

SPRAY NOZZLES



What are you spraying?	When are you spraying?	Are you using a PWM system? **	Is your chemical Contact or Systemic?	Primary Concern: Drift	Primary Concern: Coverage
 Liquid Fertilizer Plant Nutrients	Pre-Emerge			Hi-Flow	Hi-Flow
	Post-Emerge			ESI Six Stream	ESI Six Stream
 Herbicides Weed Control	Pre-Emerge	No		GuardianAIR	GuardianAIR Twin
		Yes		3D* or Lo-Drift	3D* or Lo-Drift
	Post-Emerge	No	Systemic	Ultra Lo-Drift	GuardianAIR
		Yes	Contact	GuardianAIR	GuardianAIR Twin
 Plant Growth Regulators	Post-Emerge	No		GuardianAIR	GuardianAIR Twin
		Yes		3D* or Lo-Drift	3D* or Lo-Drift
 Insectide/ Fungicide	Post-Emerge	No	Systemic	GuardianAIR	GuardianAIR Twin
			Contact	GuardianAIR Twin	3D
		Yes		3D* or Lo-Drift	3D* or Lo-Drift
 Desiccants	Pre-Harvest	No	Systemic	Ultra Lo-Drift	GuardianAIR
			Contact	GuardianAIR Twin	3D
		Yes		3D* or Lo-Drift	3D* or Lo-Drift

Spray quality will vary with pressure. For details see spray quality charts. Always comply with the product label recommendations or latest manufacturer advice on application on spray quality. * When using a PWM pick a pressure that provides the right droplet spectrum for contact/systemic or drift control/coverage. **When using the 3D and PWM at less than 30 Hz you must install the nozzles facing the same direction.

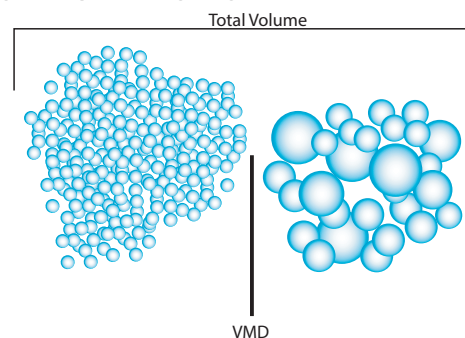


VMD is the droplet size at which 50% of the spray volume is in droplets larger than the VMD and 50% of the volume is in droplets smaller than the VMD (adapted from Matthews 1992).

FEATURES

- Droplet sizes are usually expressed in microns (micrometers).
- One micron equals one thousandth of a millimeter.
- Lower spraying pressures provide larger droplet sizes, while higher spraying pressures yield smaller droplet sizes.
- The smallest droplet sizes are achieved by air atomizing nozzles.
- Generally speaking, the largest spray droplets are produced by wide-angle, flat hydraulic spray nozzles.

UNDERSTANDING DROPLET VMD



UNDERSTANDING MICRON SIZE

Degree of Atomization	Droplet Size (Microns)	Relative Size Related to Common Objects	Degree of Atomization	Droplet Size (Microns)	Relative Size Related to Common Objects
Fog	Up to 25	Point of a Needle (25 Microns)	Light Rain	500-800	Staple (550 Microns)
Fine Mist	20-100	Human Hair (100 Microns)	Heavy Rain	800-1000	Paper Clip (850 Microns)
Fine Drizzle	100-250	Sewing Thread (150 Microns)	Thunderstorm Rain	1000-4000	#2 Pencil Lead (2000 Microns)
Heavy Drizzle	250-500	Toothbrush Bristle (300 Microns)			

BOOMLESS
NOZZLESFAST CAP BOOM
X TENDERS

PART #	COLOR
FC-XT010	GREEN
FC-XT015	LITE GREEN
FC-XT020	BLUE
FC-XT024	YELLOW
FC-XT043	ORANGE

THREADED BOOM
X TENDERS

FEATURES

- Excellent low drift option with extending spray reach
- Large droplet size reduces spray drift and promotes spray penetration
- Maintains a consistent spray swath of 15-20 feet over a pressure range of 30-60 PSI

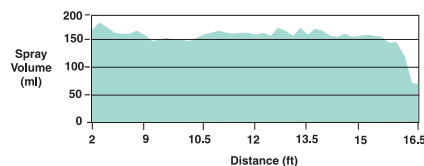
PART #	INLET	PORT COLOR
XT010	1/4" MNPT	GREEN
XT020	1/4" MNPT	BLUE
XT024	1/4" MNPT	YELLOW
XT043	3/8" MNPT	ORANGE
XT080	1/2" MNPT	RED
XT167	3/4" MNPT	WHITE
XT215	3/4" MNPT	GRAY

REPAIR KITS

Pattern Generator, Stainless Steel Insert(s) & Internal O-Rings (if used)

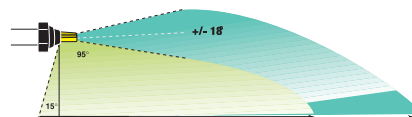
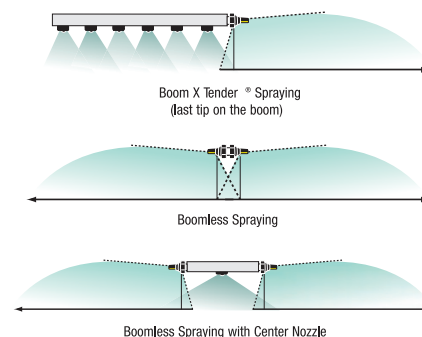
PART #: XT010-GIOKIT, XT020-GIOKIT, XT024-GIOKIT, XT167-GIOKIT, XT215-GIOKIT

Typical Spray Pattern Produced by XT Series



Adjustable Swath Width

Swath width can be increased or decreased by adjusting the angle of the tip $\pm 18^\circ$.

Common Uses of the
Boom X Tender[®] Spray Nozzles

Nozzle Size (MNPT)	Pressure (PSI)	Flow Rate (GPM)	Gallons per Acre at swath shown MPH								GAL/1000Ft ²				Swath (Ft) at 40 PSI 48 in high
			4	5	6	8	10	12	15	20	2	3	4	5	
10 (1/4")	30	0.9	8.9	7.1	5.9	4.5	3.6	3.0	2.4	1.8	0.41	0.27	0.20	0.16	13
	40	1.0	9.9	7.9	6.6	5.0	4.0	3.3	2.6	2.0	0.45	0.30	0.23	0.18	
	50	1.1	10.9	8.7	7.3	5.4	4.4	3.6	2.9	2.2	0.50	0.33	0.25	0.20	
	60	1.2	11.9	9.5	7.9	5.9	4.8	4.0	3.2	2.4	0.55	0.36	0.27	0.22	
15 (1/4")	30	1.3	10.9	8.7	7.3	5.4	4.4	3.6	2.9	2.2	0.53	0.35	0.26	0.21	14
	40	1.5	12.5	10.0	8.3	6.3	5.0	4.2	3.4	2.5	0.61	0.41	0.30	0.24	
	50	1.7	13.7	11.0	9.2	6.9	5.5	4.6	3.7	2.8	0.67	0.45	0.33	0.27	
	60	1.8	15.0	12.0	10.0	7.5	6.0	5.0	4.0	3.0	0.73	0.49	0.37	0.29	
20 (1/4")	30	1.7	13.6	10.9	9.0	6.8	5.4	4.5	3.6	2.7	0.62	0.42	0.31	0.25	15
	40	2.0	16.0	12.8	10.6	8.0	6.4	5.3	4.3	3.2	0.73	0.49	0.37	0.29	
	50	2.2	17.6	14.1	11.7	8.8	7.0	5.9	4.7	3.5	0.81	0.54	0.40	0.32	
	60	2.4	19.2	15.3	12.8	9.6	7.7	6.4	5.1	3.8	0.88	0.59	0.44	0.35	
24 (1/4")	30	2.1	16.2	13.0	10.8	8.1	6.5	5.4	4.3	3.2	0.75	0.50	0.37	0.30	16
	40	2.4	18.6	14.9	12.4	9.3	7.4	6.2	5.0	3.7	0.85	0.57	0.43	0.34	
	50	2.7	20.9	16.7	13.9	10.4	8.4	7.0	5.6	4.2	0.96	0.64	0.48	0.38	
	60	2.9	22.4	17.9	15.0	11.2	9.0	7.5	6.0	4.5	1.03	0.69	0.51	0.41	
43 (3/8")	30	3.7	31.6	25.3	21.1	15.8	12.6	10.5	8.4	6.3	1.45	0.97	0.72	0.58	14
	40	4.3	36.7	29.4	24.5	18.3	14.7	12.2	9.8	7.3	1.68	1.12	0.84	0.67	
	50	4.8	41.0	32.8	27.3	20.5	16.4	13.7	10.9	8.2	1.88	1.25	0.94	0.75	
	60	5.3	45.2	36.2	30.2	22.6	18.1	15.1	12.1	9.0	2.08	1.38	1.04	0.83	
80 (1/2")	30	6.9	68.3	54.6	45.5	34.2	27.3	22.8	18.2	13.7	3.14	2.09	1.57	1.25	13
	40	8.0	79.2	63.4	52.8	39.6	31.7	26.4	21.1	15.8	3.64	2.42	1.82	1.45	
	50	8.9	88.1	70.5	58.7	44.1	35.2	29.4	23.5	17.6	4.04	2.70	2.02	1.62	
	60	9.8	97.0	77.6	64.7	48.5	38.8	32.3	25.9	19.4	4.45	2.97	2.23	1.78	
167 (3/4")	30	14.5	128	103	85.4	64.1	51.3	42.7	34.2	25.6	5.88	3.92	2.94	2.35	15
	40	16.7	148	118	98.4	73.8	59.0	49.2	39.4	29.5	6.78	4.52	3.39	2.71	
	50	18.7	165	132	110	82.6	66.1	55.1	44.1	33.1	7.59	5.06	3.79	3.03	
	60	20.5	181	145	121	90.6	72.5	60.4	48.3	36.2	8.32	5.54	4.16	3.33	
215 (3/4")	30	18.6	144	115	95.9	71.9	57.5	48.0	38.4	28.8	6.60	4.40	3.30	2.64	16
	40	21.5	166	133	111	83.1	66.5	55.4	44.3	33.3	7.63	5.09	3.82	3.05	
	50	24.0	186	149	124	92.8	74.3	61.9	49.5	37.1	8.52	5.68	4.26	3.41	
	60	26.3	203	163	136	102	81.4	67.8	54.2	40.7	9.34	6.22	4.67	3.73	

SPRAY NOZZLES

**HI-FLOW 140°**

The Hypro® Hi-Flow nozzle 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.

