PN 03061 — PP2EG 10/20

NELSON

PIVOT POINT TO END GUN

SOLUTIONS FOR MECHANIZED IRRIGATION

NELSON IRRIGATION CORPORATION OFFERS A FULL RANGE OF WATER APPLICATION SOLUTIONS FOR MECHANIZED IRRIGATION. FROM CONTROL VALVES TO PIVOT SPRINKLERS, AND PRESSURE REGULATORS TO END GUNS — THE PACKAGE IS COMPLETE.


THE CENTER PIVOT OFFERS THE PERFECT PLATFORM FOR SPRINKLERS TO DELIVER WATER — THE RIGHT AMOUNT IN THE RIGHT WAY.

NELSON

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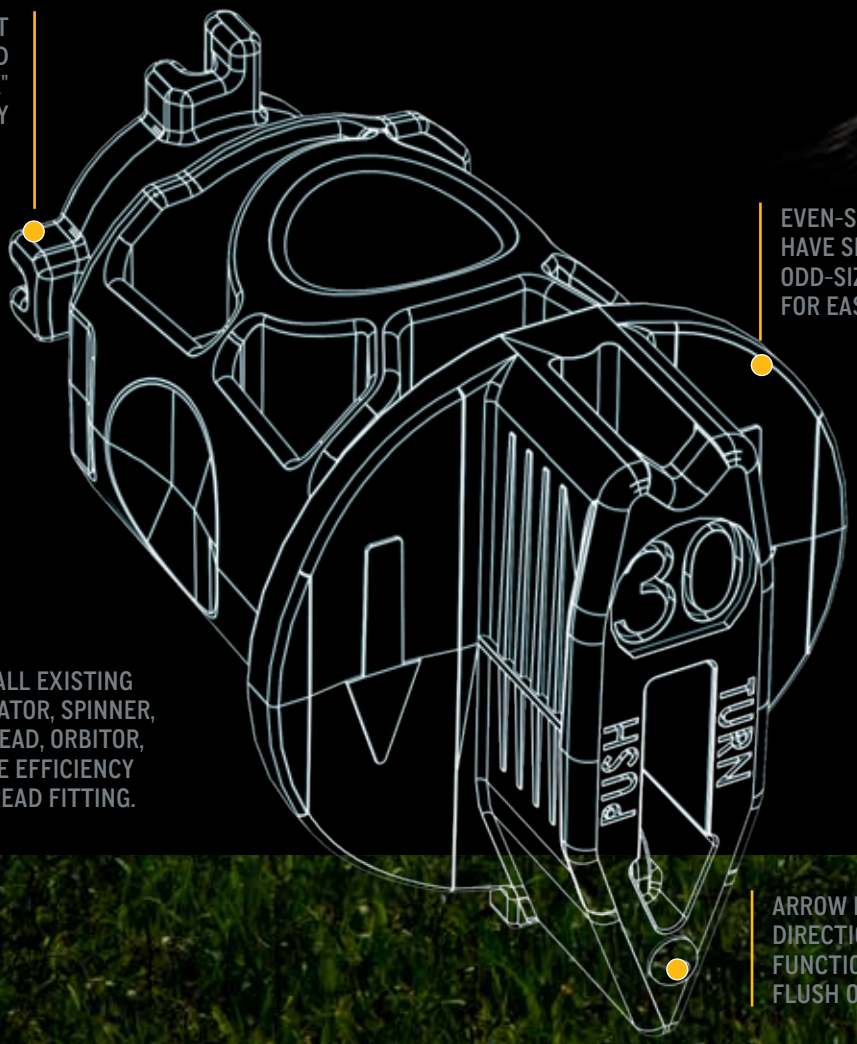
INTRODUCING THE NEW 3030 SERIES SPRINKLER

AT THE HEART OF THE 3030 SERIES IS THE NEW 3NV NOZZLE. BUILT WITH THE PRECISION ACCURACY OF THE 3TN, THIS INNOVATIVE DIAL-NOZZLE COMBINES MULTIPLE FUNCTIONS SO YOU CAN EFFECTIVELY MANAGE YOUR SYSTEM.

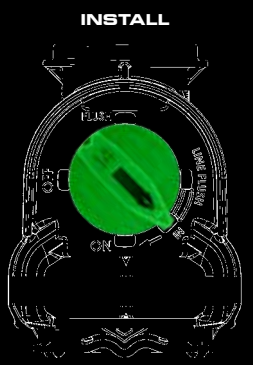
- QUICK-CHANGE — PUSH & TURN, AUDIBLE "CLICK"
- STAINLESS STEEL SPRING FOR ACCURATE AND SECURE POSITIONING
- COVERS COMPLETE NOZZLE RANGE, USING THE SAME NUMBERING AND FLOW RATES AS THE 3TN NOZZLE SYSTEM
- SAME COLOR-CODES AS 3TN BUT ODD-SIZE NOZZLES HAVE WEATHER-ENDURING SCALLOPED EDGE

MANAGE YOUR SYSTEM WITHOUT EVER HAVING TO REMOVE A NOZZLE.

LUGS ASSIST INSTALLATION AND "PRESS", "SPIN", "CLICK" FUNCTIONALITY

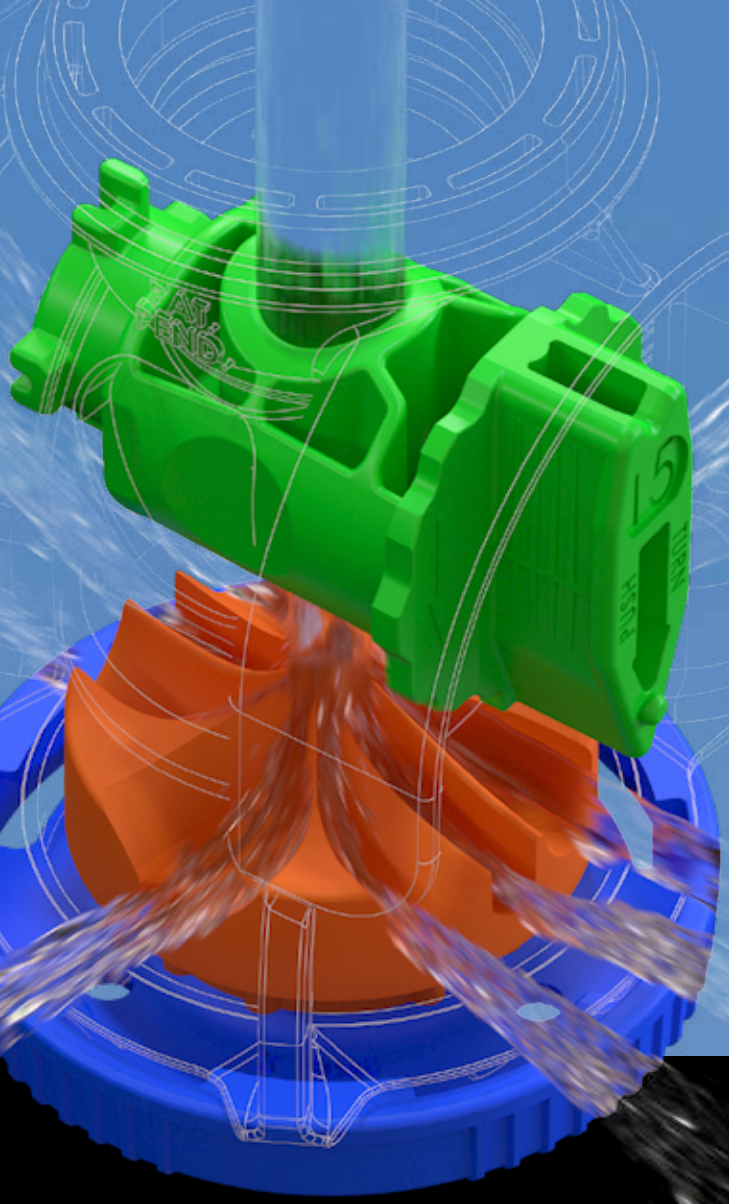


EVEN-SIZED NOZZLES HAVE SMOOTH EDGE, ODD-SIZED SCALLOPED FOR EASY ID



THE 3NV NOZZLE FITS ALL EXISTING SPRINKLER TYPES: ROTATOR, SPINNER, ACCELERATOR, SPRAYHEAD, ORBITOR, PART CIRCLE. MAXIMIZE EFFICIENCY WITH THE SQUARE THREAD FITTING.

ARROW INDICATES FLOW DIRECTION AND NOZZLE FUNCTION: IN, ON, OFF, FLUSH OR LINE FLUSH



GAIN LOTS, GIVE UP NOTHING.

SUPERIOR FLUSHING OPTIONS: Sequence to work debris through. It's never advised to stick something in a nozzle – the 3NV flushes with a quick and simple turn of the nozzle. No tools necessary.

"ON" AND "OFF" CAN BE SELECTIVE: If you're over-watering, or if you need to conserve water for a time, simply select the sprinklers you want to turn off. Consider the cost savings of having a built-in ball valve on every sprinkler!

OR SEAMLESS INTEGRATION INTO EXISTING SYSTEMS.

To gain the benefits of the new 3030 Series you simply need a new Nozzle & Body. Existing 3000 Series Cap, Plate, Regulator & Fittings integrate entirely. NOTE: Orbitor weight can be re-used but need new body/plate.

Since On, Off & Flush functions all take place without removing the nozzle, no more dropped or lost nozzles in the field!

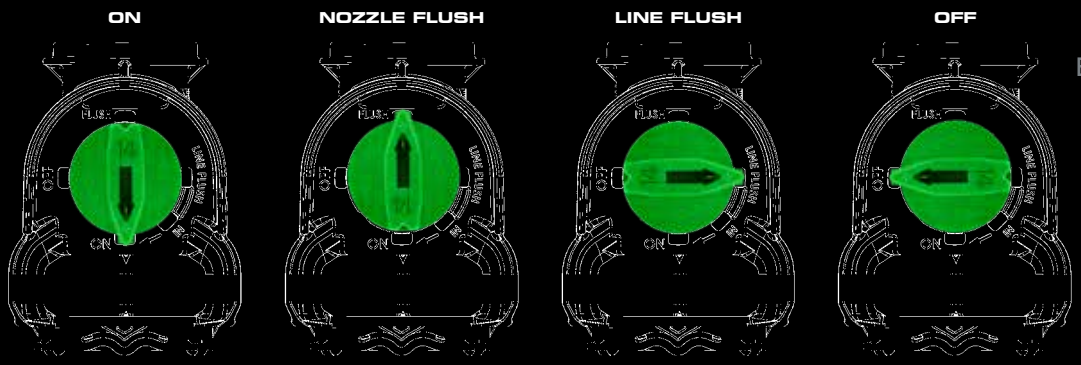
A 3NV Dual Nozzle clip (with Hi-Flo, Lo-Flo differentiation) helps farmers adapt to differing watering needs such as crop establishment, chemigation or lowering water tables.

FOR NEW SYSTEMS ...

Maximize efficiency & accuracy – install sprinklers, then walk the line and install nozzles.

Visually identify sprinkler modes for quality assurance.

Use flush function as needed depending on water quality.



ENGINEERED PORT FOR INSPECTING NOZZLE

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A FAMILY OF PRODUCTS FOR A MULTITUDE OF NEEDS

VAST DIFFERENCES IN CROPS, SOILS, FARMING PRACTICES AND CLIMATIC CONDITIONS WORLDWIDE, COUPLED WITH REGIONAL DIFFERENCES IN THE AVAILABILITY OF WATER AND ENERGY REQUIRE AN ARRAY OF SPRINKLER PERFORMANCE CHARACTERISTICS.

WE HAVE WHAT YOU NEED TO GET THE JOB DONE:

ROTATOR®

Widest Throw
Highest Uniformity
Low Application Rates

ACCELERATOR

Great Sprayhead
Replacement Option

SPINNER

Great for Sensitive
Crops & Soils

IN ORDER TO SELECT THE BEST PRODUCT FOR YOUR NEEDS CONSIDER THE FOLLOWING:

1 **AVAILABLE PRESSURE**
Choose performance - save water and energy.

2 **DESIRED UNIFORMITY & THROW DISTANCE**
Rotator provides highest uniformity possible.

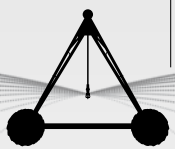
3 **SOIL TYPES**
See pages 16-17 for infiltration curves as they relate to application rates.

NELSON

geocropical®

SHORT THROW DISTANCE OF FIXED SPRAY
PROVIDES HIGH PRECIPITATION RATES
SPRAY / 40' (12.8 M) DIAM.
BLACK PLATE / #36 NOZZLE @ 10 PSI (0.7 BAR)

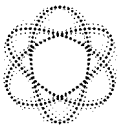
WIDEST THROW ON DROP TUBES



WIDE THROW DISTANCE OF ROTATING STREAMS
PROVIDES OPTIMAL (LOW) PRECIPITATION RATES
ROTATOR / 70' (21.3 M) DIAM.
ORANGE PLATE / #36 NOZZLE @ 20 PSI (1.4 BAR)

SPRAYHEAD

Multi-Trajectory Plates Have Improved Performance



ORBITOR

No Drift or Drool & Less Debris Hang-up

UNIVERSAL

The U3030 Body is for use with Part-Circle 3030 options and Hose Drag Adapter.

4 WIND CONDITIONS

Choose sprinkler with multi-trajectory plate options to fight the wind while also filling in the water pattern.

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10 REASONS WHY ROTATOR® TECHNOLOGY REIGNS

1. 30+ YEARS FIELD-PROVEN
2. BEST IN CLASS AT GETTING WATER IN THE GROUND (PG 17)
3. MOUNTS UP TOP (PG 10) OR ON DROPS
6. WIDEST THROW DISTANCE AVAILABLE ON DROPS
7. HIGHEST UNIFORMITY

NELSON

4

LOW PRESSURE OPTIONS AVAILABLE (CHOOSE ROTATOR WITH OLIVE PLATE, OR ACCELERATOR)

5

MODULAR DESIGN CENTERED AROUND 3TN & 3NV NOZZLES (PG 22)

8

PRECISION ENGINEERED & MANUFACTURED FOR LONG WEAR LIFE

9

PART-CIRCLE VERSION AVAILABLE (PG 24)

10

GEOCROPICAL® OPTIONS

The new Olive multi-trajectory plate is designed to maintain high uniformity at lower pressures than other Rotator configurations are able to offer. It can be used with the #12 nozzle through the #50 3TN and new 3NV nozzles. Operate between 10–15 psi (0.7–1.0 bar) and achieve throw diameters up to 58' (17.7 m).

SPECIALIZED SOLUTIONS	
	ORANGE ROTATOR MAXIMUM THROW AT 15-30 PSI (1-2 BAR)
BROWN ROTATOR HIGHEST UNIFORMITY AT 15-30 PSI (1-2 BAR)	GREEN ROTATOR WIND-FIGHTING AT 20-50 PSI (1.4-3.4 BAR)
GOLD (LP*) ACCELERATOR MAXIMUM DIAMETER AT 6-15 PSI (0.4-1 BAR)	MAROON (LP*) ACCELERATOR WIND-FIGHTING STREAMS AT 6-15 PSI (0.4-1 BAR)

*LOW PRESSURE

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CATERING TO CROP SPECIFIC NEEDS

NELSON ROTATOR® SPRINKLER TECHNOLOGY MOUNTED ON TOP OF CENTER PIVOTS IN STRONG CORN-PRODUCING AREAS HAS GENERATED EXCELLENT RESULTS IN RECENT YEARS.

ACCELERATOR WITH NAVY PLATE & 10 PSI PRESSURE REGULATOR

EVALUATION OF THESE PRODUCTS ON TOP OF THE PIVOT PIPE IN NEBRASKA HAS SHOWN MINIMAL WATER LOSSES AND EXCELLENT APPLICATION EFFICIENCY

NELSON

ON TOP OF IT

THE R3030 ROTATOR® CAN OPERATE DOWN TO 15 PSI (1.0 BAR) WITH HIGH UNIFORMITY AND IMPRESSIVE WIND RESISTANCE, MADE POSSIBLE BY SPECIFICALLY ENGINEERED AND FINELY-TUNED ROTATING PLATES.

Rotator® / WHITE PLATE
15 - 30 PSI (1.0-2.0 bar)

Accelerator / NAVY PLATE
6 - 15 PSI (0.4-1.0 bar)

0 PSI (0.7 BAR),
ACCELERATOR
H THE NAVY
TE OFFERS
V PRESSURE
ANTAGES OVER
AYHEADS ON TOP
THE PIPE.

03030FX

FIELD-PROVEN ORBITOR TECHNOLOGY IN A SMALL COMPACT DESIGN THAT ADAPTS TO A VARIETY OF MOUNTING SITUATIONS.

