

# AQUA IRRIGATION

SEPTEMBER 29, 2025

WISH-119635

CUSTOMER : RAY NIESLANIK

LINDSAY 9500 - 90  
7 TOWER - 1300.47 FT  
SYSTEM 900 GPM @ 50 PSI

LEGAL : N-2

NELSON R3030 ROTATORS & A3030 ACCELERATORS  
NELSON 20 & 10 PSI REGULATORS  
NELSON SR-75 .80 TB  
ELEVATION 5 FT UP, 0 FT DOWN

9370 COUNTY ROAD 35  
ATWOOD, COLORADO 80722  
(970)522-7560

---

#### WARRANTY

WATER APPLICATION UNIFORMITY OBTAINED WITH THIS SYSTEM CAN BE ADVERSELY AFFECTED BY MANY VARIABLES INCLUDING THE IMPROPER MAKEUP OR INSTALLATION OF THE SPRINKLER OR SPRAY NOZZLE PACKAGE, OBSTRUCTED NOZZLES, MAINTAINING INCORRECT PIVOT PRESSURE, UNFAVORABLE CLIMATIC CONDITIONS, TIGHT AND/OR SLOPING SOILS, IMPROPER END GUN ARC SETTINGS, ERRATIC AND IMPROPER OPERATING SPEED OF THE SYSTEM, POOR QUALITY OF WATER WITH ABRASIVES, CORROSIVES, AND/OR SOLIDS WHICH CAN CAUSE PLUGGING AND JAMMING, AS WELL AS INHERENT VARIABLES IN THE MANY COMPONENTS COMPRISING THE SYSTEM. THEREFORE WESTERN IRRIGATION SUPPLY HOUSE, INC., MAKES NO WARRANTY AS TO THE UNIFORMITY OF COVERAGE OBTAINED FROM THIS WATER APPLICATION PRINTOUT OTHER THAN ITS MATHEMATICAL ACCURACY.

IT IS THE RESPONSIBILITY OF THE END USER TO DETERMINE IF ANY INCOMPATIBILITY EXISTS BETWEEN THE WATER DISTRIBUTION DEVICES AND THE CROP, THE SOIL, AND THE PHYSICAL STRUCTURE OF THE MECHANICAL MOVE SYSTEM. WESTERN IRRIGATION SUPPLY HOUSE, INC., THEREFORE, DISCLAIMS ANY LIABILITY FOR DAMAGES DUE TO FAILURE OF THE SYSTEM TO PERFORM AS CONTEMPLATED.

FIGURES PRESENTED ON THIS COMPUTER PRINTOUT ARE BASED ON THE FOLLOWING:

1. DATA FURNISHED TO WESTERN IRRIGATION SUPPLY HOUSE, INC., ON PIPE LENGTH, DIAMETER, SURFACE FINISH, OUTLET SPACINGS, WATER FLOW, PIVOT PRESSURE AND ALL OTHER APPLICABLE INFORMATION.
2. THERE IS 100% WATER APPLICATION EFFICIENCY (ZERO WIND VELOCITY AND NO EVAPORATION).
3. PIVOT PRESSURE IS MEASURED ON THE MAIN HORIZONTAL DISTRIBUTION PIPE JUST AFTER THE LAST ELBOW.
4. MAIN PIPE PRESSURE IS CALCULATED AS IF THE PIVOT IS ALWAYS ON LEVEL GROUND.
5. SPRINKLER OR SPRAY NOZZLE BASE PRESSURE MAY BE LESS THAN MAIN LINE PIPE PRESSURE DUE TO THE USE OF PRESSURE REGULATORS. WHERE DROP PIPES ARE USED THE STATIC HEAD IS ADDED TO AND FRICTION LOSS IS SUBTRACTED FROM THE MAIN LINE PIPE PRESSURE TO DETERMINE INLET PSI. REGULATORS ARE CONSIDERED MOUNTED AT THE SAME HEIGHT AS THE SPRINKLING DEVICE UNLESS NOTED.

DEALER  
AQUA IRRIGATION  
9370 COUNTY ROAD 35  
ATWOOD, COLORADO 80722

IRRIGATOR  
RAY NIESLANIK  
N-2

				SPAN #	LENGTH	PIPE I.D.	# OF HEADS
TOTAL TARGET GPM	900.00	FRICTION FACTOR USED	138				
TOP OF PIVOT PRESSURE	50.00	TOTAL LENGTH	1300.47	1	181.60	6.395	10
ENDGUN TARGET GPM	110.70	NUMBER OF TOWERS	7	2	179.00	6.395	12
NUMBER OF OUTLETS	181	NUMBER OF SPRINKLERS	113	3	179.00	6.395	12
				4	179.00	6.395	12
NELSON R3030 ROTATORS - D8 ORANGE PLATES FIRST FIVE SPANS				5	179.00	6.395	13
NELSON A3030 ACCELERATORS - D6 GOLD PLATES BALANCE				6	179.00	6.395	24
NELSON BLUE TOP INTEGRAL 20 & 10 PSI SERIES REGULATORS				7	179.00	6.395	24
POLYDROPS® AVERAGE 6.5 FT				OH	44.87	5.369	6
ELEVATION IS 5 FT UP AND 0 FT DOWN							

CAUTIONS AND WARNINGS

1. Inadequate crop clearance and/or structural interference may cause poor water distribution, resulting in decreased uniformity and possible streaking.