FEATURES

- Frequently used with fertilizer/herbicide mixtures for early season weed control
- Straight-through design to reduce clogging and drift
- Incredibly uniform application across the boom
- Lower spray heights and pre-orifice technology reduce drift
- PWM compatible

US UNITS

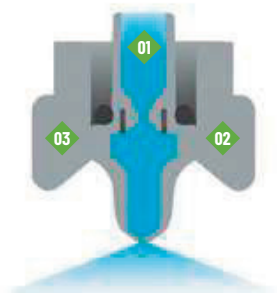
Nozzle Size	Droplet Size	Pressure (PSI)	Flow Rate (GPM)	MPH - 20 Inch Spacing							MPH - 40 Inch Spacing							MPH - 60 Inch Spacing						
				Gallons per Acre							Gallons per Acre							Gallons per Acre						
				15	30	45	60	75	90	105	15	30	45	60	75	90	105	15	30	45	60	75	90	105
08	UC	20	0.57	11	6	4	3	2	2	2	6	3	2	1	1	1	1	4	2	1	1	1	1	1
	UC	30	0.69	14	7	5	3	3	2	2	7	3	2	2	1	1	1	5	2	2	1	1	1	1
	UC	40	0.80	16	8	5	4	3	3	2	8	4	3	2	2	1	1	5	3	2	1	1	1	1
	UC	50	0.89	18	9	6	4	4	3	3	9	4	3	2	2	1	1	6	3	2	1	1	1	1
	XC	60	0.98	19	10	6	5	4	3	3	10	5	3	2	2	2	1	6	3	2	2	1	1	1
	XC	70	1.06	21	10	7	5	4	3	3	10	5	3	3	2	2	1	7	3	2	2	1	1	1
	XC	80	1.13	22	11	7	6	4	4	3	11	6	4	3	2	2	2	7	4	2	2	1	1	1
10	UC	20	0.71	14	7	5	4	3	2	2	7	4	2	2	1	1	1	5	2	2	1	1	1	1
	UC	30	0.87	17	9	6	4	3	3	2	9	4	3	2	2	1	1	6	3	2	1	1	1	1
	UC	40	1.00	20	10	7	5	4	3	3	10	5	3	2	2	2	1	7	3	2	2	1	1	1
	UC	50	1.12	22	11	7	6	4	4	3	11	6	4	3	2	2	2	7	4	2	2	1	1	1
	XC	60	1.22	24	12	8	6	5	4	3	12	6	4	3	2	2	2	8	4	3	2	2	1	1
	XC	70	1.32	26	13	9	7	5	4	4	13	7	4	3	3	2	2	9	4	3	2	2	1	1
	XC	80	1.41	28	14	9	7	6	5	4	14	7	5	3	3	2	2	9	5	3	2	2	2	1
15	UC	20	1.06	21	10	7	5	4	3	3	10	5	3	3	2	2	1	7	3	2	2	1	1	1
	UC	30	1.30	26	13	9	6	5	4	4	13	6	4	3	3	2	2	9	4	3	2	2	1	1
	UC	40	1.50	-	15	10	7	6	5	4	15	7	5	4	3	2	2	10	5	3	2	2	2	1
	UC	50	1.68	-	17	11	8	7	6	5	17	8	6	4	3	3	2	11	6	4	3	2	2	2
	XC	60	1.84	-	18	12	9	7	6	5	18	9	6	5	4	3	3	12	6	4	3	2	2	2
	XC	70	1.98	-	20	13	10	8	7	6	20	10	7	5	4	3	3	13	7	4	3	3	2	2
	XC	80	2.12	-	21	14	10	8	7	6	21	10	7	5	4	3	3	14	7	5	3	3	2	2
20	UC	20	1.41	28	14	9	7	6	5	4	14	7	5	3	3	2	2	9	5	3	2	2	2	1
	UC	30	1.73	-	17	11	9	7	6	5	17	9	6	4	3	3	2	11	6	4	3	2	2	2
	UC	40	2.00	-	20	13	10	8	7	6	20	10	7	5	4	3	3	13	7	4	3	3	2	2
	UC	50	2.24	-	22	15	11	9	7	6	22	11	7	5	4	4	3	15	7	5	4	3	2	2
	XC	60	2.45	-	24	16	12	10	8	7	24	12	8	6	5	4	3	16	8	5	4	3	3	2
	XC	70	2.65	-	26	17	13	10	9	7	26	13	9	6	5	4	4	17	9	6	4	3	3	2
	XC	80	2.83	-	28	18	14	11	9	8	28	14	9	7	6	5	4	18	9	6	5	4	3	3
30	UC	20	2.12	-	21	14	10	8	7	6	21	10	7	5	4	3	3	14	7	5	3	3	2	2
	UC	30	2.60	-	26	17	13	10	9	7	26	13	9	6	5	4	4	17	9	6	4	3	3	2
	UC	40	3.00	-	30	20	15	12	10	8	30	15	10	7	6	5	4	20	10	7	5	4	3	3
	UC	50	3.35	-	-	22	17	13	11	10	-	17	11	8	7	6	5	22	11	7	6	4	4	3
	XC	60	3.67	-	-	24	18	15	12	10	-	18	12	9	7	6	5	24	12	8	6	5	4	3
	XC	70	3.97	-	-	26	20	16	13	11	-	20	13	10	8	7	6	26	13	9	7	5	4	4
	XC	80	4.24	-	-	28	21	17	14	12	-	21	14	10	8	7	6	28	14	9	7	6	5	4
40	UC	20	2.83	-	28	18	14	11	9	8	28	14	9	7	6	5	4	18	9	6	5	4	3	3
	UC	30	3.46	-	-	23	17	14	12	10	-	17	12	9	7	6	5	23	12	8	6	5	4	3
	UC	40	4.00	-	-	26	20	16	13	11	-	20	13	10	8	7	6	26	13	9	7	5	4	4
	UC	50	4.47	-	-	30	22	18	15	13	-	22	15	11	9	7	6	30	15	10	7	6	5	4
	XC	60	4.90	-	-	-	24	19	16	14	-	24	16	12	10	8	7	-	16	11	8	6	5	5
	XC	70	5.29	-	-	-	26	21	17	15	-	26	17	13	10	9	7	-	17	12	9	7	6	5
	XC	80	5.66	-	-	-	28	23	19	16	-	28	19	14	11	9	8	-	19	13	9	8	6	5
50	UC	20	3.54	-	-	23	17	14	12	10	-	17	12	9	7	6	5	23	12	8	6	5	4	3
	UC	30	4.33	-	-	28	21	17	14	12	-	21	14	11	9	7	6	28	14	9	7	6	5	4
	UC	40	5.00	-	-	-	25	20	17	14	-	25	17	12	10	8	7	-	17	11	8	7	6	5
	UC	50	5.59	-	-	-	28	22	18	16	-	28	18	14	11	9	8	-	18	12	9	7	6	5
	XC	60	6.12	-	-	-	30	24	20	17	-	30	20	15	12	10	9	-	20	13	10	8	7	6
	XC	70	6.61	-	-	-	-	26	22	19	-	-	22	16	13	11	9	-	22	15	11	9	7	6
	XC	80	7.07	-	-	-	-	28	23	20	-	-	23	18	14	12	10	-	23	16	12	9	8	7
60	UC	20	4.24	-	-	28	21	17	14	12	-	21	14	10	8	7	6	28	14	9	7	6	5	4
	UC	30	5.20	-	-	-	26	21	17	15	-	26	17	13	10	9	7	-	17	11	9	7	6	5
	UC	40	6.00	-	-	-	30	24	20	17	-	30	20	15	12	10	8	-	20	13	10	8	7	6
	XC	50	6.71	-	-	-	-	27	22	19	-	-	22	17	13	11	9	-	22	15	11	9	7	6
	XC	60	7.35	-	-	-	-	29	24	21	-	-	24	18	14	12	10	-	24	16	12	10	8	7
	XC	70	7.94	-	-	-	-	26	22	-	-	-	26	20	16	13	11	-	26	17	13	10	9	7
	XC	80	8.49	-	-	-	-	-	28	24	-	-	28	21	17	14	12	-	28	19	14	11	9	8

Droplet size based on ASABE S572.1 standard.



FLOATER ADAPTER FOR HI-FLOW NOZZLES 9950-0001

Floater Adapter Kit for Hi-Flow Nozzles
(3/4" Cam Lock to Bayonet)



01. Straight flow design for superior resistance to plugging and creation of driftable droplets
02. Unitized spray nozzle design for easy single piece operation
03. Removable pre-orifice for easy cleaning

Features	
Common Use	Fertilizer
Pattern	Tapered Flat Fan
Technology	Pre-Orifice
Material	Polyacetal
Spray Angle	140°
Pressure Range	20-80 PSI (1.5-6 BAR)
Configuration	FastCap
Minimum Boom Height	
15" (35 cm) Spacing	10" (25 cm)
20" (50 cm) Spacing	12" (30 cm)
Part Numbers (Bags of 10)	
FastCaps 140°	
HF140-08	
HF140-10	
HF140-15	
HF140-20	
HF140-30	
HF140-40	
HF140-50	
HF140-60	
Replacement Cap Gasket	
10BG-2270-0150	

SPRAY NOZZLES



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.

