

VALLEY PRO IRRIGATION

SEPTEMBER 23, 2025

WISH-119612

CUSTOMER : IMPERIAL BEEF

2025 VALLEY 8000 - 108 POLYLINE

7 TOWER - 1290.15 FT

SYSTEM 850 GPM @ 40 PSI

LEGAL : SOUTH TWIN

NELSON R3030 ROTATORS

NELSON 10 PSI REGULATORS

DUAL SR-100 .65 & NELSON R55 #70 YELLOW

ELEVATION 28 FT UP, 0 FT DOWN

1141 NORTH HIGHWAY 61
IMPERIAL, NEBRASKA 69033
(308)882-5660

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.

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DEALER

VALLEY PRO IRRIGATION
1141 NORTH HIGHWAY 61
IMPERIAL, NEBRASKA 69033

IRRIGATOR

IMPERIAL BEEF
SOUTH TWIN

TOTAL TARGET GPM	850.00	FRICTION FACTOR USED	140	SPANS	LENGTH	PIPE I.D.
TOP OF PIVOT PRESSURE	40.00	TOTAL LENGTH	1290.15	1	180.92	6.09
ENDGUN TARGET GPM	133.81	NUMBER OF TOWERS	7	5	180.18	6.09
NUMBER OF OUTLETS	151	NUMBER OF SPRINKLERS	132	1	179.91	6.09
				OH	28.42	6.09

NELSON R3030 ROTATORS - D10 OLIVE PLATES

NELSON BLUE TOP UNI FLO 10 PSI INTEGRAL SERIES REGULATORS

POLYFLEX DROPS AVERAGE 9 FT

ELEVATION IS 28 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.
3. This system designed for minimum pressure. Failure to deliver indicated pressure at the top of pivot point will adversely affect regulator and/or sprinkler/spray performance. Elevations, pipe sizes and type of drop pipe must be as shown.

