

QJ-VR & PTC-VR

VARIABLE RATE FERTILIZER ASSEMBLIES

The QJ-VR and PTC-VR line of variable rate fertilizer assemblies feature a variable diameter orifice that produces a wide range of flow rates - its like having several metering orifices in one. This allows for a wider range of ground speeds and/or application rates from a single size for improved productivity. These assemblies are also ideal for variable rate prescription map applications. The elastomer orifice design provides consistent flow rate performance while utilizing a simple, reliable design with no springs or moving parts.

FEATURES:

- Both QJ-VR and PTC-VR are ideal for installation on planters and toolbars for liquid fertilizer metering and application.
- PTC-VR features nylon construction for excellent strength and chemical resistance.
- QJ-VR features acetal and nylon construction with choice of nylon or stainless steel hose barbs for strength and excellent chemical resistance.
- Simple, elastomer (EPDM) variable orifice for reliable, long-term operation.
- Recommended operating pressure: 10-100 PSI (0.7-7.0 bar).

SIZE OPTIONS

Model	Hose Size (I.D.)				Tubing Size (O.D.)		
	1/4"	5/16"	3/8"	1/2"	1/4"	5/16"	3/8"
QJ-VR-X0.5	X	X	X				
QJ-VR-X1.0	X	X	X				
QJ-VR-X2.0			X	X			
PTC-VR-X0.5					X	X	X
PTC-VR-X1.0					X	X	X
PTC-VR-X2.0						X	X

Note: 1/4" and 5/16" hose barb sizes offered in stainless steel only.
3/8" and 1/2" hose barbs offered in choice of stainless steel or nylon.



PTC-VR PUSH-TO-CONNECT METERING ASSEMBLY



QJ-VR METERING ASSEMBLY



QJ-VR HOSE BARB METERING ASSEMBLY

SPEED RANGE FOR VARIOUS APPLICATION RATES

Nozzle	Ground Speed Range (km/h) at 50cm Spacing							
	100 l/ha	200 l/ha	300 l/ha	400 l/ha	500 l/ha	600 l/ha	700 l/ha	800 l/ha
QJ/PTC-VR-X0.5	4.9 - 24	2.5 - 12	1.6 - 7.8	1.2 - 5.9	1.0 - 4.7	0.8 - 3.9	0.7 - 3.4	0.6 - 2.9
QJ/PTC-VR-X1.0	7.4 - 49	3.7 - 24	2.5 - 16	1.9 - 12	1.5 - 9.8	1.2 - 8.2	1.1 - 7.0	0.9 - 6.1
QJ/PTC-VR-X2.0	-	10.7 - 47	7.1 - 31	5.3 - 23	4.3 - 19	3.6 - 16	3.1 - 13	2.7 - 12

Nozzle	Ground Speed Range (km/h) at 75cm Spacing							
	100 l/ha	200 l/ha	300 l/ha	400 l/ha	500 l/ha	600 l/ha	700 l/ha	800 l/ha
QJ/PTC-VR-X0.5	3.3 - 16	1.6 - 7.8	1.1 - 5.2	0.8 - 3.9	0.7 - 3.1	0.5 - 2.6	0.5 - 2.2	0.4 - 2.0
QJ/PTC-VR-X1.0	5.0 - 33	2.5 - 16	1.7 - 11	1.2 - 8.2	1.0 - 6.5	0.8 - 5.4	0.7 - 4.7	0.6 - 4.1
QJ/PTC-VR-X2.0	14.2 - 62	7.1 - 31	4.7 - 21	3.6 - 16	2.8 - 12	2.4 - 10	2.0 - 8.9	1.8 - 7.8

