



Boomless Nozzles

Valley Industries Universal Boomless Nozzles are designed for use with a 2 or 3 GPM 12volt diaphragm pump. These nozzles are perfect for rugged terrain, consistent obstacles, or for large areas. Full pattern nozzles are ideal for open surfaces. Left and right pattern nozzles are ideal for obstacles such as fences or trees. These nozzles are designed with a two-piece construction for increased durability.

*Ideal spraying height is between 24 and 48 inches from the top of grass.



Description	Part #
2 GPM	
16' Full Spray	BN2BP125FWX-CS
8' Left Spray	BN2BP088LSX-CS
8' Right Spray	BN2BP088RSX-CS
3 GPM	
22' Full Spray	BN2BP152FWX-CS
11' Left Spray	BN2BP116LSX-CS
11' Right Spray	BN2BP116RSX-CS

Hamilton Boomless Nozzles



Sprays strip up to 56' wide. #05 **400-65401**
Provides even, thorough #10 **400-65411**
spray distribution. Nozzle #20 **400-65431**
is fitted with two caps: one for 180° and one for 90°.

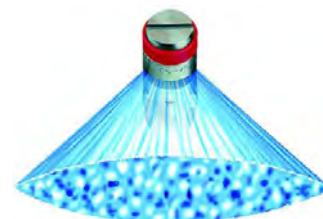


TurfJet Flat Spray Nozzles

- Direct replacement for plastic hollow cone, low-drift nozzles
- Very large droplets
- More precise flow and distribution pattern
- Large orifice reduces clogging
- Recommended operating pressure range is 25-75 psi
- Can be used with Quick TeeJet cap QJ4676-*-NYR
- Stainless steel or polymer construction

	PSI	DROP SIZE	CAPACITY ONE NOZZLE IN GPM	CAPACITY ONE NOZZLE IN OZ./MIN.	40"								20"			
					GPA								GALLONS PER 1000 SQ. FT.			
					4 MPH	5 MPH	6 MPH	8 MPH	10 MPH	12 MPH	15 MPH	20 MPH	2 MPH	3 MPH	4 MPH	5 MPH
1/4TTJ08	25	XC	0.63	81	23	18.7	15.6	11.7	9.4	7.8	6.2	4.7	2.1	1.4	1.1	0.86
	30	XC	0.69	88	26	20	17.1	12.8	10.2	8.5	6.8	5.1	2.3	1.6	1.2	0.94
	40	XC	0.80	102	30	24	19.8	14.9	11.9	9.9	7.9	5.9	2.7	1.8	1.4	1.1
	50	XC	0.89	114	33	26	22	16.5	13.2	11.0	8.8	6.6	3.0	2.0	1.5	1.2
	60	XC	0.98	125	36	29	24	18.2	14.6	12.1	9.7	7.3	3.3	2.2	1.7	1.3
1/4TTJ10	75	XC	1.10	141	41	33	27	20	16.3	13.6	10.9	8.2	3.7	2.5	1.9	1.5
	25	XC	0.79	101	29	23	19.6	14.7	11.7	9.8	7.8	5.9	2.7	1.8	1.3	1.1
	30	XC	0.87	111	32	26	22	16.1	12.9	10.8	8.6	6.5	3.0	2.0	1.5	1.2
	40	XC	1.00	128	37	30	25	18.6	14.9	12.4	9.9	7.4	3.4	2.3	1.7	1.4
	50	XC	1.12	143	42	33	28	21	16.6	13.9	11.1	8.3	3.8	2.5	1.9	1.5
	60	XC	1.22	156	45	36	30	23	18.1	15.1	12.1	9.1	4.1	2.8	2.1	1.7
	75	XC	1.37	175	51	41	34	25	20	17.0	13.6	10.2	4.7	3.1	2.3	1.9

*More sizes available



BoomJet Boomless Nozzles

Type 5880 BoomJet nozzle is used for spraying areas not easily accessed with a boom sprayer. It combines two off-center tips and three VeeJet nozzles to produce an overall wide swath flat spray. The nozzle assembly provides good distribution considering the wide pattern coverage obtained; however, the uniformity is not as good as with a properly operated boom sprayer. Supplied with one additional 1/4"NPT pipe plug and one blank tip for setting BoomJet to one side only. Also has a 1/4"NPT pressure gauge port.



W = Maximum effective coverage with nozzle mounted at 36" height.



	(2)	(2)	(1)	PSI	GPM	"W" (FEET)	GPA					GALLONS PER 1000 SQ. FT.			
							4 MPH	5 MPH	7.5 MPH	10 MPH	15 MPH	2 MPH	3 MPH	4 MPH	5 MPH
5430-3/4-2TOC06 5880-3/4-2TOC06	6733-OC06	H1/4VV-1506	H1/4VVL-9502 with 50 mesh strainer	20	1.84	33.5	6.8	5.4	3.6	2.7	1.8	0.31	0.21	0.16	0.12
				30	2.25	34	8.2	6.6	4.4	3.3	2.2	0.38	0.25	0.19	0.15
				40	2.60	34.5	9.3	7.5	5.0	3.7	2.5	0.43	0.28	0.21	0.17
5430-3/4-2TOC10 5880-3/4-2TOC10	OC10	H1/4U-0508HE	H1/4VVL-11004 with 50 mesh strainer	20	2.83	39.5	8.9	7.1	4.7	3.5	2.4	0.41	0.27	0.20	0.16
				30	3.46	40	10.7	8.6	5.7	4.3	2.9	0.49	0.33	0.25	0.20
				40	4.00	40.5	12.2	9.8	6.5	4.9	3.3	0.56	0.37	0.28	0.22
5430-3/4-2TOC20 5880-3/4-2TOC20	OC20	H1/4U-0520HE	H1/4VVL-9506 with 50 mesh strainer	20	6.08	47	16.0	12.8	8.5	6.4	4.3	0.73	0.49	0.37	0.29
				30	7.45	50	18.4	14.8	9.8	7.4	4.9	0.84	0.56	0.42	0.34
				40	8.60	52	20	16.4	10.9	8.2	5.5	0.94	0.62	0.47	0.37
5430-3/4-2TOC40 5880-3/4-2TOC40	OC40	H1/4U-0540HE	H1/4U-9510	20	12.0	56	27	21	14.1	10.6	7.1	1.2	0.81	0.61	0.49
				30	14.7	60	30	24	16.2	12.1	8.1	1.4	0.93	0.69	0.56
				40	17.0	63	33	27	17.8	13.4	8.9	1.5	1.0	0.76	0.61



XP BoomJet Nozzles

Typical Applications:

- Boomless field spray applications.
- Roadside and right-of-way applications.
- End row spraying.
- Orchard spraying.
- De-icing applications.
- Forestry.

Features:

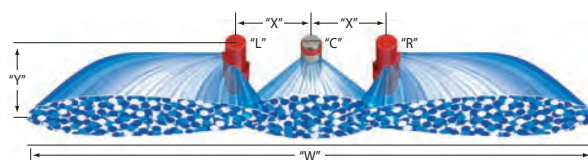
- Unique orifice geometry produces a wide spray pattern while maintaining superior distribution across entire width.
- Pre-orifice design minimizes drift.
- Extra wide spray pattern — up to 18.5' (5.5 meters) — using a single nozzle.
- Removable polymer pre-orifice.
- Acetal construction for excellent chemical resistance.

- Recommended spray pressure range: 20–60 PSI (1.5–4 bar).
- NPT or BSPT (male) threads for easy installation.
- Color-coding for easy capacity identification.

Mounting Note: Position tip horizontal to ground with spray pattern down and to the side.

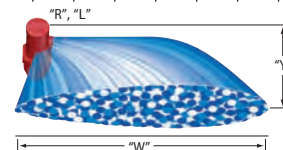
How to order:

Specify part number. Example:
(B)1/2XP80L(R)-VP – VisiFlo® Polymer Left Boom Spray



 "R", "L" CENTER NOZZLE "C"	PSI	DROP SIZE	CAPACITY THREE NOZZLES IN GPM	SPRAY WIDTH "W" (FEET)		HEIGHT "Y" = 24"										HEIGHT "Y" = 36"									
						24" HEIGHT					36" HEIGHT					24" HEIGHT					36" HEIGHT				
						4 MPH	6 MPH	8 MPH	10 MPH	15 MPH	20 MPH	2 MPH	3 MPH	4 MPH	5 MPH	4 MPH	6 MPH	8 MPH	10 MPH	15 MPH	20 MPH	2 MPH	3 MPH	4 MPH	5 MPH
						GPA	GPA	GPA	GPA	GPA	GPA	GALLONS	GALLONS	GALLONS	GALLONS	GPA	GPA	GPA	GPA	GPA	GPA	GALLONS	GALLONS	GALLONS	GALLONS
(B)1/4XP10R (B)1/4XP10L	1/4TTJ08	30 UC	2.43	23.3	25.3	12.9	8.6	6.5	5.2	3.4	2.6	0.59	0.39	0.30	0.24	11.9	7.9	5.9	4.8	3.2	2.4	0.54	0.36	0.27	0.22
		40 UC	2.80	25.3	28.3	13.7	9.1	6.8	5.5	3.7	2.7	0.63	0.42	0.31	0.25	12.2	8.2	6.1	4.9	3.3	2.4	0.56	0.37	0.28	0.22
		50 UC	3.13	28.3	30.3	13.7	9.1	6.8	5.5	3.6	2.7	0.63	0.42	0.31	0.25	12.8	8.5	6.4	5.1	3.4	2.6	0.59	0.39	0.29	0.23
		60 UC	3.42	29.3	32.3	14.4	9.6	7.2	5.8	3.9	2.9	0.66	0.44	0.33	0.26	13.1	8.7	6.6	5.2	3.5	2.6	0.60	0.40	0.30	0.24
(B)1/4XP20R (B)1/4XP20L	1/4TTJ08	30 UC	4.19	26.3	27.3	13.1	9.9	7.9	5.3	3.9	2.9	0.90	0.60	0.45	0.36	19.0	12.7	9.5	7.6	5.1	3.8	0.87	0.58	0.43	0.35
		40 UC	4.80	30.3	31.3	19.6	13.1	9.8	7.8	5.2	3.9	0.90	0.60	0.45	0.36	19.0	12.7	9.5	7.6	5.1	3.8	0.87	0.58	0.43	0.35
		50 UC	5.39	32.3	33.3	21	13.8	10.3	8.3	5.5	4.1	0.95	0.63	0.47	0.38	20	13.4	10.0	8.0	5.3	4.0	0.92	0.61	0.46	0.37
		60 UC	5.98	33.3	35.3	22	14.8	11.1	8.9	5.9	4.4	1.0	0.68	0.51	0.41	21	14.0	10.5	8.4	5.6	4.2	0.96	0.64	0.48	0.38
(B)1/4XP25R (B)1/4XP25L	1/4TTJ10	30 UC	5.13	27.3	30.3	23	15.5	11.6	9.3	6.2	4.7	1.1	0.71	0.53	0.43	21	14.0	10.5	8.4	5.6	4.2	0.96	0.64	0.48	0.38
		40 UC	6.00	30.3	32.3	25	16.3	12.3	9.8	6.5	4.9	1.1	0.75	0.56	0.45	23	15.3	11.5	9.2	6.1	4.6	1.1	0.70	0.53	0.42
		50 UC	6.62	32.3	33.3	25	16.9	12.7	10.1	6.8	5.1	1.2	0.77	0.58	0.46	25	16.4	12.3	9.8	6.6	4.9	1.1	0.75	0.56	0.45
		60 UC	7.22	33.3	35.3	27	17.9	13.4	10.7	7.2	5.4	1.2	0.82	0.61	0.49	25	16.9	12.7	10.1	6.7	5.1	1.2	0.77	0.58	0.46
(B)1/2XP40R (B)1/2XP40L	1/4TTJ15	30 UC	8.36	29.3	32.3	35	24	17.7	14.1	9.4	7.1	1.6	1.1	0.81	0.65	32	21	16.0	12.8	8.5	6.4	1.5	0.98	0.73	0.59
		40 UC	9.50	31.3	34.3	38	25	18.8	15.0	10.0	7.5	1.7	1.1	0.86	0.69	34	23	17.1	13.7	9.1	6.9	1.6	1.0	0.78	0.63
		50 UC	10.8	33.3	35.3	40	27	20	16.1	10.7	8.0	1.8	1.2	0.92	0.74	38	25	18.9	15.1	10.1	7.6	1.7	1.2	0.87	0.69
		60 UC	11.8	35.3	38.3	41	28	21	16.5	11.0	8.3	1.9	1.3	0.95	0.76	38	25	19.1	15.3	10.2	7.6	1.7	1.2	0.87	0.70

Note: Always double check your application rates. Tabulations are based on spraying water at 70°F (21°C). See pages 136–157 for drop size classification, useful formulas and other information.
For lower chart only, application rates are identical for a two-tip setup. Swath width and flow capacity will be doubled for a two-tip setup.