FEATURES

- 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)	Speed (MPH) - 20 inch nozzle spacing																
				Gallons per Acre																
				2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	
015	UC	20	0.11	12.6	6.3	4.2	3.2	2.5	2.1	1.8	1.6	1.4	1.3	1.1	1.0	0.9	0.8	0.8		
	XC	30	0.13	15.4	7.7	5.1	3.9	3.1	2.6	2.2	1.9	1.7	1.5	1.4	1.3	1.2	1.1	1.0		
	VC	40	0.15	17.8	8.9	5.9	4.5	3.6	3.0	2.5	2.2	2.0	1.8	1.6	1.5	1.4	1.3	1.2		
	VC	50	0.17	19.9	10.0	6.6	5.0	4.0	3.3	2.8	2.5	2.2	2.0	1.8	1.7	1.5	1.4	1.3		
	C	60	0.18	21.8	10.9	7.3	5.5	4.4	3.6	3.1	2.7	2.4	2.2	2.0	1.8	1.7	1.6	1.5		
	C	70	0.20	23.6	11.8	7.9	5.9	4.7	3.9	3.4	2.9	2.6	2.4	2.1	2.0	1.8	1.7	1.6		
	C	80	0.21	25.2	12.6	8.4	6.3	5.0	4.2	3.6	3.2	2.8	2.5	2.3	2.1	1.9	1.8	1.7		
	M	90	0.23	26.7	13.4	8.9	6.7	5.3	4.5	3.8	3.3	3.0	2.7	2.4	2.2	2.1	1.9	1.8		
	M	100	0.24	28.2	14.1	9.4	7.0	5.6	4.7	4.0	3.5	3.1	2.8	2.6	2.3	2.2	2.0	1.9		
02	M	115	0.25	-	15.1	10.1	7.6	6.0	5.0	4.3	3.8	3.4	3.0	2.7	2.5	2.3	2.2	2.0		
	UC	20	0.14	16.8	8.4	5.6	4.2	3.4	2.8	2.4	2.1	1.9	1.7	1.5	1.4	1.3	1.2	1.1		
	XC	30	0.17	20.6	10.3	6.9	5.1	4.1	3.4	2.9	2.6	2.3	2.1	1.9	1.7	1.6	1.5	1.4		
	C	40	0.20	23.8	11.9	7.9	5.9	4.8	4.0	3.4	3.0	2.6	2.4	2.2	2.0	1.8	1.7	1.6		
	C	50	0.22	26.6	13.3	8.9	6.6	5.3	4.4	3.8	3.3	3.0	2.7	2.4	2.2	2.0	1.9	1.8		
	C	60	0.24	29.1	14.5	9.7	7.3	5.8	4.8	4.2	3.6	3.2	2.9	2.6	2.4	2.2	2.1	1.9		
	M	70	0.26	-	15.7	10.5	7.9	6.3	5.2	4.5	3.9	3.5	3.1	2.9	2.6	2.4	2.2	2.1		
	M	80	0.28	-	16.8	11.2	8.4	6.7	5.6	4.8	4.2	3.7	3.4	3.1	2.8	2.6	2.4	2.2		
	M	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	2.7	2.5	2.4		
025	M	100	0.32	-	18.8	12.5	9.4	7.5	6.3	5.4	4.7	4.2	3.8	3.4	3.1	2.9	2.7	2.5		
	M	115	0.34	-	20.1	13.4	10.1	8.1	6.7	5.8	5.0	4.5	4.0	3.7	3.4	3.1	2.9	2.7		
	XC	20	0.18	21.0	10.5	7.0	5.3	4.2	3.5	3.0	2.6	2.3	2.1	1.9	1.8	1.6	1.5	1.4		
	XC	30	0.22	25.7	12.9	8.6	6.4	5.1	4.3	3.7	3.2	2.9	2.6	2.3	2.1	2.0	1.8	1.7		
	C	40	0.25	29.7	14.9	9.9	7.4	5.9	5.0	4.2	3.7	3.3	3.0	2.7	2.5	2.3	2.1	2.0		
	C	50	0.28	-	16.6	11.1	8.3	6.6	5.5	4.7	4.2	3.7	3.3	3.0	2.8	2.6	2.4	2.2		
	C	60	0.31	-	18.2	12.1	9.1	7.3	6.1	5.2	4.5	4.0	3.6	3.3	3.0	2.8	2.6	2.4		
	M	70	0.33	-	19.6	13.1	9.8	7.9	6.5	5.6	4.9	4.4	3.9	3.6	3.3	3.0	2.8	2.6		
	M	80	0.35	-	21.0	14.0	10.5	8.4	7.0	6.0	5.3	4.7	4.2	3.8	3.5	3.2	3.0	2.8		
03	M	90	0.38	-	22.3	14.9	11.1	8.9	7.4	6.4	5.6	5.0	4.5	4.1	3.7	3.4	3.2	3.0		
	M	100	0.40	-	23.5	15.7	11.7	9.4	7.8	6.7	5.9	5.2	4.7	4.3	3.9	3.6	3.4	3.1		
	M	115	0.42	-	25.2	16.8	12.6	10.1	8.4	7.2	6.3	5.6	5.0	4.6	4.2	3.9	3.6	3.4		
	XC	20	0.21	25.2	12.6	8.4	6.3	5.0	4.2	3.6	3.2	2.8	2.5	2.3	2.1	1.9	1.8	1.7		
	XC	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	2.4	2.2	2.1		
	C	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	2.7	2.5	2.4		
	C	50	0.34	-	19.9	13.3	10.0	8.0	6.6	5.7	5.0	4.4	4.0	3.6	3.3	3.1	2.8	2.7		
	C	60	0.37	-	21.8	14.5	10.9	8.7	7.3	6.2	5.5	4.8	4.4	4.0	3.6	3.4	3.1	2.9		
	M	70	0.40	-	23.6	15.7	11.8	9.4	7.9	6.7	5.9	5.2	4.7	4.3	3.9	3.6	3.4	3.1		
04	M	80	0.42	-	25.2	16.8	12.6	10.1	8.4	7.2	6.3	5.6	5.0	4.6	4.2	3.9	3.6	3.4		
	M	90	0.45	-	26.7	17.8	13.4	10.7	8.9	7.6	6.7	5.9	5.3	4.9	4.5	4.1	3.8	3.6		
	M	100	0.47	-	28.2	18.8	14.1	11.3	9.4	8.1	7.0	6.3	5.6	5.1	4.7	4.3	4.0	3.8		
