Golf Irrigation Product Catalogue

GOLF IRRIGATION | *Built on Innovation®*

Hunter®

VOLUME 37

hunterindustries.com/golf

HUNTER FAMILY
of Products

Founded in 1981, Hunter Industries is a family-owned, global manufacturer of best-in-class solutions for residential, commercial, municipal, agricultural, and golf course irrigation systems, as well as the outdoor lighting industry. Headed by CEO Greg Hunter, our Global Operations team provides leadership for the entire company. The core mission of Hunter Industries will always remain the same: to deliver valued products and services backed by unwavering customer support, grow the company conscientiously, and remain true to the culture that makes our employees proud to work at Hunter. **Learn more at hunterindustries.com.**

Hunter has been on the leading edge of golf course irrigation for more than three decades. We build performance, reliability, and serviceability into every product. From our industry-best rotors to our robust Pilot® irrigation control system, we take pride in providing golf experts and professionals with the tools and support they need to conceptualise, create, and manage world-class golf courses. **Learn more at hunterindustries.com/golf.**

From rotors and valves to weather sensors and smart controllers, our philosophy is to produce products that allow landscape professionals to create optimal functionality and ambience while promoting sustainable resource use. We are committed to pushing the boundaries of technology and customer experience in every product and project we undertake. **Learn more at hunterindustries.com/products.**

FX Luminaire is an industry-leading manufacturer of landscape and architectural lighting products. We focus on the advancement of LED technology and digital lighting control with zoning, dimming, and colour adjustment capabilities. In addition, we offer a full spectrum of highly efficient lighting fixtures that can be utilised to create elegant landscape lighting systems for a range of golf course applications, from clubhouses to pathways. **Learn more at fxl.com.**

What's New **IN VOLUME 37**

AT HUNTER INDUSTRIES, WE KNOW THAT THE NEEDS OF GOLF COURSE SUPERINTENDENTS CONTINUE TO EVOLVE.
Irrigation simply must become more efficient. Today's professionals are calling for more than just high-performance products — they expect unwavering partnership from manufacturers, from conception to installation and beyond.

That's why we have redoubled our efforts to bring you solutions that meet and exceed golf course irrigation requirements. We've enhanced our world-class Pilot irrigation management platform and invested in groundbreaking rotor technology. All our products remain backed by industry-leading training and technical support.

TTS-800 Series Rotors

TTS-800 Series rotors provide maximum uniformity and longevity in the field. The high-torque gear drives are the strongest in the industry, so the challenges of reclaimed water use or poor water quality are mitigated.
An extra-large, fast-access flange compartment comfortably accommodates wire connections and other components.
Convenient, no-dig Total Top Serviceability means routine maintenance is a breeze.
See page 20 for more details.

Pilot Command Center Software

With newly enhanced Pilot Command Center software, superintendents can create hydraulically safe and efficient daily golf course watering plans faster than ever before. Pilot allows you to operate thousands of individually controlled sprinklers in seconds — right from the Command Center. From here, all watering changes can be performed from one easy-to-navigate screen.
See page 8 for more details.

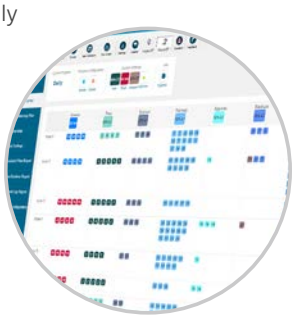


Table of CONTENTS

PILOT® NETWORK

PILOT NETWORK

TOTAL IRRIGATION CONTROL

PILOT COMMAND CENTER SOFTWARE

With industry-leading Pilot Command Center software (CCS), you can create a daily watering plan for thousands of individually controlled sprinklers in just minutes, right from an easy-to-navigate central screen. Pilot CCS allows you to safely balance sprinkler demand with water and electrical supply for the most efficient irrigation cycles possible.

PILOT INTEGRATED HUB SYSTEM

Thanks to integrated two-way modules, Pilot hub systems have a 999-station capacity and can run up to 120 stations simultaneously. Each hub has a plastic enclosure with a full-featured control panel. It can be used as a standalone device or connected to Pilot CCS as part of a Pilot network for flow-optimised irrigation management. Communication options within the Pilot network include wired, UHF radio, spread spectrum radio, or a mixture of all three.

PILOT FIELD CONTROLLER SYSTEM

The field controller has an 80-station capacity, so you can do more with less. Because each controller can run up to 20 stations at a time, they shorten your overall watering window. The full-featured controller has everything you need in a standalone field controller. For a fully automated, flow-optimised system, network all your controllers together with Pilot CCS. Communication options within the Pilot network include wired, UHF radio, spread spectrum radio, or a mixture of all three.

EASY TO PROGRAM AND MAINTAIN

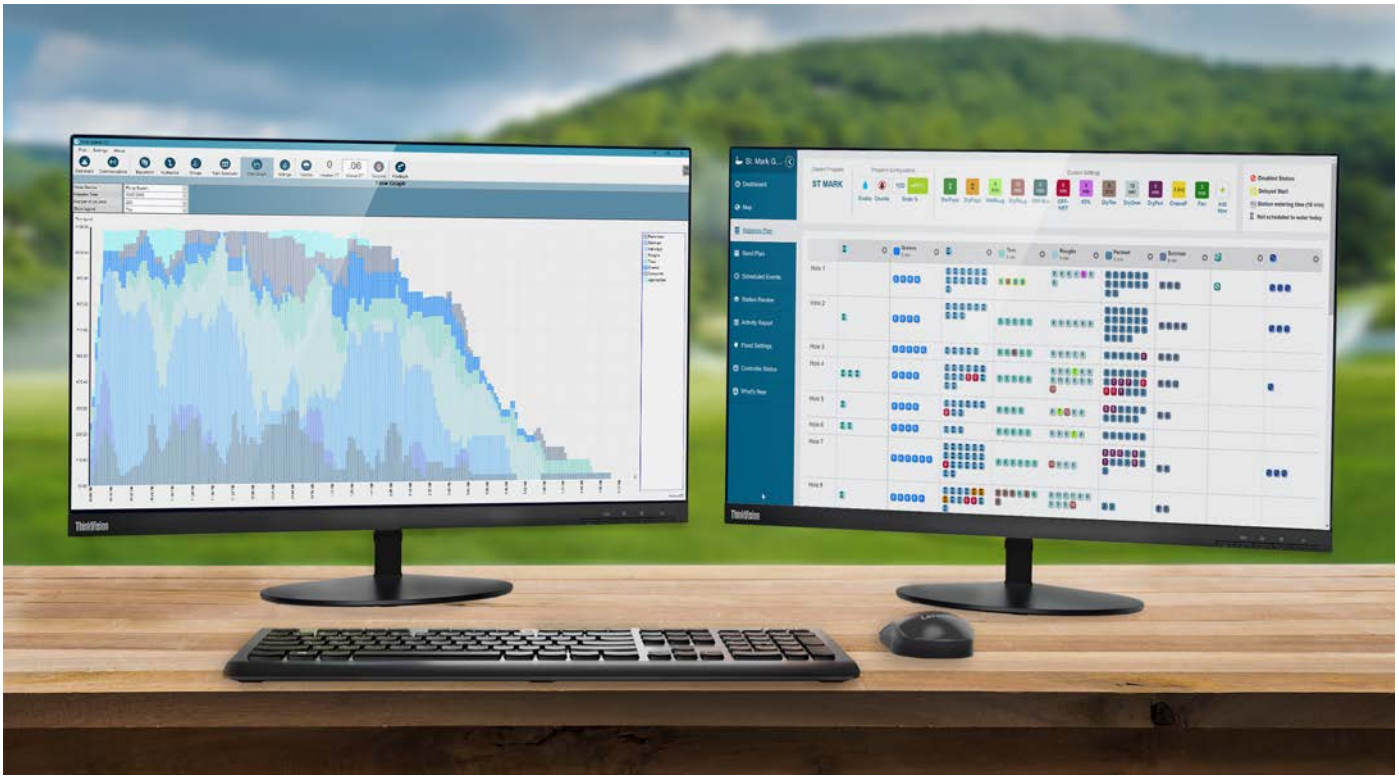
Pilot CCS is an advanced software package designed to centrally manage all decision-making in a Pilot network. The heart of Pilot CCS is the Command Center. This convenient view allows you to quickly create and manage daily watering plans, tune the system to match your local environment, and produce hydraulically balanced watering instructions.

PILOT COMMAND CENTER SOFTWARE

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)



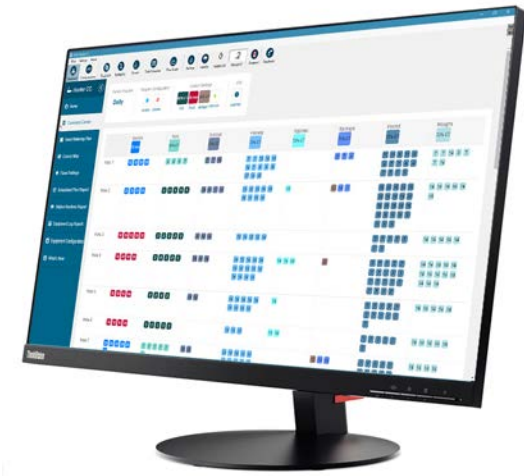
SPEND LESS TIME RUNNING YOUR PUMP

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

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

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

Number of Stations: **80**
Type: **Field Controller**

FEATURES

- Five languages
- Up to 80 station outputs in 10-station increments
- Up to three Hunter golf valve-in-head rotors per station output
- Up to 20 simultaneous Hunter golf valve-in-head rotors active per controller
- 32 automatic schedules with eight start times per schedule
- Exclusive Safe-Toggle™ 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™ 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

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 amp under load at 110 VAC
- 0.7 amp under load at 230 VAC

For additional information, see electrical data on page 101.

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
- Spread spectrum radio: 915 MHz

WIRED SYSTEMS

- GCBL: Shielded two twisted pairs, 0.82 mm^2
- GCBLA: Armoured, shielded two twisted pairs, 0.82 mm^2

PILOT-FI – SPECIFICATION BUILDER ORDER 1 + 2 + 3

1 Model	2 Standard Features	3 Communication Options	
Pilot-FI	Plastic pedestal (grey)	**HWR**	Hardwire communications
		UHF	UHF radio communications (licence required)
		UHFA	UHF radio (licence required, Australia only)
		LF	915 MHz spread-spectrum radio communications (no licence needed)

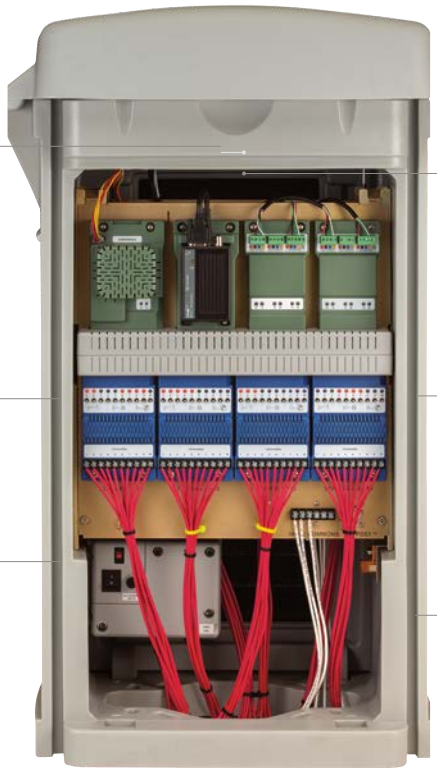
Examples:
Pilot-FI-HWR = Field interface with hardwire communications
Pilot-FI-UHF = Field interface with UHF radio communications

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 Communication 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)	**LF**	915 MHz spread-spectrum radio (no licence needed)
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

Number of Stations: **999**
Type: **Integrated Hub**

Integrated hub systems are one of the fastest growing forms of technology in irrigation control. A key advantage over field controller systems is that integrated hub systems use significantly less wire. This means lower costs, faster installation, and easier system diagnosis and repair if needed. Systems can be easily expanded — with minimal digging and disruption of landscaping — by adding more two-way modules (TWMs) instead of running additional wires.

Pilot embraces this cost-efficient approach. 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 2.5 km from a single hub.

Pilot two-way modules include built-in surge suppression, colour-coded wire connections, true independent station control, programmable station addresses, and two-way feedback to the hub with confirmation and status indication. Pilot-SG surge suppressors are required when the system is designed and installed with golf rotors containing integrated TWMs.

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 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 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.

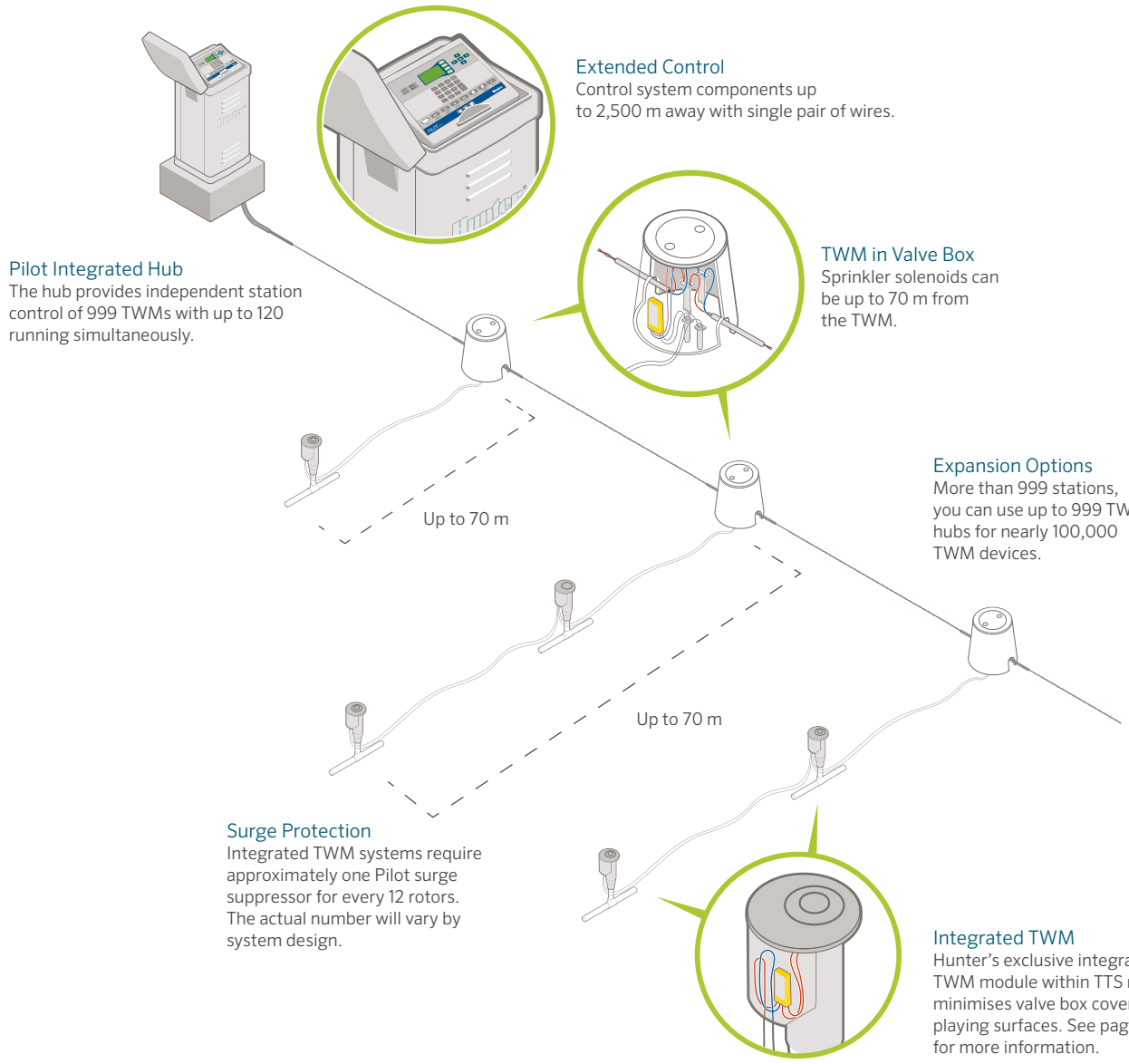
PILOT-SG Surge Suppressor

All integrated TWM rotors include two 3M DBRY-6 splices for connection to the two-wire path. Integrated TWM systems require grounding with Pilot-SG 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)	Plastic pedestal (grey)	**S**	Standalone TWM hub with no central communications
Pilot-DH500 (500-station)		**HWR**	Wired communications
Pilot-DH750 (750-station)		**UHF**	UHF radio (licence required)
		UHFA	UHF radio (licence required, Australia only)
Pilot-DH999 (999-station)		**LF**	915 MHz spread-spectrum radio (no licence required)

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 included
Pilot-400	4-station TWM	
Pilot-600	6-station TWM	
Pilot-SG	Inline surge suppression (for integrated TWM rotor systems)	

Example:
Pilot-100 = 1-station TWM

Wireless Programming

This device 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 15

WEATHER STATION

Range: **Wireless, 1 km**
Type: **Weather Station**

FEATURES

- Includes built-in 60-day data logger: With onboard evapotranspiration (ET) calculation (modified Penman-Monteith equation for turf grass)
- 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 7 m power cable
- Weatherproof construction: With UV-stabilised enclosure, weatherproof external connectors and long-life coated circuit boards
- UL, c-UL and CE certifications

TurfWeather Station
Height: 61 cm
Width: 40.5 cm
Depth: 38 cm
Weight: 6 kg

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

MAINTENANCE RADIO

Range: **Up to 3.5 km**
Type: **Remote Control**

FEATURES

- Hunter's famous 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 watts, UHF (450–490 MHz)*

* Licence required

TRNR Radio
Height: 10.25 cm
Width: 5.25 cm
Depth: 3 cm
Weight: 200 g

ICD-HP

Type: **Two-Way Module Programmer**

FEATURES

- 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

ICD-HP

ICD-HP
Height: 21 cm
Width: 9 cm
Depth: 5 cm

Packaged in an outdoor carrying case, this complete kit includes probes, an induction cup, cable, a USB power cable for bench use, and four AA batteries for fieldwork.

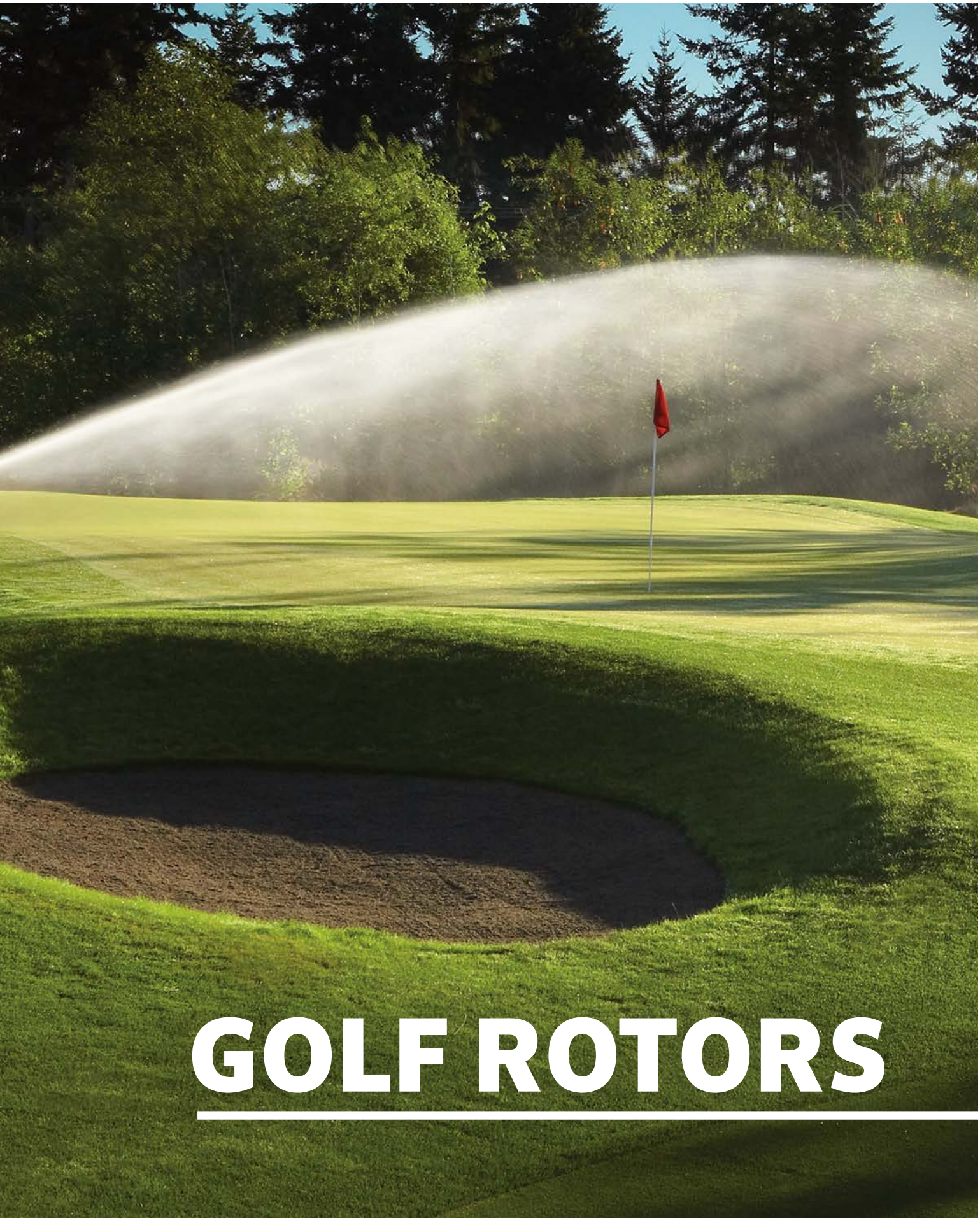
ROTOR SOLUTIONS
FOR EVERY GOLF COURSE

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 G85 gear-drives are among these revolutionary innovations.

Now, we are proud to advance our legacy of firsts with our all-new TTS-800 Series rotors — the most innovative and technologically advanced rotors in the industry. TTS-800 Series 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, the TTS-800 provides solenoid and pressure regulator servicing without mainline depressurisation, making routine maintenance a breeze.

So, whether your irrigation requirements fall into our budget-conscious B-Series category, the advanced G-800 Series rotors, or our top-of-the-line TTS-800 Series rotors, Hunter Industries offers total solutions that will exceed your expectations and ensure beautiful, playable courses for years to come.



GOLF ROTORS

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 a well-designed irrigation system and top-level golf rotors — like Hunter's ultra-reliable TTS-880 and TTS-885, 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.

GEAR DRIVES

POWER, PERFORMANCE, AND VERSATILITY

TTS-880

TTS-884

TTS-885

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, in 2019, Hunter completes the trilogy with the introduction of the new 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

Standard Nozzles

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.

TTS-800 VIH 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

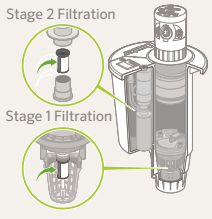
Colour-coded components are removed and replaced without mainline depressurisation

Exclusive Inlet Valve Includes Self-Cleaning Capabilities

Filter Sentry® technology 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

Oversize 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

TTS-800 DIH GOLF ROTORS
ADVANCED FEATURES

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 Disassmbly

Quick and easy to program and perform diagnostics before or after installation with ICD-HP

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 protector

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

Model: **TTS-880**
Radius: **14.9 to 29.6 m**
Flow: **3.23 to 13.29 m³/hr; 53.8 to 221.4 l/min**

FEATURES

- Model: TTS-880 – Full-circle
- Dual-trajectory, color-coded nozzles:
  - 10 standard trajectory (22.5°)
  - 9 low-angle trajectory (15°)
- Nozzle range: #15 to #53
- Exclusive PressurePort™ nozzle technology
- Stainless-steel riser
- Water-lubricated gear drive
- ▸ All TTS-800 VIH advanced features
- ▸ All TTS-800 DIH advanced features

OPERATING SPECIFICATIONS

- 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 TTS rotors are pressure rated at 10 bar; 1,000 kPa

OPTIONS

- C – Check-O-Matic 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 with all "E" specifications below*
- DD – Two-station Decoder Valve-in-Head with all "E" specifications below*
- E – Electric Valve-in-Head 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 13 for critical recommendations on grounding DIH rotors.

