

WESTERN KANSAS IRRIGATION

SEPTEMBER 26, 2025

WISH-119620

CUSTOMER : ALFALFA FARMS

VALLEY 6000 - 30
8 TOWER - 1299.78 FT
SYSTEM 900 GPM @ 38 PSI

P.O. NO. : INV170075

VALLEY SPRAY NOZZLES
NO REGULATORS
NELSON P85AS 11/16
ELEVATION 0 FT UP, 0 FT DOWN

2707 JONES AVENUE
GARDEN CITY, KANSAS 67846
(620)276-8257

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.

VALLEY 6000 - 30

SEPTEMBER 26, 2025

WISH-119620

DEALER

WESTERN KANSAS IRRIGATION
2707 JONES AVENUE
GARDEN CITY, KANSAS 67846

IRRIGATOR

ALFALFA FARMS

INV170075

TOTAL TARGET GPM	900.00	FRICTION FACTOR USED	140	SPANS	LENGTH	PIPE I.D.
TOP OF PIVOT PRESSURE	38.00	TOTAL LENGTH	1299.78	1	161.50	6.415
ENDGUN TARGET GPM	66.50	NUMBER OF TOWERS	8	7	160.00	6.415
NUMBER OF OUTLETS	519	NUMBER OF SPRINKLERS	131	OH	18.28	6.415

VALLEY SPRAY NOZZLES - FLAT GROOVED PADS

NO REGULATORS

DROPS AVERAGE 6.5 FT OF 3/4 INCH SCHEDULE 40 GALVANIZED PIPE

ELEVATION IS 0 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.
96		239.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	72
97		241.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	73
98	10.00	244.20	2.37	2.32	33.05	36.00	VALLEY SPRAY 8	25	- - - - -	- - - - -
99		246.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	74
100		249.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	75
101		251.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	76
102	10.00	254.20	2.46	2.32	32.93	35.87	VALLEY SPRAY 8	26	- - - - -	- - - - -
103		256.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	77
104		259.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	78
105		261.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	79
106	10.00	264.20	2.56	2.32	32.84	35.79	VALLEY SPRAY 8	27	- - - - -	- - - - -
107		266.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	80
108		269.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	81
109		271.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	82
110	10.00	274.20	2.66	2.82	32.79	35.49	VALLEY SPRAY 9	28	- - - - -	- - - - -
111		276.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	83
112		279.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	84
113		281.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	85
114	10.00	284.20	2.75	2.82	32.78	35.49	VALLEY SPRAY 9	29	- - - - -	- - - - -
115		286.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	86
116		289.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	87
117		291.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	88
118	10.00	294.20	2.85	2.81	32.81	35.31	VALLEY SPRAY 9	30	- - - - -	- - - - -
119		296.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	89
120		299.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	90
121		301.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	91
122	10.00	304.20	2.95	2.80	32.88	35.16	VALLEY SPRAY 9	31	- - - - -	- - - - -
123		306.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	92
124		309.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	93
125		311.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	94
126	10.00	314.20	3.05	2.80	32.95	35.02	VALLEY SPRAY 9	32	- - - - -	- - - - -
127		316.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	95
128		319.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	96
TOWER 2	160.00	321.50	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	-
129		321.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	97
130	10.00	324.20	3.14	3.38	32.80	34.83	VALLEY SPRAY 10	33	- - - - -	- - - - -
131		326.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	98
132		329.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	99
133		331.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	100
134	10.00	334.20	3.24	3.38	32.51	34.75	VALLEY SPRAY 10	34	- - - - -	- - - - -
135		336.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	101
136		339.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	102
137		341.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	103
138	10.00	344.20	3.34	3.37	32.13	34.58	VALLEY SPRAY 10	35	- - - - -	- - - - -
139		346.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	104
140		349.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	105
141		351.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	106
142	10.00	354.20	3.43	3.35	31.79	34.24	VALLEY SPRAY 10	36	- - - - -	- - - - -