	M	115	0.51	-	-	20.1	15.1	12.1	10.1	8.6	7.6	6.7	6.0	5.5	5.0	4.6	4.3	4.0		
	UC	20	0.28	-	16.8	11.2	8.4	6.7	5.6	4.8	4.2	3.7	3.4	3.1	2.8	2.6	2.4	2.2		
	XC	30	0.35	-	20.6	13.7	10.3	8.2	6.9	5.9	5.1	4.6	4.1	3.7	3.4	3.2	2.9	2.7		
	XC	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	3.7	3.4	3.2		
	XC	50	0.45	-	26.6	17.7	13.3	10.6	8.9	7.6	6.6	5.9	5.3	4.8	4.4	4.1	3.8	3.5		
	XC	60	0.49	-	29.1	19.4	14.5	11.6	9.7	8.3	7.3	6.5	5.8	5.3	4.8	4.5	4.2	3.9		
05	XC	70	0.53	-	-	21.0	15.7	12.6	10.5	9.0	7.9	7.0	6.3	5.7	5.2	4.8	4.5	4.2		
	VC	80	0.57	-	-	22.4	16.8	13.4	11.2	9.6	8.4	7.5	6.7	6.1	5.6	5.2	4.8	4.5		
	VC	90	0.60	-	-	23.8	17.8	14.3	11.9	10.2	8.9	7.9	7.1	6.5	5.9	5.5	5.1	4.8		
	C	100	0.63	-	-	25.0	18.8	15.0	12.5	10.7	9.4	8.3	7.5	6.8	6.3	5.8	5.4	5.0		
	C	115	0.68	-	-	26.9	20.1	16.1	13.4	11.5	10.1	9.0	8.1	7.3	6.7	6.2	5.8	5.4		
	UC	20	0.35	-	21.0	14.0	10.5	8.4	7.0	6.0	5.3	4.7	4.2	3.8	3.5	3.2	3.0	2.8		
	UC	30	0.43	-	25.7	17.1	12.9	10.3	8.6	7.3	6.4	5.7	5.1	4.7	4.3	4.0	3.7	3.4		
	XC	40	0.50	-	29.7	19.8	14.9	11.9	9.9	8.5	7.4	6.6	5.9	5.4	5.0	4.6	4.2	4.0		
	XC	50	0.56	-	-	22.1	16.6	13.3	11.1	9.5	8.3	7.4	6.6	6.0	5.5	5.1	4.7	4.4		
06	XC	60	0.61	-	-	24.2	18.2	14.5	12.1	10.4	9.1	8.1	7.3	6.6	6.1	5.6	5.2	4.8		
	VC	70	0.66	-	-	26.2	19.6	15.7	13.1	11.2	9.8	8.7	7.9	7.1	6.5	6.0	5.6	5.2		
	VC	80	0.71	-	-	28.0	21.0	16.8	14.0	12.0	10.5	9.3	8.4	7.6	7.0	6.5	6.0	5.6		
	VC	90	0.75	-	-	29.7	22.3	17.8	14.9	12.7	11.1	9.9	8.9	8.1	7.4	6.9	6.4	5.9		
	C	100	0.79	-	-	-	23.5	18.8	15.7	13.4	11.7	10.4	9.4	8.5	7.8	7.2	6.7	6.3		
	C	115	0.85	-	-	-	25.2	20.1	16.8	14.4	12.6	11.2	10.1	9.2	8.4	7.7	7.2	6.7		
	UC	20	0.42	-	25.2	16.8	12.6	10.1	8.4	7.2	6.3	5.6	5.0	4.6	4.2	3.9	3.6	3.4		
	UC	30	0.52	-	-	15.4	12.3	10.3	8.8	7.7	6.9	6.2	5.6	5.1	4.7	4.4	4.1	3.9		
	XC	40	0.60	-	-	17.8	14.3	11.9	10.2	8.9	7.9	7.1	6.5	5.9	5.5	5.1	4.8	4.5		
08	VC	50	0.67	-	-	19.9	15.9	13.3	11.4	10.0	8.9	8.0	7.2	6.6	6.1	5.7	5.3	5.0		
	VC	60	0.73	-	-	21.8	17.5	14.5	12.5	10.9	9.7	8.7	7.9	7.3	6.7	6.2	5.8	5.5		
	C	70	0.79	-	-	23.6	18.9	15.7	13.5	11.8	10.5	9.4	8.6	7.9	7.3	6.7	6.3	5.9		
	C	80	0.85	-	-	25.2	20.2	16.8	14.4	12.6	11.2	10.1	9.2	8.4	7.8	7.2	6.7	6.3		
	C	90	0.90	-	-	26.7	21.4	17.8	15.3	13.4	11.9	10.7	9.7	8.9	8.2	7.6	7.1	6.7		
	C	100	0.95	-	-	28.2	22.5	18.8	16.1	14.1	12.5	11.3	10.2	9.4	8.7	8.1	7.5	7.0		
	M	115	1.02	-	-	-	24.2	20.1	17.3	15.1	13.4	12.1	11.0	10.1	9.3	8.6	8.1	7.6		
	UC	20	0.57	-	-	22.4	16.8	13.4	11.2	9.6	8.4	7.5	6.7	6.1	5.6	5.2	4.8	4.5		
	XC	30	0.61	-	-	27.4	20.6	16.5	13.7	11.8	10.3	9.1	8.2	7.5	6.9	6.3	5.9	5.5		
09	VC	40	0.80	-	-	23.8	18.9	15.8	13.6	11.9	10.6	9.5	8.7	7.9	7.3	6.8	6.3	5.9		
	VC	50	0.89	-	-	26.6	21.3	17.7	15.2	13.3	11.8	10.6	9.6	8.9	8.2	7.6	7.1	6.6		
	C	60	0.98	-	-	-	29.1	23.3	19.4	16.6	14.5	12.9	11.6	10.6	9.7	9.0	8.3	7.8		
	C	70	1.06	-	-	-	-	25.2	21.0	18.0	15.7	14.0	12.6	11.4	10.5	9.7	9.0	8.4		
	C	80	1.13	-	-	-	-	26.9	22.4	19.2	16.8	14.9	13.4	12.2	11.2	10.3	9.6	9.0		
	C	90	1.20	-	-	-	-	28.5	23.8	20.4	17.8	15.8	14.3	13.0	11.9	10.2	9.5	8.9		
	M	100	1.26	-	-	-	-	25.0	21.5	18.8	16.7	15.0	13.7	12.5	11.6	10.7	10.0	9.4		
	M	115	1.36	-	-	-	-	-	26.9	23.0	20.1	17.9	16.1	14.6	13.4	12.4	11.5	10.7		
	M	115	1.36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