2. Over watering at beginning of system due to practical limitations on smallest nozzle sizes available and/or allowable for proper operation.

OUTLET NO.	LAST OUTLET	DISTANCE TO PIVOT	GPM NEED	GPM DEL.	PIPE PSI	NOZZLE PSI	SPRINKLER LABEL AND NOZZLE SIZE										SPRK NO.	REG SIZE	PLUG NO.	DROP LENGTH
1		2.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
2		7.76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
3		15.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	
4		22.59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	
5	29.93	29.93	0.78	1.57	49.07	22.20	R3030	14	LIME								1	NNB20LF		72
6		37.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	
7		44.76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	
8	21.83	51.76	0.85	1.57	48.36	22.20	R3030	14	LIME								2	NNB20LF		84
9		59.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	
10	14.83	66.59	0.91	1.57	47.96	22.19	R3030	14	LIME								3	NNB20LF		90
11		73.93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	
12	14.67	81.26	1.10	1.57	47.63	22.19	R3030	14	LIME								4	NNB20LF		90
13		88.76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	
14	14.50	95.76	1.31	1.57	47.37	22.19	R3030	14	LIME								5	NNB20LF		90
15		103.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	
16	14.83	110.59	1.52	1.57	47.17	22.19	R3030	14	LIME								6	NNB20LF		90
17		117.93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	
18	14.67	125.26	1.70	1.57	47.04	22.19	R3030	14	LIME								7	NNB20LF		84
19		132.76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	
20	14.50	139.76	1.91	1.83	46.97	22.06	R3030	15	LIME								8	NNB20LF		78
21		147.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	
22	14.83	154.59	2.12	2.07	46.97	21.94	R3030	16	LAVENDER								9	NNB20LF		72
23		161.93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	
24	14.67	169.26	2.54	2.58	47.03	21.68	R3030	18	GRAY								10	NNB20LF		66
25		176.76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	
TOWER 1	181.60	181.60																		
26		182.59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	
27	17.50	186.76	2.80	2.89	46.80	21.53	R3030	19	GRAY								11	NNB20LF		60
28		194.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	
29	14.83	201.59	2.76	2.89	46.29	21.52	R3030	19	GRAY								12	NNB20LF		72
30		208.93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	
31	14.67	216.26	2.93	2.89	45.77	21.52	R3030	19	GRAY								13	NNB20LF		78
32		223.76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	
33	14.50	230.76	3.15	3.20	45.33	21.37	R3030	20	TURQUOISE								14	NNB20LF		84
34		238.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	
35	14.83	245.59	3.37	3.46	44.94	21.24	R3030	21	TURQUOISE								15	NNB20LF		90
36		252.93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	
37	14.67	260.26	3.53	3.46	44.63	21.24	R3030	21	TURQUOISE								16	NNB20LF		90
38		267.76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	
39	14.50	274.76	3.75	3.83	44.38	21.06	R3030	22	YELLOW								17	NNB20LF		90
40		282.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	
41	14.83	289.59	3.97	3.83	44.20	21.07	R3030	22	YELLOW								18	NNB20LF		90
42		296.93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	
43	14.67	304.26	4.13	4.15	44.08	20.95	R3030	23	YELLOW								19	NNB20LF		84
44		311.76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	
45	14.50	318.76	4.35	4.15	44.03	20.95	R3030	23	YELLOW								20	NNB20LF		78
46		326.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	
47	14.83	333.59	4.58	4.56	44.05	20.87	R3030	24	RED								21	NNB20LF		72