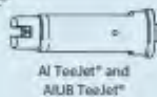


		DROP SIZE	CAPACITY ONE NOZZLE IN GPM	SPRAY WIDTH "W" (FEET)		HEIGHT "Y" = 24"										HEIGHT "Y" = 36"											
						GPA FOR ONE NOZZLE						GALLONS PER 1000 SQ. FT.				GPA FOR ONE NOZZLE						GALLONS PER 1000 SQ. FT.					
						24" HEIGHT	36" HEIGHT	4 MPH	6 MPH	8 MPH	10 MPH	15 MPH	20 MPH	2 MPH	3 MPH	4 MPH	5 MPH	4 MPH	6 MPH	8 MPH	10 MPH	15 MPH	20 MPH	2 MPH	3 MPH	4 MPH	5 MPH
(B)1/4XP10R (B)1/4XP10L	20	UC	0.71	8.5	10.0	10.3	6.9	5.2	4.1	2.8	2.1	0.47	0.32	0.24	0.19	8.8	5.9	4.4	3.5	2.3	1.8	0.40	0.27	0.20	0.16		
	30	UC	0.87	10.0	11.0	10.8	7.2	5.4	4.3	2.9	2.2	0.49	0.33	0.25	0.20	9.8	6.5	4.9	3.9	2.6	2.0	0.45	0.30	0.22	0.18		
	40	UC	1.00	11.0	12.5	11.3	7.5	5.6	4.5	3.0	2.3	0.52	0.34	0.26	0.21	9.9	6.6	5.0	4.0	2.6	2.0	0.45	0.30	0.23	0.18		
	50	UC	1.12	12.5	13.5	11.1	7.4	5.5	4.4	3.0	2.2	0.51	0.34	0.25	0.20	10.3	6.8	5.1	4.1	2.7	2.1	0.47	0.31	0.24	0.19		
(B)1/4XP20R (B)1/4XP20L	60	UC	1.22	13.0	14.5	11.6	7.7	5.8	4.6	3.1	2.3	0.53	0.35	0.27	0.21	10.4	6.9	5.2	4.2	2.8	2.1	0.48	0.32	0.24	0.19		
	20	UC	1.42	9.0	11.0	19.5	13.0	9.8	7.8	5.2	3.9	0.89	0.60	0.45	0.36	16.0	10.7	8.0	6.4	4.3	3.2	0.73	0.49	0.37	0.29		
	30	UC	1.75	11.5	12.0	18.8	12.6	9.4	7.5	5.0	3.8	0.86	0.57	0.43	0.34	18.0	12.0	9.0	7.2	4.8	3.6	0.83	0.55	0.41	0.33		
	40	UC	2.00	13.5	14.0	18.3	12.2	9.2	7.3	4.9	3.7	0.84	0.56	0.42	0.34	17.7	11.8	8.8	7.1	4.7	3.5	0.81	0.54	0.40	0.32		
(B)1/4XP25R (B)1/4XP25L	50	UC	2.25	14.5	15.0	19.2	12.8	9.6	7.7	5.1	3.8	0.88	0.59	0.44	0.35	18.6	12.4	9.3	7.4	5.0	3.7	0.85	0.57	0.43	0.34		
	60	UC	2.50	15.0	16.0	21	13.8	10.3	8.3	5.5	4.1	0.94	0.63	0.47	0.38	19.3	12.9	9.7	7.7	5.2	3.9	0.89	0.59	0.44	0.35		
	20	UC	1.74	10.5	11.0	21	13.7	10.3	8.2	5.5	4.1	0.94	0.63	0.47	0.38	19.6	13.1	9.8	7.8	5.2	3.9	0.90	0.60	0.45	0.36		
	30	UC	2.13	12.0	13.5	22	14.6	11.0	8.8	5.9	4.4	1.0	0.67	0.50	0.40	19.5	13.0	9.8	7.8	5.2	3.9	0.89	0.60	0.45	0.36		
(B)1/4XP25L	40	UC	2.50	13.5	14.5	23	15.3	11.5	9.2	6.1	4.6	1.0	0.70	0.52	0.42	21	14.2	10.7	8.5	5.7	4.3	0.98	0.65	0.49	0.39		
	50	UC	2.75	14.5	15.0	23	15.6	11.7	9.4	6.3	4.7	1.1	0.72	0.54	0.43	23	15.1	11.3	9.1	6.1	4.5	1.0	0.69	0.52	0.42		
	60	UC	3.00	15.0	16.0	25	16.5	12.4	9.9	6.6	5.0	1.1	0.76	0.57	0.45	23	15.5	11.6	9.3	6.2	4.6	1.1	0.71	0.53	0.43		
	(B)1/2XP40R (B)1/2XP40L	20	UC	2.87	11.0	12.0	32	22	16.1	12.9	8.6	6.5	1.5	0.99	0.74	0.59	30	19.7	14.8	11.8	7.9	5.9	1.4	0.90	0.68	0.54	
30		UC	3.53	13.0	14.5	34	22	16.8	13.4	9.0	6.7	1.5	1.0	0.77	0.62	30	20	15.1	12.1	8.0	6.0	1.4	0.92	0.69	0.55		
40		UC	4.00	14.0	15.5	35	24	17.7	14.1	9.4	7.1	1.6	1.1	0.81	0.65	32	21	16.0	12.8	8.5	6.4	1.5	0.97	0.73	0.58		
50		UC	4.55	15.0	16.0	38	25	18.8	15.0	10.0	7.5	1.7	1.1	0.86	0.69	35	23	17.6	14.1	9.4	7.0	1.6	1.1	0.81	0.64		
(B)1/2XP80R (B)1/2XP80L	60	UC	5.00	16.0	17.5	39	26	19.3	15.5	10.3	7.7	1.8	1.2	0.89	0.71	35	24	17.7	14.1	9.4	7.1	1.6	1.1	0.81	0.65		
	20	UC	5.60	13.0	15.5	53	36	27	21	14.2	10.7	2.4	1.6	1.2	0.98	45	30	22	17.9	11.9	8.9	2.0	1.4	1.0	0.82		
	30	UC	6.83	15.0	16.5	56	38	28	23	15.0	11.3	2.6	1.7	1.3	1.0	51	34	26	20	13.7	10.2	2.3	1.6	1.2	0.94		
	40	UC	8.00	16.0	17.5	62	41	31	25	16.5	12.4	2.8	1.9	1.4	1.1	57	38	28	23	15.1	11.3	2.6	1.7	1.3	1.0		
(B)1/2XP80L	50	UC	8.73	16.5	18.0	65	44	33	26	17.5	13.1	3.0	2.0	1.5	1.2	60	40	30	24	16.0	12.0	2.7	1.8	1.4	1.1		
	60	UC	9.60	17.5	18.5	68	45	34	27	18.1	13.6	3.1	2.1	1.6	1.2	64	43	32	26	17.1	12.8	2.9	2.0	1.5	1.2		

Spray Tip Caps



3	4	5	6	7	8	9	10	11	12	13
Red	Blue	Green	Yellow	Brown	Orange	Gray	Violet†	Lt. Blue†	Telemagenta†	Lt. Green†

QUICK TEEJET CAPS	PART NUMBER		FOR USE WITH TEEJET SPRAY TIPS 300 PSI (20 bar) MAXIMUM PRESSURE
	QUICK TEEJET CAP ONLY	QUICK TEEJET CAP & SEAT GASKET SET	
	CP114440- [*] -CE	114441- [*] -CELR 114441- [*] -CELVI	TeeJet® Flat Spray Tips (Smaller Capacities)  TP Standard -0057 to -08  DG TeeJet®  XR -01 to -08  Turbo TeeJet® -01 to -08  Turbo TwinJet®  OC TeeJet®  ADR TeeJet® -015 to -06
	CP25611-9-PP†	25612-9-PP†	
	CP25609- [*] -NY	25610- [*] -NYR	TeeJet Flat Spray Tips (Larger Capacities)  TP Standard -10 to -20  XR -10 to -15
	CP114442- [*] -CE	114443- [*] -CELR 114443- [*] -CELVI	 T360 TwinJet®  AI Turbo TwinJet® -02 to -06  AI TeeJet® and AIUB TeeJet®  Turbo TeeJet® Induction -015 to -06  DG TwinJet®  ADR TeeJet® -08 to -10  SJR StreamJet
	CP114501- [*] -CE‡	114502- [*] -CELR‡ 114502- [*] -CELVI‡	 AI Turbo TwinJet® -08 to -15  Turbo TeeJet® Induction -08 to -10  Turbo TeeJet® -10 to -12
	CP98578-1-NY‡	98579-1-NYR‡	 AI3070
	CP25595- [*] -NY	25596- [*] -NYR	TeeJet Flat Spray Tips (Smaller Capacities) Tips can be positioned in choice of two spray plane directions—parallel or perpendicular to wings of Quick TeeJet cap.
	CP25599- [*] -NY	25600- [*] -NYR	 Turbo FloodJet®  TK-VP FloodJet®  TK-VS FloodJet® Locating Nib
	CP114444- [*] -CE	114445- [*] -CELR 114445- [*] -CELVI	 TK FloodJet®  FL FullJet®  TX/TXA ConeJet®  TG Full Cone  Hose Shank  AITXA ConeJet
	CP25607-9-PP†	25608-9-PP†	
	CP114444- [*] -CE	—	 Disc  Core  Seal CP18999-EPR Disc-Core (Insert Core into Seal)
	CP26277-1-NY‡	26278-1-NYR‡	 Ceramic Disc-Core  D-Disc  Core  TXB ConeJet®  AITXB ConeJet®
	CP114395-1-NYB‡	114396-1-NYR‡	 TXR ConeJet® 114396-1-NYR includes gasket and O-Ring (CP7717-M10.5x1.5-VI)

*Specify color code (see chart). Violet (10) only available in CP114440 and CP114442 nylon caps.

†These Quick TeeJet caps available only in black.

††Polypropylene Quick TeeJet caps available only in gray and rated to 150 PSI (10 bar). Nylon caps not available in gray.



Spray Tip Caps Continued

QUICK TEEJET CAPS	PART NUMBER	FOR USE WITH FLAT SPRAY TIPS 300 PSI (20 bar) MAXIMUM PRESSURE
	QUICK TEEJET CAP & SEAT GASKET SET	
	QJ4676-45-1/4-NYR†	45° Quick TeeJet cap with 1/4" NPT female threaded outlet
	QJ4676-90-1/4-NYR†	90° Quick TeeJet cap with 1/4" NPT female threaded outlet
	QJ4676-1/8-NYR†	Permits use of standard 1/8" and 1/4" nozzles. Can be used for mounting pressure gauge at the nozzle. See Data Sheet 20055 for more information. (B) = BSPT
	QJ(B)4676-1/4-NYR†	
	CP114447-*-CELR	Provides shutoff at nozzle for quick spacing change or change in spray swath.

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PRODUCTS

KNIVES &
COULTER
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SPRAY
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NOZZLE
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SPRAY
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PUMPS &
METERS

VALVES &
STRAINERS

FITTINGS &
COUPLINGS

NH3

FUEL
TRANSFER

AG
COMPONENTS

PLANTER
PRODUCTS



Auxin Herbicide Approved Tips

MANUFACTURER						MANUFACTURER					
NOZZLE TYPE		XTENDIMAX		ENLIST ONE		NOZZLE TYPE		XTENDIMAX		ENLIST ONE	
ENLIST DUO		ENLIST ONE		ENLIST DUO		ENLIST DUO		ENLIST ONE		ENLIST DUO	
GREENLEAF	AM11003			*	*	TEEJET	AI11002/AIC11002			*	*
GREENLEAF	AM11004			*	*	TEEJET	AI110025/AIC110025			*	*
GREENLEAF	AM11005			*	*	TEEJET	AI11003/AIC11003	*		*	*
GREENLEAF	AM11006			*	*	TEEJET	AI11004/AIC11004			*	*
GREENLEAF	SD11004			*	*	TEEJET	AI11005/AIC11005			*	*
GREENLEAF	SD11005			*	*	TEEJET	AI11006/AIC11006			*	*
GREENLEAF	SD11006			*	*	TEEJET	AI11008/AIC11008			*	*
GREENLEAF	SD11008			*	*	TEEJET	AI8003/AIC8003	*			
GREENLEAF	SD11010			*	*	TEEJET	AI8005/AIC8005	*			
GREENLEAF	TADF025			*	*	TEEJET	AITTTJ60-11003			*	*
GREENLEAF	TADF03			*	*	TEEJET	AITTTJ60-11004			*	*
GREENLEAF	TADF04			*	*	TEEJET	AITTTJ60-11005			*	*
GREENLEAF	TADF05			*	*	TEEJET	AITTTJ60-11006			*	*
GREENLEAF	TADF06			*	*	TEEJET	AITTTJ60-11008			*	*
GREENLEAF	TADF08			*	*	TEEJET	AITTTJ60-11010			*	*
GREENLEAF	TADF025-D			*	*	TEEJET	AITTTJ60-11015			*	*
GREENLEAF	TADF03-D	*		*	*	TEEJET	AIXR11003			*	*
GREENLEAF	TADF04-D			*	*	TEEJET	AIXR11004			*	*
GREENLEAF	TADF05-D			*	*	TEEJET	AIXR11005			*	*
GREENLEAF	TADF06-D	*		*	*	TEEJET	AIXR11006			*	*
GREENLEAF	TDXL11003			*	*	TEEJET	AIXR11008			*	*
GREENLEAF	TDXL11004			*	*	TEEJET	AIXR11010			*	*
GREENLEAF	TDXL11005			*	*	TEEJET	APTJ11003		*		
GREENLEAF	TDXL11006			*	*	TEEJET	APTJ11004		*		
GREENLEAF	TDXL11008			*	*	TEEJET	APTJ11005		*		
GREENLEAF	TDXL11002-D			*	*	TEEJET	APTJ11006		*		
GREENLEAF	TDXL110025-D			*	*	TEEJET	APTJ11008		*		
GREENLEAF	TDXL11003-D	*	*	*	*	TEEJET	TTI11002		*	*	*
GREENLEAF	TDXL11004-D	*	*	*	*	TEEJET	TTI110025			*	*
GREENLEAF	TDXL11005-D	*	*	*	*	TEEJET	TTI11003	*	*	*	*
GREENLEAF	TDXL11006-D	*	*	*	*	TEEJET	TTI11004	*	*	*	*
GREENLEAF	TDXL11008-D			*	*	TEEJET	TTI11005	*	*	*	*
HYPRO	(FC-) ULD120-03			*	*	TEEJET	TTI11006	*	*	*	*
HYPRO	(FC-) ULD120-04	*	*	*	*	TEEJET	TTI11008		*	*	*
HYPRO	(FC-) ULD120-05	*	*	*	*	TEEJET	TTI11010			*	*
HYPRO	(FC-) ULD120-06			*	*	TEEJET	TTI60-11003	*	*	*	*
HYPRO	(FC-) ULD120-08			*	*	TEEJET	TTI60-11004	*	*	*	*
HYPRO	(FC-) ULDM130-03	*	*	*	*	TEEJET	TTI60-11005	*	*	*	*
HYPRO	(FC-) ULDM130-04	*	*	*	*	TEEJET	TTI60-11006	*	*	*	*
HYPRO	(FC-) ULDM130-05	*	*	*	*	TEEJET	TTI60-11008			*	*
HYPRO	(FC-) ULDM130-06	*	*	*	*	WILGER	DR110-03			*	*
HYPRO	(FC-) ULDM130-08			*	*	WILGER	DR110-04			*	*
HYPRO	FC-3D90-05			*	*	WILGER	DR110-05			*	*
HYPRO	FC-3D90-06			*	*	WILGER	DR110-06			*	*
HYPRO	FC-3D90-08			*	*	WILGER	DR110-08			*	*
						WILGER	DR110-10	*	*	*	*
						WILGER	DR110-125			*	*
						WILGER	MR110-04			*	*
						WILGER	MR110-05			*	*
						WILGER	MR110-06			*	*
						WILGER	MR110-08			*	*
						WILGER	MR110-10			*	*
						WILGER	MR110-125			*	*
						WILGER	UR110-03			*	*
						WILGER	UR110-04			*	*
						WILGER	UR110-05	*	*	*	*
						WILGER	UR110-06	*	*	*	*
						WILGER	UR110-08	*	*	*	*
						WILGER	UR110-10	*	*	*	*

Always read and follow the product label as well as state and local requirements. Do not use any nozzle and pressure combination not specifically listed on your herbicide label. In case of conflict, the label prevails.





Hi Flow 140° Wide Angle Drift Control Tips

The Hypro Hi-Flow tip is the best way to outfit a sprayer to achieve wide-angle coverage plus drift control. The 140° pattern ensures unmatched uniformity across the spray boom and allows lower spray heights to reduce the risk of drift during sensitive applications. The drift-reducing pre-orifice is integrated into a FastCap® design for the best in convenience, safety, and drift control.

- Straight-through design to reduce clogging
- Incredibly uniform application across the boom
- Lower spray heights and pre-orifice technology reduce drift
- Fits directly on standard tip bodies
- FastCap® one-piece design includes tip, cap, and gasket for fast change and safer handling



