

*the original*

**BIG GUN® SPRINKLER**



 **NELSON**

[WWW.NELSONIRRIGATION.COM](http://WWW.NELSONIRRIGATION.COM)

# NELSON BIG GUN® SPRINKLERS

The Leader in Quality, Performance & Support



In the field of large-volume sprinklers, Nelson Big Guns® are recognized the world over as the leader in quality, performance and technical support. They are engineered and precision manufactured for heavy-duty reliability and long wear life. Every Nelson Big Gun® is subjected to the toughest inspection testing and quality control standards in the industry — including individual water testing of every gun at the factory.



Durable and reliable with  
engineered simplicity.

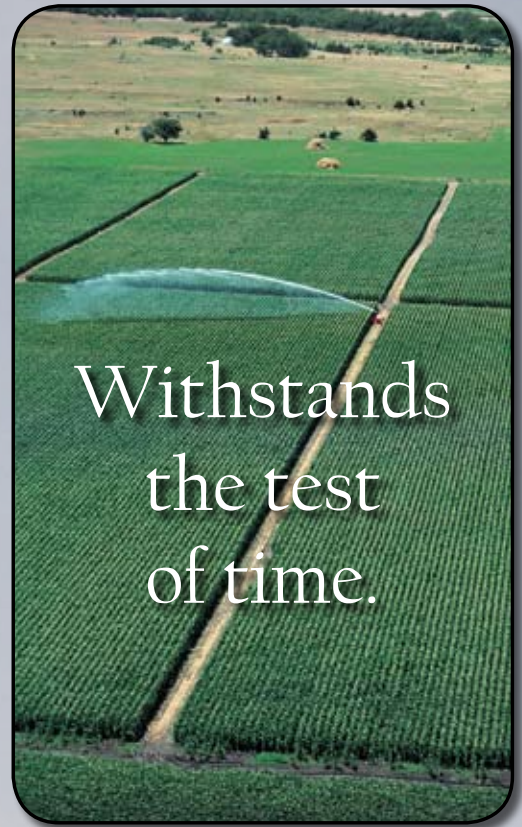


The preferred choice for tough applications.

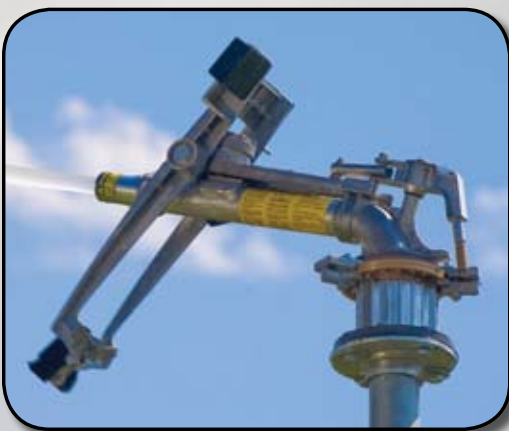


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## The Big Gun® Family



The only gun for hour after hour,  
year after year operation.



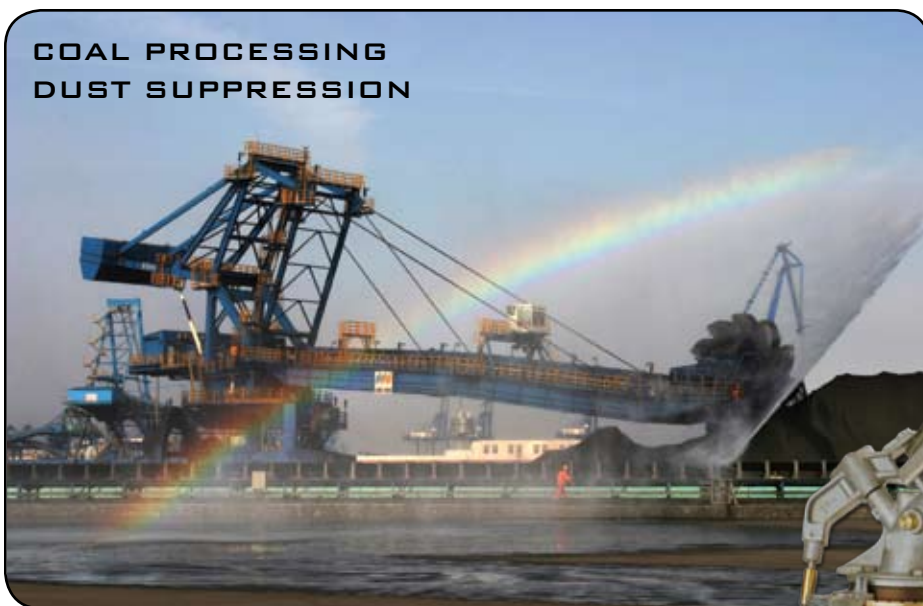
**SET IT AND FORGET IT.** A simple, positive, reliable adjustment allows for setting the arc to within 1 degree, without overriding the stops. The setting will not change over time, a concept proven with years in the field.