▸ = *TTS and DIH Advanced Features detailed on pages 20 and 22*

TTS-800
Pop-up height: 9.5 cm
Overall height: 30 cm
Flange diameter: 18 cm
Female inlet: 1½" Acme

TTS-880 – SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4 + 5

1 Model	2 Valve Options	3 Nozzle	4 Regulation*	5 Options
GT-880 = Full-Circle	**C** = Check-O-Matic*	**15 to 53** = Installed G-880 Nozzle*	**P5** = 50 PSI (nozzles 15 to 18)	**S** = SSU*
	D = Decoder Valve-in-Head		**P6** = 65 PSI (nozzles 18 to 25)	
	DD = Two-station Decoder Valve-in-Head		**P8** = 80 PSI (nozzles 25 to 53)	
	E = Electric Valve-in-Head			
	** Converts to N.O. Hydraulic Valve-In-Head*	** SSU = #18, #23, #25, or #48*	** SSU = P5/#18, P6/#23 P8/#25, P8/#48*	** Standard Stocking Unit*

Example:
GT-880 - E - 48 - P8 - S = GT-880 full-circle electric valve-in-head, installed #48 nozzle, 80 PSI regulation, standard stocking unit model

TTS-880 NOZZLE PERFORMANCE DATA*

Nozzle Set			Pressure		Radius	Flow		Precip mm/hr	
			bar	kPa	m	m³/hr	l/min	■	▲
● Tan		● Grey	3.4	344	14.9	3.23	53.8	14.5	16.7
			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
			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
● Tan		● Grey	3.4	344	17.1	3.91	65.1	13.4	15.5
			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
● Tan		● Grey	3.4	344	17.4	4.18	69.7	13.8	16.0
			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
			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
● Tan		● Lt. Blue	3.4	344	19.2	4.91	81.8	13.3	15.4
			4.1	413	19.8	5.22	87.1	13.3	15.4
	23		4.5	450	20.1	5.45	90.8	13.5	15.6
			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
● Tan		● Lt. Blue	4.5	450	21.6	6.50	108.3	13.9	16.0
			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
			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
● Tan		● Lt. Blue	4.5	450	22.6	7.02	117.0	13.8	15.9
			4.8	482	22.9	7.27	121.1	13.9	16.1
	33		5.5	551	23.5	7.77	129.5	14.1	16.3
			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
● Tan		● Lt. Blue	4.5	450	23.5	7.97	132.9	14.5	16.7
			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
			6.2	620	26.5	10.52	175.3	15.0	17.3
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
	48		5.5	551	28.0	11.11	185.1	14.1	16.3
			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
	53		5.5	551	28.3	11.86	197.7	14.8	17.0
			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

* 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-880 STANDARD NOZZLES

TTS-880 LOW-ANGLE NOZZLES**

** Low-angle nozzles reduce 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

Model: **TTS-884**
Radius: **14.9 to 29.6 m**
Flow: **3.23 to 13.29 m³/hr; 53.8 to 221.4 l/min**

FEATURES

- Model: TTS-884 – Full-circle
- Dual-trajectory, colour-coded nozzles:
  - 10 standard trajectory (22.5°)
  - 9 low-angle trajectory (15°)
- Nozzle range: #15 to #53
- Exclusive PressurePort™ nozzle technology
- Stainless-steel riser
- Water-lubricated gear drive
- ▸ All TTS-800 VIH advanced features
- ▸ All TTS-800 DIH advanced features

OPERATING SPECIFICATIONS

- 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 TTS rotors are pressure rated at 10 bar; 1,000 kPa

OPTIONS

- C – Check-O-Matic 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 with all "E" specifications below*
- DD – Two-station Decoder Valve-in-Head with all "E" specifications below*
- E – Electric Valve-in-Head 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 13 for critical recommendations on grounding DIH rotors.

▸ = *TTS and DIH Advanced Features detailed on pages 20 and 22*

TTS-884
Pop-up height: 9.5 cm
Overall height: 30 cm
Flange diameter: 18 cm
Female inlet: 1½" Acme

TTS-884 – SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4 + 5

1 Model	2 Valve Options	3 Nozzle	4 Regulation*	5 Options
GT-884 = Full-Circle (convertible to forward-facing adjustable arc rotor)	**C** = Check-O-Matic*	**15 to 53** = Installed G-880 Nozzle*	**P5** = 50 PSI (nozzles 15 to 18)	**S** = SSU*
	D = Decoder Valve-in-Head		**P6** = 65 PSI (nozzles 18 to 25)	
	DD = Two-station Decoder Valve-in-Head		**P8** = 80 PSI (nozzles 25 to 53)	
	E = Electric Valve-in-Head			
	** Converts to N.O. Hydraulic Valve-in-Head*	** SSU = #18, #23, #25, or #48*	** SSU = P5/#18, P6/#23 P8/#25, P8/#48*	** Standard Stocking Unit*

Example:
GT-884 - E - 48 - P8 - S = GT-884 full-circle electric valve-in-head, installed #48 nozzle, 80 PSI regulation, standard stocking unit model

TTS-884 NOZZLE PERFORMANCE DATA*

Nozzle Set			Pressure		Radius	Flow		Precip mm/hr	
			bar	kPa	m	m³/hr	l/min	■	▲
● Tan		● Grey	3.4	344	14.9	3.23	53.8	14.5	16.7
			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
			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
● Tan		● Grey	3.4	344	17.1	3.91	65.1	13.4	15.5
			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
● Tan		● Grey	3.4	344	17.4	4.18	69.7	13.8	16.0
			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
			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
● Tan		● Lt. Blue	3.4	344	19.2	4.91	81.8	13.3	15.4
			4.1	413	19.8	5.22	87.1	13.3	15.4
	23		4.5	450	20.1	5.45	90.8	13.5	15.6
			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
● Tan		● Lt. Blue	4.5	450	21.6	6.50	108.3	13.9	16.0
			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
			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
● Tan		● Lt. Blue	4.5	450	22.6	7.02	117.0	13.8	15.9
			4.8	482	22.9	7.27	121.1	13.9	16.1
	33		5.5	551	23.5	7.77	129.5	14.1	16.3
			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
● Tan		● Lt. Blue	4.5	450	23.5	7.97	132.9	14.5	16.7
			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
			6.2	620	26.5	10.52	175.3	15.0	17.3
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
	48		5.5	551	28.0	11.11	185.1	14.1	16.3
			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
	53		5.5	551	28.3	11.86	197.7	14.8	17.0
			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

* 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-884 STANDARD NOZZLES

TTS-884 LOW-ANGLE NOZZLES**

** Low-angle nozzles reduce 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.

GOLF ROTORS

TTS-800 SERIES

Model: **TTS-885**
Radius: **11.3 to 28.7 m**
Flow: **2.02 to 13.54 m³/hr; 33.7 to 225.6 l/min**

FEATURES

- Model: TTS-885 – True full-circle/adjustable part-circle (60° to 360°)
- QuickCheck™ arc mechanism
- QuickSet-360 arc mechanism
- Dual-trajectory, colour-coded nozzles:
  - 12 standard trajectory (22.5°)
  - 9 low-angle trajectory (15°)
- Nozzle range: #10 to #53
- Exclusive PressurePort™ nozzle technology
- Contour "Back-Nozzle" capabilities
- Ratcheting stainless-steel riser
- Water-lubricated gear drive
- ▸ All TTS-800 VIH advanced features
- ▸ All TTS-800 DIH advanced features

TTS-885
Pop-up height: 9.5 cm
Overall height: 30 cm
Flange diameter: 18 cm
Female inlet: 1½" Acme

OPERATING SPECIFICATIONS

- Radius: 11.3 to 28.7 m
- Flow: 2.02 to 13.54 m³/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

OPTIONS

- C – Check-O-Matic 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 with all "E" specifications below*
- DD – Two-station Decoder Valve-in-Head with all "E" specifications below*
- E – Electric Valve-in-Head 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 13 for critical recommendations on grounding DIH rotors.

▸ = *TTS and DIH Advanced Features detailed on pages 20 and 22*

TTS-885 – SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4 + 5

1 Model	2 Valve Options	3 Nozzle	4 Regulation*	5 Options
GT-885 = Full/Part-Circle 60°-360° Arc Range	**C** = Check-O-Matic*	**10 to 53** = Installed G-885 Nozzle*	**P5** = 50 PSI (nozzles 10 to 18)	**S** = SSU*
	D = Decoder Valve-in-Head		**P6** = 65 PSI (nozzles 18 to 25)	
	DD = Two-station Decoder Valve-in-Head		**P8** = 80 PSI (nozzles 25 to 53)	
	E = Electric Valve-in-Head			
	** Converts to N.O. Hydraulic Valve-in-Head*	** SSU = #18, #23, #25, or #48*	** SSU = P5/#18, P6/#23 P8/#25, P8/#48*	** Standard Stocking Unit*

Example:
GT-885 - E - 48 - P8 - S = GT-885 full/part circle electric valve-in-head, installed #48 nozzle, 80 PSI regulation, standard stocking unit model

TTS-885 NOZZLE PERFORMANCE DATA*

Nozzle Set			Pressure		Radius	Flow		Precip mm/hr	
			bar	kPa	m	m³/hr	l/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
803603	10	315312	4.5	450	12.5	2.32	38.6	14.8	17.1
			-	-	-	-	-	-	-
●	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
803603	13	315314	4.5	450	14.9	2.93	48.8	13.1	15.2
			-	-	-	-	-	-	-
●	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
803603	15	315314	4.5	450	16.2	3.38	56.4	13.0	15.0
			4.8	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
			4.1	413	17.7	4.04	67.4	12.9	14.9
803603	18	315313	4.5	450	18.0	4.23	70.4	13.1	15.1
			4.8	482	18.3	4.41	73.4	13.2	15.2
●	Orange	●	5.5	551	18.6	4.66	77.6	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
803603	20	315313	4.5	450	18.9	4.50	75.0	12.6	14.5
			4.8	482	19.2	4.68	78.0	12.7	14.7
●	Tan	●	5.5	551	19.5	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
803603	23	315313	4.5	450	20.4	5.43	90.5	13.0	15.0
			4.8	482	20.4	5.50	91.6	13.2	15.2
●	Green	●	5.5	551	21.0	5.88	98.0	13.3	15.4
Red		Green	4.5	450	21.6	6.43	107.1	13.7	15.8
			4.8	482	21.9	6.66	110.9	13.8	16.0
803602	25	315310	5.5	551	22.3	7.16	119.2	14.5	16.7
			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
Red		Green	4.5	450	21.9	6.95	115.8	14.4	16.7
			4.8	482	22.3	7.18	119.6	14.5	16.7
803602	33	315310	5.5	551	22.9	7.70	128.3	14.7	17.0
			6.2	620	23.5	8.13	135.5	14.8	17.0
●	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
803602	38	315310	5.5	551	24.4	8.88	148.0	14.9	17.2
			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
803602	43	315310	5.5	551	25.3	9.88	164.7	15.4	17.8
			6.2	620	26.2	10.49	174.9	15.3	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
803601	48	315312	5.5	551	25.9	10.99	183.2	16.4	18.9
			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
803601	53	315312	5.5	551	27.1	12.06	201.0	16.4	18.9
			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

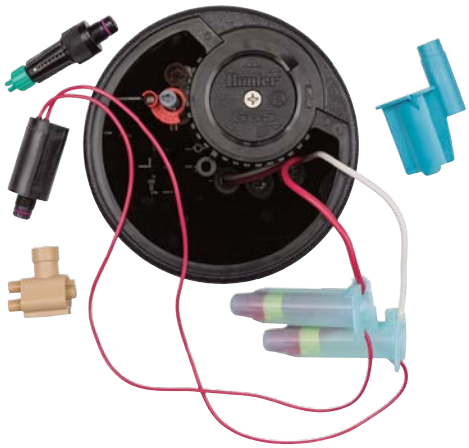
● = Nozzle plug P/N 315300 installed in the back side of the nozzle housing.

* 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-885 STANDARD NOZZLES

TTS-885 LOW-ANGLE NOZZLES**

** Low-angle nozzles reduce 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 rotors provide total-top-servicing of every serviceable component.

TTS-800 SERIES

Model: **TTS-835**
Radius: **5.5 to 15.2 m**
Flow: **0.43 to 2.91 m³/hr; 7.2 to 48.5 l/min**

FEATURES

- Model: TTS-835: Full/Part circle (50° to 360°)
- QuickCheck™ arc mechanism
- QuickSet-360 arc mechanism
- Nozzle choices: 8 multi-trajectory (15° to 25°)
- Nozzle range: #2 to #12
- Water-lubricated gear drive
- ▸ All TTS-800 VIH advanced features
- ▸ All TTS-800 DIH advanced features

OPERATING SPECIFICATIONS

- Radius: 5.5 to 15.2 m
- Flow: 0.43 to 2.91 m³/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

OPTIONS

- C – Check-O-Matic 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 with all "E" specifications below*
- DD – Two-station Decoder Valve-in-Head with all "E" specifications below*
- E – Electric Valve-in-Head 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 13 for critical recommendations on grounding DIH rotors.

▸ = *TTS and DIH Advanced Features detailed on pages 20 and 22*

TTS-835
Pop-up height: 8 cm
Overall height: 30 cm
Flange diameter: 18 cm
Female inlet: 1½" Acme

TTS-835 – SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4 + 5

1 Model	2 Valve Options	3 Nozzle	4 Regulation*	5 Options
GT-835 = Full/Part Circle 50 to 360°	**C** = Check-O-Matic *	**6** = Installed G-835 Nozzle * includes 8-nozzle rack	**P5** = 50 PSI	**S** = SSU *
	D = Decoder Valve-in-Head		**P6** = 65 PSI	
	E = Electric Valve-in-Head			
	** Converts to N.O. Hydraulic Valve-in-Head*	** SSU = #6*	** SSU = P5*	** Standard Stocking Unit*

Examples:
GT-835 - 6 - P5 - S = GT-835 full/part-circle electric valve-in-head, installed #6 nozzle, 50 PSI regulation, standard stocking unit model

TTS-835 NOZZLE PERFORMANCE DATA*

Nozzle	Pressure		Radius	Flow		Precip mm/hr	
	bar	kPa	m	m³/hr	l/min	■	▲
2 Yellow	2.8	280	5.5	0.43	7.2	14.3	16.6
	3.4	340	6.1	0.48	7.9	12.8	14.8
	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
3 Yellow	2.8	280	7.0	0.68	11.4	13.9	16.0
	3.4	340	7.6	0.73	21.1	12.5	14.5
	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 Yellow	2.8	280	7.6	0.89	14.8	15.3	17.6
	3.4	340	8.5	0.93	15.5	12.8	14.8
	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 Yellow	2.8	280	8.8	1.07	17.8	13.7	15.8
	3.4	340	9.8	1.14	18.9	11.9	13.8
	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 Yellow	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
	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 Yellow	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
	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 Yellow	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
	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 Yellow	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
	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

TTS-835 NOZZLES

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

Model: **G-880**
Radius: **14.9 to 29.6 m**
Flow: **3.23 to 13.29 m³/hr; 53.8 to 221.4 l/min**

FEATURES

- Model: G-884 – Full-circle
- Dual-trajectory, color-coded nozzles:
  - 10 standard trajectory (22.5°)
  - 9 low-angle trajectory (15°)
- Nozzle range: #15 to #53
- Exclusive PressurePort™ nozzle technology
- Stainless-steel riser
- Water-lubricated gear drive
- ▸ Select TTS advanced features
- ▸ Select DIH advanced features

OPERATING SPECIFICATIONS

- 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 TTS rotors are pressure rated at 10 bar; 1,000 kPa

OPTIONS

- C – Check-O-Matic 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 with all "E" specifications below*
- DD – Two-station Decoder Valve-in-Head with all "E" specifications below*
- E – Electric Valve-in-Head 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 13 for critical recommendations on grounding DIH rotors.

▸ = *TTS and DIH Advanced Features detailed on pages 20 and 22*

G-880C
Pop-up height: 9.5 cm
Overall height: 30 cm
Flange diameter: 18 cm
Female inlet: 1½" Acme

G-880E
Pop-up height: 9.5 cm
Overall height: 30 cm
Flange diameter: 18 cm
Female inlet: 1½" Acme

G-880 – SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4 + 5

1 Model	2 Valve Options	3 Nozzle	4 Regulation*	5 Options
G-880 = Full-circle	**C** = Check-O-Matic*	**15 to 53** = Installed G880 Nozzle*	**P5** = 50 PSI (nozzles 15 to 18)	**S** = SSU*
	D = Decoder Valve-in-Head		**P6** = 65 PSI (nozzles 18 to 25)	
	DD = Two-station Decoder Valve-in-Head		**P8** = 80 PSI (nozzles 25 to 53)	
	E = Electric Valve-in-Head			
	** Converts to N.O. Hydraulic Valve-in-Head*	** SSU = #18, #23, #25, or #48*	** SSU = P5/#18, P6/#23 P8/#25, P8/#48*	** Standard Stocking Unit*

Example:
G-880 - E - 48 - P8 - S = G-880 full-circle electric valve-in-head, installed #48 nozzle, 80 PSI regulation, standard stocking unit model

G-880 NOZZLE PERFORMANCE DATA*

Nozzle Set			Pressure		Radius	Flow		Precip mm/hr	
			bar	kPa	m	m³/hr	l/min	■	▲
● Tan		● Grey	3.4	344	14.9	3.23	53.8	14.5	16.7
			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
			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
● Tan		● Grey	3.4	344	17.1	3.91	65.1	13.4	15.5
			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
● Tan		● Grey	3.4	344	17.4	4.18	69.7	13.8	16.0
			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
			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
● Tan		● Lt. Blue	3.4	344	19.2	4.91	81.8	13.3	15.4
			4.1	413	19.8	5.22	87.1	13.3	15.4
	23		4.5	450	20.1	5.45	90.8	13.5	15.6
			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
● Tan		● Lt. Blue	4.5	450	21.6	6.50	108.3	13.9	16.0
			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
			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
● Tan		● Lt. Blue	4.5	450	22.6	7.02	117.0	13.8	15.9
			4.8	482	22.9	7.27	121.1	13.9	16.1
	33		5.5	551	23.5	7.77	129.5	14.1	16.3
			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
● Tan		● Lt. Blue	4.5	450	23.5	7.97	132.9	14.5	16.7
			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
			6.2	620	26.5	10.52	175.3	15.0	17.3
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
	48		5.5	551	28.0	11.11	185.1	14.1	16.3
			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
	53		5.5	551	28.3	11.86	197.7	14.8	17.0
			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

* 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-880 STANDARD NOZZLES

G-880 LOW-ANGLE NOZZLES**

** Low-angle nozzles reduce 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.

GOLF ROTORS

G-800 SERIES

Model: **G-884**
Radius: **14.9 to 29.6 m**
Flow: **3.23 to 13.29 m³/hr; 53.8 to 221.4 l/min**

FEATURES

- Model: G-884 – Full-circle
- Dual-trajectory, colour-coded nozzles:
  - 10 standard trajectory (22.5°)
  - 9 low-angle trajectory (15°)
- Nozzle range: #15 to #53
- Exclusive PressurePort™ nozzle technology
- Stainless-steel riser
- Water-lubricated gear drive
- ▸ Select TTS advanced features
- ▸ Select DIH advanced features

OPERATING SPECIFICATIONS

- 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 TTS rotors are pressure rated at 10 bar; 1,000 kPa

OPTIONS

- C – Check-O-Matic 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 with all "E" specifications below*
- DD – Two-station Decoder Valve-in-Head with all "E" specifications below*
- E – Electric Valve-in-Head 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 13 for critical recommendations on grounding DIH rotors.

▸ = *TTS and DIH Advanced Features detailed on pages 20 and 22*

G-884C
Pop-up height: 9.5 cm
Overall height: 30 cm
Flange diameter: 18 cm
Female inlet: 1½" Acme

G-884E
Pop-up height: 9.5 cm
Overall height: 30 cm
Flange diameter: 18 cm
Female inlet: 1½" Acme

G-884 – SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4 + 5

1 Model	2 Valve Options	3 Nozzle	4 Regulation*	5 Options
G-884 = Full-Circle (convertible to forward-facing adjustable arc rotor)	**C** = Check-O-Matic*	**15 to 53** = Installed G-880 Nozzle*	**P5** = 50 PSI (nozzles 15 to 18)	**S** = SSU*
	D = Decoder Valve-in-Head		**P6** = 65 PSI (nozzles 18 to 25)	
	DD = Two-station Decoder Valve-in-Head		**P8** = 80 PSI (nozzles 25 to 53)	
	E = Electric Valve-in-Head			
	** Converts to N.O. Hydraulic Valve-in-Head*	** SSU = #18, #23, #25, or #48*	** SSU = P5/#18, P6/#23 P8/#25, P8/#48*	** Standard Stocking Unit*

Example:
G-884 - E - 48 - P8 - S = G-884 full-circle electric valve-in-head, installed #48 nozzle, 80 PSI regulation, standard stocking unit model

G-884 NOZZLE PERFORMANCE DATA*

Nozzle Set			Pressure		Radius	Flow		Precip mm/hr	
			bar	kPa	m	m³/hr	l/min	■	▲
● Tan	◯ 15 White	● Grey	3.4	344	14.9	3.23	53.8	14.5	16.7
			4.1	413	15.5	3.57	59.4	14.8	17.0
			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		315317	5.5	551	16.8	4.13	68.9	14.7	17.0
● Tan	18 Orange	● Grey	3.4	344	17.1	3.91	65.1	13.4	15.5
			4.1	413	17.7	4.28	71.3	13.7	15.8
			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		315317	5.5	551	18.6	4.82	80.3	13.9	16.1
● Tan	20 Brown	● Grey	3.4	344	17.4	4.18	69.7	13.8	16.0
			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
			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
● Tan	23 Green	● Lt. Blue	3.4	344	19.2	4.91	81.8	13.3	15.4
			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
			4.8	482	20.4	5.66	94.3	13.6	15.7
803611		315311	5.5	551	20.7	6.04	100.7	14.1	16.2
● Tan	25 Blue	● Lt. Blue	4.5	450	21.6	6.50	108.3	13.9	16.0
			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
			6.2	620	22.9	7.65	127.5	14.6	16.9
803611		315311	6.9	689	23.5	8.12	135.3	14.7	17.0
● Tan	33 Grey	● Lt. Blue	4.5	450	22.6	7.02	117.0	13.8	15.9
			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
			6.2	620	24.1	8.22	137.0	14.2	16.4
803611		315311	6.9	689	24.7	8.68	144.6	14.2	16.4
● Tan	38 Red	● Lt. Blue	4.5	450	23.5	7.97	132.9	14.5	16.7
			4.8	482	24.1	8.31	138.5	14.3	16.6
			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		315311	6.9	689	26.5	9.90	165.0	14.1	16.3
● Tan	43 Dk. Brown	● 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
			6.2	620	26.5	10.52	175.3	15.0	17.3
803611		315300	6.9	689	27.1	11.09	184.7	15.1	17.4
● Dk. Brown	48 Dk. Green	● 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
			6.2	620	28.7	11.46	191.0	14.0	16.1
803610		833500	6.9	689	29.3	12.15	202.5	14.2	16.4
● Dk. Brown	53 Dk. Blue	● 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
			6.2	620	29.0	12.61	210.1	15.0	17.4
803610		833500	6.9	689	29.6	13.29	221.4	15.2	17.6

* 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-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.

GOLF ROTORS

G-800 SERIES

Model: **G-885**
Radius: **11.3 to 28.7 m**
Flow: **2.02 to 13.54 m³/hr; 33.7 to 225.6 l/min**

FEATURES

- Model: G-885 – True full-circle/adjustable part-circle (60° to 360°)
- QuickCheck™ arc mechanism
- QuickSet-360 arc mechanism
- Dual-trajectory, colour-coded nozzles:
  - 12 standard trajectory (22.5°)
  - 9 low-angle trajectory (15°)
- Nozzle range: #10 to #53
- Exclusive PressurePort™ nozzle technology
- Contour "Back-Nozzle" capabilities
- Ratcheting stainless-steel riser
- Water-lubricated gear drive
- ▸ Select TTS advanced features
- ▸ Select DIH advanced features

G-885C
Pop-up height: 9.5 cm
Overall height: 30 cm
Flange diameter: 18 cm
Female inlet: 1½" Acme

OPERATING SPECIFICATIONS

- Radius: 11.3 to 28.7 m
- Flow: 2.02 to 13.54 m³/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

G-885E
Pop-up height: 9.5 cm
Overall height: 30 cm
Flange diameter: 18 cm
Female inlet: 1½" Acme

OPTIONS

- C – Check-O-Matic 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 with all "E" specifications below*
- DD – Two-station Decoder Valve-in-Head with all "E" specifications below*
- E – Electric Valve-in-Head 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 13 for critical recommendations on grounding DIH rotors.