Tip Size	Droplet Size 140°	Pressure (PSI)	Flow Rate (GPM)	Gallons per Acre 20 inch nozzle spacing								GAL/1000ft ² 20 inch nozzle spacing			
				4	5	6	8	10	12	15	20	2	3	4	5
HF140-08	08	XC 20	0.57	42.3	33.9	28.2	21.2	16.9	14.1	11.3	8.5	1.94	1.30	0.97	0.78
		XC 30	0.69	51.2	41.0	34.2	25.6	20.5	17.1	13.7	10.2	2.35	1.57	1.18	0.94
		XC 40	0.80	59.4	47.5	39.6	29.7	23.8	19.8	15.8	11.9	2.73	1.82	1.36	1.09
		XC 50	0.89	66.1	52.9	44.1	33.0	26.4	22.0	17.6	13.2	3.03	2.02	1.52	1.21
		XC 60	0.98	72.8	58.2	48.5	36.4	29.1	24.3	19.4	14.6	3.34	2.23	1.67	1.34
		XC 70	1.06	78.7	63.0	52.5	39.4	31.5	26.2	21.0	15.7	3.61	2.41	1.81	1.45
HF140-10	10	XC 80	1.13	83.9	67.1	55.9	42.0	33.6	28.0	22.4	16.8	3.85	2.57	1.93	1.54
		XC 20	0.71	52.7	42.2	35.1	26.4	21.1	17.6	14.1	10.5	2.42	1.61	1.21	0.97
		XC 30	0.87	64.6	51.7	43.1	32.3	25.8	21.5	17.2	12.9	2.97	1.98	1.48	1.19
		XC 40	1.00	74.3	59.4	49.5	37.1	29.7	24.8	19.8	14.9	3.41	2.27	1.71	1.36
		XC 50	1.12	83.2	66.5	55.4	41.6	33.3	27.7	22.2	16.6	3.82	2.55	1.91	1.53
		XC 60	1.22	90.6	72.5	60.4	45.3	36.2	30.2	24.2	18.1	4.16	2.77	2.08	1.66
HF140-15	15	XC 70	1.32	98.0	78.4	65.3	49.0	39.2	32.7	26.1	19.6	4.50	3.00	2.25	1.80
		XC 80	1.41	105	83.8	69.8	52.3	41.9	34.9	27.9	20.9	4.81	3.21	2.40	1.92
		XC 20	1.06	78.7	63.0	52.5	39.4	31.5	26.2	21.0	15.7	3.61	2.41	1.81	1.45
		XC 30	1.30	96.5	77.2	64.4	48.3	38.6	32.2	25.7	19.3	4.43	2.96	2.22	1.77
		XC 40	1.50	111	89.1	74.3	55.7	44.6	37.1	29.7	22.3	5.12	3.41	2.56	2.05
		XC 50	1.68	125	99.8	83.2	62.4	49.9	41.6	33.3	24.9	5.73	3.82	2.86	2.29
HF140-20	20	XC 60	1.84	137	109	91.1	68.3	54.6	45.5	36.4	27.3	6.27	4.18	3.14	2.51
		XC 70	1.98	147	118	98.0	73.5	58.8	49.0	39.2	29.4	6.75	4.50	3.38	2.70
		XC 80	2.12	157	126	105	78.7	63.0	52.5	42.0	31.5	7.23	4.82	3.61	2.89
		XC 20	1.41	105	83.8	69.8	52.3	41.9	34.9	27.9	20.9	4.81	3.21	2.40	1.92
		XC 30	1.73	128	103	85.6	64.2	51.4	42.8	34.3	25.7	5.90	3.93	2.95	2.36
		XC 40	2.00	149	119	99.0	74.3	59.4	49.5	39.6	29.7	6.82	4.55	3.41	2.73
HF140-30	30	XC 50	2.24	166	133	111	83.2	66.5	55.4	44.4	33.3	7.64	5.09	3.82	3.06
		XC 60	2.45	182	146	121	91.0	72.8	60.6	48.5	36.4	8.35	5.57	4.18	3.34
		XC 70	2.65	197	157	131	98.4	78.7	65.6	52.5	39.4	9.04	6.02	4.52	3.61
		XC 80	2.83	210	168	140	105	84.1	70.0	56.0	42.0	9.65	6.43	4.83	3.86
		XC 20	2.12	157	126	105	78.7	63.0	52.5	42.0	31.5	7.23	4.82	3.61	2.89
		XC 30	2.60	193	154	129	96.5	77.2	64.4	51.5	38.6	8.87	5.91	4.43	3.55
HF140-40	40	XC 40	3.00	223	178	149	111	89.1	74.3	59.4	44.6	10.2	6.82	5.12	4.09
		XC 50	3.35	249	199	166	124	99.5	82.9	66.3	49.7	11.4	7.62	5.71	4.57
		XC 60	3.67	272	218	182	136	109	90.8	72.7	54.5	12.5	8.34	6.26	5.01
		XC 70	3.97	295	236	197	147	118	98.3	78.6	59.0	13.5	9.03	6.77	5.42
		XC 80	4.24	315	252	210	157	126	105	84.0	63.0	14.5	9.64	7.23	5.78
		XC 20	2.83	210	168	140	105	84.1	70.0	56.0	42.0	9.65	6.43	4.83	3.86
HF140-50	50	XC 30	3.46	257	206	171	128	103	85.6	68.5	51.4	11.8	7.87	5.90	4.72
		XC 40	4.00	297	238	198	149	119	99.0	79.2	59.4	13.6	9.09	6.82	5.46
		XC 50	4.47	332	266	221	166	133	111	88.5	66.4	15.2	10.2	7.62	6.10
		XC 60	4.90	364	291	243	182	146	121	97.0	72.8	16.7	11.1	8.35	6.68
		XC 70	5.29	393	314	262	196	157	131	105	78.6	18.0	12.0	9.02	7.22
		XC 80	5.66	420	336	280	210	168	140	112	84.1	19.3	12.9	9.65	7.72
HF140-60	60	XC 20	3.54	263	210	175	131	105	87.6	70.1	52.6	12.1	8.05	6.04	4.83
		XC 30	4.33	322	257	214	161	129	107	85.7	64.3	14.8	9.84	7.38	5.91
		XC 40	5.00	371	297	248	186	149	124	99.0	74.3	17.1	11.4	8.53	6.82
		XC 50	5.59	415	332	277	208	166	138	111	83.0	19.1	12.7	9.53	7.62
		XC 60	6.12	454	364	303	227	182	151	121	90.9	20.9	13.9	10.4	8.35
		XC 70	6.61	491	393	327	245	196	164	131	98.2	22.5	15.0	11.3	9.02
HF140-60	60	XC 80	7.07	525	420	350	262	210	175	140	105	24.1	16.1	12.1	9.64
		XC 20	4.24	315	252	210	157	126	105	84.0	63.0	14.5	9.64	7.23	5.78
		XC 30	5.20	386	309	257	193	154	129	103	77.2	17.7	11.8	8.87	7.09
		XC 40	6.00	446	356	297	223	178	149	119	89.1	20.5	13.6	10.2	8.18
		XC 50	6.71	498	399	332	249	199	166	133	99.6	22.9	15.3	11.4	9.15
		XC 60	7.35	546	437	364	273	218	182	146	109	25.1	16.7	12.5	10.0
HF140-60	60	XC 70	7.94	590	472	393	295	236	197	157	118	27.1	18.1	13.5	10.8
		XC 80	8.49	630	504	420	315	252	210	168	126	29.0	19.3	14.5	11.6



Ultra Lo-Drift 120°



The ULD – Ultra Lo-Drift is the ideal spray nozzle for use where drift reduction is paramount. The nozzle produces large air-filled droplets, which cut drift dramatically compared with a standard fan and conventional low-drift spray nozzles. Ideal for use with pre-emergence and broad spectrum products.

- Creates air-filled droplets which significantly reduce spray drift
- Wide spray angle (120°) enables boom height to be lowered to further decrease drift
- Small, compact size reduces the chances of accidental breakage
- FastCap complete includes nozzle, cap, gasket and integrated strainers

US Units

Nozzle Size	Droplet Size	Pressure (PSI)	Flow Rate (GPM)	Gallons per Acre 20 inch nozzle spacing								GAL/1000 Ft ² 20 inch nozzle spacing				
				4	5	6	8	10	12	15	20	2	3	4	5	
015	UC	20	0.11	8.2	6.5	5.4	4.1	3.3	2.7	2.2	1.6	0.38	0.25	0.19	0.15	
	XC	30	0.13	9.7	7.7	6.4	4.8	3.9	3.2	2.6	1.9	0.44	0.30	0.22	0.18	
	VC	40	0.15	11.1	8.9	7.4	5.6	4.5	3.7	3.0	2.2	0.51	0.34	0.26	0.20	
	VC	50	0.17	12.6	10.1	8.4	6.3	5.0	4.2	3.4	2.5	0.58	0.39	0.29	0.23	
	C	60	0.18	13.4	10.7	8.9	6.7	5.3	4.5	3.6	2.7	0.61	0.41	0.31	0.25	
	C	70	0.20	14.9	11.9	9.9	7.4	5.9	5.0	4.0	3.0	0.68	0.45	0.34	0.27	
	C	80	0.21	15.6	12.5	10.4	7.8	6.2	5.2	4.2	3.1	0.72	0.48	0.36	0.29	
	M	90	0.23	17.1	13.7	11.4	8.5	6.8	5.7	4.6	3.4	0.78	0.52	0.39	0.31	
	M	100	0.24	17.8	14.3	11.9	8.9	7.1	5.9	4.8	3.6	0.82	0.55	0.41	0.33	
M	115	0.25	18.6	14.9	12.4	9.3	7.4	6.2	5.0	3.7	0.85	0.57	0.43	0.34		
02	UC	20	0.14	10.4	8.3	6.9	5.2	4.2	3.5	2.8	2.1	0.48	0.32	0.24	0.19	
	XC	30	0.17	12.6	10.1	8.4	6.3	5.0	4.2	3.4	2.5	0.58	0.39	0.29	0.23	
	C	40	0.20	14.9	11.9	9.9	7.4	5.9	5.0	4.0	3.0	0.68	0.45	0.34	0.27	
	C	50	0.22	16.3	13.1	10.9	8.2	6.5	5.4	4.4	3.3	0.75	0.50	0.38	0.30	
	C	60	0.24	17.8	14.3	11.9	8.9	7.1	5.9	4.8	3.6	0.82	0.55	0.41	0.33	
	M	70	0.26	19.3	15.4	12.9	9.7	7.7	6.4	5.1	3.9	0.89	0.59	0.44	0.35	
	M	80	0.28	20.8	16.6	13.9	10.4	8.3	6.9	5.5	4.2	0.95	0.64	0.48	0.38	
	M	90	0.30	22.3	17.8	14.9	11.1	8.9	7.4	5.9	4.5	1.02	0.68	0.51	0.41	
	M	100	0.32	23.8	19.0	15.8	11.9	9.5	7.9	6.3	4.8	1.09	0.73	0.55	0.44	
M	115	0.34	25.2	20.2	16.8	12.6	10.1	8.4	6.7	5.0	1.16	0.77	0.58	0.46		
025	XC	20	0.18	13.4	10.7	8.9	6.7	5.3	4.5	3.6	2.7	0.61	0.41	0.31	0.25	
	XC	30	0.22	16.3	13.1	10.9	8.2	6.5	5.4	4.4	3.3	0.75	0.50	0.38	0.30	
	C	40	0.25	18.6	14.9	12.4	9.3	7.4	6.2	5.0	3.7	0.85	0.57	0.43	0.34	
	C	50	0.28	20.8	16.6	13.9	10.4	8.3	6.9	5.5	4.2	0.95	0.64	0.48	0.38	
	C	60	0.31	23.0	18.4	15.3	11.5	9.2	7.7	6.1	4.6	1.06	0.70	0.53	0.42	
	M	70	0.33	24.5	19.6	16.3	12.3	9.8	8.2	6.5	4.9	1.13	0.75	0.56	0.45	
	M	80	0.35	26.0	20.8	17.3	13.0	10.4	8.7	6.9	5.2	1.19	0.80	0.60	0.48	
	M	90	0.38	28.2	22.6	18.8	14.1	11.3	9.4	7.5	5.6	1.30	0.86	0.65	0.52	
	M	100	0.40	29.7	23.8	19.8	14.9	11.9	9.9	7.9	5.9	1.36	0.91	0.68	0.55	
M	115	0.42	31.2	24.9	20.8	15.6	12.5	10.4	8.3	6.2	1.43	0.95	0.72	0.57		
03	XC	20	0.21	15.6	12.5	10.4	7.8	6.2	5.2	4.2	3.1	0.72	0.48	0.36	0.29	
	XC	30	0.26	19.3	15.4	12.9	9.7	7.7	6.4	5.1	3.9	0.89	0.59	0.44	0.35	
	C	40	0.30	22.3	17.8	14.9	11.1	8.9	7.4	5.9	4.5	1.02	0.68	0.51	0.41	
	C	50	0.34	25.2	20.2	16.8	12.6	10.1	8.4	6.7	5.0	1.16	0.77	0.58	0.46	
	C	60	0.37	27.5	22.0	18.3	13.7	11.0	9.2	7.3	5.5	1.26	0.84	0.63	0.50	
	M	70	0.40	29.7	23.8	19.8	14.9	11.9	9.9	7.9	5.9	1.36	0.91	0.68	0.55	
	M	80	0.42	31.2	24.9	20.8	15.6	12.5	10.4	8.3	6.2	1.43	0.95	0.72	0.57	
	M	90	0.45	33.4	26.7	22.3	16.7	13.4	11.1	8.9	6.7	1.53	1.02	0.77	0.61	
	M	100	0.47	34.9	27.9	23.3	17.4	14.0	11.6	9.3	7.0	1.60	1.07	0.80	0.64	
M	115	0.51	37.9	30.3	25.2	18.9	15.1	12.6	10.1	7.6	1.74	1.16	0.87	0.70		
04	UC	20	0.28	20.8	16.6	13.9	10.4	8.3	6.9	5.5	4.2	0.95	0.64	0.48	0.38	
	UC	30	0.35	26.0	20.8	17.3	13.0	10.4	8.7	6.9	5.2	1.19	0.80	0.60	0.48	
	UC	40	0.40	29.7	23.8	19.8	14.9	11.9	9.9	7.9	5.9	1.36	0.91	0.68	0.55	
	XC	50	0.45	33.4	26.7	22.3	16.7	13.4	11.1	8.9	6.7	1.53	1.02	0.77	0.61	
	XC	60	0.49	36.4	29.1	24.3	18.2	14.6	12.1	9.7	7.3	1.67	1.11	0.84	0.67	
	XC	70	0.53	39.4	31.5	26.2	19.7	15.7	13.1	10.5	7.9	1.81	1.20	0.90	0.72	
	VC	80	0.57	42.3	33.9	28.2	21.2	16.9	14.1	11.3	8.5	1.94	1.30	0.97	0.78	
	VC	90	0.60	44.6	35.6	29.7	22.3	17.8	14.9	11.9	8.9	2.05	1.36	1.02	0.82	
	C	100	0.63	46.8	37.4	31.2	23.4	18.7	15.6	12.5	9.4	2.15	1.43	1.07	0.86	
C	115	0.68	50.5	40.4	33.7	25.2	20.2	16.8	13.5	10.1	2.32	1.55	1.16	0.93		
05	UC	20	0.35	26.0	20.8	17.3	13.0	10.4	8.7	6.9	5.2	1.19	0.80	0.60	0.48	
	UC	30	0.43	31.9	25.5	21.3	16.0	12.8	10.6	8.5	6.4	1.47	0.98	0.73	0.59	
	XC	40	0.50	37.1	29.7	24.8	18.6	14.9	12.4	9.9	7.4	1.71	1.14	0.85	0.68	
	XC	50	0.56	41.6	33.3	27.7	20.8	16.6	13.9	11.1	8.3	1.91	1.27	0.95	0.76	
	XC	60	0.61	45.3	36.2	30.2	22.6	18.1	15.1	12.1	9.1	2.08	1.39	1.04	0.83	
	VC	70	0.66	49.0	39.2	32.7	24.5	19.6	16.3	13.1	9.8	2.25	1.50	1.13	0.90	
	VC	80	0.71	52.7	42.2	35.1	26.4	21.1	17.6	14.1	10.5	2.42	1.61	1.21	0.97	
	VC	90	0.75	55.7	44.6	37.1	27.8	22.3	18.6	14.9	11.1	2.56	1.71	1.28	1.02	
	C	100	0.79	58.7	46.9	39.1	29.3	23.5	19.6	15.6	11.7	2.69	1.80	1.35	1.08	
C	115	0.85	63.1	50.5	42.1	31.6	25.2	21.0	16.8	12.6	2.90	1.93	1.45	1.16		
06	UC	20	0.42	31.2	24.9	20.8	15.6	12.5	10.4	8.3	6.2	1.43	0.95	0.72	0.57	
	UC	30	0.52	38.6	30.9	25.7	19.3	15.4	12.9	10.3	7.7	1.77	1.18	0.89	0.71	
	XC	40	0.60	44.6	35.6	29.7	22.3	17.8	14.9	11.9	8.9	2.05	1.36	1.02	0.82	
	XC	50	0.67	49.7	39.8	33.2	24.9	19.9	16.6	13.3	9.9	2.28	1.52	1.14	0.91	
	VC	60	0.73	54.2	43.4	36.1	27.1	21.7	18.1	14.5	10.8	2.49	1.66	1.24	1.00	
	C	70	0.79	58.7	46.9	39.1	29.3	23.5	19.6	15.6	11.7	2.69	1.80	1.35	1.08	
	C	80	0.85	63.1	50.5	42.1	31.6	25.2	21.0	16.8	12.6	2.90	1.93	1.45	1.16	
	C	90	0.90	66.8	53.5	44.6	33.4	26.7	22.3	17.8	13.4	3.07	2.05	1.53	1.23	
	C	100	0.95	70.5	56.4	47.0	35.3	28.2	23.5	18.8	14.1	3.24	2.16	1.62	1.30	
M	115	1.02	75.7	60.6	50.5	37.9	30.3	25.2	20.2	15.1	3.48	2.32	1.74	1.39		
08	UC	20	0.57	42.3	33.9	28.2	21.2	16.9	14.1	11.3	8.5	1.94	1.30	0.97	0.78	
	UC	30	0.69	51.2	41.0	34.2	25.6	20.5	17.1	13.7	10.2	2.35	1.57	1.18	0.94	
	VC	40	0.80	59.4	47.5	39.6	29.7	23.8	19.8	15.8	11.9	2.73	1.82	1.36	1.09	
	VC	50	0.89	66.1	52.9	44.1	33.0	26.4	22.0	17.6	13.2	3.03	2.02	1.52	1.21	
	C	60	0.98	72.8	58.2	48.5	36.4	29.1	24.3	19.4	14.6	3.34	2.23	1.67	1.34	
	C	70	1.06	78.7	63.0	52.5	39.4	31.5	26.2	21.0	15.7	3.61	2.41	1.81	1.45	
	C	80	1.13	83.9	67.1	55.9	42.0	33.6	28.0	22.4	16.8	3.85	2.57	1.93	1.54	
	M	90	1.20	89.1	71.3	59.4	44.6	35.6	29.7	23.8	17.8	4.09	2.73	2.05	1.64	
	M	100	1.26	93.6	74.8	62.4	46.8	37.4	31.2	24.9	18.7	4.30	2.86	2.15	1.72	
M	115	1.36	101	80.8	67.3	50.5	40.4	33.7	26.9	20.2	4.64	3.09	2.32	1.86		



