TURBODROP®

Medium Pressure TurboDrop® XL Nozzle and TurboDrop® DualFan Nozzle

TurboDrop® XL Nozzle (TDXL/TDCXL)

TDXL11001
TDXL110015
TDXL11002
TDXL110025
TDXL11003
TDXL11004
TDXL11005
TDXL11006
TDXL11008
TDXL11010
TDXL11015

The TurboDrop® Venturi (TDXLV/TDVC) is the heart of both the TurboDrop® and TurboDrop® DualFan nozzle. The Venturi (or injector) meters the flow and injects air into the spray fluid. The TurboDrop® Venturi is ISO color coded for flow rate. The pattern tip or combination of tips should be double the flow of the Venturi. For example, a blue 03 Venturi requires an 06 pattern tip, or a pair of tips that add up to 06. The 03 DualFan TurboDrop® uses a 11002 plus an 8004 combination of pattern tips.

The TurboDrop® Venturi nozzle utilizes a patented stabilization chamber and pulsation dampener which result in even mixing of air with the spray liquid, and a tighter, more uniform droplet spectrum for a unique combination of drift control and coverage.

The TurboDrop® XL nozzle is unique among air injection nozzles in that it was designed for contact chemicals, not just glyphosate (a systemic herbicide). In fact, the TurboDrop® XL, the TurboDrop® DualFan and the AirMix® are the only air injection nozzles recommended by Bayer CropScience for use with Liberty™ herbicide.

The single fan XL can be used in most ag spray applications by choosing the appropriate combination of carrier rate and droplet size. The DualFan TurboDrop® may improve coverage with certain canopy types, or even help target smaller, just emerging weeds.

TurboDrop® DualFan Nozzle (TADF/TACDF)

TADF01
TADF015
TADF02
TADF025
TADF03
TADF04
TADF05
TADF06
TADF08
TADF10
TADF15

One size will often fit a variety of applications. For example, the 04 TurboDrop® DualFan will deliver glyphosate at 10 gpa at 11-15 mph between 35 and 65 psi. For 15 gpa fungicides, or other contact pesticides, this same nozzle could be operated at 11-13 mph at roughly 80-110 psi. Sprayer speed could be reduced a couple of miles per hour (9-10 mph) to deliver 20 gpa at 90-110 psi.

To maximize coverage, TADF nozzles may be alternated on the boom to provide four angles of spray orientation into the canopy, effectively spraying the target four times in one pass.

Pressure Range: 20-120 psi (30-150 psi, ceramic) **Recommended Boom Height:** 18-36" (with 20" nozzle spacing)
Materials of Construction: Polyacetyl, EPDM. Semi-ceramic version (TDCXL/TACDF) utilizes ceramic pre-orifice for extended wear life.

