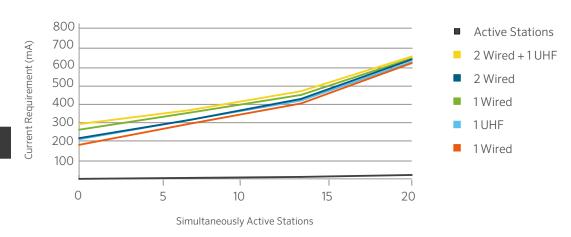
- 1. The Pilot-DH hub automatically detects supply voltage and frequency.
- $2.\ Depends on configuration.\ Pilot-DH \ will \ run \ up \ to \ 30 \ stations \ simultaneously \ per \ output \ module.$
- 3. Two solenoids per two-way module does not reduce the maximum simultaneous station count.

# PILOT-FC CURRENT REQUIREMENT CHARTS

PILOT-FC FIELD CONTROLLER CURRENT REQUIREMENTS: 230 VAC/50 Hz Supply Voltage, 10 to 40 Stations Various Loads and Communication Options



PILOT-FC FIELD CONTROLLER CURRENT REQUIREMENTS: 230 VAC/50 Hz Supply Voltage, 50 to 80 Stations Various Loads and Communication Options



# **CONVERSION FACTORS**

To Convert	From	То	Multiply By
Area	acres	foot <sup>2</sup>	43560
	acres	metre <sup>2</sup>	4046.8
	metre <sup>2</sup>	foot <sup>2</sup>	10.764
	foot <sup>2</sup>	inch <sup>2</sup>	144
	inch <sup>2</sup>	centimetre <sup>2</sup>	6.452
	hectares	metre <sup>2</sup>	10000
	hectares	acres	2.471
ower	kilowatts	horsepower	1.341
low	foot³/minute	metre <sup>3</sup> /second	0.0004719
	foot <sup>3</sup> /second	metre <sup>3</sup> /second	0.02832
	yards³/minute	metre <sup>3</sup> /second	0.01274
	gallon/minute	metre <sup>3</sup> /hour	0.22716
	gallon/minute	litre/minute	3.7854
	gallon/minute	litre/second	0.06309
	metre <sup>3</sup> /hour	litre/minute	16.645
	metre <sup>3</sup> /hour	litre/second	0.2774
	litre/minute	litre/second	60
ength	foot	inch	12
	inch	centimetre	2.54
	foot	metre	0.30481
	kilometre	miles	0.6214
	miles	foot	5280
	miles	metre	1609.34
	millimetre	inch	0.03937
essure	PSI	kilopascals	6.89476
	PSI	bar	0.068948
	bar	kilopascals	100
	PSI	feet of head	2.31
elocity	feet/second	metre/second	0.3048
olume o	feet <sup>3</sup>	gallon	7.481
	feet <sup>3</sup>	litre	28.32
	metre <sup>3</sup>	feet <sup>3</sup>	35.31
	metre <sup>3</sup>	yard <sup>3</sup>	1.3087
	yard <sup>3</sup>	feet <sup>3</sup>	27
	yard <sup>3</sup>	gallon	202
	acres/feet	foot <sup>3</sup>	43,560
	gallon	metre <sup>3</sup>	0.003785
	gallon	litre	3.785
	imperial gallon	gallon	1.833

# FRICTION LOSS CHARTS - UPVC PIPE CLASS 3 (6 BAR)

Nomi	al Size	40 -	nm	50 -	nm	62 -	nm	75 n	ım	۵0 -	nm	110 ו	mm	160	mm	200	mm
Pipe ID Pipe OD Wall Thick		40 mm 36.4 mm 40 mm 1.8 mm		50 mm 46.4 mm 50 mm 1.8 mm		63 mm 59.2 mm 63 mm 1.9 mm		70.6 mm 75 mm 2.2 mm		90 mm 84.6 mm 90 mm 2.7 mm		103.6 110 i 3.2 i	mm mm	160 mm 153.2 mm 160 mm 3.4 mm		188.2 mi 200 mn 5.9 mm	
Flow I/min	Flow m³/hr	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss
3.8	0.25	111/5	1055	111/5	1055	111/5	1055	111/5	1055	111/5	1055	111/5	1055	111/5	1055	111/5	1055
7.6	0.5																
11.4	0.75																
15.1	1	0.3	0.03														
26.5	1.5	0.4	0.06	0.2	0.02												
34.1 41.6	2 2.5	0.5 0.7	0.09	0.3	0.03												
49.2	3	0.7	0.14	0.5	0.04												
56.8	3.5	0.9	0.27	0.6	0.08												
68.1	4	1.1	0.34	0.7	0.10												
83.3	5	1.3	0.52	0.8	0.16												
98.4	6	1.6	0.72	1.0	0.22	0.6	0.07	0.4	0.03								
117.3	7	1.9 2.1	0.96	1.1	0.30	0.7	0.09	0.5	0.04								
132.5 151.4	9	2.1	1.23	1.3 1.5	0.38	0.8	0.12	0.6	0.05								
166.6	10	2.4	1.86	1.6	0.47	1.0	0.14	0.0	0.07								
181.7	11			1.8	0.68	1.1	0.21	0.8	0.09	0.5	0.04						
200.6	12			2.0	0.8	1.2	0.24	0.9	0.10	0.6	0.04						
215.8	13			2.1	0.93	1.3	0.28	0.9	0.12	0.6	0.05						
234.7	14			2.3	1.07	1.4	0.33	1.0	0.14	0.7	0.06						
249.8	15 16			2.5	1.21	1.5	0.37	1.1	0.16	0.7	0.06	0.5	0.02				
265.0 283.9	17					1.7	0.42	1.1	0.18	0.8	0.07	0.5	0.03				
299.0	18					1.8	0.52	1.3	0.22	0.9	0.09	0.6	0.03				
318.0	19					1.9	0.57	1.3	0.24	0.9	0.10	0.6	0.04				
333.1	20					2.0	0.63	1.4	0.27	1.0	0.11	0.7	0.04				
348.3	21					2.1	0.69	1.5	0.29	1.0	0.12	0.7	0.05				
367.2	22					2.2	0.75	1.6	0.32	1.1	0.13	0.7	0.05				
382.3 401.3	23 24					2.3	0.82	1.6 1.7	0.35	1.1 1.2	0.14	0.8	0.05				
416.4	25							1.8	0.40	1.2	0.10	0.8	0.06				
431.5	26							1.8	0.43	1.3	0.18	0.9	0.07				
450.5	27							1.9	0.47	1.3	0.19	0.9	0.07				
465.6	28							2.0	0.50	1.4	0.21	0.9	0.08				
484.5	29							2.1	0.53	1.4	0.22	1.0	0.08				
499.7 583.0	30 35							2.1	0.57	1.5	0.23	1.0	0.09				
666.2	40									2.0	0.40	1.3	0.12				
749.5	45									2.2	0.50	1.5	0.19				
832.8	50											1.6	0.23				
916.1	55											1.8	0.27				
999.3	60											2.0	0.32	1.0	0.05		
1082.6 1165.9	65 70											2.1 2.3	0.37	1.0 1.1	0.05		
1249.2	75											2.3	0.42	1.1	0.00		
1332.5	80													1.2	0.08		
1415.7	85													1.3	0.09		
1499.0	90													1.4	0.10		
1665.6	100													1.5	0.12	1.0	0.04
1832.1	110													1.7	0.14	1.1	0.05
1998.7 2165.3	120 130													1.8 2.0	0.17	1.2 1.3	0.06
2331.8	140													2.0	0.20	1.3	0.07
2498.4														2.3	0.26	1.5	0.09