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.
143		356.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	107
144		359.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	108
145		361.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	109
146	10.00	364.20	3.53	3.35	31.49	34.15	VALLEY SPRAY 10	37	- - - - -	110
147		366.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	111
148		369.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	112
149		371.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	113
150	10.00	374.20	3.63	3.34	31.22	33.88	VALLEY SPRAY 10	38	- - - - -	114
151		376.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	115
152		379.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	116
153		381.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	117
154	10.00	384.20	3.73	4.03	31.00	33.80	VALLEY SPRAY 11	39	- - - - -	118
155		386.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	119
156		389.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	120
157		391.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	121
158	10.00	394.20	3.82	4.02	30.82	33.62	VALLEY SPRAY 11	40	- - - - -	122
159		396.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	123
160		399.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	124
161		401.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	125
162	10.00	404.20	3.92	4.01	30.67	33.47	VALLEY SPRAY 11	41	- - - - -	126
163		406.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	127
164		409.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	128
165		411.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	129
166	10.00	414.20	4.01	4.01	30.56	33.37	VALLEY SPRAY 11	42	- - - - -	130
167		416.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	131
168		419.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	132
169		421.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	133
170	10.00	424.20	4.11	4.00	30.49	33.30	VALLEY SPRAY 11	43	- - - - -	134
171		426.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	135
172		429.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	136
173		431.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	137
174	10.00	434.20	4.21	3.99	30.46	33.06	VALLEY SPRAY 11	44	- - - - -	138
175		436.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	139
176		439.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	140
177		441.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	141
178	10.00	444.20	4.31	3.99	30.47	33.07	VALLEY SPRAY 11	45	- - - - -	142
179		446.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	143
180		449.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	144
181		451.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	145
182	10.00	454.20	4.41	3.98	30.52	32.92	VALLEY SPRAY 11	46	- - - - -	146
183		456.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	147
184		459.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	148
185		461.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	149
186	10.00	464.20	4.51	4.95	30.61	32.70	VALLEY SPRAY 12	47	- - - - -	150
187		466.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	151
188		469.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	152
189		471.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	153
190	10.00	474.20	4.60	4.94	30.69	32.59	VALLEY SPRAY 12	48	- - - - -	154

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.
380		949.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	285
381		951.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	286
382	10.00	954.20	9.23	9.05	26.34	27.68	VALLEY SPRAY 17	96	- - - - -	- - - - -
383		956.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	287
384		959.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	288
TOWER 6	160.00	961.50	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
385		961.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	289
386	10.00	964.20	9.33	9.04	26.29	27.63	VALLEY SPRAY 17	97	- - - - -	- - - - -
387		966.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	290
388		969.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	291
389		971.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	292
390	10.00	974.20	9.44	9.04	26.10	27.61	VALLEY SPRAY 17	98	- - - - -	- - - - -
391		976.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	293
392		979.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	294
393		981.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	295
394	10.00	984.20	9.55	9.94	25.83	27.32	VALLEY SPRAY 18	99	- - - - -	- - - - -
395		986.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	296
396		989.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	297
397		991.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	298
398	10.00	994.20	9.63	9.90	25.59	27.10	VALLEY SPRAY 18	100	- - - - -	- - - - -
399		996.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	299
400		999.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	300
401		1001.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	301
402	10.00	1004.20	9.72	9.89	25.40	27.06	VALLEY SPRAY 18	101	- - - - -	- - - - -
403		1006.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	302
404		1009.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	303
405		1011.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	304
406	10.00	1014.20	9.81	9.87	25.24	26.91	VALLEY SPRAY 18	102	- - - - -	- - - - -
407		1016.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	305
408		1019.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	306
409		1021.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	307
410	10.00	1024.20	9.91	9.88	25.12	26.96	VALLEY SPRAY 18	103	- - - - -	- - - - -
411		1026.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	308
412		1029.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	309
413		1031.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	310
414	10.00	1034.20	10.01	9.86	25.05	26.88	VALLEY SPRAY 18	104	- - - - -	- - - - -
415		1036.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	311
416		1039.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	312
417		1041.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	313
418	10.00	1044.20	10.11	9.85	25.01	26.85	VALLEY SPRAY 18	105	- - - - -	- - - - -
419		1046.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	314
420		1049.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	315
421		1051.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	316
422	10.00	1054.20	10.21	9.86	25.01	26.85	VALLEY SPRAY 18	106	- - - - -	- - - - -
423		1056.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	317
424		1059.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	318
425		1061.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	319
426	10.00	1064.20	10.32	9.86	25.05	26.89	VALLEY SPRAY 18	107	- - - - -	- - - - -

