

# TurboDrop® Variable Rate Fertilizer Nozzles

The TurboDrop® Variable Rate fertilizer nozzle is designed to apply liquid fertilizer at a four to five times flow rate range to allow for varying fertilizer requirements of the target crop. It is available in a six hole streaming version (TDVRF) for use on standard sprayers, and a hose barb version (TDVRHB) for tool bars, nitrogen applicators and other dedicated fertilizer rigs.

The TurboDrop® Variable Rate may be operated from 10-140 psi, allowing up to a five times rate change at a given speed. Additionally, the TDVRF and TDVRHB can maintain a constant gpa rate over a five times speed change.

The TDVRF utilizes a six hole streaming tip in order to minimize potential leaf burn while maximizing fertilizer distribution, maintaining uniformity with varying spray heights. The TDVRHB utilizes a 3/8" hose barb for ease of installation on fertilizer rigs, and acts as a variable-flow metering orifice. Check valve design keeps flow accuracy to ± 5% in all versions.

The TDVRF and TDVRHB are "airless," providing a wider operating range, and eliminating the possibility of fertilizer spitting from the side. The TDVRC nozzle body is available as a stand alone product that can be integrated into custom fertilizer systems.

**Pressure Range:** 10-140 psi **Materials of Construction:** Polyacetal, EPDM, stainless steel

			GALLONS PER ACRE BASED ON 30" NOZZLE SPACING																		
			PSI	GPM	3 MPH	4 MPH	5 MPH	6 MPH	7 MPH	8 MPH	9 MPH	10 MPH	11 MPH	12 MPH	13 MPH	14 MPH	16 MPH	18 MPH	20 MPH		
TurboDrop® Variable Rate Fertilizer	TDVRF015	TDVRHB015	TDVRC015	10	0.12	8.1	6.1	4.9	4.1	3.5	3.0	2.7	2.4	2.2	2.0	1.9	1.7	1.5	1.4	1.2	
				20	0.17	11.5	8.6	6.9	5.7	4.9	4.3	3.8	3.4	3.1	2.9	2.7	2.5	2.2	1.9	1.7	
					30	0.27	17.6	13.2	10.5	8.8	7.5	6.6	5.9	5.3	4.8	4.4	4.1	3.8	3.3	2.9	2.6
					40	0.35	23.1	17.3	13.9	11.6	9.9	8.7	7.7	6.9	6.3	5.8	5.3	5.0	4.3	3.9	3.5
					50	0.39	25.8	19.4	15.5	12.9	11.1	9.7	8.6	7.7	7.0	6.5	6.0	5.5	4.8	4.3	3.9
					60	0.44	29.2	21.9	17.5	14.6	12.5	11.0	9.7	8.8	8.0	7.3	6.7	6.3	5.5	4.9	4.4
					70	0.48	31.9	23.9	19.1	15.9	13.7	12.0	10.6	9.6	8.7	8.0	7.4	6.8	6.0	5.3	4.8
					80	0.52	34.1	25.5	20.4	17.0	14.6	12.8	11.4	10.2	9.3	8.5	7.9	7.3	6.4	5.7	5.1
					100	0.57	37.4	28.0	22.4	18.7	16.0	14.0	12.5	11.2	10.2	9.3	8.6	8.0	7.0	6.2	5.6
					120	0.62	40.9	30.7	24.6	20.5	17.5	15.3	13.6	12.3	11.2	10.2	9.4	8.8	7.7	6.8	6.1
				140	0.67	44.2	33.2	26.5	22.1	19.0	16.6	14.7	13.3	12.1	11.1	10.2	9.5	8.3	7.4	6.6	
TurboDrop® Variable Rate Fertilizer Hose Barb	TDVRF02	TDVRHB02	TDVRC02	10	0.18	11.9	8.9	7.1	5.9	5.1	4.5	4.0	3.6	3.2	3.0	2.7	2.5	2.2	2.0	1.8	
				20	0.25	16.6	12.4	9.9	8.3	7.1	6.2	5.5	5.0	4.5	4.1	3.8	3.5	3.1	2.8	2.5	
					30	0.38	25.3	19.0	15.2	12.7	10.9	9.5	8.4	7.6	6.9	6.3	5.8	5.4	4.8	4.2	3.8