**Notes:** Shaded areas represent velocities over 1.5 m/s. Use with caution when water hammer is a concern.

# FRICTION LOSS CHARTS - UPVC PIPE CLASS 4 (10 BAR)

Nominal Size Pipe ID Pipe OD Wall Thick		25 mm 22 mm 25 mm 1.5 mm		32 mm 28.4 mm 32 mm 1.8 mm		40 mm 36.2 mm 40 mm 1.9 mm		50 mm 45.2 mm 50 mm 2.4 mm		63 mm 57 mm 63 mm 3.0 mm		75 mm 67.8 mm 75 mm 3.6 mm		90 mm 81.4 mm 90 mm 4.3 mm		110 mm 99.4 mm 110 mm 5.3 mm		160 mm 144.6 mm 160 mm 7.7 mm		200 mm 180.8 mm 200 mm 9.6 mm	
Flow I/min	Flow m³/hr	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss
3.8	0.25	0.2	0.02	111/ 5	1033	111/ 5	1033	111/ 5	1033	111/ 5	1033	111/ 5	1033	111/ 5	1033	111/3	1033	111/ 5	1033	111/ 5	103.
7.6	0.5	0.4	0.08																		
11.4	0.75	0.5	0.18																		
15.1 26.5	1.5	0.7	0.30	0.7	0.19																
34.1	2	1.5	1.10	0.9	0.32																
41.6	2.5	1.8	1.66	1.1	0.48	0.7	0.15														
49.2	3	2.2	2.33	1.3	0.67	0.8	0.21														
56.8	3.5	2.6	3.10	1.5	0.89	0.9	0.27	0.7	0.40												
68.1 83.3	4 5			1.8 2.2	1.14 1.73	1.1 1.3	0.35	0.7 0.9	0.12 0.18												
98.4	6			2.6	2.42	1.6	0.74	1.0	0.15	0.7	0.08										
117.3	7					1.9	0.99	1.2	0.34	0.8	0.11										
132.5	8					2.2	1.27	1.4	0.43	0.9	0.14										
151.4	9					2.4	1.58	1.6	0.53	1.0	0.17	0.7	0.07								
166.6 181.7	10							1.7 1.9	0.65	1.1	0.21	0.8	0.09								
200.6	12							2.1	0.77	1.3	0.25	0.8	0.11								
215.8	13							2.3	1.06	1.4	0.34	1.0	0.15								
234.7	14							2.4	1.21	1.5	0.39	1.1	0.17								
249.8	15							2.6	1.38	1.6	0.44	1.2	0.19								
265.0	16									1.7	0.50	1.2	0.22	0.9	0.09						
283.9 299.0	17 18									1.9 2.0	0.56	1.3 1.4	0.24	0.9 1.0	0.10						
318.0	19									2.1	0.69	1.5	0.30	1.0	0.12						
333.1	20									2.2	0.76	1.5	0.33	1.1	0.13						
348.3	21									2.3	0.83	1.6	0.36	1.1	0.15						
367.2	22									2.4	0.90	1.7	0.39	1.2	0.16						
382.3 401.3	23 24									2.5	0.98	1.8 1.8	0.42	1.2 1.3	0.17						
416.4	25											1.9	0.49	1.3	0.20						
431.5	26											2.0	0.53	1.4	0.22	0.9	0.08				
150.5	27											2.1	0.57	1.4	0.23	1.0	0.09				
165.6	28											2.2	0.61	1.5	0.25	1.0	0.09				
484.5 499.7	29 30											2.2	0.65	1.5 1.6	0.27	1.0 1.1	0.10	0.5	0.02		
583.0	35											2.3	0.03	1.9	0.38	1.3	0.14	0.6	0.02		
566.2	40													2.1	0.48	1.4	0.18	0.7	0.03		
749.5	45													2.4	0.60	1.6	0.23	0.8	0.04		
332.8	50															1.8	0.28	0.8	0.04		
916.1 999.3	55 60															2.0	0.33	0.9	0.05		
082.6	65															2.3	0.39	1.1	0.00		
165.9	70															2.5	0.51	1.2	0.08		
249.2	75															2.7	0.58	1.3	0.09		
332.5	80															2.9	0.66	1.4	0.11		
415.7 499.0	85 90															3.0 3.2	0.74	1.4 1.5	0.12	1.0	0.04
665.6	100															3.2	0.02	1.7	0.15	1.1	0.02
832.1	110																	1.9	0.19	1.2	0.06
998.7	120																	2.0	0.22	1.3	0.08
2165.3	130																	2.2	0.26	1.4	0.09
.331.8 498.4	140 150																	2.4	0.30	1.5	0.10

 $\textbf{Notes:} \ \textbf{Shaded areas represent velocities over 1.5 m/s. Use with caution when water hammer is a concern.}$ 