APPLICATION INFORMATION

Assembly	Liquid Pressure in bar	Capacity 1 Nozzle in l/min	l/ha for 50cm Spacing (water)								Assembly	Liquid Pressure in bar	Capacity 1 Nozzle in l/min	l/ha for 75cm Spacing (water)							
			8 km/hr	10 km/hr	12 km/hr	16 km/hr	20 km/hr	25 km/hr	30 km/hr	35 km/hr				8 km/hr	10 km/hr	12 km/hr	16 km/hr	20 km/hr	25 km/hr	30 km/hr	35 km/hr
QJ-VR-X0.5 & PTC-VR-X0.5	1.0	0.41	61.5	49.2	41.0	30.8	24.6	19.7	16.4	14.1	QJ-VR-X0.5 & PTC-VR-X0.5	1.0	0.41	41.0	32.8	27.3	20.5	16.4	13.1	10.9	9.4
	1.5	0.51	76.5	61.2	51.0	38.3	30.6	24.5	20.4	17.5		1.5	0.51	51.0	40.8	34.0	25.5	20.4	16.3	13.6	11.7
	2.0	0.62	93.0	74.4	62.0	46.5	37.2	29.8	24.8	21.3		2.0	0.62	62.0	49.6	41.3	31.0	24.8	19.8	16.5	14.2
	2.5	0.71	107	85.2	71.0	53.3	42.6	34.1	28.4	24.3		2.5	0.71	71.0	56.8	47.3	35.5	28.4	22.7	18.9	16.2
	3.0	0.81	122	97.2	81.0	60.8	48.6	38.9	32.4	27.8		3.0	0.81	81.0	64.8	54.0	40.5	32.4	25.9	21.6	18.5
	3.5	0.92	138	110	92.0	69.0	55.2	44.2	36.8	31.5		3.5	0.92	92.0	73.6	61.3	46.0	36.8	29.4	24.5	21.0
	4.0	1.03	155	124	103	77.3	61.8	49.4	41.2	35.3		4.0	1.03	103	82.4	68.7	51.5	41.2	33.0	27.5	23.5
	5.0	1.28	192	154	128	96.0	76.8	61.4	51.2	43.9		5.0	1.28	128	102	85.3	64.0	51.2	41.0	34.1	29.3
QJ-VR-X1.0 & PTC-VR-X1.0	6.0	1.58	237	190	158	119	94.8	75.8	63.2	54.2	6.0	1.58	158	126	105	79.0	63.2	50.6	42.1	36.1	
	7.0	1.96	294	235	196	147	118	94.1	78.4	67.2	7.0	1.96	196	157	131	98.0	78.4	62.7	52.3	44.8	
	1.0	0.62	93.0	74.4	62.0	46.5	37.2	29.8	24.8	21.3	QJ-VR-X1.0 & PTC-VR-X1.0	1.0	0.62	62.0	49.6	41.3	31.0	24.8	19.8	16.5	14.2
	1.5	0.80	120	96.0	80.0	60.0	48.0	38.4	32.0	27.4		1.5	0.80	80.0	64.0	53.3	40.0	32.0	25.6	21.3	18.3
	2.0	1.00	150	120	100	75.0	60.0	48.0	40.0	34.3		2.0	1.00	100	80.0	66.7	50.0	40.0	32.0	26.7	22.9
	2.5	1.22	183	146	122	91.5	73.2	58.6	48.8	41.8		2.5	1.22	122	97.6	81.3	61.0	48.8	39.0	32.5	27.9
	3.0	1.46	219	175	146	110	87.6	70.1	58.4	50.1		3.0	1.46	146	117	97.3	73.0	58.4	46.7	38.9	33.4
	3.5	1.72	258	206	172	129	103	82.6	68.8	59.0		3.5	1.72	172	138	115	86.0	68.8	55.0	45.9	39.3
4.0	2.00	300	240	200	150	120	96.0	80.0	68.6	4.0		2.00	200	160	133	100	80.0	64.0	53.3	45.7	
5.0	2.61	392	313	261	196	157	125	104	89.5	5.0		2.61	261	209	174	131	104	83.5	69.6	59.7	
QJ-VR-X2.0 & PTC-VR-X2.0	6.0	3.31	497	397	331	248	199	159	132	113	6.0	3.31	331	265	221	166	132	106	88.3	75.7	
	7.0	4.08	612	490	408	306	245	196	163	140	7.0	4.08	408	326	272	204	163	131	109	93.3	
	1.0	1.78	267	214	178	134	107	85.4	71.2	61.0	QJ-VR-X2.0 & PTC-VR-X2.0	1.0	1.78	178	142	119	89.0	71.2	57.0	47.5	40.7
	1.5	2.17	326	260	217	163	130	104	86.8	74.4		1.5	2.17	217	174	145	109	86.8	69.4	57.9	49.6
	2.0	2.58	387	310	258	194	155	124	103	88.5		2.0	2.58	258	206	172	129	103	82.6	68.8	59.0
	2.5	3.01	452	361	301	226	181	144	120	103		2.5	3.01	301	241	201	151	120	96.3	80.3	68.8
	3.0	3.45	518	414	345	259	207	166	138	118		3.0	3.45	345	276	230	173	138	110	92.0	78.9
	3.5	3.92	588	470	392	294	235	188	157	134		3.5	3.92	392	314	261	196	157	125	105	89.6
4.0	4.41	662	529	441	331	265	212	176	151	4.0		4.41	441	353	294	221	176	141	118	101	
5.0	5.44	816	653	544	408	326	261	218	187	5.0		5.44	544	435	363	272	218	174	145	124	
QJ-VR-X2.0 & PTC-VR-X2.0	6.0	6.55	983	786	655	491	393	314	262	225	6.0	6.55	655	524	437	328	262	210	175	150	
	7.0	7.75	1163	930	775	581	465	372	310	266	7.0	7.75	775	620	517	388	310	248	207	177	

Note: Always double check your application rates. Tabulations are based on spraying water at 70°F (21°C).

How To Order:

Example:

PART NUMBER	DESCRIPTION	WEIGHT OF SOLUTION	SPECIFIC GRAVITY	CONVERSION FACTOR
QJ-VR-X2.0	Quick TeeJet® Variable Rate Metering Assembly (no hose barb)	7.0 lbs./gal	0.84	0.92
QJ-VR-X1.0-1/4-SS	1/4" Stainless Steel Hose Barb Variable Rate Metering Assembly	8.0 lbs./gal	0.96	0.98
		8.34 lbs./gal	1.00 - WATER	1.00
		9.0 lbs./gal	1.08	1.04
		10.0 lbs./gal	1.20	1.10
		10.65 lbs./gal	1.28 - 28% NITROGEN	1.13
PTC-VR-X1.0-3/8	3/8" Push-to-Connect Variable Rate Metering Assembly	11.0 lbs./gal	1.32	1.15
		12.0 lbs./gal	1.44	1.20
PTC-VR-X1.0-1/4-10	1/4" Push-to-Connect Variable Rate Metering Assembly with 10 PSI (0.7 bar) Diaphragm Check Valve	14.0 lbs./gal	1.68	1.30

*NOTE: Conversion factors must be used when spraying solutions heavier or lighter than water. First, multiply desired application rate by the appropriate conversion factor above. Then use the new application rate to select the most appropriate operating pressure from the application chart on this page.