**WORKS RIGHT OUT OF THE BOX.** Nelson pioneered the concept of a slow, steady and uniform forward and reverse drive action. The drive vane automatically compensates through the full range of nozzle sizes and pressures.



# APPLICATIONS

- Pivot End Gun Irrigation
- Traveler Irrigation
- Solid Set Irrigation
  - Corn, Sugar Cane, Pineapple, Pastures, etc.
- Environmental Applications
  - Feedlot Dust Suppression & Cooling
  - Wastewater Applications
  - Mining Dust Suppression
- Sports Field Applications
  - Turf Irrigation
  - Synthetic Turf Cooling & Conditioning



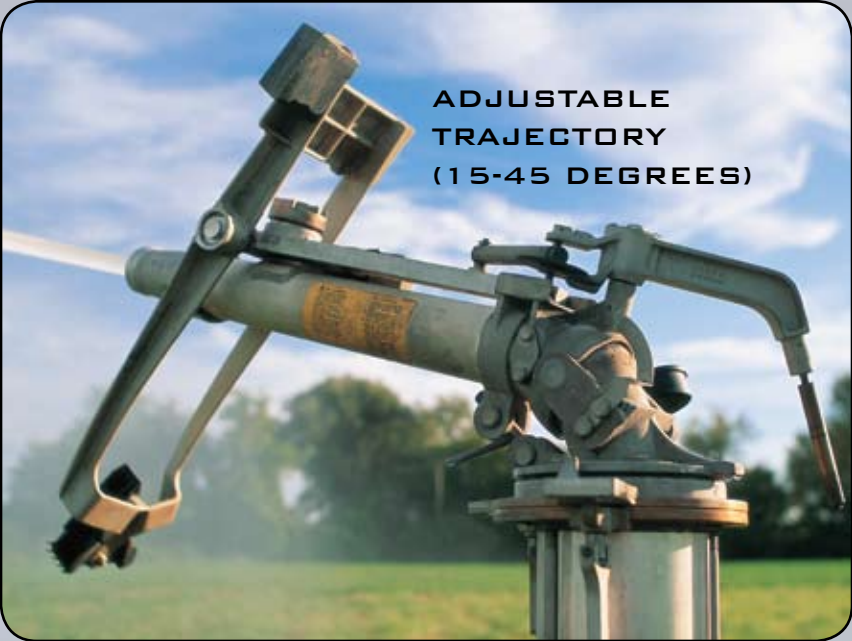
43° BIG GUN FOR DUST SUPPRESSION



# OPTIONS

- Adjustable Trajectory
- 800 Series Valve/Big Gun® Combination
- Nozzle Valve
- Quick Coupling Valve
- Special Coatings
- Add-on Kits: Secondary Nozzle, Wedge and Counterbalance

(See Big Gun® Add-on Kits literature for details.)



**ADJUSTABLE TRAJECTORY (15-45 DEGREES)**



**ANODIZED & POWDER COATED BIG GUN**



**NOZZLE VALVE**



**WEDGE INSERT TO MODIFY TRAJECTORY**



**COUNTERBALANCE KIT**



**800P END GUN CONTROL VALVE\***  
 \*No electric solenoid required for Big Gun® control when used with a booster pump



**QUICK COUPLING VALVE FOR PORTABLE 75 & 100 SERIES BIG GUN SPRINKLERS**

# HEAVY DUTY — PRECISION

**THE BIG GUN® NAME** has a world-wide reputation for quality, performance and support in a number of heavy-duty agricultural and industrial applications.