OUTLET NO.	LAST OUTLET	DISTANCE TO PIVOT	GPM NEED	GPM DEL.	PIPE PSI	NOZZLE PSI	SPRINKLER LABEL AND NOZZLE SIZE						SPRK NO.	REG SIZE	PLUG NO.	DROP LENGTH
48	14.67	340.93	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	27	66
49		348.26	5.22	5.32	44.14	20.73	R3030	26	WHITE	- - - -	- - - -	- - - -	22	NNB20LF		
50		355.76	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	28	
TOWER 2	179.00	360.60	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
51	17.50	361.59	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	29	60
52		365.76	5.49	5.32	43.93	20.73	R3030	26	WHITE	- - - -	- - - -	- - - -	23	NNB20LF		
53		373.26	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	30	
54	14.83	380.59	5.22	5.32	43.44	20.73	R3030	26	WHITE	- - - -	- - - -	- - - -	24	NNB20LF	72	
55	387.93	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	31		
56	14.67	395.26	5.36	5.32	42.95	20.73	R3030	26	WHITE	- - - -	- - - -	- - - -	25	NNB20LF		78
57	402.76	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	32		
58	14.50	409.76	5.59	5.70	42.53	20.66	R3030	27	WHITE	- - - -	- - - -	- - - -	26	NNB20LF	84	
59	417.26	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	33		
60	14.83	424.59	5.82	5.70	42.18	20.66	R3030	27	WHITE	- - - -	- - - -	- - - -	27	NNB20LF		90
61	431.93	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	34		
62	14.67	439.26	5.96	6.20	41.89	20.56	R3030	28	BLUE	- - - -	- - - -	- - - -	28	NNB20LF	90	
63	446.76	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	35		
64	14.50	453.76	6.19	6.20	41.67	20.56	R3030	28	BLUE	- - - -	- - - -	- - - -	29	NNB20LF		90
65	461.26	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	36		
66	14.83	468.59	6.43	6.61	41.52	20.48	R3030	29	BLUE	- - - -	- - - -	- - - -	30	NNB20LF	90	
67	475.93	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	37		
68	14.67	483.26	6.55	6.61	41.43	20.48	R3030	29	BLUE	- - - -	- - - -	- - - -	31	NNB20LF		84
69	490.76	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	38		
70	14.50	497.76	6.79	6.61	41.42	20.48	R3030	29	BLUE	- - - -	- - - -	- - - -	32	NNB20LF	78	
71	505.26	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	39		
72	14.83	512.59	7.03	7.06	41.47	20.39	R3030	30	DK BROWN	- - - -	- - - -	- - - -	33	NNB20LF		72
73	519.93	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	40		
74	14.67	527.26	7.90	8.00	41.59	20.21	R3030	32	ORANGE	- - - -	- - - -	- - - -	34	NNB20LF	66	
75	534.76	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	41		
TOWER 3	179.00	539.60	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -		- - - -
76	17.50	540.59	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	42	60
77		544.76	8.18	8.00	41.42	20.21	R3030	32	ORANGE	- - - -	- - - -	- - - -	35	NNB20LF		
78		552.26	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	43	
79	14.83	559.59	7.67	7.46	40.97	20.31	R3030	31	DK BROWN	- - - -	- - - -	- - - -	36	NNB20LF	72	
80	566.93	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	44		
81	14.67	574.26	7.79	8.00	40.52	20.21	R3030	32	ORANGE	- - - -	- - - -	- - - -	37	NNB20LF		78
82	581.76	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	45		
83	14.50	588.76	8.03	8.00	40.14	20.21	R3030	32	ORANGE	- - - -	- - - -	- - - -	38	NNB20LF	84	
84	596.26	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	46		
85	14.83	603.59	8.28	8.53	39.82	20.17	R3030	33	ORANGE	- - - -	- - - -	- - - -	39	NNB20LF		90
86	610.93	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	47		
87	14.67	618.26	8.38	8.53	39.58	20.17	R3030	33	ORANGE	- - - -	- - - -	- - - -	40	NNB20LF	90	
88	625.76	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	48		
89	14.50	632.76	8.62	8.53	39.40	20.17	R3030	33	ORANGE	- - - -	- - - -	- - - -	41	NNB20LF		90
90	640.26	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	49		
91	14.83	647.59	8.88	9.04	39.29	20.14	R3030	34	DK GREEN	- - - -	- - - -	- - - -	42	NNB20LF	90	
92	654.93	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	50		
93	14.67	662.26	8.97	9.04	39.24	20.14	R3030	34	DK GREEN	- - - -	- - - -	- - - -	43	NNB20LF		84