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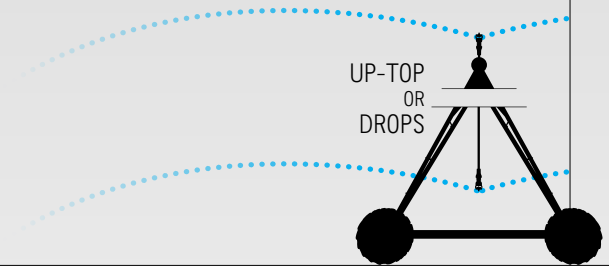
R

ROTATOR®

10-50 psi (0.7-3.4 bar)
50-74' (15.2-22.6 m)



GREATER THROW RADIUS. As a rotating type sprinkler the R3000 & R3030 Rotator® produce a wider pattern resulting in a lower application rate, reduced runoff and longer soak time.

HIGHER UNIFORMITY. The Rotator greatly improves uniformity because of the increased overlap from adjacent sprinklers.

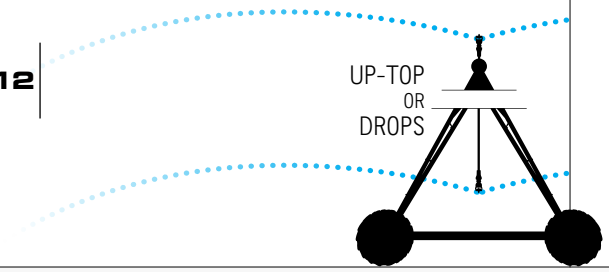
REDUCED WIND DRIFT AND EVAPORATIVE LOSS. The Rotator more than meets the challenge of putting a rotating type sprinkler on drop tubes — down out of the wind — to minimize wind drift and evaporative loss.

NOZZLE: **3TN OR 3NV**
APPLICATION RATE: **LOW**

A

ACCELERATOR

6-15 psi (0.4-1 bar)
30-55' (9.1-16.8 m)



COMBINATION OF THROW DISTANCE AND SMALLER DROPLETS. The Accelerator increases rotation speed through the nozzle range for the right balance of wind-fighting and proper treatment of the soil. Its unique design provides a low pressure option with the proven reliability and long wear life of the Rotator.

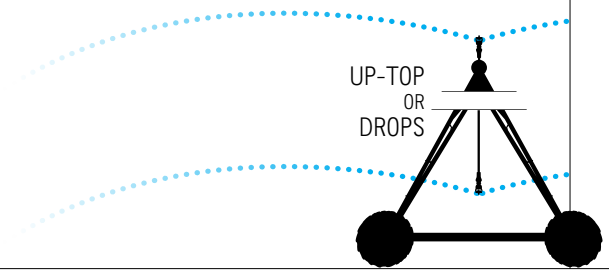
VERSATILITY. Maximizes performance of in-canopy water application and also provides a lower cost, low pressure solution in many above canopy applications. With no vibration, mount on any type of drop assembly or up-top.

NOZZLE: **3TN OR 3NV**
APPLICATION RATE: **LOW-MEDIUM**

S

SPINNER

10-20 psi (0.7-1.4 bar)
42-54' (12.8-16.5 m)



GENTLE RAIN AT LOW PRESSURE. The free-spinning action of the S3000 & S3030 Spinner provides a gentle, rain-like droplet for sensitive soils and crops.

SUPERIOR UNIFORMITY AT LOW PRESSURE. A low pressure alternative to fixed spray-heads, the Spinner provides higher uniformity with better overlap and lower application rates.

NO MOUNTING RESTRICTIONS. The Spinner operates without vibration. Retrofit on rigid, semi-rigid, or flexible drop hose assemblies.

NOZZLE: **3TN OR 3NV**
APPLICATION RATE: **LOW-MEDIUM**

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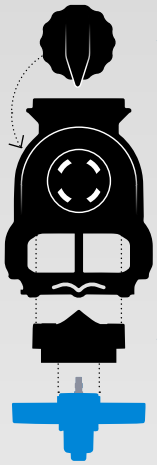
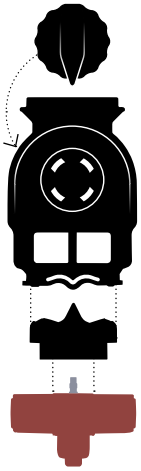


BLUE ROTATOR® CAP

MAX. *50 NOZ. MIN. *14 NOZ. @ 30 PSI (2.0 BAR) *16 FOR LOW PRESS.	MAX. *50 NOZ. MIN. *14 NOZ. @ 15 PSI (1.0 BAR)	MAX. *50 NOZ. MIN. *14 NOZ. @ 30 PSI (2.0 BAR) *16 FOR LOW PRESS.	MAX. *50 NOZ. MIN. *14 NOZ. @ 15 PSI (1.0 BAR)	MAX. *50 NOZ. MIN. *14 NOZ. @ 15 PSI (1.0 BAR)	MAX. *50 NOZ. MIN. *14 NOZ. @ 15 PSI (1.0 BAR)	MAX. *50 NOZ. MIN. *12 NOZ. @ 10 PSI (0.7 BAR)
BLUE UP-TOP U4-8°	**WHITE UP-TOP**	**GREEN D4-8°**	**RED D6-12°**	**ORANGE MULTI-TRAJECTORY**	**BROWN MULTI-TRAJECTORY**	**OLIVE LOW PRESSURE**
70' DIAMETER (21.3 M) AT 12' (3.7 M) MOUNTING @ 30 PSI (2.0 BAR) *32 NOZZLE	74' DIAMETER (22.6 M) AT 12' (3.7 M) MOUNTING @ 30 PSI (2.0 BAR) *32 NOZZLE	72' DIAMETER (21.9 M) AT 9' (2.7 M) MOUNTING @ 30 PSI (2.0 BAR) *32 NOZZLE	66' DIAMETER (20.1 M) AT 9' (2.7 M) MOUNTING @ 25 PSI (1.7 BAR) *36 NOZZLE	72' DIAMETER (21.9 M) AT 9' (2.7 M) MOUNTING @ 25 PSI (1.7 BAR) *36 NOZZLE	68' DIAMETER (20.7 M) AT 9' (2.7 M) MOUNTING @ 25 PSI (1.7 BAR) *36 NOZZLE	58' DIAMETER (17.7) AT 6' (1.8 M) MOUNTING @ 15 PSI (1.0 BAR) *36 NOZZLE
20-50 PSI (1.4-3.4 BAR)	15-30 PSI (1.0-2.0 BAR)	20-50 PSI (1.4-3.4 BAR)	15-30 PSI (1.0-2.0 BAR)	15-30 PSI (1.0-2.0 BAR)	15-30 PSI (1.0-2.0 BAR)	10-15 PSI (0.7-1.0 BAR)

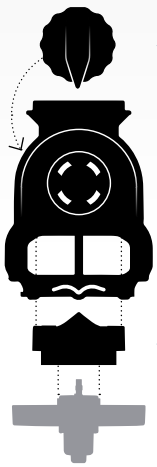


MAROON ACCELERATOR CAP

MAX. *50 NOZ. MIN. *10 NOZ. @ 10 PSI (0.7 BAR) *18 @ 6 PSI	MAX. *50 NOZ. MIN. *10 NOZ. @ 15 PSI (1.0 BAR) *12 @10 PSI *18 @ 6 PSI	MAX. *50 NOZ. MIN. *10 NOZ. @ 15 PSI (1.0 BAR) *12 @10 PSI *18 @ 6 PSI
MAROON	**GOLD**	**NAVY UP-TOP**
48' DIAMETER (14.6 M) AT 9' (2.7 M) MOUNTING @ 10 PSI (0.7 BAR) *32 NOZZLE	54' DIAMETER (16.5 M) AT 9' (2.7 M) MOUNTING @ 10 PSI (0.7 BAR) *36 NOZZLE	55' DIAMETER (16.8 M) AT 12' (3.7 M) MOUNTING @ 10 PSI (0.7 BAR) *36 NOZZLE
6-15 PSI (0.4-1.0 BAR)	6-15 PSI (0.4-1.0 BAR)	6-15 PSI (0.4-1.0 BAR)

OPTIONAL SPRINKLER CONVERTER

EASILY CONVERT FROM ACCELERATOR TO SPRAYHEAD TO BUBBLER



GRAY SPINNER CAP

MAX. *50 NOZ. MIN. *14 NOZ. @ 15 PSI (1.0 BAR) *18 FOR LOW PRESS.	MAX. *50 NOZ. MIN. *14 NOZ. @ 15 PSI (1.0 BAR) *16 FOR LOW PRESS.	MAX. *50 NOZ. MIN. *14 NOZ. @ 15 PSI (1.0 BAR) *16 FOR LOW PRESS.	MAX. *15 NOZ. MIN. *10 NOZ. @ 10 PSI (0.7 BAR)
RED D6-12°	**PURPLE D6-20°**	**YELLOW D8-21°**	**BEIGE* SMALL NOZZLE**
44' DIAMETER (13.4 M) AT 6' (1.8 M) MOUNTING @ 15 PSI (1.0 BAR) *36 NOZZLE	54' DIAMETER (16.5 M) AT 6' (1.8 M) MOUNTING @ 15 PSI (1.0 BAR) *36 NOZZLE	50' DIAMETER (15.2 M) AT 6' (1.8 M) MOUNTING @ 15 PSI (1.0 BAR) *36 NOZZLE	38' DIAMETER (11.6 M) AT 6' (1.8 M) MOUNTING @ 15 PSI (1.0 BAR) *12 NOZZLE
10-20 PSI (0.7-1.4 BAR)	10-20 PSI (0.7-1.4 BAR)	10-20 PSI (.7-1.4 BAR)	10-15 PSI (0.7-1.0 BAR)

PART CIRCLE SPINNER

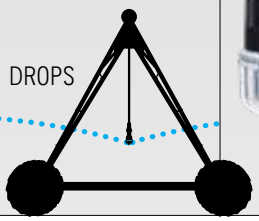
*14-40 NOZ.
10-20 PSI
(.7-1.4 BAR)

*The beige plate should be used on flexible drops, or those with at least 1ft. (.3 m) of hose. The smaller nozzles will be more susceptible to plugging.

O

ORBITOR

6-20 psi (0.4-1.4 bar)
36-60' (11.0-18.3 m)



STREAMLINED DESIGN. Featuring technology that eliminates the struts of a sprinkler body, Nelson's Pivot Orbitor provides outstanding uniformity and optimal droplets at low pressures (6-20 psi / 0.4-1.4 bar). Expect long wear life and durability in poor water conditions, because there are no sprinkler body struts for debris to hang up on.

REDUCED WIND DRIFT AND EVAPORATIVE LOSS. Strutless sprinkler body design reduces droplet breakup, drift and drool.

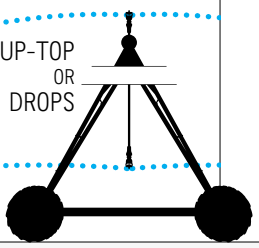
IMPORTANT! THE ORBITOR REQUIRES A MINIMUM OF 2' (0.6 M) OF REINFORCED FLEXIBLE HOSE IN THE MOUNTING ASSEMBLY.

NOZZLE: **3TN OR 3NV**
APPLICATION RATE: **LOW-MEDIUM**

D

SPRAYHEAD

6-40 psi (0.4-2.8 bar)
16-40' (4.9-12.2 m)



GERMINATE, IRRIGATE & CHEMIGATE. The flip-over dual spray cap allows easy conversion of the spray pattern. Choose from spray plate options to germinate, irrigate, and chemigate.

"LOW ENERGY DOWN IN THE CROP". The sleek, crop-guarded body design provides durability for dragging the Sprayhead down in tall growing crops like corn.

OPTIONAL LEPA ACCESSORIES. The hose drag adapter allows simple conversion of the Sprayhead to a hose drag system. Both the D3000 and D3030 have "bubble" modes for LEPA. D3000 requires bubble clip - see page 15.

NOZZLE: **3TN OR 3NV**
APPLICATION RATE: **HIGH**

T

TRASHBUSTER

PRESSURE & THROW DEPENDS ON SPRINKLER SELECTION

FLOW CONTROL NOZZLE. The Flow Control Nozzle (only available for 3000 Series) not only eliminates the need for pressure regulators, but also passes debris more easily. It is not to be used on flexible hose drop assemblies.

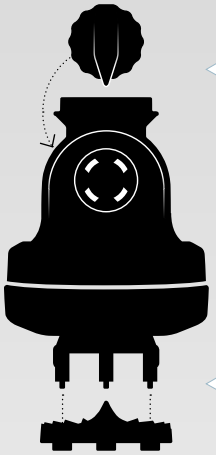
BODY DESIGNED FOR WASTEWATER. The open architecture design of the body allows for debris to pass through more easily, alleviating build up of material on the plate and body.

BY OPERATING ON DROP TUBES you can distribute effluent more days of the year, keep corrosive water off the pivot structure, eliminate excess wind/pathogen drift, and reduce odor. The Trashbuster can be configured into either a Spray or Rotator sprinkler.

NOZZLE: **3TN OR 3000FC**
APPLICATION RATE: **LOW-HIGH**

NELSON

THROW DIAMETER, PRESSURE & NOZZLE RANGE



*11-*50 NOZ. NOZZLE RANGE	*11-*50 NOZ. NOZZLE RANGE	*11-*50 NOZ. NOZZLE RANGE
BLACK STANDARD ANGLE	**BLUE LOW ANGLE**	**PURPLE SMALL DROPLET**
		
58' DIAMETER (17.7 M) AT 6' (1.8 M) MOUNTING @ 15 PSI (1.0 BAR) *36 NOZZLE	50' DIAMETER (15.2 M) AT 6' (1.8 M) MOUNTING @ 15 PSI (1.0 BAR) *36 NOZZLE	47' DIAMETER (14.3 M) AT 6' (1.8 M) MOUNTING @ 15 PSI (1.0 BAR) *36 NOZZLE
6-20 PSI (0.4-1.4 BAR)	6-20 PSI (0.4-1.4 BAR)	6-20 PSI (0.4-1.4 BAR)

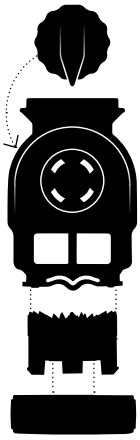
ORBITOR WITH WEIGHTED COVER

ORBITOR WITH PLASTIC COVER

IMPORTANT MOUNTING INFORMATION:

1. The Orbitor requires a minimum of 2' (0.6 m) of reinforced flexible hose in the mounting assembly.
2. When using the Orbitor with the weighted cover, do not use any other conventional weight styles instead of, or in addition to, the Orbitor weight.
3. When using the Orbitor with the plastic cover, an inline weight is required. Use Nelson Slim Weights (page 25) or 3/4" NPT threaded weights. Slip weights require the Nelson Clamp Saver (page 25).
4. Always be sure that the Orbitor Weight, Slim Weight, or threaded weight is securely tightened.
5. Always be sure that all components in the mounting assembly and the Orbitor are securely tightened. Use new* Nelson pressure regulators and fittings.
6. If ¾" ball valves are used, use metal nipples or Nelson P/N-12291 plastic nipples.

*New, patented single-strut seat manufactured after 2007.



BLACK FLIP-OVER SPRAYHEAD CAP

TURQUOISE 	**GREEN** 	**BLUE** 	**GRAY** 
RED 	**YELLOW** 	**BLACK** 	**ORANGE** 
WHITE 	**PURPLE** 	**BROWN** 	**TAN BUBBLE-WIDE** 

SEE SPRAYHEAD LITERATURE FOR PLATE CHARACTERISTICS, THROW DIAMETER AND PRESSURE/NOZZLE RANGES. THE SPRAYHEAD CAN BE USED UP-TOP OR ON DROPS.

3030 SERIES PART-CIRCLE SPRAY & HOSE DRAG ADAPTER BOTH REQUIRE UNIVERSAL BODY; 3000 SERIES DOES NOT.

U3030 BODY #12381 PART CIRCLE SPRAY #9894-001

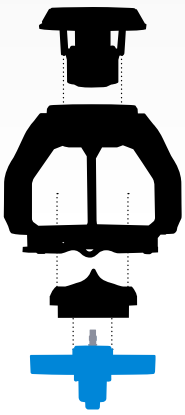
U3030 BODY #12381 HOSE DRAG ADAPTER #9427

BUBBLER ATTACHMENT (LEPA) #10577 FOR D3000 ONLY

"LE" LOW ENERGY

FLIP-OVER HOSE DRAG CAP ASSEMBLY #12676

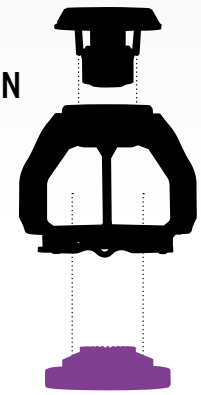
SHOWN WITH SPRAY/ACCELERATOR BODY. FLIP OVER TO USE WITH ROTATOR/ SPINNER BODY.