# FRICTION LOSS CHARTS - UPVC PIPE CLASS 5 (16 BAR)

Nominal Size Pipe ID Pipe OD Wall Thick		25 mm 21.2 mm 25 mm 1.5 mm		32 mm 27.2 mm 32 mm 1.8 mm		40 mm 34 mm 40 mm 1.9 mm		50 mm 42.6 mm 50 mm 2.4 mm		63 mm 53.6 mm 63 mm 3 mm		75 mm 63.8 mm 75 mm 3.6 mm		90 mm 76.6 mm 90 mm 4.3 mm		110 mm 93.6 mm 110 mm 5.3 mm		160 mm 136.2 mm 160 mm 7.7 mm		200 mm 170.2 mm 200 mm 14.9 mm	
Flow I/min	Flow m³/hr	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	loss	Velocity m/s	/ bar loss	Velocity m/s	/ bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss
3.8	0.25	0.2	0.03																		
7.6	0.5	0.4	0.10																		
11.4	0.75	0.6	0.21	0.4	0.06	0.0															
15.1 26.5	1.5	0.8	0.36	0.5	0.11	0.3	0.04	0.3	0.03												
34.1	2	1.6	1.32	1.0	0.23	0.5	0.08	0.5	0.03												
41.6	2.5	2.0	1.99	1.2	0.59	0.8	0.20	0.5	0.07												
49.2	3	2.4	2.79	1.4	0.83	0.9	0.28	0.6	0.09												
56.8	3.5			1.7	1.10	1.1	0.37	0.7	0.12												
68.1	4			1.9	1.41	1.2	0.48	0.8	0.16												
83.3	5			2.4	2.13	1.5	0.72	1.0	0.24												
98.4	6 7					1.8	1.01	1.2	0.34	0.7	0.11										
117.3 132.5	8					2.1 2.4	1.34 1.72	1.4	0.45	0.9 1.0	0.15										
151.4	9					2.4	1.72	1.8	0.71	1.1	0.13										
166.6	10							1.9	0.87	1.2	0.28										
181.7	11							2.1	1.03	1.4	0.34	1.0	0.14								
200.6	12							2.3	1.21	1.5	0.40	1.0	0.17								
215.8	13									1.6	0.46	1.1	0.20								
234.7 249.8	14 15									1.7 1.8	0.53	1.2 1.3	0.23								
265.0	16									2.0	0.68	1.4	0.20	1.0	0.12						
283.9	17									2.1	0.76	1.5	0.32	1.0	0.13						
299.0	18									2.2	0.84	1.6	0.36	1.1	0.15						
318.0	19									2.3	0.93	1.7	0.40	1.1	0.16						
333.1	20									2.5	1.02	1.7	0.44	1.2	0.18						
348.3	21											1.8	0.48	1.3	0.20						
367.2 382.3	22 23											1.9 2.0	0.52	1.3 1.4	0.21						
401.3	24											2.0	0.57	1.4	0.25	1.0	0.09				
416.4	25											2.2	0.66	1.5	0.27	1.0	0.10				
431.5	26											2.3	0.71	1.6	0.29	1.0	0.11				
450.5	27											2.3	0.76	1.6	0.31	1.1	0.12				
465.6	28											2.4	0.82	1.7	0.33	1.1	0.13				
484.5 499.7	29 30											2.5	0.87	1.7 1.8	0.36 0.38	1.2 1.2	0.13				
583.0	35													2.1	0.50	1.4	0.14				
666.2	40													2.4	0.65	1.6	0.24				
749.5	45													2.7	0.81	1.8	0.30				
832.8	50															2.0	0.37	1.0	0.06		
916.1	55															2.2	0.44		0.07		
999.3	60 65															2.4	0.52	1.1	0.08		
1082.6 1165.9	70															2.8	0.60	1.2	0.10		
1249.2	75															3.0	0.78	1.4	0.13		
1332.5	80															3.2	0.88	1.5	0.14		
1415.7	85																	1.6	0.16		
1499.0	90																	1.7	0.18		
1665.6	100																	1.9	0.21	1.2	0.07
1832.1 1998.7	110 120																	2.1	0.26	1.3 1.5	0.09
2165.3	130																	2.5	0.35	1.6	0.10
2331.8	140																	2.7	0.40	1.7	0.12
2498.4																		2.9	0.45		0.15

**Notes:** Shaded areas represent velocities over 1.5 m/s. Use with caution when water hammer is a concern.

# FRICTION LOSS CHARTS - SCHEDULE 40 IPS PVC PLASTIC PIPE

Nomir Pipe C Pipe II Pipe II Wall T	O O mm	1 1.3 1.0 26. 0.1	49" .64	1.6 1.3 35	4" 66" 80" .05 40"	1.9 1.6 40	½" 00" 10" .89 45"	2.3 2.0 52	75" 67" .50 54"	2.3 2.4 62	⁄2" 75" 69" .71 03"	3.50 3.00 77. 0.2	00" 68" 93	4.5 4.0 102	1" 000" 026" 2.26 237"	6.6 6.0 154	5" 25" 65" 05 80"	8 8.6 7.9 202 0.3	25" 81" 2.72
Flow I/min	Flow m³/hr	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	y bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss
3.8	0.25	0.1	0.01	111/5	1055	111/3	1055	111/5	1055	111/3	1055	111/5	1055	111/5	1055	111/5	1055	111/5	1053
7.6	0.5	0.2	0.03																
11.4	0.75	0.4	0.07	0.2	0.02														
15.1	1	0.5	0.12	0.3	0.03	0.2	0.01												
26.5	1.5	0.7	0.25	0.4	0.07	0.3	0.03	0.2	0.01										
34.1 41.6	2 2.5	1.0	0.43	0.6	0.11 0.17	0.4	0.05	0.3	0.02										
49.2	3	1.5	0.03	0.7	0.17	0.5	0.00	0.3	0.02										
56.8	3.5	1.7	1.22	1.0	0.32	0.7	0.15	0.4	0.04										
68.1	4	2.0	1.56	1.2	0.41	0.8	0.19	0.5	0.06										
83.3	5	2.5	2.36	1.4	0.62	1.1	0.29	0.6	0.09										
98.4	6			1.7	0.87	1.3	0.41	0.8	0.12	0.5	0.05	0.3	0.02						
117.3 132.5	7			2.0	1.16 1.48	1.5 1.7	0.55	0.9	0.16 0.21	0.6 0.7	0.07	0.4	0.02						
151.4	9			2.6	1.84	1.9	0.70	1.2	0.26	0.7	0.03	0.5	0.03						
166.6	10			2.9	2.24	2.1	1.06	1.3	0.31	0.9	0.13	0.6	0.05						
181.7	11					2.3	1.26	1.4	0.37	1.0	0.16	0.6	0.05						
200.6	12					2.5	1.48	1.5	0.44	1.1	0.18	0.7	0.06						
215.8 234.7	13 14					2.7 3.0	1.72 1.97	1.7 1.8	0.51 0.58	1.2 1.3	0.21	0.8	0.07						
249.8	15					3.2	2.24	1.0	0.56	1.3	0.23	0.8	0.09						
265.0	16					3.2	2.2	2.1	0.75	1.4	0.31	0.9	0.11						
283.9	17							2.2	0.84	1.5	0.35	1.0	0.12						
299.0	18							2.3	0.93	1.6	0.39	1.0	0.14						
318.0	19							2.4	1.03	1.7	0.43	1.1	0.15						
333.1 348.3	20							2.6	1.13	1.8	0.48	1.2	0.17						
367.2	22									2.0	0.57	1.3	0.18						
382.3	23									2.1	0.62	1.3	0.21						
401.3	24									2.2	0.67	1.4	0.23						
416.4	25									2.2	0.72	1.5	0.25						
431.5	26									2.3	0.77	1.5	0.27						
450.5 465.6	27 28									2.4	0.83	1.6 1.6	0.29						
484.5	29											1.7	0.31						
499.7	30											1.7	0.35						
583.0	35											2.0	0.47	1.2	0.12				
666.2	40											2.3	0.60	1.4	0.16				
749.5	45 50											2.6	0.74	1.5	0.20				
832.8 916.1	50 55											2.9	0.90	1.7 1.9	0.24				
999.3	60													2.0	0.34				
082.6	65													2.2	0.39	1.0	0.07		
165.9	70													2.4	0.45	1.0	0.08		
249.2	75													2.5	0.51	1.1	0.09		
332.5 1415.7	80 85													2.7 2.9	0.57	1.2 1.3	0.10 0.11		
499.0	90													3.0	0.04	1.3	0.11	0.8	0.03
665.6	100													5.0		1.5	0.15	0.9	0.03
832.1	110															1.6	0.18	0.9	0.04
998.7	120															1.8	0.21	1.0	0.04
2165.3	130															1.9	0.25	1.1	0.05
2331.8 498.4	140 150															2.1 2.1	0.28	1.2 1.3	0.06