SPRAY NOZZLES



3D 100°

Designed in partnership with Syngenta using wind tunnel research and more than 10 years of agronomic field trials. Proven to deliver an increase in pre-emerge weed control compared to a conventional flat fan. Creates the optimum droplet size for coverage, fewer droplets bounce off or drift away.**

US UNITS

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	
015	C	10*	0.08	4.5	3.0	2.2	1.8	1.5	1.3	1.1	1.0	0.9	0.8	0.7	
	M	15*	0.09	5.5	3.6	2.7	2.2	1.8	1.6	1.4	1.2	1.1	1.0	0.9	
	M	20	0.11	6.3	4.2	3.2	2.5	2.1	1.8	1.6	1.4	1.3	1.1	1.1	
	F	30	0.13	7.7	5.1	3.9	3.1	2.6	2.2	1.9	1.7	1.5	1.4	1.3	
	F	40	0.15	8.9	5.9	4.5	3.6	3.0	2.5	2.2	2.0	1.8	1.6	1.5	
	F	50	0.17	10.0	6.6	5.0	4.0	3.3	2.8	2.5	2.2	2.0	1.8	1.7	
	F	60	0.18	10.9	7.3	5.5	4.4	3.6	3.1	2.7	2.4	2.2	2.0	1.8	
	F	70	0.20	11.8	7.9	5.9	4.7	3.9	3.4	2.9	2.6	2.4	2.1	2.0	
	F	80	0.21	12.6	8.4	6.3	5.0	4.2	3.6	3.2	2.8	2.5	2.3	2.1	
02	F	90	0.23	13.4	8.9	6.7	5.3	4.5	3.8	3.3	3.0	2.7	2.4	2.2	
	M	10*	0.10	5.9	4.0	3.0	2.4	2.0	1.7	1.5	1.3	1.2	1.1	1.0	
	M	15*	0.12	7.3	4.8	3.6	2.9	2.4	2.1	1.8	1.6	1.5	1.3	1.2	
	M	20	0.14	8.4	5.6	4.2	3.4	2.8	2.4	2.1	1.9	1.7	1.5	1.4	
	M	30	0.17	10.3	6.9	5.1	4.1	3.4	2.9	2.6	2.3	2.1	1.9	1.7	
	F	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	
	F	50	0.22	13.3	8.9	6.6	5.3	4.4	3.8	3.3	3.0	2.7	2.4	2.2	
	F	60	0.24	14.5	9.7	7.3	5.8	4.8	4.2	3.6	3.2	2.9	2.6	2.4	
	F	70	0.26	15.7	10.5	7.9	6.3	5.2	4.5	3.9	3.5	3.1	2.9	2.6	
025	F	80	0.28	16.8	11.2	8.4	6.7	5.6	4.8	4.2	3.7	3.4	3.1	2.8	
	F	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	
	C	10*	0.13	7.4	5.0	3.7	3.0	2.5	2.1	1.9	1.7	1.5	1.4	1.2	
	M	15*	0.15	9.1	6.1	4.5	3.6	3.0	2.6	2.3	2.0	1.8	1.7	1.5	
	M	20	0.18	10.5	7.0	5.3	4.2	3.5	3.0	2.6	2.3	2.1	1.9	1.8	
	M	30	0.22	12.9	8.6	6.4	5.1	4.3	3.7	3.2	2.9	2.6	2.3	2.1	
	M	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	
	F	50	0.28	16.6	11.1	8.3	6.6	5.5	4.7	4.2	3.7	3.3	3.0	2.8	
	F	60	0.31	18.2	12.1	9.1	7.3	6.1	5.2	4.5	4.0	3.6	3.3	3.0	
03	F	70	0.33	19.6	13.1	9.8	7.9	6.5	5.6	4.9	4.4	3.9	3.6	3.3	
	F	80	0.35	21.0	14.0	10.5	8.4	7.0	6.0	5.3	4.7	4.2	3.8	3.5	
	VC	90	0.38	22.3	14.9	11.1	8.9	7.4	6.4	5.6	5.0	4.5	4.1	3.7	
	C	10*	0.15	8.9	5.9	4.5	3.6	3.0	2.5	2.2	2.0	1.8	1.6	1.5	
	C	15*	0.18	10.9	7.3	5.5	4.4	3.6	3.1	2.7	2.4	2.2	2.0	1.8	
	M	20	0.21	12.6	8.4	6.3	5.0	4.2	3.6	3.2	2.8	2.5	2.3	2.1	
	M	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	
	M	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	
	M	50	0.34	19.9	13.3	10.0	8.0	6.6	5.7	5.0	4.4	4.0	3.6	3.3	
35	F	60	0.37	21.8	14.5	10.9	8.7	7.3	6.2	5.5	4.8	4.4	4.0	3.6	
	F	70	0.40	23.6	15.7	11.8	9.4	7.9	6.7	5.9	5.2	4.7	4.3	3.9	
	F	80	0.42	25.2	16.8	12.6	10.1	8.4	7.2	6.3	5.6	5.0	4.6	4.2	
	F	90	0.45	26.7	17.8	13.4	10.7	8.9	7.6	6.7	5.9	5.3	4.9	4.5	
	VC	10*	0.18	10.4	6.9	5.2	4.2	3.5	3.0	2.6	2.3	2.1	1.9	1.7	
	C	15*	0.21	12.7	8.5	6.4	5.1	4.2	3.6	3.2	2.8	2.5	2.3	2.1	
	C	20	0.25	14.7	9.8	7.4	5.9	4.9	4.2	3.7	3.3	2.9	2.7	2.5	
	M	30	0.30	18.0	12.0	9.0	7.2	6.0	5.1	4.5	4.0	3.6	3.3	3.0	
	M	40	0.35	20.8	13.9	10.4	8.3	6.9	5.9	5.2	4.6	4.2	3.8	3.5	
04	M	50	0.39	23.2	15.5	11.6	9.3	7.7	6.6	5.8	5.2	4.6	4.2	3.9	
	M	60	0.43	25.5	17.0	12.7	10.2	8.5	7.3	6.4	5.7	5.1	4.6	4.2	
	M	70	0.46	27.5	18.3	13.8	11.0	9.2	7.9	6.9	6.1	5.5	5.0	4.6	
	F	80	0.49	29.4	19.6	14.7	11.8	9.8	8.4	7.4	6.5	5.9	5.3	4.9	
	F	90	0.53	-	20.8	15.6	12.5	10.4	8.9	7.8	6.9	6.2	5.7	5.2	
	XC	10*	0.20	11.9	7.9	5.9	4.8	4.0	3.4	3.0	2.6	2.4	2.2	2.0	
	VC	15*	0.24	14.5	9.7	7.3	5.8	4.8	4.2	3.6	3.2	2.9	2.6	2.4	
	C	20	0.28	16.8	11.2	8.4	6.7	5.6	4.8	4.2	3.7	3.4	3.1	2.8	
	M	30	0.35	20.6	13.7	10.3	8.2	6.9	5.9	5.1	4.6	4.1	3.7	3.4	
05	M	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	
	M	50	0.45	26.6	17.7	13.3	10.6	8.9	7.6	6.6	5.9	5.3	4.8	4.4	
	M	60	0.49	29.1	19.4	14.5	11.6	9.7	8.3	7.3	6.5	5.8	5.3	4.8	
	M	70	0.53	-	21.0	15.7	12.6	10.5	9.0	7.9	7.0	6.3	5.7	5.2	
	M	80	0.57	-	22.4	16.8	13.4	11.2	9.6	8.4	7.5	6.7	6.1	5.6	
	F	90	0.60	-	23.8	17.8	14.3	11.9	10.2	8.9	7.9	7.1	6.5	5.9	
	XC	10*	0.25	14.9	9.9	7.4	5.9	5.0	4.2	3.7	3.3	3.0	2.7	2.5	
	VC	15*	0.31	18.2	12.1	9.1	7.3	6.1	5.2	4.5	4.0	3.6	3.3	3.0	
	M	20	0.35	21.0	14.0	10.5	8.4	7.0	6.0	5.3	4.7	4.2	3.8	3.5	
06	M	30	0.43	25.7	17.1	12.9	10.3	8.6	7.3	6.4	5.7	5.1	4.7	4.3	
	M	40	0.50	29.7	19.8	14.9	11.9	9.9	8.5	7.4	6.6	5.9	5.4	5.0	
	M	50	0.56	-	22.1	16.6	13.3	11.1	9.5	8.3	7.4	6.6	6.0	5.5	
	M	60	0.61	-	24.2	18.2	14.5	12.1	10.4	9.1	8.1	7.3	6.6	6.1	
	M	70	0.66	-	26.2	19.6	15.7	13.1	11.2	9.8	8.7	7.9	7.1	6.5	
	M	80	0.71	-	28.0	21.0	16.8	14.0	12.0	10.5	9.3	8.4	7.6	7.0	
	M	90	0.75	-	29.7	22.3	17.8	14.9	12.7	11.1	9.9	8.9	8.1	7.4	
	XC	10*	0.30	17.8	11.9	8.9	7.1	5.9	5.1	4.5	4.0	3.6	3.2	3.0	
	VC	15*	0.37	21.8	14.5	10.9	8.7	7.3	6.2	5.5	4.8	4.4	4.0	3.6	
08	C	20	0.42	25.2	16.8	12.6	10.1	8.4	7.2	6.3	5.6	5.0	4.6	4.2	
	C	30	0.52	-	20.6	15.4	12.3	10.3	8.8	7.7	6.9	6.2	5.8	5.1	
	M	40	0.60	-	23.8	17.8	14.3	11.9	10.2	8.9	7.9	7.1	6.5	5.9	
	M	50	0.67	-	26.6	19.9	15.9	13.3	11.4	10.0	8.9	8.0	7.2	6.6	
	M	60	0.73	-	29.1	21.8	17.5	14.5	12.5	10.9	9.7	8.7	7.9	7.3	
	M	70	0.79	-	-	23.6	18.9	15.7	13.5	11.8	10.5	9.4	8.6	7.9	
	M	80	0.85	-	-	25.2	20.2	16.8	14.4	12.6	11.2	10.1	9.2	8.4	
	M	90	0.90	-	-	26.7	21.4	17.8	15.3	13.4	11.9	10.7	9.7	8.9	
	XC	10*	0.40	23.8	15.8	11.9	9.5	7.9	6.8	5.9	5.3	4.8	4.3	4.0	
08	VC	15*	0.49	29.1	19.4	14.5	11.6	9.7	8.3	7.3	6.5	5.8	5.3	4.8	
	VC	20	0.57	-	22.4	16.8	13.4	11.2	9.6	8.4	7.5	6.7	6.1	5.6	
	C	30	0.69	-	27.4	20.6	16.5	13.7	11.8	10.3	9.1	8.2	7.5	6.9	
	C	40	0.80	-	-	23.8	19.0	15.8	13.6	11.9	10.6	9.5	8.6	7.9	
	M	50	0.89	-	-	26.6	21.3	17.7	15.2	13.3	11.8	10.6	9.7	8.9	
	M	60	0.98	-	-	29.1	23.3	19.4	16.6	14.5	12.9	11.6	10.6	9.7	
	M	70	1.06	-	-	-	25.1	21.0	18.0	15.7	14.0	12.6	11.4	10.5	
	M	80	1.13	-	-	-	26.9	22.4	19.2	16.8	14.9	13.4	12.2	11.2	
	M	90	1.20	-	-	-	28.5	23.8	20.4	17.8	15.8	14.3	13.0	11.9	