**GREATEST RANGE OF OPTIONS.** Full & part-circle sprinklers available in a variety of trajectory, nozzle & coating options.

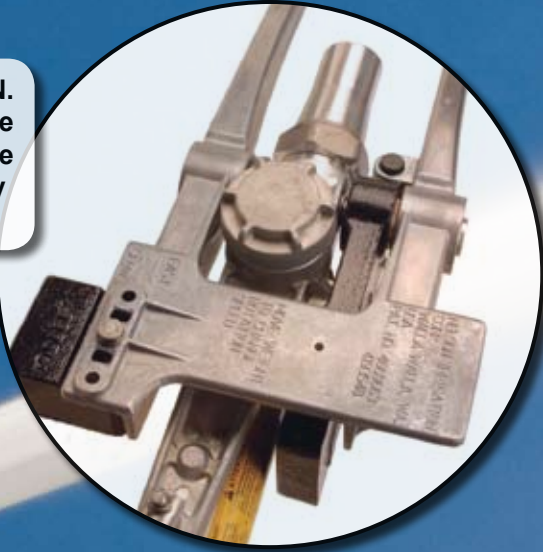


**HAND ADJUSTABLE STOPS** for Precise Arc Control.

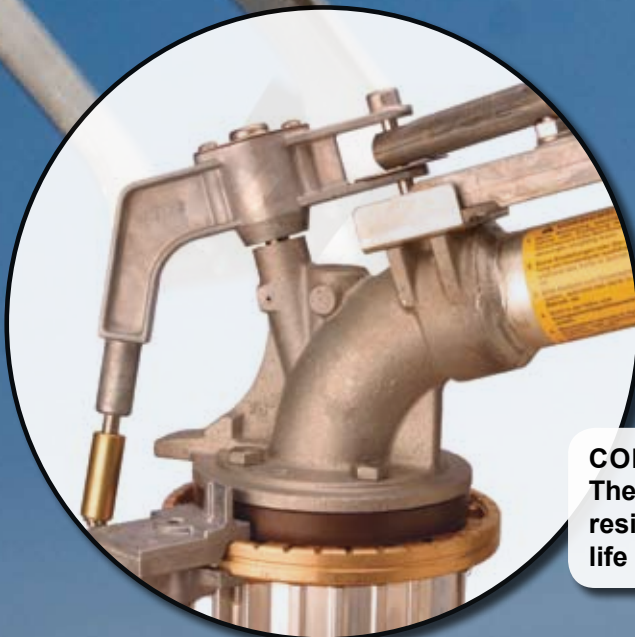
**TWIN BALL BEARING IN LOWER BEARING UNIT.** Gun has a total of 9 ball bearings — all sealed and lifetime lubricated for long wear life and reliability.

# SION MANUFACTURED

**EXCELLENT DRIVE ACTION.**  
The SR Series has the same slow forward and reverse speeds, increasing stability and improving uniformity.

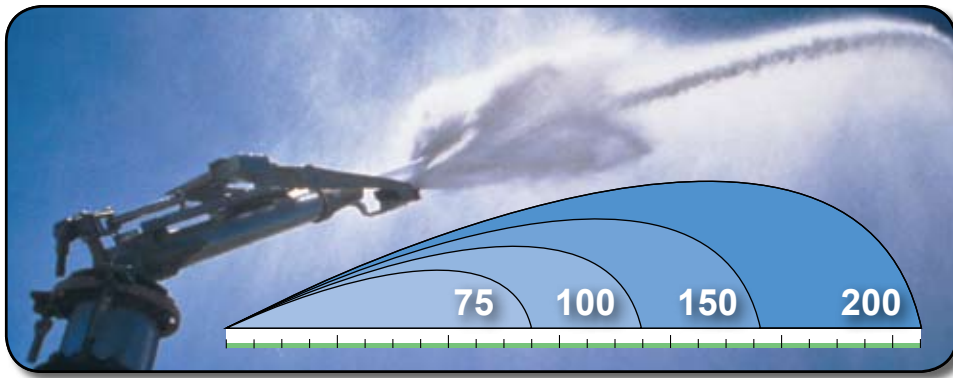


**PATENTED PRESSURE AND FLOW COMPENSATING DRIVE SPOON** eliminates need for adjustments throughout the full range of nozzle sizes and pressures.