ULTRA LO-DRIFT MAX

DUAL AIR-INDUCTION NOZZLE FOR MAXIMUM DRIFT CONTROL

Nozzle Size	Droplet Size	Pressure (PSI)	Flow (GPM)	Speed (MPH) - 20 inch nozzle spacing											
				Gallons per Acre											
				5.0	7.5	10.0	12.5	15.0	17.5	20.0	22.5	25.0	27.5	30.0	
02	UC	30	0.17	10.1	6.7	5.0	4.0	3.4	2.9	2.5	2.2	2.0	1.8	1.7	
	UC	40	0.20	11.9	7.9	5.9	4.8	4.0	3.4	3.0	2.6	2.4	2.2	2.0	
	UC	50	0.22	13.1	8.7	6.5	5.2	4.4	3.7	3.3	2.9	2.6	2.4	2.2	
	UC	60	0.24	14.3	9.5	7.1	5.7	4.8	4.1	3.6	3.2	2.9	2.6	2.4	
	XC	70	0.26	15.4	10.3	7.7	6.2	5.1	4.4	3.9	3.4	3.1	2.8	2.6	
	XC	80	0.28	16.6	11.1	8.3	6.7	5.5	4.8	4.2	3.7	3.3	3.0	2.8	
	XC	90	0.30	17.8	11.9	8.9	7.1	5.9	5.1	4.5	4.0	3.6	3.2	3.0	
	XC	100	0.31	18.4	12.3	9.2	7.4	6.1	5.3	4.6	4.1	3.7	3.3	3.1	
025	UC	30	0.22	13.1	8.7	6.5	5.2	4.4	3.7	3.3	2.9	2.6	2.4	2.2	
	UC	40	0.25	14.9	9.9	7.4	5.9	5.0	4.2	3.7	3.3	3.0	2.7	2.5	
	UC	50	0.28	16.6	11.1	8.3	6.7	5.5	4.8	4.2	3.7	3.3	3.0	2.8	
	UC	60	0.31	18.4	12.3	9.2	7.4	6.1	5.3	4.6	4.1	3.7	3.3	3.1	
	UC	70	0.33	19.6	13.1	9.8	7.8	6.5	5.6	4.9	4.4	3.9	3.6	3.3	
	UC	80	0.35	20.8	13.9	10.4	8.3	6.9	5.9	5.2	4.6	4.2	3.8	3.5	
	XC	90	0.38	22.6	15.0	11.3	9.0	7.5	6.4	5.6	5.0	4.5	4.1	3.8	
	XC	100	0.40	23.8	15.8	11.9	9.5	7.9	6.8	5.9	5.3	4.8	4.3	4.0	
03	UC	30	0.26	15.4	10.3	7.7	6.2	5.1	4.4	3.9	3.4	3.1	2.8	2.6	
	UC	40	0.30	17.8	11.9	8.9	7.1	5.9	5.1	4.5	4.0	3.6	3.2	3.0	
	UC	50	0.34	20.2	13.5	10.1	8.1	6.7	5.8	5.0	4.5	4.0	3.7	3.4	
	UC	60	0.37	22.0	14.7	11.0	8.8	7.3	6.3	5.5	4.9	4.4	4.0	3.7	
	UC	70	0.40	23.8	15.8	11.9	9.5	7.9	6.8	5.9	5.3	4.8	4.3	4.0	
	XC	80	0.42	24.9	16.6	12.5	10.0	8.3	7.1	6.2	5.5	5.0	4.5	4.2	
	XC	90	0.45	-	17.8	13.4	10.7	8.9	7.6	6.7	5.9	5.3	4.9	4.5	
	XC	100	0.48	-	18.9	14.2	11.3	9.5	8.1	7.1	6.3	5.7	5.2	4.7	
04	UC	30	0.35	20.8	13.9	10.4	8.3	6.9	5.9	5.2	4.6	4.2	3.8	3.5	
	UC	40	0.40	23.8	15.8	11.9	9.5	7.9	6.8	5.9	5.3	4.8	4.3	4.0	
	UC	50	0.45	-	17.8	13.4	10.7	8.9	7.6	6.7	5.9	5.3	4.9	4.5	
	UC	60	0.49	-	19.4	14.6	11.6	9.7	8.3	7.3	6.5	5.8	5.3	4.9	
	UC	70	0.53	-	21.0	15.7	12.6	10.5	9.0	7.9	7.0	6.3	5.7	5.2	
	XC	80	0.57	-	22.6	16.9	13.5	11.3	9.7	8.5	7.5	6.8	6.2	5.6	
	XC	90	0.60	-	23.8	17.8	14.3	11.9	10.2	8.9	7.9	7.1	6.5	5.9	
	XC	100	0.63	-	-	18.8	15.0	12.5	10.7	9.4	8.4	7.5	6.8	6.3	
05	UC	30	0.43	-	17.0	12.8	10.2	8.5	7.3	6.4	5.7	5.1	4.6	4.3	
	UC	40	0.50	-	19.8	14.9	11.9	9.9	8.5	7.4	6.6	5.9	5.4	5.0	
	UC	50	0.56	-	22.2	16.6	13.3	11.1	9.5	8.3	7.4	6.7	6.0	5.5	
	UC	60	0.61	-	24.2	18.1	14.5	12.1	10.4	9.1	8.1	7.2	6.6	6.0	
	UC	70	0.66	-	-	19.6	15.7	13.1	11.2	9.8	8.7	7.8	7.1	6.5	
	UC	80	0.71	-	-	21.1	16.9	14.1	12.0	10.5	9.4	8.4	7.7	7.0	
	UC	90	0.75	-	-	22.3	17.8	14.9	12.7	11.1	9.9	8.9	8.1	7.4	
	XC	100	0.79	-	-	23.5	18.8	15.6	13.4	11.7	10.4	9.4	8.5	7.8	
06	UC	30	0.52	-	20.6	15.4	12.4	10.3	8.8	7.7	6.9	6.2	5.6	5.1	
	UC	40	0.60	-	23.8	17.8	14.3	11.9	10.2	8.9	7.9	7.1	6.5	5.9	
	UC	50	0.67	-	-	19.9	15.9	13.3	11.4	9.9	8.8	8.0	7.2	6.6	
	UC	60	0.73	-	-	21.7	17.3	14.5	12.4	10.8	9.6	8.7	7.9	7.2	
	UC	70	0.79	-	-	23.5	18.8	15.6	13.4	11.7	10.4	9.4	8.5	7.8	
	UC	80	0.85	-	-	-	20.2	16.8	14.4	12.6	11.2	10.1	9.2	8.4	
	UC	90	0.90	-	-	-	21.4	17.8	15.3	13.4	11.9	10.7	9.7	8.9	
	XC	100	0.95	-	-	-	22.6	18.8	16.1	14.1	12.5	11.3	10.3	9.4	
08	UC	30	0.69	-	-	20.5	16.4	13.7	11.7	10.2	9.1	8.2	7.5	6.8	
	UC	40	0.80	-	-	23.8	19.0	15.8	13.6	11.9	10.6	9.5	8.6	7.9	
	UC	50	0.89	-	-	-	21.1	17.6	15.1	13.2	11.7	10.6	9.6	8.8	
	UC	60	0.98	-	-	-	23.3	19.4	16.6	14.6	12.9	11.6	10.6	9.7	
	UC	70	1.06	-	-	-	-	21.0	18.0	15.7	14.0	12.6	11.4	10.5	
	UC	80	1.13	-	-	-	-	22.4	19.2	16.8	14.9	13.4	12.2	11.2	
	XC	90	1.20	-	-	-	-	23.8	20.4	17.8	15.8	14.3	13.0	11.9	
	XC	100	1.26	-	-	-	-	24.9	21.4	18.7	16.6	15.0	13.6	12.5	

Droplet size classification and color coding based on ANSI/ASAE S572.3 standard
Nozzle size color coding based on ISO 10625:2005(E) standard.

**For pressures lower than 15 PSI, nozzle spray angle may be reduced and will require a boom height of 30in to maintain spray distribution.



HYPRO® GuardianAIR Twin

- Ideal for high-coverage application of post-emerge plant health protectants
- Easily penetrates complex canopies with high-coverage forward and rear fans
- Designed to provide better coverage with more drops per gallon compared to other air-induced sprays
- Easy-to-install with locking ring and o-ring seal design help seal out dust and reduce contamination
- Integrated strainers are matched to the nozzle size to prevent over-straining or plugging



Features	
Common Use	Plant Health
Pattern	Tapered Flat Fan
Technology	Air Induction
Material	Polyacetal
Spray Angle	110°
Pressure Range	30-115 PSI
Configuration	FastCap Complete

Part Numbers	
FastCaps 110° with filter	FastCaps 110° without filter
GAT110-02	GAT110-02A
GAT110-025	GAT110-025A
GAT110-03	GAT110-03A
GAT110-035	GAT110-035A
GAT110-04	GAT110-04A
GAT110-05	GAT110-05A
GAT110-06	GAT110-06A
GAT110-08	GAT110-08A

Replacement Parts	
TS02-50	50 mesh strainer for all sizes
65-B5205	O-Ring
30Q3579A	Replaceable cage for non filter versions



Air induced, twin pattern provides more uniform coverage over a wide operating range.

Size	Droplet Size	Pressure (PSI)	Flow Rate (GPM)	Gallons per Acre 20 inch nozzle spacing							
				MPH							
02	C	30	0.17	12.6	10.1	8.4	6.3	5.0	4.2	3.4	2.5
	M	40	0.20	14.9	11.9	9.9	7.4	5.9	5.0	4.0	3.0
	M	50	0.22	16.3	13.1	10.9	8.2	6.5	5.4	4.4	3.3
	M	60	0.24	17.8	14.3	11.9	8.9	7.1	5.9	4.8	3.6
	M	70	0.26	19.3	15.4	12.9	9.7	7.7	6.4	5.1	3.9
	M	80	0.28	20.8	16.6	13.9	10.4	8.3	6.9	5.5	4.2
	M	90	0.30	22.3	17.8	14.9	11.1	8.9	7.4	5.9	4.5
	F	100	0.32	23.8	19.0	15.8	11.9	9.5	7.9	6.3	4.8
025	F	115	0.34	25.2	20.2	16.8	12.6	10.1	8.4	6.7	5.0
	VC	30	0.22	16.3	13.1	10.9	8.2	6.5	5.4	4.4	3.3
	C	40	0.25	18.6	14.9	12.4	9.3	7.4	6.2	5.0	3.7
	M	50	0.28	20.8	16.6	13.9	10.4	8.3	6.9	5.5	4.2
	M	60	0.31	23.0	18.4	15.3	11.5	9.2	7.7	6.1	4.6
	M	70	0.33	24.5	19.6	16.3	12.3	9.8	8.2	6.5	4.9
	M	80	0.35	26.0	20.8	17.3	13.0	10.4	8.7	6.9	5.2
	M	90	0.38	28.2	22.6	18.8	14.1	11.3	9.4	7.5	5.6
03	M	100	0.40	29.7	23.8	19.8	14.9	11.9	9.9	7.9	5.9
	M	115	0.42	31.2	24.9	20.8	15.6	12.5	10.4	8.3	6.2
	VC	30	0.26	19.3	15.4	12.9	9.7	7.7	6.4	5.1	3.9
	C	40	0.30	22.3	17.8	14.9	11.1	8.9	7.4	5.9	4.5
	M	50	0.34	25.2	20.2	16.8	12.6	10.1	8.4	6.7	5.0
	M	60	0.37	27.5	22.0	18.3	13.7	11.0	9.2	7.3	5.5
	M	70	0.40	29.7	23.8	19.8	14.9	11.9	9.9	7.9	5.9
	M	80	0.42	31.2	24.9	20.8	15.6	12.5	10.4	8.3	6.2
035	M	90	0.45	33.4	26.7	22.3	16.7	13.4	11.1	8.9	6.7
	M	100	0.47	34.9	27.9	23.3	17.4	14.0	11.6	9.3	7.0
	M	115	0.51	37.9	30.3	25.2	18.9	15.1	12.6	10.1	7.6
	VC	30	0.30	22.3	17.8	14.9	11.1	8.9	7.4	5.9	4.5
	C	40	0.35	26.0	20.8	17.3	13.0	10.4	8.7	6.9	5.2
	M	50	0.39	29.0	23.2	19.3	14.5	11.6	9.7	7.7	5.8
	M	60	0.43	31.9	25.5	21.3	16.0	12.8	10.6	8.5	6.4
	M	70	0.46	34.2	27.3	22.8	17.1	13.7	11.4	9.1	6.8
04	M	80	0.49	36.4	29.1	24.3	18.2	14.6	12.1	9.7	7.3
	M	90	0.53	39.4	31.5	26.2	19.7	15.7	13.1	10.5	7.9
	M	100	0.55	40.8	32.7	27.2	20.4	16.3	13.6	10.9	8.2
	M	115	0.59	43.8	35.0	29.2	21.9	17.5	14.6	11.7	8.8
	C	30	0.35	26.0	20.8	17.3	13.0	10.4	8.7	6.9	5.2
	M	40	0.40	29.7	23.8	19.8	14.9	11.9	9.9	7.9	5.9
	M	50	0.45	33.4	26.7	22.3	16.7	13.4	11.1	8.9	6.7
	M	60	0.49	36.4	29.1	24.3	18.2	14.6	12.1	9.7	7.3
05	M	70	0.53	39.4	31.5	26.2	19.7	15.7	13.1	10.5	7.9
	M	80	0.57	42.3	33.9	28.2	21.2	16.9	14.1	11.3	8.5
	M	90	0.60	44.6	35.6	29.7	22.3	17.8	14.9	11.9	8.9
	M	100	0.63	46.8	37.4	31.2	23.4	18.7	15.6	12.5	9.4
	M	115	0.68	50.5	40.4	33.7	25.2	20.2	16.8	13.5	10.1
	VC	30	0.43	31.9	25.5	21.3	16.0	12.8	10.6	8.5	6.4
	C	40	0.50	37.1	29.7	24.8	18.6	14.9	12.4	9.9	7.4
	M	50	0.56	41.6	33.3	27.7	20.8	16.6	13.9	11.1	8.3
06	M	60	0.61	45.3	36.2	30.2	22.6	18.1	15.1	12.1	9.1
	M	70	0.66	49.0	39.2	32.7	24.5	19.6	16.3	13.1	9.8
	M	80	0.71	52.7	42.2	35.1	26.4	21.1	17.6	14.1	10.5
	M	90	0.75	55.7	44.6	37.1	27.8	22.3	18.6	14.9	11.1
	M	100	0.79	58.7	46.9	39.1	29.3	23.5	19.6	15.6	11.7
	M	115	0.85	63.1	50.5	42.1	31.6	25.2	21.0	16.8	12.6
	VC	30	0.52	38.6	30.9	25.7	19.3	15.4	12.9	10.3	7.7
	C	40	0.60	44.6	35.6	29.7	22.3	17.8	14.9	11.9	8.9
08	M	50	0.67	49.7	39.8	33.2	24.9	19.9	16.6	13.3	9.9
	M	60	0.73	54.2	43.4	36.1	27.1	21.7	18.1	14.5	10.8
	M	70	0.79	58.7	46.9	39.1	29.3	23.5	19.6	15.6	11.7
	M	80	0.85	63.1	50.5	42.1	31.6	25.2	21.0	16.8	12.6
	M	90	0.90	66.8	53.5	44.6	33.4	26.7	22.3	17.8	13.4
	M	100	0.95	70.5	56.4	47.0	35.3	28.2	23.5	18.8	14.1
	M	115	1.02	75.7	60.6	50.5	37.9	30.3	25.2	20.2	15.1
	VC	30	0.69	51.2	41.0	34.2	25.6	20.5	17.1	13.7	10.2
08	C	40	0.80	59.4	47.5	39.6	29.7	23.8	19.8	15.8	11.9
	M	50	0.89	66.1	52.9	44.1	33.0	26.4	22.0	17.6	13.2
	C	60	0.98	72.8	58.2	48.5	36.4	29.1	24.3	19.4	14.6
	M	70	1.06	78.7	63.0	52.5	39.4	31.5	26.2	21.0	15.7
	M	80	1.13	83.9	67.1	55.9	42.0	33.6	28.0	22.4	16.8
	M	90	1.20	89.1	71.3	59.4	44.6	35.6	29.7	23.8	17.8
	M	100	1.26	93.6	74.8	62.4	46.8	37.4	31.2	24.9	18.7
	M	115	1.36	101	80.8	67.3	50.5	40.4	33.7	26.9	20.2