BLUE ROTATOR CAP

ROTATOR® CONFIGURATION

BLUE 	
GREEN 	



PURPLE T3000 CAP & SPRAY PLATE

SPRAYHEAD CONFIGURATION

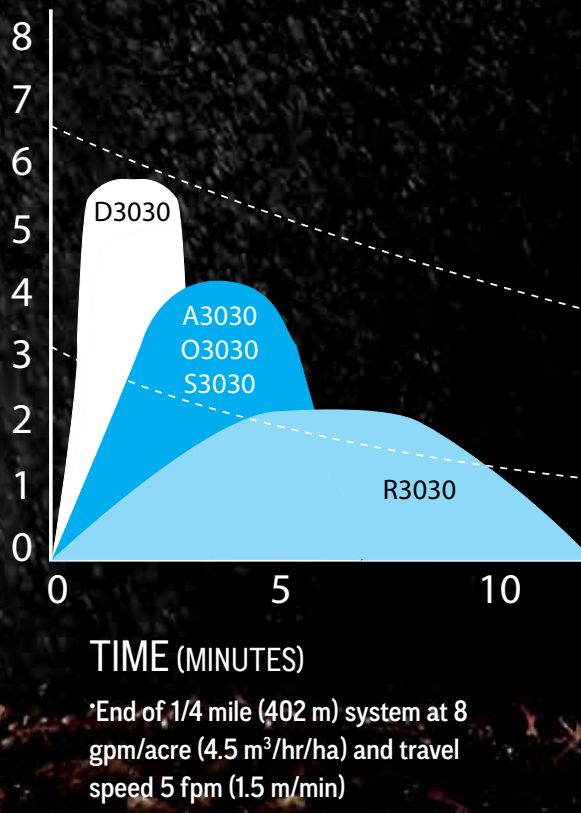
GREEN 	**YELLOW** 	**PURPLE** 
BLUE 	**BLACK** 	**ORANGE** 

3000FC NOZZLE #10106-XXX REQUIRES A RIGID DROP AND 25 PSI (1.7 BAR) MINIMUM.

TREAT THE SOIL RIGHT.

WE'D NEVER CRITICIZE MOTHER NATURE, BUT SOMETIMES "RAIN-LIKE" IRRIGATION IS NOT THE BEST FOR SOIL INTEGRITY. SOIL TEXTURES REACT DIFFERENTLY TO DROPLET SIZE AND VELOCITY (INTENSITY) AND IT'S IMPORTANT TO UNDERSTAND HOW A "WET / REST" CYCLE CAN BE VERY BENEFICIAL TO A FIELD. ROTATING STREAMS OVER A WIDE PATTERN HAVE PROVEN TO BE THE BEST POSSIBLE WAY TO TREAT THE SOIL.

THE RATE AT WHICH A CENTER PIVOT APPLIES WATER INCREASES WITH THE HIGHER FLOW DEMANDS REQUIRED AT THE OUTER PORTION OF A CENTER PIVOT. BY INCREASING THE WETTED THROW DISTANCE OF THE SPRINKLER, THE RATE AT WHICH WATER IS APPLIED CAN BE REDUCED TO MATCH THE SOIL'S INFILTRATION RATE. LOOK AT A TYPICAL INFILTRATION CURVE BELOW.

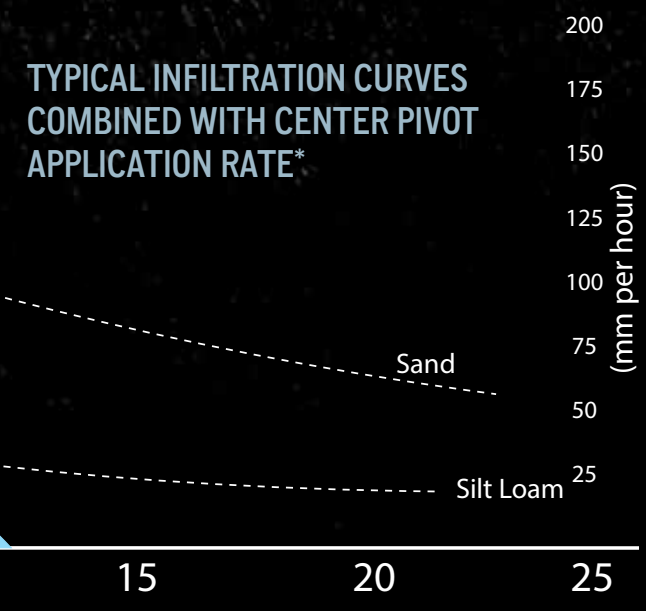


*End of 1/4 mile (402 m) system at 8 gpm/acre (4.5 m^3/hr/ha) and travel speed 5 fpm (1.5 m/min)

NELSON

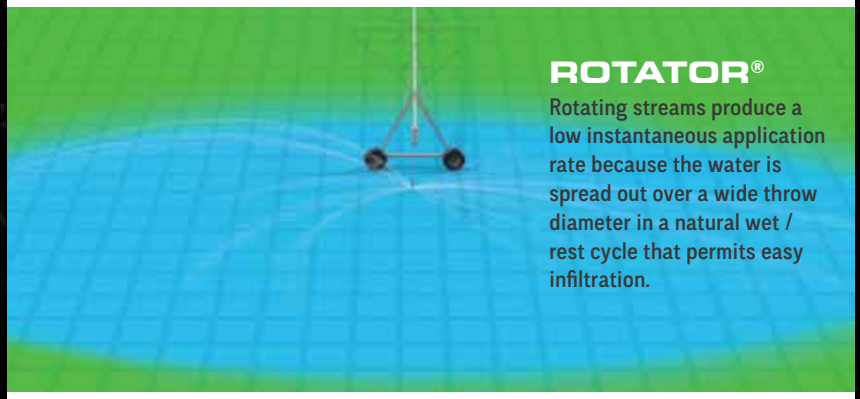
WITH SUPERIMPOSED APPLICATION RATES FOR CENTER PIVOT SPRINKLERS, IT IS OBVIOUS THAT THE ROTATOR®, WHICH PROVIDES THE WIDEST THROW DISTANCE ON DROP TUBES, COMES THE CLOSEST TO MATCHING INFILTRATION RATES OF THE SOIL. THE BEST CONDITION FOR INFILTRATION IS TO KEEP THE SOIL SURFACE OPEN AND APPLY WATER USING A WIDE APPLICATION WIDTH.

TYPICAL INFILTRATION CURVES COMBINED WITH CENTER PIVOT APPLICATION RATE*



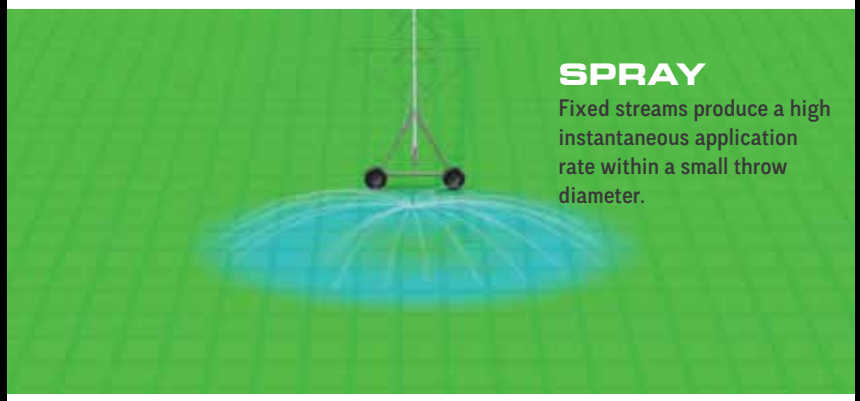
WITHOUT SPRINKLER PERFORMANCE THAT CAN APPLY WATER AT AN APPLICATION RATE THAT MORE CLOSELY MATCHES THE INFILTRATION RATE OF THE SOIL, THE EFFICIENCY GAINED WITH DROPS — AND MONEY SAVED WITH LOW PRESSURE — IS SOON LOST TO RUNOFF.

Average application rate (AAR) is the rate of water application over the wetted area. It is an average value assuming uniformity within the wetted area. Pivot average application rates increase with the higher flow demands required at the outer portion of a center pivot. Comparably, in analyzing different sprinkler options, superior throw distance yields lower average application rates.



ROTATOR®

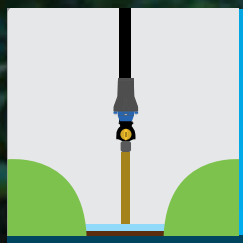
Rotating streams produce a low instantaneous application rate because the water is spread out over a wide throw diameter in a natural wet / rest cycle that permits easy infiltration.



SPRAY

Fixed streams produce a high instantaneous application rate within a small throw diameter.

IF YOU'RE LOOKING FOR "LE" SOLUTIONS — LOOK FOR THE NELSON ADVANTAGE.



LEPA

LOW ENERGY/ELEVATION PRECISION APPLICATION

U3030
+ HOSE DRAG

Germinate
Irrigate
Chemigate
Bubble
Drag

LEPA / TAN BUBBLE-WIDE

The Tan Bubble-Wide plate is now available for Low Energy Precision Applications in the 6-10 psi range (0.4-0.7 bar) using nozzle sizes #9-#30. This configuration creates a wider dome of water than standard straight down bubblers providing full coverage irrigation. This pattern treats the soil better and can increase efficiencies by reducing wind drift and evaporation versus standard Spray plates. Space from 30" to 60".

BUBBLE MODE WITH SPRINKLER CONVERTER (ACCELERATOR MODE)

FLIP-OVER HOSE DRAG CAP ASSEMBLY FOR R3030/S3030 & A3030/D3030 BODY (SIMPLY FLIP TO FIT)

STRAIGHT-DOWN BUBBLE MODE (NO SPECIAL PLATE/CLIP REQUIRED)

NELSON

PROBLEM

"I need a full coverage sprinkler to germinate my crop early in the season but then want to convert to a LEPA system later."

SOLUTION

"Try the A3030 Accelerator with a sprinkler converter and switch to the tan bubble-wide when water supply is tight. "

LESA

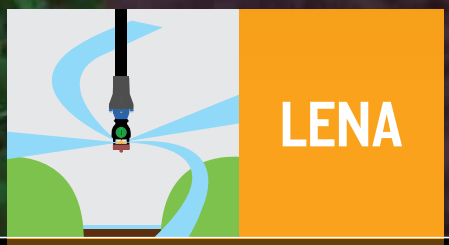
LOW ENERGY/ELEVATION SPRAY APPLICATION

D3030

SPRAYHEAD

Spray

SPRAY MODE WITH SPRINKLER CONVERTER



LENA

LOW ENERGY/ELEVATION NELSON ADVANTAGE

A3030

ACCELERATOR

MOVING SPRINKLERS:

Rotator®

Accelerator

Spinner

Orbitor

ACCELERATOR MODE WITH SPRINKLER CONVERTER

HOSE DRAG — BUBBLER — SPRAY TECHNOLOGY QUALIFY AS LEPA AND LESA SO LONG AS THE OUTLET SPACINGS ARE TIGHT AND THE DEVICES DELIVER WATER VERY NEAR TO OR ON THE SOIL SURFACE, WITH LITTLE ENERGY IN ORDER TO HAVE VERY LOW EVAPORATION IN THE AIR.

The Sprinkler Converter is a great device to get a 3-in-1 sprinkler. Cater the irrigation to the crop needs by easily switching between bubble, spray, or low-pressure (6-10 psi) rotating sprinklers. The Accelerator has the widest throw for optimal soil infiltration.

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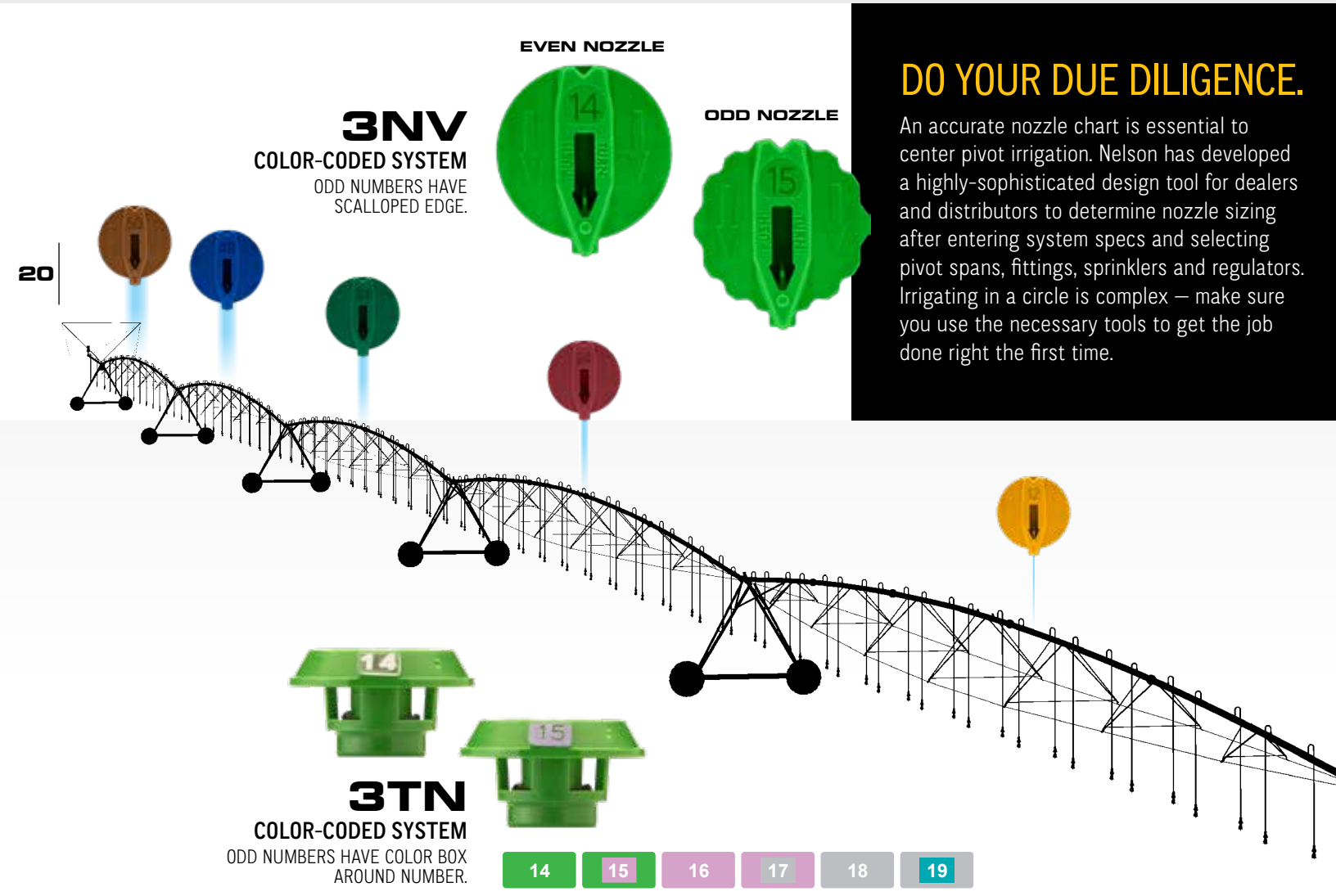
PRECISION IRRIGATION — BEGINNING TO END



DO YOUR DUE DILIGENCE.

An accurate nozzle chart is essential to center pivot irrigation. Nelson has developed a highly-sophisticated design tool for dealers and distributors to determine nozzle sizing after entering system specs and selecting pivot spans, fittings, sprinklers and regulators. Irrigating in a circle is complex — make sure you use the necessary tools to get the job done right the first time.

NELSON

PERFORMANCE DATA

NOZZLE CHART

The nozzle sizing system is based on 128th inch increments, e.g. 3TN/3NV Nozzle *26 has an orifice diameter of 26/128th inches while 3TN/3NV Nozzle *27 has an orifice diameter of 27/128th inches. For 3TN Nozzles, the odd-numbered nozzles have a color box around the number marking. This color box denotes the color of the next larger nozzle size. The odd-numbered 3NV Nozzles have a scalloped edge rather than secondary coloring.