OUTLET NO.	LAST OUTLET	DISTANCE TO PIVOT	GPM NEED	GPM DEL.	PIPE PSI	NOZZLE PSI	SPRINKLER LABEL AND NOZZLE SIZE						SPRK NO.	REG SIZE	PLUG NO.	DROP LENGTH
94	14.50	669.76	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	51	78
95		676.76	9.22	9.04	39.27	20.13	R3030	34	DK	GREEN			44	NNB20LF		
96		684.26	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	52	
97	14.83	691.59	9.48	9.52	39.37	20.11	R3030	35	DK	GREEN			45	NNB20LF		72
98	14.67	698.93	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	53	66
99		706.26	10.57	10.68	39.53	20.04	R3030	37	PURPLE				46	NNB20LF		
100		713.76	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	54	
TOWER 4	179.00	718.60														
101	17.50	719.59	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	55	60
102		723.76	10.86	10.68	39.42	20.03	R3030	37	PURPLE				47	NNB20LF		
103		731.26	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	56	
104	14.83	738.59	10.12	10.00	39.01	20.08	R3030	36	PURPLE				48	NNB20LF		72
105	14.67	745.93	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	57	78
106		753.26	10.21	10.00	38.61	20.07	R3030	36	PURPLE				49	NNB20LF		
107		760.76	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	58	
108	14.50	767.76	10.47	10.68	38.27	20.03	R3030	37	PURPLE				50	NNB20LF		84
109	14.83	775.26	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	59	90
110		782.59	10.73	10.68	38.00	20.03	R3030	37	PURPLE				51	NNB20LF		
111		789.93	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	60	
112	14.67	797.26	10.81	10.68	37.80	20.03	R3030	37	PURPLE				52	NNB20LF		90
113	14.50	804.76	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	61	90
114		811.76	11.07	11.27	37.67	19.98	R3030	38	BLACK				53	NNB20LF		
115		819.26	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	62	
116	14.83	826.59	11.33	11.27	37.61	19.98	R3030	38	BLACK				54	NNB20LF		90
117	14.67	833.93	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	63	84
118		841.26	11.41	11.27	37.62	19.97	R3030	38	BLACK				55	NNB20LF		
119		848.76	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	64	
120	14.50	855.76	11.67	11.89	37.69	19.92	R3030	39	BLACK				56	NNB20LF		78
121	14.83	863.26	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	65	72
122		870.59	11.94	11.89	37.84	19.92	R3030	39	BLACK				57	NNB20LF		
123		877.93	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	66	
124	14.67	885.26	9.10	9.04	38.05	20.12	R3030	34	DK	GREEN			58	NNB20LF		66
125	7.50	892.76	7.27	7.45	38.06	20.28	R3030	31	DK	BROWN			59	NNB20LF		60
TOWER 5	179.00	897.60														
126	10.00	898.59	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	67	60
127		902.76	7.34	7.26	38.00	10.57	A3030	36	PURPLE				60	NNB10LF		
128		910.26	6.27	6.21	37.85	10.70	A3030	33	ORANGE				61	NNB10LF		66
129	7.50	917.59	6.26	6.21	37.64	10.70	A3030	33	ORANGE				62	NNB10LF		72
130	7.33	917.59	6.26	6.21	37.64	10.70	A3030	33	ORANGE				62	NNB10LF		72
131	7.34	924.93	6.31	6.21	37.45	10.70	A3030	33	ORANGE				63	NNB10LF		72
132	7.33	932.26	6.43	6.57	37.28	10.64	A3030	34	DK	GREEN			64	NNB10LF		78
133	7.50	939.76	6.33	6.20	37.13	10.69	A3030	33	ORANGE				65	NNB10LF		78
134	7.00	946.76	6.39	6.21	37.00	10.70	A3030	33	ORANGE				66	NNB10LF		84
135	7.50	954.26	6.58	6.57	36.88	10.63	A3030	34	DK	GREEN			67	NNB10LF		84
136	7.33	961.59	6.56	6.57	36.78	10.64	A3030	34	DK	GREEN			68	NNB10LF		90
137	7.34	968.93	6.61	6.57	36.69	10.64	A3030	34	DK	GREEN			69	NNB10LF		90
138	7.33	976.26	6.74	6.57	36.63	10.63	A3030	34	DK	GREEN			70	NNB10LF		90
139	7.50	983.76	6.64	6.57	36.58	10.63	A3030	34	DK	GREEN			71	NNB10LF		90
139	7.00	990.76	6.69	6.57	36.54	10.63	A3030	34	DK	GREEN			72	NNB10LF		90