TURBODROP® XL NOZZLE	TURBODROP® DUALFAN NOZZLE	LIQUID PRESSURE PSI	TDXL/ TDCXL DROPLET SIZE ASABE	TADF/ TACDF DROPLET SIZE ASABE	NOZZLE CAPACITY GPM	GALLONS PER ACRE BASED ON 20" NOZZLE SPACING														
						5 MPH	6 MPH	7 MPH	8 MPH	9 MPH	10 MPH	11 MPH	12 MPH	13 MPH	14 MPH	15 MPH	16 MPH	17 MPH	18 MPH	20 MPH
TDXL11001 (use 50 mesh)	TADF01	30	C	M	0.09	5.1	4.3	3.7	3.2	2.9	2.6	2.3	2.1	2.0	1.8	1.7	1.6	1.5	1.4	1.3
		40	C	M	0.10	5.9	4.9	4.2	3.7	3.3	3.0	2.7	2.5	2.3	2.1	2.0	1.9	1.7	1.6	1.5
		50	M	M	0.11	6.6	5.5	4.7	4.1	3.7	3.3	3.0	2.8	2.6	2.4	2.2	2.1	2.0	1.8	1.7
		60	M	F	0.12	7.3	6.1	5.2	4.5	4.0	3.6	3.3	3.0	2.8	2.6	2.4	2.3	2.1	2.0	1.8
		70	M	F	0.13	7.9	6.5	5.6	4.9	4.4	3.9	3.6	3.3	3.0	2.8	2.6	2.5	2.3	2.2	2.0
		80	F	F	0.14	8.4	7.0	6.0	5.2	4.7	4.2	3.8	3.5	3.2	3.0	2.8	2.6	2.5	2.3	2.1
		90	F	F	0.15	8.9	7.4	6.4	5.6	4.9	4.5	4.0	3.7	3.4	3.2	3.0	2.8	2.6	2.5	2.2
		100	F	F	0.16	9.4	7.8	6.7	5.9	5.2	4.7	4.3	3.9	3.6	3.4	3.1	2.9	2.8	2.6	2.3
		120	F	F	0.17	10.3	8.6	7.3	6.4	5.7	5.1	4.7	4.3	4.0	3.7	3.4	3.2	3.0	2.9	2.6
TDXL110015 (use 50 mesh)	TADF015	30	C	C M	0.13	7.7	6.4	5.5	4.8	4.3	3.9	3.5	3.2	3.0	2.8	2.6	2.4	2.3	2.1	1.9
		40	C	M	0.15	8.9	7.4	6.4	5.6	4.9	4.5	4.0	3.7	3.4	3.2	3.0	2.8	2.6	2.5	2.2
		50	M	M	0.17	10.0	8.3	7.1	6.2	5.5	5.0	4.5	4.1	3.8	3.6	3.3	3.1	2.9	2.8	2.5
		60	M	M	0.18	10.9	9.1	7.8	6.8	6.1	5.5	5.0	4.5	4.2	3.9	3.6	3.4	3.2	3.0	2.7
		70	M	M	0.20	11.8	9.8	8.4	7.4	6.5	5.9	5.4	4.9	4.5	4.2	3.9	3.7	3.5	3.3	2.9
		80	M	M F	0.21	12.6	10.5	9.0	7.9	7.0	6.3	5.7	5.2	4.8	4.5	4.2	3.9	3.7	3.5	3.1
		90	F	M F	0.22	13.4	11.1	9.5	8.3	7.4	6.7	6.1	5.6	5.1	4.8	4.5	4.2	3.9	3.7	3.3
		100	F	F	0.24	14.1	11.7	10.1	8.8	7.8	7.0	6.4	5.9	5.4	5.0	4.7	4.4	4.1	3.9	3.5
		120	F	F	0.26	15.4	12.9	11.0	9.6	8.6	7.7	7.0	6.4	5.9	5.5	5.1	4.8	4.5	4.3	3.9
TDXL11002 (use 50 mesh)	TADF02	30	C	C M	0.17	10.3	8.6	7.3	6.4	5.7	5.1	4.7	4.3	4.0	3.7	3.4	3.2	3.0	2.9	2.6
		40	C	C M	0.20	11.9	9.9	8.5	7.4	6.6	5.9	5.4	4.9	4.6	4.2	4.0	3.7	3.5	3.3	3.0
		50	M	C M	0.22	13.3	11.1	9.5	8.3	7.4	6.6	6.0	5.5	5.1	4.7	4.4	4.1	3.9	3.7	3.3
		60	M	M	0.24	14.5	12.1	10.4	9.1	8.1	7.3	6.6	6.1	5.6	5.2	4.8	4.5	4.3	4.0	3.6
		70	M	M	0.26	15.7	13.1	11.2	9.8	8.7	7.9	7.1	6.5	6.0	5.6	5.2	4.9	4.6	4.4	3.9
		80	M	M F	0.28	16.8	14.0	12.0	10.5	9.3	8.4	7.6	7.0	6.5	6.0	5.6	5.2	4.9	4.7	4.2
		90	F	M F	0.30	17.8	14.8	12.7	11.1	9.9	8.9	8.1	7.4	6.8	6.4	5.9	5.6	5.2	4.9	4.5
		100	F	M F	0.32	18.8	15.6	13.4	11.7	10.4	9.4	8.5	7.8	7.2	6.7	6.3	5.9	5.5	5.2	4.7
		120	F	F	0.35	20.6	17.1	14.7	12.9	11.4	10.3	9.3	8.6	7.9	7.3	6.9	6.4	6.0	5.7	5.1
TDXL110025 (use 50 mesh)	TADF025	30	VC	VC C	0.22	12.9	10.7	9.2	8.0	7.1	6.4	5.8	5.4	4.9	4.6	4.3	4.0	3.8	3.6	3.2
		40	VC	C	0.25	14.8	12.4	10.6	9.3	8.2	7.4	6.7	6.2	5.7	5.3	4.9	4.6	4.4	4.1	3.7
		50	C	C M	0.28	16.6	13.8	11.9	10.4	9.2	8.3	7.5	6.9	6.4	5.9	5.5	5.2	4.9	4.6	4.1
		60	M	M	0.31	18.2	15.1	13.0	11.4	10.1	9.1	8.3	7.6	7.0	6.5	6.1	5.7	5.3	5.0	4.5
		70	M	M	0.33	19.6	16.4	14.0	12.3	10.9	9.8	8.9	8.2	7.6	7.0	6.5	6.1	5.8	5.5	4.9
		80	M	M F	0.35	21.0	17.5	15.0	13.1	11.7	10.5	9.5	8.7	8.1	7.5	7.0	6.6	6.2	5.8	5.2
		90	M	M F	0.37	22.3	18.5	15.9	13.9	12.4	11.1	10.1	9.3	8.6	7.9	7.4	7.0	6.5	6.2	5.6
		100	M	M F	0.40	23.5	19.6	16.8	14.7	13.0	11.7	10.7	9.8	9.0	8.4	7.8	7.3	6.9	6.5	5.9
		120	F	F	0.43	25.7	21.4	18.4	16.1	14.3	12.9	11.7	10.7	9.9	9.2	8.6	8.0	7.6	7.1	6.4