 $\textbf{Notes:} \ \text{Shaded areas represent velocities over 1.5 m/s.} \ \text{Use with caution when water hammer is a concern.}$ 

# FRICTION LOSS CHARTS - SCHEDULE 80 IPS PVC PLASTIC PIPE

Nomi	al C:	1		41	/4"	11/	<u>( II </u>	-	2"	21	⁄2"	-	3"		1"		5"		8"
Pipe C Pipe II Pipe II Wall T	O O mm	1.3° 0.9 24 0.1°	15" 57" .31	1.6 1.2 32	/4" 60" 78" .46  91"	1.90 1.50 38. 0.20	00" 00" .10	2.3 1.9 49	75" 75" 39" .25		75" 23" .00	3.50 2.90 73.		4.5 3.8 97	4" 600" 826" 7.18 837"	6.6 5.7 146	5"  25"  61"  5.33  32"	8.6 7.6 193	5" 25" 25" 3.68 00"
Flow	Flow	Velocity		Velocity		Velocity		Velocity		Velocity		Velocity		Velocity		Velocity		Velocity	
1/min 3.8	m³/hr 0.25	m/s 0.1	0.01	m/s	loss	m/s	loss	m/s	loss	m/s	loss	m/s	loss	m/s	loss	m/s	loss	m/s	loss
7.6	0.23	0.1	0.01																
11.4	0.75	0.4	0.11	0.3	0.03														
15.1	1	0.6	0.19	0.3	0.05	0.2	0.02												
26.5	1.5	0.9	0.40	0.5	0.10	0.4	0.04		0.01										
34.1	2	1.2	0.68	0.7	0.17	0.5	0.08		0.02										
41.6 49.2	2.5	1.5 1.8	1.02	0.8	0.25	0.6	0.11	0.4	0.03										
56.8	3.5	2.1	1.43	1.0	0.33	0.7	0.10	0.4	0.03										
68.1	4	2.4	2.44	1.3	0.60	1.0	0.27	0.6	0.08										
83.3	5	3.0	3.69	1.7	0.90	1.2	0.41	0.7	0.12										
98.4	6			2.0	1.26	1.5	0.58	0.9	0.17	0.6	0.07	0.4	0.02						
117.3	7			2.3	1.68	1.7	0.77	1.0	0.22	0.7	0.09	0.5	0.03						
132.5	8			2.7	2.15	1.9 2.2	0.99	1.2	0.28	0.8	0.12	0.5	0.04						
151.4 166.6	10			3.0	2.08	2.4	1.23 1.49	1.3 1.5	0.35	0.9	0.15	0.6	0.05						
181.7	11					2.7	1.78	1.6	0.51	1.1	0.21	0.7	0.07						
200.6	12					2.9	2.09	1.7	0.60	1.2	0.25	0.8	0.08						
215.8	13							1.9	0.69	1.3	0.29	0.8	0.10						
234.7	14							2.0	0.80	1.4	0.33	0.9	0.11						
249.8	15							2.2	0.91	1.5	0.38	1.0	0.13						
265.0 283.9	16 17							2.3 2.5	1.02 1.14	1.6 1.7	0.42	1.0 1.1	0.14						
203.9	18							2.5	1.14	1.7	0.47	1.1	0.18						
318.0	19							2.0	1.27	1.9	0.58	1.2	0.20						
333.1	20									2.0	0.64	1.3	0.22						
348.3	21									2.1	0.70	1.4	0.24						
367.2	22									2.2	0.76	1.4	0.26						
382.3 401.3	23 24									2.3	0.83	1.5 1.6	0.28						
416.4	25									2.4	0.90	1.6	0.30						
431.5	26									2.5	0.57	1.7	0.35						
450.5	27											1.8	0.38						
465.6	28											1.8	0.41	1.0	0.11				
484.5	29											1.9	0.43	1.1	0.11				
499.7	30 35											2.0	0.46	1.1	0.12				
583.0 666.2	40											2.3	0.61	1.5	0.16				
749.5	45											2.0	5.70	1.7	0.25				
832.8	50													1.9	0.31				
916.1	55													2.1	0.37				
999.3	60													2.2	0.43		0.0-		
1082.6 1165.9	65 70													2.4	0.50	1.1 1.2	0.07		
1249.2	75													2.8	0.57	1.2	0.08		
1332.5	80													3.0	0.03	1.3	0.10		
1415.7	85													3.2	0.82	1.4	0.11		
1499.0	90													3.4	0.91	1.5	0.12		
1665.6	100															1.7	0.15	0.9	0.04
1832.1	110															1.8	0.18	1.0	0.05
1998.7 2165.3	120 130															2.0	0.21	1.1 1.2	0.05
2331.8	140															2.3	0.23	1.3	0.00
498.4	150															2.5	0.32	1.4	0.08

 $\textbf{Notes:} \ \textbf{Shaded areas represent velocities over 1.5 m/s. Use with caution when water hammer is a concern.$ 