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		5.40	-	-	-	-	-	-	-	-	1
2		14.40	-	-	-	-	-	-	-	-	2
3		23.40	-	-	-	-	-	-	-	-	3
4		32.40	-	-	-	-	-	-	-	-	4
5	41.40	41.40	1.09	1.16	38.50	11.89	R3030 14 LIME	1	NNB10LF	108	
6		50.42	-	-	-	-	-	-	-	-	5
7	18.02	59.42	1.11	1.16	37.92	11.89	R3030 14 LIME	2	NNB10LF	114	
8		68.42	-	-	-	-	-	-	-	-	6
9	18.00	77.42	1.20	1.16	37.45	11.88	R3030 14 LIME	3	NNB10LF	120	
10		86.42	-	-	-	-	-	-	-	-	7
11	17.94	95.36	1.47	1.52	37.08	11.76	R3030 16 LAVENDER	4	NNB10LF	120	
12		104.36	-	-	-	-	-	-	-	-	8
13	18.00	113.36	1.76	1.71	36.82	11.69	R3030 17 LAVENDER	5	NNB10LF	114	
14		122.36	-	-	-	-	-	-	-	-	9
15	18.00	131.36	2.03	2.12	36.67	11.54	R3030 19 GRAY	6	NNB10LF	108	
16		140.30	-	-	-	-	-	-	-	-	10
17	17.94	149.30	2.31	2.34	36.63	11.46	R3030 20 TURQUOISE	7	NNB10LF	102	
18		158.30	-	-	-	-	-	-	-	-	11
19	18.00	167.30	2.61	2.54	36.70	11.39	R3030 21 TURQUOISE	8	NNB10LF	90	
20		176.30	-	-	-	-	-	-	-	-	12
TOWER 1	180.92	180.92									
21	18.29	185.59	2.15	2.12	36.45	11.53	R3030 19 GRAY	9	NNB10LF	84	
22	9.00	194.59	1.51	1.52	36.14	11.73	R3030 16 LAVENDER	10	NNB10LF	90	
23	9.00	203.59	1.58	1.52	35.76	11.72	R3030 16 LAVENDER	11	NNB10LF	96	
24	9.00	212.59	1.65	1.71	35.41	11.66	R3030 17 LAVENDER	12	NNB10LF	102	
25	9.00	221.59	1.72	1.71	35.08	11.65	R3030 17 LAVENDER	13	NNB10LF	108	
26	9.02	230.61	1.79	1.71	34.79	11.65	R3030 17 LAVENDER	14	NNB10LF	108	
27	9.00	239.61	1.86	1.88	34.52	11.58	R3030 18 GRAY	15	NNB10LF	114	
28	9.00	248.61	1.92	1.88	34.28	11.58	R3030 18 GRAY	16	NNB10LF	114	
29	9.00	257.61	1.99	1.88	34.06	11.58	R3030 18 GRAY	17	NNB10LF	120	
30	9.00	266.61	2.06	2.11	33.88	11.50	R3030 19 GRAY	18	NNB10LF	120	
31	8.94	275.55	2.13	2.11	33.72	11.50	R3030 19 GRAY	19	NNB10LF	120	
32	9.00	284.55	2.20	2.11	33.59	11.49	R3030 19 GRAY	20	NNB10LF	120	
33	9.00	293.55	2.27	2.34	33.48	11.41	R3030 20 TURQUOISE	21	NNB10LF	114	
34	9.00	302.55	2.34	2.34	33.40	11.41	R3030 20 TURQUOISE	22	NNB10LF	114	
35	9.00	311.55	2.40	2.34	33.35	11.41	R3030 20 TURQUOISE	23	NNB10LF	108	
36	8.94	320.49	2.47	2.53	33.33	11.34	R3030 21 TURQUOISE	24	NNB10LF	108	
37	9.00	329.49	2.55	2.53	33.34	11.34	R3030 21 TURQUOISE	25	NNB10LF	102	
38	9.00	338.49	2.62	2.53	33.37	11.34	R3030 21 TURQUOISE	26	NNB10LF	96	
39	9.00	347.49	2.69	2.80	33.43	11.25	R3030 22 YELLOW	27	NNB10LF	90	
40	9.00	356.49	2.80	2.80	33.37	11.25	R3030 22 YELLOW	28	NNB10LF	84	
TOWER 2	180.18	361.10									
41	9.28	365.77	2.88	2.80	33.22	11.25	R3030 22 YELLOW	29	NNB10LF	84	
42	9.00	374.77	2.90	2.80	32.92	11.24	R3030 22 YELLOW	30	NNB10LF	90	
43	9.00	383.77	2.97	3.02	32.56	11.17	R3030 23 YELLOW	31	NNB10LF	96	
44	9.00	392.77	3.04	3.02	32.22	11.17	R3030 23 YELLOW	32	NNB10LF	102	
45	9.00	401.77	3.12	3.02	31.92	11.17	R3030 23 YELLOW	33	NNB10LF	108	
46	9.02	410.79	3.19	3.33	31.64	11.08	R3030 24 RED	34	NNB10LF	108	