▸ = *TTS and DIH Advanced Features detailed on pages 20 and 22*

G-885 – SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4 + 5

1 Model	2 Valve Options	3 Nozzle	4 Regulation*	5 Options
G-885 = Full/Part-Circle 60°-360° Arc Range	**C** = Check-O-Matic*	**10 to 53** = Installed G-885 Nozzle*	**P5** = 50 PSI (nozzles 10 to 18)	**S** = SSU*
	D = Decoder Valve-in-Head		**P6** = 65 PSI (nozzles 18 to 25)	
	DD = Two-station Decoder Valve-in-Head		**P8** = 80 PSI (nozzles 25 to 53)	
	E = Electric Valve-in-Head			
	** Converts to N.O. Hydraulic Valve-in-Head*	** SSU = #18, #23, #25, or #48*	** SSU = P5/#18, P6/#23 P8/#25, P8/#48*	** Standard Stocking Unit*

Example:
G-885 - E - 48 - P8 - S = G-885 full/part circle electric valve-in-head, installed #48 nozzle, 80 PSI regulation, standard stocking unit model

G-885 NOZZLE PERFORMANCE DATA*

Nozzle Set			Pressure		Radius	Flow		Precip mm/hr	
			bar	kPa	m	m³/hr	l/min	■	▲
Orange	10	Dk. Green	3.4	344	11.3	2.02	33.7	15.9	18.4
803603		315312	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
			-	-	-	-	-	-	-
●	Lt. Green	●	-	-	-	-	-	-	-
Orange	13	White	3.4	344	14.3	2.59	43.2	12.6	14.6
803603		315314	4.1	413	14.6	2.79	46.6	13.1	15.1
			4.5	450	14.9	2.93	48.8	13.1	15.2
			-	-	-	-	-	-	-
●	Lt. Blue	●	-	-	-	-	-	-	-
Orange	15	White	3.4	344	15.9	2.93	48.8	11.7	13.5
803603		315314	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
			4.8	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	18	Lt. Green	3.4	344	17.4	3.77	62.8	12.5	14.4
803603		315313	4.1	413	17.7	4.04	67.4	12.9	14.9
			4.5	450	18.0	4.23	70.4	13.1	15.1
			4.8	482	18.3	4.41	73.4	13.2	15.2
●	Orange	●	5.5	551	18.6	4.66	77.6	13.5	15.6
Orange	20	Lt. Green	3.4	344	18.0	4.07	67.8	12.6	14.5
803603		315313	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
			4.8	482	19.2	4.68	78.0	12.7	14.7
●	Tan	●	5.5	551	19.5	5.02	83.7	13.2	15.2
Orange	23	Lt. Green	3.4	344	19.8	4.59	76.5	11.7	13.5
803603		315313	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
			4.8	482	20.4	5.50	91.6	13.2	15.2
●	Green	●	5.5	551	21.0	5.88	98.0	13.3	15.4
Red	25	Green	4.5	450	21.6	6.43	107.1	13.7	15.8
803602		315310	4.8	482	21.9	6.66	110.9	13.8	16.0
			5.5	551	22.3	7.16	119.2	14.5	16.7
			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
Red	33	Green	4.5	450	21.9	6.95	115.8	14.4	16.7
803602		315310	4.8	482	22.3	7.18	119.6	14.5	16.7
			5.5	551	22.9	7.70	128.3	14.7	17.0
			6.2	620	23.5	8.13	135.5	14.8	17.0
●	Grey	●	6.9	689	24.1	8.61	143.5	14.8	17.1
Red	38	Green	4.5	450	23.2	7.93	132.1	14.8	17.1
803602		315310	4.8	482	23.8	8.22	137.0	14.5	16.8
			5.5	551	24.4	8.88	148.0	14.9	17.2
			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	43	Green	-	-	-	-	-	-	-
803602		315310	4.8	482	24.7	9.36	156.0	15.4	17.7
			5.5	551	25.3	9.88	164.7	15.4	17.8
			6.2	620	26.2	10.49	174.9	15.3	17.6
●	Dk. Brown	●	6.9	689	27.1	11.06	184.3	15.0	17.4
Dk. Red	48	Dk. Green	-	-	-	-	-	-	-
803601		315312	4.8	482	25.3	10.52	175.3	16.4	19.0
			5.5	551	25.9	10.99	183.2	16.4	18.9
			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	53	Dk. Green	-	-	-	-	-	-	-
803601		315312	4.8	482	26.5	11.52	191.9	16.4	18.9
			5.5	551	27.1	12.06	201.0	16.4	18.9
			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

● = Nozzle plug P/N 315300 installed in the back side of the nozzle housing.

* 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-885 STANDARD NOZZLES

G-885 LOW-ANGLE NOZZLES**

** Low-angle nozzles reduce 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

TTS-800/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.

G-800 SERIES

Model: **G-835**
Radius: **5.5 to 15.2 m**
Flow: **0.43 to 2.91 m³/hr; 7.2 to 48.5 l/min**

FEATURES

- Model: G-835: Full/Part circle (50° to 360°)
- QuickCheck™ arc mechanism
- QuickSet-360 arc mechanism
- Nozzle choices: 8 multi-trajectory (15° to 25°)
- Nozzle range: #2 to #12
- Water-lubricated gear drive
- ▸ Select TTS advanced features
- ▸ Select DIH advanced features

OPERATING SPECIFICATIONS

- Radius: 5.5 to 15.2 m
- Flow: 0.43 to 2.91 m³/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

OPTIONS

- C – Check-O-Matic 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 with all "E" specifications below*
- DD – Two-station Decoder Valve-in-Head with all "E" specifications below*
- E – Electric Valve-in-Head 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 13 for critical recommendations on grounding DIH rotors.

▸ = *TTS and DIH Advanced Features detailed on pages 20 and 22*

G-835C
Pop-up height: 8 cm
Overall height: 30 cm
Flange diameter: 18 cm
Female inlet: 1½" Acme

G-835E
Pop-up height: 8 cm
Overall height: 30 cm
Flange diameter: 18 cm
Female inlet: 1½" Acme

G-835 – SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4 + 5

1 Model	2 Valve Options	3 Nozzle	4 Regulation*	5 Options
G-835 = Full/Part Circle 50 to 360°	**C** = Check-O-Matic *	**6** = Installed G-835 Nozzle * includes 8-nozzle rack	**P5** = 50 PSI	**S** = SSU *
	D = Decoder Valve-in-Head		**P6** = 65 PSI	
	E = Electric Valve-in-Head			
	** Converts to N.O. Hydraulic Valve-in-Head*	** SSU = #6*	** SSU = P5*	** Standard Stocking Unit*

Examples:
G-835E - 6 - P5 - S = G-835 full/part-circle electric valve-in-head, installed #6 nozzle, 50 PSI regulation, standard stocking unit model

G-835 NOZZLE PERFORMANCE DATA*

Nozzle	Pressure		Radius	Flow		Precip mm/hr	
	bar	kPa	m	m³/hr	l/min	■	▲
2 Yellow	2.8	280	5.5	0.43	7.2	14.3	16.6
	3.4	340	6.1	0.48	7.9	12.8	14.8
	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
3 Yellow	2.8	280	7.0	0.68	11.4	13.9	16.0
	3.4	340	7.6	0.73	21.1	12.5	14.5
	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 Yellow	2.8	280	7.6	0.89	14.8	15.3	17.6
	3.4	340	8.5	0.93	15.5	12.8	14.8
	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 Yellow	2.8	280	8.8	1.07	17.8	13.7	15.8
	3.4	340	9.8	1.14	18.9	11.9	13.8
	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 Yellow	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
	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 Yellow	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
	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 Yellow	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
	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 Yellow	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
	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 B Series and G-800 Series adjustable arc rotors.

B SERIES

Models: **G-80B**
Radius: **14.9 to 29.6 m**
Flow: **3.23 to 13.29 m³/hr; 53.8 to 221.4 l/min**

FEATURES

- Models: G-80B: Full-circle opposing nozzles
- Dual-trajectory, colour-coded nozzles:
  - 10 standard trajectory (22.5°)
  - 9 low-angle trajectory (15°)
- Nozzle range: #15 to #53
- Exclusive PressurePort™ nozzle technology
- Ratcheting stainless-steel riser
- Water-lubricated gear drives
- Check height up to 3 m in elevation change

OPERATING SPECIFICATIONS

- G-80B
  - 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 rotors are pressure rated at 10 bar; 1,000 kPa

G-80B
Pop-up height: 9.5 cm
Overall height: 24.5 cm
Flange diameter: 13.7 cm
Female inlet: 1¼" Acme

G-80B – SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4

1 Model	2 Valve Options	3 Nozzle	4 Options*
G80 = Full-Circle	**B** = Block rotor with check valve	**15 to 53** = Installed G80 Nozzle* ** SSU = #18, #25, or #48*	**S** = SSU* ** Standard Stocking Unit*

Example:
G80 - B - 25 - S = G80 full-circle block rotor, installed #25 nozzle, standard stocking unit model

G-80B NOZZLE PERFORMANCE DATA*

Nozzle Set			Pressure		Radius	Flow		Precip mm/hr	
			bar	kPa	m	m³/hr	l/min	■	▲
● Tan		● Grey	3.4	344	14.9	3.23	53.8	14.5	16.7
			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
			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
● Tan		● Grey	3.4	344	17.1	3.91	65.1	13.4	15.5
			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
● Tan		● Grey	3.4	344	17.4	4.18	69.7	13.8	16.0
			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
			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
● Tan		● Lt. Blue	3.4	344	19.2	4.91	81.8	13.3	15.4
			4.1	413	19.8	5.22	87.1	13.3	15.4
	23		4.5	450	20.1	5.45	90.8	13.5	15.6
			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
● Tan		● Lt. Blue	4.5	450	21.6	6.50	108.3	13.9	16.0
			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
			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
● Tan		● Lt. Blue	4.5	450	22.6	7.02	117.0	13.8	15.9
			4.8	482	22.9	7.27	121.1	13.9	16.1
	33		5.5	551	23.5	7.77	129.5	14.1	16.3
			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
● Tan		● Lt. Blue	4.5	450	23.5	7.97	132.9	14.5	16.7
			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
			6.2	620	26.5	10.52	175.3	15.0	17.3
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
	48		5.5	551	28.0	11.11	185.1	14.1	16.3
			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
	53		5.5	551	28.3	11.86	197.7	14.8	17.0
			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

G-80B NOZZLES

LOW-ANGLE NOZZLES**

** Low-angle nozzles reduce radius by 15%

GOLF ROTORS

B SERIES

Models: **G-84B & G-85B**
Radius: **11.3 to 29.6 m**
Flow: **2.02 to 13.54 m³/hr; 33.7 to 225.6 l/min**

FEATURES

- Models:
  - G-84B: Full-circle opposing nozzles
  - G-85B: True Full-circle/adjustable part circle (60° to 360°)
- QuickCheck™ arc mechanism (G-85B)
- QuickSet-360 arc mechanism (G-85B)
- Dual-trajectory, colour-coded nozzles:
  - G-84B: 10 standard trajectory (22.5°)
  - G-85B: 12 standard trajectory (22.5°)
  - G-84B and G-85B: 9 low-angle trajectory (15°)
- Nozzle range:
  - G-84B: #15 to #53
  - G-85B: #10 to #53
- Exclusive PressurePort™ nozzle technology
- Contour “Back-Nozzle” capabilities (G-85B)
- Ratcheting stainless-steel riser
- Water-lubricated gear drives
- Check height up to 3 m in elevation change

OPERATING SPECIFICATIONS

- G-84B
  - 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
- G-85B
  - Radius: 11.3 to 28.7 m
  - Flow: 2.02 to 13.54 m3/hr; 33.7 to 225.6 l/min
  - Pressure range: 3.4 to 6.9 bar; 340 to 690 kPa
- All B Series rotors are pressure rated at 10 bar; 1,000 kPa

G-84B
Pop-up height: 9.5 cm
Overall height: 24.5 cm
Flange diameter: 13.7 cm
Female inlet: 1¼" Acme

G-85B
Pop-up height: 9.5 cm
Overall height: 24.5 cm
Flange diameter: 13.7 cm
Female inlet: 1¼" Acme

G-84B & G-85B – SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4

1 Model	2 Valve Options	3 Nozzle	4 Options*
G84 = Full-Circle	**B** = Block rotor with check valve	**15 to 53** = Installed G84 Nozzle* ** SSU = #18, #25, or #48*	**S** = SSU* ** Standard Stocking Unit*
G85 = Full/Part Circle 60° - 360°	**B** = Block rotor with check valve	**10 to 53** = Installed G85 Nozzle** *** SSU = #18, #25, or #48*	**S** = SSU* ** Standard Stocking Unit*

Example:
G84 - B - 25 - S = G80 full-circle block rotor, installed #25 nozzle, standard stocking unit model

G-84B NOZZLE PERFORMANCE DATA*

Nozzle Set			Pressure		Radius	Flow		Precip mm/hr	
			bar	kPa	m	m³/hr	l/min	■	▲
● Tan 803611	15	● Grey 315317	3.4	344	14.9	3.23	53.8	14.5	16.7
			4.1	413	15.5	3.57	59.4	14.8	17.0
			4.5	450	15.9	3.73	62.1	14.8	17.1
	White		4.8	482	16.2	3.86	64.4	14.8	17.1
			5.5	551	16.8	4.13	68.9	14.7	17.0
● Tan 803611	18	● Grey 315317	3.4	344	17.1	3.91	65.1	13.4	15.5
			4.1	413	17.7	4.28	71.3	13.7	15.8
			4.5	450	18.0	4.48	74.6	13.8	16.0
	Orange		4.8	482	18.3	4.54	75.7	13.6	15.7
			5.5	551	18.6	4.82	80.3	13.9	16.1
● Tan 803611	20	● Grey 315317	3.4	344	17.4	4.18	69.7	13.8	16.0
			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
	Brown		4.8	482	19.2	4.91	81.8	13.3	15.4
			5.5	551	19.5	5.16	85.9	13.5	15.6
● Tan 803611	23	● Lt. Blue 315311	3.4	344	19.2	4.91	81.8	13.3	15.4
			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
	Green		4.8	482	20.4	5.66	94.3	13.6	15.7
			5.5	551	20.7	6.04	100.7	14.1	16.2
● Tan 803611	25	● Lt. Blue 315311	4.5	450	21.6	6.50	108.3	13.9	16.0
			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
	Blue		6.2	620	22.9	7.65	127.5	14.6	16.9
			6.9	689	23.5	8.12	135.3	14.7	17.0
● Tan 803611	33	● Lt. Blue 315311	4.5	450	22.6	7.02	117.0	13.8	15.9
			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
	Grey		6.2	620	24.1	8.22	137.0	14.2	16.4
			6.9	689	24.7	8.68	144.6	14.2	16.4
● Tan 803611	38	● Lt. Blue 315311	4.5	450	23.5	7.97	132.9	14.5	16.7
			4.8	482	24.1	8.31	138.5	14.3	16.6
			5.5	551	25.0	8.84	147.3	14.1	16.3
	Red		6.2	620	25.6	9.38	156.3	14.3	16.5
			6.9	689	26.5	9.90	165.0	14.1	16.3
● Tan 803611	43	● Blue 315300	-	-	-	-	-	-	-
			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
	Dk. Brown		6.2	620	26.5	10.52	175.3	15.0	17.3
			6.9	689	27.1	11.09	184.7	15.1	17.4
● Dk. Brown 803610	48	● Dk. Blue 833500	-	-	-	-	-	-	-
			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
	Dk. Green		6.2	620	28.7	11.46	191.0	14.0	16.1
			6.9	689	29.3	12.15	202.5	14.2	16.4
● Dk. Brown 803610	53	● Dk. Blue 833500	-	-	-	-	-	-	-
			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
	Dk. Blue		6.2	620	29.0	12.61	210.1	15.0	17.4
			6.9	689	29.6	13.29	221.4	15.2	17.6

G-85B NOZZLE PERFORMANCE DATA

Nozzle Set			Pressure		Radius	Flow		Precip mm/hr	
			bar	kPa	m	m³/hr	l/min	■	▲
Orange 803603	10	Dk. Green 315312	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
			4.5	450	12.5	2.32	38.6	14.8	17.1
			-	-	-	-	-	-	-
●	Lt. Green	●	-	-	-	-	-	-	-
Orange 803603	13	White 315314	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
			4.5	450	14.9	2.93	48.8	13.1	15.2
			-	-	-	-	-	-	-
●	Lt. Blue	●	-	-	-	-	-	-	-
Orange 803603	15	White 315314	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
			4.8	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 803603	18	Lt. Green 315313	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
			4.5	450	18.0	4.23	70.4	13.1	15.1
			4.8	482	18.3	4.41	73.4	13.2	15.2
●	Orange	●	5.5	551	18.6	4.66	77.6	13.5	15.6
Orange 803603	20	Lt. Green 315313	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
			4.8	482	19.2	4.68	78.0	12.7	14.7
●	Tan	●	5.5	551	19.5	5.02	83.7	13.2	15.2
Orange 803603	23	Lt. Green 315313	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
			4.8	482	20.4	5.50	91.6	13.2	15.2
●	Green	●	5.5	551	21.0	5.88	98.0	13.3	15.4
Red 803602	25	Green 315310	4.5	450	21.6	6.43	107.1	13.7	15.8
			4.8	482	21.9	6.66	110.9	13.8	16.0
			5.5	551	22.3	7.16	119.2	14.5	16.7
			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
Red 803602	33	Green 315310	4.5	450	21.9	6.95	115.8	14.4	16.7
			4.8	482	22.3	7.18	119.6	14.5	16.7
			5.5	551	22.9	7.70	128.3	14.7	17.0
			6.2	620	23.5	8.13	135.5	14.8	17.0
●	Grey	●	6.9	689	24.1	8.61	143.5	14.8	17.1
Red 803602	38	Green 315310	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
			5.5	551	24.4	8.88	148.0	14.9	17.2
			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 803602	43	Green 315310	-	-	-	-	-	-	-
			4.8	482	24.7	9.36	156.0	15.4	17.7
			5.5	551	25.3	9.88	164.7	15.4	17.8
			6.2	620	26.2	10.49	174.9	15.3	17.6
●	Dk. Brown	●	6.9	689	27.1	11.06	184.3	15.0	17.4
Dk. Red 803601	48	Dk. Green 315312	-	-	-	-	-	-	-
			4.8	482	25.3	10.52	175.3	16.4	19.0
			5.5	551	25.9	10.99	183.2	16.4	18.9
			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 803601	53	Dk. Green 315312	-	-	-	-	-	-	-
			4.8	482	26.5	11.52	191.9	16.4	18.9
			5.5	551	27.1	12.06	201.0	16.4	18.9
			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

G-84B NOZZLES

G-85B NOZZLES

LOW-ANGLE NOZZLES**

** Low-angle nozzles reduce 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 360° operation. All triangular rates are equilateral.

GOLF ROTORS

B SERIES

Models: **G-75B & G-75B**
Radius: **14.3 to 22.9 m**
Flow: **1.75 to 7.66 m³/hr; 29.1 to 127.6 l/min**

FEATURES

- Models:
  - G-75B: Full-circle
  - G-75B: Full/Part circle (50° to 360°)
- QuickCheck™ arc mechanism (G-75B)
- QuickSet-360 arc mechanism (G-75B)
- Nozzle choices:
  - G-75B: 6 standard trajectory (25°)
  - G-75B: 9 standard trajectory (25°)
- Nozzle range:
  - G-75B: #15 to #28
  - G-75B: #8 to #28
- Exclusive PressurePort™ nozzle technology
- Water-lubricated gear drive
- Check height up to 3 m in elevation change

G-75B
Pop-up height: 8 cm
Overall height: 23 cm
Flange diameter: 12 cm
Female inlet: 1¼" Acme

G-75B
Pop-up height: 8 cm
Overall height: 23 cm
Flange diameter: 12cm
Female inlet: 1¼" Acme

OPERATING SPECIFICATIONS

- G-75B
  - Radius: 16.2 to 22.9 m
  - Discharge rate: 2.95 to 7.66 m³/hr; 49.2 to 127.6 l/min
  - Pressure range: 3.4 to 6.9 bar; 340 to 690 kPa
- G-75B
  - Radius: 14.3 to 21.6 m
  - Discharge rate: 1.75 to 7.34 m³/hr; 29.1 to 122.3 l/m
  - Pressure range: 2.8 to 6.9 bar; 280 to 690 kPa
- All B Series rotors are pressure rated at 10 bars; 1,000 kPa

G-75B & G-75B - SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4

1 Model	2 Valve Options	3 Nozzle	4 Options
G70 = Full-Circle	**B** = Block Rotor with Check Valve	**25** = Installed G70 Nozzle * ** Available in SSU model only* *SSU = #25* *Includes nozzle pack*	**S** = SSU * ** Standard Stocking Unit*
G75 = Full/Part Circle, 50° - 360° Arc Range	**B** = Block Rotor with Check Valve	**25** = Installed G75 Nozzle ** *** Available in SSU model only* *SSU = #25* *Includes nozzle pack*	**S** = SSU * ** Standard Stocking Unit*

Example:
G70 - B - 25 - S = G70 full-circle block rotor, installed #25 nozzle with nozzle pack, standard stocking unit model

G-75B NOZZLE PERFORMANCE DATA*

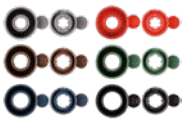
Nozzle	Pressure bar	Pressure kPa	Radius m	Flow m³/hr	Flow l/min	Precip mm/hr ■	Precip mm/hr ▲
15 ● Grey	3.4	340	16.2	2.95	49.2	11.3	13.1
	4.1	410	16.5	3.20	53.4	11.8	13.7
	4.5	450	16.8	3.36	56.0	12.0	13.8
	4.8	480	17.1	3.52	58.7	12.1	14.0
	5.5	550	17.7	3.70	61.7	11.8	13.7
18 ● Red	3.4	340	17.7	3.23	53.8	10.3	11.9
	4.1	410	18.0	3.61	60.2	11.2	12.9
	4.5	450	18.3	3.70	61.7	11.1	12.8
	4.8	480	18.3	3.84	64.0	11.5	13.3
	5.5	550	18.6	4.04	67.4	11.7	13.5
20 ● Dk. Brown	3.4	340	18.6	4.27	71.2	12.4	14.3
	4.1	410	18.9	4.45	74.2	12.5	14.4
	4.5	450	19.2	4.66	77.6	12.6	14.6
	4.8	480	19.5	5.00	83.3	13.1	15.2
	5.5	550	19.5	5.32	88.6	14.0	16.1
23 ● Dk. Green	3.4	340	19.2	4.57	76.1	12.4	14.3
	4.1	410	19.8	4.77	79.5	12.2	14.0
	4.5	450	19.8	4.97	82.9	12.7	14.6
	4.8	480	20.1	5.32	88.6	13.1	15.2
	5.5	550	20.4	5.66	94.3	13.6	15.7
25 ● Dk. Blue	3.4	340	19.8	4.95	82.5	12.6	14.6
	4.1	410	20.4	5.11	85.2	12.3	14.1
	4.5	450	20.4	5.36	89.3	12.9	14.8
	4.8	480	21.0	5.75	95.8	13.0	15.0
	5.5	550	21.6	6.11	101.8	13.0	15.1
28 ● Black	4.8	480	21.6	6.38	106.4	13.6	15.7
	5.5	550	21.6	6.79	113.2	14.5	16.7
	6.2	620	22.3	7.22	120.4	14.6	16.8
	6.9	690	22.9	7.66	127.6	14.6	16.9

* 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-75B NOZZLE PERFORMANCE DATA*

Nozzle	Pressure bar	Pressure kPa	Radius m	Flow m³/hr	Flow l/min	Precip mm/hr ■	Precip mm/hr ▲
8 ● Lt. Brown	2.8	280	14.3	1.75	29.1	8.5	9.8
	3.4	340	14.9	1.89	31.4	8.5	9.8
	4.1	410	15.2	2.09	34.8	9.0	10.4
	4.5	450	15.2	2.16	36.0	9.3	10.7
	4.8	480	15.5	2.25	37.5	9.3	10.7
10 ● Lt. Green	3.4	340	16.2	2.48	41.3	9.5	11.0
	4.1	410	16.5	2.73	45.4	10.1	11.6
	4.5	450	16.5	2.84	47.3	10.5	12.1
	4.8	480	16.8	2.98	49.6	10.6	12.2
	5.5	550	17.1	3.25	54.1	11.1	12.9
13 ● Lt. Blue	3.4	340	16.8	2.54	42.4	9.1	10.5
	4.1	410	17.1	2.79	46.6	9.6	11.1
	4.5	450	17.1	2.91	48.5	10.0	11.5
	4.8	480	17.4	3.02	50.3	10.0	11.6
	5.5	550	17.4	3.25	54.1	10.8	12.4
15 ● Grey	3.4	340	17.4	3.04	50.7	10.1	11.6
	4.1	410	17.7	3.25	54.1	10.4	12.0
	4.5	450	18.0	3.36	56.0	10.4	12.0
	4.8	480	18.0	3.48	57.9	10.7	12.4
	5.5	550	18.3	3.73	62.1	11.2	12.9
18 ● Red	3.4	340	18.3	3.29	54.9	9.8	11.4
	4.1	410	18.6	3.57	59.4	10.3	11.9
	4.5	450	18.6	3.70	61.7	10.7	12.4
	4.8	480	18.9	3.84	64.0	10.7	12.4
	5.5	550	19.2	4.13	68.9	11.2	12.9
20 ● Dk. Brown	4.1	410	18.9	4.04	67.4	11.3	13.1
	4.5	450	18.9	4.13	68.9	11.6	13.4
	4.8	480	19.2	4.36	72.7	11.8	13.7
	5.5	550	19.5	4.66	77.6	12.2	14.1
	6.2	620	19.8	4.95	82.5	12.6	14.6
23 ● Dk. Green	4.1	410	19.5	4.97	82.9	13.1	15.1
	4.5	450	19.8	4.86	81.0	12.4	14.3
	4.8	480	19.8	5.36	89.3	13.7	15.8
	5.5	550	20.1	5.82	96.9	14.4	16.6
	6.2	620	20.4	6.13	102.2	14.7	17.0
25 ● Dk. Blue	4.1	410	19.8	5.34	89.0	13.6	15.7
	4.5	450	19.8	5.63	93.9	14.4	16.6
	4.8	480	20.4	5.82	96.9	13.9	16.1
	5.5	550	21.0	6.20	103.3	14.0	16.2
	6.2	620	21.6	6.59	109.8	14.1	16.2
28 ● Black	4.8	480	20.1	6.11	101.8	15.1	17.4
	5.5	550	20.7	6.56	109.4	15.3	17.6
	6.2	620	21.3	6.95	115.8	15.3	17.6
	6.9	690	21.6	7.34	122.3	15.7	18.1

G-75B & G-75B NOZZLES



G-75B

G-75B

B SERIES

Model: **G-35B**
Radius: **5.5 to 15.2 m**
Flow: **0.43 to 2.91 m³/hr; 7.2 to 48.5 l/min**

FEATURES

- Model: G-35B: Full/Part Circle (50° - 360°)
- QuickCheck™ arc mechanism
- QuickSet-360 arc mechanism
- Nozzle choices:
  - 8 multi-trajectory 15°–25°
- Nozzle range:
  - #2 to #12
- Water-lubricated gear drive
- Check height up to 3 m in elevation change

OPERATING SPECIFICATIONS

- Radius: 5.5 to 15.2 m
- Flow: 0.43 to 2.91m³/hr; 7.2 to 48.5 l/min
- Pressure range: 2.8 to 4.5 bar; 280 to 450 kPa
- All B Series rotors are pressure rated at 10 bar; 1,000 kPa

G-35B
Pop-up height: 8 cm
Overall height: 23 cm
Flange diameter: 12 cm
Female inlet: 1¼" Acme

G-35B – SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4

1 Model	2 Valve Options	3 Nozzle	4 Options*
G35 = Full/Part Circle 50° to 360°	**B** = Block rotor with check valve	**6** = Installed G35 Nozzle* ** Available in SSU model only* *SSU = #6* *Includes nozzle rack*	**S** = SSU* ** Standard Stocking Unit*

Example:
G35 - B - 6 - S = G35 full/part circle block rotor, installed #6 nozzle with nozzle rack, standard stocking unit model

G-835 NOZZLE PERFORMANCE DATA*

Nozzle	Pressure		Radius	Flow		Precip mm/hr	
	bar	kPa	m	m³/hr	l/min	■	▲
2 Yellow	2.8	280	5.5	0.43	7.2	14.3	16.6
	3.4	340	6.1	0.48	7.9	12.8	14.8
	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
3 Yellow	2.8	280	7.0	0.68	11.4	13.9	16.0
	3.4	340	7.6	0.73	21.1	12.5	14.5
	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 Yellow	2.8	280	7.6	0.89	14.8	15.3	17.6
	3.4	340	8.5	0.93	15.5	12.8	14.8
	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 Yellow	2.8	280	8.8	1.07	17.8	13.7	15.8
	3.4	340	9.8	1.14	18.9	11.9	13.8
	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 Yellow	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
	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 Yellow	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
	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 Yellow	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
	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 Yellow	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
	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

* 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-835 NOZZLES

G-900 SERIES

Models: **G-990 & G-995**
Radius: **20.1 to 31.4 m**
Flow: **6.7 to 19.04 m³/hr; 111.7 to 317.2 l/min**

FEATURES

- Models:
  - G-990 – Full-circle
  - G-995 – Adjustable arc (40°-360°)
- QuickCheck™ arc mechanism
- Dual-trajectory, nozzle choices:
  - 8 standard trajectory (22.5°)
  - 8 low angle trajectory (15°)
- Nozzle range: #25 to #73
- Exclusive PressurePort™ nozzle technology
- Contour "Back-Nozzle" capabilities
- Water-lubricated gear drive
- ▸ Select TTS advanced features
- ▸ Select DIH advanced features

OPERATING SPECIFICATIONS

- G-990
  - Radius: 22.3 to 31.4 m
  - Flow: 6.93 to 18.92 m³/hr; 115.5 to 315.3 l/min
  - Pressure range: 5.5 to 8.3 bar; 550 to 830 kPa
- G-995
  - Radius: 20.1 to 29.6 m
  - Flow: 6.7 to 19.04 m³/hr; 111.7 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

OPTIONS

- C – Check-O-Matic 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 with all "E" specifications below*
- DD – Two-station Decoder Valve-in-Head with all "E" specifications below*
- E – Electric Valve-in-Head 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 13 for critical recommendations on grounding DIH rotors.