# FRICTION LOSS CHARTS - HDPE PRESSURE PIPE PE80 SDR 17.6 PN6

Nomir Pipe II Wall T		25 r 21. 1.	40	32 r 28. 1.	40	40 r 35.	40		mm .20 .9	63 i 55. 3.	80	75 r 66. 4.	40	90 n 79.8 5.	80	110 r 97.4 6.	40	160 i 141. 9.	80	200 177. 11.	.20
Flow I/min	Flow m³/hr	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s		Velocity m/s		Velocity m/s		Velocity m/s		Velocity m/s		Velocity m/s		Velocity m/s		Velocity m/s	
3.8	0.25	0.2	0.03	111/3	1033	111/3	1033	111/3	1033	111/3	1033	111/3	1033	111/3	1033	111/3	1033	111/3	1033	111/3	1033
7.6	0.5	0.4	0.11																		
11.4	0.75	0.6	0.23	0.3	0.06	0.2	0.00														
15.1 26.5	1.5	0.8	0.40	0.4	0.10	0.3	0.03	0.3	0.02												
20.5 34.1	2	1.5	1.43	0.7	0.21	0.4	0.07	0.3	0.02												
41.6	2.5	1.9	2.16	1.1	0.54	0.7	0.19	0.5	0.06												
49.2	3	2.3	3.03	1.3	0.76	0.8	0.26	0.5	0.09												
56.8	3.5	2.7	4.03	1.5	1.01	1.0	0.35	0.6	0.12												
68.1	4	3.1	5.16	1.8	1.30	1.1	0.44	0.7	0.15												
83.3	5 6			2.2	1.96 2.75	1.4	0.67	0.9	0.23	0.7	0.10	0.5	0.04								
98.4 17.3	7			3.1	3.66	2.0	1.25	1.3	0.32	0.7	0.10	0.5	0.04								
32.5	8			3.5	4.69	2.3	1.60	1.4	0.54	0.9	0.17	0.6	0.07								
51.4	9					2.5	2.00	1.6	0.68	1.0	0.22	0.7	0.09								
66.6	10					2.8	2.43	1.8	0.82	1.1	0.26	0.8	0.11								
81.7	11							2.0	0.98	1.2	0.32	0.9	0.14								
00.6	12							2.2	1.15	1.4 1.5	0.37	1.0 1.0	0.16								
34.7	13 14							2.4	1.34	1.6	0.43	1.0	0.18								
49.8	15							2.7	1.74	1.7	0.56	1.2	0.24								
65.0	16							2.9	1.96	1.8	0.63	1.3	0.27								
83.9	17							3.1	2.20	1.9	0.71	1.4	0.30								
199.0	18							3.3	2.44	2.0	0.79	1.4	0.34								
318.0 333.1	19 20									2.2	0.87	1.5 1.6	0.37								
348.3	21									2.4	1.04	1.7	0.45	1.2	0.18						
367.2	22									2.5	1.14	1.8	0.49	1.2	0.20						
382.3	23									2.6	1.24	1.8	0.53	1.3	0.22						
401.3	24									2.7	1.34	1.9	0.57	1.3	0.23						
116.4 131.5	25 26									3.8	1.44	2.0	0.62	1.4	0.25	1.0	0.10	0.5	0.02		
150.5	27											2.1	0.67	1.5	0.27	1.0	0.10	0.5	0.02		
65.6	28											2.2	0.76	1.6	0.23	1.0	0.12	0.5	0.02		
84.5	29											2.3	0.81	1.6	0.33	1.1	0.13	0.5	0.02		
99.7	30											2.4	0.87	1.7	0.35	1.1	0.13	0.5	0.02		
83.0	35											2.8	1.15	1.9	0.47	1.3	0.18	0.6	0.03		
66.2 49.5	40 45											3.2	1.48	2.2 2.5	0.60	1.5 1.7	0.23	0.7	0.04		
32.8	50													2.8	0.73	1.7	0.26	0.8	0.05		
916.1	55													3.1	1.09	2.1	0.41	1.0	0.07		
99.3	60													3.3	1.28	2.2	0.48	1.1	0.08		
082.6	65															2.4	0.56		0.09		
165.9	70															2.6	0.64		0.10		
249.2 332.5	75 80																	1.3 1.4	0.12		
415.7	85																	1.4	0.13		
413.7	90																	1.6	0.15		
665.6	100																	1.8	0.20	1.1	0.0
332.1	110																	1.9	0.24	1.2	0.08
998.7	120																	2.1	0.28	1.4	0.09
165.3	130																	2.3	0.33	1.5	0.11
331.8	140 150																			1.6	0.13

Notes: Shaded areas represent velocities over 1.5 m/s. Use with caution when water hammer is a concern.

# FRICTION LOSS CHARTS - HDPE PRESSURE PIPE PE80 SDR 11 PN10

C = 14	10 • F	PRESSU	RE LO	SS (BAF	R/100	METRI	ES)														
Nomir Pipe II Wall T		25 n 20 2.	40	32 n 26.: 2.:	20	40 r 32.	60	50 i 40. 4.	.80	51.	mm .40 .8	75 r 61. 6.	40	90 r 73. 8.	60	110 r 90.	00	160 i 130. 14.	80	200 163.	.60
Flow I/min	Flow m³/hr	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	/ bar	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss	Velocity m/s	bar loss
3.8	0.25	0.2	0.04	111/3	1033	111/3	1033	111/3	1033	111/3	1033	111/3	1033	111/3	1033	111/3	1033	111/3	1033	111/3	1033
7.6	0.5	0.4	0.14																		
11.4	0.75	0.6	0.29	0.4	0.09																
15.1 26.5	1.5	0.8	0.50	0.5	0.15	0.5	0.11														
34.1	2	1.7	1.80	1.0	0.53	0.3	0.11														
41.6	2.5	2.1	2.73	1.3	0.81	0.8	0.28	0.5	0.09												
49.2	3	2.5	3.82	1.5	1.13	1.0	0.39	0.6	0.13												
56.8	3.5	3.0	5.08	1.8	1.50	1.2	0.52	0.7	0.17												
68.1	4			2.1	1.92	1.3	0.66	0.8	0.22	0.5	0.07										
83.3 98.4	5			2.6	2.91 4.08	1.7	1.00	1.1	0.34	0.7	0.11										
117.3	7			5.1	4.00	2.3	1.87	1.5	0.63	0.9	0.20										
132.5	8					2.7	2.40	1.7	8.0	1.1	0.26										
151.4	9					3.0	2.98	1.9	1.00	1.2	0.32										
166.6	10							2.1	1.21	1.3	0.39	1.0	0.00								
181.7 200.6	11 12							2.3 2.5	1.45 1.70	1.5	0.47	1.0 1.1	0.20								
215.8	13							2.8	1.97	1.7	0.55	1.2	0.23								
234.7	14							3.0	2.27	1.9	0.74	1.3	0.31								
249.8	15									2.0	0.84	1.4	0.35								
265.0	16									2.1	0.94	1.5	0.40	11	0.10						
283.9 299.0	17 18									2.3	1.05 1.17	1.6 1.7	0.44	1.1 1.2	0.18						
318.0	19									2.5	1.30	1.8	0.54	1.2	0.23						
333.1	20									2.7	1.42	1.9	0.60		0.25						
348.3	21									2.8	1.56	2.0	0.66		0.27						
367.2	22									2.9	1.70	2.1	0.71	1.4	0.30						
382.3 401.3	23 24									3.1	1.84	2.2	0.78	1.5 1.6	0.32						
416.4	25											2.3	0.91	1.6	0.37						
431.5	26											2.4	0.97	1.7	0.40	1.1	0.15				
450.5	27											2.5	1.04	1.8	0.43	1.2	0.16				
465.6	28											2.6	1.12	1.8	0.46		0.17				
484.5 499.7	29 30											2.7 2.8	1.19 1.27	1.9 2.0	0.49 0.53	1.3 1.3	0.19				
583.0	35											3.3	1.69	2.3	0.33	1.5	0.26				
666.2	40													2.6	0.89	1.7	0.34				
749.5	45													2.9	1.11	2.0	0.42				
832.8	50													3.3	1.35	2.2	0.51	1.0	0.08		
916.1 999.3	55 60															2.4 2.6	0.61	1.1 1.2	0.10		
999.3 082.6	65															2.8	0.71	1.3	0.12		
1165.9	70															3.1	0.95	1.4	0.15		
249.2	75															3.3	1.08	1.6	0.17		
1332.5	80																	1.7	0.20		
1415.7 499.0	85 90																	1.8	0.22		0.07
665.6	100																	1.9	0.24		0.08
1832.1	110																	2.3	0.35	1.5	0.10
998.7	120																	2.5	0.42	1.6	0.14
2165.3	130																	2.7	0.48		0.16
2331.8	140 150																			1.8 2.0	0.19