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
47	9.00	419.79	3.25	3.33	31.39	11.08	R3030 24 RED	35	NNB10LF		114
48	9.00	428.79	3.32	3.33	31.16	11.08	R3030 24 RED	36	NNB10LF		114
49	9.00	437.79	3.39	3.33	30.97	11.08	R3030 24 RED	37	NNB10LF		120
50	9.00	446.79	3.45	3.33	30.80	11.08	R3030 24 RED	38	NNB10LF		120
51	8.94	455.73	3.52	3.58	30.66	11.02	R3030 25 RED	39	NNB10LF		120
52	9.00	464.73	3.60	3.58	30.55	11.02	R3030 25 RED	40	NNB10LF		120
53	9.00	473.73	3.67	3.58	30.47	11.02	R3030 25 RED	41	NNB10LF		114
54	9.00	482.73	3.74	3.87	30.41	10.96	R3030 26 WHITE	42	NNB10LF		114
55	9.00	491.73	3.80	3.87	30.38	10.96	R3030 26 WHITE	43	NNB10LF		108
56	8.94	500.67	3.86	3.87	30.38	10.96	R3030 26 WHITE	44	NNB10LF		108
57	9.00	509.67	3.95	3.87	30.41	10.96	R3030 26 WHITE	45	NNB10LF		102
58	9.00	518.67	4.02	4.14	30.47	10.90	R3030 27 WHITE	46	NNB10LF		96
59	9.00	527.67	4.09	4.14	30.55	10.90	R3030 27 WHITE	47	NNB10LF		90
60	9.00	536.67	4.22	4.14	30.52	10.89	R3030 27 WHITE	48	NNB10LF		84
TOWER 3	180.18	541.28									
61	9.28	545.95	4.29	4.14	30.38	10.89	R3030 27 WHITE	49	NNB10LF		84
62	9.00	554.95	4.30	4.14	30.11	10.89	R3030 27 WHITE	50	NNB10LF		90
63	9.00	563.95	4.37	4.49	29.78	10.81	R3030 28 BLUE	51	NNB10LF		96
64	9.00	572.95	4.44	4.49	29.47	10.81	R3030 28 BLUE	52	NNB10LF		102
65	9.00	581.95	4.51	4.49	29.19	10.81	R3030 28 BLUE	53	NNB10LF		108
66	9.02	590.97	4.58	4.49	28.93	10.81	R3030 28 BLUE	54	NNB10LF		108
67	9.00	599.97	4.65	4.79	28.71	10.74	R3030 29 BLUE	55	NNB10LF		114
68	9.00	608.97	4.72	4.79	28.51	10.74	R3030 29 BLUE	56	NNB10LF		114
69	9.00	617.97	4.79	4.79	28.34	10.74	R3030 29 BLUE	57	NNB10LF		120
70	9.00	626.97	4.84	4.79	28.20	10.74	R3030 29 BLUE	58	NNB10LF		120
71	8.94	635.91	4.91	4.79	28.09	10.73	R3030 29 BLUE	59	NNB10LF		120
72	9.00	644.91	5.00	5.10	28.01	10.66	R3030 30 DK BROWN	60	NNB10LF		120
73	9.00	653.91	5.06	5.10	27.95	10.66	R3030 30 DK BROWN	61	NNB10LF		114
74	9.00	662.91	5.13	5.10	27.93	10.66	R3030 30 DK BROWN	62	NNB10LF		114
75	9.00	671.91	5.19	5.10	27.93	10.65	R3030 30 DK BROWN	63	NNB10LF		108
76	8.94	680.85	5.26	5.39	27.96	10.59	R3030 31 DK BROWN	64	NNB10LF		108
77	9.00	689.85	5.34	5.39	28.01	10.58	R3030 31 DK BROWN	65	NNB10LF		102
78	9.00	698.85	5.41	5.39	28.10	10.58	R3030 31 DK BROWN	66	NNB10LF		96
79	9.00	707.85	5.48	5.39	28.21	10.58	R3030 31 DK BROWN	67	NNB10LF		90
80	9.00	716.85	5.64	5.76	28.21	10.48	R3030 32 ORANGE	68	NNB10LF		84
TOWER 4	180.18	721.46									
81	9.28	726.13	5.71	5.76	28.11	10.48	R3030 32 ORANGE	69	NNB10LF		84
82	9.00	735.13	5.69	5.76	27.87	10.48	R3030 32 ORANGE	70	NNB10LF		90
83	9.00	744.13	5.76	5.76	27.56	10.48	R3030 32 ORANGE	71	NNB10LF		96
84	9.00	753.13	5.83	5.76	27.28	10.48	R3030 32 ORANGE	72	NNB10LF		102
85	9.00	762.13	5.91	5.76	27.03	10.48	R3030 32 ORANGE	73	NNB10LF		108
86	9.02	771.15	5.98	6.11	26.81	10.38	R3030 33 ORANGE	74	NNB10LF		108
87	9.00	780.15	6.04	6.11	26.62	10.39	R3030 33 ORANGE	75	NNB10LF		114
88	9.00	789.15	6.11	6.11	26.45	10.38	R3030 33 ORANGE	76	NNB10LF		114
89	9.00	798.15	6.18	6.11	26.32	10.38	R3030 33 ORANGE	77	NNB10LF		120
90	9.00	807.15	6.23	6.11	26.21	10.38	R3030 33 ORANGE	78	NNB10LF		120
91	8.94	816.09	6.30	6.46	26.13	10.29	R3030 34 DK GREEN	79	NNB10LF		120
92	9.00	825.09	6.39	6.46	26.08	10.29	R3030 34 DK GREEN	80	NNB10LF		120