▸ = *TTS and DIH Advanced Features detailed on pages 20 and 22*

G-990C
Pop-up height: 8 cm
Overall height: 34 cm
Flange diameter: 19 cm
Female inlet: 1½" Acme

G-995E
Pop-up height: 8 cm
Overall height: 34 cm
Flange diameter: 19 cm
Female inlet: 1½" Acme

G-990 & G-995 – SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4 + 5

1 Model	2 Valve Options	3 Nozzle	4 Regulation*	5 Options
G-990 = Full-Circle	**C** = Check-O-Matic* **D** = Decoder Valve-in-Head **DD** = Two-station Decoder Valve-in-Head **E** = Electric Valve-in-Head	**25 to 73** = Installed G-990 Nozzle*	**P8** = 80 PSI (nozzles 25 to 53) **P1** = 100 PSI (nozzles 53 to 73) **P2** = 120 PSI (nozzle 73)	**S** = SSU*
G-995 = Adjustable Arc 40° - 360°	**C** = Check-O-Matic* **D** = Decoder Valve-in-Head **DD** = Two-station Decoder Valve-in-Head **E** = Electric Valve-in-Head ** Converts to N.O. Hydraulic Valve-in-Head*	**25 to 73** = Installed G-995 Nozzle* ** SSU = #25 or #53*	**P8** = 80 PSI (nozzles 25 to 53) **P1** = 100 PSI (nozzles 53 to 73) **P2** = 120 PSI (nozzle 73) ** SSU = P8/#25 P8/#53*	**S** = SSU* ** Standard Stocking Unit*

Example:
G-990 - E - 53 - P8 - S = G-990 full-circle electric valve-in-head, installed #53 nozzle, 80 PSI regulation, standard stocking unit model

G-990 NOZZLE PERFORMANCE DATA*

Nozzle	Pressure bar	Pressure kPa	Radius** m	Flow m³/hr	Flow l/min	Precip mm/hr ■	Precip mm/hr ▲
25 Lt. Blue	5.5	550	22.3	6.93	115.2	14.0	16.2
	6.2	620	22.9	7.36	122.6	14.1	16.3
	6.9	690	23.2	7.79	129.8	14.5	16.8
	7.6	760	23.8	8.29	138.2	14.7	16.9
	8.3	830	24.1	8.72	145.4	15.0	17.4
33 Grey	5.5	550	23.5	8.25	137.4	15.0	17.3
	6.2	620	23.8	8.72	145.4	15.4	17.8
	6.9	690	24.4	9.22	153.7	15.5	17.9
	7.6	760	24.7	9.70	161.6	15.9	18.4
	8.3	830	25.0	10.20	170.0	16.3	18.9
38 Red	5.5	550	24.4	9.22	153.7	15.5	17.9
	6.2	620	25.0	9.75	162.4	15.6	18.0
	6.9	690	25.3	10.29	171.4	16.1	18.6
	7.6	760	25.9	10.84	180.6	16.1	18.6
	8.3	830	26.2	11.40	190.0	16.6	19.2
43 Dk. Brown	5.5	550	25.3	10.49	174.9	16.4	18.9
	6.2	620	25.6	11.04	184.0	16.8	19.4
	6.9	690	25.9	11.56	192.7	17.2	19.9
	7.6	760	26.2	12.13	202.1	17.7	20.4
	8.3	830	26.5	12.70	211.6	18.1	20.8
48 Dk. Green	5.5	550	26.2	11.27	187.8	16.4	18.9
	6.2	620	27.1	11.93	198.7	16.2	18.7
	6.9	690	27.4	12.45	207.4	16.5	19.1
	7.6	760	27.7	13.02	216.9	16.9	19.5
	8.3	830	28.0	13.52	225.2	17.2	19.8
53 Dk. Blue	5.5	550	27.1	12.31	205.2	16.7	19.3
	6.2	620	27.4	12.88	214.6	17.1	19.8
	6.9	690	28.0	13.45	224.1	17.1	19.7
	7.6	760	28.3	14.02	233.6	17.4	20.1
	8.3	830	28.7	14.58	243.0	17.8	20.5
63 Black	5.5	550	28.0	14.36	23.92	18.3	21.1
	6.2	620	28.7	14.97	249.5	18.2	21.1
	6.9	690	29.3	15.76	265.7	18.4	21.3
	7.6	760	29.6	16.36	272.5	18.7	21.6
	8.3	830	29.9	17.01	283.5	19.1	22.0
73 Orange	5.5	550	29.3	16.38	272.9	19.1	22.1
	6.2	620	29.9	17.04	283.9	19.1	22.0
	6.9	690	30.2	17.67	297.5	19.4	22.4
	7.6	760	31.1	18.29	304.7	18.9	21.8
	8.3	830	31.4	18.92	315.3	19.2	22.2

G-995 NOZZLE PERFORMANCE DATA*

Nozzle	Pressure bar	Pressure kPa	Radius** m	Flow m³/hr	Flow l/min	Precip mm/hr ■	Precip mm/hr ▲
25 Lt. Blue	5.5	550	20.1	6.70	111.7	16.6	19.1
	6.2	620	20.4	7.16	119.2	17.2	19.8
	6.9	690	20.7	7.54	125.7	17.6	20.3
	7.6	760	21.0	8.09	134.8	18.3	21.1
	8.3	830	21.0	8.52	142.0	19.3	22.2
33 Grey	5.5	550	20.7	8.22	137.0	19.1	22.1
	6.2	620	21.0	8.68	144.6	19.6	22.7
	6.9	690	21.3	9.18	152.9	20.2	23.3
	7.6	760	21.6	9.68	161.3	20.7	23.9
	8.3	830	21.9	10.18	169.6	21.1	24.4
38 Red	5.5	550	21.9	9.22	153.7	19.1	22.1
	6.2	620	22.3	9.77	162.8	19.7	22.8
	6.9	690	22.9	10.31	171.9	19.7	22.8
	7.6	760	23.2	10.81	180.2	20.1	23.3
	8.3	830	23.5	11.36	189.3	20.6	23.8
43 Dk. Brown	5.5	550	22.6	10.47	174.5	20.6	23.8
	6.2	620	22.6	11.02	183.6	21.7	25.0
	6.9	690	22.9	11.52	191.9	22.0	25.4
	7.6	760	23.5	12.13	202.1	22.0	25.4
	8.3	830	23.8	12.65	210.8	22.4	25.8
48 Dk. Green	5.5	550	23.5	11.40	190.0	20.7	23.9
	6.2	620	24.1	11.95	199.1	20.6	23.8
	6.9	690	24.7	12.52	208.6	20.5	23.7
	7.6	760	25.0	13.06	217.7	20.9	24.1
	8.3	830	25.3	13.74	229.0	21.5	24.8
53 Dk. Blue	5.5	550	24.7	12.47	207.8	20.5	23.6
	6.2	620	25.6	12.99	216.5	19.8	22.9
	6.9	690	26.2	13.52	225.2	19.7	22.7
	7.6	760	26.5	14.11	235.1	20.1	23.2
	8.3	830	26.8	14.63	243.8	20.3	23.5
63 Black	5.5	550	26.2	14.15	235.8	20.6	23.8
	6.2	620	26.8	14.88	247.9	20.7	23.9
	6.9	690	27.4	15.67	261.2	20.8	24.0
	7.6	760	27.7	16.33	272.2	21.2	24.5
	8.3	830	28.0	16.97	282.8	21.6	24.9
73 Orange	5.5	550	27.1	16.51	275.2	22.4	25.9
	6.2	620	27.7	17.13	285.4	22.3	25.7
	6.9	690	28.3	17.74	295.6	22.1	25.5
	7.6	760	29.0	18.38	306.2	21.9	25.3
	8.3	830	29.6	19.04	317.2	21.8	25.1

* 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-900 NOZZLES

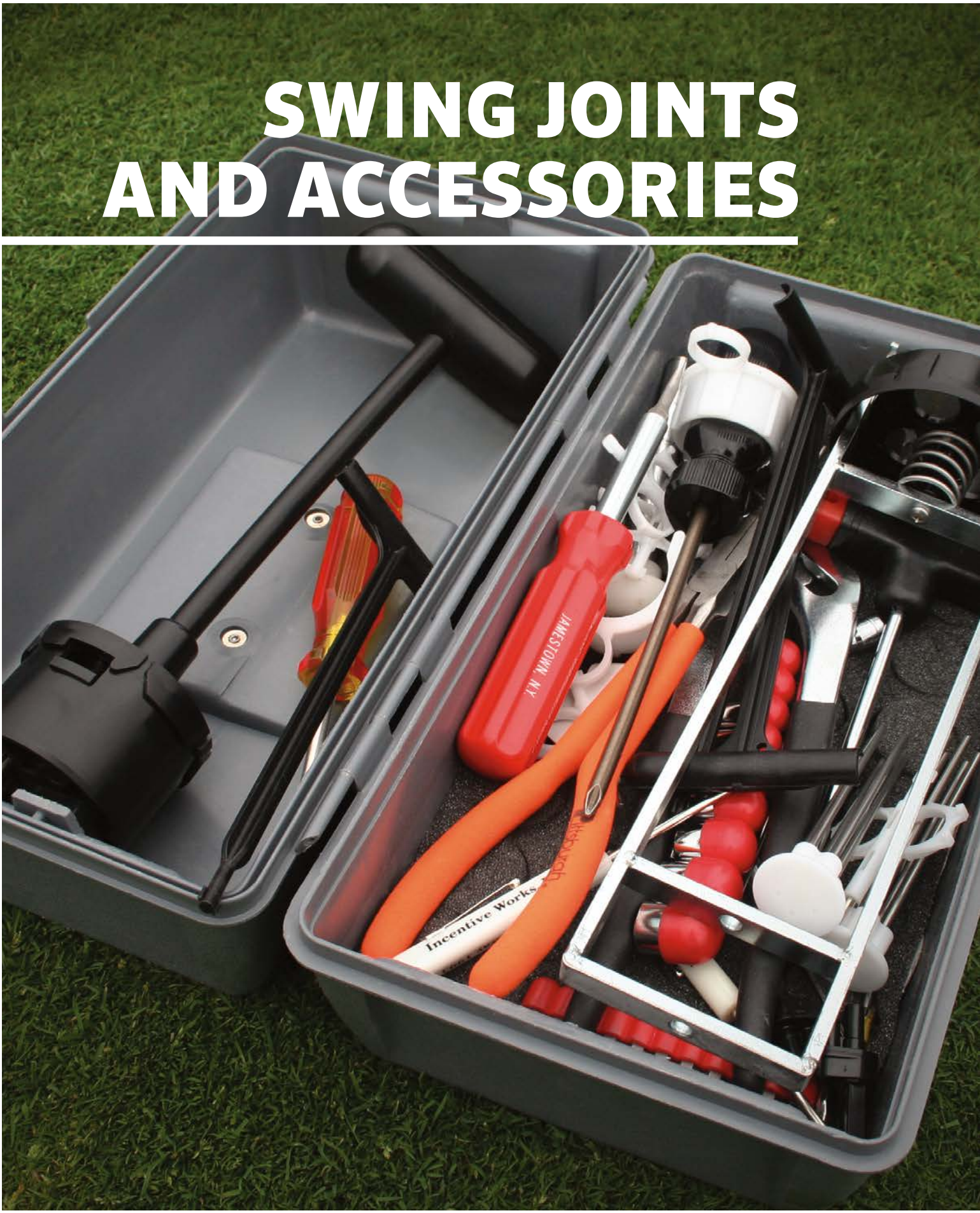
G-900 LOW-ANGLE NOZZLES**

** Low-angle nozzles reduce radius by 15%

Contour "Back-Nozzle" Capabilities

Choose any nozzle from the PGP, I-40, and G70 nozzle racks, or from the short- and mid-range G-900 nozzles.

SWING JOINTS AND ACCESSORIES



HSJ SWING JOINTS
ADVANCED FEATURES

Proven Products, Proven Partners

Over the last three decades, Hunter has grown to become the world-leading producer of gear-driven rotors and well known for its quality products and excellent customer support. LASCO®, with over 50 years in business, is widely recognised as the industry's leading producer of PVC irrigation fittings and swing joints and is well known for its outstanding customer support in the golf irrigation market. Therefore, when Hunter sought out a partner for Hunter-branded swing joints, the choice was immediately clear.

We are proud to introduce Hunter HSJ Swing Joints by LASCO — a proven team with time-tested solutions for the golf irrigation market. HSJs are available in a multitude of inlet, outlet, size, and length configurations for every course and preference.

Upgrade Your Rotor Warranty

Include Hunter HSJ Swing Joints with your golf rotor order and qualify for a 5-year component exchange warranty. Swing Joints must be purchased from an authorised Hunter Golf Distributor to qualify.

LASCO is a trademark of LASCO Fittings Inc.

HSJ SWING JOINTS

BY LASCO FITTINGS INC.

FEATURES

- Heavy-duty prefabricated PVC swing joints with O-Ring seals
- Available in all popular inlet and outlet configurations
- Choose from 20, 30 or 46 cm lay arm lengths and Single Top-Out or Triple Top-Out designs
- Unique SnapLok™ outlet with brass threads offers excellent support and durability for quick coupler installations
- Match HSJ swing joint and Hunter golf rotor purchases to qualify for an upgraded 5-year component exchange golf rotor warranty*

* Must be purchased from authorised Hunter Golf distributor to qualify for extended warranty program.

Swing Joints
HSJ-0 = Model ¾"
HSJ-1 = Model 1"
HSJ-2 = Model 1¼"
HSJ-3 = Model 1½"

SWING JOINT – SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4 + 5

1 Model	2 Inlet Type (from pipe fitting)	3 Outlet Type (to sprinkler inlet)	4 Outlet Style	5 Lay Length
HSJ-0 = ¾" Commercial Swing Joint **HSJ-1** = 1" Heavy-Duty Swing Joint **HSJ-2** = 1¼" Heavy-Duty Swing Joint **HSJ-3** = 1½" Heavy-Duty Swing Joint	**3** = Male - NPT **4** = Male - ACME* **5** = Spigot - Metric Short** **6** = Male - BSP** **7** = Spigot - 10 cm Long** **M** = Main ACME H-Connection *** **P** = Main ACME V-Connection **** * *Not available in HSJ-0 or HSJ-3. Use "M" inlet for HSJ-3.* ** *Not available in HSJ-0.* *** *Horizontal connection reduces from 1½" ACME to swing joint size* **** *Vertical connection reduces from 1½" ACME to swing joint size*	**2** = Male - NPT **3** = Enlarging - to 1½" (40 mm) Male NPT* **5** = Male - BSP *(not available in HSJ-0)* **6** = Enlarging - to 1½" (40 mm) Male BSP* **8** = Enlarging - to 1½" Male ACME* **0** = Male ACME **A** = Enlarging/Reducing - to 1¼" Male ACME** **S** = Male - Brass NPT SnapLok™ *** **U** = Male - Brass BSP SnapLok™ *** * *Not available in HSJ-0 or HSJ-3* ** *Not available in HSJ-0 and HSJ-2* *** *HSJ-1 model only - for quick coupler*	**2** = Single Top-Out **4** = Triple Top-Out* ** Not available in S Outlet Type*	**8** = 20 cm Lay Arm* **12** = 30 cm Lay Arm **18** = 46 cm Lay Arm** * *HSJ-0 only* ** *Not available in HSJ-0*

Example:
HSJ - 3 - M - 0 - 2 - 12 = HSJ 1½" heavy-duty swing joint, 1½" Male ACME horizontal connection to mainline tee, 1½" Male ACME single top outlet, 12" lay arm length.

ACME ADAPTER FITTINGS

1¼" Models

1¼" male Acme x 1" female NPT	P/N 109325
1¼" male Acme x 1" female BSP	P/N 105329
1¼" male Acme x 1¼" female NPT	P/N 474800
1¼" male Acme x 1¼" female BSP	P/N 474900
1¼" male Acme x 1½" female NPT	P/N 104153
1¼" male Acme x 1½" female BSP	P/N 107262

Acme x Acme Models

1½" male Acme x 1" Acme female	P/N 225300
1½" male Acme x 1¼" Acme female	P/N 225400
1¼" male Acme x 1" Acme female	P/N 225500

SnapLok is a trademark of LASCO Fittings Inc.

1½" Models

1½" male Acme x 1" female NPT	P/N 475400
1½" male Acme x 1" female BSP	P/N 475500
1½" male Acme x 1¼" female NPT	P/N 475200
1½" male Acme x 1¼" female BSP	P/N 475300
1½" male Acme x 1½" female NPT	P/N 475000
1½" male Acme x 1½" female BSP	P/N 475100

B2B Tee Assembly

1½" Acme threaded tee and 1½" 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)

ROTOR ACCESSORIES

HOSE SWIVEL ADAPTERS

Models

- Hose swivel adapter for G90 and G-900 Series (fits ¾" and 1" hose) – P/N G90HS100
- Hose swivel adapter for TTS-800 and G-800 Series (fits ¾" and 1" hose) – P/N G-800HS100

Hose Swivel Adapters

RUBBER COVER AND TURF CUP KITS

Models

- TTS-800 Low-bounce rubber cover kit P/N 987200SP
- TTS-800 No-bounce turf cup kit P/N 987100SP
- G-990 Rubber cover kit (date codes 0611 and prior only) – P/N 473800
- G-995 Rubber cover kit (also G-990 date codes 0711 and after) – P/N 473900

Rubber Cover Kit

SPOTSHOT

SPOTSHOT HOSE-END NOZZLE

Models

- ¾" Hose thread inlet – P/N 160700
- 1" Hose thread inlet – P/N 160705

Features

- Variable nozzle stream choices:
  - Jet – Tightly focused stream for power washing
  - Soak – Medium stream for dust control areas
  - Fan – Broad light stream for turf hot spots

Operating Specifications

- Flow: 132 l/min (7.9 m^3/hr) at 5.5 bar (550 kPa)*

** Not recommended for residential use with regulated, low-pressure, or low-flow conditions.*

SpotShot Hose-End Nozzles
¾" P/N 160700
1" P/N 160705

Jet-Stream Nozzle

Soak-Stream Nozzle

Fan-Stream Nozzle

TOOLS

Arc Adjustment/ Riser Hold-up Tool
P/N 382800SP
G-85B/G-885

Valve Insertion/ Removal Tool
P/N 604000SP
G-800 Series

Valve Insertion/ Removal Tool
P/N 280500SP
G-900/G90 Series

Valve and Snap Ring Insertion/Removal Pliers
P/N 475600SP
G-800 Series

Snap Ring Removal Tool
P/N 251000SP
All Golf Models

"T"-Handle Tool
P/N 319100SP

Hand Pump
P/N 217500SP

Pitot Gauge
P/N 280100SP

Hunter Wrench
P/N 172000SP

Nozzle Removal/ Installation Tool
P/N 803700SP
G-85B, G-885 Short- and Midrange Nozzles

Riser Pressure Gauge
P/N 991200SP
G-80 (2019), G85 and G85 Risers

LANDSCAPE SOLUTIONS

From clubhouse grounds and perimeters to driveways and walking paths, golf irrigation needs extend well past the course itself. Our full spectrum of industry-leading irrigation solutions will help ensure beautiful, thriving landscapes across all areas of your property.

ROTORS

PGP® ULTRA

Radius: **4.9 to 14.0 m**
Flow: **0.07 to 3.23 m³/hr; 1.2 to 53.8 l/min**
Inlet: **¾"**

FEATURES

- Models: Shrub, 10 cm, 30 cm
- Arc setting: 50° to 360°
- Factory installed rubber cover
- Through-the-top arc adjustment
- QuickCheck™ arc mechanism
- Water-lubricated gear drive
- Nozzle choices: 34
- Nozzle racks: 1.5 to 8.0 Blue, 2.0 Low Angle to 4.0 Low Angle Grey, 0.50 Short Radius to 3.0 Short Radius Black, 6.0 to 13.0 Green, MPR-20, MPR-30, MPR-35
- Warranty period: 5 years
- ▸ Automatic arc return
- ▸ Non-strippable drive
- ▸ Part- and full-circle in one model
- ▸ Headed and slotted set screw
- ▸ Optional reclaimed water ID
- ▸ Drain check valve (up to 3 m of elevation)

OPERATING SPECIFICATIONS

- Radius: 4.9 to 14.0 m
- Flow: 0.07 to 3.23 m³/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 rates: 10 mm/hr approximately
- Nozzle trajectory: Standard = 25°, Low Angle = 13°

PGP-00
Overall height: 19 cm
Exposed diameter: 4.5 cm
Inlet size: ¾"

PGP-04
Overall height: 19 cm
Pop-up height: 10 cm
Exposed diameter: 4.5 cm
Inlet size: ¾"

PGP-12
Overall height: 43 cm
Pop-up height: 30 cm
Exposed diameter: 4.5 cm
Inlet size: ¾"

PGP Ultra Reclaimed
Available as a factory installed option on all models

PGP Ultra
Easy arc and radius adjustment

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

1 Model	2 Standard Features	3 Feature Options	4 Nozzle Options
PGP-00 = Shrub **PGP-04** = 10 cm Pop-up **PGP-12** = 30 cm Pop-up	Adjustable arc, plastic riser, 8 standard nozzles, and 4 low angle nozzles	**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-Q, 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® ULTRA & I-20 PRB

PRESSURE-REGULATED BODY

Radius: **4.9 to 14.0 m**
Flow: **0.07 to 2.22 m³/hr; 1.2 to 36.0 l/min**
Inlet: **¾"**

FEATURES

- Models:
  - PGP Ultra: 10 cm
  - I-20: 10 cm, 15 cm
- Arc setting: 50° to 360°
- Factory-installed rubber cover
- Through-the-top arc adjustment
- QuickCheck™ arc mechanism
- Water-lubricated gear drive
- Nozzle choices: 30
- Nozzle racks: 1.5 to 8.0 Blue, 2.0 to 4.5 Low-Angle Grey, 0.50 to 3.0 Black, MPR-25, MPR-30, MPR-35
- Warranty period: 5 years
- ▸ Pressure-regulated body (3.1 bar; 310 kPa)
- ▸ Automatic arc return
- ▸ Non-strippable drive
- ▸ Part- and full-circle in one model
- ▸ Headed and slotted setscrew
- ▸ Optional reclaimed water ID
- ▸ Drain check valve (up to 3 m of elevation)

OPERATING SPECIFICATIONS

- Radius: 4.9 to 14.0 m
- Flow: 0.07 to 2.22 m³/hr; 1.2 to 36.0 l/min
- Nozzle discharge pressure: 3.1 bar; 310 kPa
- Operating pressure range: 1.7 to 4.5 bar; 170 to 450 kPa
- Precipitation rates: 10 mm/hr approximately
- Nozzle trajectory: Std = 25°, Low-Angle = 13°

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

1 Model	2 Standard Features	3 Feature Options	4 Nozzle Options
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 **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**

Examples:
PGP-04-PRB = 10 cm Pop-up, adjustable arc, pressure-regulated body
PGP-04-PRB - 2.5 = 10 cm Pop-up, adjustable arc, pressure-regulated body and 2.5 nozzle

I-20 (PLASTIC)-PRB – SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4

1 Model	2 Standard Features	3 Feature Options	4 Nozzle Options
I-20-04-PRB = 10 cm Pop-up **I-20-06-PRB** = 15 cm Pop-up	Adjustable arc, plastic riser, check valve, 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 (STAINLESS)-PRB – SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4

1 Model	2 Standard Features	3 Feature Options	4 Nozzle Options
I-20-04-SS-PRB = 10 cm Pop-up **I-20-06-SS-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**

Examples:
I-20-04-PRB = 10 cm Pop-up, adjustable arc, pressure-regulated body
I-20-06-SS-PRB - R - 3.0 = 15 cm Pop-up, adjustable arc, stainless-steel riser, pressure-regulated body, with reclaimed water ID, and 3.0 nozzle

PGP-04-PRB
Overall height: 22 cm
Pop-up height: 10 cm
Exposed diameter: 4.5 cm
Inlet size: ¾"

I-20-04-PRB
Overall height: 22 cm
Pop-up height: 10 cm
Exposed diameter: 4.5 cm
Inlet size: ¾"

I-20-06-PRB
Overall height: 27 cm
Pop-up height: 15 cm
Exposed diameter: 4.5 cm
Inlet size: ¾"

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

Nozzle	Pressure bar	Pressure kPa	Radius m	Flow m³/hr	Flow l/min	Precip mm/hr ■	Precip mm/hr ▲
1.5 Blue	1.7	170	8.8	0.27	4.5	7	8
	2.0	200	9.1	0.29	4.8	7	8
	2.5	250	9.4	0.32	5.4	7	8
	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
2.0 Blue	1.7	170	10.1	0.32	5.4	6	7
	2.0	200	10.1	0.35	5.8	7	8
	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
2.5 Blue	1.7	170	10.1	0.39	6.6	8	9
	2.0	200	10.4	0.43	7.1	8	9
	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
3.0 Blue	1.7	170	10.7	0.50	8.4	9	10
	2.0	200	10.7	0.54	9.1	10	11
	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
4.0 Blue	1.7	170	11.3	0.68	11.3	11	12
	2.0	200	11.6	0.73	12.2	11	13
	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 Blue	1.7	170	11.3	0.84	14.0	13	15
	2.0	200	11.6	0.91	15.2	14	16
	2.5	250	11.9	1.02	17.1	15	17
	3.0	300	12.8	1.14	19.0	14	16
	3.5	350	12.8	1.24	20.6	15	17
	4.0	400	12.8	1.32	22.1	16	19
	4.5	450	12.8	1.41	23.4	17	20
6.0 Blue	1.7	170	11.6	1.01	16.8	15	17
	2.0	200	11.9	1.09	18.2	15	18
	2.5	250	12.2	1.22	20.4	16	19
	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
8.0 Blue	1.7	170	11.3	1.35	22.5	21	25
	2.0	200	11.9	1.46	24.3	21	24
	2.5	250	12.5	1.63	27.2	21	24
	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:
All precipitation rates calculated for 180° operation. For the precipitation rate for a 360° sprinkler, divide by 2.