Combo-Jet

- Works well with PWM systems (Capstan Sharpshooter/Pinpoint II, Case AIMCommand, Raven Hawkeye, and more)
- Pre-orifice and closed chamber design produces significantly less drift and allows for maximum spray velocity and more meaningful droplets
- Tip molded into cap provides automatic spray alignment combo
- Cap and pre-orifice color matches ISO flow rates
- Pre-orifice is removable for any necessary cleaning operations
- Permanent stainless steel tip

Tip Cap No.	Flow Rate USGPM	PSI	US Gallons / Acre on 20" Spacing								Spray Class.; VMD (Droplet Size in µ); %<141µ (Drift %); %<600µ (Small Droplets)																Spray Tip & Part No.	
			@ Sprayer Speed - Miles / Hour								ER110 Series		SR110 Series				MR110 Series				DR110 Series				Spray Tip	Part #		
			5	7.5	10	12.5	15	17.5	20	Class	VMD	<141	<600	Class	VMD	<141	<600	Class	VMD	<141	<600	Class	VMD	<141			<600	Strainer Part #
01	0.06	15	3.6	2.4	1.8	1.5	1.2	1.0	0.9	F	155	40%	100%	-	-	-	-	-	-	-	-	-	-	-	-	ER110-01	40281-01	
	0.07	20	4.2	2.8	2.1	1.7	1.4	1.2	1.1	F	148	45%	100%	-	-	-	-	-	-	-	-	-	-	-	-	100 Mesh Strainers (Green) 40251-00		
	0.08	25	4.7	3.1	2.3	1.9	1.6	1.3	1.2	F	144	48%	100%	-	-	-	-	-	-	-	-	-	-	-				
	0.09	30	5.1	3.4	2.6	2.1	1.7	1.5	1.3	F	140	51%	100%	-	-	-	-	-	-	-	-	-	-	-				
	0.10	40	5.9	4.0	3.0	2.4	2.0	1.7	1.5	F	133	56%	100%	-	-	-	-	-	-	-	-	-	-	-				
	0.11	50	6.6	4.4	3.3	2.7	2.2	1.9	1.7	F	128	59%	100%	-	-	-	-	-	-	-	-	-	-	-				
	0.12	60	7.3	4.8	3.6	2.9	2.4	2.1	1.8	F	124	62%	100%	-	-	-	-	-	-	-	-	-	-	-				
	0.13	70	7.9	5.2	3.9	3.1	2.6	2.2	2.0	F	121	65%	100%	-	-	-	-	-	-	-	-	-	-	-				
	0.14	80	8.4	5.6	4.2	3.4	2.8	2.4	2.1	F	118	67%	100%	-	-	-	-	-	-	-	-	-	-	-				
0.15	90	8.9	5.9	4.5	3.6	3.0	2.5	2.2	F	115	69%	100%	-	-	-	-	-	-	-	-	-	-	-					
015	0.09	15	5.5	3.6	2.7	2.2	1.8	1.6	1.4	F	158	36%	100%	-	-	-	-	-	-	-	-	-	-	-	ER110-015	40281-015		
	0.11	20	6.3	4.2	3.2	2.5	2.1	1.8	1.6	F	153	40%	100%	M	237	18%	98%	-	-	-	-	-	-	-	SR110-015	40287-015		
	0.12	25	7.0	4.7	3.5	2.8	2.3	2.0	1.8	F	148	44%	100%	M	225	21%	98%	C	353	8%	91%	-	-	-	MR110-015	40291-015		
	0.13	30	7.7	5.1	3.9	3.1	2.6	2.2	1.9	F	145	47%	100%	F	215	24%	98%	C	322	11%	94%	C	366	7%	92%	DR110-015	40286-015	
	0.15	40	8.9	5.9	4.5	3.6	3.0	2.5	2.2	F	139	52%	100%	F	199	28%	98%	C	277	16%	97%	C	328	10%	94%	100 Mesh Strainer (Green) 40251-00		
	0.17	50	10.0	6.6	5.0	4.0	3.3	2.8	2.5	F	134	55%	100%	F	187	32%	98%	M	247	20%	99%	C	301	12%	95%			
	0.18	60	10.9	7.3	5.5	4.4	3.6	3.1	2.7	F	131	58%	100%	F	177	34%	98%	M	225	23%	99%	C	281	14%	96%			
	0.20	70	11.8	7.9	5.9	4.7	3.9	3.4	2.9	F	128	61%	100%	F	169	37%	98%	F	208	25%	99%	M	265	15%	97%			
	0.21	80	12.6	8.4	6.3	5.0	4.2	3.6	3.2	F	125	63%	100%	F	161	39%	98%	F	194	28%	100%	M	251	17%	97%			
0.23	90	13.4	8.9	6.7	5.3	4.5	3.8	3.3	F	123	65%	100%	F	155	41%	98%	F	183	30%	100%	M	240	18%	97%				
02	0.12	15	7.3	4.8	3.6	2.9	2.4	2.1	1.8	F	182	26%	99%	-	-	-	-	-	-	-	-	-	-	-	ER110-02	40281-02		
	0.14	20	8.4	5.6	4.2	3.4	2.8	2.4	2.1	F	173	32%	100%	M	237	18%	99%	-	-	-	-	-	-	-	SR110-02	40287-02		
	0.16	25	9.4	6.3	4.7	3.8	3.1	2.7	2.3	F	166	36%	100%	M	227	21%	99%	C	341	9%	94%	-	-	-	MR110-02	40291-02		
	0.17	30	10.3	6.9	5.1	4.1	3.4	2.9	2.6	F	160	39%	100%	M	219	23%	99%	C	315	12%	95%	VC	431	5%	82%	DR110-02	40286-02	
	0.20	40	11.9	7.9	5.9	4.8	4.0	3.4	3.0	F	151	45%	100%	F	206	26%	99%	C	279	15%	97%	VC	392	7%	87%	50 Mesh Strainer (Blue) 40250-00		
	0.22	50	13.3	8.9	6.6	5.3	4.4	3.8	3.3	F	144	49%	100%	F	196	29%	99%	M	254	19%	97%	C	361	8%	90%			
	0.24	60	14.5	9.7	7.3	5.8	4.8	4.2	3.6	F	138	52%	100%	F	188	31%	99%	M	235	21%	98%	C	336	9%	93%			
	0.26	70	15.7	10.5	7.9	6.3	5.2	4.5	3.9	F	133	55%	100%	F	181	33%	99%	M	220	23%	98%	C	315	10%	93%			
	0.28	80	16.8	11.2	8.4	6.7	5.6	4.8	4.2	F	128	58%	100%	F	175	34%	99%	F	208	25%	99%	C	297	11%	94%			
0.30	90	17.8	11.9	8.9	7.1	5.9	5.1	4.5	F	125	60%	100%	F	170	36%	99%	F	198	27%	99%	C	281	12%	94%				
025	0.15	15	9.1	6.1	4.5	3.6	3.0	2.6	2.3	F	199	28%	100%	-	-	-	-	-	-	-	-	-	-	-	ER110-025	40281-025		
	0.18	20	10.5	7.0	5.3	4.2	3.5	3.0	2.6	F	194	28%	100%	M	255	15%	98%	-	-	-	-	-	-	-	SR110-025	40287-025		
	0.20	25	11.7	7.8	5.9	4.7	3.9	3.4	2.9	F	190	29%	100%	M	244	18%	98%	C	369	7%	88%	-	-	-	MR110-025	40291-025		
	0.22	30	12.9	8.6	6.4	5.1	4.3	3.7	3.2	F	186	29%	100%	M	236	20%	98%	C	350	9%	91%	VC	434	5%	80%	DR110-025	40286-025	
	0.25	40	14.9	9.9	7.4	5.9	5.0	4.2	3.7	F	181	30%	100%	M	222	23%	98%	C	320	11%	93%	VC	398	7%	86%	50 Mesh Strainer (Blue) 40250-00		
	0.28	50	16.6	11.1	8.3	6.6	5.5	4.7	4.2	F	176	30%	100%	F	211	25%	98%	C	296	13%	95%	C	370	8%	89%			
	0.31	60	18.2	12.1	9.1	7.3	6.1	5.2	4.5	F	173	31%	100%	F	203	27%	98%	C	277	15%	96%	C	347	9%	92%			
	0.33	70	19.6	13.1	9.8	7.9	6.5	5.6	4.9	F	170	31%	100%	F	195	29%	98%	M	261	17%	96%	C	328	10%	93%			
	0.35	80	21	14.0	10.5	8.4	7.0	6.0	5.3	F	167	31%	100%	F	189	30%	98%	M	247	18%	97%	C	311	11%	94%			
0.38	90	22	14.9	11.1	8.9	7.4	6.4	5.6	F	165	32%	100%	F	183	31%	98%	M	234	19%	97%	C	296	11%	95%				
03	0.18	15	10.9	7.3	5.5	4.4	3.6	3.1	2.7	F	208	23%	99%	-	-	-	-	-	-	-	-	-	-	-	ER110-03	40281-03		
	0.21	20	12.6	8.4	6.3	5.0	4.2	3.6	3.2	F	198	27%	99%	C	338	7%	92%	-	-	-	-	-	-	-	SR110-03	40287-03		
	0.24	25	14.1	9.4	7.0	5.6	4.7	4.0	3.5	F	190	29%	99%	C	319	9%	94%	VC	416	5%	83%	-	-	-	MR110-03	40291-03		
	0.26	30	15.4	10.3	7.7	6.2	5.1	4.4	3.9	F	183	31%	99%	C	303	11%	95%	VC	394	6%	86%	XC	479	4%	74%	DR110-03	40286-03	
	0.30	40	17.8	11.9	8.9	7.1	5.9	5.1	4.5	F	173	35%	98%	C	279	15%	96%	C	360	9%	91%	VC	443	5%	80%	50 Mesh Strainer (Blue) 40250-00		
	0.34	50	20	13.3	10.0	8.0	6.6	5.7	5.0	F	165	37%	98%	M	260	17%	97%	C	333	10%	93%	VC	414	6%	84%			
	0.37	60	22	14.5	10.9	8.7	7.3	6.2	5.5	F	159	39%	97%	M	244	19%	97%	C	311	12%	94%	C	391	6%	86%			
	0.40	70	24	15.7	11.8	9.4	7.9	6.7	5.9	F	153	41%	97%	M	231	21%	98%	C	292	13%	95%	C	371	7%	88%			
	0.42	80	25	16.8	12.6	10.1	8.4	7.2	6.3	F	149	43%	96%	F	220	22%	98%	C	276	14%	96%	C	354	8%	90%			
0.45	90	27	17.8	13.4	10.7	8.9	7.6	6.7	F	144	44%	96%	F	209	24%	98%	M	262	15%	97%	C	339	8%	91%				

Droplet Categories as per ASABE S572.1 Classification (2009-current)

Extremely Fine Very Fine Fine Medium Coarse Very Coarse Extremely Coarse Ultra Coarse

*Droplet categories: The above chart is based on the ASABE Standard 572.1. Refer to chemical label to verify which ASABE S572.1 categories should be followed.