					40	0.51	33.8	25.3	20.3	16.9	14.5	12.7	11.3	10.1	9.2	8.4	7.8	7.2	6.3	5.6	5.1
					50	0.58	38.0	28.5	22.8	19.0	16.3	14.2	12.7	11.4	10.4	9.5	8.8	8.1	7.1	6.3	5.7
					60	0.65	43.1	32.3	25.9	21.5	18.5	16.2	14.4	12.9	11.8	10.8	9.9	9.2	8.1	7.2	6.5
					70	0.70	45.9	34.5	27.6	23.0	19.7	17.2	15.3	13.8	12.5	11.5	10.6	9.8	8.6	7.7	6.9
					80	0.74	49.1	36.8	29.5	24.6	21.0	18.4	16.4	14.7	13.4	12.3	11.3	10.5	9.2	8.2	7.4
					100	0.82	54.2	40.6	32.5	27.1	23.2	20.3	18.1	16.3	14.8	13.5	12.5	11.6	10.2	9.0	8.1
					120	0.90	59.4	44.6	35.6	29.7	25.5	22.3	19.8	17.8	16.2	14.9	13.7	12.7	11.1	9.9	8.9
				140	0.97	64.2	48.1	38.5	32.1	27.5	24.1	21.4	19.2	17.5	16.0	14.8	13.7	12.0	10.7	9.6	
TurboDrop® Variable Rate Fertilizer Nozzle Body	TDVRF03	TDVRHB03	TDVRC03	10	0.23	15.2	11.4	9.1	7.6	6.5	5.7	5.1	4.6	4.1	3.8	3.5	3.3	2.8	2.5	2.3	
				20	0.33	21.5	16.1	12.9	10.8	9.2	8.1	7.2	6.5	5.9	5.4	5.0	4.6	4.0	3.6	3.2	
					30	0.49	32.5	24.4	19.5	16.2	13.9	12.2	10.8	9.7	8.9	8.1	7.5	7.0	6.1	5.4	4.9
					40	0.66	43.6	32.7	26.2	21.8	18.7	16.4	14.5	13.1	11.9	10.9	10.1	9.3	8.2	7.3	6.5
					50	0.74	48.8	36.6	29.3	24.4	20.9	18.3	16.3	14.6	13.3	12.2	11.3	10.5	9.1	8.1	7.3
					60	0.83	54.5	40.8	32.7	27.2	23.3	20.4	18.2	16.3	14.9	13.6	12.6	11.7	10.2	9.1	8.2
					70	0.89	58.4	43.8	35.0	29.2	25.0	21.9	19.5	17.5	15.9	14.6	13.5	12.5	11.0	9.7	8.8
					80	0.94	62.2	46.7	37.3	31.1	26.7	23.3	20.7	18.7	17.0	15.6	14.4	13.3	11.7	10.4	9.3
					100	1.05	69.6	52.2	41.7	34.8	29.8	26.1	23.2	20.9	19.0	17.4	16.1	14.9	13.0	11.6	10.4
					120	1.15	76.2	57.1	45.7	38.1	32.6	28.6	25.4	22.8	20.8	19.0	17.6	16.3	14.3	12.7	11.4
				140	1.25	82.3	61.7	49.4	41.2	35.3	30.9	27.4	24.7	22.4	20.6	19.0	17.6	15.4	13.7	12.3	
				10	0.45	30.0	22.5	18.0	15.0	12.8	11.2	10.0	9.0	8.2	7.5	6.9	6.4	5.6	5.0	4.5	
				20	0.64	42.4	31.8	25.4	21.2	18.2	15.9	14.1	12.7	11.6	10.6	9.8	9.1	7.9	7.1	6.4	
				30	0.76	50.0	37.5	30.0	25.0	21.4	18.8	16.7	15.0	13.6	12.5	11.5	10.7	9.4	8.3	7.5	
				40	0.93	61.4	46.0	36.8	30.7	26.3	23.0	20.5	18.4	16.7	15.3	14.2	13.2	11.5	10.2	9.2	
				50	1.04	68.6	51.4	41.1	34.3	29.4	25.7	22.9	20.6	18.7	17.1	15.8	14.7	12.9	11.4	10.3	
				60	1.09	72.0	54.0	43.2	36.0	30.9	27.0	24.0	21.6	19.6	18.0	16.6	15.4	13.5	12.0	10.8	
				70	1.27	83.8	62.8	50.3	41.9	35.9	31.4	27.9	25.1	22.8	20.9	19.3	17.9	15.7	14.0	12.6	
				80	1.37	90.3	67.7	54.2	45.1	38.7	33.9	30.1	27.1	24.6	22.6	20.8	19.3	16.9	15.0	13.5	
				100	1.53	101.0	75.7	60.6	50.5	43.3	37.9	33.7	30.3	27.5	25.2	23.3	21.6	18.9	16.8	15.1	
				120	1.68	110.6	83.0	66.4	55.3	47.4	41.5	36.9	33.2	30.2	27.7	25.5	23.7	20.7	18.4	16.6	
				140	1.81	119.5	89.6	71.7	59.7	51.2	44.8	39.8	35.8	32.6	29.9	27.6	25.6	22.4	19.9	17.9	

## TurboDrop® Variable Rate Fertilizer Nozzle Body



TDVRC015  
TDVRC02  
TDVRC03  
TDVRC05



TDVRF02 at 30 psi



TDVRF02 at 60 psi



TDVRF02 at 90 psi



TDVRF02 at 120 psi