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
93	9.00	834.09	6.46	6.46	26.06	10.28	R3030 34 DK GREEN	81	NNB10LF		114
94	9.00	843.09	6.53	6.46	26.06	10.29	R3030 34 DK GREEN	82	NNB10LF		114
95	9.00	852.09	6.57	6.46	26.10	10.28	R3030 34 DK GREEN	83	NNB10LF		108
96	8.94	861.03	6.65	6.80	26.16	10.24	R3030 35 DK GREEN	84	NNB10LF		108
97	9.00	870.03	6.74	6.80	26.25	10.24	R3030 35 DK GREEN	85	NNB10LF		102
98	9.00	879.03	6.80	6.80	26.37	10.23	R3030 35 DK GREEN	86	NNB10LF		96
99	9.00	888.03	6.87	6.80	26.52	10.23	R3030 35 DK GREEN	87	NNB10LF		90
100	9.00	897.03	7.05	7.13	26.55	10.21	R3030 36 PURPLE	88	NNB10LF		84
TOWER 5	180.18	901.64									
101	9.28	906.31	7.12	7.13	26.48	10.21	R3030 36 PURPLE	89	NNB10LF		84
102	9.00	915.31	7.08	7.13	26.27	10.21	R3030 36 PURPLE	90	NNB10LF		90
103	9.00	924.31	7.15	7.13	26.00	10.21	R3030 36 PURPLE	91	NNB10LF		96
104	9.00	933.31	7.22	7.13	25.76	10.21	R3030 36 PURPLE	92	NNB10LF		102
105	9.00	942.31	7.30	7.13	25.54	10.20	R3030 36 PURPLE	93	NNB10LF		108
106	9.02	951.33	7.38	7.61	25.35	10.18	R3030 37 PURPLE	94	NNB10LF		108
107	9.00	960.33	7.43	7.61	25.19	10.18	R3030 37 PURPLE	95	NNB10LF		114
108	9.00	969.33	7.50	7.61	25.06	10.18	R3030 37 PURPLE	96	NNB10LF		114
109	9.00	978.33	7.56	7.61	24.96	10.18	R3030 37 PURPLE	97	NNB10LF		120
110	9.00	987.33	7.61	7.61	24.89	10.18	R3030 37 PURPLE	98	NNB10LF		120
111	8.94	996.27	7.68	7.61	24.84	10.18	R3030 37 PURPLE	99	NNB10LF		120
112	9.00	1005.27	7.77	7.61	24.82	10.18	R3030 37 PURPLE	100	NNB10LF		120
113	9.00	1014.27	7.85	8.03	24.84	10.16	R3030 38 BLACK	101	NNB10LF		114
114	9.00	1023.27	7.91	8.03	24.87	10.16	R3030 38 BLACK	102	NNB10LF		114
115	9.00	1032.27	7.95	8.03	24.94	10.16	R3030 38 BLACK	103	NNB10LF		108
116	8.94	1041.21	8.02	8.03	25.04	10.16	R3030 38 BLACK	104	NNB10LF		108
117	9.00	1050.21	8.11	8.03	25.16	10.16	R3030 38 BLACK	105	NNB10LF		102
118	9.00	1059.21	8.19	8.03	25.31	10.16	R3030 38 BLACK	106	NNB10LF		96
119	9.00	1068.21	8.26	8.48	25.49	10.14	R3030 39 BLACK	107	NNB10LF		90
120	9.00	1077.21	8.45	8.48	25.55	10.14	R3030 39 BLACK	108	NNB10LF		84
TOWER 6	180.18	1081.82									
121	9.28	1086.49	8.52	8.48	25.52	10.14	R3030 39 BLACK	109	NNB10LF		84
122	9.00	1095.49	8.46	8.48	25.34	10.14	R3030 39 BLACK	110	NNB10LF		90
123	9.00	1104.49	8.53	8.48	25.10	10.14	R3030 39 BLACK	111	NNB10LF		96
124	9.00	1113.49	8.61	8.48	24.89	10.14	R3030 39 BLACK	112	NNB10LF		102
125	9.00	1122.49	8.69	8.48	24.71	10.14	R3030 39 BLACK	113	NNB10LF		108
126	9.02	1131.51	8.77	8.90	24.55	10.12	R3030 40 DK TURQ	114	NNB10LF		108
127	9.00	1140.51	8.82	8.90	24.42	10.12	R3030 40 DK TURQ	115	NNB10LF		114
128	9.00	1149.51	8.89	8.90	24.32	10.12	R3030 40 DK TURQ	116	NNB10LF		114
129	9.00	1158.51	8.96	8.90	24.25	10.12	R3030 40 DK TURQ	117	NNB10LF		120
130	9.00	1167.51	9.00	8.90	24.21	10.12	R3030 40 DK TURQ	118	NNB10LF		120
131	8.94	1176.45	9.08	8.90	24.19	10.12	R3030 40 DK TURQ	119	NNB10LF		120
132	9.00	1185.45	9.19	9.42	24.20	10.11	R3030 41 DK TURQ	120	NNB10LF		120
133	9.00	1194.45	9.24	9.42	24.24	10.11	R3030 41 DK TURQ	121	NNB10LF		114
134	9.00	1203.45	9.29	9.42	24.31	10.11	R3030 41 DK TURQ	122	NNB10LF		114
135	9.00	1212.45	9.32	9.42	24.40	10.11	R3030 41 DK TURQ	123	NNB10LF		108
136	8.94	1221.39	9.38	9.42	24.53	10.11	R3030 41 DK TURQ	124	NNB10LF		108
137	9.00	1230.39	9.47	9.42	24.68	10.11	R3030 41 DK TURQ	125	NNB10LF		102
138	9.00	1239.39	9.55	9.42	24.86	10.11	R3030 41 DK TURQ	126	NNB10LF		96