NOZZLE #		*9		*10		*11		*12		*13		*14		*15		*16		*17		*18		*19	
COLOR		LIGHT BLUE		BEIGE		BEIGE		GOLD		GOLD		LIME		LIME		LAVENDER		LAVENDER		GRAY		GRAY	
COLOR BOX (3TN)		BEIGE				GOLD				LIME				LAVENDER				GRAY				TURQUOISE	
PSI	BAR	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM
6	0.4	0.34	1.28	0.42	1.59	0.50	1.89	0.61	2.30	0.71	2.68	0.82	3.10	0.95	3.59	1.08	4.08	1.22	4.61	1.36	5.14	1.53	5.79
10	0.7	0.44	1.66	0.54	2.04	0.65	2.46	0.79	2.99	0.92	3.48	1.06	4.01	1.23	4.65	1.40	5.29	1.58	5.98	1.75	6.62	1.97	7.45
15	1.0	0.53	2.00	0.66	2.50	0.79	2.99	0.96	3.63	1.13	4.27	1.29	4.88	1.51	5.71	1.71	6.47	1.93	7.30	2.14	8.09	2.41	9.12
20	1.4	0.62	2.34	0.76	2.87	0.92	3.48	1.11	4.20	1.30	4.92	1.49	5.63	1.74	6.58	1.98	7.49	2.23	8.44	2.48	9.38	2.79	10.56
25	1.7	0.69	2.61	0.85	3.22	1.02	3.86	1.24	4.69	1.46	5.52	1.67	6.32	1.95	7.38	2.21	8.36	2.50	9.46	2.77	10.48	3.12	11.81
30	2.1	0.76	2.87	0.93	3.52	1.12	4.23	1.36	5.14	1.59	6.01	1.83	6.92	2.14	8.09	2.42	9.15	2.74	10.37	3.03	11.46	3.41	12.90
40	2.8	0.87	3.29	1.07	4.05	1.29	4.88	1.57	5.94	1.84	6.96	2.11	7.98	2.47	9.34	2.80	10.59	3.16	11.96	3.50	13.24	3.94	14.91
50	3.4	0.97	3.67	1.20	4.54	1.45	5.48	1.76	6.66	2.06	7.79	2.36	8.93	2.76	10.44	3.13	11.84	3.53	13.32	3.91	14.79	4.41	16.69

NOZZLE #		*20		*21		*22		*23		*24		*25		*26		*27		*28		*29		*30	
COLOR		TURQUOISE		TURQUOISE		YELLOW		YELLOW		RED		RED		WHITE		WHITE		BLUE		BLUE		DARK BROWN	
COLOR BOX (3TN)				YELLOW				RED				WHITE				BLUE				DARK BROWN			
PSI	BAR	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM
6	0.4	1.70	6.43	1.84	6.96	2.04	7.72	2.22	8.40	2.44	9.23	2.64	9.99	2.87	10.86	3.07	11.61	3.35	12.68	3.58	13.55	3.83	14.49
10	0.7	2.19	8.28	2.38	9.00	2.64	9.99	2.86	10.82	3.16	11.96	3.41	12.90	3.70	14.00	3.97	15.00	4.32	16.35	4.62	17.48	4.94	18.69
15	1.0	2.69	10.18	2.91	11.01	3.23	12.22	3.50	13.24	3.86	14.61	4.17	15.78	4.53	17.14	4.86	18.39	5.29	20.02	5.66	21.42	6.06	22.93
20	1.4	3.10	11.73	3.36	12.71	3.73	14.11	4.05	15.32	4.46	16.88	4.82	18.24	5.23	19.79	5.61	21.23	6.11	23.12	6.53	24.71	6.99	26.45
25	1.7	3.47	13.13	3.76	14.23	4.17	15.78	4.52	17.10	4.99	18.88	5.38	20.36	5.85	22.14	6.27	23.73	6.83	25.85	7.30	27.63	7.82	29.59
30	2.1	3.80	14.38	4.12	15.59	4.56	17.25	4.96	18.77	5.47	20.70	5.90	22.33	6.41	24.26	6.87	26.00	7.48	28.31	8.00	30.28	8.56	32.39
40	2.8	4.39	16.61	4.76	18.01	5.27	19.94	5.72	21.65	6.31	23.88	6.81	25.77	7.40	28.00	7.94	30.65	8.64	32.70	9.24	34.97	9.89	37.43
50	3.4	4.90	18.54	5.32	20.13	5.89	22.29	6.40	24.22	7.06	26.72	7.61	28.80	8.28	31.33	8.87	33.57	9.66	36.56	10.33	39.13	11.06	41.86

NOZZLE #		*31		*32		*33		*34		*35		*36		*37		*38		*39		*40		*41	
COLOR		DARK BROWN		ORANGE		ORANGE		DARK GREEN		DARK GREEN		PURPLE		PURPLE		BLACK		BLACK		DARK		DK. TURQUOISE	
COLOR BOX (3TN)		ORANGE				DARK GREEN				PURPLE				BLACK				DK. TURQUOISE		TURQUOISE		MUSTARD	
PSI	BAR	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM
6	0.4	4.06	15.36	4.36	16.50	4.65	17.60	4.94	18.69	5.20	19.68	5.47	20.07	5.84	22.10	6.18	23.39	6.52	24.68	6.85	25.92	7.26	27.48
10	0.7	5.24	19.83	5.63	21.50	6.00	22.71	6.37	24.11	6.72	25.43	7.06	26.72	7.54	28.54	7.97	30.16	8.42	31.87	8.85	33.49	9.37	35.47
15	1.0	6.41	24.26	6.89	26.07	7.35	29.71	7.81	29.56	8.23	31.15	8.65	32.74	9.24	34.97	9.77	36.98	10.31	39.02	10.84	41.02	11.48	43.45
20	1.4	7.40	28.00	7.96	30.12	8.49	32.13	9.01	34.10	9.50	35.95	9.98	37.77	10.67	40.38	11.28	42.69	11.91	45.08	12.51	47.35	13.26	50.19
25	1.7	8.28	31.34	8.90	33.68	9.49	35.91	10.08	38.15	10.62	40.19	11.16	42.24	11.92	45.11	12.61	47.72	13.31	50.38	13.99	52.95	14.82	56.09
30	2.1	9.07	34.32	9.75	36.90	10.39	39.32	11.04	41.78	11.64	44.05	12.23	46.29	13.06	49.43	13.81	52.27	14.58	55.19	15.33	58.02	16.23	61.43
40	2.8	10.47	36.62	11.26	42.62	12.00	45.42	12.75	48.25	13.44	50.87	14.12	53.44	15.08	57.07	15.95	60.37	16.84	63.74	17.70	66.99	18.75	70.97
50	3.4	11.71	44.32	12.59	47.65	13.42	50.79	14.25	53.93	15.02	56.85	15.79	59.76	16.86	63.81	17.83	67.48	18.81	71.20	19.79	74.90	20.96	79.33

NOZZLE #		*42		*43		*44		*45		*46		*47		*48		*49		*50	
COLOR		MUSTARD		MUSTARD		MAROON		MAROON		CREAM		CREAM		DARK BLUE		DARK BLUE		COPPER	
COLOR BOX (3TN)				MAROON				CREAM				DARK BLUE				COPPER			
PSI	BAR	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM
6	0.4	7.60	28.76	7.96	30.13	8.33	31.52	8.73	33.04	9.12	34.51	9.58	36.26	9.96	37.69	10.31	39.02	10.77	40.76
10	0.7	9.81	37.13	10.28	38.91	10.75	40.68	11.27	42.66	11.77	44.54	12.36	46.78	12.86	48.67	13.31	50.38	13.91	52.64
15	1.0	12.01	45.45	12.59	47.65	13.17	49.84	13.80	52.23	14.41	54.54	15.14	57.30	15.75	59.61	16.30	61.70	17.03	64.45
20	1.4	13.87	52.49	14.54	55.03	15.20	57.53	15.93	60.30	16.64	62.98	17.49	66.20	18.19	68.84	18.82	71.23	19.67	74.45
25	1.7	15.51	58.70	16.25	61.51	17.00	64.34	17.81	67.41	18.61	70.43	19.55	74.00	20.33	79.94	21.05	79.67	21.99	83.23
30	2.1	16.99	64.30	17.80	67.37	18.62	70.47	19.51	73.85	20.38	77.13	21.42	81.07	22.28	84.32	23.05	87.24	24.09	91.18
40	2.8	19.61	74.22	20.56	77.82	21.50	81.37	22.53	85.28	23.54	89.09	24.73	93.60	25.72	97.35	26.62	100.76	27.82	105.29
50	3.4	21.93	83.00	22.98	86.98	24.04	90.99	25.19	95.34	26.31	99.58	27.65	104.66	28.76	108.85	29.76	112.64	31.10	117.71

This flow data was obtained under ideal test conditions and may be adversely affected by poor hydraulic entrance conditions, turbulence or other factors. Nelson Irrigation makes no representation regarding sprinkler flow rate accuracy under various plumbing and drop pipe conditions.

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IN 1994, NELSON INTRODUCED 3000 SERIES PIVOT PRODUCTS.

THE 3TN NOZZLE SYSTEM IS AT THE CENTER OF THIS LINE OF PRODUCTS. EACH SPRINKLER IS MADE UP OF A CAP, PLATE, BODY AND NOZZLE. THE 3TN NOZZLE IS INTERCHANGEABLE WITH ALL 3000 SERIES SPRINKLERS. A VARIETY OF CONNECTION DEVICES ARE AVAILABLE TO LINK THE SPRINKLER WITH A HOSE OR RIGID DROP. IN 2015, NELSON RELEASED THE 3030 SERIES, WITH A DIFFERENT NOZZLE/BODY SYSTEM BUT THE SAME PLATE/CAP/ ADAPTER OPTIONS.

SEE DETAILS ON PAGES 4-7.

NELSON

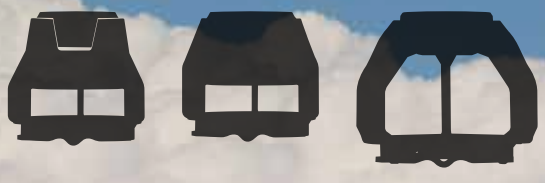
ST X 3/4"
#9410

ST X HB
#9901

SQUARE THREAD
REGULATORS & ADAPTERS

#9461-XXX 3TN NOZZLE FOR 3000 SERIES

#12035-XXX 3NV NOZZLE FOR 3030 SERIES



R3000/S3000
#9412

A3000/D3000
#9428

T3000
#10419

R3000/S3000
#12034

A3000/D3000
#12346

U3030
#12381

BODIES

PLATES

ORBITOR CONFIGURATION
SHOWN ON PAGES 14-15.

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SMART OPTIONS FOR COMMON CHALLENGES

SOLVE WHEEL TRACK PROBLEMS

Excessive water in the wheel tracks can cause slippage of the tires, causing the system to slow down in wet areas and steep slopes – increasing the application depth in relation to other parts of the fields. Deep wheel track ruts are also detrimental to the equipment and harvesting efficiency.

Nelson part circle sprinklers direct the water off of the pivot structure at the towers and away from the wheel track to prevent deep wheel track ruts. Overall field uniformity can be maintained by preventing excessive slippage of the tires, and maintaining a uniform speed of travel.

PC-R3030 ROTATOR®

PERFORMANCE

- 180° Arc (varies slightly with flow rate)
- Wide Throw
- High Uniformity
- Wind Fighting Pattern

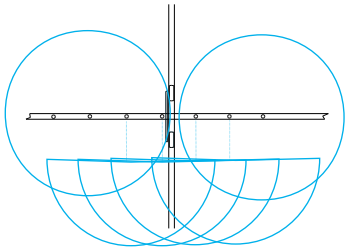
OPERATING SPECS

- 15-25 psi (1-1.4 bar) for #14-39 Nozzles
- 15-30 psi (1-2 bar) for #40-50 Nozzles
- 11' Spacing Limit
- Mount on a rigid drop assembly or IACO Hose Boom Assembly. Go to www.boombacks.com.

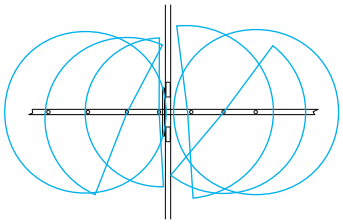
Part-Circle Spinner & Sprayhead also available for different pressure needs and stream characteristics.

PART-CIRCLE SPRINKLERS CAN BE INSTALLED IN A VARIETY OF CONFIGURATIONS

BOOMBACKS
INSTALLATIONS ON BOOMBACKS MINIMIZE THE COMPROMISE IN UNIFORMITY THAT OCCURS WHEN PART-CIRCLE DEVICES ARE UTILIZED.



STRAIGHT DROPS
INSTALLATIONS ON STRAIGHT DROPS REQUIRE CAREFUL ADJUSTMENT OF THE ORIENTATION.



NELSON

NOZZLE CLIPS

Nelson Pivot Sprinklers can be equipped with two or three nozzles using the 3TN Dual Nozzle Clip or 3TN Triple Nozzle Clip. The 3030 Series has a dual nozzle clip. These devices allow you to precisely match crop water requirements through the season. During germination, lower system flow rates lessen the intensity of water droplets to maintain proper soil structure and reduce runoff. Adjust the system flow as crop water requirements or well outputs change.

Change system flow quickly and accurately. No more fumbling with or dropping nozzles.

Note: Do not operate in down-in-the-crop applications, or with the Chemigation Spray Plate.

CLAMP SAVER

USE CLAMP SAVER WHEN INSTALLING ORBITORS ON A PIVOT WITH EXISTING POLY SLIP WEIGHTS. This simple device placed over clamps on drop hose beneath poly slip weights protects the clamp from the "action" or natural vibration on Orbitor systems. This is a great solution when an irrigator is retrofitting a pivot that already has slip weights with the Orbitor sprinkler. Only the plastic cover version (6-10 psi / 0.4-0.7 bar) 03000 or 03030 can be used with poly slip weights.

WEIGHTS FOR DROP HOSE

The 1 lb. modular weight (#10130) fits onto the pressure regulator, but if pressure regulators are not used, the weight fits directly on the body of the sprinkler (3000 Series only and not to be used with the Orbitor). The 1 lb. Modular Pivot Weight is designed for sprinklers operating at 20 PSI (1.4 BAR) and below.

SLIM WEIGHT

The in-line "slim" weight is for use with 3000 Series & 3030 Series Sprinklers. This low profile zinc weight fits directly into a flexible drop hose secured with a clamp, above a Nelson regulator and/or sprinkler. This includes the plastic cover versions of the 03000 and 03030 at 6, 10 or 15 psi (0.4, 0.7 or 1 bar) where the regulator must be installed directly onto the slim weight. No additional weight is allowed with the Orbitor.

3NV DNC PLIERS

Use this tool to remove and change 3NV Nozzles from the 3NV Dual Nozzle clips. Simply insert tool teeth into nozzle notches and it releases.

GOOSENECKS

These new, high-efficiency goosenecks have superior flow capacity to save you energy – less than half the friction loss of comparable products (1 psi {0.07 bar} of friction loss @ 22 gpm {83 lpm}). Large, efficient inside diameters are made possible with spin-weld technology. High-strength plastic can handle intense tension force. Molded ¾" inlet eliminates extra fittings and provides easier and more reliable installation into span pipe.

NEW! COIL WEIGHT

The coil weight has more weight than standard pivot drop weights (1.25 pounds /0.57 kg). Save a fitting with integrated Hose Barb x ¾" MNPT connection and special bonus - no shiny metal helps prevent theft!

Plastic cover secures over coil. Same mounting restrictions as the slim weight on left.

FNPT X (HB) #10057 | **MNPT X (HB) #10148** | **ST ADAPTER X (HB) #9901** | **3/4" X 3/4" MNPT NIPPLE #12291**

FITTINGS

User-friendly HOSE BARB FITTINGS. Easy installation into 3/4" flexible hose. Eliminates additional fittings. The convenience of the 15/16" Hex Adapter is unique to Nelson fittings. Secure fittings using 15/16" deep well socket or open end wrench.

NEW! 3/4" X 3/4" MNPT NIPPLE NOW AVAILABLE.

PRECISION ACCURACY IN TOUGH FIELD ENVIRONMENTS

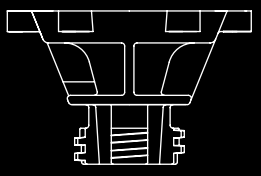
THE FUNCTION OF A PRESSURE REGULATOR IN CENTER PIVOT SPRINKLER DESIGN IS TO FIX A VARYING INLET PRESSURE TO A SET OUTLET PRESSURE, REGARDLESS OF CHANGES IN THE SYSTEM PRESSURE DUE TO HYDRAULIC CONDITIONS, ELEVATION CHANGES AND PUMPING SCENARIOS.