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

Nozzle	Pressure bar	Pressure kPa	Radius m	Flow m³/hr	Flow l/min	Precip mm/hr ■	Precip mm/hr ▲
2.0 LA Grey	1.7	170	7.3	0.33	5.6	12	14
	2.0	200	7.6	0.36	6.0	12	14
	2.5	250	7.9	0.40	6.7	13	15
	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 LA Grey	1.7	170	7.9	0.44	7.3	14	16
	2.0	200	8.2	0.47	7.9	14	16
	2.5	250	8.8	0.53	8.8	14	16
	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
3.5 LA Grey	1.7	170	8.5	0.58	9.7	16	18
	2.0	200	8.8	0.62	10.3	16	18
	2.5	250	9.1	0.68	11.4	16	19
	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 LA Grey	1.7	170	8.2	0.71	11.8	21	24
	2.0	200	8.8	0.76	12.7	19	23
	2.5	250	9.1	0.84	14.1	20	23
	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

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

Nozzle screw allows you to adjust the way you want to. Square top nozzle makes installation easy.

Pressure Regulation

Continual operating pressure of 3.1 bar; 310 kPa

ROTORS

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

Nozzle	Pressure bar	Pressure kPa	Radius m	Flow m³/hr	Flow l/min	Precip mm/hr ■	Precip mm/hr ▲
10 ● Dk. Green	1.7	170	10.7	1.48	24.6	26	30
	2.0	200	11.9	1.60	26.7	23	26
	2.5	250	12.5	1.80	30.0	23	27
	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
13 ● Dk. Green	1.7	170	11.0	1.91	31.9	32	37
	2.0	200	12.2	2.08	34.6	28	32
	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
6.0 LA ● Dk. Green	1.7	170	9.1	0.86	14.3	21	24
	2.0	200	9.4	0.94	15.6	21	24
	2.5	250	10.1	1.07	17.8	21	24
	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 LA ● Dk. Green	1.7	170	10.1	1.17	19.5	23	27
	2.0	200	10.7	1.28	21.3	22	26
	2.5	250	11.3	1.44	24.0	23	26
	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

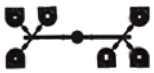
PGP ULTRA / I-20 / PRB BLACK SHORT RADIUS NOZZLE PERFORMANCE DATA

Nozzle	Pressure bar	Pressure kPa	Radius m	Flow m³/hr	Flow l/min	Precip mm/hr ■	Precip mm/hr ▲
0.50 SR ● Black	1.7	170	4.9	0.07	1.2	6	7
	2.0	200	5.2	0.08	1.3	6	7
	2.5	250	5.2	0.09	1.5	7	8
	3.0	300	5.2	0.10	1.7	8	9
	3.5	350	5.5	0.12	1.9	8	9
	4.0	400	5.5	0.13	2.1	8	10
	4.5	450	5.5	0.14	2.3	9	10
1.0 SR ● Black	1.7	170	4.9	0.16	2.7	14	16
	2.0	200	5.2	0.17	2.9	13	15
	2.5	250	5.2	0.19	3.2	14	17
	3.0	300	5.2	0.21	3.6	16	18
	3.5	350	5.5	0.23	3.8	15	18
	4.0	400	5.5	0.25	4.1	16	19
	4.5	450	5.5	0.26	4.3	17	20
2.0 SR ● Black	1.7	170	4.9	0.28	4.7	24	27
	2.0	200	5.2	0.31	5.2	23	27
	2.5	250	5.2	0.36	6.0	27	31
	3.0	300	5.2	0.41	6.9	31	35
	3.5	350	5.5	0.45	7.6	30	35
	4.0	400	5.5	0.49	8.2	33	38
	4.5	450	5.5	0.53	8.9	35	41
0.75 SR ● Black	1.7	170	6.7	0.12	2.0	5	6
	2.0	200	7.0	0.13	2.2	5	6
	2.5	250	7.0	0.15	2.4	6	7
	3.0	300	7.3	0.16	2.7	6	7
	3.5	350	7.6	0.17	2.9	6	7
	4.0	400	7.6	0.19	3.1	6	7
	4.5	450	7.6	0.20	3.3	7	8
1.5 SR ● Black	1.7	170	6.7	0.23	3.8	10	12
	2.0	200	7.0	0.25	4.1	10	12
	2.5	250	7.0	0.28	4.6	11	13
	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 SR ● Black	1.7	170	6.7	0.53	8.9	24	27
	2.0	200	7.0	0.56	9.3	23	26
	2.5	250	7.0	0.60	10.0	24	28
	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

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

PGP ULTRA / I-20 / PRB NOZZLES

Dk. Green
High Flow
(P/N 444800)



Black Short Radius
(P/N 466100)

I-20 with Blue Standard Nozzle

Convenient Nozzle Rack

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

Nozzle	Pressure bar	Pressure kPa	Radius m	Flow m³/hr	Flow l/min	Precip mm/hr ■	Precip mm/hr ▲
90°	1.7	170	7.0	0.17	3.0	13.7	15.8
	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
	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

MPR-25 NOZZLE

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

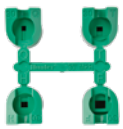
Nozzle	Pressure bar	Pressure kPa	Radius m	Flow m³/hr	Flow l/min	Precip mm/hr ■	Precip mm/hr ▲
90°	1.7	170	9.8	0.32	5.4	13.4	15.4
	2.4	240	10.4	0.38	6.6	14.1	16.3
	3.1	310	10.7	0.44	7.2	15.3	17.7
	3.8	380	10.7	0.48	7.8	17.0	19.6
	4.5	450	10.7	0.52	9.0	18.4	21.3
120°	1.7	170	9.8	0.40	6.6	12.7	14.6
	2.4	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
360°	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

MPR-35 NOZZLE

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

Nozzle	Pressure bar	Pressure kPa	Radius m	Flow m³/hr	Flow l/min	Precip mm/hr ■	Precip mm/hr ▲
90°	1.7	170	8.8	0.23	3.6	12.0	13.8
	2.4	240	9.1	0.28	4.8	13.4	15.4
	3.1	310	9.1	0.32	5.4	15.2	17.6
	3.8	380	9.1	0.35	6.0	17.0	19.6
	4.5	450	9.1	0.38	6.6	18.4	21.2
120°	1.7	170	8.8	0.30	4.8	11.7	13.5
	2.4	240	9.1	0.37	6.0	13.2	15.2
	3.1	310	9.1	0.42	7.2	15.1	17.4
	3.8	380	9.1	0.47	7.8	16.8	19.4
	4.5	450	9.1	0.51	8.4	18.3	21.1
180°	1.7	170	8.8	0.49	8.4	12.5	14.4
	2.4	240	9.1	0.59	9.6	14.1	16.2
	3.1	310	9.1	0.67	11.4	16.1	18.6
	3.8	380	9.1	0.75	12.6	17.9	20.7
	4.5	450	9.1	0.82	13.8	19.6	22.6
360°	1.7	170	8.8	0.96	16.2	12.3	14.2
	2.4	240	9.1	1.15	19.2	13.8	15.9
	3.1	310	9.1	1.31	21.6	15.7	18.1
	3.8	380	9.1	1.45	24.0	17.4	20.0
	4.5	450	9.1	1.57	26.4	18.8	21.7

MPR-30 NOZZLE



I-25

Radius: **11.9 to 21.6 m**
Flow: **0.82 to 7.24 m³/hr; 13.6 to 120.2 l/min**
Inlet: **1" BSP**

FEATURES

- Models plastic riser: 10 cm, 15 cm
- Models stainless-steel riser: 10 cm, 15 cm
- Arc setting: 50° to 360°
- Factory-installed rubber cover
- Through-the-top arc adjustment
- QuickCheck™ arc mechanism
- Water-lubricated gear drive
- Nozzle choices: 12
- Nozzle range: #4 to #28
- Warranty period: 5 years

- Automatic arc return
- Non-strippable drive
- Part- and full-circle in one model
- Colour-coded nozzles
- Stainless-steel riser
- Drain check valve (up to 3 m of elevation)

OPERATING SPECIFICATIONS

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

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

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

I-25 Reclaimed
Available as a factory-installed 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
I-25-04 = 10 cm Pop-up **I-25-06** = 15 cm Pop-up	Adjustable arc, plastic riser, check valve, and 5 nozzles	**B** = BSP inlet threads **R** = Reclaimed water ID	**#4 - #28** = Factory-installed nozzle number

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

1 Model	2 Standard Features	3 Feature Options	4 Nozzle Options
I-25-04-SS = 10 cm Pop-up **I-25-06-SS** = 15 cm Pop-up	Adjustable arc, stainless-steel riser, check valve, and 5 nozzles	**B** = BSP inlet threads **R** = Reclaimed water ID **HS** = High-Speed **HS-R** = High-speed and reclaimed water ID	**#4 - #28** = Factory-installed nozzle number

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	Pressure bar	Pressure kPa	Radius m	Flow m³/hr	Flow l/min	Precip mm/hr ■	Precip mm/hr ▲
4 Yellow	2.5	250	11.9	0.82	13.6	12	13
	3.0	300	12.2	0.91	15.2	12	14
	3.5	350	12.5	0.98	16.4	13	15
	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
5 White	2.5	250	12.8	0.95	15.9	12	13
	3.0	300	13.1	1.04	17.3	12	14
	3.5	350	13.4	1.11	18.5	12	14
	4.0	400	13.4	1.17	19.6	13	15
	4.5	450	13.7	1.24	20.6	13	15
	5.0	500	14.0	1.29	21.5	13	15
	5.5	550	14.3	1.35	22.6	13	15
7 Orange*	2.5	250	13.4	1.44	24.0	16	19
	3.0	300	14.0	1.54	25.6	16	18
	3.5	350	14.3	1.61	26.9	16	18
	4.0	400	14.3	1.68	28.0	16	19
	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
8 Lt. Brown	2.5	250	14.0	1.65	27.5	17	19
	3.0	300	14.3	1.81	30.1	18	20
	3.5	350	14.9	1.94	32.3	17	20
	4.0	400	15.2	2.05	34.2	18	20
	4.5	450	15.2	2.16	36.0	19	22
	5.0	500	15.5	2.27	37.8	19	22
	5.5	550	15.8	2.38	39.6	19	22
10 Lt. Green*	3.0	300	15.2	2.15	35.8	18	21
	3.5	350	15.5	2.32	38.6	19	22
	4.0	400	15.8	2.48	41.3	20	23
	4.5	450	16.2	2.63	43.9	20	23
	5.0	500	16.2	2.78	46.3	21	25
	5.5	550	16.5	2.94	48.9	22	25
	6.0	600	16.8	3.07	51.1	22	25
13 Lt. Blue	3.0	300	15.8	2.38	39.6	19	22
	3.5	350	16.2	2.57	42.8	20	23
	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
	5.5	550	16.8	3.24	54.0	23	27
	6.0	600	17.1	3.39	56.4	23	27
15 Grey*	3.0	300	16.8	2.86	47.7	20	24
	3.5	350	17.1	3.05	50.8	21	24
	4.0	400	17.4	3.22	53.7	21	25
	4.5	450	17.4	3.38	56.3	22	26
	5.0	500	17.4	3.53	58.8	23	27
	5.5	550	17.7	3.69	61.5	24	27
	6.0	600	18.0	3.82	63.7	24	27
	6.2	620	18.3	3.88	64.6	23	27
18 Red	3.0	300	17.4	30.8	51.4	20	24
	3.5	350	17.7	3.31	55.2	21	24
	4.0	400	18.0	3.52	58.7	22	25
	4.5	450	18.3	3.72	62.0	22	26
	5.0	500	18.9	3.91	65.2	22	25
	5.5	550	19.2	4.11	68.5	22	26
	6.0	600	19.5	4.28	71.4	23	26
	6.2	620	19.5	4.35	72.5	23	26
20 Dk. Brown*	3.5	350	18.0	3.72	62.1	23	27
	4.0	400	18.6	3.97	66.2	23	27
	4.5	450	18.9	4.20	70.1	24	27
	5.0	500	19.2	4.42	73.7	24	28
	5.5	550	19.5	4.66	77.7	25	28
	6.0	600	19.8	4.86	81.0	25	29
	6.5	650	20.1	5.05	84.2	25	29
	6.9	690	20.4	5.21	86.8	25	29
23 Dk. Green	3.5	350	18.6	4.56	76.0	26	30
	4.0	400	19.2	4.88	81.3	26	31
	4.5	450	19.5	5.18	86.3	27	31
	5.0	500	19.8	5.47	91.1	28	32
	5.5	550	20.1	5.78	96.3	29	33
	6.0	600	20.1	6.04	100.6	30	34
	6.5	650	20.4	6.29	104.8	30	35
	6.9	690	20.7	6.50	108.3	30	35
25 Dk. Blue*	3.5	350	19.2	4.86	80.9	26	30
	4.0	400	19.8	5.23	87.1	27	31
	4.5	450	20.1	5.58	93.1	28	32
	5.0	500	20.4	5.92	98.7	28	33
	5.5	550	21.0	6.29	104.9	28	33
	6.0	600	21.0	6.60	110.0	30	34
	6.5	650	21.3	6.90	115.1	30	35
	6.9	690	21.6	7.15	119.2	31	35
28 Black	3.5	350	18.3	5.31	88.5	32	37
	4.0	400	19.2	5.63	93.8	31	35
	4.5	450	20.1	5.93	98.8	29	34
	5.0	500	20.7	6.21	103.5	29	33
	5.5	550	21.3	6.52	108.6	29	33
	6.0	600	21.3	6.77	112.8	30	34
	6.5	650	21.6	7.01	116.9	30	35
	6.9	690	21.6	7.21	120.2	31	36

* 5 standard nozzles included with each sprinkler.

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

I-25 NOZZLE

Standard

I-25 HIGH-SPEED NOZZLE PERFORMANCE DATA

Nozzle	Pressure		Radius	Flow		Precip mm/hr	
	bar	kPa	m	m³/hr	l/min	■	▲
4 Yellow	2.5	250	11.0	0.81	13.6	14	16
	3.0	300	11.3	0.91	15.1	14	16
	3.5	350	11.6	0.99	16.4	15	17
	4.0	400	11.6	1.06	17.6	16	18
	4.5	450	11.6	1.13	18.8	17	19
	5.0	500	11.9	1.19	19.9	17	19
	5.5	550	11.9	1.26	21.1	18	21
5 White	2.5	250	11.3	0.93	15.5	15	17
	3.0	300	11.6	1.04	17.3	16	18
	3.5	350	11.9	1.13	18.9	16	18
	4.0	400	12.2	1.22	20.3	16	19
	4.5	450	12.2	1.30	21.6	17	20
	5.0	500	12.5	1.38	22.9	18	20
	5.5	550	12.5	1.46	24.4	19	22
7 Orange*	2.5	250	11.9	1.32	22.0	19	22
	3.0	300	12.2	1.46	24.3	20	23
	3.5	350	12.5	1.57	26.2	20	23
	4.0	400	12.8	1.68	27.9	20	24
	4.5	450	13.1	1.78	29.6	21	24
	5.0	500	13.4	1.87	31.1	21	24
	5.5	550	13.4	1.97	32.8	22	25
8 Lt. Brown	2.5	250	12.5	1.54	25.7	20	23
	3.0	300	12.8	1.72	28.6	21	24
	3.5	350	13.1	1.86	31.0	22	25
	4.0	400	13.4	2.00	33.3	22	26
	4.5	450	13.4	2.13	35.4	24	27
	5.0	500	13.7	2.25	37.5	24	28
	5.5	550	13.7	2.38	39.7	25	29
10 Lt. Green*	3.0	300	13.7	2.15	35.8	23	26
	3.5	350	14.0	2.32	38.6	24	27
	4.0	400	14.3	2.48	41.3	24	28
	4.5	450	14.6	2.63	43.9	25	28
	5.0	500	14.9	2.78	46.3	25	29
	5.5	550	15.2	2.94	48.9	25	29
	6.0	600	15.2	3.07	51.1	26	31
13 Lt. Blue	3.0	300	14.3	2.38	39.6	23	27
	3.5	350	14.6	2.57	42.8	24	28
	4.0	400	14.9	2.75	45.7	25	28
	4.5	450	15.2	2.91	48.5	25	29
	5.0	500	15.5	3.07	51.2	25	29
	5.5	550	15.5	3.24	54.0	27	31
	6.0	600	15.5	3.39	56.4	28	32

Nozzle	Pressure		Radius	Flow		Precip mm/hr	
	bar	kPa	m	m³/hr	l/min	■	▲
15 Grey*	3.0	300	14.6	2.86	47.7	27	31
	3.5	350	14.9	3.05	50.8	27	32
	4.0	400	15.2	3.22	53.7	28	32
	4.5	450	15.5	3.38	56.3	28	32
	5.0	500	16.2	3.53	58.8	27	31
	5.5	550	16.5	3.69	61.5	27	31
	6.0	600	16.5	3.82	63.7	28	33
	6.2	620	16.5	3.88	64.6	29	33
18 Red	3.0	300	14.9	3.08	51.4	28	32
	3.5	350	15.2	3.31	55.2	29	33
	4.0	400	15.5	3.52	58.7	29	34
	4.5	450	16.2	3.72	62.0	29	33
	5.0	500	16.8	3.91	65.2	28	32
	5.5	550	17.4	4.11	68.5	27	31
	6.0	600	17.4	4.28	71.4	28	33
	6.2	620	17.4	4.35	72.5	29	33
20 Dk. Brown*	3.5	350	15.5	3.72	62.1	31	36
	4.0	400	16.2	3.97	66.2	30	35
	4.5	450	16.5	4.20	70.1	31	36
	5.0	500	17.1	4.42	73.7	30	35
	5.5	550	17.7	4.66	77.7	30	34
	6.0	600	17.7	4.86	81.0	31	36
	6.5	650	18.0	5.05	84.2	31	36
	6.9	690	18.0	5.21	86.8	32	37
23 Dk. Green	3.5	350	16.5	4.56	76.0	34	39
	4.0	400	17.1	4.88	81.3	33	39
	4.5	450	17.4	5.18	86.3	34	40
	5.0	500	17.7	5.47	91.1	35	40
	5.5	550	18.3	5.78	96.3	35	40
	6.0	600	18.3	6.04	100.6	36	42
	6.5	650	18.6	6.29	104.8	36	42
	6.9	690	18.6	6.50	108.3	38	43
25 Dk. Blue*	3.5	350	17.1	4.86	80.9	33	38
	4.0	400	17.7	5.23	87.1	33	39
	4.5	450	18.3	5.58	93.1	33	39
	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
28 Black	3.5	350	17.4	5.31	88.5	35	41
	4.0	400	17.7	5.63	93.8	36	42
	4.5	450	18.0	5.93	98.8	37	42
	5.0	500	18.3	6.21	103.5	37	43
	5.5	550	18.9	6.52	108.6	36	42
	6.0	600	19.5	6.77	112.8	36	41
	6.5	650	19.8	7.01	116.9	36	41
	6.9	690	20.4	7.21	120.2	35	40

* 5 standard nozzles included with each sprinkler.

Notes:

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

I-25 NOZZLE

High-Speed

ROTORS

I-40

Radius: **13.1 to 23.2 m**
Flow: **1.63 to 6.84 m³/hr; 27.2 to 114.1 l/min**
Inlet: **1" BSP**

FEATURES

- Models stainless-steel riser: 10 cm to 15 cm
- Arc setting: 50° to 360°
- Factory-installed rubber cover
- Nozzle choices: 12
- Nozzle ranges I-40: #8 to #25
- Nozzle ranges I-40-ON: #15 to #28
- Through-the-top arc adjustment
- QuickCheck™ arc mechanism
- Water-lubricated gear drive
- Warranty period: 5 years

- ▸ Opposing nozzle 360° model
- ▸ Automatic arc return
- ▸ Non-strippable drive
- ▸ Part- and full-circle in one model
- ▸ Colour-coded nozzles
- ▸ Optional reclaimed water ID
- ▸ Stainless-steel riser
- ▸ Drain check valve (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" BSP

I-40-06
Overall height: 26 cm
Pop-up height: 15 cm
Exposed diameter: 5 cm
Inlet size: 1" BSP

OPERATING SPECIFICATIONS

- 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 m³/hr; 45.8 to 129.4 l/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 rates: 15 mm/hr approximately
- Nozzle trajectory: 25°

I-40 Reclaimed
Available as a factory-installed option on all models

I-40 High-Speed
Available as a factory-installed option on all models

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

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

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

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

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

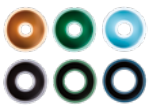
Nozzle	Pressure		Radius	Flow		Precip mm/hr	
	bar	kPa	m	m³/hr	l/min	■	▲
8 (40) Lt. Brown	2.5	250	13.1	1.63	27.2	19	22
	3.0	300	13.4	1.80	30.0	20	23
	3.5	350	13.7	1.94	32.3	21	24
	4.0	400	14.0	2.06	34.4	21	24
	4.5	450	14.0	2.18	36.3	22	26
	5.0	500	14.3	2.29	38.2	22	26
	5.5	550	14.6	2.41	40.2	23	26
10 (41) Lt. Green	3.0	300	14.6	2.20	36.6	21	24
	3.5	350	14.9	2.37	39.4	21	24
	4.0	400	15.2	2.52	42.0	22	25
	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
13 (42) Lt. Blue	3.0	300	14.9	2.36	39.4	21	24
	3.5	350	15.2	2.55	42.6	22	25
	4.0	400	15.5	2.73	45.5	23	26
	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
15 (43) Grey	3.0	300	16.2	2.93	48.8	22	26
	3.5	350	16.5	3.19	53.2	24	27
	4.0	400	16.8	3.44	57.3	24	28
	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
23 (44) Dk. Green	3.5	350	18.6	4.48	74.6	26	30
	4.0	400	18.9	4.76	79.4	27	31
	4.5	450	19.2	5.03	83.9	27	32
	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
25 (45) Dk. Blue	3.5	350	19.8	4.98	83.0	25	29
	4.0	400	20.1	5.33	88.7	26	30
	4.5	450	20.4	5.65	94.2	27	31
	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

I-40 HIGH-SPEED NOZZLE PERFORMANCE DATA

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

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

I-40 NOZZLES



Standard/
High-Speed

I-40 DUAL OPPOSING NOZZLE PERFORMANCE DATA

Nozzle	Pressure		Radius	Flow		Precip mm/hr	
	bar	kPa	m	m³/hr	l/min	■	▲
15 ● Grey	3.0	300	15.2	2.75	45.8	12	14
	3.5	350	15.8	2.91	48.5	12	13
	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
18 ● Red	3.0	300	17.4	2.90	48.3	10	11
	3.5	350	17.7	3.15	52.5	10	12
	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 ● Dk. Brown	3.5	350	18.3	3.98	66.2	12	14
	4.0	400	18.9	4.26	71.1	12	14
	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 ● Dk. Green	3.5	350	18.9	4.23	70.6	12	14
	4.0	400	19.5	4.55	75.8	12	14
	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
	6.5	650	20.7	5.96	99.4	14	16
	6.9	690	21.0	6.17	102.9	14	16
25 ● Dk. Blue	3.5	350	19.5	4.60	76.7	12	14
	4.0	400	20.1	4.92	82.1	12	14
	4.5	450	20.4	5.23	87.2	13	14
	5.0	500	20.7	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
28 ● Black	3.5	350	19.8	5.73	95.5	15	17
	4.0	400	20.4	6.07	101.1	15	17
	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

Note:
Precipitation rates for ON-Opposing Nozzle models are calculated at 360°.