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
139	9.00	1248.39	9.64	9.42	25.06	10.11	R3030 41 DK TURQ	127	NNB10LF		90
140	9.00	1257.39	9.31	9.42	25.15	10.11	R3030 41 DK TURQ	128	NNB10LF		84
TOWER 7	179.91	1261.73									
141		1263.07	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	13	
142	8.18	1265.57	8.53	8.47	25.14	10.13	R3030 39 BLACK	129	NNB10LF		84
143		1268.07	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	14	
144		1270.57	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	15	
145	7.50	1273.07	8.23	8.03	25.14	10.14	R3030 38 BLACK	130	NNB10LF		84
146		1275.57	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	16	
147		1278.07	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	17	
148	7.50	1280.57	8.39	8.47	25.14	10.13	R3030 39 BLACK	131	NNB10LF		84
149		1283.07	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	18	
150		1285.57	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	19	
151	7.50	1288.07	8.42	8.47	25.14	10.13	R3030 39 BLACK	132	NNB10LF		84
OVERHANG	28.42	1290.15		132.63	ENDGUN	(2) SR-100 .65 & NELSON R55 #70 YELLOW					
							ENDGUNS OPERATE SIMULTANEOUSLY				
							SECOND ENDGUN IS NOT BOOSTED				
							VALLEY 2HP BOOSTER PUMP				

BOOSTER PUMP AT TOWER ADDS 34.26 PSI TO PIPE PRESSURE FOR A PRESSURE OF 58.04 PSI
 FRICTION LOSS THROUGH ENDGUN VALVE IS 4.69 PSI - ENDGUN PRESSURE IS 53.35 PSI

TOTAL GPM = 850.83

GPA = 5.97

MINIMUM RECOMMENDED REGULATOR INLET PRESSURE IS 15.00 PSI
 WITH GRADUATED ELEVATION OF 28.00 FT THE INLET PRESSURE IS 15.38 PSI FOR SPRINKLER 132
 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	2.36	14.08	14.16	1%	6.00	0.013	0.48	0.64	0.80
2	7.04	42.02	42.00	0%	5.96	0.013	0.47	0.63	0.79
3	11.73	69.96	69.96	0%	5.97	0.013	0.47	0.63	0.79
4	16.41	97.90	97.91	0%	5.97	0.013	0.47	0.63	0.79
5	21.09	125.83	126.01	0%	5.97	0.013	0.48	0.63	0.79
6	25.77	153.77	154.07	0%	5.98	0.013	0.48	0.63	0.79
7	30.41	181.42	180.67	0%	5.94	0.013	0.47	0.63	0.79
OVERHANG	5.23	31.21	33.41	7%	6.39	0.014	0.51	0.68	0.85
ENDGUN	18.10	133.81	132.63	23%	7.33				
TOTAL	138.14	850.00	850.83		6.16				