Combo-Jet

Tip Cap No.	Flow Rate USGPM	PSI	US Gallons / Acre @ 20"																Spray Classification; VMD (Droplet Size in µ); %<141µ (Drift %); %<600µ (Small Droplets)																Spray Tip & Part No.					
			@ Spray Speed - Miles / Hour																ER110 Series				SR110 Series				MR110 Series				DR110 Series				UR110 Series				Spray Tip	Part #
			5	7.5	10	12.5	15	17.5	20	Class	VMD	<141	<600	Class	VMD	<141	<600	Class	VMD	<141	<600	Class	VMD	<141	<600	Class	VMD	<141	<600	Class	UR Tip Usage	Strainer Part #								
04	0.24	15	14.5	9.7	7.3	5.8	4.8	4.2	3.6	M	251	16%	98%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ER110-04	40281-04								
	0.28	20	16.8	11.2	8.4	6.7	5.6	4.8	4.2	M	240	18%	97%	C	349	7%	91%	-	-	-	-	-	-	-	-	-	-	-	-	-	SR110-04	40287-04								
	0.32	25	18.8	12.5	9.4	7.5	6.3	5.4	4.7	M	232	20%	97%	C	330	9%	93%	VC	441	4%	80%	-	-	-	-	-	-	-	-	-	MR110-04	40291-04								
	0.35	30	21	13.7	10.3	8.2	6.9	5.9	5.1	M	225	22%	97%	C	314	11%	94%	VC	416	5%	84%	XC	510	3%	69%	UC	-	-	-	DR110-04	40286-04									
	0.40	40	24	15.8	11.9	9.5	7.9	6.8	5.9	F	215	24%	96%	C	288	14%	95%	C	377	7%	89%	VC	469	4%	76%	UC	-	-	-	UR110-04	40292-04									
	0.45	50	27	17.7	13.3	10.6	8.9	7.6	6.6	F	206	26%	96%	M	269	16%	96%	C	346	8%	92%	VC	438	5%	80%	UC	-	-	-	-	-	-								
	0.49	60	29	19.4	14.5	11.6	9.7	8.3	7.3	F	199	28%	96%	M	253	17%	96%	C	321	9%	94%	VC	412	6%	83%	UC	-	-	-	-	-	-								
	0.53	70	31	21	15.7	12.6	10.5	9.0	7.9	F	194	29%	95%	M	239	19%	97%	C	300	10%	95%	C	391	6%	85%	UC	-	-	-	-	-	-								
	0.57	80	34	22	16.8	13.4	11.2	9.6	8.4	F	189	30%	95%	M	228	20%	97%	C	282	11%	96%	C	372	7%	87%	UC	-	-	-	-	-	-								
	0.60	90	36	24	17.8	14.3	11.9	10.2	8.9	F	184	31%	95%	M	217	21%	97%	M	266	12%	96%	C	355	7%	88%	XC	-	-	-	-	-	-								
05	0.31	15	18	12.1	9.1	7.3	6.1	5.2	4.5	M	262	15%	95%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ER110-05	40281-05								
	0.35	20	21	14.0	10.5	8.4	7.0	6.0	5.3	M	248	18%	95%	VC	402	5%	86%	-	-	-	-	-	-	-	-	-	-	-	-	-	SR110-05	40287-05								
	0.40	25	23	15.7	11.7	9.4	7.8	6.7	5.9	M	237	20%	95%	C	377	7%	89%	XC	513	2%	67%	-	-	-	-	-	-	-	-	-	MR110-05	40291-05								
	0.43	30	26	17.1	12.9	10.3	8.6	7.3	6.4	M	228	22%	95%	C	355	8%	91%	XC	486	3%	72%	XC	530	2%	63%	UC	-	-	-	-	-	-								
	0.50	40	30	20	15	11.9	9.9	8.5	7.4	F	214	26%	95%	C	322	11%	93%	VC	445	5%	78%	XC	503	3%	68%	UC	-	-	-	-	-	-								
	0.56	50	33	22	17	13.3	11.1	9.5	8.3	F	203	28%	95%	C	296	13%	95%	VC	412	6%	82%	XC	482	3%	72%	UC	-	-	-	-	-	-								
	0.61	60	36	24	18	14.5	12.1	10.4	9.1	F	194	30%	95%	C	275	15%	96%	C	386	7%	85%	XC	465	3%	74%	UC	-	-	-	-	-	-								
	0.66	70	39	26	20	15.7	13.1	11.2	9.8	F	187	32%	95%	M	257	16%	96%	C	364	7%	87%	VC	451	4%	76%	UC	-	-	-	-	-	-								
	0.71	80	42	28	21	17	14.0	12.0	10.5	F	180	34%	95%	M	242	17%	97%	C	344	8%	88%	VC	438	4%	78%	UC	-	-	-	-	-	-								
	0.75	90	45	30	22	18	14.9	12.7	11.1	F	174	35%	95%	M	228	19%	97%	C	327	8%	89%	VC	427	4%	79%	UC	-	-	-	-	-	-								
06	0.37	15	22	14.5	10.9	8.7	7.3	6.2	5.5	C	297	11%	94%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ER110-06	40281-06								
	0.42	20	25	16.8	12.6	10.1	8.4	7.2	6.3	C	282	14%	94%	XC	479	2%	73%	-	-	-	-	-	-	-	-	-	-	-	-	-	SR110-06	40287-06								
	0.47	25	28	18.8	14.1	11.3	9.4	8.1	7.0	M	270	16%	94%	VC	444	4%	80%	XC	528	3%	63%	-	-	-	-	-	-	-	-	-	MR110-06	40291-06								
	0.52	30	31	20.6	15.4	12.3	10.3	8.8	7.7	M	261	18%	94%	VC	416	6%	84%	XC	507	3%	68%	XC	565	2%	57%	UC	-	-	-	-	-	-								
	0.60	40	36	23.8	17.8	14.3	11.9	10.2	8.9	M	246	20%	94%	C	371	8%	89%	XC	474	4%	74%	XC	529	2%	64%	UC	-	-	-	-	-	-								
	0.67	50	40	27	20	15.9	13.3	11.4	10.0	M	235	22%	95%	C	337	10%	92%	VC	448	4%	78%	XC	501	3%	68%	UC	-	-	-	-	-	-								
	0.73	60	44	29	22	17.5	14.5	12.5	10.9	M	225	24%	95%	C	308	12%	93%	VC	427	5%	81%	XC	478	3%	71%	UC	-	-	-	-	-	-								
	0.79	70	47	31	24	19	15.7	13.5	11.8	F	217	25%	95%	C	284	13%	94%	VC	409	5%	83%	XC	459	3%	74%	UC	-	-	-	-	-	-								
	0.85	80	50	34	25	20	16.8	14.4	12.6	F	211	27%	95%	M	264	14%	95%	C	394	6%	85%	VC	442	4%	75%	UC	-	-	-	-	-	-								
	0.90	90	53	36	27	21	17.8	15.3	13.4	F	204	28%	95%	M	245	15%	96%	C	380	6%	86%	VC	427	4%	77%	UC	-	-	-	-	-	-								
08	0.49	15	29	19	15	12	10	8	7	M	353	11%	88%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ER110-08	40281-08								
	0.57	20	34	22	17	13	11	10	8	M	327	14%	91%	UC	515	3%	52%	-	-	-	-	-	-	-	-	-	-	-	-	-	SR110-08	40287-08								
	0.63	25	38	25	19	15	13	11	9	F	307	16%	92%	UC	481	5%	61%	UC	561	4%	47%	-	-	-	-	-	-	-	-	-	MR110-08	40291-08								
	0.69	30	41	27	21	16	14	12	10	F	290	17%	93%	XC	453	6%	67%	UC	531	4%	53%	UC	614	3%	40%	UC	-	-	-	-	-	-								
	0.80	40	48	32	24	19	16	14	12	F	264	20%	95%	XC	408	7%	74%	UC	483	5%	61%	UC	569	4%	47%	UC	-	-	-	-	-	-								
	0.89	50	53	35	27	21	18	15	13	F	244	22%	95%	VC	374	9%	79%	XC	446	6%	67%	UC	534	4%	51%	UC	-	-	-	-	-	-								
	0.98	60	58	39	29	23	19	17	15	F	228	23%	96%	C	346	10%	82%	XC	416	7%	70%	UC	506	4%	55%	UC	-	-	-	-	-	-								
	1.06	70	63	42	31	25	21	18	16	F	214	25%	97%	C	322	11%	84%	XC	391	7%	73%	UC	482	5%	57%	UC	-	-	-	-	-	-								
	1.13	80	67	45	34	27	22	19	17	VF	202	26%	97%	C	302	11%	86%	VC	369	8%	76%	XC	461	5%	60%	UC	-	-	-	-	-	-								
	1.20	90	71	48	36	29	24	20	18	VF	191	27%	97%	C	284	12%	87%	C	349	8%	77%	XC	442	5%	61%	UC	-	-	-	-	-	-								
10	0.61	15	36	24	18	15	12	10	9	C	389	7%	86%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ER110-10	40281-10								
	0.71	20	42	28	21	17	14	12	11	C	362	10%	88%	UC	536	4%	47%	-	-	-	-	-	-	-	-	-	-	-	-	-	SR110-10	40287-10								
	0.79	25	47	31	23	19	16	13	12	M	341	12%	89%	UC	500	5%	56%	UC	552	4%	48%	-	-	-	-	-	-	-	-	-	MR110-10	40291-10								
	0.87	30	51	34	26	21	17	15	13	M	325	14%	90%	XC	470	6%	62%	UC	523	4%	53%	UC	609	5%	59%	UC	-	-	-	-	-	-								
	1.00	40	59	40	30	24	20	17	15	F	298	17%	92%	XC	424	7%	70%	XC	478	5%	59%	UC	584	5%	55%	UC	-	-	-	-	-	-								
	1.12	50	66	44	33	27	22	19	17	F	277	19%	93%	XC	388	8%	75%	XC	442	6%	64%	UC	565	6%	51%	UC	-	-	-	-	-	-								
	1.22	60	73	48	36	29	24	21	18	F	260	21%	94%	VC	358	9%	79%	XC	413	6%	67%	UC	550	6%	48%	UC	-	-	-	-	-	-								
	1.32	70	79	52	39	31	26	22	20	F	246	22%	94%	C	333	10%	81%	XC	388	7%	70%	UC	537	6%	46%	UC	-	-	-	-	-	-								
	1.41	80	84	56	42	34	28	24	21	F	234	23%	94%	C	311	11%	83%	VC	367	7%	72%	UC	525	6%	43%	UC	-	-	-	-	-	-								
	1.50	90	89	59	45	36	30	25	22	F	223	24%	95%	C	292	11%	85%																							



Combo-Jet

Tip Cap No.	Flow Rate USGPM	PSI	US Gallons / Acre on 20" spacing												Spray Class; VMD (Droplet Size in μ); %<141μ (Drift %); %<600μ (Small Droplets)																Spray Tip & Part No.	
			@ Sprayer Speed - Miles / Hour												ER110 Series				SR110 Series				MR110 Series				DR110 Series				Spray Tip	Part #
			5	7.5	10	12.5	15	17.5	20	Class	VMD	<141	<600	Class	VMD	<141	<600	Class	VMD	<141	<600	Class	VMD	<141	<600	Class	VMD	<141	<600	Strainer Part #		
15	0.92	15	55	36	27	22	18	16	14	C	466	7%	58%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ER110-15	40281-15
	1.06	20	63	42	32	25	21	18	16	C	438	8%	64%	UC	598	4%	37%	-	-	-	-	-	-	-	-	-	-	-	-	-	SR110-15	40287-15
	1.19	25	70	47	35	28	23	20	18	C	416	10%	68%	UC	565	4%	45%	UC	629	4%	37%	-	-	-	-	-	-	-	-	-	MR110-15	40291-15
	1.30	30	77	51	39	31	26	22	19	C	398	10%	72%	UC	538	5%	51%	UC	608	4%	40%	UC	659	3%	40%	-	-	-	-	-	DR110-15	40286-15
	1.50	40	89	59	45	36	30	25	22	M	370	12%	76%	UC	496	6%	58%	UC	574	4%	45%	UC	624	4%	46%	-	-	-	-	-	-	-
	1.68	50	100	66	50	40	33	28	25	M	348	13%	79%	XC	463	6%	64%	UC	548	5%	49%	UC	597	4%	50%	-	-	-	-	-	-	-
	1.84	60	109	73	55	44	36	31	27	M	330	14%	81%	XC	436	7%	67%	UC	527	5%	52%	UC	575	4%	53%	-	-	-	-	-	-	-
	1.98	70	118	79	59	47	39	34	29	F	315	15%	82%	XC	413	7%	70%	UC	508	5%	54%	UC	556	4%	55%	-	-	-	-	-	-	-
	2.12	80	126	84	63	50	42	36	32	F	302	15%	84%	XC	393	8%	72%	UC	493	5%	56%	UC	540	5%	58%	-	-	-	-	-	-	-
2.25	90	134	89	67	53	45	38	33	F	290	16%	85%	VC	375	8%	74%	XC	479	5%	57%	UC	526	5%	59%	-	-	-	-	-	-	-	
20	1.22	15	73	48	36	29	24	21	18	C	528	6%	49%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ER110-20	40281-20
	1.41	20	84	56	42	34	28	24	21	C	497	7%	56%	UC	573	5%	41%	-	-	-	-	-	-	-	-	-	-	-	-	-	SR110-20	40287-20
	1.58	25	94	63	47	38	31	27	23	C	473	7%	60%	UC	543	5%	49%	UC	616	4%	39%	-	-	-	-	-	-	-	-	-	MR110-20	40291-20
	1.73	30	103	69	51	41	34	29	26	C	453	8%	64%	UC	518	6%	55%	UC	593	4%	42%	-	-	-	-	-	-	-	-	-	-	-
	2.00	40	119	79	59	48	40	34	30	C	422	9%	68%	XC	479	6%	62%	UC	557	5%	48%	-	-	-	-	-	-	-	-	-	-	-
	2.24	50	133	89	66	53	44	38	33	C	399	9%	72%	XC	449	7%	67%	UC	529	6%	52%	-	-	-	-	-	-	-	-	-	-	-
	2.45	60	145	97	73	58	48	42	36	C	379	10%	74%	XC	424	8%	70%	UC	506	6%	55%	-	-	-	-	-	-	-	-	-	-	-
	2.65	70	157	105	79	63	52	45	39	C	362	10%	76%	XC	403	8%	73%	UC	487	6%	57%	-	-	-	-	-	-	-	-	-	-	-
	2.83	80	168	112	84	67	56	48	42	M	348	11%	78%	XC	385	8%	75%	XC	470	7%	59%	-	-	-	-	-	-	-	-	-	-	-
3.00	90	178	119	89	71	59	51	45	M	335	11%	79%	VC	369	9%	77%	XC	455	7%	60%	-	-	-	-	-	-	-	-	-	-	-	
25	1.53	15	91	61	45	36	30	26	23	C	526	6%	45%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ER110-25	40281-25
	1.77	20	105	70	53	42	35	30	26	C	495	6%	54%	UC	552	5%	46%	-	-	-	-	-	-	-	-	-	-	-	-	-	SR110-25	40287-25
	1.98	25	117	78	59	47	39	34	29	C	472	7%	60%	UC	525	5%	52%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2.17	30	129	86	64	51	43	37	32	C	453	7%	65%	UC	503	6%	56%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2.50	40	149	99	74	59	50	42	37	C	422	7%	71%	XC	468	6%	62%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2.80	50	166	111	83	66	55	47	42	C	399	8%	74%	XC	441	7%	66%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3.06	60	182	121	91	73	61	52	45	C	380	8%	77%	XC	419	8%	69%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3.31	70	196	131	98	79	65	56	49	C	364	8%	79%	XC	400	8%	71%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3.54	80	210	140	105	84	70	60	53	C	350	8%	81%	XC	384	8%	73%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.75	90	223	149	111	89	74	64	56	C	337	9%	82%	VC	369	9%	75%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
30	1.84	15	109	73	55	44	36	31	27	VC	536	4%	50%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ER110-30	40281-30	
	2.12	20	126	84	63	50	42	36	32	C	507	5%	55%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2.37	25	141	94	70	56	47	40	35	C	484	6%	58%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2.60	30	154	103	77	62	51	44	39	C	466	6%	61%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3.00	40	178	119	89	71	59	51	45	C	437	7%	65%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3.35	50	199	133	100	80	66	57	50	C	415	8%	68%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3.67	60	218	145	109	87	73	62	55	C	396	9%	70%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3.97	70	236	157	118	94	79	67	59	C	381	9%	72%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4.24	80	252	168	126	101	84	72	63	C	367	9%	73%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.50	90	267	178	134	107	89	76	67	C	355	10%	74%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Droplet Categories as per ASABE S572.1 Classification (2009-current)

Extremely Fine Very Fine Fine Medium Coarse Very Coarse Extremely Coarse Ultra Coarse
 *Droplet categories: The above chart is based on the ASABE Standard 572.1. Refer to chemical label to verify which ASABE S572.1 categories should be followed.

COMBO-JET® ER, SR, MR, DR, & UR Spray Tips - What is the difference?

The sliding scale of droplet size means at any flow rate, you have multiple options to match your desired spray.

FINER SPRAY

5 Series of Spray Tips for a Sliding Scale of Droplet Size

NEW

BEST DRIFT REDUCTION



Comparison Criteria	ER Series Extended Range	SR Series Small Reduction	MR Series Mid-Range Reduction	DR Series Drift Reduction	UR Series Drift Reduction
Spray Tip Design	Conventional Flat Fan	Pre-orifice Drift Reduction	Pre-orifice Drift Reduction	Pre-orifice Drift Reduction	Dual Chamber Drift Red.
Droplet Size ¹ @40PSI	Smallest (246 μ VMD ¹)	Medium (371 μ VMD ¹)	Large (474 μ VMD ¹)	Very Large (529 μ VMD ¹)	Ultra Coarse
% <141 μ ²	20% of volume < 141 μ	8% of volume < 141 μ	4% of volume < 141 μ	2% of volume < 141 μ	UR spray tips are specially spray tips, designed for certain chemical applications that require exceptional drift reduction.
% <600 μ ³	94% of volume < 600 μ	89% of volume < 600 μ	74% of volume < 600 μ	64% of volume < 600 μ	They are not to be replaced with other spray tip series that are not approved to be on the chemical label. Always follow up-to-date label information.
Drift Potential	Most likely to drift	Lower drift potential	Major reduction	Least likely to drift	Refer to chemical application label for maximum pressures, speeds and application information.
Coverage	Best	Excellent	Very good	Good	More information available at www.wilger.net

¹Based on an XX110-06 nozzle @ 40 psi (2.75 BAR)

²Droplets smaller than 141 μ are more likely to drift. 141 μ is used as a standard for estimating driftable fines.

³Droplets smaller than 600 μ provide better coverage. Droplets > 600 μ consume more spray volume, reducing overall coverage.



Spray Tip Accessories

Spray Tip Strainers

**19845****8079****4193A****55215****6051**

PART#	DESCRIPTION
19845-50-PP	Stainless Mesh Poly Tip Strainer
4193A-PP-2-50SS	Polypropylene Strainer & Check Valve
55215-50-EPR	50 Mesh EPDM Self-Retaining Tip Strainer
55215-50-VI	50 Mesh Viton Self-Retaining Tip Strainer
55215-100-EPR	100 Mesh EPDM Self-Retaining Tip Strainer
55215-100-VI	100 Mesh Viton Self-Retaining Tip Strainer
6051-SS-50	Stainless Mesh SS Tip Strainer
8079-PP-50	Stainless Mesh Poly Tip Strainer

Hardened Steel Orifice Disks



For spraying pesticides at higher pressures and flow rates. Especially suitable for wettable powders and other abrasive chemicals. Larger capacity nozzles are also used in air blast sprayers.