SPRAY NOZZLES

**GUARDIANAIR 110°**

The Hypro GuardianAIR spray nozzle has a unique rearward spray incline provides more uniform coverage. Higher flow nozzles used at faster speeds have a greater spray incline.

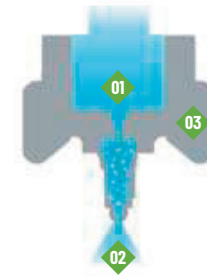
FEATURES

- Air-induced sprays reduce drift while increasing droplet deposition and retention on foliage
- Provides better coverage with more drops per gallon or litre compared to other common air-induced spray nozzles
- Speed-optimized spray incline allows more uniform coverage
- Specifically engineered nozzle to maintain droplet spectrum regardless of orifice size
- FastCap includes nozzle, cap and gasket

US UNITS

Nozzle Size	Droplet Size	Pressure (PSI)	Flow Rate (GPM)	Speed (MPH) - 20 inch nozzle spacing															
				Gallons per Acre															
				2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40
015	UC	20	0.11	12.6	6.3	4.2	3.2	2.5	2.1	1.8	1.6	1.4	1.3	1.1	1.1	1.0	0.9	0.8	0.8
	XC	30	0.13	15.4	7.7	5.1	3.9	3.1	2.6	2.2	1.9	1.7	1.5	1.4	1.3	1.2	1.1	1.0	1.0
	C	40	0.15	17.8	8.9	5.9	4.5	3.6	3.0	2.5	2.2	2.0	1.8	1.6	1.5	1.4	1.3	1.2	1.1
	C	50	0.17	19.9	10.0	6.6	5.0	4.0	3.3	2.8	2.5	2.2	2.0	1.8	1.7	1.5	1.4	1.3	1.2
	M	60	0.18	21.8	10.9	7.3	5.5	4.4	3.6	3.1	2.7	2.4	2.2	2.0	1.8	1.7	1.6	1.5	1.4
	M	70	0.20	23.6	11.8	7.9	5.9	4.7	3.9	3.4	2.9	2.6	2.4	2.1	2.0	1.8	1.7	1.6	1.5
	M	80	0.21	25.2	12.6	8.4	6.3	5.0	4.2	3.6	3.2	2.8	2.5	2.3	2.1	1.9	1.8	1.7	1.6
	M	90	0.23	26.7	13.4	8.9	6.7	5.3	4.5	3.8	3.3	3.0	2.7	2.4	2.2	2.1	1.9	1.8	1.7
	M	100	0.24	28.2	14.1	9.4	7.0	5.6	4.7	4.0	3.5	3.1	2.8	2.6	2.3	2.2	2.0	1.9	1.8
	M	115	0.25	-	15.1	10.1	7.6	6.0	5.0	4.3	3.8	3.4	3.0	2.7	2.5	2.3	2.2	2.0	1.9
02	XC	20	0.14	16.8	8.4	5.6	4.2	3.4	2.8	2.4	2.1	1.9	1.7	1.5	1.4	1.3	1.2	1.1	1.1
	VC	30	0.17	20.6	10.3	6.9	5.1	4.1	3.4	2.9	2.6	2.3	2.1	1.9	1.7	1.6	1.5	1.4	1.3
	M	40	0.20	23.8	11.9	7.9	5.9	4.8	4.0	3.4	3.0	2.6	2.4	2.2	2.0	1.8	1.7	1.6	1.5
	M	50	0.22	26.6	13.3	8.9	6.6	5.3	4.4	3.8	3.3	3.0	2.7	2.4	2.2	2.0	1.9	1.8	1.7
	M	60	0.24	29.1	14.5	9.7	7.3	5.8	4.8	4.2	3.6	3.2	2.9	2.6	2.4	2.2	2.1	1.9	1.8
	M	70	0.26	-	15.7	10.5	7.9	6.3	5.2	4.5	3.9	3.5	3.1	2.9	2.6	2.4	2.2	2.1	2.0
	M	80	0.28	-	16.8	11.2	8.4	6.7	5.6	4.8	4.2	3.7	3.4	3.1	2.8	2.6	2.4	2.2	2.1
	M	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	2.7	2.5	2.4	2.2
	M	100	0.32	-	18.8	12.5	9.4	7.5	6.3	5.4	4.7	4.2	3.8	3.4	3.1	2.9	2.7	2.5	2.3
	M	115	0.34	-	20.1	13.4	10.1	8.1	6.7	5.8	5.0	4.5	4.0	3.7	3.4	3.1	2.9	2.7	2.5
025	XC	20	0.18	21.0	10.5	7.0	5.3	4.2	3.5	3.0	2.6	2.3	2.1	1.9	1.8	1.6	1.5	1.4	1.3
	VC	30	0.22	25.7	12.9	8.6	6.4	5.1	4.3	3.7	3.2	2.9	2.6	2.3	2.1	2.0	1.8	1.7	1.6
	C	40	0.25	29.7	14.9	9.9	7.4	5.9	5.0	4.2	3.7	3.3	3.0	2.7	2.5	2.3	2.1	2.0	1.9
	M	50	0.28	-	16.6	11.1	8.3	6.6	5.5	4.7	4.2	3.7	3.3	3.0	2.8	2.6	2.4	2.2	2.1
	M	60	0.31	-	18.2	12.1	9.1	7.3	6.1	5.2	4.5	4.0	3.6	3.3	3.0	2.8	2.6	2.4	2.3
	M	70	0.33	-	19.6	13.1	9.8	7.9	6.5	5.6	4.9	4.4	3.9	3.6	3.3	3.0	2.8	2.6	2.5
	M	80	0.35	-	21.0	14.0	10.5	8.4	7.0	6.0	5.3	4.7	4.2	3.8	3.5	3.2	3.0	2.8	2.6
	M	90	0.38	-	22.3	14.9	11.1	8.9	7.4	6.4	5.6	5.0	4.5	4.1	3.7	3.4	3.2	3.0	2.8
	M	100	0.40	-	23.5	15.7	11.7	9.4	7.8	6.7	5.9	5.2	4.7	4.3	3.9	3.6	3.4	3.1	2.9
	M	115	0.42	-	25.2	16.8	12.6	10.1	8.4	7.2	6.3	5.6	5.0	4.6	4.2	3.9	3.6	3.4	3.1
03	UC	20	0.21	25.2	12.6	8.4	6.3	5.0	4.2	3.6	3.2	2.8	2.5	2.3	2.1	1.9	1.8	1.7	1.6
	XC	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	2.4	2.2	2.1	1.9
	VC	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	2.7	2.5	2.4	2.2
	C	50	0.34	-	19.9	13.3	10.0	8.0	6.6	5.7	5.0	4.4	4.0	3.6	3.3	3.1	2.8	2.7	2.5
	C	60	0.37	-	21.8	14.5	10.9	8.7	7.3	6.2	5.5	4.8	4.4	4.0	3.6	3.4	3.1	2.9	2.7
	M	70	0.40	-	23.6	15.7	11.8	9.4	7.9	6.7	5.9	5.2	4.7	4.3	3.9	3.6	3.4	3.1	2.9
	M	80	0.42	-	25.2	16.8	12.6	10.1	8.4	7.2	6.3	5.6	5.0	4.6	4.2	3.9	3.6	3.4	3.2
	M	90	0.45	-	26.7	17.8	13.4	10.7	8.9	7.6	6.7	5.9	5.3	4.9	4.5	4.1	3.8	3.6	3.3
	M	100	0.47	-	28.2	18.8	14.1	11.3	9.4	8.1	7.0	6.3	5.6	5.1	4.7	4.3	4.0	3.8	3.5
	M	115	0.51	-	-	20.1	15.1	12.1	10.1	8.6	7.6	6.7	6.0	5.5	5.0	4.6	4.3	4.0	3.8
04	XC	20	0.28	-	16.8	11.2	8.4	6.7	5.6	4.8	4.2	3.7	3.4	3.1	2.8	2.6	2.4	2.2	2.1
	VC	30	0.35	-	20.6	13.7	10.3	8.2	6.9	5.9	5.1	4.6	4.1	3.7	3.4	3.2	2.9	2.7	2.6
	C	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	3.7	3.4	3.2	3.0
	C	50	0.45	-	26.6	17.7	13.3	10.6	8.9	7.6	6.6	5.9	5.3	4.8	4.4	4.1	3.8	3.5	3.3
	M	60	0.49	-	29.1	19.4	14.5	11.6	9.7	8.3	7.3	6.5	5.8	5.3	4.8	4.5	4.2	3.9	3.6
	M	70	0.53	-	-	21.0	15.7	12.6	10.5	9.0	7.9	7.0	6.3	5.7	5.2	4.8	4.5	4.2	3.9
	M	80	0.57	-	-	22.4	16.8	13.4	11.2	9.6	8.4	7.5	6.7	6.1	5.6	5.2	4.8	4.5	4.2
	M	90	0.60	-	-	23.8	17.8	14.3	11.9	10.2	8.9	7.9	7.1	6.5	5.9	5.5	5.1	4.8	4.5
	M	100	0.63	-	-	25.0	18.8	15.0	12.5	10.7	9.4	8.3	7.5	6.8	6.3	5.8	5.4	5.0	4.7
	M	115	0.68	-	-	26.9	20.1	16.1	13.4	11.5	10.1	9.0	8.1	7.3	6.7	6.2	5.8	5.4	5.0
05	XC	20	0.35	-	21.0	14.0	10.5	8.4	7.0	6.0	5.3	4.7	4.2	3.8	3.5	3.2	3.0	2.8	2.6
	XC	30	0.43	-	25.7	17.1	12.9	10.3	8.6	7.3	6.4	5.7	5.1	4.7	4.3	4.0	3.7	3.4	3.2
	C	40	0.50	-	29.7	19.8	14.9	11.9	9.9	8.5	7.4	6.6	5.9	5.4	5.0	4.6	4.2	4.0	3.7
	C	50	0.58	-	-	22.1	16.6	13.3	11.1	9.5	8.3	7.4	6.6	6.0	5.5	5.1	4.7	4.4	4.2
	C	60	0.61	-	-	24.2	18.2	14.5	12.1	10.4	9.1	8.1	7.3	6.6	6.1	5.6	5.2	4.8	4.5
	M	70	0.66	-	-	26.2	19.6	15.7	13.1	11.2	9.8	8.7	7.9	7.1	6.5	6.0	5.6	5.2	4.9
	M	80	0.71	-	-	28.0	21.0	16.8	14.0	12.0	10.5	9.3	8.4	7.6	7.0	6.5	6.0	5.6	5.3
	M	90	0.75	-	-	29.7	22.3	17.8	14.9	12.7	11.1	9.9	8.9	8.1	7.4	6.9	6.4	5.9	5.6
	M	100	0.79	-	-	31.3	23.5	18.8	15.7	13.4	11.7	10.4	9.4	8.5	7.8	7.2	6.7	6.3	5.9
	M	115	0.85	-	-	33.6	25.2	20.1	16.8	14.4	12.6	11.2	10.1	9.2	8.4	7.7	7.2	6.7	6.3

Droplet size based on ASABE S572.1 standard.



01. Single Inlet; Air Inducted Technology
 02. Inclined spray pattern provides more uniform coverage
 03. Available in a Fastcap option for easy installation

Features	
Common Use	Plant Health
Pattern	Tapered Flat Fan
Technology	Air Induction
Material	Polycetal
Spray Angle	110°
Pressure Range	20-115 PSI (1-8 BAR)
Configuration	Nozzles, FastCap
Optimum Boom Height	
15" (35 cm) Spacing	15" (35 cm)
20" (50 cm) Spacing	20" (50 cm)
Part Numbers (Bags of 10)	
Nozzles 110°	FastCaps 110°
GA110-015	FC-GA110-015
GA110-02	FC-GA110-02
GA110-025	FC-GA110-025
GA110-03	FC-GA110-03
GA110-035	FC-GA110-035
GA110-04	FC-GA110-04
GA110-05	FC-GA110-05
Replacement Cap Gasket	
10BG-2270-0150	

SPRAY NOZZLES



GUARDIANAIR TWIN 110°

GuardianAIR Twin spray nozzles are the best choice for high coverage applications where on-target spray delivery is important. They are ideal for low crops with complex canopies, such as vegetables, where thorough coverage of the target and protection of the surroundings are of high importance.

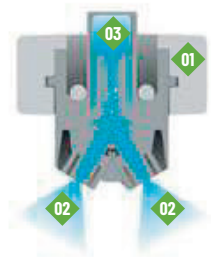
FEATURES

- High-coverage forward and rear facing fans provide coverage on both sides of target.
- Engineered to provide better coverage with more drops per gallon or litre compared to other air-induced sprays
- FastCap complete includes nozzle, cap, gasket and is available with or without a filter
- Easy-to-install, patent-pending locking ring and o-ring seal design