SUMMARY OF SPRINKLERS

3 R3030 14 LIME
3 R3030 16 LAVENDER
4 R3030 17 LAVENDER
3 R3030 18 GRAY
5 R3030 19 GRAY
4 R3030 20 TURQUOISE
4 R3030 21 TURQUOISE
4 R3030 22 YELLOW
3 R3030 23 YELLOW
5 R3030 24 RED
3 R3030 25 RED
4 R3030 26 WHITE
5 R3030 27 WHITE
4 R3030 28 BLUE
5 R3030 29 BLUE
4 R3030 30 DK BROWN
4 R3030 31 DK BROWN
6 R3030 32 ORANGE
5 R3030 33 ORANGE
5 R3030 34 DK GREEN
4 R3030 35 DK GREEN
6 R3030 36 PURPLE
7 R3030 37 PURPLE
7 R3030 38 BLACK
10 R3030 39 BLACK
6 R3030 40 DK TURQ
9 R3030 41 DK TURQ

19 PLUGS**SUMMARY OF DROPS**

16 84 IN DROP
13 90 IN DROP
12 96 IN DROP
13 102 IN DROP
26 108 IN DROP
26 114 IN DROP
26 120 IN DROP

TOTAL OF 132 DROPS**SUMMARY OF REGULATORS**

132 Nelson Blue Int Uni Flo 10 psi

TOTAL OF 132 REGULATORS

NOZZLE POSITION CHART

R3030 14 LIME	1, 2, 3
R3030 16 LAVENDER	4, 10, 11
R3030 17 LAVENDER	5, 12, 13, 14
R3030 18 GRAY	15, 16, 17
R3030 19 GRAY	6, 9, 18, 19, 20
R3030 20 TURQUOISE	7, 21, 22, 23
R3030 21 TURQUOISE	8, 24, 25, 26
R3030 22 YELLOW	27, 28, 29, 30
R3030 23 YELLOW	31, 32, 33
R3030 24 RED	34, 35, 36, 37, 38
R3030 25 RED	39, 40, 41
R3030 26 WHITE	42, 43, 44, 45
R3030 27 WHITE	46, 47, 48, 49, 50
R3030 28 BLUE	51, 52, 53, 54
R3030 29 BLUE	55, 56, 57, 58, 59
R3030 30 DK BROWN	60, 61, 62, 63
R3030 31 DK BROWN	64, 65, 66, 67
R3030 32 ORANGE	68, 69, 70, 71, 72, 73
R3030 33 ORANGE	74, 75, 76, 77, 78
R3030 34 DK GREEN	79, 80, 81, 82, 83
R3030 35 DK GREEN	84, 85, 86, 87
R3030 36 PURPLE	88, 89, 90, 91, 92, 93
R3030 37 PURPLE	94, 95, 96, 97, 98, 99, 100
R3030 38 BLACK	101,102,103,104,105,106,130
R3030 39 BLACK	107,108,109,110,111,112,113,129,131,132
R3030 40 DK TURQ	114,115,116,117,118,119
R3030 41 DK TURQ	120,121,122,123,124,125,126,127,128

VALLEY PRO IRRIGATION

1141 NORTH HIGHWAY 61
IMPERIAL, NEBRASKA 69033

SEPTEMBER 23, 2025
WISH-119612
IMPERIAL BEEF
SOUTH TWIN

2025 VALLEY 8000 - 108 POLYLINE
NELSON R3030 ROTATORS
NELSON 10 PSI REGULATORS
POLYFLEX DROPS
SR-100 .65 & NELSON R55 #70 YELLOW