OUTLET NO.	LAST OUTLET	DISTANCE TO PIVOT	GPM NEED	GPM DEL.	PIPE PSI	NOZZLE PSI	SPRINKLER LABEL AND NOZZLE SIZE				SPRK NO.	REG SIZE	PLUG NO.	DROP LENGTH
140	7.50	998.26	6.90	6.92	36.53	10.59	A3030	35	DK	GREEN	73	NNB10LF		90
141	7.33	1005.59	6.87	6.92	36.53	10.59	A3030	35	DK	GREEN	74	NNB10LF		90
142	7.34	1012.93	6.92	6.92	36.55	10.59	A3030	35	DK	GREEN	75	NNB10LF		90
143	7.33	1020.26	7.05	6.91	36.59	10.59	A3030	35	DK	GREEN	76	NNB10LF		84
144	7.50	1027.76	6.94	6.91	36.64	10.59	A3030	35	DK	GREEN	77	NNB10LF		84
145	7.00	1034.76	6.99	6.91	36.71	10.58	A3030	35	DK	GREEN	78	NNB10LF		78
146	7.50	1042.26	7.20	7.25	36.80	10.55	A3030	36	PURPLE		79	NNB10LF		78
147	7.33	1049.59	7.18	7.25	36.90	10.55	A3030	36	PURPLE		80	NNB10LF		72
148	7.34	1056.93	7.22	7.25	37.02	10.55	A3030	36	PURPLE		81	NNB10LF		72
149	7.33	1064.26	7.35	7.25	37.16	10.55	A3030	36	PURPLE		82	NNB10LF		66
150	7.50	1071.76	8.75	8.59	37.20	10.41	A3030	39	BLACK		83	NNB10LF		60
TOWER 6	179.00	1076.60												
151		1077.59	-	-	-	-	-	-	-	-	-	-	-	68
152	10.00	1081.76	8.82	9.01	37.16	10.37	A3030	40	DK	TURQ	84	NNB10LF		60
153	7.50	1089.26	7.53	7.73	37.04	10.50	A3030	37	PURPLE		85	NNB10LF		66
154	7.33	1096.59	7.49	7.73	36.86	10.50	A3030	37	PURPLE		86	NNB10LF		72
155	7.34	1103.93	7.53	7.72	36.69	10.50	A3030	37	PURPLE		87	NNB10LF		72
156	7.33	1111.26	7.66	7.73	36.55	10.50	A3030	37	PURPLE		88	NNB10LF		78
157	7.50	1118.76	7.53	7.72	36.41	10.49	A3030	37	PURPLE		89	NNB10LF		78
158	7.00	1125.76	7.58	7.72	36.31	10.49	A3030	37	PURPLE		90	NNB10LF		84
159	7.50	1133.26	7.79	7.72	36.21	10.49	A3030	37	PURPLE		91	NNB10LF		84
160	7.33	1140.59	7.76	7.72	36.13	10.50	A3030	37	PURPLE		92	NNB10LF		90
161	7.34	1147.93	7.81	7.72	36.07	10.49	A3030	37	PURPLE		93	NNB10LF		90
162	7.33	1155.26	7.95	8.15	36.02	10.45	A3030	38	BLACK		94	NNB10LF		90
163	7.50	1162.76	7.82	7.72	35.99	10.49	A3030	37	PURPLE		95	NNB10LF		90
164	7.00	1169.76	7.87	7.72	35.98	10.49	A3030	37	PURPLE		96	NNB10LF		90
165	7.50	1177.26	8.11	8.15	35.99	10.45	A3030	38	BLACK		97	NNB10LF		90
166	7.33	1184.59	8.07	8.15	36.01	10.45	A3030	38	BLACK		98	NNB10LF		90
167	7.34	1191.93	8.11	8.15	36.05	10.45	A3030	38	BLACK		99	NNB10LF		90
168	7.33	1199.26	8.25	8.15	36.11	10.45	A3030	38	BLACK		100	NNB10LF		84
169	7.50	1206.76	8.12	8.15	36.18	10.45	A3030	38	BLACK		101	NNB10LF		84
170	7.00	1213.76	8.17	8.15	36.27	10.45	A3030	38	BLACK		102	NNB10LF		78
171	7.50	1221.26	8.41	8.59	36.38	10.41	A3030	39	BLACK		103	NNB10LF		78
172	7.33	1228.59	8.35	8.15	36.50	10.45	A3030	38	BLACK		104	NNB10LF		72
173	7.34	1235.93	8.42	8.59	36.64	10.41	A3030	39	BLACK		105	NNB10LF		72
174	7.33	1243.26	8.55	8.59	36.80	10.41	A3030	39	BLACK		106	NNB10LF		66
175	7.50	1250.76	9.68	9.52	36.85	10.32	A3030	41	DK	TURQ	107	NNB10LF		60
TOWER 7	179.00	1255.60												
PIPE ID CHANGES FROM 6.395 TO 5.369														
176	9.21	1259.97	9.78	9.94	36.84	10.28	A3030	42	MUSTARD		108	NNB10LF		60
177	7.50	1267.47	8.70	8.59	36.82	10.41	A3030	39	BLACK		109	NNB10LF		60
178	7.33	1274.80	8.69	8.59	36.81	10.41	A3030	39	BLACK		110	NNB10LF		60
179	7.34	1282.14	8.77	8.59	36.80	10.41	A3030	39	BLACK		111	NNB10LF		60
180	7.33	1289.47	9.00	9.01	36.80	10.36	A3030	40	DK	TURQ	112	NNB10LF		60
181	7.50	1296.97	9.09	9.01	36.79	10.36	A3030	40	DK	TURQ	113	NNB10LF		60
OVERHANG	44.87	1300.47		110.68	ENDGUN	( 1 )	NELSON	SR-75	.80	TB				

THERE IS NO BOOSTER PUMP

FRICITION LOSS THROUGH ENDGUN VALVE IS 0.97 PSI - ENDGUN PRESSURE IS 35.82 PSI

TOTAL GPM = 900.14  
GPA = 6.47

MINIMUM RECOMMENDED REGULATOR INLET PRESSURE IS 25.00 PSI  
WITH GRADUATED ELEVATION OF 5.00 FT THE INLET PRESSURE IS 37.80 PSI FOR SPRINKLER 57  
THIS POSITION IS THE CLOSEST TO THE MINIMUM RECOMMENDED INLET PRESSURE