Notes: Shaded areas represent velocities over 1.5 m/s. Use with caution when water hammer is a concern.

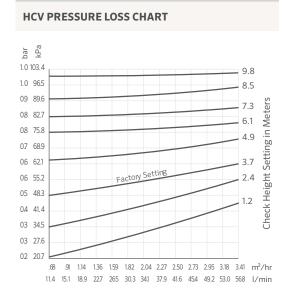
## **PRESSURE LOSS CHARTS**

TABLE OF APPROXIMATE PRES	SURE LOS	SES FOR	PIPE FITT	INGS							
Steel Fitting Type	1/2"	3/4"	<b>1"</b> (25 mm)	<b>1¼"</b> (30 mm)	<b>1½"</b> (40 mm)	<b>2"</b> (50 mm)	<b>2½"</b> (65 mm)	<b>3"</b> (80 mm)	<b>4"</b> (100 mm)	<b>6"</b> (150 mm)	<b>8"</b> (200 mm)
Coupling	0.18	0.24	0.30	0.37	0.46	0.61	0.76	0.91	1.21	1.82	2.40
Run of St. Tee	0.30	0.30	4.60	0.60	0.60	0.76	0.91	1.21	1.52	2.13	3.05
Tee, Side Outlet	0.91	1.38	1.50	2.13	2.74	3.35	4.0	4.90	6.1	9.44	12.1
Tee, Run Reduced ½"	0.45	0.76	0.91	1.21	1.50	1.82	2.13	2.4	3.65	4.90	6.10
Elbow, 90°	0.45	0.76	0.91	1.21	1.50	1.82	2.13	2.4	3.65	4.90	6.10
Elbow, 45°	0.22	0.30	0.40	0.52	0.60	0.76	0.91	1.06	1.5	2.28	3.04
Corporation Stop	2.74	2.74	2.74	2.74	2.74	2.74					
Curb Stop	1.82	1.82	2.13	2.13	2.43	2.43					
Plastic IPS or Copper Fitting Type	1/2"	3/4"	<b>1"</b> (25 mm)	<b>1¼"</b> (30 mm)	1½" (40 mm)	<b>2"</b> (50 mm)	<b>2½"</b> (65 mm)	<b>3"</b> (80 mm)	<b>4"</b> (100 mm)	<b>6"</b> (150 mm)	<b>8"</b> (200 mm)
Coupling	0.46	0.76	0.91	0.91	1.22	1.82	2.13	2.43	3.35	5.50	7.31
Run of St. Tee	0.76	0.91	1.22	1.52	1.83	2.43	2.74	3.35	4.57	6.40	8.53
Tee, Side Outlet	2.13	2.74	3.65	4.57	5.48	7.31	9.14	11.0	13.71	21.33	27.43
Tee, Run Reduced ½"	1.06	1.37	1.82	2.43	2.74	3.35	4.26	5.18	7.31	10.36	13.71
Elbow, 90°	1.06	1.37	1.82	2.43	2.74	3.35	4.26	5.18	7.31	10.36	13.71
Elbow, 34°	0.46	0.60	0.91	1.06	1.22	1.52	2.13	2.44	3.04	4.90	6.10

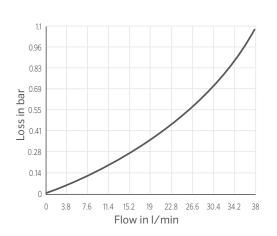
#### Note:

It is recommended that the charts above only be used when the manufacturer's recommended pressure loss values are not available.

#### **ACCESSORY PRESSURE LOSS CHARTS**



#### **SWING JOINT FRICTION LOSS**



# **TECHNICAL INFORMATION**

## **PRESSURE LOSS CHARTS**

et Size ¾", /min
Friction Loss
0.3 (28)
0.3 (34)
0.4 (41)
0.6 (55)
0.8 (76)
1 (103)
1 (138)

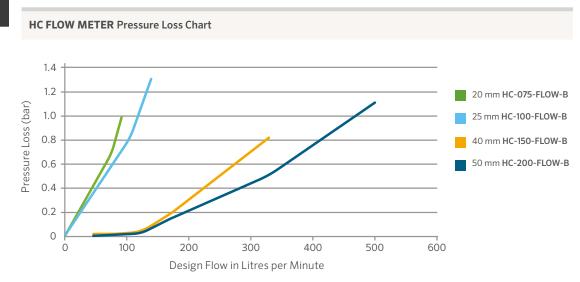
BTT 2-ZONE In Flow Rate 3-22	
I/min	Friction Loss
3	0.1 (14)
7	0.2 (21)
11	0.3 (34)
15	0.5 (48)
19	0.7 (69)
23	1(69)
27	1 (124)
-/	. (.2-1)

Note

Maximum flow at 3.4 bar (340kPa)
Data shows one 1-zone running at a time

**Note:** Maximum flow at 3.4 bar (340kPa)

For applications requiring higher efficiency and lower friction loss, use Hunter valves and dripline products.