Rotation time at 100% = 13.32 Hours Or 799 minutes

850 GPM @ 40 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
1	PLUG				19	90	47	27	10LF	16	108	104	38	10LF
2	PLUG				20	84	48	27	10LF	17	102	105	38	10LF
3	PLUG				TOWER 3					18	96	106	38	10LF
4	PLUG	1	14	10LF	1	84	49	27	10LF	19	90	107	39	10LF
5	108	1	14	10LF	2	90	50	27	10LF	20	84	108	39	10LF
6	PLUG	3	14	10LF	3	96	51	28	10LF	TOWER 6				
7	114	2	14	10LF	4	102	52	28	10LF	1	84	109	39	10LF
8	PLUG	5	14	10LF	5	108	53	28	10LF	2	90	110	39	10LF
9	120	3	14	10LF	6	108	54	28	10LF	3	96	111	39	10LF
10	PLUG	7	14	10LF	7	114	55	29	10LF	4	102	112	39	10LF
11	120	4	16	10LF	8	114	56	29	10LF	5	108	113	39	10LF
12	PLUG	9	120	57	29	10LF	6	108	114	40	10LF			
13	114	5	17	10LF	10	120	58	29	10LF	7	114	115	40	10LF
14	PLUG	11	120	59	29	10LF	8	114	116	40	10LF			
15	108	6	19	10LF	12	120	60	30	10LF	9	120	117	40	10LF
16	PLUG	13	114	61	30	10LF	10	120	118	40	10LF			
17	102	7	20	10LF	14	114	62	30	10LF	11	120	119	40	10LF
18	PLUG	15	108	63	30	10LF	12	120	120	41	10LF			
19	90	8	21	10LF	16	108	64	31	10LF	13	114	121	41	10LF
20	PLUG	17	102	65	31	10LF	14	114	122	41	10LF			
TOWER 1					18	96	66	31	10LF	15	108	123	41	10LF
1	84	9	19	10LF	19	90	67	31	10LF	16	108	124	41	10LF
2	90	10	16	10LF	20	84	68	32	10LF	17	102	125	41	10LF
3	96	11	16	10LF	TOWER 4					18	96	126	41	10LF
4	102	12	17	10LF	1	84	69	32	10LF	19	90	127	41	10LF
5	108	13	17	10LF	2	90	70	32	10LF	20	84	128	41	10LF
6	108	14	17	10LF	3	96	71	32	10LF	TOWER 7				
7	114	15	18	10LF	4	102	72	32	10LF	1	PLUG			
8	114	16	18	10LF	5	108	73	32	10LF	2	84	129	39	10LF
9	120	17	18	10LF	6	108	74	33	10LF	3	PLUG			
10	120	18	19	10LF	7	114	75	33	10LF	4	PLUG			
11	120	19	19	10LF	8	114	76	33	10LF	5	84	130	38	10LF
12	120	20	19	10LF	9	120	77	33	10LF	6	PLUG			
13	114	21	20	10LF	10	120	78	33	10LF	7	PLUG			
14	114	22	20	10LF	11	120	79	34	10LF	8	84	131	39	10LF
15	108	23	20	10LF	12	120	80	34	10LF	9	PLUG			
16	108	24	21	10LF	13	114	81	34	10LF	10	PLUG			
17	102	25	21	10LF	14	114	82	34	10LF	11	84	132	39	10LF
18	96	26	21	10LF	15	108	83	34	10LF					
19	90	27	22	10LF	16	108	84	35	10LF					
20	84	28	22	10LF	17	102	85	35	10LF					
TOWER 2					18	96	86	35	10LF					
1	84	29	22	10LF	19	90	87	35	10LF					
2	90	30	22	10LF	20	84	88	36	10LF					
3	96	31	23	10LF	TOWER 5									
4	102	32	23	10LF	1	84	89	36	10LF					
5	108	33	23	10LF	2	90	90	36	10LF					
6	108	34	24	10LF	3	96	91	36	10LF					
7	114	35	24	10LF	4	102	92	36	10LF					
8	114	36	24	10LF	5	108	93	36	10LF					
9	120	37	24	10LF	6	108	94	37	10LF					
10	120	38	24	10LF	7	114	95	37	10LF					
11	120	39	25	10LF	8	114	96	37	10LF					
12	120	40	25	10LF	9	120	97	37	10LF					
13	114	41	25	10LF	10	120	98	37	10LF					
14	114	42	26	10LF	11	120	99	37	10LF					
15	108	43	26	10LF	12	120	100	37	10LF					
16	108	44	26	10LF	13	114	101	38	10LF					
17	102	45	26	10LF	14	114	102	38	10LF					
18	96	46	27	10LF	15	108	103	38	10LF					

PRECIPITATION CHART FOR FULL CIRCLE

WISH-119612

SEPTEMBER 23, 2025

DEALER - VALLEY PRO IRRIGATION

IRRIGATOR - IMPERIAL BEEF
FIELD - SOUTH TWIN

TOTAL LENGTH PIPE = 1290.15 SYSTEM PRESSURE = 40 PSI
 GPM UNDER PIPE = 718.20 TOTAL GPM = 850.83
 ACRES UNDER PIPE = 120.04
 RANGE OF ENDGUN = 93.83 RUN FOR MINIMUM PRESSURE
 GPM OF ENDGUN = 132.63
 ACRES UNDER ENDGUN = 18.10
 WATERING LENGTH = 1383.98