- Produce smaller droplets for thorough coverage with contact pesticides and foliar applications
- Maximum spray pressure to 300 psi (20 bar)

PART#	FLOW	GPM
D1	0.031"	0.37
D2	0.041"	0.67
D3	0.047"	0.92
D4	0.063"	1.51
D5	0.078"	2.08
D6	0.094"	3.02
D7	0.109"	4.16
D8	0.125"	5.28

Universal Application Rate Chart for 15" Tip Spacing

TIP CAPACITY	LIQUID PRESSURE IN PSI	CAPACITY 1 NOZZLE IN GPM	CAPACITY 1 NOZZLE IN OZ./MIN.	GALLONS PER ACRE – 15" NOZZLE SPACING											
				4 MPH	5 MPH	6 MPH	7 MPH	8 MPH	10 MPH	12 MPH	14 MPH	16 MPH	18 MPH	20 MPH	22 MPH
01	15	0.061	7.8	6.0	4.8	4.0	3.5	3.0	2.4	2.0	1.7	1.5	1.3	1.2	1.1
	20	0.071	9.1	7.0	5.6	4.7	4.0	3.5	2.8	2.3	2.0	1.8	1.6	1.4	1.3
	30	0.087	11	8.6	6.9	5.7	4.9	4.3	3.4	2.9	2.5	2.2	1.9	1.7	1.6
	40	0.10	13	9.9	7.9	6.6	5.7	5.0	4.0	3.3	2.8	2.5	2.2	2.0	1.8
	50	0.11	14	10.9	8.7	7.3	6.2	5.4	4.4	3.6	3.1	2.7	2.4	2.2	2.0
	60	0.12	15	11.9	9.5	7.9	6.8	5.9	4.8	4.0	3.4	3.0	2.6	2.4	2.2
	75	0.14	18	13.9	11.1	9.2	7.9	6.9	5.5	4.6	4.0	3.5	3.1	2.8	2.5
015	90	0.15	19	14.9	11.9	9.9	8.5	7.4	5.9	5.0	4.2	3.7	3.3	3.0	2.7
	15	0.092	12	9.1	7.3	6.1	5.2	4.6	3.6	3.0	2.6	2.3	2.0	1.8	1.7
	20	0.11	14	10.9	8.7	7.3	6.2	5.4	4.4	3.6	3.1	2.7	2.4	2.2	2.0
	30	0.13	17	12.9	10.3	8.6	7.4	6.4	5.1	4.3	3.7	3.2	2.9	2.6	2.3
	40	0.15	19	14.9	11.9	9.9	8.5	7.4	5.9	5.0	4.2	3.7	3.3	3.0	2.7
	50	0.17	22	16.8	13.5	11.2	9.6	8.4	6.7	5.6	4.8	4.2	3.7	3.4	3.1
	60	0.18	23	17.8	14.3	11.9	10.2	8.9	7.1	5.9	5.1	4.5	4.0	3.6	3.2
02	75	0.21	27	21	16.6	13.9	11.9	10.4	8.3	6.9	5.9	5.2	4.6	4.2	3.8
	90	0.23	29	23	18.2	15.2	13.0	11.4	9.1	7.6	6.5	5.7	5.1	4.6	4.1
	15	0.12	15	11.9	9.5	7.9	6.8	5.9	4.8	4.0	3.4	3.0	2.6	2.4	2.2
	20	0.14	18	13.9	11.1	9.2	7.9	6.9	5.5	4.6	4.0	3.5	3.1	2.8	2.5
	30	0.17	22	16.8	13.5	11.2	9.6	8.4	6.7	5.6	4.8	4.2	3.7	3.4	3.1
	40	0.20	26	19.8	15.8	13.2	11.3	9.9	7.9	6.6	5.7	5.0	4.4	4.0	3.6
	50	0.22	28	22	17.4	14.5	12.4	10.9	8.7	7.3	6.2	5.4	4.8	4.4	4.0
025	60	0.24	31	24	19.0	15.8	13.6	11.9	9.5	7.9	6.8	5.9	5.3	4.8	4.3
	75	0.27	35	27	21	17.8	15.3	13.4	10.7	8.9	7.6	6.7	5.9	5.3	4.9
	90	0.30	38	30	24	19.8	17.0	14.9	11.9	9.9	8.5	7.4	6.6	5.9	5.4
	15	0.15	19	14.9	11.9	9.9	8.5	7.4	5.9	5.0	4.2	3.7	3.3	3.0	2.7
	20	0.18	23	17.8	14.3	11.9	10.2	8.9	7.1	5.9	5.1	4.5	4.0	3.6	3.2
	30	0.22	28	22	17.4	14.5	12.4	10.9	8.7	7.3	6.2	5.4	4.8	4.4	4.0
	40	0.25	32	25	19.8	16.5	14.1	12.4	9.9	8.3	7.1	6.2	5.5	5.0	4.5
03	50	0.28	36	28	22	18.5	15.8	13.9	11.1	9.2	7.9	6.9	6.2	5.5	5.0
	60	0.31	40	31	25	20	17.5	15.3	12.3	10.2	8.8	7.7	6.8	6.1	5.6
	75	0.34	44	34	27	22	19.2	16.8	13.5	11.2	9.6	8.4	7.5	6.7	6.1
	90	0.38	49	38	30	25	21	18.8	15.0	12.5	10.7	9.4	8.4	7.5	6.8
	15	0.18	23	17.8	14.3	11.9	10.2	8.9	7.1	5.9	5.1	4.5	4.0	3.6	3.2
	20	0.21	27	21	16.6	13.9	11.9	10.4	8.3	6.9	5.9	5.2	4.6	4.2	3.8
	30	0.26	33	26	21	17.2	14.7	12.9	10.3	8.6	7.4	6.4	5.7	5.1	4.7
04	40	0.30	38	30	24	19.8	17.0	14.9	11.9	9.9	8.5	7.4	6.6	5.9	5.4
	50	0.34	44	34	27	22	19.2	16.8	13.5	11.2	9.6	8.4	7.5	6.7	6.1
	60	0.37	47	37	29	24	21	18.3	14.7	12.2	10.5	9.2	8.1	7.3	6.7
	75	0.41	52	41	32	27	23	20	16.2	13.5	11.6	10.1	9.0	8.1	7.4
	90	0.45	58	45	36	30	25	22	17.8	14.9	12.7	11.1	9.9	8.9	8.1
	15	0.24	31	24	19.0	15.8	13.6	11.9	9.5	7.9	6.8	5.9	5.3	4.8	4.3
	20	0.28	36	28	22	18.5	15.8	13.9	11.1	9.2	7.9	6.9	6.2	5.5	5.0
05	30	0.35	45	35	28	23	19.8	17.3	13.9	11.6	9.9	8.7	7.7	6.9	6.3
	40	0.40	51	40	32	26	23	19.8	15.8	13.2	11.3	9.9	8.8	7.9	7.2
	50	0.45	58	45	36	30	25	22	17.8	14.9	12.7	11.1	9.9	8.9	8.1
	60	0.49	63	49	39	32	28	24	19.4	16.2	13.9	12.1	10.8	9.7	8.8
	75	0.55	70	54	44	36	31	27	22	18.2	15.6	13.6	12.1	10.9	9.9
	90	0.60	77	59	48	40	34	30	24	19.8	17.0	14.9	13.2	11.9	10.8
	15	0.31	40	31	25	20	17.5	15.3	12.3	10.2	8.8	7.7	6.8	6.1	5.6
06	20	0.35	45	35	28	23	19.8	17.3	13.9	11.6	9.9	8.7	7.7	6.9	6.3
	30	0.43	55	43	34	28	24	21	17.0	14.2	12.2	10.6	9.5	8.5	7.7
	40	0.50	64	50	40	33	28	25	19.8	16.5	14.1	12.4	11.0	9.9	9.0
	50	0.56	72	55	44	37	32	28	22	18.5	15.8	13.9	12.3	11.1	10.1
	60	0.61	78	60	48	40	35	30	24	20	17.3	15.1	13.4	12.1	11.0
	75	0.68	87	67	54	45	38	34	27	22	19.2	16.8	15.0	13.5	12.2
	90	0.75	96	74	59	50	42	37	30	25	21	18.6	16.5	14.9	13.5
08	15	0.37	47	37	29	24	21	18.3	14.7	12.2	10.5	9.2	8.1	7.3	6.7
	20	0.42	54	42	33	28	24	21	16.6	13.9	11.9	10.4	9.2	8.3	7.6
	30	0.52	67	51	41	34	29	26	21	17.2	14.7	12.9	11.4	10.3	9.4
	40	0.60	77	59	48	40	34	30	24	19.8	17.0	14.9	13.2	11.9	10.8
	50	0.67	86	66	53	44	38	33	27	22	19.0	16.6	14.7	13.3	12.1
	60	0.73	93	72	58	48	41	36	29	24	21	18.1	16.1	14.5	13.1
	75	0.82	105	81	65	54	46	41	32	27	23	20	18.0	16.2	14.8
10	90	0.90	115	89	71	59	51	45	36	30	25	22	19.8	17.8	16.2
	15	0.49	63	49	39	32	28	24	19.4	16.2	13.9	12.1	10.8	9.7	8.8
	20	0.57	73	56	45	38	32	28	23	18.8	16.1	14.1	12.5	11.3	10.3
	30	0.69	88	68	55	46	39	34	27	23	19.5	17.1	15.2	13.7	12.4
	40	0.80	102	79	63	53	45	40	32	26	23	19.8	17.6	15.8	14.4
	50	0.89	114	88	70	59	50	44	35	29	25	22	19.6	17.6	16.0
	60	0.98	125	97	78	65	55	49	39	32	28	24	22	19.4	17.6
15	75	1.10	141	109	87	73	62	54	44	36	31	27	24	22	19.8
	90	1.20	154	119	95	79	68	59	48	40	34	30	26	24	22
	15	0.61	78	60	48	40	35	30	24	20	17.3	15.1	13.4	12.1	11.0
	20	0.71	91	70	56	47	40	35	28	23	20	17.6	15.6	14.1	12.8
	30	0.87	111	86	69	57	49	43	34	29	25	22	19.1	17.2	15.7
	40	1.00	128	99	79	66	57	50	40	33	28	25	22	19.8	18.0
	50	1.12	143	111	89	74	63	55	44	37	32	28	25	22	20
20	60	1.22	156	121	97	81	69	60	48	40	35	30	27	24	22
	75	1.37	175	136	109	90	78	68	54	45	39	34	30	27	25
	90	1.50	192	149	119	99	85	74	59	50	42	37	33	30	27
	15	0.92	118	91	73	61	52	46	36	30	26	23	20	18.2	16.6
	20	1.06	136	105	84	70	60	52	42	35	30	26	23	21	19.1
	30	1.30	166	129	103	86	74	64	51	43	37	32	29	26	23
	40	1.50	192	149	119	99	85	74	59	50	42	37	33	30	27
25	50	1.68	215	166	133	111	95	83	67	55	48	42	37	33	30
	60	1.84	236	182	146	121	104	91	73	61	52	46	40	36	33
	75	2.05	262	203	162	135	116	101	81	68	58	51	45	41	37
	90	2.25	288	223	178	149	127	111	89	74	64	56	50	45	41
	15	1.22	156	121	97	81	69	60	48	40	35	30	27	24	22
	20	1.41	180	140	112	93	80	70	56	47	40	35	31	28	25
	30	1.73	221	171	137	114	98	86	69	57	49	43	38	34	31
30	40	2.00	256	198	158	132	113	99	79	66	57	50	44	40	36
	50	2.24	287	222	177	148	127	111	89	74	63	55	49	44	40
	60	2.45	314	243	194	162	139	121	97	81	69	61	54		

