

FEEDLOT DUST SUPPRESSION AND COOLING

Nelson Big Gun® sprinklers are ideal for feedlot dust suppression and cooling applications. With a full range of models available, flow rates of 47 to 1210 GPM can be achieved with maximum uniformity to match a variety of needs. Uniformity of coverage is important in feedlot applications to prevent standing water. Pooling causes odor problems that can be more troublesome than dust.

With a variety of nozzle options available, the irrigation system can be very flexible and easily controlled to allow for changes in the climate and seasons. Conditions of high temperature and low humidity promote dustiness. Dust on the roads is not so much a problem ... the harmful dust comes from the manure and can be optimally controlled by a combination of scraping up the manure and watering the remaining debris.

The EPA has developed a way to monitor feedlot dust concentrations. When the surface manure moisture content gets below 25%, dust is generated. The EPA standard for satisfactory conditions is a maximum of 250 micrograms per cubic meter. A moisture content of 31% is ideal to control dust, while a 45% moisture content leads to odor problems.

Research indicates that 5000 gallons of water per acre per day (approximately 0.18") is required at the peak of the dry season. Water should be applied everywhere in the pen except the feed bunker and a 10 to 12 feet section (the apron) in front of the bunker; however, bunkers are sometimes watered to "freshen the feed". A typical feedlot irrigation system during dry times will apply 2" of water per week. Nelson guns should be set up to rapid sequence in approximately 2 minute cycles, as much as 12 times per day. The ideal pressure for this sort of application is 80 PSI,

and pressure regulating capabilities at each gun is important.

Along with dust suppression, cooling is a major benefit of feedlot irrigation. It increases feed consumption and prevents bloating and overeating. The possibility of sickness is also lessened. The sequencing also tends to move the cattle up to the bunkers several times a day, promoting healthier eating habits.

Each gun and nozzle selection needs to be specially "fitted" for the pen size and spaced on a grid for good uniformity. The riser design must also allow for the cattle to rub on the riser without damage.

Nelson Big Guns can greatly enhance the feedlot environment and promote cleaner air and healthier animals. Contact your Nelson representative for more details.

Features

- Reduced Vibration
- Part & Full Circle Models
- Valve Combination Options
- Variable Trajectory
- Protective Coatings

Benefits

- Efficient Dust Suppression
- Rapid Cooling
- Odor Reduction
- Increased Stocking Rate
- Ease of Management
- Heat Stress Reduction
- Animal Loss Reduction
- Respiratory Distress Reduction

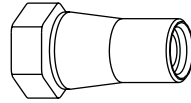


Warranty and Disclaimer

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.

100 TAPER BORE NOZZLE — 24° TRAJECTORY — **100T**

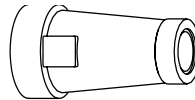
100T – Specify size when ordering



	0.50" 9309-050		0.55" 9309-055		0.60" 9309-060		0.65" 9309-065		0.70" 9309-070		0.75" 9309-075		0.80" 9309-080		0.85" 9309-085		0.90" 9309-090		1.0" 9309-100	
PSI	GPM	DIA. FT.	GPM	DIA. FT.	GPM	DIA. FT.	GPM	DIA. FT.	GPM	DIA. FT.	GPM	DIA. FT.	GPM	DIA. FT.	GPM	DIA. FT.	GPM	DIA. FT.	GPM	DIA. 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 — **150T** — U.S. UNITS

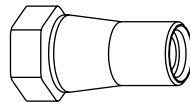
150T – Specify size when ordering



	0.70" 9317-070		0.80" 9317-080		0.90" 9317-090		1.0" 9317-100		1.1" 9317-110		1.2" 9317-120		1.3" 9317-130	
PSI	GPM	DIA. FT.	GPM	DIA. FT.	GPM	DIA. FT.	GPM	DIA. FT.	GPM	DIA. FT.	GPM	DIA. FT.	GPM	DIA. FT.
50	100	250	130	270	165	290	205	310	255	330	300	345	350	373
60	110	265	143	285	182	305	225	325	275	345	330	365	385	396
70	120	280	155	300	197	320	245	340	295	360	355	380	415	412
80	128	290	165	310	210	335	260	355	315	375	380	395	445	427
90	135	300	175	320	223	345	275	365	335	390	405	410	475	442
100	143	310	185	330	235	355	290	375	355	400	425	420	500	458
110	150	320	195	340	247	365	305	385	370	410	445	430	525	471
120	157	330	204	350	258	375	320	395	385	420	465	440	545	481

200 TAPER BORE NOZZLE — 27° TRAJECTORY — **200T** — U.S. UNITS

200T – Specify size when ordering



	1.05" 9323-105		1.1" 9323-110		1.2" 9323-120		1.3" 9323-130		1.4" 9323-140		1.5" 9323-150		1.6" 9323-160		1.75" 9323-175		1.9" 9323-190	
PSI	GPM	DIA. FT.	GPM	DIA. FT.	GPM	DIA. FT.	GPM	DIA. FT.	GPM	DIA. FT.	GPM	DIA. FT.	GPM	DIA. FT.	GPM	DIA. FT.	GPM	DIA. 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

Diameters are based on 27° trajectory. 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. Nelson Irrigation Corporation makes no representation regarding droplet condition, uniformity, or application rates.