THE BENEFITS INCLUDE A UNIFORM DEPTH OF WATER APPLICATION, CONTROLLED SPRINKLER PERFORMANCE (DROPLET SIZE AND THROW DISTANCE), AND FLEXIBILITY IN SYSTEM OPERATION.

CHEMICALLY RESISTANT MATERIALS

HI-FLO SHOWN WITH 3/4" FNPT X 3/4" FNPT CONNECTION

SQUARE THREAD CONNECTION



Integral adapter connects directly into all Nelson 3000 & 3030 Series Sprinklers.

NELSON

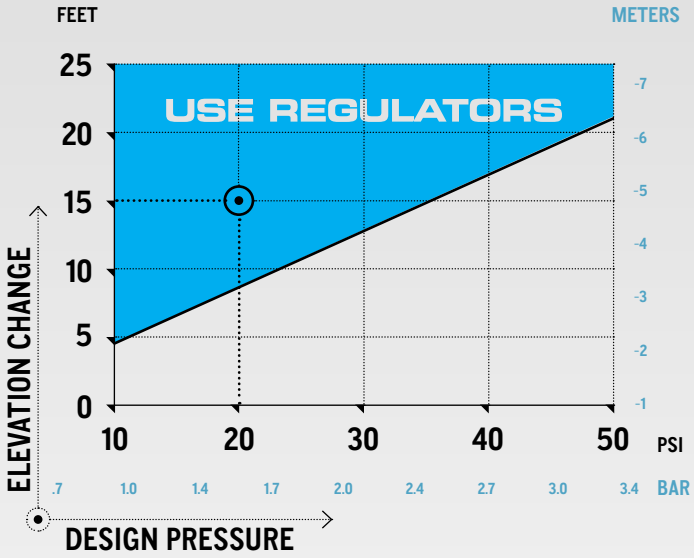
The Nelson Universal Pressure Regulator has a flow up to 12 GPM (2.7 M^3/H) at 15 PSI (1.0 BAR) and above.

PRESSURE REGULATORS

HOW MUCH ELEVATION CHANGE IS ACCEPTABLE? LESS THAN 10% FLOW VARIATION IS A GOOD RULE OF THUMB.

This graph is based on the elevation limit which will cause a flow variation of ten percent or more. If the elevation change from the lowest point is above the line then a flow variation of more than 10 percent will occur. Notice the lower design pressure allows less elevation change before pressure regulators are recommended.

NOTE: Even if elevation changes do not require pressure regulators, you should consider them for their other advantages.



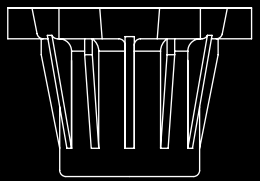
TECHNICAL TIPS FOR REGULATING SYSTEMS

IMPORTANT: Allow approximately 5 PSI (.35 BAR) extra pressure in order for the regulator to function properly. For example, the minimum design pressure for a 20 PSI (1.4 BAR) pressure regulator is 25 PSI (1.7 BAR).

IMPORTANT: If your system is designed with Nelson sprinklers, use Nelson Pressure Regulators. Individual manufacturers' pressure regulator performance varies. Interchanging could result in inaccurate nozzle selection.

	6 PSI (0.4 bar)		10 PSI (0.7 bar)		15 PSI (1.0 bar)		20 PSI (1.4 bar)		25 PSI (1.7 bar)		30 PSI (2.1 bar)		40 PSI (2.8 bar)		50 PSI (3.4 bar)	
	UNI-FLO	HI-FLO	UNI-FLO	HI-FLO	UNI-FLO	HI-FLO	UNI-FLO	HI-FLO	UNI-FLO	HI-FLO	UNI-FLO	HI-FLO	UNI-FLO	HI-FLO	UNI-FLO	HI-FLO
3/4" FNPT X SQUARE THREAD	9572-001	9611-001	9572-002	9611-002	9572-003	9611-00	9572-004	9611-005	9572-005	9611-006	9572-006	9611-007	9572-007	9611-008	9572-008	9611-009
3/4" FNPT X 3/4" FNPT	9491-001	9071-001	9491-002	9071-002	9491-003	9071-003	9491-004	9071-005	9491-005	9071-006	9491-006	9071-007	9491-007	9071-008	9491-008	9071-009

3/4" FNPT X FNPT CONNECTION



Use 9410 ¾" MNPT adapter

PATENTED PLUG RESISTANT DESIGN

Superior plug-resistance with a single-strut seat design in both the Hi-Flo and Universal Flo models.

EXTENDED PERFORMANCE & PRECISION ACCURACY

Precision components coupled with an internally lubricated o-ring minimize frictional drag and hysteresis.

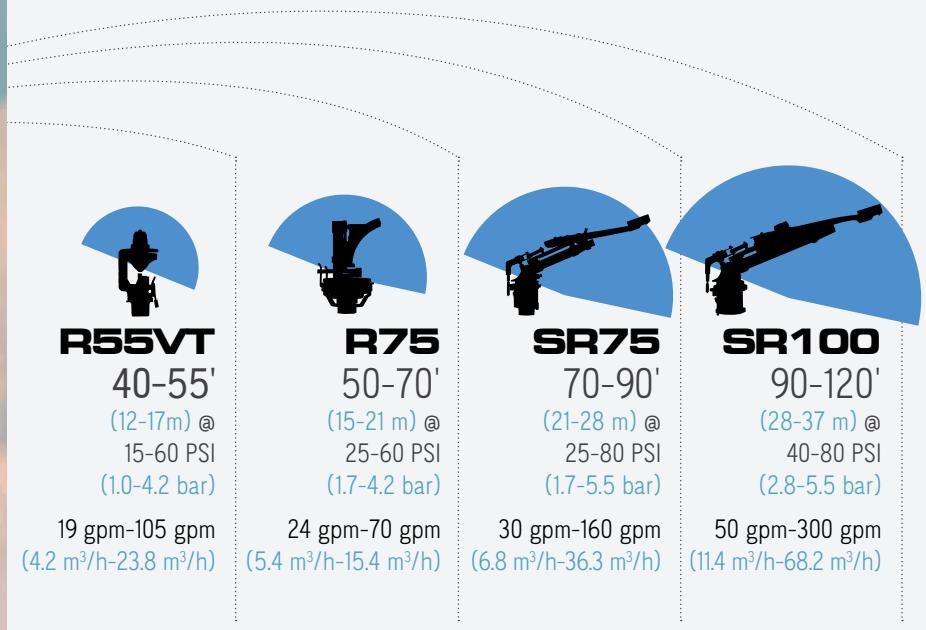
Statement of Expected Performance. Nelson Pressure Regulators are accurate to 6% of the manufacturer's coefficient of variation.

Tel: +1 509.525.7660 / Fax: +1 509.525.7907 / nelsonirrigation.com / info@nelsonirrigation.com

GAINING GROUND

NELSON HAS BEEN IN THE END OF PIVOT BUSINESS FOR A LOT OF YEARS NOW. AS TIMES ARE CHANGING - AND THE NEED FOR LOWER PRESSURE OPTIONS IS EVIDENT - WE'VE ADDED TO OUR OFFERING. THERE'S EVERYTHING FROM 15-80 PSI (1.0-5.5 BAR), 40-120 FEET (12-37 M), AND 28-300 GPM (6-680 M^3/H).

END OF PIVOT SPRINKLER OPTIONS FOR SHORT & LONG RADIUS OF THROW



R55VT	R75	SR75	SR100
40-55'	50-70'	70-90'	90-120'
(12-17m) @ 15-60 PSI (1.0-4.2 bar)	(15-21 m) @ 25-60 PSI (1.7-4.2 bar)	(21-28 m) @ 25-80 PSI (1.7-5.5 bar)	(28-37 m) @ 40-80 PSI (2.8-5.5 bar)
19 gpm-105 gpm (4.2 m^3/h-23.8 m^3/h)	24 gpm-70 gpm (5.4 m^3/h-15.4 m^3/h)	30 gpm-160 gpm (6.8 m^3/h-36.3 m^3/h)	50 gpm-300 gpm (11.4 m^3/h-68.2 m^3/h)

TYPICAL ADDED ACREAGE ON A 1/4 MILE PIVOT

Up to 10 acres (4.0 ha) irrigating full circle	Up to 13 acres (5.3 ha) irrigating full circle	Up to 17 acres (6.9 ha) irrigating full circle	Up to 23 acres (9.3 ha) irrigating full circle
Up to 6 acres (2.4 ha) corners only	Up to 7 acres (2.8 ha) corners only	Up to 9 acres (3.6 ha) corners only	Up to 11 acres (4.5 ha) corners only

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ADDITIONAL ACREAGE AT LOW PRESSURE

NO OTHER END OF PIVOT SPRINKLER WORKS IN THE LOW PRESSURE RANGE OF 15-60 PSI (1-4 BAR) AND PROVIDES UP TO 10 ADDITIONAL IRRIGATED ACRES (ON A 1/4 MILE PIVOT).

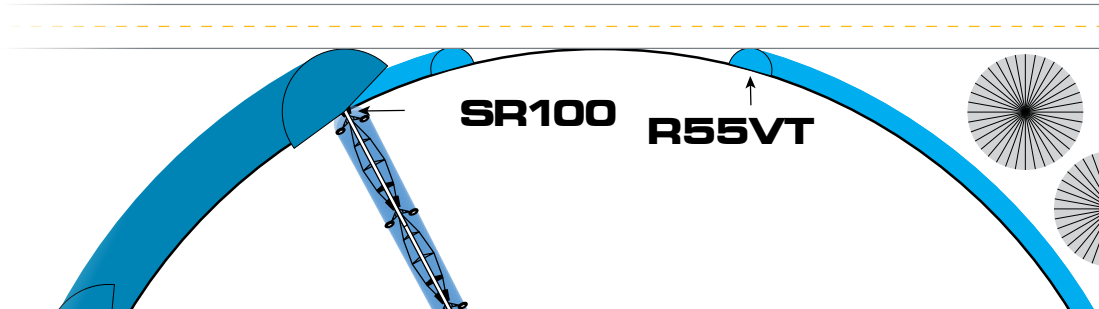
The R55 VT End of Pivot Sprinkler is changing the way farmers irrigate with center pivots. It can be used to pick up added acreage both throughout the full revolution of the pivot or just in the corners, depending on site specifics and irrigator preferences. It can be used in conjunction with a higher volume Big Gun® Sprinkler – or on its own. The R55 VT (with blue plate) is to be mounted in an upright position at the end of the overhang.

The New R55i VT, with a specially engineered green plate, has been made for inverted applications. This configuration is found to be easier to plumb - and some say it's effective in helping manage debris that collects at the end of the system. Please note that radius is typically less for the inverted, green plate than for the blue plate.

Nelson's R55VT and R75 End of Pivot Sprinklers are now even easier to add to any center pivot system with the End Sprinkler Adapter. Choose from the heavy-duty NPT or BSP threaded options. This adapter eliminates expensive fittings and is very easy to install. (Not to be used with impact sprinklers.)

Drain required

A SECONDARY END GUN CAN PICK UP EXTRA ACRES BY IRRIGATING WHERE THE SR100 CAN'T – AS THE PIVOT ENTERS/EXITS THE CORNER, AND AROUND OBSTACLES SUCH AS ROADS AND BUILDINGS.



NELSON

R55 VT

Gain up to 10 acres (4.0 ha) irrigating full circle and up to 6 acres (2.4 ha) corners only on a 1/4 mile pivot.

R55 VT PERFORMANCE (U.S. UNITS)

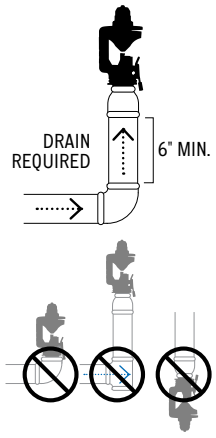
Pressure (psi)	#52 Purple Nozzle		#56 White Nozzle		#60 Red Nozzle		#65 Orange Nozzle		#70 Yellow Nozzle		#80 Green Nozzle		#90 Blue Nozzle	
	FLOW (gpm)	RADIUS (ft)	FLOW (gpm)	RADIUS (ft)	FLOW (gpm)	RADIUS (ft)	FLOW (gpm)	RADIUS (ft)	FLOW (gpm)	RADIUS (ft)	FLOW (gpm)	RADIUS (ft)	FLOW (gpm)	RADIUS (ft)
15	18.8	40	23.5	40	28.0	40	33.0	40	36.7	40	46.0	40	52.8	41
20	21.6	43	27.0	43	32.1	43	38.0	44	42.2	44	52.9	44	60.6	45
25	24.3	45	30.3	46	36.1	46	42.6	47	47.3	48	59.3	48	68.0	48
30	26.7	46	33.4	47	39.7	47	47.0	48	52.0	49	65.2	49	74.8	50
35	29.0	47	36.2	48	43.1	49	51.0	49	56.5	50	70.8	50	81.1	51
40	31.2	48	38.9	49	46.2	50	54.8	50	60.6	51	75.8	51	87.0	52
45	33.1	48	41.3	50	49.0	51	58.3	51	64.3	52	80.5	53	92.3	54
50	34.9	48	43.4	50	51.6	51	61.4	52	67.7	53	84.7	54	97.2	54
55	36.5	48	45.4	50	54.0	51	64.3	52	70.7	53	88.4	54	101.5	55
60	37.9	48	47.1	50	56.0	51	66.9	52	73.4	53	91.7	54	105.4	56

R55 VT PERFORMANCE (METRIC UNITS)

Pressure (bar)	#52 Purple Nozzle		#56 White Nozzle		#60 Red Nozzle		#65 Orange Nozzle		#70 Yellow Nozzle		#80 Green Nozzle		#90 Blue Nozzle	
	FLOW (m^3/hr)	RADIUS (m)	FLOW (m^3/hr)	RADIUS (m)	FLOW (m^3/hr)	RADIUS (m)	FLOW (m^3/hr)	RADIUS (m)	FLOW (m^3/hr)	RADIUS (m)	FLOW (m^3/hr)	RADIUS (m)	FLOW (m^3/hr)	RADIUS (m)
1	4.2	12.2	5.3	12.2	6.3	12.2	7.4	12.2	8.2	12.2	10.3	12.2	11.8	12.5
1.5	5.1	13.3	6.4	13.4	7.6	13.4	9.0	13.7	10.0	13.8	12.5	13.8	14.4	14.0
2	6.0	14.0	7.5	14.3	8.9	14.3	10.5	14.6	11.6	14.9	14.6	14.9	16.7	15.1
2.5	6.7	14.4	8.4	14.7	10.0	15.0	11.8	15.0	13.1	15.3	16.4	15.3	18.8	15.6
3	7.4	14.6	9.2	15.2	11.0	15.5	13.0	15.5	14.4	15.8	18.0	16.0	20.6	16.3
3.5	8.0	14.6	9.9	15.2	11.8	15.5	14.1	15.8	15.5	16.2	19.4	16.5	22.2	16.5
4	8.5	14.6	10.5	15.2	12.5	15.5	15.0	15.8	16.4	16.2	20.5	16.5	23.6	16.9

UPRIGHT MOUNTING

OPERATING PRESSURE MUST BE 15-60 PSI (1-4 BAR)



POOR ENTRANCE CONDITIONS DIMINISH PERFORMANCE.