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TURBODROP® XL NOZZLE	TURBODROP® DUAL FAN NOZZLE	LIQUID PRESSURE PSI	TDXL/ TDCXL DROPLET SIZE ASABE	TADF/ TACDF DROPLET SIZE ASABE	NOZZLE CAPACITY GPM	GALLONS PER ACRE BASED ON 20" NOZZLE SPACING														
						5 MPH	6 MPH	7 MPH	8 MPH	9 MPH	10 MPH	11 MPH	12 MPH	13 MPH	14 MPH	15 MPH	16 MPH	17 MPH	18 MPH	20 MPH
TDXL11003	TADF03	30	XC	VC C	0.26	15.4	12.9	11.0	9.6	8.6	7.7	7.0	6.4	5.9	5.5	5.1	4.8	4.5	4.3	3.9
		40	VC	C	0.30	17.8	14.8	12.7	11.1	9.9	8.9	8.1	7.4	6.8	6.4	5.9	5.6	5.2	4.9	4.5
		50	C	C M	0.34	19.9	16.6	14.2	12.4	11.1	10.0	9.0	8.3	7.7	7.1	6.6	6.2	5.9	5.5	5.0
		60	C	M	0.37	21.8	18.2	15.6	13.6	12.1	10.9	9.9	9.1	8.4	7.8	7.3	6.8	6.4	6.1	5.5
		70	M	M	0.40	23.6	19.6	16.8	14.7	13.1	11.8	10.7	9.8	9.1	8.4	7.9	7.4	6.9	6.5	5.9
		80	M	M F	0.42	25.2	21.0	18.0	15.7	14.0	12.6	11.4	10.5	9.7	9.0	8.4	7.9	7.4	7.0	6.3
		90	M	M F	0.45	26.7	22.3	19.1	16.7	14.8	13.4	12.1	11.1	10.3	9.5	8.9	8.3	7.9	7.4	6.7
		100	M	M F	0.47	28.2	23.5	20.1	17.6	15.6	14.1	12.8	11.7	10.8	10.1	9.4	8.8	8.3	7.8	7.0
(use 50 mesh)		120	M	F	0.52	30.8	25.7	22.0	19.3	17.1	15.4	14.0	12.9	11.9	11.0	10.3	9.6	9.1	8.6	7.7
TDXL11004	TADF04	30	XC	VC C	0.35	20.6	17.1	14.7	12.9	11.4	10.3	9.3	8.6	7.9	7.3	6.9	6.4	6.0	5.7	5.1
		40	VC	C	0.40	23.7	19.8	17.0	14.8	13.2	11.9	10.8	9.9	9.1	8.5	7.9	7.4	7.0	6.6	5.9
		50	C	C M	0.45	26.5	22.1	19.0	16.6	14.7	13.3	12.1	11.1	10.2	9.5	8.8	8.3	7.8	7.4	6.6
		60	C	M	0.49	29.1	24.2	20.8	18.2	16.2	14.5	13.2	12.1	11.2	10.4	9.7	9.1	8.6	8.1	7.3
		70	M	M	0.53	31.4	26.2	22.4	19.6	17.4	15.7	14.3	13.1	12.1	11.2	10.5	9.8	9.2	8.7	7.9
		80	M	M F	0.57	33.6	28.0	24.0	21.0	18.7	16.8	15.3	14.0	12.9	12.0	11.2	10.5	9.9	9.3	8.4
		90	M	M F	0.60	35.6	29.7	25.4	22.3	19.8	17.8	16.2	14.8	13.7	12.7	11.9	11.1	10.5	9.9	8.9
		100	M	M F	0.63	37.5	31.3	26.8	23.5	20.9	18.8	17.1	15.6	14.4	13.4	12.5	11.7	11.0	10.4	9.4
(use 24 mesh)	(use 50 mesh)	120	M	M F	0.69	41.1	34.3	29.4	25.7	22.8	20.6	18.7	17.1	15.8	14.7	13.7	12.9	12.1	11.4	10.3
TDXL11005	TADF05	30	XC	VC C	0.43	25.7	21.4	18.4	16.1	14.3	12.9	11.7	10.7	9.9	9.2	8.6	8.0	7.6	7.1	6.4
		40	XC	VC C	0.50	29.7	24.8	21.2	18.6	16.5	14.9	13.5	12.4	11.4	10.6	9.9	9.3	8.7	8.3	7.4