Universal Application Rate Chart for 30" Tip Spacing

TIP CAPACITY	LIQUID PRESSURE IN PSI	CAPACITY 1 NOZZLE IN GPM	CAPACITY 1 NOZZLE IN OZ./MIN.	GALLONS PER ACRE – 30" NOZZLE SPACING											
				4 MPH	5 MPH	6 MPH	7 MPH	8 MPH	10 MPH	12 MPH	14 MPH	16 MPH	18 MPH	20 MPH	22 MPH
01	15	0.061	7.8	3.0	2.4	2.0	1.7	1.5	1.2	1.0	0.86	0.75	0.67	0.60	0.55
	20	0.071	9.1	3.5	2.8	2.3	2.0	1.8	1.4	1.2	1.0	0.88	0.78	0.70	0.64
	30	0.087	11	4.3	3.4	2.9	2.5	2.2	1.7	1.4	1.2	1.1	0.96	0.86	0.78
	40	0.10	13	5.0	4.0	3.3	2.8	2.5	2.0	1.7	1.4	1.2	1.1	0.99	0.90
	50	0.11	14	5.4	4.4	3.6	3.1	2.7	2.2	1.8	1.6	1.4	1.2	1.1	0.99
	60	0.12	15	5.9	4.8	4.0	3.4	3.0	2.4	2.0	1.7	1.5	1.3	1.2	1.1
	75	0.14	18	6.9	5.5	4.6	4.0	3.5	2.8	2.3	2.0	1.7	1.5	1.4	1.3
015	90	0.15	19	7.4	5.9	5.0	4.2	3.7	3.0	2.5	2.1	1.9	1.7	1.5	1.4
	15	0.092	12	4.6	3.6	3.0	2.6	2.3	1.8	1.5	1.3	1.1	1.0	0.91	0.83
	20	0.11	14	5.4	4.4	3.6	3.1	2.7	2.2	1.8	1.6	1.4	1.2	1.1	0.99
	30	0.13	17	6.4	5.1	4.3	3.7	3.2	2.6	2.1	1.8	1.6	1.4	1.3	1.2
	40	0.15	19	7.4	5.9	5.0	4.2	3.7	3.0	2.5	2.1	1.9	1.7	1.5	1.4
	50	0.17	22	8.4	6.7	5.6	4.8	4.2	3.4	2.8	2.4	2.1	1.9	1.7	1.5
	60	0.18	23	8.9	7.1	5.9	5.1	4.5	3.6	3.0	2.5	2.2	2.0	1.8	1.6
02	75	0.21	27	10.4	8.3	6.9	5.9	5.2	4.2	3.5	3.0	2.6	2.3	2.1	1.9
	90	0.23	29	11.4	9.1	7.6	6.5	5.7	4.6	3.8	3.3	2.8	2.5	2.3	2.1
	15	0.12	15	5.9	4.8	4.0	3.4	3.0	2.4	2.0	1.7	1.5	1.3	1.2	1.1
	20	0.14	18	6.9	5.5	4.6	4.0	3.5	2.8	2.3	2.0	1.7	1.5	1.4	1.3
	30	0.17	22	8.4	6.7	5.6	4.8	4.2	3.4	2.8	2.4	2.1	1.9	1.7	1.5
	40	0.20	26	9.9	7.9	6.6	5.7	5.0	4.0	3.3	2.8	2.5	2.2	2.0	1.8
	50	0.22	28	10.9	8.7	7.3	6.2	5.4	4.4	3.6	3.1	2.7	2.4	2.2	2.0
025	60	0.24	31	11.9	9.5	7.9	6.8	5.9	4.8	4.0	3.4	3.0	2.6	2.4	2.2
	75	0.27	35	13.4	10.7	8.9	7.6	6.7	5.3	4.5	3.8	3.3	3.0	2.7	2.4
	90	0.30	38	14.9	11.9	9.9	8.5	7.4	5.9	5.0	4.2	3.7	3.3	3.0	2.7
	15	0.15	19	7.4	5.9	5.0	4.2	3.7	3.0	2.5	2.1	1.9	1.7	1.5	1.4
	20	0.18	23	8.9	7.1	5.9	5.1	4.5	3.6	3.0	2.5	2.2	2.0	1.8	1.6
	30	0.22	28	10.9	8.7	7.3	6.2	5.4	4.4	3.6	3.1	2.7	2.4	2.2	2.0
	40	0.25	32	12.4	9.9	8.3	7.1	6.2	5.0	4.1	3.5	3.1	2.8	2.5	2.3
03	50	0.28	36	13.9	11.1	9.2	7.9	6.9	5.5	4.6	4.0	3.5	3.1	2.8	2.5
	60	0.31	40	15.3	12.3	10.2	8.8	7.7	6.1	5.1	4.4	3.8	3.4	3.1	2.8
	75	0.34	44	16.8	13.5	11.2	9.6	8.4	6.7	5.6	4.8	4.2	3.7	3.4	3.1
	90	0.38	49	18.8	15.0	12.5	10.7	9.4	7.5	6.3	5.4	4.7	4.2	3.8	3.4
	15	0.18	23	8.9	7.1	5.9	5.1	4.5	3.6	3.0	2.5	2.2	2.0	1.8	1.6
	20	0.21	27	10.4	8.3	6.9	5.9	5.2	4.2	3.5	3.0	2.6	2.3	2.1	1.9
	30	0.26	33	12.9	10.3	8.6	7.4	6.4	5.1	4.3	3.7	3.2	2.9	2.6	2.3
04	40	0.30	38	14.9	11.9	9.9	8.5	7.4	5.9	5.0	4.2	3.7	3.3	3.0	2.7
	50	0.34	44	16.8	13.5	11.2	9.6	8.4	6.7	5.6	4.8	4.2	3.7	3.4	3.1
	60	0.37	47	18.3	14.7	12.2	10.5	9.2	7.3	6.1	5.2	4.6	4.1	3.7	3.3
	75	0.41	52	20	16.2	13.5	11.6	10.1	8.1	6.8	5.8	5.1	4.5	4.1	3.7
	90	0.45	58	22	17.8	14.9	12.7	11.1	8.9	7.4	6.4	5.6	5.0	4.5	4.1
	15	0.24	31	11.9	9.5	7.9	6.8	5.9	4.8	4.0	3.4	3.0	2.6	2.4	2.2
	20	0.28	36	13.9	11.1	9.2	7.9	6.9	5.5	4.6	4.0	3.5	3.1	2.8	2.5
05	30	0.35	45	17.3	13.9	11.6	9.9	8.7	6.9	5.8	5.0	4.3	3.9	3.5	3.2
	40	0.40	51	19.8	15.8	13.2	11.3	9.9	7.9	6.6	5.7	5.0	4.4	4.0	3.6
	50	0.45	58	22	17.8	14.9	12.7	11.1	8.9	7.4	6.4	5.6	5.0	4.5	4.1
	60	0.49	63	24	19.4	16.2	13.9	12.1	9.7	8.1	6.9	6.1	5.4	4.9	4.4
	75	0.55	70	27	22	18.2	15.6	13.6	10.9	9.1	7.8	6.8	6.1	5.4	5.0
	90	0.60	77	30	24	19.8	17.0	14.9	11.9	9.9	8.5	7.4	6.6	5.9	5.4
	15	0.31	40	15.3	12.3	10.2	8.8	7.7	6.1	5.1	4.4	3.8	3.4	3.1	2.8
06	20	0.35	45	17.3	13.9	11.6	9.9	8.7	6.9	5.8	5.0	4.3	3.9	3.5	3.2
	30	0.43	55	21	17.0	14.2	12.2	10.6	8.5	7.1	6.1	5.3	4.7	4.3	3.9
	40	0.50	64	25	19.8	16.5	14.1	12.4	9.9	8.3	7.1	6.2	5.5	5.0	4.5
	50	0.56	72	28	22	18.5	15.8	13.9	11.1	9.2	7.9	6.9	6.2	5.5	5.0
	60	0.61	78	30	24	20	17.3	15.1	12.1	10.1	8.6	7.5	6.7	6.0	5.5
	75	0.68	87	34	27	22	19.2	16.8	13.5	11.2	9.6	8.4	7.5	6.7	6.1
	90	0.75	96	37	30	25	21	18.6	14.9	12.4	10.6	9.3	8.3	7.4	6.8
08	15	0.37	47	18.3	14.7	12.2	10.5	9.2	7.3	6.1	5.2	4.6	4.1	3.7	3.3
	20	0.42	54	21	16.6	13.9	11.9	10.4	8.3	6.9	5.9	5.2	4.6	4.2	3.8
	30	0.52	67	26	21	17.2	14.7	12.9	10.3	8.6	7.4	6.4	5.7	5.1	4.7
	40	0.60	77	30	24	19.8	17.0	14.9	11.9	9.9	8.5	7.4	6.6	5.9	5.4
	50	0.67	86	33	27	22	19.0	16.6	13.3	11.1	9.5	8.3	7.4	6.6	6.0
	60	0.73	93	36	29	24	21	18.1	14.5	12.0	10.3	9.0	8.0	7.2	6.6
	75	0.82	105	41	32	27	23	20	16.2	13.5	11.6	10.1	9.0	8.1	7.4
10	90	0.90	115	45	36	30	25	22	17.8	14.9	12.7	11.1	9.9	8.9	8.1
	15	0.49	63	24	19.4	16.2	13.9	12.1	9.7	8.1	6.9	6.1	5.4	4.9	4.4
	20	0.57	73	28	23	18.8	16.1	14.1	11.3	9.4	8.1	7.1	6.3	5.6	5.1
	30	0.69	88	34	27	23	19.5	17.1	13.7	11.4	9.8	8.5	7.6	6.8	6.2
	40	0.80	102	40	32	26	23	19.8	15.8	13.2	11.3	9.9	8.8	7.9	7.2
	50	0.89	114	44	35	29	25	22	17.6	14.7	12.6	11.0	9.8	8.8	8.0
	60	0.98	125	49	39	32	28	24	19.4	16.2	13.9	12.1	10.8	9.7	8.8
15	75	1.10	141	54	44	36	31	27	22	18.2	15.6	13.6	12.1	10.9	9.9
	90	1.20	154	59	48	40	34	30	24	19.8	17.0	14.9	13.2	11.9	10.8
	15	0.61	78	30	24	20	17.3	15.1	12.1	10.1	8.6	7.5	6.7	6.0	5.5
	20	0.71	91	35	28	23	20	17.6	14.1	11.7	10.0	8.8	7.8	7.0	6.4
	30	0.87	111	43	34	29	25	22	17.2	14.4	12.3	10.8	9.6	8.6	7.8
	40	1.00	128	50	40	33	28	25	19.8	16.5	14.1	12.4	11.0	9.9	9.0
	50	1.12	143	55	44	37	32	28	22	18.5	15.8	13.9	12.3	11.1	10.1
20	60	1.22	156	60	48	40	35	30	24	20	17.3	15.1	13.4	12.1	11.0
	75	1.37	175	68	54	45	39	34	27	23	19.4	17.0	15.1	13.6	12.3
	90	1.50	192	74	59	50	42	37	30	25	21	18.6	16.5	14.9	13.5
	15	0.92	118	46	36	30	26	23	18.2	15.2	13.0	11.4	10.1	9.1	8.3
	20	1.06	136	52	42	35	30	26	21	17.5	15.0	13.1	11.7	10.5	9.5
	30	1.30	166	64	51	43	37	32	26	21	18.4	16.1	14.3	12.9	11.7
	40	1.50	192	74	59	50	42	37	30	25	21	18.6	16.5	14.9	13.5
25	50	1.68	215	83	67	55	48	42	33	28	24	21	18.5	16.6	15.1
	60	1.84	236	91	73	61	52	46	36	30	26	23	20	18.2	16.6
	75	2.05	262	101	81	68	58	51	41	34	29	25	23	20	18.5
	90	2.25	288	111	89	74	64	56	45	37	32	28	25	22	20
	15	1.22	156	60	48	40	35	30	24	20	17.3	15.1	13.4	12.1	11.0
	20	1.41	180	7											



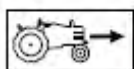
Broadcast Application

Sprayer calibration (1) **readies your sprayer for operation** and (2) **diagnoses tip wear**. This will give you optimum performance of your TeeJet® tips.

Equipment Needed:

- TeeJet Calibration Container
- Calculator
- TeeJet Cleaning Brush
- One new TeeJet Spray Tip matched to the nozzles on your sprayer
- Stopwatch or wristwatch with second hand

STEP NUMBER 1



Check Your Tractor/Sprayer Speed!

Knowing your real sprayer speed is an essential part of accurate spraying. Speedometer readings and some electronic measurement devices can be inaccurate because of wheel slippage. Check the time required to move over a 100- or 200-foot strip on your field. Fence posts can serve as permanent markers. The starting post should be far enough away to permit your tractor/sprayer to reach desired spraying speed. Hold that speed as you travel between the "start" and "end" markers. Most accurate measurement will be obtained with the spray tank half full. Refer to the table on page 124 to calculate your real speed. When the correct throttle and gear settings are identified, mark your tachometer or speedometer to help you control this **vital** part of accurate chemical application.

STEP NUMBER 2

$$A = \frac{B+C}{D}$$

The Inputs

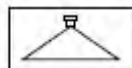
Before spraying, record the following:

Nozzle type on your sprayer.	TT11004 Flat Spray Tip
(All nozzles must be identical)	
Recommended application volume	.20 GPA
(From manufacturer's label)	
Measured sprayer speed	.6 MPH
Nozzle spacing	.20 Inches

EXAMPLE



STEP NUMBER 3



Calculating Required Nozzle Output

Determine GPM nozzle output from formula.

FORMULA: $GPM = \frac{GPA \times MPH \times W}{5,940 \text{ (constant)}}$

EXAMPLE: $GPM = \frac{20 \times 6 \times 20}{5,940} = \frac{2,400}{5,940}$

ANSWER: 0.404 GPM

STEP NUMBER 4



Setting the Correct Pressure

Turn on your sprayer and check for leaks or blockage. Inspect and clean, if necessary, all tips and strainers with TeeJet brush. Replace one tip and strainer **with an identical new tip and strainer** on sprayer boom.

Check appropriate tip selection table and determine the pressure required to deliver the nozzle output calculated from the formula in Step 3 for your new tip. Since all of the tabulations are based on spraying water, conversion factors must be used when spraying solutions that are heavier or lighter than water (see page 125).

Example: (Using above inputs) refer to TeeJet table on page 5 for TT11004 flat spray tip. The table shows that this nozzle delivers 0.40 GPM at 40 PSI.

Turn on your sprayer and adjust pressure. **Collect and measure the volume of the spray from the new tip for one minute in the collection jar.** Fine tune the pressure until you collect .40 GPM.

You have now adjusted your sprayer to the proper pressure. It will properly deliver the application rate specified by the chemical manufacturer at your measured sprayer speed.

STEP NUMBER 5



Checking Your System

Problem Diagnosis: Now, check the flow rate of a few tips on each boom section. If the flow rate of any tip is 10 percent greater or less than that of the newly installed spray tip, recheck the output of that tip. If only one tip is faulty, replace with new tip and strainer and your system is ready for spraying. However, if a second tip is defective, **replace all tips on the entire boom**. This may sound unrealistic, but two worn tips on a boom are ample indication of tip wear problems. Replacing only a couple of worn tips invites potentially serious application problems.



Banding and Directed Applications

The only difference between the above procedure and calibrating for banding or directed applications is the input value used for "W" in the formula in Step 3.

For single nozzle banding or boomless applications:

W = Sprayed band width or swath width (in inches).

For multiple nozzle directed applications:

W = Row spacing (in inches) divided by the number of nozzles per row.



Useful Formulas

$$\text{GPM (Per Nozzle)} = \frac{\text{GPA} \times \text{MPH} \times \text{W}}{5,940}$$

$$\text{GPM (Per Nozzle)} = \frac{\text{GAL}/1000\text{FT}^2 \times \text{MPH} \times \text{W}}{136}$$

$$\text{GPA} = \frac{5,940 \times \text{GPM (Per Nozzle)}}{\text{MPH} \times \text{W}}$$

$$\text{GAL}/1000\text{FT}^2 = \frac{136 \times \text{GPM (Per Nozzle)}}{\text{MPH} \times \text{W}}$$

GPM – Gallons Per Minute

GPA – Gallons Per Acre

GAL/1000FT² – Gallons Per 1000 Square Feet

MPH – Miles Per Hour

W – Nozzle spacing (inches) for broadcast spraying

– Spray width (inches) for single nozzle, band spraying or boomless spraying

– Row spacing (inches) divided by the number of nozzles per row for directed spraying

Useful Formulas for Roadway Applications

$$\text{GPLM} = \frac{60 \times \text{GPM}}{\text{MPH}} \quad \text{GPM} = \frac{\text{GPLM} \times \text{MPH}}{60}$$

GPLM = Gallons Per Lane Mile

Note: GPLM is not a normal volume per unit area measurement. It is a volume per distance measurement. Increases or decreases in lane width (swath width) are not accommodated by these formulas.

Measuring Travel Speed

Measure a test course in the area to be sprayed or in an area with similar surface conditions. Minimum lengths of 100 and 200 feet are recommended for measuring speeds up to 5 and 10 MPH, respectively. Determine the time required to travel the test course. To help ensure accuracy, conduct the speed check with a partially loaded (about half full) sprayer and select the engine throttle setting and gear that will be used when spraying. Repeat the above process and average the times that were measured. Use the following equation or the table at right to determine ground speed.

$$\text{Speed (MPH)} = \frac{\text{Distance (FT)} \times 60}{\text{Time (seconds)} \times 88}$$

Speeds

SPEED IN MPH	TIME REQUIRED IN SECONDS TO TRAVEL A DISTANCE OF:		
	100 Feet	200 Feet	300 Feet
1.0	68	136	205
1.5	45	91	136
2.0	34	68	102
2.5	27	55	82
3.0	23	45	68
3.5	19	39	58
4.0	17	34	51
4.5	15	30	45
5.0	14	27	41
5.5	—	25	37
6.0	—	23	34
6.5	—	21	31
7.0	—	19	29
7.5	—	18	27
8.0	—	17	26
8.5	—	16	24
9.0	—	15	23

Nozzle Spacing

If the nozzle spacing on your boom is different than those tabulated, multiply the tabulated GPA coverages by one of the following factors.

20"	
OTHER SPACING (INCHES)	CONVERSION FACTOR
8	2.5
10	2
12	1.67
14	1.43
16	1.25
18	1.11
22	.91
24	.83
30	.66

30"	
OTHER SPACING (INCHES)	CONVERSION FACTOR
26	1.15
28	1.07
32	.94
34	.88
36	.83
38	.79
40	.75
42	.71
44	.68

40"	
OTHER SPACING (INCHES)	CONVERSION FACTOR
28	1.43
30	1.33
32	1.25
34	1.18
36	1.11
38	1.05
42	.95
44	.91
48	.83

Miscellaneous Conversion Factors

One Acre = 43,560 Square Feet
= 43.56 1000FT² Blocks
= 0.405 Hectare

One Hectare = 2.471 Acres

One Gallon Per Acre
= 2.9 Fluid Ounces per 1000FT²
= 9.35 Liters Per Hectare

One Gallon Per 1000FT² = 43.56 GPA

One Mile = 5,280 Feet
= 1,610 Meters
= 1.61 Kilometers

One Gallon = 128 Fluid Ounces
= 8 Pints
= 4 Quarts
= 3.79 Liters
= 0.83 Imperial Gallon

One Pound Per Square Inch
= 0.069 bar
= 6.896 Kilopascals
One Mile Per Hour
= 1.609 Kilometers Per Hour

Suggested Minimum Spray Heights

The nozzle height suggestions in the table below are based on the minimum overlap required to obtain uniform distribution. However, in many cases, typical height adjustments are based on a 1 to 1 nozzle spacing to height ratio. For example, 110° flat spray tips spaced 20 inches apart are commonly set 20 inches above the target.

		(Inches)		
		20"	30"	40"
TP, TJ	65°	22–24"	33–35"	NR*
TP, XR, TX, DG, TJ, AI, XRC	80°	17–19"	26–28"	NR*
TP, XR, DG, TT, TTI, TJ, DGTJ, AI, AIXR, AIC, XRC, TTJ, AITTJ	110°	16–18"	20–22"	NR*
FullJet®	120°	10–18"***	14–18"***	14–18"***
FloodJet® TK, TF, K, QCK, QCTF, 1/4TTJ	120°	14–16"***	15–17"***	18–20"***

* Not recommended.

** Nozzle height based on 30° to 45° angle of orientation.

*** Wide angle spray tip height is influenced by nozzle orientation. The critical factor is to achieve a double spray pattern overlap.