R55i VT

R55i VT PERFORMANCE (U.S. UNITS)

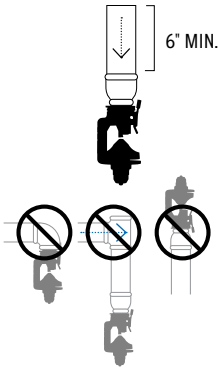
Pressure (psi)	#52 Purple Nozzle		#56 White Nozzle		#60 Red Nozzle		#65 Orange Nozzle		#70 Yellow Nozzle		#80 Green Nozzle	
	FLOW (gpm)	RADIUS (ft)	FLOW (gpm)	RADIUS (ft)	FLOW (gpm)	RADIUS (ft)	FLOW (gpm)	RADIUS (ft)	FLOW (gpm)	RADIUS (ft)	FLOW (gpm)	RADIUS (ft)
15	18.8	38	23.5	38	28.0	37	33.0	37	36.7	36	46.0	35
20	21.6	40	27.0	41	32.1	40	38.0	40	42.2	39	52.9	38
25	24.3	43	30.3	44	36.1	42	42.6	42	47.3	41	59.3	40
30	26.7	44	33.4	45	39.7	44	47.0	44	52.0	43	65.2	42
35	29.0	45	36.2	46	43.1	45	51.0	45	56.5	44	70.8	43
40	31.2	46	38.9	47	46.2	47	54.8	46	60.6	46	75.8	45
45	33.1	47	41.3	48	49.0	48	58.3	47	64.3	47	80.5	46
50	34.9	47	43.4	48	51.6	48	61.4	48	67.7	47	84.7	46
55	36.5	48	45.4	49	54.0	49	64.3	48	70.7	48	88.4	47
60	37.9	49	47.1	49	56.0	49	66.9	48	73.4	48	91.7	47

R55i VT PERFORMANCE (METRIC UNITS)

Pressure (bar)	#52 Purple Nozzle		#56 White Nozzle		#60 Red Nozzle		#65 Orange Nozzle		#70 Yellow Nozzle		#80 Green Nozzle	
	FLOW (m^3/hr)	RADIUS (m)	FLOW (m^3/hr)	RADIUS (m)	FLOW (m^3/hr)	RADIUS (m)	FLOW (m^3/hr)	RADIUS (m)	FLOW (m^3/hr)	RADIUS (m)	FLOW (m^3/hr)	RADIUS (m)
1	4.2	11.6	5.3	11.6	6.3	11.3	7.4	11.3	8.2	11.0	10.3	10.7
1.5	5.1	12.5	6.4	12.8	7.6	12.4	9.0	12.4	10.0	12.1	12.5	11.8
2	6.0	13.4	7.5	13.7	8.9	13.3	10.5	13.3	11.6	13.0	14.6	12.7
2.5	6.7	13.8	8.4	14.1	10.0	13.9	11.8	13.8	13.1	13.6	16.4	13.3
3	7.4	14.2	9.2	14.5	11.0	14.5	13.0	14.2	14.4	14.2	18.0	13.9
3.5	8.0	14.4	9.9	14.7	11.8	14.7	14.1	14.6	15.5	14.4	19.4	14.1
4	8.5	14.8	10.5	14.9	12.5	14.9	15.0	14.6	16.4	14.6	20.5	14.3

INVERTED MOUNTING

OPERATING PRESSURE MUST BE 15-60 PSI (1-4 BAR)



POOR ENTRANCE CONDITIONS DIMINISH PERFORMANCE.

ROTATOR® TECHNOLOGY RE-IMAGINED

INTRODUCING THE NEW R75 END OF PIVOT SPRINKLER. THIS VERSATILE, HIGH-UNIFORMITY SPRINKLER IS BASED ON FIELD-PROVEN ROTATOR® TECHNOLOGY. THE R75 AND R75LP (LOW PRESSURE OPTION) HELP FILL IN THE CORNERS AND GAIN ADDED GROUND ... UP TO 70 FEET (21 M).

R75
40–60 psi
(2.8–4.0 bar)

R75LP
25–40 psi
(1.7–2.8 bar)

NELSON

PERFORMANCE DATA

Gain up to 13 acres (5.3 ha) irrigating full circle and up to 7 acres (2.8 ha) corners only on a 1/4 mile pivot.

R75






	Pressure (psi)	*52 (13/32")		*56 (7/16")		*60 (15/32")		*64 (1/2")		*68 (17/32")		*72 (9/16")	
		FLOW (gpm)	RADIUS (ft)	FLOW (gpm)	RADIUS (ft)	FLOW (gpm)	RADIUS (ft)	FLOW (gpm)	RADIUS (ft)	FLOW (gpm)	RADIUS (ft)	FLOW (gpm)	RADIUS (ft)
R75LP	25	23.6	49.0	27.3	51.0	31.2	53.0	35.4	55.0	39.8	55.0	44.4	56.0
	30	26.0	52.0	29.8	53.0	34.1	54.0	38.8	57.0	43.7	57.0	48.8	58.0
	35	28.0	53.0	32.4	55.0	36.9	55.0	42.0	59.0	47.2	59.0	52.6	60.0
	40	30.0	54.0	34.6	56.0	39.7	56.0	44.9	59.0	50.6	60.0	56.4	61.0
R75	40	30.0	57.0	34.6	59.0	39.7	61.0	44.9	65.0	50.6	65.0	56.4	64.0
	45	31.7	58.0	36.8	60.0	42.0	62.0	47.6	66.0	53.7	66.0	59.7	65.0
	50	33.6	59.0	38.8	61.0	44.4	63.0	50.2	67.0	56.5	67.0	63.1	65.0
	55	35.3	59.0	40.7	62.0	46.6	64.0	52.7	68.0	59.2	68.0	66.1	66.0
	60	36.8	59.0	42.7	62.0	48.8	65.0	55.0	69.0	61.9	68.0	69.2	67.0

METRIC UNITS

	Pressure (bar)	*52 (13/32")		*56 (7/16")		*60 (15/32")		*64 (1/2")		*68 (17/32")		*72 (9/16")	
		FLOW (m3/h)	RADIUS (m)	FLOW (m3/h)	RADIUS (m)	FLOW (m3/h)	RADIUS (m)	FLOW (m3/h)	RADIUS (m)	FLOW (m3/h)	RADIUS (m)	FLOW (m3/h)	RADIUS (m)
R75LP	1.75	5.4	14.9	6.3	15.5	7.1	16.2	8.1	16.8	9.2	16.8	10.2	17.1
	2.00	5.8	15.5	6.7	16.2	7.6	16.5	8.7	17.4	9.8	17.4	10.9	17.7
	2.50	6.4	16.5	7.5	16.8	8.5	16.8	9.7	18.0	10.9	18.0	12.1	18.3
	2.75	6.8	16.5	7.8	17.1	9.0	17.1	10.2	18.0	11.5	18.3	12.7	18.6
R75	2.75	6.8	17.4	7.8	18.0	9.0	18.6	10.2	19.8	11.5	19.8	12.7	19.5
	3.00	7.1	17.7	8.2	18.3	9.4	18.9	10.6	20.1	12.0	20.1	13.3	19.8
	3.50	7.7	18.0	8.9	18.6	10.2	19.2	11.5	20.4	13.0	20.4	14.4	19.8
	4.00	8.2	18.0	9.5	18.9	10.9	19.8	12.3	21.0	13.9	20.7	15.4	20.4

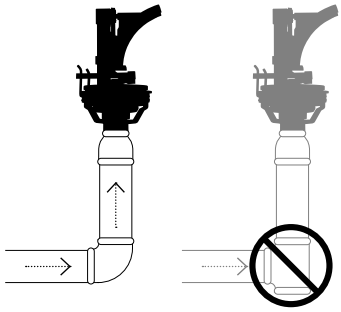
R75/R75LP performance data has been obtained under ideal test conditions and may be adversely affected by wind, poor hydraulic entrance conditions or other factors. Test riser height of 9 feet (2.7 meters) above measurement surface. No representation regarding droplet condition, uniformity, application rate, or suitability for a particular application is made herein.

EASY TO ACCESS NOZZLE.

DUAL BARREL SPRAY PLATE FOR DISTANCE & UNIFORMITY.

ADJUSTABLE STOPS TO ACHIEVE BEST ARC OF COVERAGE.

REQUIRED PLUMBING



DRAIN REQUIRED

POOR ENTRANCE CONDITIONS DIMINISH PERFORMANCE.

OLD SCHOOL IS STILL IN SESSION

THIS LOW ANGLE, PART CIRCLE PIVOT END GUN SPRINKLER HAS BEEN DESIGNED TO MEET THE DEMANDING CONDITIONS OF PIVOT END GUN OPERATION WHERE THE FLOW RATE AND DISTANCE OF THROW REQUIRED IS LESS THAN THAT OF BIG GUN® SPRINKLERS. AN OPTIONAL DIFFUSER IS AVAILABLE FOR LOW PRESSURE SYSTEMS.

P85AS

20 GPM–125 GPM
(4.5 M^3/H–28.4 M^3/H)

PERFORMANCE DATA (US UNITS)

Gain up to 15 acres irrigating full circle and up to 8 acres corners only on a 1/4 mile pivot.

P85AS (PART CIRCLE)

	11/32"		3/8"		13/32"		7/16"		15/32"		1/2"		17/32"		9/16"		19/32"		5/8"		21/32"		11/16"	
Base PSI	GPM	RAD. FT	GPM	RAD. FT	GPM	RAD. FT	GPM	RAD. FT	GPM	RAD. FT	GPM	RAD. FT	GPM	RAD. FT	GPM	RAD. FT	GPM	RAD. FT	GPM	RAD. FT	GPM	RAD. FT	GPM	RAD. FT
20	15.4	48	18.2	49	21.3	51	23.7	52	27.9	53	31.4	55	35.4	56	39.7	57	44.1	58	47.9	60	52.8	61	56.7	62
30	18.9	55	22.4	56	26.2	58	29.5	60	34.4	62	38.9	63	43.7	64	49.0	65	54.2	66	59.3	68	66.4	70	69.8	71
40	21.8	61	26.0	62	30.5	64	34.5	66	39.9	68	45.0	69	50.7	71	57.0	72	62.9	73	69.0	75	77.0	76	83.7	78
50	24.6	64	29.1	66	34.1	68	38.9	70	44.7	71	50.5	73	56.8	75	63.4	76	70.4	78	77.4	79	86.0	80	93.8	81
60	27.0	67	32.1	69	37.6	71	43.0	73	49.3	75	55.7	76	62.5	78	70.0	80	77.3	81	85.4	83	94.8	85	103	86
70	29.0	69	34.8	72	40.7	74	46.7	76	53.2	78	60.4	79	67.7	81	75.8	83	83.8	84	92.8	86	102	87	111	89
80	31.0	72	37.3	74	43.7	76	50.0	78	57.0	80	64.7	82	72.5	84	81.3	85	89.9	87	99.2	89	110	90	119	92
90	33.2	74	39.4	76	46.2	78	52.9	81	60.8	82	68.5	84	76.8	86	86.3	88	95.3	90	104	91	116	92	126	93
100	35.0	76	41.5	78	48.8	80	55.8	83	64.0	85	72.6	87	81.0	88	90.9	90	101	92	110	94	122	95	133	97

Data gathered from sprinkler on 12' riser — no wind.

PERFORMANCE DATA (METRIC UNITS)

Gain up to 6 hectares irrigating full circle and up to 3 hectares corners only on a 400 m pivot.

P85AS

P85AS (PART CIRCLE)

	8.7 mm		9.5 mm		10.3 mm		11.1 mm		11.9 mm		12.7 mm		13.5 mm		14.3 mm		15.1 mm		15.9 mm		16.7 mm		17.5 mm	
Base bar	M³/HR	RAD (M)	M³/HR	RAD (M)	M³/HR	RAD (M)	M³/HR	RAD (M)	M³/HR	RAD (M)	M³/HR	RAD (M)	M³/HR	RAD (M)	M³/HR	RAD (M)	M³/HR	RAD (M)	M³/HR	RAD (M)	M³/HR	RAD (M)	M³/HR	RAD (M)
1.5	3.6	15.0	4.3	15.5	5.1	16.0	5.7	16.5	6.6	17.0	7.5	17.5	8.4	17.5	9.4	18.0	10.4	18.5	11.4	19.0	12.7	19.5	13.5	20.0
2	4.2	16.5	5.0	17.0	5.9	17.5	6.6	18.0	7.7	18.5	8.7	19.0	9.8	19.0	10.9	19.5	12.1	20.0	13.2	20.5	14.7	21.0	15.8	21.0
2.5	4.7	17.5	5.6	18.0	6.6	18.5	7.4	19.0	8.6	19.5	9.7	20.0	10.9	20.5	12.3	21.0	13.6	21.0	14.9	22.0	16.5	22.0	17.8	22.5
3	5.2	18.5	6.2	19.0	7.2	19.5	8.2	20.5	9.5	21.0	10.7	21.0	12.0	21.5	13.5	22.0	14.9	22.5	16.3	23.0	18.1	23.5	19.6	24.0
3.5	5.6	19.5	6.7	20.0	7.8	20.5	8.9	21.5	10.2	22.0	11.6	22.0	13.0	23.0	14.6	23.5	16.1	23.5	17.7	24.0	19.7	24.5	21.2	25.0
4	6.0	20.5	7.2	21.0	8.4	21.5	9.5	22.0	11.0	22.5	12.4	23.0	13.9	23.5	15.6	24.0	17.3	24.5	19.0	25.0	21.1	25.5	22.8	26.0
4.5	6.4	21.0	7.6	21.5	8.9	22.0	10.2	23.0	11.7	23.5	13.2	24.0	14.8	24.5	16.6	25.0	18.4	25.5	20.2	26.0	22.4	26.5	24.3	26.5
5	6.7	21.5	8.0	22.0	9.4	23.0	10.8	23.5	12.3	24.0	13.9	24.5	15.6	25.0	17.5	26.0	19.4	26.0	21.3	26.5	23.6	27.0	25.7	27.5
5.5	7.1	22.0	8.4	22.5	9.9	23.5	11.3	24.0	12.9	25.0	14.7	25.0	16.4	25.5	18.4	26.5	20.4	27.0	22.4	27.0	24.8	27.5	27.0	28.0
6	7.4	22.5	8.8	23.0	10.3	24.0	11.9	24.5	13.5	25.0	15.3	25.5	17.2	26.0	19.3	27.0	21.3	27.5	23.4	27.5	26.0	28.0	28.3	28.5
6.5	7.7	22.5	9.2	23.5	10.8	24.0	12.4	25.0	14.1	25.5	16.0	26.0	17.9	26.5	20.1	27.0	22.2	27.5	24.4	28.0	27.1	28.5	29.5	29.0
7	8.0	23.0	9.5	23.5	11.2	24.5	12.9	25.0	14.7	25.5	16.6	26.0	18.6	26.5	20.8	27.5	23.1	28.0	25.4	28.0	28.1	28.5	30.7	29.0

Data gathered from sprinkler on 0.3 m riser — no wind.

STILL AROUND FOR A REASON

SR SERIES HAS THE SAME SLOW FORWARD & REVERSE SPEEDS IMPROVING STABILITY / UNIFORMITY

THE PREFERRED CHOICE FOR TOUGH APPLICATIONS

DURABLE & RELIABLE WITH ENGINEERED SIMPLICITY

SET IT AND FORGET IT —SIMPLE ADJUSTMENT ALLOWS ARC SETTING TO WITHIN 1 DEGREE

ORIG

BIG

THE LEADER IN QUALITY, PERFO

NELSON

THE ONLY GUN FOR HOUR AFTER HOUR, YEAR AFTER YEAR OPERATION.

I N A L

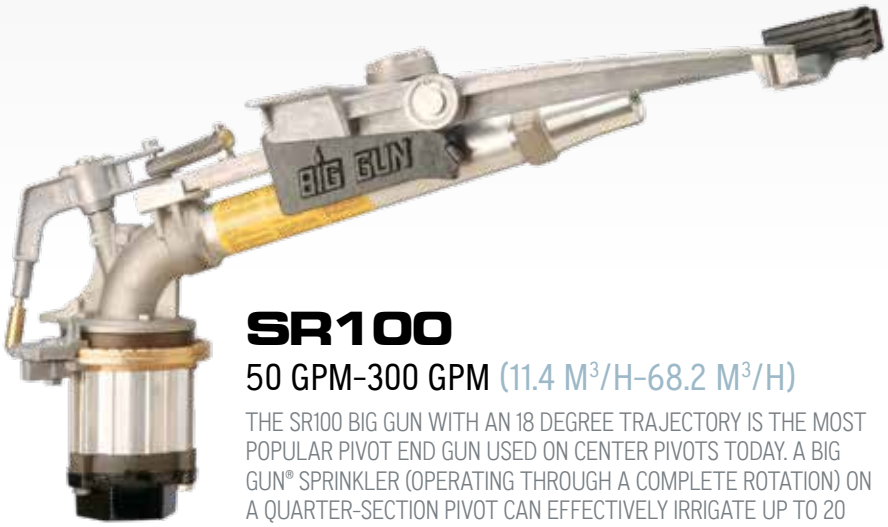
GUN®

RMANCE & SUPPORT

SR75

30 GPM–160 GPM (6.8 M^3/H–36.3 M^3/H)

WITH PROVEN DEPENDABILITY, PERFORMANCE, LONG WEAR LIFE AND REPAIRABILITY KNOWN FROM BIG GUN® SPRINKLERS, THE 18 DEGREE SR75 IS AN AFFORDABLE BIG GUN OPTION THAT PERFORMS WELL AT LOW PRESSURES.



SR100

50 GPM–300 GPM (11.4 M^3/H–68.2 M^3/H)

THE SR100 BIG GUN WITH AN 18 DEGREE TRAJECTORY IS THE MOST POPULAR PIVOT END GUN USED ON CENTER PIVOTS TODAY. A BIG GUN® SPRINKLER (OPERATING THROUGH A COMPLETE ROTATION) ON A QUARTER-SECTION PIVOT CAN EFFECTIVELY IRRIGATE UP TO 20 ADDITIONAL ACRES (8.1 HA). CONSIDERING THE COST EFFECTIVENESS OF PUTTING THIS ADDITIONAL LAND INTO PRODUCTION, AN END GUN OPTION SHOULDN'T BE OVERLOOKED.