**CONSISTENT BRAKE LOAD.**  
The brake provides a consistent resistance to rotation over the life of the gun.

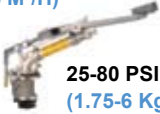



# BIG GUN® OPTIONS AVAILABLE



## TO ORDER BIG GUNS® SPECIFY THE FOLLOWING:

Model No., Trajectory, Connection Size & Type, Nozzle Size & Type, Optional Coatings (Anodized or Anodized and Powder Coated) NOTE: Extended lead time may be necessary for large quantities of anodized or anodized and powder coated products.

Specification Example:  
SR100 (24°), 2" FNPT, 100T-0.8"

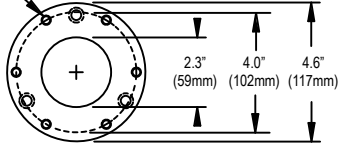
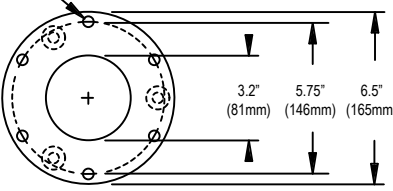
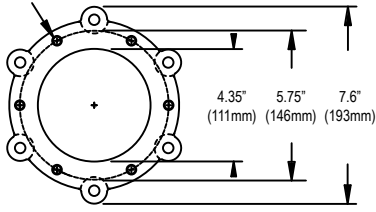
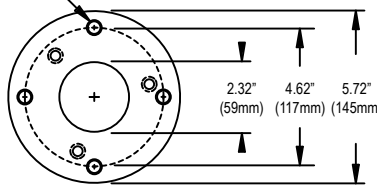
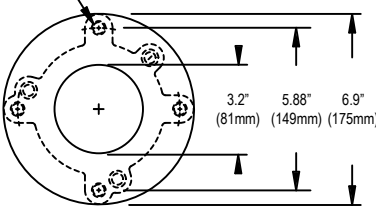
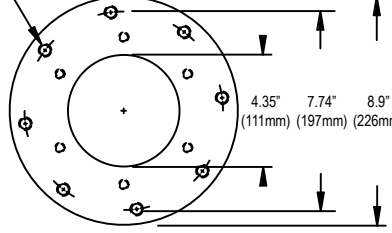
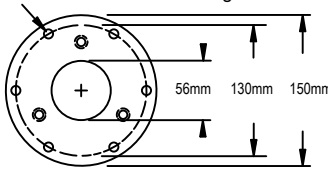
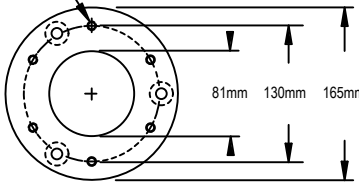
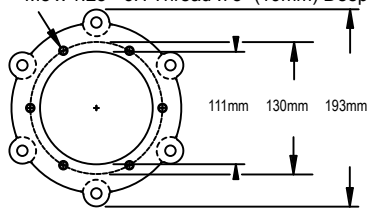
	75 SERIES		100 SERIES			150 SERIES			200 SERIES	
<b>PERFORMANCE</b>	<b>30-160 GPM</b> (6.8-36.3 M <sup>3</sup> /H)   <b>25-80 PSI</b> (1.75-6 Kg/cm <sup>2</sup> )		<b>50-300 GPM</b> (10-70 M <sup>3</sup> /H)   <b>40-110 PSI</b> (3.5-8 Kg/cm <sup>2</sup> )			<b>100-630 GPM</b> (23-150 M <sup>3</sup> /H)   <b>50-120 PSI</b> (3.5-9 Kg/cm <sup>2</sup> )			<b>250-1200 GPM</b> (55-275 M <sup>3</sup> /H)   <b>60-130 PSI</b> (4-9 Kg/cm <sup>2</sup> )	
<b>MODEL &amp; TRAJECTORY</b>	Full Circle F75	Part Circle SR75	Full Circle F100	Part Circle SR100	Part Circle SRA100	Full Circle F150	Part Circle SR150	Part Circle SRA150	Full Circle F200	Part Circle SR200