HYDRAULICS SUMMARY									
TOWER NUMBER	ACRES UNDER SPAN	GPM NEED	ACTUAL GPM	PERCENT DEVIATION	GPM PER ACRE	AVERAGE IN. PER HR DELIVERED UNDER SPAN	AVERAGE IN. DELIVERED FOR REVOLUTION TIME		
							36 HR	48 HR	60 HR
1	2.38	15.39	18.11	18%	7.61	0.017	0.61	0.81	1.01
2	7.00	45.30	45.09	0%	6.44	0.014	0.51	0.68	0.85
3	11.62	75.20	75.20	0%	6.47	0.014	0.51	0.69	0.86
4	16.24	105.11	104.91	0%	6.46	0.014	0.51	0.69	0.86
5	20.86	135.02	134.43	0%	6.44	0.014	0.51	0.68	0.85
6	25.49	164.92	163.50	-1%	6.42	0.014	0.51	0.68	0.85
7	30.11	194.83	194.84	0%	6.47	0.014	0.51	0.69	0.86
OVERHANG	8.27	53.53	53.38	0%	6.45	0.014	0.51	0.68	0.86
ENDGUN	16.77	110.70	110.68	2%	6.60				
TOTAL	138.75	900.00	900.14		6.49				

**SUMMARY OF SPRINKLERS**

7 R3030 14 LIME  
1 R3030 15 LIME  
1 R3030 16 LAVENDER  
1 R3030 18 GRAY  
3 R3030 19 GRAY  
1 R3030 20 TURQUOISE  
2 R3030 21 TURQUOISE  
2 R3030 22 YELLOW  
2 R3030 23 YELLOW  
1 R3030 24 RED  
4 R3030 26 WHITE  
2 R3030 27 WHITE  
2 R3030 28 BLUE  
3 R3030 29 BLUE  
1 R3030 30 DK BROWN  
2 R3030 31 DK BROWN  
4 R3030 32 ORANGE  
3 R3030 33 ORANGE  
4 R3030 34 DK GREEN  
1 R3030 35 DK GREEN  
2 R3030 36 PURPLE  
5 R3030 37 PURPLE  
3 R3030 38 BLACK  
2 R3030 39 BLACK  
5 A3030 33 ORANGE  
7 A3030 34 DK GREEN  
6 A3030 35 DK GREEN  
5 A3030 36 PURPLE  
11 A3030 37 PURPLE  
8 A3030 38 BLACK  
7 A3030 39 BLACK  
3 A3030 40 DK TURQ  
1 A3030 41 DK TURQ  
1 A3030 42 MUSTARD

**68 PLUGS****SUMMARY OF DROPS**

15 60 IN DROP  
9 66 IN DROP  
18 72 IN DROP  
17 78 IN DROP  
18 84 IN DROP  
36 90 IN DROP

**TOTAL OF 113 DROPS****SUMMARY OF REGULATORS**

59 Nelson Blue Int Uni Flo 20 psi  
54 Nelson Blue Int Uni Flo 10 psi

**TOTAL OF 113 REGULATORS**

## NOZZLE POSITION CHART

R3030 14 LIME	1, 2, 3, 4, 5, 6, 7
R3030 15 LIME	8
R3030 16 LAVENDER	9
R3030 18 GRAY	10
R3030 19 GRAY	11, 12, 13
R3030 20 TURQUOISE	14
R3030 21 TURQUOISE	15, 16
R3030 22 YELLOW	17, 18
R3030 23 YELLOW	19, 20
R3030 24 RED	21
R3030 26 WHITE	22, 23, 24, 25
R3030 27 WHITE	26, 27
R3030 28 BLUE	28, 29
R3030 29 BLUE	30, 31, 32
R3030 30 DK BROWN	33
R3030 31 DK BROWN	36, 59
R3030 32 ORANGE	34, 35, 37, 38
R3030 33 ORANGE	39, 40, 41
R3030 34 DK GREEN	42, 43, 44, 58
R3030 35 DK GREEN	45
R3030 36 PURPLE	48, 49
R3030 37 PURPLE	46, 47, 50, 51, 52
R3030 38 BLACK	53, 54, 55
R3030 39 BLACK	56, 57
A3030 33 ORANGE	61, 62, 63, 65, 66
A3030 34 DK GREEN	64, 67, 68, 69, 70, 71, 72
A3030 35 DK GREEN	73, 74, 75, 76, 77, 78
A3030 36 PURPLE	60, 79, 80, 81, 82
A3030 37 PURPLE	85, 86, 87, 88, 89, 90, 91, 92, 93, 95, 96
A3030 38 BLACK	94, 97, 98, 99, 100,101,102,104
A3030 39 BLACK	83, 103,105,106,109,110,111
A3030 40 DK TURQ	84, 112,113
A3030 41 DK TURQ	107
A3030 42 MUSTARD	108