US UNITS

Nozzle Size	Droplet Size	Pressure (PSI)	Flow Rate (GPM)	Speed (MPH) - 20 inch nozzle spacing													
				Gallons per Acre													
				2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35
02	C	30	0.17	20.6	10.3	6.9	5.1	4.1	3.4	2.9	2.6	2.3	2.1	1.9	1.7	1.6	1.5
	M	40	0.20	23.8	11.9	7.9	5.9	4.8	4.0	3.4	3.0	2.6	2.4	2.2	2.0	1.8	1.7
	M	50	0.22	26.6	13.3	8.9	6.6	5.3	4.4	3.8	3.3	3.0	2.7	2.4	2.2	2.0	1.9
	M	60	0.24	29.1	14.5	9.7	7.3	5.8	4.8	4.2	3.6	3.2	2.9	2.6	2.4	2.2	2.1
	M	70	0.26	-	15.7	10.5	7.9	6.3	5.2	4.5	3.9	3.5	3.1	2.9	2.6	2.4	2.2
	M	80	0.28	-	16.8	11.2	8.4	6.7	5.6	4.8	4.2	3.7	3.4	3.1	2.8	2.6	2.4
	M	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	2.7	2.5
	F	100	0.32	-	18.8	12.5	9.4	7.5	6.3	5.4	4.7	4.2	3.8	3.4	3.1	2.9	2.7
025	C	30	0.22	25.7	12.9	8.6	6.4	5.1	4.3	3.7	3.2	2.9	2.6	2.3	2.1	2.0	1.8
	VC	40	0.25	29.7	14.9	9.9	7.4	5.9	5.0	4.2	3.7	3.3	3.0	2.7	2.5	2.3	2.1
	C	50	0.28	-	16.6	11.1	8.3	6.6	5.5	4.7	4.2	3.7	3.3	3.0	2.8	2.6	2.4
	M	60	0.31	-	18.2	12.1	9.1	7.3	6.1	5.2	4.5	4.0	3.6	3.3	3.0	2.8	2.6
	M	70	0.33	-	19.6	13.1	9.8	7.9	6.5	5.6	4.9	4.4	3.9	3.6	3.3	3.0	2.8
	M	80	0.35	-	21.0	14.0	10.5	8.4	7.0	6.0	5.3	4.7	4.2	3.8	3.5	3.2	3.0
	M	90	0.38	-	22.3	14.9	11.1	8.9	7.4	6.4	5.6	5.0	4.5	4.1	3.7	3.4	3.2
	M	100	0.40	-	23.5	15.7	11.7	9.4	7.8	6.7	5.9	5.2	4.7	4.3	3.9	3.6	3.4
03	C	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	2.4	2.2
	C	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	2.7	2.5
	M	50	0.34	-	19.9	13.3	10.0	8.0	6.6	5.7	5.0	4.4	4.0	3.6	3.3	3.1	2.8
	M	60	0.37	-	21.8	14.5	10.9	8.7	7.3	6.2	5.5	4.8	4.4	4.0	3.6	3.4	3.1
	M	70	0.40	-	23.6	15.7	11.8	9.4	7.9	6.7	5.9	5.2	4.7	4.3	3.9	3.6	3.4
	M	80	0.42	-	25.2	16.8	12.6	10.1	8.4	7.2	6.3	5.6	5.0	4.6	4.2	3.9	3.6
	M	90	0.45	-	26.7	17.8	13.4	10.7	8.9	7.6	6.7	5.9	5.3	4.9	4.5	4.1	3.8
	M	100	0.47	-	28.2	18.8	14.1	11.3	9.4	8.1	7.0	6.3	5.6	5.1	4.7	4.3	4.0
035	C	30	0.30	-	18.0	12.0	9.0	7.2	6.0	5.1	4.5	4.0	3.6	3.3	3.0	2.8	2.6
	C	40	0.35	-	20.8	13.9	10.4	8.3	6.9	5.9	5.2	4.6	4.2	3.8	3.5	3.2	3.0
	C	50	0.39	-	23.2	15.5	11.6	9.3	7.7	6.6	5.8	5.2	4.6	4.2	3.9	3.6	3.3
	M	60	0.43	-	25.5	17.0	12.7	10.2	8.5	7.3	6.4	5.7	5.1	4.6	4.2	3.9	3.6
	M	70	0.46	-	27.5	18.3	13.8	11.0	9.2	7.9	6.9	6.1	5.5	5.0	4.6	4.2	3.9
	M	80	0.49	-	29.4	19.6	14.7	11.8	9.8	8.4	7.4	6.5	5.9	5.3	4.9	4.5	4.2
	M	90	0.53	-	-	20.6	15.6	12.5	10.4	8.9	7.8	6.9	6.2	5.7	5.2	4.8	4.5
	M	100	0.55	-	-	21.9	16.4	13.1	11.0	9.4	8.2	7.3	6.6	6.0	5.5	5.1	4.7
04	C	30	0.35	-	20.6	13.7	10.3	8.2	6.9	5.9	5.1	4.6	4.1	3.7	3.4	3.2	2.9
	C	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	3.7	3.4
	C	50	0.45	-	26.6	17.7	13.3	10.6	8.9	7.6	6.6	5.9	5.3	4.8	4.4	4.1	3.8
	M	60	0.49	-	29.1	19.4	14.5	11.6	9.7	8.3	7.3	6.5	5.8	5.3	4.8	4.5	4.2
	M	70	0.53	-	-	21.0	15.7	12.6	10.5	9.0	7.9	7.0	6.3	5.7	5.2	4.8	4.5
	M	80	0.57	-	-	22.4	16.8	13.4	11.2	9.6	8.4	7.5	6.7	6.1	5.6	5.2	4.9
	M	90	0.60	-	-	23.8	17.8	14.3	11.9	10.2	8.9	7.9	7.1	6.5	5.9	5.5	5.1
	M	100	0.63	-	-	25.0	18.8	15.0	12.5	10.7	9.4	8.3	7.5	6.8	6.3	5.8	5.4
05	C	30	0.43	-	25.7	17.1	12.9	10.3	8.6	7.3	6.4	5.7	5.1	4.7	4.3	4.0	3.7
	C	40	0.50	-	29.7	19.8	14.9	11.9	9.9	8.5	7.4	6.6	5.9	5.4	5.0	4.6	4.2
	C	50	0.56	-	-	22.1	16.6	13.3	11.1	9.5	8.3	7.4	6.6	6.0	5.5	5.1	4.7
	M	60	0.61	-	-	24.2	18.2	14.5	12.1	10.4	9.1	8.1	7.3	6.6	6.1	5.6	5.2
	M	70	0.66	-	-	26.2	19.6	15.7	13.1	11.2	9.8	8.7	7.9	7.1	6.5	6.0	5.6
	M	80	0.71	-	-	28.0	21.0	16.8	14.0	12.0	10.5	9.3	8.4	7.6	7.0	6.5	6.0
	M	90	0.75	-	-	29.7	22.3	17.8	14.9	12.7	11.1	9.9	8.9	8.1	7.4	6.9	6.4
	M	100	0.79	-	-	-	23.5	18.8	15.7	13.4	11.7	10.4	9.4	8.5	7.8	7.2	6.7
06	C	30	0.52	-	20.6	15.4	12.3	10.3	8.8	7.7	6.9	6.2	5.6	5.1	4.7	4.4	4.1
	C	40	0.60	-	-	23.8	17.8	14.3	11.9	10.2	8.9	7.9	7.1	6.5	5.9	5.5	5.1
	C	50	0.67	-	-	26.6	19.9	15.9	13.3	11.4	10.0	8.9	8.0	7.2	6.6	6.1	5.7
	C	60	0.73	-	-	29.1	21.8	17.5	14.5	12.5	10.9	9.7	8.7	7.9	7.3	6.7	6.2
	M	70	0.79	-	-	-	23.6	18.9	15.7	13.5	11.8	10.5	9.4	8.6	7.9	7.3	6.7
	M	80	0.85	-	-	-	25.2	20.2	16.8	14.4	12.6	11.2	10.1	9.2	8.4	7.8	7.2
	M	90	0.90	-	-	-	26.7	21.4	17.8	15.3	13.4	11.9	10.7	9.7	8.9	8.2	7.6
	M	100	0.95	-	-	-	28.2	22.5	18.8	16.1	14.1	12.5	11.3	10.2	9.4	8.7	8.1
08	C	30	0.69	-	-	27.4	20.6	16.5	13.7	11.8	10.3	9.1	8.2	7.5	6.9	6.3	5.9
	C	40	0.80	-	-	-	23.8	19.0	15.8	13.6	11.9	10.6	9.5	8.6	7.9	7.3	6.8
	C	50	0.89	-	-	-	26.6	21.3	17.7	15.2	13.3	11.8	10.6	9.7	8.9	8.2	7.6
	C	60	0.98	-	-	-	29.1	23.3	19.4	16.6	14.5	12.9	11.6	10.6	9.7	9.0	8.3
	M	70	1.06	-	-	-	-	25.2	21.0	18.0	15.7	14.0	12.6	11.4	10.5	9.7	9.0
	M	80	1.13	-	-	-	-	26.9	22.4	19.2	16.8	14.9	13.4	12.2	11.2	10.3	9.6
	M	90	1.20	-	-	-	-	28.5	23.8	20.4	17.8	15.8	14.3	13.0	11.9	11.0	10.2
	M	100	1.26	-	-	-	-	25.0	21.5	18.8	16.7	15.0	13.7	12.5	11.6	10.7	10.0
08	M	115	1.36	-	-	-	-	26.9	23.0	20.1	17.9	16.1	14.6	13.4	12.4	11.5	10.7

Droplet size based on ASABE S572.1 standard.



01. Integrated Locking Collar allows for precise and easy installation
 02. Twin Air Induced spray patterns (30° offset) for superior coverage
 03 Available with or without filter options

Features	
Common Use	Plant Health
Pattern	Tapered Flat Fan
Technology	Air Induction
Material	Polyacetal
Spray Angle	110°
Pressure Range	30-115 PSI (2-8 BAR)
Configuration	FastCap Complete
Optimum Boom Height	
15" (35 cm) Spacing	15" (35 cm)
20" (50 cm) Spacing	20" (50 cm)
Part Numbers (Bags of 10)	
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-BS205	O-Ring
3003579A	Replaceable cage for non-filter versions

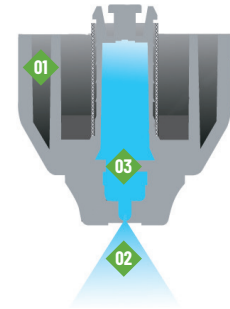
SPRAY NOZZLES

**GUARDIAN 120°**

Guardian spray nozzles are ideal for insecticide and fungicide applications especially when used with suspension based adjuvants. The Guardian's unique 20° inclined spray pattern allows users to aim the spray rearward for general spraying, forward for vertical targets, or alternate nozzles to create a twin spray.

FEATURES

- Pre-orifice design for courser spray availability the flat fans
- PWM system compatible
- A bold arrow indicates incline direction for easy installation
- FastCap includes nozzle, cap, gasket and integrated strainers



01. Unitized spray nozzle design for easy single piece operation
02. 20° spray incline for canopy penetration
03. Non-Air Inducted; Pre-orifice design for excellent performance with suspension solutions