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SUCCESS DEPENDS ON PROPER APPLICATION

THE ARC SETTING IS THE KEY TO ACHIEVING MAXIMUM SYSTEM UNIFORMITY FOR END OF PIVOT PRODUCTS. FOR BIG GUNS, AN ARC SETTING OF 170 DEGREES WITH 10 DEGREES BEHIND THE MACHINE EFFECTIVELY MATCHES THE SYSTEM TARGET APPLICATION DEPTH.

NELSON

Gain up to 23 acres (9.3 ha) irrigating full circle and up to 11 acres (4.5 ha) corners only on a 1/4 mile pivot.

BIGGUN®

PERFORMANCE DATA (US UNITS)

75 TAPER RING NOZZLE — 24° TRAJECTORY

Pressure (psi)	0.4"		0.45"		0.5"		0.55"		0.6"		0.65"		0.7"		0.75"		0.8"	
	GPM	RAD. (FT)	GPM	RAD. (FT)	GPM	RAD. (FT)	GPM	RAD. (FT)	GPM	RAD. (FT)	GPM	RAD. (FT)	GPM	RAD. (FT)	GPM	RAD. (FT)	GPM	RAD. (FT)
25	—	—	—	—	—	—	42	73	50	78	59	81	69	84	80	87	91	91
30	—	—	—	—	37	79	45	79	55	83	64	86	75	91	87	94	99	96
35	—	—	32	77	40	82	49	86	59	89	69	96	81	98	93	101	106	104
40	27	75	35	80	43	86	52	90	63	95	74	99	87	102	98	107	112	111
50	30	81	39	87	48	93	59	98	70	102	83	106	95	110	109	115	123	119
60	33	85	42	92	53	99	64	104	77	110	91	114	104	119	120	123	136	127
70	36	88	45	97	57	105	69	111	83	116	98	122	113	127	129	130	147	135
80	39	91	49	104	61	111	74	117	89	122	105	128	121	133	138	137	158	142

100 TAPER BORE NOZZLE — 24° TRAJECTORY

Pressure (psi)	0.5"		0.55"		0.6"		0.65"		0.7"		0.75"		0.8"		0.85"		0.9"		1.0"	
	GPM	RAD. (FT)	GPM	RAD. (FT)	GPM	RAD. (FT)	GPM	RAD. (FT)	GPM	RAD. (FT)	GPM	RAD. (FT)	GPM	RAD. (FT)	GPM	RAD. (FT)	GPM	RAD. (FT)	GPM	RAD. (FT)
40	47	96	57	101	66	107	78	111	91	115	103	120	118	125	134	128	152	131	-	-
50	50	103	64	108	74	113	87	118	100	123	115	128	130	133	150	137	165	140	204	150
60	55	108	69	114	81	120	96	125	110	130	126	135	143	140	164	144	182	148	224	158
70	60	113	75	119	88	125	103	132	120	138	136	142	155	148	177	151	197	155	243	169
80	64	118	79	124	94	130	110	137	128	143	146	148	165	153	189	157	210	163	258	177
90	68	123	83	129	100	135	117	142	135	148	155	153	175	158	201	163	223	168	274	181
100	72	128	87	134	106	140	123	147	143	153	163	158	185	163	212	168	235	173	289	186
110	76	133	92	139	111	145	129	152	150	158	171	162	195	168	222	172	247	178	304	190

PERFORMANCE DATA (METRIC UNITS)

75 TAPER RING NOZZLE — 24° TRAJECTORY

Pressure (bar)	10.2 mm			11.4 mm			12.7 mm			14.0 mm			15.2 mm			16.5 mm			17.8 mm			19.1 mm			20.3 mm		
	L/S	M³/HR	RAD. (M)	L/S	M³/HR	RAD. (M)	L/S	M³/HR	RAD. (M)	L/S	M³/HR	RAD. (M)	L/S	M³/HR	RAD. (M)	L/S	M³/HR	RAD. (M)	L/S	M³/HR	RAD. (M)	L/S	M³/HR	RAD. (M)	L/S	M³/HR	RAD. (M)
1.75	-	-	-	-	-	-	-	-	-	2.64	9.5	22.5	3.18	11.5	24.0	3.73	13.4	25.0	4.37	15.7	26.0	5.04	18.2	27.0	5.73	20.6	28.0
2	-	-	-	-	-	-	2.30	8.3	23.5	2.82	10.2	24.0	3.40	12.2	25.5	3.99	14.4	26.0	4.66	16.8	27.0	5.37	19.3	28.5	6.10	22.0	29.5
2.5	-	-	-	2.09	7.5	24.0	2.58	9.3	25.5	3.15	11.4	26.0	3.79	13.7	27.5	4.46	16.0	28.5	5.19	18.7	29.5	5.97	21.5	31.0	6.78	24.4	32.0
3	1.78	6.4	23.5	2.28	8.2	25.0	2.83	10.2	27.0	3.45	12.4	28.0	4.15	14.9	29.5	4.88	17.6	31.0	5.66	20.4	32.0	6.50	23.4	33.0	7.39	26.6	34.5
3.5	1.93	6.9	24.5	2.46	8.9	26.5	3.06	11.0	28.5	3.73	13.4	30.0	4.48	16.1	31.5	5.27	19.0	33.0	6.10	22.0	34.0	6.99	25.2	35.5	7.95	28.6	36.5
4	2.07	7.4	25.5	2.63	9.5	28.0	3.27	11.8	30.0	3.99	14.3	31.5	4.78	17.2	33.0	5.64	20.3	34.5	6.50	23.4	36.0	7.45	26.8	37.0	8.47	30.5	38.5
4.5	2.19	7.9	26.5	2.78	10.0	29.0	3.47	12.5	31.5	4.23	15.2	33.0	5.06	18.2	34.5	5.98	21.5	36.5	6.88	24.8	37.5	7.87	28.3	39.0	8.96	32.2	40.5
5	2.32	8.3	27.0	2.93	10.5	30.5	3.66	13.2	32.5	4.45	16.0	34.5	5.33	19.2	36.0	6.30	22.7	37.5	7.24	26.1	39.0	8.27	29.8	40.5	9.41	33.9	42.0
5.5	2.43	8.8	27.5	3.07	11.0	31.5	3.85	13.8	34.0	4.67	16.8	35.0	5.59	20.1	37.0	6.61	23.8	38.5	7.58	27.3	40.5	8.65	31.2	41.5	9.85	35.5	43.0
6	2.55	9.2	28.0	3.20	11.5	32.5	4.02	14.5	35.0	4.88	17.6	36.0	5.84	21.0	38.0	6.90	24.8	39.5	7.90	28.4	41.5	9.02	32.5	42.5	10.26	36.9	44.0

100 TAPER BORE NOZZLE — 24° TRAJECTORY

Pressure (bar)	12.7 mm			14.0 mm			15.2 mm			16.5 mm			17.8 mm			19.1 mm			20.3 mm			21.6 mm			22.9mm			25.4 mm		
	L/S	M³/HR	RAD. (M)	L/S	M³/HR	RAD. (M)	L/S	M³/HR	RAD. (M)	L/S	M³/HR	RAD. (M)	L/S	M³/HR	RAD. (M)	L/S	M³/HR	RAD. (M)	L/S	M³/HR	RAD. (M)	L/S	M³/HR	RAD. (M)	L/S	M³/HR	RAD. (M)	L/S	M³/HR	RAD. (M)
2.75	2.88	10.4	29.5	3.61	13.0	31.0	4.15	14.9	32.5	4.92	17.7	34.0	5.69	20.5	35.0	6.48	23.3	36.5	7.38	26.6	38.0	8.44	30.4	39.0	9.45	34.0	40.0	-	-	-
3	3.01	10.8	30.0	3.76	13.5	31.5	4.34	15.6	33.5	5.13	18.5	34.5	5.94	21.4	36.0	6.77	24.4	37.5	7.70	27.7	39.0	8.82	31.7	40.0	9.86	35.5	41.0	12.02	43.3	43.0
3.5	3.24	11.7	31.5	4.04	14.5	33.0	4.70	16.9	34.5	5.54	20.0	36.0	6.42	23.1	37.5	7.32	26.3	39.0	8.32	30.0	40.5	9.52	34.3	42.0	10.63	38.3	42.5	12.99	46.8	45.5
4	3.46	12.5	32.5	4.30	15.5	34.5	5.04	18.1	36.0	5.92	21.3	37.5	6.86	24.7	39.0	7.82	28.2	40.5	8.89	32.0	42.0	10.18	36.6	43.5	11.35	40.8	44.5	13.89	50.0	48.0
4.5	3.67	13.2	34.0	4.54	16.3	35.5	5.35	19.3	37.0	6.28	22.6	39.0	7.28	26.2	41.0	8.30	29.9	42.5	9.43	34.0	44.0	10.79	38.9	45.0	12.02	43.3	46.0	14.73	53.0	50.0
5	3.86	13.9	35.0	4.76	17.2	37.0	5.65	20.3	38.5	6.62	23.8	40.5	7.67	27.6	42.0	8.75	31.5	43.5	9.94	35.8	45.0	11.38	41.0	46.5	12.65	45.5	47.5	15.53	55.9	52.0
5.5	4.05	14.6	36.0	4.98	17.9	38.0	5.93	21.4	39.5	6.94	25.0	42.0	8.05	29.0	43.5	9.18	33.1	45.0	10.42	37.5	46.5	11.93	43.0	48.0	13.26	47.7	49.0	16.30	58.7	53.5
6	4.22	15.2	37.0	5.18	18.7	39.0	6.21	22.3	40.5	7.25	26.1	43.0	8.40	30.3	44.5	9.59	34.5	46.0	10.89	39.2	47.5	12.46	44.9	49.0	13.83	49.8	50.5	17.02	61.3	55.0
6.5	4.39	15.8	38.0	5.38	19.4	40.0	6.47	23.3	41.5	7.54	27.2	44.0	8.75	31.5	46.0	9.99	36.0	47.5	11.33	40.8	49.0	12.97	46.7	50.5	14.38	51.8	52.0	17.72	63.8	56.0
7	4.56	16.4	39.0	5.57	20.0	41.5	6.72	24.2	43.0	7.83	28.2	45.5	9.08	32.7	47.0	10.37	37.3	48.5	11.76	42.3	50.0	13.46	48.4	51.5	14.91	53.7	53.0	18.39	66.2	57.0
7.5	4.71	17.0	40.5	5.75	20.7	42.5	6.96	25.1	43.5	8.10	29.2	46.5	9.40	33.8	47.5	10.73	38.6	49.0	12.17	43.8	50.5	13.93	50.1	52.0	15.43	55.5	54.0	19.04	68.5	57.5

Diameters are based on a 24° trajectory for the 75 and 100 Series. The lower trajectory angles result in better wind fighting ability, but reduced throw distances. Throw reduction depends upon nozzle flow rate. In general, the throw distance is reduced approximately 3% with each 3° drop in trajectory angle. Big Gun® performance data has been obtained under ideal test conditions and may be adversely affected by wind, poor hydraulic entrance conditions or other factors. Test riser height of 3 feet (0.91 meters) above measurement surface. No representation regarding droplet condition, uniformity, application rate, or suitability for a particular application is made herein. Additional nozzle options and sizes available.

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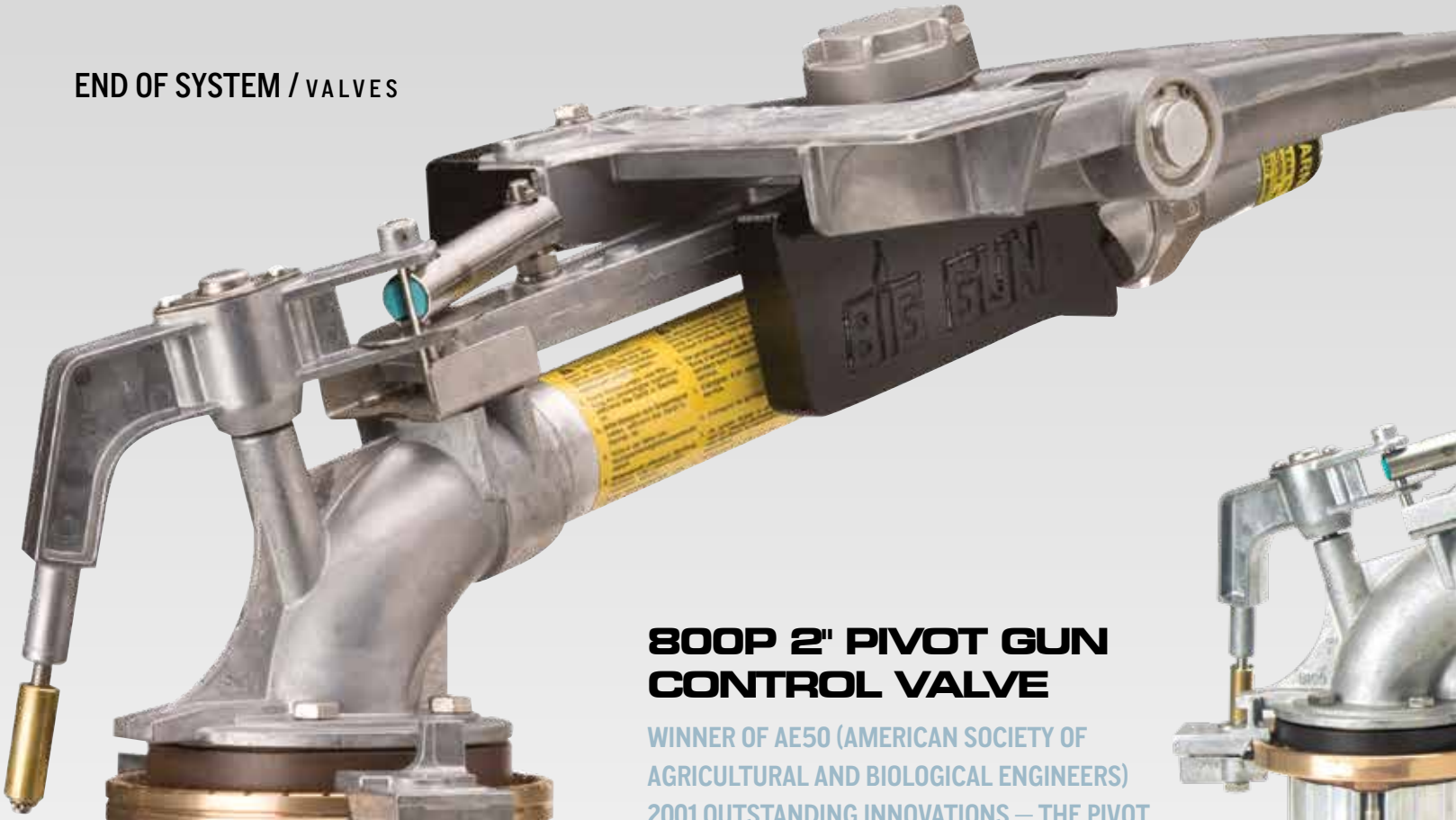
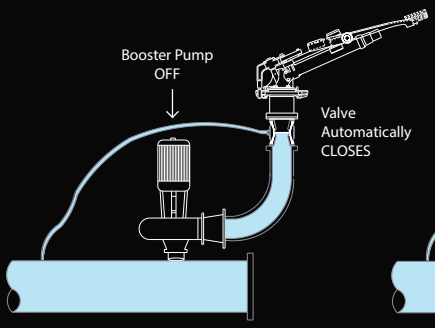
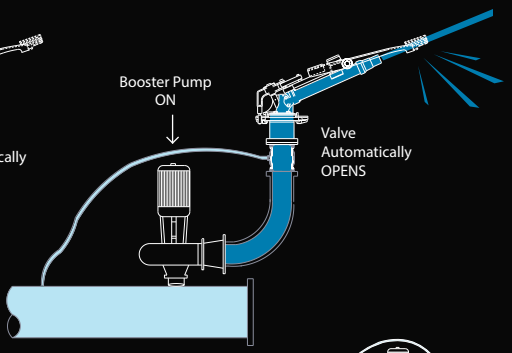


800P 2" PIVOT GUN CONTROL VALVE

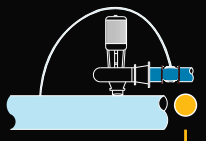
WINNER OF AE50 (AMERICAN SOCIETY OF AGRICULTURAL AND BIOLOGICAL ENGINEERS) 2001 OUTSTANDING INNOVATIONS — THE PIVOT GUN CONTROL VALVE COMBINES A BIG GUN® SPRINKLER AND AN 800 SERIES VALVE. NO SOLENOID IS NEEDED FOR THIS GUN-CONTROL SYSTEM WHEN A BOOSTER PUMP IS USED.