I-40 NOZZLES

Opposing

Front Back

I-40 Turf Cup Kit option
Available as a field-installed option on all models

I-40 Opposing Nozzle 360° Model

ROTORS

I-80

Radius: **11.3 to 29.6 m**
Flow: **2.0 to 13.5 m³/hr; 33.7 to 225.6 l/min**
Inlet: **1" & 1½"**

FEATURES

- Models:
  - I-80: True full-circle/adjustable part-circle (60° to 360°)
  - I80-ON: Full-circle opposing nozzles
- QuickCheck™ arc mechanism (I-80)
- QuickSet-360 arc mechanism (I-80)
- Dual-trajectory, colour-coded nozzles:
  - I-80: 12 standard trajectory (22.5°)
  - I80-ON: 10 standard trajectory (22.5°)
  - I-80 and I80-ON: 9 low-angle trajectory (15°)
- Nozzle range:
  - I-80: #10 to #53
  - I80-ON: #15 to #53
- Contour back-nozzle capable
- Exclusive Total-Top-Service (TTS) design
- Exclusive PressurePort™ nozzle technology
- Exclusive ProTech Turf Cup System
  - No-dig servicing of riser assembly
  - No-dig arc adjustments
  - Quick-release turf cup assembly
  - Threads in cup lock/retain the turf
- Ratcheting stainless-steel riser
- Water-lubricated gear drive
- Check height up to 1.5 m in elevation change
- Warranty period: 5 years

OPERATING SPECIFICATIONS

- I-80
  - Radius: 11.3 m to 28.7 m
  - Flow: 2.0 to 13.5 m³/hr; 33.7 to 225.6 l/min
  - Pressure range: 3.4 to 6.9 bar; 344 to 689 kPa
- I80-ON
  - Radius: 14.9 to 29.6 m
  - Flow: 3.2 to 13.3 m³/hr; 53.8 to 221.4 l/min
  - Pressure range: 3.4 to 6.9 bar; 344 to 689 kPa
- All I-80 rotors are pressure rated at 10 bar; 1,000 kPa

I80-00-SS Riser Mount
I80-00-SS-ON Riser Mount
Overall height: 24 cm
Exposed diameter: 5.7 cm
Inlet size: 1½"

I80-04-SS Pop-up
I80-04-SS-ON Pop-up
Overall height: 25 cm
Pop-up height: 9.5 cm
Exposed diameter: 11 cm
Inlet size: 1" and 1½"

I80-04-SS-TC Turf Cup
I80-04-SS-ON-TC Turf Cup
Overall height: 29 cm
Pop-up height: 9.5 cm
Exposed diameter: 8.9 cm
Inlet size: 1" and 1½"

I-80 Reclaimed
Factory-installed option

I-80 Turf Cup Kit
P/N 959400

I-80 Rubber Cover Kit
P/N 959300

I-80 – SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4

1 Model	2 Standard Features	3 Featured Options	4 Nozzle Options
I80-00-SS = Riser mount	Adjustable arc, stainless-steel riser	**R** = Reclaimed water ID*	**#10 to #53** = Factory-installed nozzle number*
I80-04-SS = 10 cm Pop-up	Adjustable arc, stainless-steel riser, check valve	**B** = BSP inlet threads	* I-80 rotors only available with factory-installed nozzles (no nozzle packs included)
I80-04-SS-TC = 10 cm Pop-up with turf cup	Adjustable arc, stainless-steel riser, check valve factory-installed turf cup	* *TC reclaimed ID not available*	
I80-00-SS-ON = Riser mount	Full-circle, opposing nozzle, stainless-steel riser	**R** = Reclaimed water ID*	**#15 to #53** = Factory-installed nozzle number*
I80-04-SS-ON = 10 cm Pop-up	Full-circle, opposing nozzle, stainless-steel riser, check valve	**B** = BSP inlet threads	* I-80 rotors only available with factory-installed nozzles (no nozzle packs included)
I80-04-SS-ON-TC = 10 cm Pop-up with turf cup	Full-circle, opposing nozzle, stainless-steel riser, check valve, factory-installed turf cup	* *TC reclaimed ID not available*	

Example:
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
I80-04-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

I80-ON NOZZLE PERFORMANCE DATA*

Nozzle Set			Pressure		Radius	Flow		Precip mm/hr	
			bar	kPa	m	m³/hr	l/min	■	▲
● Tan 803611	15	● Grey 315317	3.4	344	14.9	3.23	53.8	14.5	16.7
			4.1	413	15.5	3.57	59.4	14.8	17.0
			4.5	450	15.9	3.73	62.1	14.8	17.1
	White		4.8	482	16.2	3.86	64.4	14.8	17.1
			5.5	551	16.8	4.13	68.9	14.7	17.0
● Tan 803611	18	● Grey 315317	3.4	344	17.1	3.91	65.1	13.4	15.5
			4.1	413	17.7	4.28	71.3	13.7	15.8
			4.5	450	18.0	4.48	74.6	13.8	16.0
	Orange		4.8	482	18.3	4.54	75.7	13.6	15.7
			5.5	551	18.6	4.82	80.3	13.9	16.1
● Tan 803611	20	● Grey 315317	3.4	344	17.4	4.18	69.7	13.8	16.0
			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
	Brown		4.8	482	19.2	4.91	81.8	13.3	15.4
			5.5	551	19.5	5.16	85.9	13.5	15.6
● Tan 803611	23	● Lt. Blue 315311	3.4	344	19.2	4.91	81.8	13.3	15.4
			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
	Green		4.8	482	20.4	5.66	94.3	13.6	15.7
			5.5	551	20.7	6.04	100.7	14.1	16.2
● Tan 803611	25	● Lt. Blue 315311	4.5	450	21.6	6.50	108.3	13.9	16.0
			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
	Blue		6.2	620	22.9	7.65	127.5	14.6	16.9
			6.9	689	23.5	8.12	135.3	14.7	17.0
● Tan 803611	33	● Lt. Blue 315311	4.5	450	22.6	7.02	117.0	13.8	15.9
			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
	Grey		6.2	620	24.1	8.22	137.0	14.2	16.4
			6.9	689	24.7	8.68	144.6	14.2	16.4
● Tan 803611	38	● Lt. Blue 315311	4.5	450	23.5	7.97	132.9	14.5	16.7
			4.8	482	24.1	8.31	138.5	14.3	16.6
			5.5	551	25.0	8.84	147.3	14.1	16.3
	Red		6.2	620	25.6	9.38	156.3	14.3	16.5
			6.9	689	26.5	9.90	165.0	14.1	16.3
● Tan 803611	43	● Blue 315300	-	-	-	-	-	-	-
			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
	Dk. Brown		6.2	620	26.5	10.52	175.3	15.0	17.3
			6.9	689	27.1	11.09	184.7	15.1	17.4
● Dk. Brown 803610	48	● Dk. Blue 833500	-	-	-	-	-	-	-
			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
	Dk. Green		6.2	620	28.7	11.46	191.0	14.0	16.1
			6.9	689	29.3	12.15	202.5	14.2	16.4
● Dk. Brown 803610	53	● Dk. Blue 833500	-	-	-	-	-	-	-
			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
	Dk. Blue		6.2	620	29.0	12.61	210.1	15.0	17.4
			6.9	689	29.6	13.29	221.4	15.2	17.6

I-80 NOZZLE PERFORMANCE DATA

Nozzle Set			Pressure		Radius	Flow		Precip mm/hr	
			bar	kPa	m	m³/hr	l/min	■	▲
Orange 803603	10	Dk. Green 315312	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
			4.5	450	12.5	2.32	38.6	14.8	17.1
			-	-	-	-	-	-	-
●	Lt. Green	●	-	-	-	-	-	-	-
Orange 803603	13	White 315314	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
			4.5	450	14.9	2.93	48.8	13.1	15.2
			-	-	-	-	-	-	-
●	Lt. Blue	●	-	-	-	-	-	-	-
Orange 803603	15	White 315314	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
			4.8	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 803603	18	Lt. Green 315313	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
			4.5	450	18.0	4.23	70.4	13.1	15.1
			4.8	482	18.3	4.41	73.4	13.2	15.2
●	Orange	●	5.5	551	18.6	4.66	77.6	13.5	15.6
Orange 803603	20	Lt. Green 315313	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
			4.8	482	19.2	4.68	78.0	12.7	14.7
●	Tan	●	5.5	551	19.5	5.02	83.7	13.2	15.2
Orange 803603	23	Lt. Green 315313	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
			4.8	482	20.4	5.50	91.6	13.2	15.2
●	Green	●	5.5	551	21.0	5.88	98.0	13.3	15.4
Red 803602	25	Green 315310	4.5	450	21.6	6.43	107.1	13.7	15.8
			4.8	482	21.9	6.66	110.9	13.8	16.0
			5.5	551	22.3	7.16	119.2	14.5	16.7
			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
Red 803602	33	Green 315310	4.5	450	21.9	6.95	115.8	14.4	16.7
			4.8	482	22.3	7.18	119.6	14.5	16.7
			5.5	551	22.9	7.70	128.3	14.7	17.0
			6.2	620	23.5	8.13	135.5	14.8	17.0
●	Grey	●	6.9	689	24.1	8.61	143.5	14.8	17.1
Red 803602	38	Green 315310	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
			5.5	551	24.4	8.88	148.0	14.9	17.2
			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 803602	43	Green 315310	-	-	-	-	-	-	-
			4.8	482	24.7	9.36	156.0	15.4	17.7
			5.5	551	25.3	9.88	164.7	15.4	17.8
			6.2	620	26.2	10.49	174.9	15.3	17.6
●	Dk. Brown	●	6.9	689	27.1	11.06	184.3	15.0	17.4
Dk. Red 803601	48	Dk. Green 315312	-	-	-	-	-	-	-
			4.8	482	25.3	10.52	175.3	16.4	19.0
			5.5	551	25.9	10.99	183.2	16.4	18.9
			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 803601	53	Dk. Green 315312	-	-	-	-	-	-	-
			4.8	482	26.5	11.52	191.9	16.4	18.9
			5.5	551	27.1	12.06	201.0	16.4	18.9
			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

I80-ON NOZZLES

I-80 NOZZLES

LOW-ANGLE NOZZLES

● = Nozzle plug P/N 315300 installed in the back side of the nozzle housing.

* Complies to ASAE standard. All precipitation rates calculated for 360° operation. All triangular rates are equilateral.

ROTORS

I-90

Radius: **22.3 to 31.4 m**
Flow: **6.7 to 19.04 m³/hr; 111.7 to 317.2 l/min**
Inlet: **1½" BSP**

FEATURES

- Model: 8 cm
- Arc setting: 40° to 360°
- Dual-trajectory, nozzle choices:
  - 8 standard trajectory (22.5°)
  - 8 low angle trajectory (15°)
- Nozzle range: #25 to #73
- Exclusive Pressure Port™ nozzle technology
- Through-the-top arc adjustment
- QuickCheck™ arc mechanism
- Water-lubricated gear drive
- Standard factory-installed nozzle: #53
- Factory-installed rubber logo cap
- Warranty period: 5 years
- ▸ Opposing nozzle 360° model
- ▸ Dual-trajectory, colour-coded nozzles
- ▸ Optional reclaimed water ID
- ▸ Drain check valve (up to 2 m of elevation)

OPERATING SPECIFICATIONS

- Radius:
  - I90-ADV: 20.1 m to 29.6 m
  - 190-36V: 22.3 m to 31.4 m
- Flow:
  - I90-ADV: 6.70 to 19.04 m³/hr; 111.7 to 317.2 l/min
  - I90-36V: 6.93 to 18.92 m³/hr; 115.5 to 315.3 l/min
- Recommended pressure range: 5.5 to 8.0 bar; 550 to 800 kPa
- Operating pressure range: 5.0 to 8.0 bar; 500 to 800 kPa
- Precipitation rates: 19 mm/hr approximately (360°)

USER-INSTALLED OPTIONS

- Turf Cup Kit
  - I-90 all: P/N 467955
- Rubber Cover Kit
  - I-90-ADV: P/N 234200 (all)
  - I-90-36V: P/N 234200 (0711 date code and after)
  - I-90-36V: P/N 234201 (0611 date code and prior only)
- Low-Angle Nozzles: #25 to #73

I-90
Overall height:
ADV/36V: 28 cm
Pop-up height: 8 cm
Exposed diameter: 9 cm
Inlet size: 1½" (40 mm) BSP

Turf Cup Kit
P/N 467955

Rubber Cover Kit
I90-ADV: P/N 234200
I90-36V: P/N 234201

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

I-90 – SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4

1 Model	2 Standard Features	3 Feature Options	4 Nozzle Options
I-90 = 8 cm Pop-up	Plastic riser, check valve, and 8 standard trajectory nozzles	**ADV** = Adjustable arc **ARV** = Adjustable arc and reclaimed water ID **36V** = Full-circle, opposing nozzles **3RV** = Full-circle, opposing nozzles and reclaimed water ID **B** = BSP inlet threads	**#25 to #73** = Factory-installed nozzle number

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

Nozzle	Pressure		Radius	Flow		Precip mm/hr	
	bar	kPa	m	m³/hr	l/min	■	▲
25 Lt. Blue	5.5	550	20.1	6.70	111.7	33.1	38.2
	6.0	600	20.4	7.16	119.2	34.3	39.6
	7.0	700	20.7	7.54	125.7	35.1	40.5
	7.5	750	21.0	8.09	134.8	36.6	42.2
33 Grey	5.5	550	20.7	8.22	137.0	38.3	44.2
	6.0	600	21.0	8.68	144.6	39.2	45.3
	7.0	700	21.3	9.18	152.9	40.3	46.6
	7.5	750	21.6	9.68	161.3	41.3	47.7
38 Red	5.5	550	21.9	9.22	153.7	38.3	44.2
	6.0	600	22.3	9.77	162.8	39.5	45.6
	7.0	700	22.9	10.31	171.9	39.5	45.6
	7.5	750	23.2	10.81	180.2	40.3	46.5
43 Dk. Brown	5.5	550	22.6	10.47	174.5	41.2	47.5
	6.0	600	22.6	11.02	183.6	43.3	50.0
	7.0	700	22.9	11.52	191.9	44.1	50.9
	7.5	750	23.5	12.13	202.1	44.0	50.9
48 Dk. Green	5.5	550	23.5	11.40	190.0	41.4	47.8
	6.0	600	24.1	11.95	199.1	41.2	47.6
	7.0	700	24.7	12.52	208.6	41.1	47.4
	7.5	750	25.0	13.06	217.7	41.8	48.3
53 Dk. Blue	5.5	550	24.7	12.47	207.8	40.9	47.2
	6.0	600	25.6	12.99	216.5	39.6	45.8
	7.0	700	26.2	13.52	225.2	39.3	45.4
	7.5	750	26.5	14.11	235.1	40.1	46.3
	8.0	800	26.8	14.63	243.8	40.7	47.0
63 Black	5.5	550	26.2	14.15	235.8	41.2	47.6
	6.0	600	26.8	14.88	247.9	41.4	47.8
	7.0	700	27.4	15.67	261.2	41.7	48.1
	7.5	750	27.7	16.33	272.2	42.5	49.0
	8.0	800	28.0	16.97	282.8	43.2	49.8
73 Orange	5.5	550	27.1	16.51	275.2	44.9	51.8
	6.0	600	27.7	17.13	285.4	44.5	51.4
	7.0	700	28.3	17.74	295.6	44.2	51.0
	7.5	750	29.0	18.38	306.2	43.8	50.6
	8.0	800	29.6	19.04	317.2	43.5	50.3

* 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.

I-90-36V NOZZLE PERFORMANCE DATA

Nozzle	Pressure		Radius	Flow		Precip mm/hr	
	bar	kPa	m	m³/hr	l/min	■	▲
25 Lt. Blue	5.5	550	22.3	6.93	115.5	14.0	16.2
	6.0	600	22.9	7.36	122.6	14.1	16.3
	7.0	700	23.2	7.79	129.8	14.5	16.8
	7.5	750	23.8	8.29	138.2	14.7	16.9
33 Grey	5.5	550	23.5	8.25	137.4	15.0	17.3
	6.0	600	23.8	8.72	145.4	15.4	17.8
	7.0	700	24.4	9.22	153.7	15.5	17.9
	7.5	750	24.7	9.70	161.6	15.9	18.4
38 Red	5.5	550	24.4	9.22	153.7	15.5	17.9
	6.0	600	25.0	9.75	162.4	15.6	18.0
	7.0	700	25.3	10.29	171.5	16.1	18.6
	7.5	750	25.9	10.84	180.6	16.1	18.6
43 Dk. Brown	5.5	550	25.3	10.49	174.9	16.4	18.9
	6.0	600	25.6	11.04	184.0	16.8	19.4
	7.0	700	25.9	11.56	192.7	17.2	19.9
	7.5	750	26.2	12.13	202.1	17.7	20.4
48 Dk. Green	5.5	550	26.2	11.27	187.8	16.4	18.9
	6.0	600	27.1	11.93	198.7	16.2	18.7
	7.0	700	27.4	12.45	207.4	16.5	19.1
	7.5	750	27.7	13.02	216.9	16.9	19.5
53 Dk. Blue*	5.5	550	27.1	12.31	205.2	16.7	19.3
	6.0	600	27.4	12.88	214.6	17.1	19.8
	7.0	700	28.0	13.45	224.1	17.1	19.7
	7.5	750	28.3	14.02	233.6	17.4	20.1
	8.0	800	28.7	14.58	243.0	17.8	20.5
63 Black	5.5	550	28.0	14.36	239.2	18.3	21.1
	6.0	600	28.7	14.97	249.5	18.2	21.1
	7.0	700	29.3	15.76	262.7	18.4	21.3
	7.5	750	29.6	16.36	272.5	18.7	21.6
	8.0	800	29.9	17.01	283.5	19.1	22.0
73 Orange	5.5	550	29.3	16.38	272.9	19.1	22.1
	6.0	600	29.9	17.04	283.9	19.1	22.0
	7.0	700	30.2	17.67	294.5	19.4	22.4
	7.5	750	31.1	18.29	304.7	18.9	21.8
	8.0	800	31.4	18.92	315.3	19.2	22.2

I-90 NOZZLE

ADV & 36V

Low Angle ADV & 36V**

** For low-angle nozzle performance, reduce radius by 15%.

I-90

MP ROTATOR®

ADVANCED FEATURES

AUTOMATIC MATCHED PRECIPITATION

The MP Rotator® has the unique ability to control the amount of water flowing through the nozzle at various arc and radius settings, resulting in matched precipitation regardless of the nozzle setting.

DOUBLE-POP

The MP Rotator's nozzle pops up from its protected position only after the riser is fully extended, providing superior defence against dirt and debris.

DISTRIBUTION UNIFORMITY

The various streams of the MP Rotator allow it to target all areas of the landscape evenly, yielding superior uniformity over traditional spray nozzles. Each stream targets specific areas to achieve higher efficiency and even coverage.

LOW PRECIPITATION RATE

Since the vast majority of soils have an infiltration rate of less than 25 mm/hr, irrigating at a low precipitation rate is essential to achieve efficiency.

The standard MP Rotator line applies water at 10 mm/hr, while the MP800 Series has a precipitation rate of 20 mm/hr. Either choice will avoid runoff, saving water and preventing erosion.

MP800 SERIES

Achieve efficient irrigation in narrow spaces with the MP800 Series. MP800 Series allows for radius adjustment down to 1.8 m, providing opportunity for overhead irrigation in smaller spaces than ever before possible.

MP ROTATOR®

Radius: **2.5 to 10.7 m**

FEATURES

- Radius can be reduced up to approximately 25% on all models
- Easy arc adjustment
- Colour-coded for easy identification
- Removable filter screen ensures hassle-free service
- Wind-resistant, multi-stream technology
- Automatic matched precipitation
- Double-pop feature
- Distribution uniformity
- Low precipitation rate

OPERATING SPECIFICATIONS

- Recommended operating pressure: 2.8 bar; 280 kPa
- Recommended filtering when operating on dirty water

OPTIONS

- Pair with Pro-Spray® PRS40 to achieve pressure regulation at the head of 2.8 bar; 280 kPa
- Adding "HT" will specify male threaded nozzles

= *Advanced Feature descriptions on page 73*

MP ROTATOR – SPECIFICATION BUILDER: ORDER 1 + 2

1 Model	2 Options
MP1000-90 = 2.5 to 4.5 m radius, adjustable from 90° to 210°	**(blank)** = No option
MP1000-210 = 2.5 to 4.5 m radius, adjustable from 210° to 270°	**HT** = Male threaded version *(Not available in 3500 and 1000-210)*
MP1000-360 = 2.5 to 4.5 m radius, 360°	
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 to 6.4 m radius, 360°	
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 to 9.1 m radius, 360°	
MP3500-90 = 9.4 to 10.7 m radius, adjustable from 90° to 210°	
MPLCS-515 = Left corner strip, 1.5 m x 4.6 m	
MPRCS-515 = Right corner strip, 1.5 m x 4.6 m	
MPSS-530 = Side strip, 1.5 m x 9.1 m	
MP-CORNER = 2.5 to 4.5 m radius, adjustable from 45° to 105°	

Examples:
MP1000-210 = 2.5 to 4.5 m radius, adjustable from 210° to 270°
PROS-06-PRS40-CV-MP2000-90 = 15 cm pop-up regulated at 2.8 bar; 280 kPa, drain check valve, with MP2000-90

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°

MP ROTATOR PERFORMANCE DATA

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°

Arc	Pressure bar	Pressure kPa	MP1000 Radius m	MP1000 Flow m³/hr	MP1000 Flow l/min	MP1000 Precip mm/hr ■	MP1000 Precip mm/hr ▲	MP2000 Radius m	MP2000 Flow m³/hr	MP2000 Flow l/min	MP2000 Precip mm/hr ■	MP2000 Precip mm/hr ▲	MP3000 Radius m	MP3000 Flow m³/hr	MP3000 Flow l/min	MP3000 Precip mm/hr ■	MP3000 Precip mm/hr ▲
90°	1.7	170	-	-	-	-	-	5.2	0.08	1.29	12	13	7.6	0.16	2.69	11	13
	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
	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
	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	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
	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

For Pro-Spray PRS40 information see page 81

MP ROTATOR PERFORMANCE DATA

MP3500
Radius: 9.4 to 10.7 m
Adjustable Arc
● Light Brown: 90° to 210°

Arc	Pressure bar	Pressure kPa	Radius m	Flow m³/hr	Flow l/min	Precip. mm/hr ■	Precip. mm/hr ▲
90°	1.7	170	10.1	0.24	3.94	9	11
	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
	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
	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 9.4 to 10.7 m radius

MP3500-90
90° to 210°

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 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

	Pressure bar	Pressure kPa	Radius m	Flow m³/hr	Flow l/min
MP Left Corner Strip	1.7	170	1.1 x 4.2	0.04	0.67
	2.0	200	1.2 x 4.3	0.04	0.72
	2.5	250	1.4 x 4.5	0.05	0.79
	2.8	**280**	**1.5 x 4.6**	**0.05**	**0.84**
	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
MP Right Corner Strip	1.7	170	1.1 x 4.2	0.04	0.67
	2.0	200	1.2 x 4.3	0.04	0.72
	2.5	250	1.4 x 4.5	0.05	0.79
	2.8	**280**	**1.5 x 4.6**	**0.05**	**0.84**
	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
MP Side Strip	1.7	170	1.1 x 8.3	0.08	1.34
	2.0	200	1.2 x 8.6	0.09	1.43
	2.5	250	1.4 x 8.9	0.09	1.57
	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:
Strip pattern radius can be adjusted by 25%. MP Rotator is designed to maintain matched precipitation after radius adjustment. 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

MP Corner
Radius: 2.5 to 4.5 m
Adjustable Arc
● Turquoise: 45° to 105°

Arc	Pressure bar	Pressure kPa	Radius m	Flow m^3/hr	Flow l/min
45°	1.7	170	--	--	--
	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
90°	1.7	170	3.2	0.07	1.15
	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
	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