	21°, 24°	18°, 21°, 24°, 43°	18°, 21°, 24°, 43°	15-45° Adjustable		21°, 24°	21°, 24°, 27°, 43°	15-45° Adjustable	21°, 24°, 27°	
<b>NOZZLE OPTIONS</b>	Not Available		100T (Specify Size)			150T (Specify Size)			200T (Specify Size)	
	TR75 (Specify Size)		100TR (Specify Size)		NA for SRNV	150TR (Specify Size)			Not Available	
	Not Available		100R (Includes Set of Rings)		NA for SRNV	150R (Includes Set of Rings)			200R (Includes Set of Rings)	
<b>SPECIAL OPTIONS</b>	Not Available		Anodized & Powder Coated, Vaneless Range Tube*			Anodized & Powder Coated, Stainless Steel (SRA150 N/A), Vaneless Range Tube			Anodized & Powder Coated	
<b>ADD-ON KITS</b>	HD Lower Bearing, 12° Wedge Kit, Counterbalance Kit, Stream Straightener Vane		Low-Pressure Drive Vane Kit, Counterbalance Kit, Secondary Nozzle Kit, 12° Wedge Kit, Stream Straightener Vane			Counterbalance Kit, Secondary Nozzle Kit, Stream Straightener Vane			Secondary Nozzle Kit (standard), 12° Wedge Kit (SR200 only)	
<b>MOUNTING DETAILS</b>	Fits QC** & 2" 800 Series Valve		Fits QC** & 2" 800 Series Valve (QC NA for SRNV100)			Substantial thrust on riser, use 3" valve minimum			Substantial thrust on riser, use 4" valve minimum	
<b>CONNECTION OPTIONS</b>	1 1/2" or 2" FNPT or FBSP ANSI/DIN Nelson or Euro Flange		2" FNPT or FBSP, 2 1/2" FNPT ANSI/DIN, Nelson or Euro Flange		2" FNPT or FBSP for SRNV	Nelson, Euro or ANSI/DIN Flange Also, Nelson Flange to Female Adapters			Nelson, Euro or ANSI/DIN Flange Also, Nelson Flange to Female Adapters	