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.
474		10.00	1184.20	11.49	11.00	24.75	26.33	VALLEY SPRAY 19		119
475			1186.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	356
476			1189.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	357
477			1191.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	358
478	10.00		1194.20	11.63	12.15	24.70	25.96	VALLEY SPRAY 20		120
479			1196.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	359
480			1199.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	360
481			1201.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	361
482	10.00		1204.20	11.68	12.14	24.68	25.95	VALLEY SPRAY 20		121
483			1206.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	362
484			1209.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	363
485			1211.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	364
486	10.00		1214.20	11.72	12.15	24.71	25.97	VALLEY SPRAY 20		122
487			1216.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	365
488			1219.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	366
489			1221.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	367
490	10.00		1224.20	11.77	12.16	24.77	26.03	VALLEY SPRAY 20		123
491			1226.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	368
492			1229.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	369
493			1231.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	370
494	10.00		1234.20	11.81	12.16	24.87	26.00	VALLEY SPRAY 20		124
495			1236.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	371
496			1239.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	372
497			1241.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	373
498	10.00		1244.20	11.85	12.19	25.01	26.13	VALLEY SPRAY 20		125
499			1246.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	374
500			1249.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	375
501			1251.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	376
502	10.00		1254.20	11.88	12.20	25.18	26.17	VALLEY SPRAY 20		126
503			1256.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	377
504			1259.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	378
505			1261.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	379
506	10.00		1264.20	11.90	12.21	25.40	26.25	VALLEY SPRAY 20		127
507			1266.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	380
508			1269.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	381
509			1271.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	382
510	10.00		1274.20	11.89	12.23	25.61	26.33	VALLEY SPRAY 20		128
511			1276.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	383
512			1279.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	384
TOWER 8	160.00		1281.50	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	
513			1281.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	385
514	10.00		1284.20	11.82	12.23	25.61	26.33	VALLEY SPRAY 20		129
515			1286.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	386
516			1289.20	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	387
517			1291.70	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	388
518	10.00		1294.20	7.19	6.88	25.61	27.27	VALLEY SPRAY 15		130
519	2.50		1296.70	7.35	6.88	25.61	27.27	VALLEY SPRAY 15		131
		DRAIN-SANDTRAP		12.30	11.89			F SPRAY 19 BLACK		

OVERHANG 18.28 1299.78

65.82 ENDGUN (1) NELSON P85AS 11/16

THERE IS NO BOOSTER PUMP

TOTAL GPM = 900.49

GPA = 6.74

THIS SYSTEM WILL ALSO DELIVER :

	PSI - 10%	PSI	PSI + 10%
PIVOT PRESSURE	34.20	38.00	41.80
TOTAL GPM	810.44	900.49	944.44
ENDGUN GPM	63.73	65.82	69.15
END PRESSURE	24.00	25.61	28.26
PRESSURE LOSS	10.20	12.39	13.54

HYDRAULICS SUMMARY

TOWER NUMBER	ACRES UNDER SPAN	GPM <u>NEED</u>	ACTUAL GPM	PERCENT DEVIATION	GPM PER ACRE	AVERAGE IN. PER HR DELIVERED <u>UNDER SPAN</u>	AVERAGE IN. DELIVERED FOR REVOLUTION TIME		
							36 HR	48 HR	60 HR
1	1.88	12.68	15.23	20%	8.10	0.018	0.64	0.86	1.07
2	5.57	37.56	37.08	-1%	6.65	0.015	0.53	0.71	0.88
3	9.27	62.45	62.38	0%	6.73	0.015	0.54	0.71	0.89
4	12.96	87.34	87.38	0%	6.74	0.015	0.54	0.72	0.89
5	16.65	112.23	111.84	0%	6.72	0.015	0.53	0.71	0.89
6	20.34	137.11	136.95	0%	6.73	0.015	0.54	0.71	0.89
7	24.04	162.00	161.62	0%	6.72	0.015	0.53	0.71	0.89
8	27.73	186.89	187.11	0%	6.75	0.015	0.54	0.72	0.89
OVERHANG	3.40	22.94	23.18	1%	6.81	0.015	0.54	0.72	0.90
ENDGUN	9.91	66.50	65.82	-1%	6.64				
TOTAL	131.75	887.70	888.60		6.74				

SUMMARY OF SPRINKLERS

11 VALLEY SPRAY 5
5 VALLEY SPRAY 6
5 VALLEY SPRAY 7
6 VALLEY SPRAY 8
5 VALLEY SPRAY 9
6 VALLEY SPRAY 10
8 VALLEY SPRAY 11
8 VALLEY SPRAY 12
7 VALLEY SPRAY 13
8 VALLEY SPRAY 14
11 VALLEY SPRAY 15
10 VALLEY SPRAY 16
10 VALLEY SPRAY 17
10 VALLEY SPRAY 18
11 VALLEY SPRAY 19
10 VALLEY SPRAY 20