**AQUA IRRIGATION**  
9370 COUNTY ROAD 35  
ATWOOD, COLORADO 80722

SEPTEMBER 29, 2025  
WISH-119635  
RAY NIESLANIK  
N-2

LINDSAY 9500 - 90  
NELSON R3030 ROTATORS  
NELSON 20 & 10 PSI REGULATORS  
POLYDROPS®  
NELSON SR-75 .80 TB

Rotation time at 100% = 9.44 Hours Or 566 minutes

900 GPM @ 50 PSI

## Installation Chart

Page 1

Out #	Drop Len	Sprk #	Noz Size	Reg	Out #	Drop Len	Sprk #	Noz Size	Reg	Out #	Drop Len	Sprk #	Noz Size	Reg	Out #	Drop Len	Sprk #	Noz Size	Reg
1	PLUG				9	PLUG				17	PLUG				25	60	107	41	10LF
2	PLUG				10	90	27	27	20LF	18	84	55	38	20LF	1	60	108	42	10LF
3	PLUG				11	PLUG				19	PLUG				2	60	109	39	10LF
4	PLUG				12	90	28	28	20LF	20	78	56	39	20LF	3	60	110	39	10LF
5	72	1	14	20LF	13	PLUG				21	PLUG				4	60	111	39	10LF
6	PLUG				14	90	29	28	20LF	22	72	57	39	20LF	5	60	112	40	10LF
7	PLUG				15	PLUG				23	PLUG				6	60	113	40	10LF
8	84	2	14	20LF	16	90	30	29	20LF	24	66	58	34	20LF					
9	PLUG				17	PLUG				25	60	59	31	20LF					
10	90	3	14	20LF	18	84	31	29	20LF		TOWER 5								
11	PLUG				19	PLUG				1	PLUG								
12	90	4	14	20LF	20	78	32	29	20LF	2	60	60	36	10LF					
13	PLUG				21	PLUG				3	66	61	33	10LF					
14	90	5	14	20LF	22	72	33	30	20LF	4	72	62	33	10LF					
15	PLUG				23	PLUG				5	72	63	33	10LF					
16	90	6	14	20LF	24	66	34	32	20LF	6	78	64	34	10LF					
17	PLUG				25	PLUG				7	78	65	33	10LF					
18	84	7	14	20LF		TOWER 3				8	84	66	33	10LF					
19	PLUG				1	PLUG				9	84	67	34	10LF					
20	78	8	15	20LF	2	60	35	32	20LF	10	90	68	34	10LF					
21	PLUG				3	PLUG				11	90	69	34	10LF					
22	72	9	16	20LF	4	72	36	31	20LF	12	90	70	34	10LF					
23	PLUG				5	PLUG				13	90	71	34	10LF					
24	66	10	18	20LF	6	78	37	32	20LF	14	90	72	34	10LF					
25	PLUG				7	PLUG				15	90	73	35	10LF					
1	TOWER 1				8	84	38	32	20LF	16	90	74	35	10LF					
2	PLUG				9	PLUG				17	90	75	35	10LF					
3	60	11	19	20LF	10	90	39	33	20LF	18	84	76	35	10LF					
4	PLUG				11	PLUG				19	84	77	35	10LF					
5	72	12	19	20LF	12	90	40	33	20LF	20	78	78	35	10LF					
6	PLUG				13	PLUG				21	78	79	36	10LF					
7	78	13	19	20LF	14	90	41	33	20LF	22	72	80	36	10LF					
8	PLUG				15	PLUG				23	72	81	36	10LF					
9	84	14	20	20LF	16	90	42	34	20LF	24	66	82	36	10LF					
10	PLUG				17	PLUG				25	60	83	39	10LF					
11	90	15	21	20LF	18	84	43	34	20LF		TOWER 6								
12	PLUG				19	PLUG				1	PLUG								
13	90	16	21	20LF	20	78	44	34	20LF	2	60	84	40	10LF					
14	PLUG				21	PLUG				3	66	85	37	10LF					
15	90	17	22	20LF	22	72	45	35	20LF	4	72	86	37	10LF					
16	PLUG				23	PLUG				5	72	87	37	10LF					
17	90	18	22	20LF	24	66	46	37	20LF	6	78	88	37	10LF					
18	PLUG				25	PLUG				7	78	89	37	10LF					
19	84	19	23	20LF		TOWER 4				8	84	90	37	10LF					
20	PLUG				1	PLUG				9	84	91	37	10LF					
21	78	20	23	20LF	2	60	47	37	20LF	10	90	92	37	10LF					
22	PLUG				3	PLUG				11	90	93	37	10LF					
23	72	21	24	20LF	4	72	48	36	20LF	12	90	94	38	10LF					
24	PLUG				5	PLUG				13	90	95	37	10LF					
25	66	22	26	20LF	6	78	49	36	20LF	14	90	96	37	10LF					
1	PLUG				7	PLUG				15	90	97	38	10LF					
2	TOWER 2				8	84	50	37	20LF	16	90	98	38	10LF					
3	PLUG				9	PLUG				17	90	99	38	10LF					
4	60	23	26	20LF	10	90	51	37	20LF	18	84	100	38	10LF					
5	PLUG				11	PLUG				19	84	101	38	10LF					
6	72	24	26	20LF	12	90	52	37	20LF	20	78	102	38	10LF					
7	PLUG				13	PLUG				21	78	103	39	10LF					
8	78	25	26	20LF	14	90	53	38	20LF	22	72	104	38	10LF					
9	PLUG				15	PLUG				23	72	105	39	10LF					
10	84	26	27	20LF	16	90	54	38	20LF	24	66	106	39	10LF					