		50	VC	C M	0.56	33.2	27.7	23.7	20.8	18.5	16.6	15.1	13.8	12.8	11.9	11.1	10.4	9.8	9.2	8.3
		60	VC	C M	0.61	36.4	30.3	26.0	22.7	20.2	18.2	16.5	15.2	14.0	13.0	12.1	11.4	10.7	10.1	9.1
		70	C	M	0.66	39.3	32.8	28.1	24.6	21.8	19.7	17.9	16.4	15.1	14.0	13.1	12.3	11.6	10.9	9.8
		80	C	M	0.71	42.0	35.0	30.0	26.3	23.3	21.0	19.1	17.5	16.2	15.0	14.0	13.1	12.4	11.7	10.5
(use 24 mesh)	(use 50 mesh)	90	M	M F	0.75	44.6	37.1	31.8	27.9	24.8	22.3	20.3	18.6	17.1	15.9	14.9	13.9	13.1	12.4	11.1
		100	M	M F	0.79	47.0	39.2	33.6	29.4	26.1	23.5	21.4	19.6	18.1	16.8	15.7	14.7	13.8	13.1	11.7
		120	M	M F	0.87	51.5	42.9	36.8	32.2	28.6	25.7	23.4	21.4	19.8	18.4	17.2	16.1	15.1	14.3	12.9
TDXL11006	TADF06	30	XC	VC	0.52	30.9	25.7	22.1	19.3	17.2	15.4	14.0	12.9	11.9	11.0	10.3	9.6	9.1	8.6	7.7
		40	XC	VC	0.60	35.7	29.7	25.5	22.3	19.8	17.8	16.2	14.9	13.7	12.7	11.9	11.1	10.5	9.9	8.9
		50	XC	C	0.67	39.9	33.2	28.5	24.9	22.1	19.9	18.1	16.6	15.3	14.2	13.3	12.5	11.7	11.1	10.0
		60	VC	C	0.74	43.7	36.4	31.2	27.3	24.3	21.8	19.8	18.2	16.8	15.6	14.6	13.6	12.8	12.1	10.9
		70	VC	M	0.79	47.2	39.3	33.7	29.5	26.2	23.6	21.4	19.7	18.1	16.8	15.7	14.7	13.9	13.1	11.8
		80	C	M	0.85	50.4	42.0	36.0	31.5	28.0	25.2	22.9	21.0	19.4	18.0	16.8	15.8	14.8	14.0	12.6
		90	C	M	0.90	53.5	44.6	38.2	33.4	29.7	26.7	24.3	22.3	20.6	19.1	17.8	16.7	15.7	14.9	13.4
		100	M	M	0.95	56.4	47.0	40.3	35.2	31.3	28.2	25.6	23.5	21.7	20.1	18.8	17.6	16.6	15.7	14.1
(use 24 mesh)		120	M	M	1.06	61.8	51.5	44.1	38.6	34.3	30.9	28.1	25.7	23.8	22.1	20.6	19.3	18.2	17.2	15.4
TDXL11008	TADF08	30	XC	VC	0.69	41.0	34.2	29.3	25.6	22.8	20.5	18.6	17.1	15.8	14.6	13.7	12.8	12.1	11.4	10.2
		40	XC	VC	0.80	47.3	39.4	33.8	29.6	26.3	23.7	21.5	19.7	18.2	16.9	15.8	14.8	13.9	13.1	11.8
		50	XC	C	0.89	52.9	44.1	37.8	33.1	29.4	26.5	24.1	22.1	20.4	18.9	17.6	16.5	15.6	14.7	13.2
		60	XC	C	0.98	58.0	48.3	41.4	36.2	32.2	29.0	26.4	24.2	22.3	20.7	19.3	18.1	17.1	16.1	14.5
		70	VC	M	1.05	62.6	52.2	44.7	39.1	34.8	31.3	28.5	26.1	24.1	22.4	20.9	19.6	18.4	17.4	15.7
		80	VC	M	1.13	66.9	55.8	47.8	41.8	37.2	33.5	30.4	27.9	25.7	23.9	22.3	20.9	19.7	18.6	16.7
		90	VC	M	1.20	71.0	59.2	50.7	44.4	39.4	35.5	32.3	29.6	27.3	25.4	23.7	22.2	20.9	19.7	17.8