\*Vaneless Range Tube option is for wastewater applications containing hair, straw, etc.

\*\* The "Quick Coupling Valve" inlet is available in both 2" and 3" FNPT and FBSP for connection to the piping system. The "Quick Coupling Key" outlet is available in 2" FNPT, 2" FBSP, and Nelson Flange Connection for connection to the Big Gun.

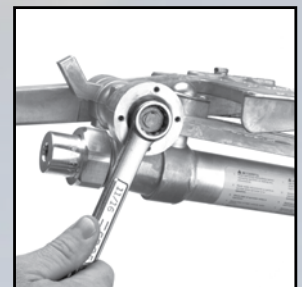
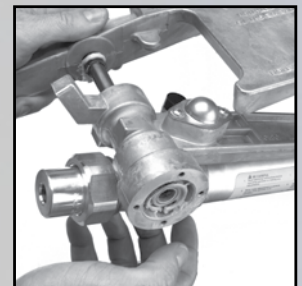
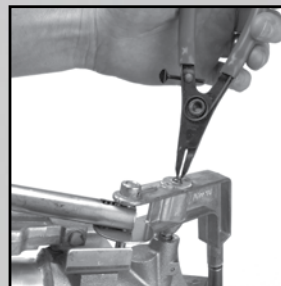


# BIG GUN® FLANGE DETAILS

	75 & 100 SERIES	150 SERIES	200 SERIES
NELSON FLANGE	<p>5/16-18 UNC 2B Threaded Through</p>  <p>Use 5/16-18 Bolts Connects to 2" Nelson Flange Bolt Pattern</p>	<p>.406" (10.3mm) Hole Drilled Through</p>  <p>Use 3/8-16 Bolts &amp; Nuts or M10 Bolts &amp; Nuts Connects to 3" Nelson Flange Bolt Pattern</p>	<p>3/8-16 UNC Thread .75" (19mm) Deep</p>  <p>Use 3/8-16 Bolts &amp; Nuts Connects to 4" Nelson Flange Bolt Pattern (F200 has same bolt pattern as SR150.)</p>
ANSI/DIN COMPATIBLE FLANGE	<p>1/2-13 UNC 2B Threaded Through</p>  <p>Use 1/2-13 Bolts Connects to 2" ANSI or 50mm DIN Flanges</p>	<p>1/2-13 UNC 2B Threaded Through</p>  <p>Use 1/2-13 Bolts Connects to 3" ANSI or 80mm DIN Flanges</p>	<p>1/2-13 UNC 2B Threaded Through</p>  <p>Use 1/2-13 Bolts Connects to 4" ANSI or 100mm DIN Flanges</p>
EURO FLANGE	<p>9.1mm Hole Drilled Through</p>  <p>Use M8 Bolts &amp; Nuts Connects to European Traveler Flange</p>	<p>M8 x 1.25 - 6H Threaded Through</p>  <p>Use M8 x 1.25 Bolts Connects to European Traveler Flange</p>	<p>M8 x 1.25 - 6H Thread .75" (19mm) Deep</p>  <p>Use M8 x 1.25 Bolts Connects to European Traveler Flange</p>

Contact the factory or go to [www.nelsonirrigation.com](http://www.nelsonirrigation.com) for Parts Lists, Operation & Maintenance Guides, Repair Kits, Dimensional Drawings, Add-on Kit literature & Thrust Force information.

Nelson Big Guns  
are easy to repair  
with readily  
available parts.



# BIG GUN® PERFORMANCE (U.S. UNITS)

Flow and diameter (feet) information at various pressures with different nozzle sizes. (See information at bottom of page 11.)

## 75 TAPER RING NOZZLE — 24° TRAJECTORY

PSI	0.4"		0.45"		0.5"		0.55"		0.6"		0.65"		0.7"		0.75"		0.8"	
	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.
25*	—	—	—	—	—	—	42	146	50	155	59	161	69	167	80	174	91	182
30*	—	—	—	—	37	158	45	158	55	165	64	172	75	182	87	187	99	192
35	—	—	32	154	40	164	49	172	59	178	69	191	81	196	93	202	106	208
40	27	149	35	160	43	171	52	180	63	190	74	198	87	204	98	213	112	221
45	29	155	37	167	46	180	56	189	67	198	79	206	91	214	104	223	118	230
50	30	161	39	174	48	186	59	195	70	203	83	212	95	220	109	230	123	237
55	32	165	41	179	50	193	62	203	74	213	87	221	100	230	115	239	130	247
60	33	169	42	184	53	198	64	208	77	220	91	228	104	237	120	245	136	254
65	35	172	44	189	55	205	67	216	80	227	95	237	109	247	125	254	142	263
70	36	175	45	194	57	210	69	221	83	232	98	243	113	254	129	260	147	270
75	37	179	47	201	59	217	72	228	86	239	101	250	117	261	134	268	153	277
80	39	182	49	207	61	222	74	234	89	244	105	256	121	266	138	274	158	283

\*Operating at pressures above 30 PSI provides better performance.