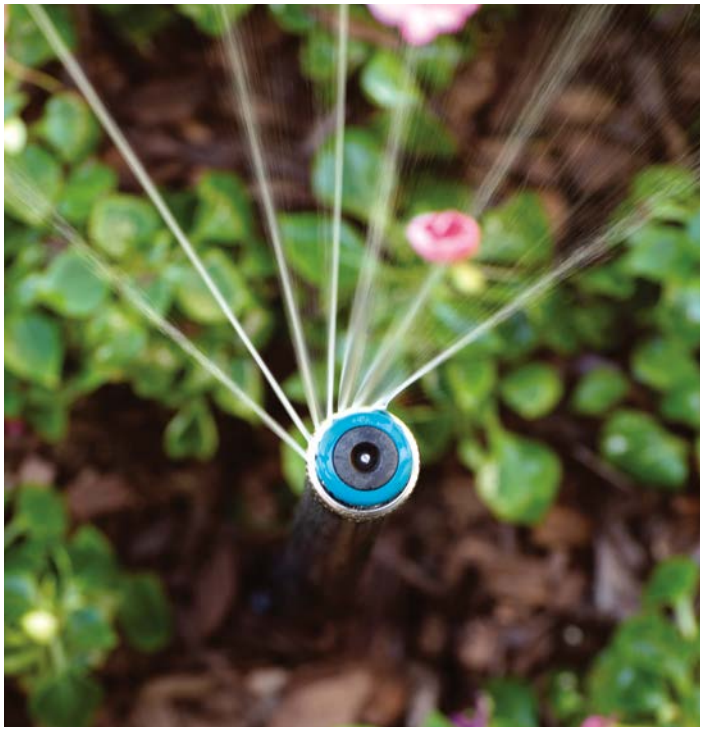
MP-HT
Male Threaded

MP Accessories

MPTOOL
Adjusts all MP Rotators

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

MP Rotator



MP Tool for easy adjustments

MP ROTATOR® 800 SERIES

Radius: **1.8 to 4.9 m**

FEATURES

- Provides coverage from 1.8 to 4.9 m
- Radius can be reduced up to approximately 25% on all models
- Colour-coded for easy identification
- Removable filter screen prevents large objects from clogging nozzle
- Wind-resistant, multi-stream technology
- Adjustable arc and radius
- ▸ Automatic matched precipitation
- ▸ Double-pop feature
- ▸ Distribution uniformity
- ▸ Low precipitation rate

OPERATING SPECIFICATIONS

- Recommended operating pressure: 2.8 bar; 280 kPa
  To achieve minimum radius setting: 2.1 bar; 210 kPa
- MP800SR-90 uses a 60 mesh; 250 microns built-in nozzle filter
- MP800SR-360 and MP815 use a 40 mesh; 420 microns built-in nozzle filter
- Recommended filtering when operating on dirty water
- Hunter's HY filters are a great solution for zone-specific MP800 arrangements

OPTIONS

- Specify Pro-Spray® PRS40 pop-up for accurate pressure regulation to achieve typical radius settings
- Specify Pro-Spray PRS30 for accurate pressure regulation to achieve minimum radius settings

▸ = *Advanced Feature descriptions on page 73*

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°

MP800SR-90

MP815-90

MP ROTATOR PERFORMANCE DATA

MP800SR

Radius: 1.8 to 3.5 m
Adjustable Arc and Full-Circle
- Orange and Grey: 90° to 210°
- Lime Green and Grey: 360°

Arc	Pressure		MAX RADIUS Radius	Flow		Precip. mm/hr		MIN RADIUS Radius	Flow	
	bar	kPa	m	m³/hr	l/min	■	▲	m	m³/hr	l/min
90°	2.1	200	2.6	0.04	0.61	22	25	1.8	0.03	0.49
	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
180°	2.1	200	2.6	0.07	1.21	22	25	1.8	0.06	0.98
	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
210°	2.1	200	2.6	0.08	1.40	22	25	1.8	0.07	1.15
	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
360°	2.1	200	2.6	0.14	2.38	22	25	1.8	0.11	1.78
	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

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	Pressure		Radius	Flow		Precip. mm/hr	
	bar	kPa	m	m³/hr	l/min	■	▲
90°	2.1	210	4.3	0.10	1.59	21	24
	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
180°	2.1	210	4.0	0.17	2.84	21	25
	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
210°	2.1	210	4.0	0.20	3.33	21	25
	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
270°	2.1	210	4.0	0.26	4.31	22	25
	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
360°	2.1	210	4.0	0.35	5.75	22	25
	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

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 at 2.8 bar; 280 kPa.

SPRAY BODIES

PRO-SPRAY® PRS40

PRESSURE-REGULATED

Models: **Shrub, 10 cm, 15 cm, 30 cm**
Pressure Regulation: **2.8 bar; 280 kPa**

FEATURES

- Models: Shrub, 10 cm, 15 cm, 30 cm
- Grey identification cap for easy field ID
- Innovative directional flush plug design
- Drain check valve installed with up to 4.3 m of elevation comes standard
- 15 cm and 30 cm models come standard as no side inlet, ensuring proper installation with check valve
- Warranty period: 5 years
- Co-moulded wiper seal
- Heavy-duty spring
- Industry's strongest spray body
- Innovative seal design
- Pro-Spray® check valve
- Pressure regulated to 2.8 bar; 280 kPa
- FloGuard™ technology

OPERATING SPECIFICATIONS

- Operational pressure range: 1.0 to 7.0 bar; 100 to 700 kPa

FACTORY-INSTALLED OPTIONS

- Reclaimed water ID cap
- FloGuard technology available for check valve models

USER-INSTALLED OPTIONS

- Reclaimed water ID cap (P/N 458562)
- Snap-on reclaimed cover (P/N PROS-RC-CAP)

PRS40 Reclaimed

PRS40 models include optional factory-installed purple reclaimed caps.

Related Solutions: MP Rotator

PRS40 is designed specifically for the MP Rotator.

PROS-00-PRS40
Retracted height: 11 cm
Inlet size: ½"

PROS-04-PRS40-CV
Retracted height: 15.5 cm
Pop-up height: 10 cm
Exposed diameter: 5.7 cm
Inlet size: ½"

PROS-06-PRS40-CV
Retracted height: 22.5 cm
Pop-up height: 15 cm
Exposed diameter: 5.7 cm
Inlet size: ½"

PROS-12-PRS40-CV
Retracted height: 41 cm
Pop-up height: 30 cm
Exposed diameter: 5.7 cm
Inlet size: ½"

PRS40 – SPECIFICATION BUILDER: ORDER 1 + 2

1 Model	2 Specialty Options
PROS-00-PRS40 = 2.8 bar regulated shrub adapter	**(blank)** = No option
PROS-04-PRS40-CV = 2.8 bar regulated 10 cm Pop-up with drain check valve	**R** = Factory-installed reclaimed body cap
PROS-06-PRS40-CV = 2.8 bar regulated 15 cm Pop-up with drain check valve	**F** = FloGuard technology
PROS-12-PRS40-CV = 2.8 bar regulated 30 cm Pop-up with drain check valve	**F-R** = FloGuard technology with reclaimed body cap

Examples:
PROS-04-PRS40-CV = 10 cm Pop-up regulated at 2.8 bar, drain check valve
PROS-06-PRS40-CV-F = 15 cm Pop-up regulated at 2.8 bar, drain check valve, with FloGuard technology
PROS-12-PRS40-CV-R = 30 cm Pop-up regulated at 2.8 bar, drain check valve, reclaimed body cap

VALVES

ADVANCED FEATURES

DURABLE AND RELIABLE

FLOW CONTROL

Available on:
ICV, IBV

Maximise efficiency and prolong the life of a system by fine-tuning flow and pressure for each zone.

ACCU SYNC® PRESSURE REGULATION

Available on:
ICV, IBV

Avoid sprinkler over-pressure conditions and experience significant water savings with Hunter's Accu Sync pressure regulator. This option is available in adjustable pressure or fixed pressure models.

NEW RECLAIMED ICV VALVE

The ICV-R reclaimed water valve is constructed with ultra-durable, chlorine-resistant materials and maintains top performance in reclaimed water installations.

RECLAIMED WATER IDENTIFICATION

Available on:
ICV, IBV

Purple tags and handles are an option for a clear, quick, and simple method of identifying the use of non-potable water.

FILTER SENTRY™

Available on:
ICV, IBV

Filter Sentry disc 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.

VALVES COMPARISON CHART

QUICK SPECS	ICV	ICV FILTER SENTRY™	IBV
SIZE	1", 1½", 2", 3" BSP	1", 1½", 2", 3" BSP	1", 1½", 2", 3" BSP
FLOW (m^3/hr)	0.05–68.00	0.05–68.00	0.05–68.00
FLOW (l/min)	0.4-1135	0.4-1135	0.4-1135
FEATURES			
CAPTIVE BONNET BOLTS	●	●	
EPDM DIAPHRAGM AND SEAT	Standard	Standard	Standard
WARRANTY	5 Years	5 Years	5 Years
ADVANCED FEATURES			
FLOW CONTROL	●	●	●
FILTER SENTRY™	User-installed	Factory-installed	Factory-installed
ACCU SYNC® CAPABLE	●	●	●
RECLAIMED WATER ID HANDLE	User-installed	Factory-installed	User-installed
RECLAIMED WATER ID TAG	User-installed	Factory-installed	Factory-installed
APPLICATIONS			
RESIDENTIAL	●		
COMMERCIAL	●	●	●
POTABLE WATER	●	●	●
RECLAIMED WATER	●	●	●
SECONDARY WATER		●	●
PRESSURE REGULATION	●	●	●
HIGH-PRESSURE SYSTEMS	●	●	●
LOW-PRESSURE SYSTEMS	●	●	●
HIGH-TEMPERATURE LOCATIONS	●	●	●

ICV

Inlet: **1" (25 mm), 1½" (40 mm) 2" (50 mm), 3" (80 mm)**
Flow: **0.06 to 68 m³/hr; 0.4 to 1,135 l/min**

FEATURES

- Inlet: 1" (25 mm), 1½" (40 mm), 2" (50 mm), 3" (80 mm)
- External and internal manual bleed allows quick and easy at-the-valve activation
- Glass-filled nylon construction resulting in the highest pressure rating
- Double-beaded diaphragm seal design assures leak-free performance
- Fabric-reinforced EPDM diaphragm and EPDM seat ensure greater performance in all conditions
- Optional: DC latching solenoids enable Hunter's battery-powered controllers
- Captive bonnet bolts provide hassle-free valve maintenance
- Low-flow capability allows use of Hunter's micro-irrigation products
- Encapsulated 24 VAC solenoid with captive plunger for hassle-free service
- Temperature rating: 66°C
- Warranty period: 5 years
- ▸ Flow control
- ▸ Filter Sentry™
- ▸ Accu Sync® pressure regulation
- ▸ Optional reclaimed water ID

OPERATING SPECIFICATIONS

- Flow:
  - ICV-101G: 0.06 to 9 m³/hr; 0.4 to 150 l/min
  - ICV-151G: 4 to 34 m³/hr; 75 to 568 l/min
  - ICV-201G: 9 to 45 m³/hr; 150 to 757 l/min
  - ICV-301: 34 to 68 m³/hr; 570 to 1,135 l/min
- Recommended pressure range: 1.5 to 15.0 bar; 150 to 1500 kPa

SOLENOID SPECIFICATIONS

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

FACTORY-INSTALLED OPTIONS

- DC latching solenoid
- Filter Sentry

USER-INSTALLED OPTIONS

- Solenoid conduit cover (P/N 464322)
- DC latching solenoid (P/N 458200)
- Accu Sync pressure regulator
- Reclaimed water ID handle for ICV101, 151, 201 (P/N 561205) and 301 (P/N 515005)
- Reclaimed water ID Tag for all ICV valves (P/N 700392) (Included on Filter Sentry Models)

▸ = *Advanced Feature descriptions on page 83*

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

Filter Sentry

ICV – SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4

1 Model	2 Inlet/Outlet	3 Options (Factory-installed)	4 Options (User-installed)
ICV-101G = 1" (25 mm) Globe valve **ICV-151G** = 1½" (40 mm) Globe valve **ICV-201G** = 2" (50 mm) Globe valve **ICV-301** = 3" (80 mm) Globe/Angle valve	**(blank)** = NPT threads **B** = BSP threads	**(blank)** = No option **DC** = DC latching solenoid **FS** = Filter Sentry™ **FS-R** = Reclaimed water ID tag, purple flow control knob, Filter Sentry and purple chlorine-resistant diaphragm	**(blank)** = No option **R** = Reclaimed water ID handle **CC** = Solenoid conduit cover **DC** = DC latching solenoid **AS-ADJ** = Accu Sync® adjustable pressure regulator **AS-xx*** = Accu Sync pressure regulator **20 *** = *1.4 bar*, **30 *** = *2.1 bar* **40 *** = *2.8 bar*, **50 *** = *3.5 bar* **70 *** = *4.8 bar*

Examples:
ICV-101G = 1" (25 mm) Globe valve, NPT threads
ICV-151G - FS - R = 1½" (40 mm) Globe valve, Filter Sentry, purple flow control knob, purple chlorine-resistant diaphragm, and reclaimed water ID tag
ICV-301-B = 3" (80 mm) Globe/Angle valve, BSP threads

ICV PRESSURE LOSS IN BAR

Flow m³/hr	1" Globe	1½" Globe	2" Globe	3" Globe	3" 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 PRESSURE LOSS IN kPa

Flow l/min	1" Globe	1½" Globe	2" Globe	3" Globe	3" 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

IBV

Inlet: **1" (25 mm), 1½" (40 mm) 2" (50 mm), 3" (80 mm)**
Flow: **0.06 to 68 m³/hr; 0.4 to 1,135 l/min**

FEATURES

- Factory-installed Filter Sentry™ diaphragm
- External and internal manual bleed allows quick and easy at-the-valve activation
- Double-beaded diaphragm seal design assures leak-free performance
- Fabric-reinforced EPDM diaphragm and EPDM seat ensure superior performance in all conditions
- Optional DC latching solenoids enable Hunter's battery-powered controllers
- Low-flow capability allows use of Hunter's micro irrigation products
- Encapsulated 24 VAC solenoid with captive plunger for hassle-free service
- Temperature rating: 66°C
- Warranty period: 5 years
- ▸ Heavy-duty flow control
- ▸ Accu Sync® pressure regulation

OPERATING SPECIFICATIONS

- Flow rate:
  - IBV-101G-FS: 0.06 to 9 m³/hr; 0.4 to 150 l/min
  - IBV-151G-FS: 4 to 34 m³/hr; 75 to 568 l/min
  - IBV-201G-FS: 9 to 45 m³/hr; 150 to 757 l/min
  - IBV-301G-FS: 34 to 68 m³/hr; 570 to 1,135 l/min
- Recommended pressure range: 1.5 to 15 bar; 150 to 1500 kPa

SOLENOID SPECIFICATIONS

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

FACTORY-INSTALLED OPTIONS

- DC latching solenoid

USER-INSTALLED OPTIONS

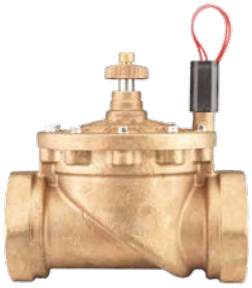
- Solenoid conduit cover (P/N 464322)
- DC latching solenoid (P/N 458200)
- Accu Sync pressure regulator
- Reclaimed water ID tag (P/N 700392)

▸ = *Advanced Feature descriptions on page 83*

IBV-101G-FS
Inlet Diameter: 1" (25 mm)
Height: 11.5 cm
Length: 9 cm
Width: 13 cm

IBV-151G-FS
Inlet Diameter: 1½" (40 mm)
Height: 16 cm
Length: 13 cm
Width: 16 cm

IBV-201G-FS
Inlet Diameter: 2" (50 mm)
Height: 15 cm
Length: 13 cm
Width: 17 cm



IBV-301G-FS
Inlet Diameter: 3" (80 mm)
Height: 24 cm
Length: 23 cm
Width: 18 cm

Filter Sentry

IBV – SPECIFICATION BUILDER: ORDER 1 + 2 + 3 + 4

1 Model	2 Inlet/Outlet	3 Options (Factory-installed)	4 Options (User-installed)
IBV-101G-FS = 1" (25 mm) Globe valve **IBV-151G-FS** = 1½" (40 mm) Globe valve **IBV-201G-FS** = 2" (50 mm) Globe valve **IBV-301G-FS** = 3" (80 mm) Globe/Angle valve	**B** = BSP threads	**(blank)** = No option **DC** = DC latching solenoid	**(blank)** = No option **R** = Reclaimed water ID tag **CC** = Solenoid conduit cover **DC** = DC latching solenoid **AS-ADJ** = Accu Sync® adjustable pressure regulator **AS-xx*** = Accu Sync pressure regulator **20 *** = *1.4 bar*, **30 *** = *2.1 bar* **40 *** = *2.8 bar*, **50 *** = *3.5 bar* **70 *** = *4.8 bar*

Examples:
IBV-151G-FS-B-R = 1½" (40 mm) Globe valve, BSP threads, Filter Sentry, and reclaimed water ID tag
IBV-201G-FS-B = 2" (50 mm) Globe valve , BSP threads, Filter Sentry

IBV PRESSURE LOSS IN BAR

Flow m³/hr	1" Globe	1½" Globe	2" Globe	3" Globe
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	0.2	
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			0.6	0.2
40.0				0.2
45.5				0.3
51.0				0.3
57.0				0.4
62.5				0.5
68.0				0.6

IBV PRESSURE LOSS IN kPa

Flow l/min	1" Globe	1½" Globe	2" Globe	3" Globe
0.1	14			
0.5	14			
4	14			
20	17			
40	20			
60	20			
75	20	9.6		
115	62	10		
150	139	12	5	
190		15	7	
225		18	9.3	
280		26	14	
340		37	20	
380		46	26	
450		65	36	
510		84	47	
565			57	16
660				22
750				29
850				38
950				47
1,050				58
1,135				69

ACCU SYNC®

Type: **Pressure Regulator**

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

ACCU SYNC VALVE RECOMMENDED FLOW RANGE

Valve	Flow m^3/hr	Flow 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

ACCU SYNC APPLICATIONS

●	**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
●	**Fixed 2.8 bar**	Ideal for Hunter's MP Rotator and large in-line drip systems, pressure-regulated to 2.8 bar; 280 kPa
●	**Fixed 3.5 bar**	Ideal for midrange rotors, pressure-regulated to 3.5 bar; 350 kPa
●	**Fixed 4.8 bar**	Ideal for larger rotors, pressure-regulated to 4.8 bar; 480 kPa

ADJUSTABLE

AS-ADJ
Height with solenoid: 8 cm

ADAPTER

SOLENOID ADAPTER
Included with all Accu Sync models

FIXED

AS-30
Height with solenoid: 8 cm

AS-40
Height with solenoid: 8 cm

AS-50
Height with solenoid: 8 cm

AS-70
Height with solenoid: 8 cm

Installation
Accu Sync shown installed on ICV and PGV valves.

QUICK COUPLERS

Size: **¾" (20 mm), 1" (25 mm)**
Pressure Rating: **10 bar; 1,000 kPa**

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 1¼" (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

Non-locking Locking Reclaimed

Reclaimed Water Option

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

HQ PRESSURE LOSS IN BAR

Flow m^3/hr	HQ-3	HQ-33	HQ-44	HQ-5
1	0.06	0.07		
2.3	1.12	0.14		
3.4	0.28	0.30	0.15	
4.5	0.50	0.52	0.30	0.07
6.8			0.79	0.21
9.1				0.43
11.4				0.63
13.6				0.90
15.9				1.37

HQ PRESSURE LOSS IN kPa

Flow l/min	HQ-3	HQ-33	HQ-44	HQ-5
18.9	5.5	6.9		
37.9	12.4	13.8		
56.8	28.3	29.6	15.2	
75.7	49.6	52.4	30.3	6.9
113.6			79.3	20.7
151.4				43.4
189.3				63.4
227.1				89.6
265.0				136.5

QUICK COUPLER, KEY, AND HOSE SWIVEL CHARTS

Model	Inlet Threads	Slots	Body	Colour*	Locking	Key	Swivels
HQ-3RC	¾"	2	1 - Piece	Yellow	No	HK-33	HS-0
HQ-33DRC	¾"	2	2 - Piece	Yellow	No	HK-33	HS-0
HQ-33DLRC	¾"	2	2 - Piece	Yellow	Yes	HK-33	HS-0
HQ-44RC	1" (25 mm) NPT	1	2 - Piece	Yellow	No	HK-44	HS-1 or HS-2
HQ-44LRC	1" (25 mm) NPT	1	2 - Piece	Yellow	Yes	HK-44	HS-1 or HS-2
HQ-44RC-AW	1" (25 mm) NPT	Acme	2 - Piece Wing**	Yellow	No	HK-44A	HS-1 or HS-2
HQ-44LRC-AW	1" (25 mm) NPT	Acme	2 - Piece Wing**	Yellow	Yes	HK-44A	HS-1 or HS-2
HQ-5RC	1" (25 mm) NPT	1	1 - Piece	Yellow	No	HK-55	HS-1 or HS-2
HQ-5LRC	1" (25 mm) NPT	1	1 - Piece	Yellow	Yes	HK-55	HS-1 or HS-2

Notes:
* All locking cover models are available with purple covers for reclaimed water applications
** Anti-rotation stabilisation wings

HQ QUICK COUPLER – SPECIFICATION BUILDER: ORDER 1 + 2 + 3

1 Model	2 Cover Options	3 Additional Options
HQ3 = ¾" Inlet, 1-piece body, 2 slots	**RC** = Yellow rubber cover	**(blank)** = No option
HQ5 = 1" (25 mm) Inlet, 1-piece body, 1 slot	**LRC** = Yellow locking rubber cover *(Not available for HQ3 body)*	**AW** = Acme key with anti-rotation wings *(Only available for HQ44 body)*
HQ33D = ¾" Inlet, 2-piece body, 2 slots		**BSP** = BSP threads *(Only available for HQ5 body)*
HQ44 = 1" (25 mm) Inlet, 2-piece body, 1 slot or Acme		**R** = Purple locking cover *(reclaimed water ID; only available for LRC models)*

Examples:
HQ3 - RC = HQ3 valve with rubber cover
HQ44 - LRC = HQ44 valve with locking rubber cover
HQ44 - LRC - R = HQ44 valve with locking rubber cover and purple locking cover
HQ44 - LRC - AW - R = HQ valve, with locking rubber cover, Acme key socket, anti-rotation wings and purple locking cover
HQ5 - LRC - BSP = HQ5 valve with locking rubber cover and BSP threads

HK KEYS

Key Model	Compatible Valve	Compatible Swivel
HK33 = ¾" valve, ¾" key inlet	HQ3, HQ33	HS0
HK44 = 1" (25 mm) valve, 1" (25 mm) key inlet	HQ44	HS1, HS2, HS1B, HS2B
HK44A = 1" (25 mm) valve, Acme key inlet	HQ44AW	HS1, HS2, HS1B, HS2B
HK55 = 1" (25 mm) valve, 1¼" (32 mm) key inlet	HQ5	HS1, HS2, HS1B, HS2B

HS HOSE SWIVELS

Hose Swivel	Compatible Key
HS0 = ¾" inlet, ¾" hose outlet	HK33
HS1 = 1" (25 mm) inlet, ¾" hose outlet	HK44, HK44A, HK55
HS2 = 1" (25 mm) inlet, 1" (25 mm) hose outlet	HK44, HK44A, HK55
HS1B = 1" (25 mm) inlet, ¾" BSP outlet	HK44, HK44A, HK55
HS2B = 1" (25 mm) inlet, 1" (25 mm) BSP outlet	HK44, HK44A, HK55

SNAPLOK COMBO KITS

Type: **Quick-Coupler + SnapLok Swing Joint**

FEATURES

- Versatile, cross-compatible and heavy-duty quick-coupler
- Highly effective solution for quick-coupler stabilization
- SnapLok™ design includes:
  - Heavy-duty PVC and brass outlet construction
  - Anti-rotation coupler locking feature
  - Accommodates both rebar and pipe stabilisation

See the HSJ swing joints on page 52

Quick Coupler with SnapLok
Equipped HSJ-1 swing joint

SNAPLOK COMBO KITS

Kit Model	Quick Coupler Model	SnapLok Model
HQ-SL-K-1-B = Locking Lid, BSP x 18" SnapLok	HQ-44-LRC	HSJ-1-6S-212
HQ-SL-K-1-RB = Locking Reclaimed Lid, BSP x 18" SnapLok	HQ-44-LRCR	HSJ-1-6S-212

EXPERIENCE ALL
WALKS OF LIGHT

LANDSCAPE AND ARCHITECTURAL LIGHTING

FX Luminaire provides industry-leading landscape and architectural lighting solutions with a focus on the advancement of LED technology and digital lighting control with zoning, dimming, and colour adjustment capabilities.

DESIGNER AND STANDARD SERIES FIXTURES

FX Luminaire offers a range of classic and contemporary lighting fixtures in all configurations, from up lights and down lights to path lights and specialty lights.

Our fixture classification system is based on material construction, performance, and price. This helps you quickly identify common fixtures and create lighting packages for any project or budget. All FX Luminaire fixtures are made with top-quality materials and backed by the industry's best support team.

LUXOR® CONTROLLER

With Luxor technology, you can liven up your clubhouse, course pathways, or property entryways to complement any occasion with 30,000 colours. Design one-of-a-kind holiday displays, create ambience for weddings, add company colours for corporate events, or simply adjust hues to match vegetation as the seasons change.

With a Luxor system, you can also create up to 250 adjustable lighting groups that can be turned on independently and dimmed from 1–100%.