		100	C	M	1.26	74.8	62.4	53.5	46.8	41.6	37.4	34.0	31.2	28.8	26.7	24.9	23.4	22.0	20.8	18.7
(use 24 mesh)		120	C	M	1.38	82.0	68.3	58.6	51.2	45.5	41.0	37.3	34.2	31.5	29.3	27.3	25.6	24.1	22.8	20.5
TDXL11010	TADF10	30	XC	XC	0.87	51.4	42.8	36.7	32.1	28.6	25.7	23.4	21.4	19.8	18.4	17.1	16.1	15.1	14.3	12.9
		40	XC	XC	1.00	59.4	49.5	42.4	37.1	33.0	29.7	27.0	24.7	22.8	21.2	19.8	18.5	17.5	16.5	14.8
		50	XC	VC	1.12	66.4	55.3	47.4	41.5	36.9	33.2	30.2	27.7	25.5	23.7	22.1	20.7	19.5	18.4	16.6
		60	XC	VC	1.22	72.7	60.6	51.9	45.4	40.4	36.3	33.0	30.3	28.0	26.0	24.2	22.7	21.4	20.2	18.2
		70	XC	VC	1.32	78.5	65.4	56.1	49.1	43.6	39.3	35.7	32.7	30.2	28.0	26.2	24.5	23.1	21.8	19.6
		80	VC	C	1.41	83.9	70.0	60.0	52.5	46.6	42.0	38.2	35.0	32.3	30.0	28.0	26.2	24.7	23.3	21.0
		90	VC	C	1.50	89.0	74.2	63.6	55.6	49.5	44.5	40.5	37.1	34.2	31.8	29.7	27.8	26.2	24.7	22.3
		100	VC	M	1.58	93.9	78.2	67.0	58.7	52.1	46.9	42.7	39.1	36.1	33.5	31.3	29.3	27.6	26.1	23.5
(use 24 mesh)		120	VC	M	1.73	102.8	85.7	73.4	64.3	57.1	51.4	46.7	42.8	39.5	36.7	34.3	32.1	30.2	28.6	25.7
TDXL11015	TADF15	30			1.30	77.1	64.3	55.1	48.2	42.8	38.6	35.0	32.1	29.7	27.5	25.7	24.1	22.7	21.4	19.3
		40			1.50	89.0	74.2	63.6	55.6	49.5	44.5	40.5	37.1	34.2	31.8	29.7	27.8	26.2	24.7	22.3
		50			1.68	99.5	83.0	71.1	62.2	55.3	49.8	45.2	41.5	38.3	35.6	33.2	31.1	29.3	27.7	24.9
		60			1.84	109.0	90.9	77.9	68.2	60.6	54.5	49.6	45.4	41.9	38.9	36.3	34.1	32.1	30.3	27.3
		70			1.98	117.8	98.2	84.1	73.6	65.4	58.9	53.5	49.1	45.3	42.1	39.3	36.8	34.6	32.7	29.4
		80			2.12	125.9	104.9	89.9	78.7	70.0	63.0	57.2	52.5	48.4	45.0	42.0	39.3	37.0	35.0	31.5
		90			2.25	133.6	111.3	95.4	83.5	74.2	66.8	60.7	55.6	51.4	47.7	44.5	41.7	39.3	37.1	33.4
		100			2.37	140.8	117.3	100.6	88.0	78.2	70.4	64.0	58.7	54.1	50.3	46.9	44.0	41.4	39.1	35.2
(use 24 mesh)		120			2.60	154.2	128.5	110.2	96.4	85.7	77.1	70.1	64.3	59.3	55.1	51.4	48.2	45.4	42.8	38.6

* Table based on spraying water at 70°F. Flow rates may vary +/- 5%.

*For alternate nozzle spacings, use the following formula: $\frac{\text{20" spacing}}{\text{New nozzle spacing}}$ X Given GPA rate for 20" spacing = New GPA rate