HOW IT WORKS: THE 2" VALVE IS NORMALLY CLOSED. WHEN THE BOOSTER PUMP IS TURNED ON, THE ADDED PRESSURE* CAUSES THE VALVE TO OPEN OPERATING THE GUN. NO OTHER ACCESSORY IS NEEDED. THE SMALL AMOUNT OF WATER IN THE SLEEVE CHAMBER (ABOUT 1/2 CUP) IS FORCED BACK INTO THE SYSTEM. WHEN THE BOOSTER PUMP IS TURNED OFF THEN THE SYSTEM PRESSURE RE-CLOSES THE VALVE.





*BOOSTER PUMP ADDED PRESSURE MUST BE 18 PSI (1.2 BAR) OR MORE.



OPTIONAL 800P MOUNTING CONFIGURATION

NELSON

THE SRNV100 — BEST
FOR PASSING TRASH

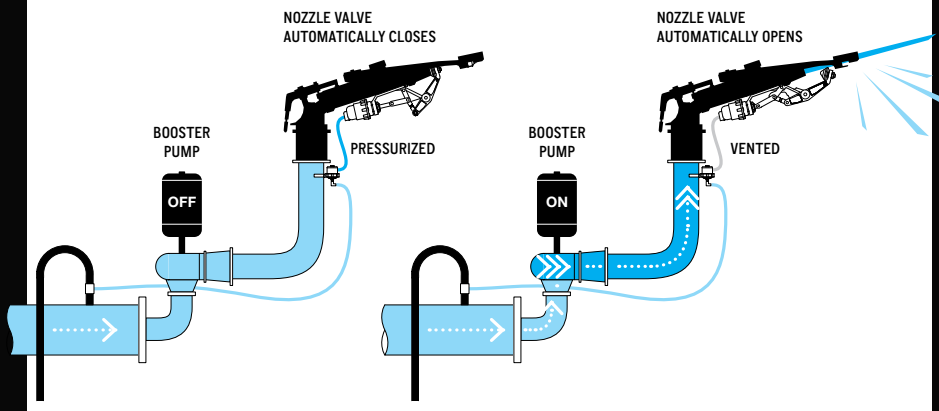
SRNV100 BIG GUN® NOZZLE VALVE

THE SRNV100 IS THE STANDARD SR100 BIG GUN® CONFIGURED WITH A SIMPLE MECHANICAL VALVE WHICH CAN BE EITHER HYDRAULICALLY OR ELECTRICALLY CONTROLLED AND LINKED TO THE PIVOT CONTROL SYSTEM. THE NOZZLE VALVE IMPROVES END GUN PERFORMANCE AND EFFICIENCY BY ELIMINATING PRESSURE LOSS, TURBULENCE, AND DEBRIS HANG-UP TYPICAL OF OTHER END GUN CONTROL VALVES.

PURGE VALVE

INSTALL AT THE END OF CENTER PIVOT SYSTEMS FOR AUTOMATIC FLUSHING AT START-UP AND SHUT-DOWN — OR, CONFIGURE WITH AN ELECTRIC SOLENOID INTERFACED WITH THE CENTER PIVOT FOR AUTOMATIC FLUSHING WHILE SYSTEM IS OPERATING.

NOTE: DURING SYSTEM START UP THE NOZZLE VALVE IS OPEN UNTIL THE END PRESSURE REACHES APPROXIMATELY 8 PSI. IF AT ANY TIME THE END PRESSURE DROPS BELOW 8 PSI THE VALVE WILL OPEN.



BOOSTER PUMP OFF (EQUAL PRESSURE): DELTA P PRESSURIZES THE LINE LEADING TO THE ACTUATOR ON THE NOZZLE VALVE, MAINTAINING THE VALVE CLOSED.

BOOSTER PUMP ON (PRESSURE DIFFERENTIAL GREATER THAN 15PSI): DELTA P VENTS THE ACTUATOR ON THE NOZZLE VALVE, VALVE OPEN.

DELTA P KIT

PART #12289

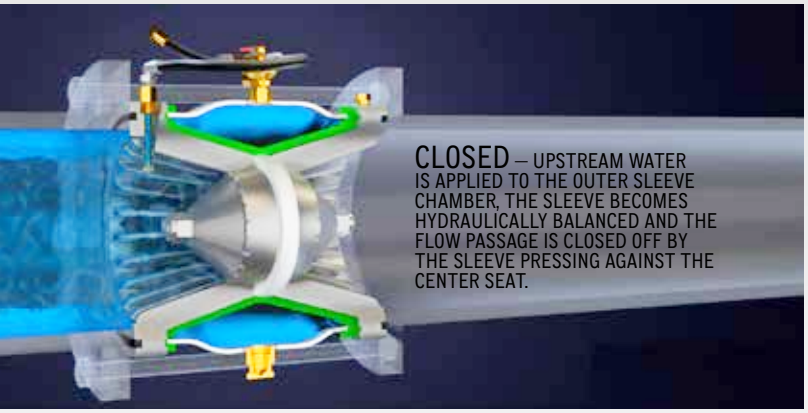
THE DELTA P CAN BE PAIRED WITH THE SRNV100 TO FURTHER IMPROVE RELIABILITY BY ELIMINATING THE NEED FOR A COSTLY SOLENOID. THE DELTA P AUTOMATICALLY OPENS AND CLOSES THE NOZZLE VALVE BY SENSING PRESSURE UPSTREAM AND DOWNSTREAM OF THE BOOSTER PUMP.

FIELD-TESTED FIELD-PROVEN

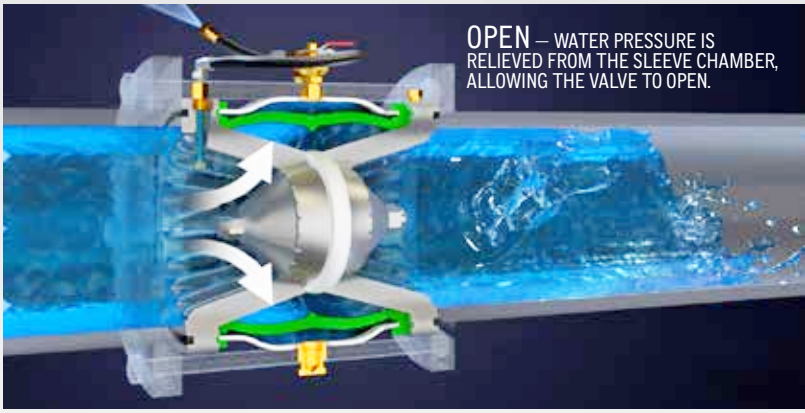
EVERY NELSON PRODUCT IS PUT TO THE TEST, EVERY STEP OF THE WAY. IN THE END, IT'S WHAT HAPPENS IN THE FIELD THAT MATTERS.

NELSON

CONTROL YOU CAN COUNT ON SEASON AFTER SEASON



CLOSED – UPSTREAM WATER IS APPLIED TO THE OUTER SLEEVE CHAMBER, THE SLEEVE BECOMES HYDRAULICALLY BALANCED AND THE FLOW PASSAGE IS CLOSED OFF BY THE SLEEVE PRESSING AGAINST THE CENTER SEAT.



OPEN – WATER PRESSURE IS RELIEVED FROM THE SLEEVE CHAMBER, ALLOWING THE VALVE TO OPEN.

SEE PAGE 40 FOR GUN/VALVE COMBO / MOUNT AN ANSI FLANGED BIG GUN® DIRECTLY ONTO AN 800 SERIES CONTROL VALVE FOR END OF PIVOT APPLICATION.

MANUAL ON-OFF

ALL 800 SERIES VALVES (EXCEPT 800P) ARE EQUIPPED WITH A 3-WAY MANUAL ON-OFF SELECTOR VALVE.

ELECTRIC ON-OFF

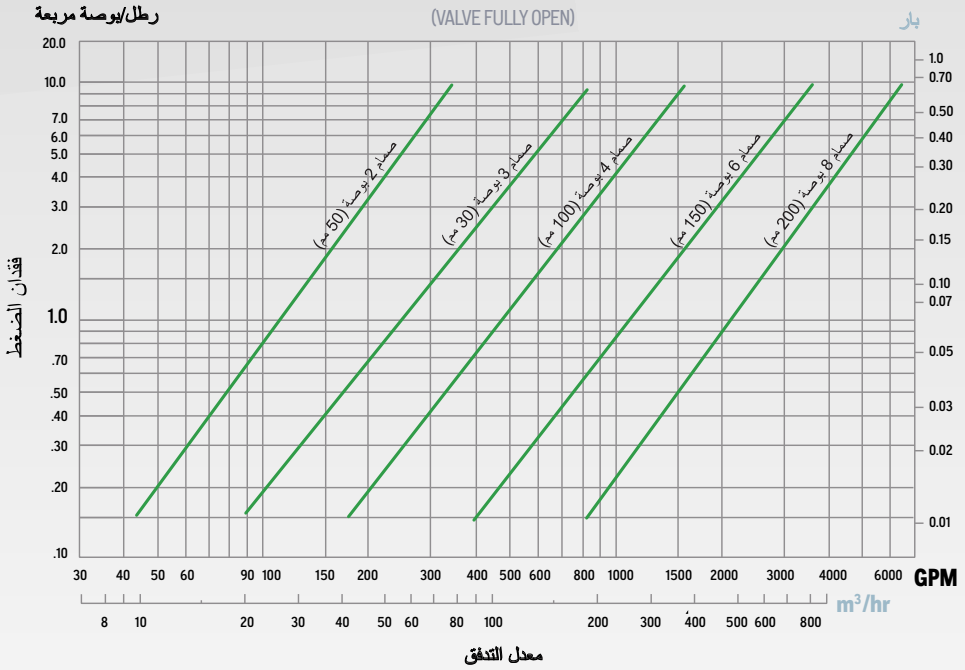
ADD A SOLENOID FOR ELECTRIC ON-OFF CAPABILITY.

NELSON

AS A HYDRAULICALLY OPERATED SLEEVE-TYPE VALVE, THE 800 SERIES CONTROL VALVE IS DESIGNED FOR VERSATILITY. THE BASIC BODY CAN BE EQUIPPED WITH SEVERAL DIFFERENT OPTIONS FOR CONTROLLING PRESSURE AND FLOW IN PIPING AT THE PIVOT POINT OR END GUN VALVE CONTROL. IT'S ALSO ENGINEERED FOR EXTREMELY HIGH EFFICIENCY, RESULTING IN LOW PRESSURE LOSS AND HIGH FLOW CAPACITY.

800 SERIES CONTROL VALVES PRESS LOSS DATA

(VALVE FULLY OPEN)



PRESSURE CONTROL

THE PRESSURE CONTROL REGULATOR ("REDUCING" FOR DOWNSTREAM, "SUSTAINING" FOR UPSTREAM) DIRECTS WATER FLOW WHICH POSITIONS THE SLEEVE DURING OPERATION.

RATE-OF-FLOW

ADD THE RATE-OF-FLOW (MODEL D18) CONTROL TO REGULATE THE FLOW RATE DURING SYSTEM START-UP.

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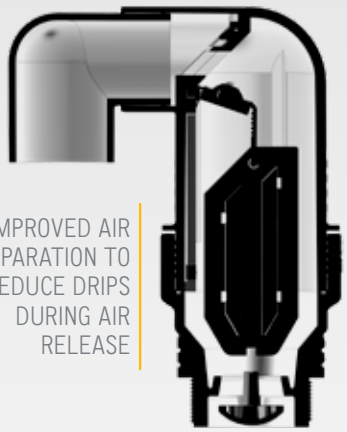
ACV AIR CONTROL VALVE

For air relief, vacuum air relief, and continuous air release under pressure.

- Pump start-up high capacity air venting
- Pump shut-off vacuum relief
- Filter backflush
- Vent at high points
- Continuous air release during system operation

IMPROVED DESIGN

REINFORCED SEAL PREVENTS MISALIGNMENT



IMPROVED AIR SEPARATION TO REDUCE DRIPS DURING AIR RELEASE

NEW MATERIAL RESISTANT TO PUMP LUBRICANTS

2" (50 mm) ACV

1000 SERIES CONTROL VALVES

SAVE WATER, SAVE ENERGY

- Higher flow capacity & lower friction loss — better than any other valve on the market.
- More precise, more stable pressure regulation over a wider range of flow.
- Pressure regulation with minimal pressure differential required across the valve.

END OF PIVOT VALVES FOR SR75 & SR100

1000P

Valve installed directly below ANSI-flanged Big Gun®.
Note: Order 2" metal flange separately.

1000P-V

Valve installed at outlet of booster pump.

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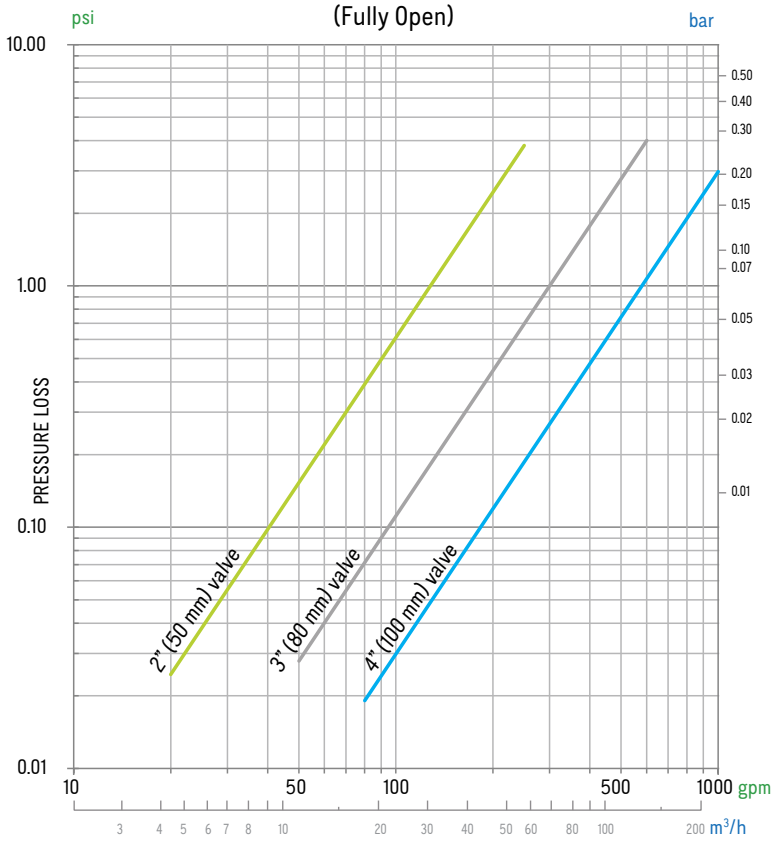
Pressure Loss Data
1000 Series Inline Valves
(Fully Open)



	Cv (gpm @ 1 psi loss)	Kv (m^3/hr @ 1 bar loss)
2" (50 mm)	128	111
3x2x3	135	117
3" (80 mm)	300	259
4x3x4	308	266
4" (100 mm)	580	501

Pressure Loss (psi) = $\frac{\text{Flow (gpm)}^2}{Cv^2}$

Pressure Loss (bar) = $\frac{\text{Flow}(m^3/h)^2}{Kv^2}$

END OF PIVOT VALVES FOR R55 & R75

1000P – 2" (50 mm) End of Pivot

Pressure Regulating and/or Electric On/Off

1000P-R
Pressure regulating only. No on/off control.

1000P-X
Electric on/off by solenoid located at pivot tower box.

1000P-RX
Pressure regulating with electric on/off by solenoid located at pivot tower box*.

PIVOT CONTROL VALVES

open and close at the command of the pivot, making pivot automation possible. The high flow capacity of the 4" valve, together with the 6x4x6 flange adapter kit, saves money by allowing the use of a smaller valve that fits easily within 6" flanges.

4" 1000 SERIES

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IMAGINED, ENGINEERED & MANUFACTURED WITH INTENT

NELSON IRRIGATION CORPORATION IS FULLY COMMITTED TO IMPROVING AGRICULTURAL IRRIGATION. WE BELIEVE IN OUR PEOPLE & OUR PRODUCTS AND WE CONTINUE TO INVEST IN STATE-OF THE ART MANUFACTURING PROCESSES TO ENSURE YOU RECEIVE THE MOST EFFECTIVE WATER APPLICATION SOLUTION POSSIBLE.

BUY AMERICAN — CHOOSE NELSON.

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