388 PLUGS

NOZZLE POSITION CHART

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

WESTERN KANSAS IRRIGATION

2707 JONES AVENUE
GARDEN CITY, KANSAS 67846

SEPTEMBER 26, 2025
WISH-119620
ALFALFA FARMS

VALLEY 6000 - 30
VALLEY SPRAY NOZZLES
NO REGULATORS
3/4 INCH SCHEDULE 40 GALVANIZED PIPE
NELSON P85AS 11/16

Rotation time at 100% = 21.20 Hours Or 1272 minutes

900 GPM @ 38 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	Out #	Drop Len	Sprk #	Noz Size	Reg
1	PLUG				61	PLUG				56	PLUG				51	PLUG				46				
2		1	5		62		16	6		57	PLUG				52	PLUG				47	PLUG			
3	PLUG				63	PLUG				58		31	9		53	PLUG				48	PLUG			
4	PLUG				64	PLUG				59	PLUG				54		46	11		49	PLUG			
5	PLUG				TOWER 1					60	PLUG				55	PLUG				50				
6	PLUG	2	5		1	PLUG				61	PLUG				56	PLUG				51	PLUG			
7	PLUG				2		17	7		62		32	9		57	PLUG				52	PLUG			
8	PLUG				3	PLUG				63	PLUG				58		47	12		53	PLUG			
9	PLUG				4	PLUG				64	PLUG				59	PLUG				54				
10	PLUG	3	5		5	PLUG				TOWER 2					60	PLUG				55	PLUG			
11	PLUG				6		18	7		1	PLUG				61	PLUG				56	PLUG			
12	PLUG				7	PLUG				2		33	10		62		48	12		57	PLUG			
13	PLUG				8	PLUG				3	PLUG				63	PLUG				58				
14	PLUG	4	5		9	PLUG				4	PLUG				64	PLUG				59				
15	PLUG				10		19	7		5	PLUG				TOWER 3					60	PLUG			
16	PLUG				11	PLUG				6		34	10		1	PLUG				61	PLUG			
17	PLUG				12	PLUG				7	PLUG				2		49	12		62				
18	PLUG	5	5		13	PLUG				8	PLUG				3	PLUG				63	PLUG			
19	PLUG				14		20	7		9	PLUG				4	PLUG				64	PLUG			
20	PLUG				15	PLUG				10		35	10		5	PLUG				TOWER 4				
21	PLUG				16	PLUG				11	PLUG				6		50	12		1				
22	PLUG	6	5		17	PLUG				12	PLUG				7	PLUG				2				
23	PLUG				18		21	7		13	PLUG				8	PLUG				3				
24	PLUG				19	PLUG				14		36	10		9	PLUG				4				
25	PLUG				20	PLUG				15	PLUG				10		51	12		5	PLUG			
26	PLUG	7	5		21	PLUG				16	PLUG				11	PLUG				6				
27	PLUG				22		22	8		17	PLUG				12	PLUG				7	PLUG			
28	PLUG				23	PLUG				18		37	10		13	PLUG				8	PLUG			
29	PLUG				24	PLUG				19	PLUG				14		52	12		9	PLUG			
30	PLUG	8	5		25	PLUG				20	PLUG				15	PLUG				10				
31	PLUG				26		23	8		21	PLUG				16	PLUG				11	PLUG			
32	PLUG				27	PLUG				22		38	10		17	PLUG				12	PLUG			
33	PLUG				28	PLUG				23	PLUG				18		53	12		13	PLUG			
34	PLUG	9	5		29	PLUG				24	PLUG				19	PLUG				14				
35	PLUG				30		24	8		25	PLUG				20	PLUG				15	PLUG			
36	PLUG				31	PLUG				26		39	11		21	PLUG				16	PLUG			
37	PLUG				32	PLUG				27	PLUG				22		54	12		17	PLUG			
38	PLUG	10	5		33	PLUG				28	PLUG				23	PLUG				18				
39	PLUG				34		25	8		29	PLUG				24	PLUG				19	PLUG			
40	PLUG				35	PLUG				30		40	11		25	PLUG				20	PLUG			
41	PLUG				36	PLUG				31	PLUG				26		55	13		21	PLUG			
42	PLUG	11	5		37	PLUG				32	PLUG				27	PLUG				22				
43	PLUG				38		26	8		33	PLUG				28	PLUG				23	PLUG			
44	PLUG				39	PLUG				34		41	11		29	PLUG				24	PLUG			
45	PLUG				40	PLUG				35	PLUG				30		56	13		25	PLUG			
46	PLUG	12	6		41	PLUG				36	PLUG				31	PLUG				26				
47	PLUG				42		27	8		37	PLUG				32	PLUG				27	PLUG			
48	PLUG				43	PLUG				38		42	11		33	PLUG				28	PLUG			
49	PLUG				44	PLUG				39	PLUG				34		57	13		29	PLUG			
50	PLUG	13	6		45	PLUG				40	PLUG				35	PLUG				30				
51	PLUG				46		28	9		41	PLUG				36	PLUG				31	PLUG			
52	PLUG				47	PLUG				42		43	11		37	PLUG				32	PLUG			
53	PLUG				48	PLUG				43	PLUG				38		58	13		33	PLUG			
54	PLUG	14	6		49	PLUG				44	PLUG				39	PLUG				34				
55	PLUG				50		29	9		45	PLUG				40	PLUG				35	PLUG			
56	PLUG				51	PLUG				46		44	11		41	PLUG				36	PLUG			
57	PLUG				52	PLUG				47	PLUG				42		59	13		37	PLUG			
58	PLUG	15	6		53	PLUG				48	PLUG				43	PLUG				38				
59	PLUG				54		30	9		49	PLUG				44	PLUG				39	PLUG			
60	PLUG				55	PLUG				50		45	11		45	PLUG				40	PLUG			