**PRECIPITATION CHART FOR FULL CIRCLE**

WISH-119635

SEPTEMBER 29, 2025

DEALER - AQUA IRRIGATION

IRRIGATOR - RAY NIESLANIK

FIELD - N-2

TOTAL LENGTH PIPE = 1300.47    SYSTEM PRESSURE = 50 PSI  
GPM UNDER PIPE = 789.46        TOTAL GPM = 900.14  
ACRES UNDER PIPE = 121.97  
RANGE OF ENDGUN = 86.54  
GPM OF ENDGUN = 110.68  
ACRES UNDER ENDGUN = 16.77  
WATERING LENGTH = 1387.01

MOTOR SIZE (HP) = 3/4  
LOADED MOTOR RPM = 1750  
CENTER GEAR BOX RATIO = 40  
WHEEL GEAR BOX RATIO = 50  
TIRE SIZE = 12.4 X 38  
LAST TOWER SPEED (FPM) = 13.93

PRECIPITATION DATA FIGURED WITH ENDGUN RUNNING

PRECIPITATION BASED			% TIMER BASED		
PRECIPITATION INCHES	% TIMER SETTING	TIME HOURS	% TIMER SETTING	PRECIPITATION INCHES	TIME HOURS
.13	100.00	9.44 - 566(min)	100.00	.13	9.44 - 566(min)
.20	67.50	13.98	90.00	.15	10.49
.25	54.00	17.48	80.00	.17	11.80
.30	45.00	20.98	70.00	.19	13.48
.40	33.75	27.97	60.00	.22	15.73
.50	27.00	34.96	50.00	.27	18.88
.60	22.50	41.95	45.00	.30	20.98
.70	19.28	48.95	40.00	.34	23.60
.75	18.00	52.44	35.00	.39	26.97
.80	16.87	55.94	30.00	.45	31.46
.90	15.00	62.93	25.00	.54	37.76
1.00	13.50	69.92	20.00	.67	47.20
1.25	10.80	87.40	15.00	.90	62.93
1.50	9.00	104.89	10.00	1.35	94.39
1.75	7.71	122.37	5.00	2.70	188.78

CAUTION: The relationship between precipitation rate, timer setting, and hours per revolution provided above are theoretical numbers based on the data list at the top of the page. Actual precipitation rates may vary due to the following field and machine conditions: wind drift; evaporation; tire slippage, tire loaded radius; drive train efficiency; elevation changes; soil type. Due to these varying field and machine conditions the above chart should be used as a guide only.

DEALER - AQUA IRRIGATION

IRRIGATOR - RAY NIESLANIK  
FIELD - N-2

SPAN 1 <u>POS/LEN</u>	SPAN 2 <u>POS/LEN</u>	SPAN 3 <u>POS/LEN</u>	SPAN 4 <u>POS/LEN</u>	SPAN 5 <u>POS/LEN</u>	SPAN 6 <u>POS/LEN</u>	SPAN 7 <u>POS/LEN</u>	ENDBOOM <u>POS/LEN</u>
1 - 72	11 - 60	23 - 60	35 - 60	47 - 60	60 - 60	84 - 60	108 - 60
2 - 84	12 - 72	24 - 72	36 - 72	48 - 72	61 - 66	85 - 66	109 - 60
3 - 90	13 - 78	25 - 78	37 - 78	49 - 78	62 - 72	86 - 72	110 - 60
4 - 90	14 - 84	26 - 84	38 - 84	50 - 84	63 - 72	87 - 72	111 - 60
5 - 90	15 - 90	27 - 90	39 - 90	51 - 90	64 - 78	88 - 78	112 - 60
6 - 90	16 - 90	28 - 90	40 - 90	52 - 90	65 - 78	89 - 78	113 - 60
7 - 84	17 - 90	29 - 90	41 - 90	53 - 90	66 - 84	90 - 84	
8 - 78	18 - 90	30 - 90	42 - 90	54 - 90	67 - 84	91 - 84	
9 - 72	19 - 84	31 - 84	43 - 84	55 - 84	68 - 90	92 - 90	
10 - 66	20 - 78	32 - 78	44 - 78	56 - 78	69 - 90	93 - 90	
	21 - 72	33 - 72	45 - 72	57 - 72	70 - 90	94 - 90	
	22 - 66	34 - 66	46 - 66	58 - 66	71 - 90	95 - 90	
				59 - 60	72 - 90	96 - 90	
					73 - 90	97 - 90	
					74 - 90	98 - 90	
					75 - 90	99 - 90	
					76 - 84	100 - 84	
					77 - 84	101 - 84	
					78 - 78	102 - 78	
					79 - 78	103 - 78	
					80 - 72	104 - 72	
					81 - 72	105 - 72	
					82 - 66	106 - 66	
					83 - 60	107 - 60	

## SUMMARY OF DROPS

15 - 60 IN DROP  
 9 - 66 IN DROP  
 18 - 72 IN DROP  
 17 - 78 IN DROP  
 18 - 84 IN DROP  
 36 - 90 IN DROP

TOTAL OF 113 DROPS

POLY SENN GRAY FEMALE X PLASTIC MALE