# **WIRE DATA**

American Wire Gauge	Common Metric Equivalent (mm²)	<b>Diameter</b> (mils)	Diameter (mm)	Cross-Sectional Area (mm²)	Resistance (Per mft ohms)	Resistance (per km ohms)
1	50	289.3	7.348	42.4	0.924	0.407
2	35	257.6	6.543	33.6	0.156	0.513
3		229.4	5.827	26.7	0.197	0.647
4	25	204.3	5.189	21.1	0.249	0.815
5		181.9	4.62	16.8	0.313	1.028
6	16	162	4.115	13.3	0.395	1.297
7		144.3	3.665	10.6	0.498	1.634
8	10	128.5	3.264	8.36	0.628	2.061
9		114.4	2.906	6.63	0.793	2.6
10	6	101.9	2.588	5.26	0.999	3.277
11		90.7	2.3	4.17	1.26	4.14
12	4	80.8	2.05	3.31	1.59	5.21
13		72	1.83	2.63	2	6.56
14	2.5	64.1	1.63	1.63	2.52	8.28
15		57.1	1.45	1.65	3.18	10.4
16	1.5	50.8	1.29	1.31	4.02	13.2
17		45.3	1.15	1.04	5.05	16.6
18	0.75	40.3	1.02	0.82	6.39	21
19		35.9	0.912	0.65	8.05	26.4
20	0.5	32	0.813	0.52	10.1	33.2

#### **PSR WIRE DATA**

MAXIMU	M WIRE LENG	TH, ONE WA	Y			
Model	0.75 mm <sup>2</sup>	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	4 mm²	6 mm²	10 mm²
PSR-22	74 m	118 m	188 m	298 m	473 m	751 m
PSR-52	41 m	65 m	104 m	165 m	262 m	416 m
PSR-53	41 m	65 m	104 m	165 m	262 m	416 m

### **WIRE SIZING**

#### REQUIRED INFORMATION

- 1) Actual one-way length of wire between the controllers and the power source or the controllers and valves
- 2) Allowable voltage loss along the wire circuit
- 3) Accumulative current flowing through the wire section being sized in amperes

#### **RESISTANCE IS CALCULATED USING THIS FORMULA:**

$$R = \frac{1,000 \times AVL}{2L \times I}$$

R = Maximum allowable resistance of wire in ohms per 1,000 m

AVL = Allowable voltage loss

L = Wire length (one way)

I = Inrush current

AVL for controller power wire sizing is calculated by subtracting the minimum operating voltage required by the controller from the minimum available voltage at the power source.

AVL for valve wire sizing is calculated by subtracting minimum solenoid operating voltage from controller output voltage. This number will vary depending on the manufacturer and in some cases with line pressure.

#### **VALVE WIRE SIZING EXAMPLE**

Given: The distance from the controller to the valve is 600 m. The controller output is 24 V. The valve has a minimum operating voltage of 20 V and an inrush current of 370 mA (0.37 A).

$$R = \frac{1,000 \times 4}{2(600) \times 0.37}$$

$$R = \frac{4,000}{444}$$

R = 9.01 ohms/1,000 m

So, wire resistance cannot exceed 9 ohms per 1,000 m. Now go to table #1 and select the proper wire size. Since  $1.5 \, \text{mm}^2$  gauge wire has more resistance than 9 ohms per 1,000 m, choose  $2.5 \, \text{mm}^2$  wire.

Table 2 is a quick reference and is set up to provide maximum wire runs given the information at the bottom of the table.

TABLE 1 - RE	SISTANCE OF COPPER WIRE	TABLE 2 - ALL	OWABLE	DISTANCES	FOR VARI	OUS WIRE	SIZES*	
Wire Size	Resistance in Ohms per	Ground Wire			Control V	Vire (mm²)		
(mm²)	1,000 m at 20° C	(mm²)	0.5	1.0	1.5	2.5	4.0	6.0
0.5	34.5	0.5	157	209	235	261	279	289
1.0	17.2	1.0	209	314	377	449	503	538
1.5	11.5	1.5	235	377	470	588	684	754
2.5	6.9	2.5	261	449	588	783	965	1103
4.0	4.3	4.0	279	503	684	965	1,257	1,502
6.0	2.9	6.0	289	538	751	1,103	1,502	1,864

#### Notes

Maximum one-way distance in metres between controller and solenoid assuming 370 mA inrush current, AVL = 4 volts, 1 valve on at a time

Table 2 is for a single active solenoid. With two solenoids operating simultaneously on the same wires, the wire distances should be halved.

## **DC-LATCHING SOLENOID**

#### **KEY BENEFITS**

- · Compatible with all Hunter irrigation valves
- Compatible with NODE, NODE-BT, and XC Hybrid
- · Captive plunger offers easy servicing of solenoid
- Manual quarter-turn on/off control

#### **OPERATING SPECIFICATIONS**

- Minimum opening/operating voltage: 6 VDC
- Maximum recommended voltage: 9 VDC
- Coil resistance: 4.8 ohms nominal
- Pulse width: 250 milliseconds
- Wire leads: 45 cm of 0.8 mm<sup>2</sup> black/red UL-approved wire

**Note:** See controller product pages for wiring distances

For AC Solenoid specifications, see Valve product pages starting on Page 89



# **DC-Latching Solenoid** (P/N 458200)

One black (common) wire and one red (station) wire

## **ADDITIONAL DATA**

WIRE SIZE	REFER	ENCE CH	ART							
Wire Size (mm²)	25 mm	32 mm	40 mm	50 mm	63 mm	75 mm	90 mm	110 mm	160 mm	Wire Size (mm²)
0.5	20	35	49	80	110	175	-	-	-	0.5
1	16	30	42	67	97	150	-	-		1
1.5	10	18	25	40	56	88	120	150	-	1.5
2.5	7	15	20	33	50	75	102	130	-	2.5
4	6	13	16	27	40	63	85	110	-	4
6	4	6	9	16	25	35	50	65	150	6

#### Notes

 $Approximate \ number \ of \ wires \ to \ be \ installed \ in \ conduit \ or \ tubing. \ Maximum \ number \ of \ wires \ in \ conduit \ or \ sleeving.$ 

CLIMATE ETp TABLE		
Climate*	mm Daily	
Cool Humid	2.5 to 3.8	
Cool Dry	3.8 to 5.1	
Warm Humid	3.8 to 5.1	
Warm Dry	5.1 to 6.3	
Hot Humid	5.1 to 7.6	
Hot Dry	7.6 to 11.4	

#### Notes:

- \* Cool = under 21°C as an average midsummer high
- \* Warm = between  $21^{\circ}$  and  $32^{\circ}C$  as midsummer highs
- \* Hot = over 32°C
- \* Humid = over 50% as average midsummer relative humidity (dry = under 50%)

#### STATEMENT OF WARRANTY

#### Hunter Residential and Commercial Irrigation Products

Hunter Industries Incorporated ("Hunter") warrants the following products to be free of defects in materials or workmanship under normal use in landscape irrigation applications for the specified period of time outlined below from the original date of manufacture:

ONE YEAR	ROTORS	SRM	MICRO	Micro Sprays, PLD Fittings, Rigid Risers, Air Relief Valves, RZB
TWO YEARS	ROTORS	PGP-ADJ, PGJ, HCV	CONTROLLERS	ACC (Legacy), BTT, Eco Logic, HC, HCC, HPC, I-Core/DUAL Families (Legacy), NODE, NODE-BT, Pro-C Families, Pro-HC, PSR, ROAM, X2, X-Core, XC Hybrid, WAND
	SPRAYS	PS Ultra Family, SJ, FLEXsg, HSBE Family	SENSORS	HC Flow Meter (wired and wireless)
	NOZZLES	Spray Nozzles, PCN, PCB, AFB, MSBN	MICRO	ACZ, PCZ, RZWS, Point Source Emitters, Tubing, Multi-Port Emitters, IH Risers, MLD, Eco-Indicator, Multi-Purpose Box, Senninger Regulators, PLD-LOC Fittings
	VALVES	PGV Family	TOOLS	SpotShot
	CENTRAL	IMMS Central Control Products (Legacy),	A2C-WIFI, A2C-LA	N, A2C-CELL-E, WIFIKIT, LANKIT, CELLKIT
THREE YEARS	CONTROLLERS	ROAM XL, EZ Decoder System, EZ-DT	MP ROTATOR	All
FIVE YEARS	ROTORS	PGP Ultra, I-20, I-25, I-40, I-50, I-80, and I-90 Families	CONTROLLERS	ACC2, ICC2, ICD Decoders, ICD-HP
	SPRAYS	Pro-Spray, Pro-Spray PRS30, and Pro-Spray PRS40 Families	SENSORS	Clik Sensors, Flow-Sync, MWS, Solar Sync, Wireless Flow Sensor
	VALVES	HQ, ICV, IBV	MICRO	ICZ, PLD, HDL, HDL-COP**, Eco-Mat, Eco-Wrap

#### Hunter Golf and ST System Irrigation Products\*

Hunter will unconditionally repair, replace, or repurchase, at its sole discretion, any defective component\* assemblies contained within the Golf and ST products listed below by category, returned freight prepaid, from the date of manufacture within a period of:

ONE YEAR	GOLF CONTROLLERS	Pilot Command Center Software, Pilot-FC, Pilot-FI, Pilot Hub		
THREE				
YEARS	GOLF ROTORS	TTS-800 Series, G-800 Series, G-900 Series, B Series		
	GOLF TWO-WAY MODULES	Pilot 100, Pilot 200, Pilot 400, Pilot 600		
FIVE		The golf rotor component warranty is extended to 5 years with a one-for-one purchase of an HSJ Swing Joint		
YEARS	GOLF ROTORS	from an authorised Hunter Golf distributor.		
	SWING JOINTS	HSJ-0, HSJ-1, HSJ-2, HSJ-3		
	ST ROTORS	ST-90, STG-900, ST-1200, ST-1600, ST-1700		
	ST ACCESSORIES	All models starting with "ST"		
	COMPUTER, PRINTERS & ACCESSORIES, MAINTENANCE RADIO & BATTERY	Equipment manufacturer's warranty (no Hunter warranty)		

<sup>\*</sup> Warranty covers repair, replacement, or repurchase of individual defective component assemblies contained within the product. Returns of complete finished goods are not allowed under warranty without prior approval from the Hunter Product Manager.

If used for agricultural applications, Hunter limits the warranty for its spray, rotator, and rotor products to a period of one (1) year from the original date of manufacture. This agriculture limitation supersedes all other warranties expressed or implied.

<sup>\*\*</sup>While the use of copper does not completely remove the chance of root intrusion, it has been shown to assist in its prevention when coupled with proper irrigation scheduling.



#### Statement of Warranty, Continued

If a defect in a Hunter product is discovered during the applicable warranty period, Hunter will repair or replace, at its option, the product or the defective part. This warranty does not extend to repairs, adjustments, or replacement of a Hunter product or part that results from misuse, negligence, alteration, modification, tampering, or improper installation and/or maintenance of the product. This warranty extends only to the original installer of the Hunter product. If a defect arises in a Hunter product during the warranty period, contact your local Hunter Authorised Distributor.

Hunter's warranty applies only to products installed as specified and used as intended for irrigation purposes. Hunter's warranty shall be limited to defects in materials and workmanship during the warranty period, and shall not extend to situations in which the product was subjected to improper design, installation, operation, maintenance, application, abuse, improper electrical current, grounding, service other than by Hunter authorised agents, operating conditions other than that for which it was designed, or in systems using water containing corrosive chemicals, electrolytes, sand, dirt, silt, rust, or agents that otherwise attack and degrade plastics. Hunter's warranty does not cover component failures caused by lightning strikes, electrical power surges, or unconditioned power supplies. If products are repurchased, the price to Distributor for such products in effect at the time of return will apply.

Hunter's obligation to repair, replace, or repurchase its products or product components as set forth above is the sole and exclusive warranty extended by Hunter. There are no other warranties, expressed or implied, including warranties of merchantability and warranties of fitness for a particular purpose. Hunter will not be liable to a distributor or to any other party in strict liability, tort, contract, or any other manner for any damages caused or claimed to be caused as a result of any design of or defect in Hunter's products, or for any special, incidental, or consequential damages of any nature.

Where applicable, Hunter's statement of warranty complies with local directives.

If you have any questions concerning the warranty or its application, please email support@hunterindustries.com.

#### ASAE CERTIFICATION STATEMENT

Hunter Industries Incorporated certifies that pressure, flow rate, and radius data for these products were determined and listed in accordance with ASAE Standard S398.1, Procedure for Sprinkler Testing and Performance Reporting, and are representative of performance of production sprinklers at the time of publication. Actual product performance may differ from the published specifications due to normal manufacturing variations and sample selection. All other specifications are solely the recommendation of Hunter Industries Incorporated.



Helping our customers succeed is what drives us. While our passion for innovation and engineering is built into everything we do, it is our commitment to exceptional support that we hope will keep you in the Hunter family of customers for years to come.

Gregory R. Hunter, CEO of Hunter Industries

hing S. Swid

Gene Smith, President, Landscape Irrigation and Outdoor Lighting

Website hunterindustries.com | Customer Support +1-760-752-6037 | Technical Service +1-760-591-7383

#### **USA HEADQUARTERS**

1940 Diamond Street San Marcos, CA 92078 USA TEL: +1-760-744-5240

#### **MEXICO**

ISO 9001:2015 Certified Calle Nordika #8615 Colonia la Joya Parque Industrial Nordika Tijuana, B.C., Mexico CP 22640 TEL: +011-52-664-903-1382

#### **EUROPE**

Avenida Diagonal 523, 50-2a Edificio Atalaya 08029 Barcelona, Spain TEL: +34 934-948-881

#### **AUSTRALIA**

Suite 7, 202 Ferntree Gully Road Notting Hill, VIC 3168, Australia TEL: +61 3 9562-9918

#### **MIDDLE EAST**

P.O. Box 2370 Amman, 11941, Jordan TEL: +962 6-5152882 FAX: +962 6-5152992

#### **CHINA**

B1618, Huibin Plaza No. 8, Beichen Dong Street Beijing 100101, China TEL/FAX: +86 10-84975146