WESTERN KANSAS IRRIGATION

2707 JONES AVENUE

GARDEN CITY, KANSAS 67846

SEPTEMBER 26, 2025
WISH-119620
ALFALFA FARMS

VALLEY 6000 - 30
VALLEY SPRAY NOZZLES
NO REGULATORS
PIPE 40 GALVANIZED PIPE
NELSON P85AS 11/16

Rotation time at 100% = 21.20 Hours Or 1272 minutes

900 GPM @ 38 PSI

Installation Chart

Page 2

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

PRECIPITATION CHART FOR FULL CIRCLE

WISH-119620

SEPTEMBER 26, 2025

DEALER - WESTERN KANSAS IRRIGATION

IRRIGATOR - ALFALFA FARMS

TOTAL LENGTH PIPE = 1299.78 SYSTEM PRESSURE = 38 PSI
 GPM UNDER PIPE = 834.67 TOTAL GPM = 900.49
 ACRES UNDER PIPE = 121.84
 RANGE OF ENDGUN = 51.82
 GPM OF ENDGUN = 65.82
 ACRES UNDER ENDGUN = 9.91
 WATERING LENGTH = 1351.60

MOTOR SIZE (HP) = 1
 LOADED MOTOR RPM = 1745
 CENTER GEAR BOX RATIO = 58
 WHEEL GEAR BOX RATIO = 52
 TIRE SIZE = 11 X 24.5
 LAST TOWER SPEED (FPM) = 6.33

PRECIPITATION DATA FIGURED WITH ENDGUN RUNNING

PRECIPITATION BASED

% TIMER BASED

PRECIPITATION INCHES	% TIMER SETTING	TIME HOURS	% TIMER SETTING	PRECIPITATION INCHES	TIME HOURS
.32	100.00	21.20 - 1272(min)	100.00	.32	21.20 - 1272(min)
.40	80.22	26.43	90.00	.36	23.56
.50	64.18	33.03	80.00	.40	26.50
.60	53.48	39.64	70.00	.46	30.29
.70	45.84	46.25	60.00	.53	35.33
.75	42.79	49.55	50.00	.64	42.40
.80	40.11	52.85	45.00	.71	47.11
.90	35.66	59.46	40.00	.80	53.00
1.00	32.09	66.07	35.00	.92	60.57
1.25	25.67	82.58	30.00	1.07	70.67
1.50	21.39	99.10	25.00	1.28	84.80
1.75	18.34	115.62	20.00	1.60	106.00
2.00	16.04	132.13	15.00	2.14	141.34
2.25	14.26	148.65	10.00	3.21	212.00
2.50	12.84	165.17	5.00	6.42	424.01

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.