## 100 TAPER BORE NOZZLE — 24° TRAJECTORY

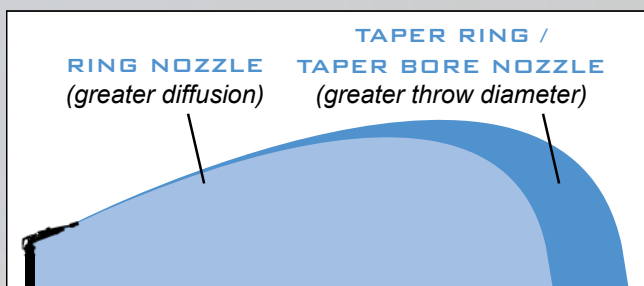
PSI	0.5"		0.55"		0.6"		0.65"		0.7"		0.75"		0.8"		0.85"		0.9"		1.0"	
	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.
40	47	191	57	202	66	213	78	222	91	230	103	240	118	250	134	256	152	262	—	—
50	50	205	64	215	74	225	87	235	100	245	115	256	130	265	150	273	165	280	204	300
60	55	215	69	227	81	240	96	250	110	260	126	270	143	280	164	288	182	295	224	316
70	60	225	75	238	88	250	103	263	120	275	136	283	155	295	177	302	197	310	243	338
80	64	235	79	248	94	260	110	273	128	285	146	295	165	305	189	314	210	325	258	354
90	68	245	83	258	100	270	117	283	135	295	155	306	175	315	201	326	223	335	274	362
100	72	255	87	268	106	280	123	293	143	305	163	316	185	325	212	336	235	345	289	372
110	76	265	92	278	111	290	129	303	150	315	171	324	195	335	222	344	247	355	304	380

## 150 TAPER BORE NOZZLE — 24° TRAJECTORY

PSI	0.7"		0.8"		0.9"		1.0"		1.1"		1.2"		1.3"		1.4"	
	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.
50	100	250	130	270	165	290	205	310	255	330	300	345	350	360	408	373
60	110	265	143	285	182	305	225	325	275	345	330	365	385	380	446	396
70	120	280	155	300	197	320	245	340	295	360	355	380	415	395	483	412
80	128	290	165	310	210	335	260	355	315	375	380	395	445	410	516	427
90	135	300	175	320	223	345	275	365	335	390	405	410	475	425	547	442
100	143	310	185	330	235	355	290	375	355	400	425	420	500	440	577	458
110	150	320	195	340	247	365	305	385	370	410	445	430	525	450	605	471
120	157	330	204	350	258	375	320	395	385	420	465	440	545	460	632	481

## 200 TAPER BORE NOZZLE — 27° TRAJECTORY

PSI	1.05"		1.1"		1.2"		1.3"		1.4"		1.5"		1.6"		1.75"		1.9"	
	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.
60	250	345	285	355	330	375	385	390	445	410	515	430	585	445	695	470	825	495
70	270	360	310	380	355	395	415	410	480	430	555	450	630	465	755	495	890	515
80	290	375	330	395	380	410	445	430	515	450	590	470	675	485	805	515	950	535
90	310	390	350	410	405	425	475	445	545	465	625	485	715	505	855	535	1005	555
100	325	400	370	420	425	440	500	460	575	480	660	500	755	520	900	550	1060	575
110	340	410	390	430	445	450	525	470	605	495	695	515	790	535	945	565	1110	590
120	355	420	405	440	465	460	545	480	630	505	725	530	825	550	985	580	1160	605
130	370	425	425	445	485	465	565	485	655	515	755	540	860	560	1025	590	1210	620



See opposite page for nozzle descriptions.







## **THE BEST PRODUCT SUPPORT IN THE INDUSTRY.**

Nelson is proud of its reputation for quality and integrity. We work hard to make our products the best, and we stand behind them with a one-year warranty.

Nelson Irrigation Corporation's worldwide network of professional dealers provides customized water application solutions.



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Tel: +61 7 3715 8555 Fax: +61 7 3715 8666 info@nelsonirrigation.com.au

**WARRANTY AND DISCLAIMER:** Nelson Big Gun® Sprinklers are warranted for one year from date of original sale to be free of defective materials and workmanship when used within the working specifications for which the products were designed and under normal use and service. The manufacturer assumes no responsibility for installation, removal or unauthorized repair of defective parts. The manufacturer's liability under this warranty is limited solely to replacement or repair of defective parts and the manufacturer will not be liable for any crop or other consequential damages resulting from defects or breach of warranty. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSES AND OF ALL OTHER OBLIGATIONS OR LIABILITIES OF MANUFACTURER. No agent, employee or representative of the manufacturer has authority to waive, alter or add to the provisions of this warranty, nor to make any representations or warranty not contained herein.

This product may be covered by one or more of the following U.S. Patent Nos. D297,453, 3,559,887, 3,744,720, 4,193,548, 4,669,663 and other U.S. Patents pending or corresponding issued or pending foreign patents.