Nozzle Size	Droplet Size	Pressure (PSI)	Flow Rate (GPM)	Speed (MPH) - 20 inch nozzle spacing															
				Gallons per Acre															
				2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40
015	-	20	0.11	12.6	6.3	4.2	3.2	2.5	2.1	1.8	1.6	1.4	1.3	1.1	1.1	1.0	0.9	0.8	0.8
	M	30	0.13	15.4	7.7	5.1	3.9	3.1	2.6	2.2	1.9	1.7	1.5	1.4	1.3	1.2	1.1	1.0	1.0
	M	40	0.15	17.8	8.9	5.9	4.5	3.6	3.0	2.5	2.2	2.0	1.8	1.6	1.5	1.4	1.3	1.2	1.1
	M	50	0.17	19.9	10.0	6.6	5.0	4.0	3.3	2.8	2.5	2.2	2.0	1.8	1.7	1.5	1.4	1.3	1.2
	M	60	0.18	21.8	10.9	7.3	5.5	4.4	3.6	3.1	2.7	2.4	2.2	2.0	1.8	1.7	1.6	1.5	1.4
	M	70	0.20	23.6	11.8	7.9	5.9	4.7	3.9	3.4	2.9	2.6	2.4	2.1	2.0	1.8	1.7	1.6	1.5
	F	80	0.21	25.2	12.6	8.4	6.3	5.0	4.2	3.6	3.2	2.8	2.5	2.3	2.1	1.9	1.8	1.7	1.6
	F	90	0.23	26.7	13.4	8.9	6.7	5.3	4.5	3.8	3.3	3.0	2.7	2.4	2.2	2.1	1.9	1.8	1.7
	F	100	0.24	28.2	14.1	9.4	7.0	5.6	4.7	4.0	3.5	3.1	2.8	2.6	2.3	2.2	2.0	1.9	1.8
	F	115	0.25	-	15.1	10.1	7.6	6.0	5.0	4.3	3.8	3.4	3.0	2.7	2.5	2.3	2.2	2.0	1.9
02	-	20	0.14	16.8	8.4	5.6	4.2	3.4	2.8	2.4	2.1	1.9	1.7	1.5	1.4	1.3	1.2	1.1	1.1
	M	30	0.17	20.6	10.3	6.9	5.1	4.1	3.4	2.9	2.6	2.3	2.1	1.9	1.7	1.6	1.5	1.4	1.3
	M	40	0.20	23.8	11.9	7.9	5.9	4.8	4.0	3.4	3.0	2.6	2.4	2.2	2.0	1.8	1.7	1.6	1.5
	M	50	0.22	26.6	13.3	8.9	6.6	5.3	4.4	3.8	3.3	3.0	2.7	2.4	2.2	2.0	1.9	1.8	1.7
	M	60	0.24	29.1	14.5	9.7	7.3	5.8	4.8	4.2	3.6	3.2	2.9	2.6	2.4	2.2	2.1	1.9	1.8
	M	70	0.26	-	15.7	10.5	7.9	6.3	5.2	4.5	3.9	3.5	3.1	2.9	2.6	2.4	2.2	2.1	2.0
	M	80	0.28	-	16.8	11.2	8.4	6.7	5.6	4.8	4.2	3.7	3.4	3.1	2.8	2.6	2.4	2.2	2.1
	M	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	2.7	2.5	2.4	2.2
	M	100	0.32	-	18.8	12.5	9.4	7.5	6.3	5.4	4.7	4.2	3.8	3.4	3.1	2.9	2.7	2.5	2.3
	F	115	0.34	-	20.1	13.4	10.1	8.1	6.7	5.8	5.0	4.5	4.0	3.7	3.4	3.1	2.9	2.7	2.5
025	-	20	0.18	21.0	10.5	7.0	5.3	4.2	3.5	3.0	2.6	2.3	2.1	1.9	1.8	1.6	1.5	1.4	1.3
	M	30	0.22	25.7	12.9	8.6	6.4	5.1	4.3	3.7	3.2	2.9	2.6	2.3	2.1	2.0	1.8	1.7	1.6
	M	40	0.25	29.7	14.9	9.9	7.4	5.9	5.0	4.2	3.7	3.3	3.0	2.7	2.5	2.3	2.1	2.0	1.9
	M	50	0.28	-	16.6	11.1	8.3	6.6	5.5	4.7	4.2	3.7	3.3	3.0	2.9	2.6	2.4	2.2	2.1
	M	60	0.31	-	18.2	12.1	9.1	7.3	6.1	5.2	4.5	4.0	3.6	3.3	3.0	2.8	2.6	2.4	2.3
	M	70	0.33	-	19.6	13.1	9.8	7.9	6.5	5.6	4.8	4.4	3.9	3.6	3.3	3.0	2.8	2.6	2.5
	M	80	0.35	-	21.0	14.0	10.5	8.4	7.0	6.0	5.3	4.7	4.2	3.8	3.5	3.2	3.0	2.8	2.6
	M	90	0.38	-	22.3	14.9	11.1	8.9	7.4	6.4	5.6	5.0	4.5	4.1	3.7	3.4	3.2	3.0	2.8
	M	100	0.40	-	23.5	15.7	11.7	9.4	7.8	6.7	5.9	5.2	4.7	4.3	3.9	3.6	3.4	3.1	2.9
	M	115	0.42	-	25.2	16.8	12.6	10.1	8.4	7.2	6.3	5.6	5.0	4.6	4.2	3.9	3.6	3.4	3.1
03	C	20	0.21	25.2	12.6	8.4	6.3	5.0	4.2	3.6	3.2	2.8	2.5	2.3	2.1	1.9	1.8	1.7	1.6
	M	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	2.4	2.2	2.1	1.9
	M	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	2.7	2.5	2.4	2.2
	M	50	0.34	-	19.9	13.3	10.0	8.0	6.6	5.6	4.9	4.4	4.0	3.6	3.3	3.1	2.9	2.7	2.5
	M	60	0.37	-	21.8	14.5	10.9	8.7	7.3	6.2	5.5	4.8	4.4	4.0	3.6	3.4	3.1	2.9	2.7
	M	70	0.40	-	23.6	15.7	11.8	9.4	7.9	6.7	5.9	5.2	4.7	4.3	3.9	3.6	3.4	3.1	2.9
	M	80	0.42	-	25.2	16.8	12.6	10.1	8.4	7.2	6.3	5.6	5.0	4.6	4.2	3.9	3.6	3.4	3.2
	M	90	0.45	-	26.7	17.8	13.4	10.7	8.9	7.6	6.7	5.9	5.3	4.9	4.5	4.1	3.8	3.6	3.3
	M	100	0.47	-	28.2	18.8	14.1	11.3	9.4	8.1	7.0	6.3	5.6	5.1	4.7	4.3	4.0	3.8	3.5
	M	115	0.51	-	20.1	15.1	12.1	10.1	8.6	7.6	6.7	6.0	5.5	5.0	4.6	4.3	4.0	3.8	
04	VC	20	0.28	-	16.8	11.2	8.4	6.7	5.6	4.8	4.2	3.7	3.4	3.1	2.8	2.6	2.4	2.2	2.1
	C	30	0.35	-	20.6	13.7	10.3	8.2	6.9	5.9	5.1	4.6	4.1	3.7	3.4	3.2	2.9	2.7	2.6
	C	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	3.7	3.4	3.2	3.0
	C	50	0.45	-	26.6	17.7	13.3	10.6	8.9	7.6	6.6	5.9	5.3	4.8	4.4	4.1	3.8	3.5	3.3
	C	60	0.49	-	29.1	19.4	14.5	11.6	9.7	8.3	7.3	6.5	5.8	5.3	4.8	4.5	4.2	3.9	3.6
	M	70	0.53	-	21.0	15.7	12.6	10.5	9.0	7.9	7.0	6.3	5.7	5.2	4.8	4.5	4.2	3.9	
	M	80	0.57	-	22.4	16.8	13.4	11.2	9.6	8.4	7.5	6.7	6.1	5.6	5.2	4.8	4.5	4.2	
	M	90	0.60	-	23.8	17.8	14.3	11.9	10.2	8.9	7.9	7.1	6.5	5.9	5.5	5.1	4.8	4.5	
	M	100	0.63	-	25.0	18.8	15.0	12.5	10.7	9.4	8.3	7.5	6.8	6.3	5.8	5.4	5.0	4.7	
	M	115	0.68	-	26.9	20.1	16.1	13.4	11.5	10.1	9.0	8.1	7.3	6.7	6.2	5.8	5.4	5.0	
05	XC	20	0.35	-	21.0	14.0	10.5	8.4	7.0	6.0	5.3	4.7	4.2	3.8	3.5	3.2	3.0	2.8	2.6
	XC	30	0.43	-	25.7	17.1	12.9	10.3	8.6	7.3	6.4	5.7	5.1	4.7	4.3	4.0	3.7	3.4	3.2
	VC	40	0.50	-	29.7	19.8	14.9	11.9	9.9	8.5	7.4	6.6	5.9	5.4	5.0	4.6	4.2	4.0	3.7
	VC	50	0.56	-	22.1	16.6	13.3	11.1	9.5	8.3	7.4	6.6	6.0	5.5	5.1	4.7	4.4	4.2	
	C	60	0.61	-	24.2	18.2	14.5	12.1	10.4	9.1	8.1	7.3	6.6	6.1	5.6	5.2	4.8	4.5	
	M	70	0.66	-	26.2	19.6	15.7	13.1	11.2	9.8	8.7	7.9	7.1	6.5	6.0	5.6	5.2	4.9	
	M	80	0.71	-	28.0	21.0	16.8	14.0	12.0	10.5	9.3	8.4	7.6	7.0	6.5	6.0	5.6	5.3	
	M	90	0.75	-	29.7	22.3	17.8	14.9	12.7	11.1	9.9	8.9	8.1	7.4	6.9	6.4	5.9	5.6	
	M	100	0.79	-	23.5	18.8	15.7	13.4	11.7	10.4	9.4	8.5	7.8	7.2	6.7	6.3	5.9		
	F	115	0.85	-	25.2	20.1	16.9	14.4	12.6	11.2	10.1	9.2	8.4	7.7	7.2	6.7	6.3		
06	XC	20	0.42	-	25.2	16.8	12.6	10.1	8.4	7.2	6.3	5.6	5.0	4.6	4.2	3.9	3.6	3.4	3.2
	XC	30	0.52	-	20.6	15.4	12.3	10.3	8.8	7.7	6.9	6.2	5.6	5.1	4.7	4.4	4.1	3.9	
	VC	40	0.60	-	23.8	17.8	14.3	11.9	10.2	8.9	7.9	7.1	6.5	5.9	5.5	5.1	4.8	4.5	
	VC	50	0.67	-	26.6	19.9	15.9	13.3	11.4	10.0	8.9	8.0	7.2	6.6	6.1	5.7	5.3	5.0	
	C	60	0.73	-	29.1	21.8	17.5	14.5	12.5	10.9	9.7	8.7	7.9	7.3	6.7	6.2	5.8	5.5	
	M	70	0.79	-	23.6	18.9	15.7	13.5	11.8	10.5	9.4	8.6	7.9	7.3	6.7	6.3	5.9		
	M	80	0.85	-	25.2	20.2	16.8	14.4	12.6	11.2	10.1	9.2	8.4	7.8	7.2	6.7	6.3		
	M	90	0.90	-	26.7	21.4	17.8	15.3	13.4	1									