MOTOR SIZE (HP) = .6
 LOADED MOTOR RPM = 1800
 CENTER GEAR BOX RATIO = 53
 WHEEL GEAR BOX RATIO = 52
 TIRE SIZE = 13.6 X 38
 LAST TOWER SPEED (FPM) = 9.92

PRECIPITATION DATA FIGURED WITH ENDGUN RUNNING

PRECIPITATION BASED**% TIMER BASED**

PRECIPITATION INCHES	% TIMER SETTING	TIME HOURS	% TIMER SETTING	PRECIPITATION INCHES	TIME HOURS
.18	100.00	13.32 - 799(min)	100.00	.18	13.32 - 799(min)
.20	88.04	15.13	90.00	.20	14.80
.25	70.43	18.91	80.00	.22	16.65
.30	58.69	22.69	70.00	.25	19.03
.40	44.02	30.26	60.00	.29	22.20
.50	35.21	37.82	50.00	.35	26.64
.60	29.35	45.39	45.00	.39	29.60
.70	25.15	52.95	40.00	.44	33.30
.75	23.48	56.74	35.00	.50	38.06
.80	22.01	60.52	30.00	.59	44.40
.90	19.56	68.08	25.00	.70	53.28
1.00	17.61	75.65	20.00	.88	66.60
1.25	14.09	94.56	15.00	1.17	88.80
1.50	11.74	113.47	10.00	1.76	133.19
1.75	10.06	132.38	5.00	3.52	266.39

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 - VALLEY PRO IRRIGATION

IRRIGATOR - IMPERIAL BEEF
FIELD - SOUTH TWIN

SPAN 1 POS/LEN	SPAN 2 POS/LEN	SPAN 3 POS/LEN	SPAN 4 POS/LEN	SPAN 5 POS/LEN	SPAN 6 POS/LEN	SPAN 7 POS/LEN	ENDBOOM POS/LEN
1 - 108	9 - 84	29 - 84	49 - 84	69 - 84	89 - 84	109 - 84	129 - 84
2 - 114	10 - 90	30 - 90	50 - 90	70 - 90	90 - 90	110 - 90	130 - 84
3 - 120	11 - 96	31 - 96	51 - 96	71 - 96	91 - 96	111 - 96	131 - 84
4 - 120	12 - 102	32 - 102	52 - 102	72 - 102	92 - 102	112 - 102	132 - 84
5 - 114	13 - 108	33 - 108	53 - 108	73 - 108	93 - 108	113 - 108	
6 - 108	14 - 108	34 - 108	54 - 108	74 - 108	94 - 108	114 - 108	
7 - 102	15 - 114	35 - 114	55 - 114	75 - 114	95 - 114	115 - 114	
8 - 90	16 - 114	36 - 114	56 - 114	76 - 114	96 - 114	116 - 114	
	17 - 120	37 - 120	57 - 120	77 - 120	97 - 120	117 - 120	
	18 - 120	38 - 120	58 - 120	78 - 120	98 - 120	118 - 120	
	19 - 120	39 - 120	59 - 120	79 - 120	99 - 120	119 - 120	
	20 - 120	40 - 120	60 - 120	80 - 120	100 - 120	120 - 120	
	21 - 114	41 - 114	61 - 114	81 - 114	101 - 114	121 - 114	
	22 - 114	42 - 114	62 - 114	82 - 114	102 - 114	122 - 114	
	23 - 108	43 - 108	63 - 108	83 - 108	103 - 108	123 - 108	
	24 - 108	44 - 108	64 - 108	84 - 108	104 - 108	124 - 108	
	25 - 102	45 - 102	65 - 102	85 - 102	105 - 102	125 - 102	
	26 - 96	46 - 96	66 - 96	86 - 96	106 - 96	126 - 96	
	27 - 90	47 - 90	67 - 90	87 - 90	107 - 90	127 - 90	
	28 - 84	48 - 84	68 - 84	88 - 84	108 - 84	128 - 84	

SUMMARY OF DROPS

16 - 84 IN DROP - 78
 13 - 90 IN DROP - 84
 12 - 96 IN DROP - 90
 13 - 102 IN DROP - 96
 26 - 108 IN DROP - 102
 26 - 114 IN DROP - 108
 26 - 120 IN DROP - 114

TOTAL OF 132 DROPS