The Luxor app provides ultimate flexibility and convenience when designing with Luxor lighting systems. With the app, you can adjust fixture intensities and colours, program up to 40 calendar-based themes, and fine-tune your colour palette — right from the palm of your hand!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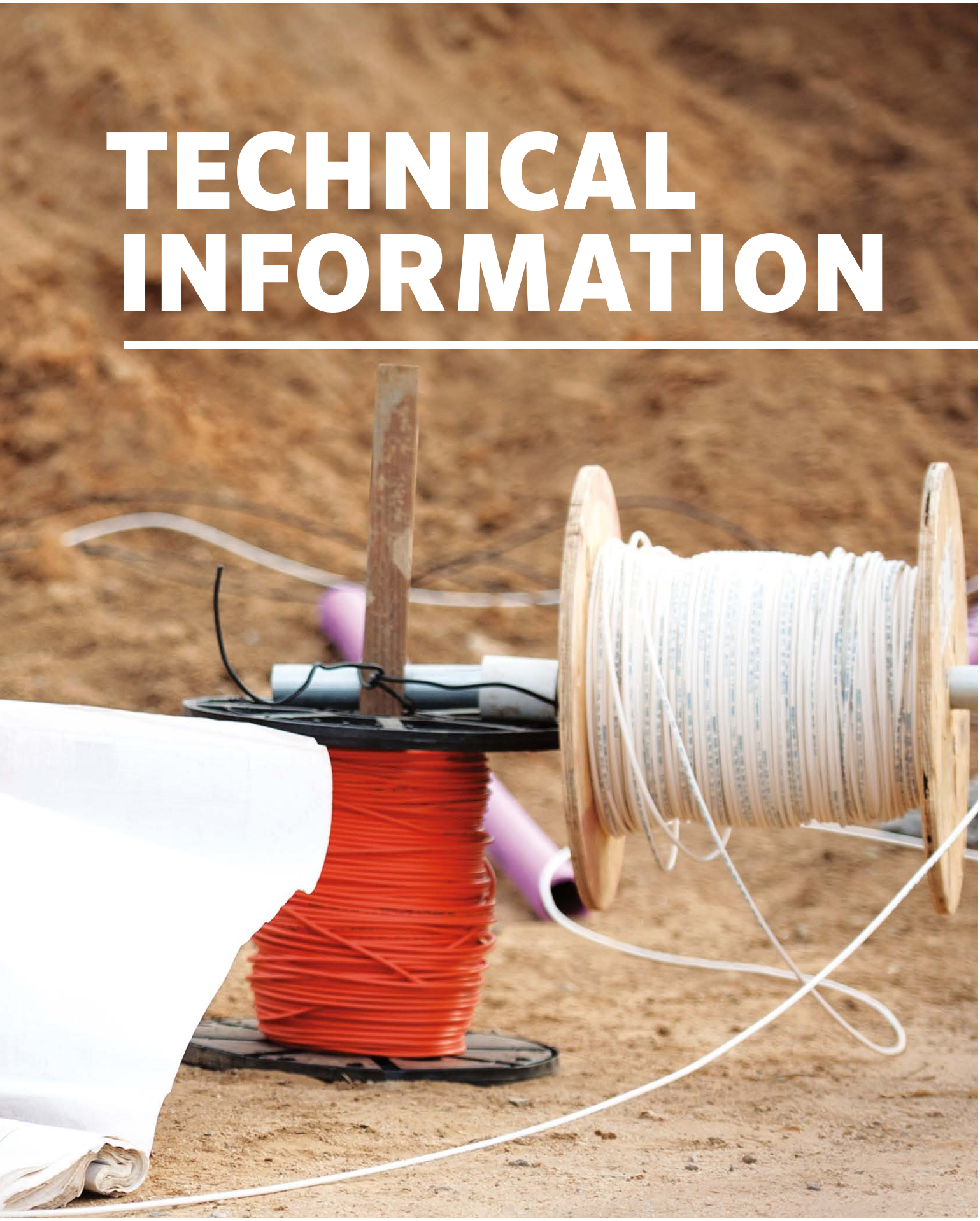
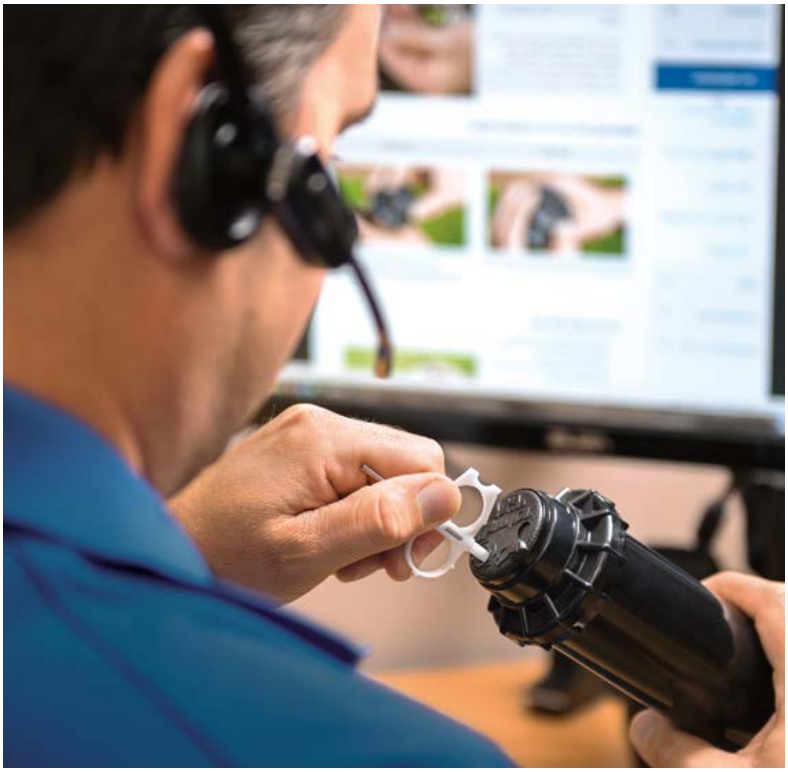
NAVAL HOSPITAL
CLARK

TECHNICAL INFORMATION



HUNTER
Technical Services



Our Technical Services Team has 200 years of combined industry expertise.

Anyone can sell you products. At Hunter, we've always believed the difference lies in providing world-class product support to make your job easier. When you need technical help, whether it's to ask a quick question or to get product-specific troubleshooting assistance, you can count on Hunter's Technical Services Team to provide the best support in the industry. Our knowledgeable experts are always available to help you.

In addition, our Field Service Team provides on-site training and troubleshooting assistance with central control, integrated two-way module systems, and other commercial, residential, municipal, and golf course installations. Their combined experience of 200+ years in the industry is invaluable when you need factory support by phone, remote desktop, or at the job site.

Contact Us

Phone: +1-760-591-7383, Mon–Fri, 6 a.m.–4 p.m. PST/PDT

Email: huntertechnicalsupport@hunterindustries.com

After Hours: Leave us a voice message and someone from our team will return your call the next business day

Online Product Information

Visit our Support Library for instructional videos, owner's manuals, installation details, articles, and more.

Rotors, Controllers, Sensors, Drip/Micro Irrigation, Valves, Sprays, Nozzles, FX Luminaire, and Water Management Software

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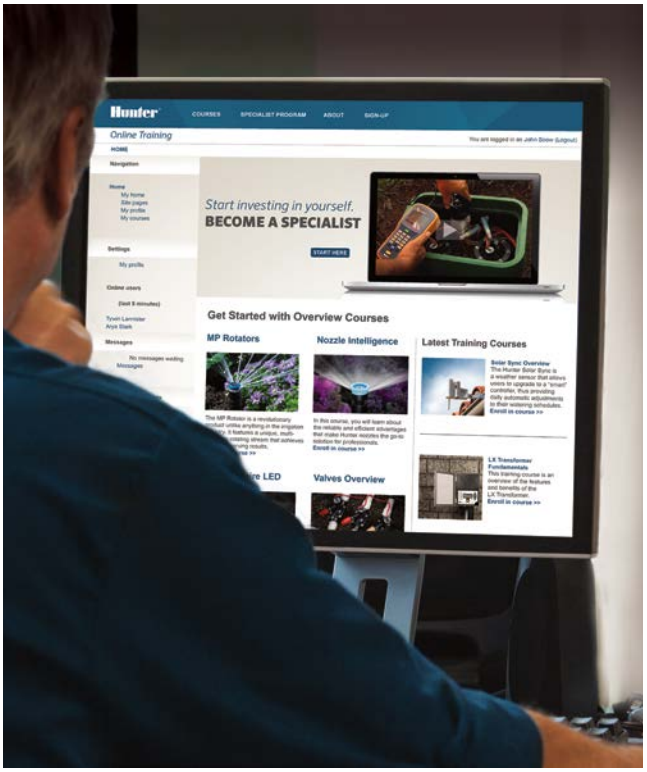


HUNTER UNIVERSITY

This unique training program is designed to equip contractors, distributors, and other professionals with the knowledge to become familiar with Hunter products.

To get started:

1. Access the training website:

- Visit training.hunterindustries.com.
- Log in or create a new account.
- Click on courses, enroll at no cost, watch the training module, and take the quiz.

2. Take courses for the level you choose:

- Click on the Specialist Program and choose the level you need.
- Click on the courses required for each level and enroll in the courses.
- Watch the training module and take the quiz.

3. Apply for your certificate:

- Submit the Completion Notification Form for each level.
- Obtain your certificate and use your membership card. You may use your certificates to apply for Continuing Education Unit Credits through the Irrigation Association.

Choose from three levels of training:

Technician Level: Basic knowledge of the entire Hunter product line

Specialist Level: In-depth knowledge on a particular product

Expert Level: Thorough knowledge on a product category

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/hr. 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 excessive run times, which lead to high water consumption and increased 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^3/hr; 3.8 l/min

180° Arc = 2 GPM; 0.45 m^3/hr; 7.6 l/min

360° Arc = 4 GPM; 0.91 m^3/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 precipitation rate may be calculated by either a Sprinkler Spacing or a Total Area method.

Sprinkler Spacing Method (■)
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 one of the following formulas:

Any Arc and Any Spacing (■):

$$\text{P.R. (in/hr)} = \frac{\text{Flow Rate (GPM) for any Arc} \times 34{,}650}{\text{Degrees of Arc} \times \text{Head Spacing (ft.)} \times \text{Row Spacing (ft.)}}$$

$$\text{P.R. (mm/hr)} = \frac{\text{Flow Rate } (m^3/hr) \text{ for any Arc} \times 360{,}000}{\text{Degrees of Arc} \times \text{Head Spacing (m)} \times \text{Row Spacing (m)}}$$

$$\text{P.R. (mm/hr)} = \frac{\text{Flow Rate (l/min) for any Arc} \times 21{,}600}{\text{Degrees of Arc} \times \text{Head Spacing (m)} \times \text{Row Spacing (m)}}$$

Sprinkler Spacing Method (▲)
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 one of the following formulas:

Equilateral Triangular Spacing (▲):

$$\text{P.R. (in/hr)} = \frac{\text{Flow Rate (GPM) for any Arc} \times 34{,}650}{\text{Degrees of Arc} \times (\text{Head Spacing})^2 \times 0.866}$$

$$\text{P.R. (mm/hr)} = \frac{\text{Flow Rate } (m^3/hr) \text{ for any Arc} \times 360{,}000}{\text{Degrees of Arc} \times (\text{Head Spacing})^2 \times 0.866}$$

$$\text{P.R. (mm/hr)} = \frac{\text{Flow Rate (l/min) for any Arc} \times 21{,}600}{\text{Degrees of Arc} \times (\text{Head Spacing})^2 \times 0.866}$$

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 calculates all the flows of all of the heads in any given area.

$$\text{P.R. (in/hr)} = \frac{\text{Flow (GPM)} \times 96.25}{\text{Total Area (ft.)}}$$

$$\text{P.R. (mm/hr)} = \frac{\text{Flow } (m^3/hr) \times 1{,}000}{\text{Total Area } (m^2)}$$

$$\text{P.R. (mm/hr)} = \frac{\text{Flow (l/min)} \times 60}{\text{Total Area } (m^2)}$$

CONVERSION FACTORS

CONVERSION FACTORS			
To Convert	**From**	**To**	**Multiply By**
Area	acre	foot^2	43560
	acre	metre^2	4046,8
	metre^2	foot^2	10,764
	foot^2	inch^2	144
	inch^2	centimetre^2	6,452
	hectare	metre	10000
	hectare	acre	2,471
Power	kilowatts	horsepower	1,341
Flow	foot^3/minute	metre^3/second	0,0004719
	foot^3/second	metre^3/second	0,02832
	yards^3/minute	metre^3/second	0,01274
	gallon/minute	metre^3/hour	0,22716
	gallon/minute	litre/minute	3,7854
	gallon/minute	litre/second	0,06309
	metre^3/hour	litre/minute	16,645
	metre^3/hour	litre/second	0,2774
	litre/minute	litre/second	60
Length	foot	inch	12
	inch	centimetre	2,54
	foot	metre	0,30481
	kilometre	mile	0,6214
	mile	foot	5280
	mile	metre	1609,34
	millimetre	inch	0,03937
Pressure	PSI	kilopascals	6,89476
	PSI	bar	0,068948
	bar	kilopascals	100
	PSI	feet of head	2,31
Velocity	feet/second	metre/second	0,3048
Volume	feet^3	gallon	7,481
	feet^3	litre	28,32
	metre^3	feet^3	35,31
	metre^3	yard^3	1,3087
	yard^3	feet^3	27
	yard^3	gallon	202
	acres/feet	foot^3	43,560
	gallon	metre^3	0,003785
	gallon	litre	3,785
	imperial gallon	gallon	1,833

SYMBOLS AND CONSTANTS

SYMBOLS AND CONSTANTS

Symbol	Description	U.S. Units	SI Units
a	Cross-sectional area of pipe flow	inches^2 (in^2)	millimetres^2 (mm^2)
C	Hazen-Williams roughness coefficient	none/unitless	none/unitless
Cu	Christiansen's coefficient of uniformity	percent (%)	percent (%)
d	inside diameter of pipe	inches (in)	millimetres (mm)
Dt	diameter of throw of a sprinkler	feet (ft)	metres (m)
DU	distribution uniformity	percent (%)	percent (%)
ETc	crop evapotranspiration	inches per day (in/day)	millimetres per day (mm/day)
ET0	reference evapotranspiration	inches per day (in/day)	millimetres per day (mm/day)
I	electrical current	amps (A), milliamps (mA)	amps (A), milliamps (mA)
ID	inside diameter of pipe	inches (in)	millimetres (mm)
hf	energy loss due to friction	feet of water (ft)	metres of water (m)
Kc	crop coefficient	percent (%)	percent (%)
ks	constant used to compute sprinkler spacing	none/unitless	none/unitless
L	spacing between lateral lines	feet (ft)	metres (m)
MAD	management allowable depletion	none/unitless	none/unitless
MC	maximum coverage for single-row sprinklers	feet (ft)	metres (m)
OD	outside diameter of pipe	inches (in)	millimetres (mm)
P	pressure of water	pounds per inch^2 (PSI)	kilopascals (kPa), bars (bar)
PR	precipitation rate	inches per day (in/day)	millimetres per day (mm/day)
Po	sprinkler operating pressure	pounds per inch^2 (PSI)	kilopascals (kPa), bars (bar)
Q	flow of water in a pipe	gallons per minute (GPM)	cubic metres per hour(m^3/hr), litres per second (lps)
R	electrical resistance	ohms (Ω)	ohms (Ω)
Rt	radius of throw	feet (ft)	metres (m)
S	sprinkler spacing	feet (ft)	metres (m)
SC	scheduling coefficient	none/unitless	none/unitless
v	average velocity of water in pipe	feet per second (fps)	metres per second (mps)
Vo	electrical voltage	volts (V)	volts (V)

PILOT-FC FIELD CONTROLLER ELECTRICAL SPECIFICATIONS

ELECTRICAL SPECIFICATIONS

Supply Voltage
Auto-sensing frequency (50 or 60 Hz)
120 VAC nominal (100 to 132 VAC)[1]
230 VAC nominal (200 to 260 VAC)[1]
Station output:
24 VAC at 1.0 A

CAPACITIES

Station Capacity
80 stations
Up to 20 stations can run simultaneously[2]

Station Solenoid Load
Up to four 24 VAC Hunter golf solenoids per station output[3]

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)[1]

CAPACITIES

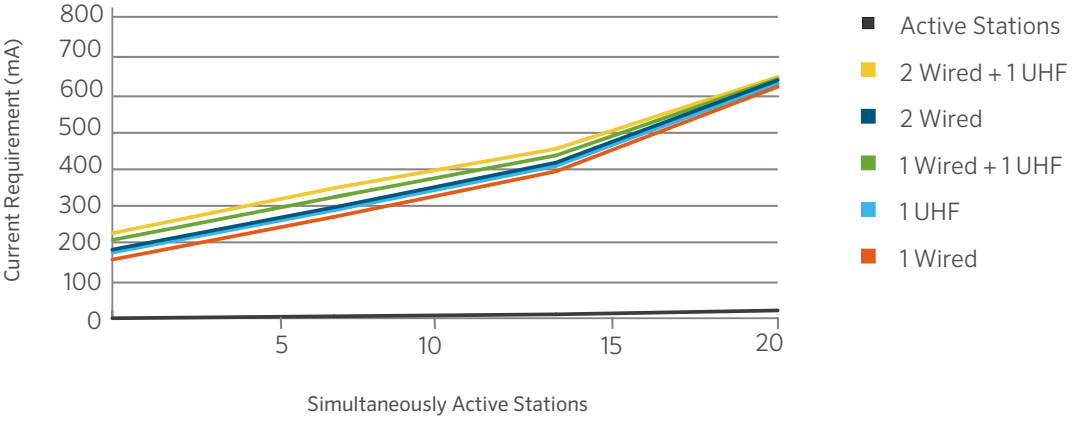
Integrated Two-way Module Capacity
Up to 999 integrated two-way modules per Pilot-DH two-way hub
Up to 120 24 VAC Hunter golf solenoids on at one time[2]

Integrated Two-way Module Solenoid Load
Up to two 24 VAC Hunter golf solenoids per integrated two-way module[3]

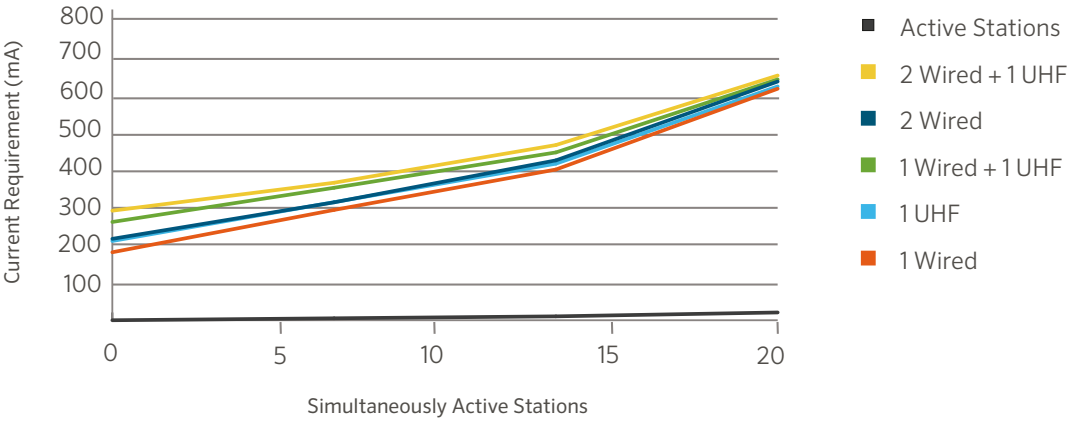
1. The Pilot-DH hub automatically detects supply voltage and frequency.
2. Depends on configuration. Pilot-DH will run up to 30 stations simultaneously per output module.
3. Two solenoids per two-way module does not reduce the maximum simultaneous station count.

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



WIRE SIZING

REQUIRED INFORMATION

Actual one-way length of wire between the controllers and the power source or the controllers and valves

Allowable voltage loss along the wire circuit

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 300 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).

$$R = \frac{1{,}000 \times 4}{2\,(600) \times 0.37}$$

$$R = \frac{4{,}000}{444}$$

$$R = 9.01 \text{ ohms}/1{,}000 \text{ m}$$

So, wire resistance cannot exceed 9 ohms per 305 m. Now go to table #1 and select the proper wire size. Since 1.5 mm^2 gauge wire has more resistance than 9 ohms per 300 m, choose 2.5 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: RESISTANCE OF COPPER WIRE

Wire Size (mm^2)	Resistance at 20°C (68°F) (ohms per 1000 m)
0.5	38.4
1.0	18.7
1.5	13.6
2.5	7.4
4.0	4.6
6.0	3.1

TABLE 2: VALVE WIRE SIZING

Ground Wire	Control Wire						
	0.5	1	1.5	2.5	4	6	6
0.5	140	190	210	235	250	260	1590
1.0	190	290	335	415	465	495	2440
1.5	208	335	397	515	595	647	3700
2.5	235	415	515	730	900	1030	5400
4.0	250	465	595	900	1175	1405	7690
6.0	260	495	647	1030	1405	1745	10530

Notes:
Maximum one-way distance in meters between controller and valve 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

WIRE DATA

STANDARD ANNEALED COPPER AT 20°C

American Wire Gauge	Metric Wire Gauge	Diameter (Mils)	Diameter (mm)	Resistance (Per mft Ohms)	Resistance (Per km Ohms)
1		289.3	7.348	0.9239	0.4065
	7		7		0.448
2		257.6	6.543	0.1563	0.5128
	6		6		0.6098
3		229.4	5.827	0.1971	0.6466
4		204.3	5.189	0.2485	0.8152
	5		5		0.08781
5		181.9	4.62	0.3134	1.028
	4.5		4.5		1.084
6		162	4.115	0.3952	1.297
	4		4		1.372
7		144.3	3.665	0.4981	1.634
	3.5		3.5		1.792
8		128.5	3.264	0.6281	2.061
	3		3		2.439
9		114.4	2.906	0.7925	2.6
10		101.9	2.588	0.9988	3.277
	2.5		2.5		3.512
11		90.7	2.3	1.26	4.14
12		80.8	2.05	1.59	5.21
	2		2		5.49
13		72	1.83	2	6.56
	1.8		1.8		6.78
14		64.1	1.63	2.52	8.28
	1.6		1.6		8.58
15		57.1	1.45	3.18	10.4
	1.4		1.4		11.2
16		50.8	1.29	4.02	13.2
	1.2		1.2		15.2
17		45.3	1.15	5.05	16.6
18		40.3	1.02	6.39	21
	1		1		22
19		35.9	0.912	8.05	26.4
	0.9		0.9		27.1
20		32	0.813	10.1	33.2

ADDITIONAL DATA

WIRE SIZE REFERENCE CHART

Wire Size (mm^2)	25 mm	32 mm	40 mm	50 mm	63 mm	75 mm	90 mm	110 mm	160 mm	Wire Size (mm^2)
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˚ and 32˚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

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, Automatic Flush Valves
TWO YEARS	**ROTORS**	PGP®-ADJ, PGJ	**CONTROLLERS**	XC Hybrid, X-Core®, Pro-C® Families, HC, Pro-HC, Pro-C Hydrawise, ROAM, NODE, WVP, WVC, PSR, BTT
	SPRAYS	PS Ultra	**SENSORS**	ET Sensor, HC Flow Meter
	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, Filters, PLD-LOC Fittings, Air Relief Valves
	VALVES	PGV, PSR	**ACCESSORIES**	HCV, SJ, FLEXsg, HSBE, SpotShot, RZB
THREE YEARS	**CONTROLLERS**	ROAM XL	**MP ROTATOR®**	All
FIVE YEARS	**ROTORS**	PGP Ultra, I-20, I-25, I-40, I-80, I-90	**CENTRAL**	IMMS Central Control Products
	SPRAYS	Pro-Spray®, Pro-Spray PRS30, Pro-Spray PRS40	**SENSORS**	Clik Sensors, Solar Sync®, Flow Sync®, MWS, Wireless Flow Sensor
	VALVES	HQ, ICV, IBV, Accu Sync®	**MICRO**	ICZ, HDL, Eco-Mat®, Eco-Wrap®
	CONTROLLERS	I-Core®/ DUAL®, and ACC/ACC2 controller families, ICD and Dual Decoder Products, ICC2, HCC		

Hunter Golf and ST System Irrigation Component* Warranty 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® CCS, Pilot FI, Pilot FCS, Pilot IHS
THREE YEARS	**GOLF ROTORS**	TTS-800 Series, G-800 Series, B Series, G-900 Series, RT Series
	GOLF INTEGRATED TWO-WAY MODULES	Pilot 100, Pilot 200, Pilot 400, Pilot 600, Pilot SG
FIVE YEARS	**GOLF ROTORS**	Golf rotor component warranty extended to five years with one-for-one purchase of HSJ Swing Joint from authorized Hunter Golf distributor.
	SWING JOINTS	HSJ-0, HSJ-1, HSJ-2, HSJ-3, HSJ-4, HSJ-5
	ST ROTORS	ST-90, STG-900, ST-1200, ST-1600
	ST ACCESSORIES	All model number starting with "ST"
	COMPUTER, PRINTERS & ACCESSORIES, MAINTENANCE RADIO & BATTERY	Equipment manufacturer's warranty (no Hunter warranty)

* 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, MP Rotator, and rotor products to a period of one (1) year from original date of manufacture. This agriculture limitation supersedes all other warranties expressed or implied. **Hunter warrants the battery life of the Wireless Rain-Clik and Wireless Solar Sync sensors for 10 years.**

Hunter® | *Built on Innovation®*

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, email HunterTechnicalSupport@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

Gene Smith, President, Landscape Irrigation and Outdoor Lighting

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