



Improving your PERFORMANCE

313D/A three roller pumphead

Technical information and features

- Flip-top pumphead
- Flow rates from 0.01 ml/min to 1750 ml/min
- One year comprehensive warranty
- Rapid and simple tube loading
- Three roller design for higher flow rates
- Easy tube loading
- Snap-fit 313X or 314X extension pumpheads
- 313D2 pumphead accepts 2.4mm wall thickness tubing for higher pressures

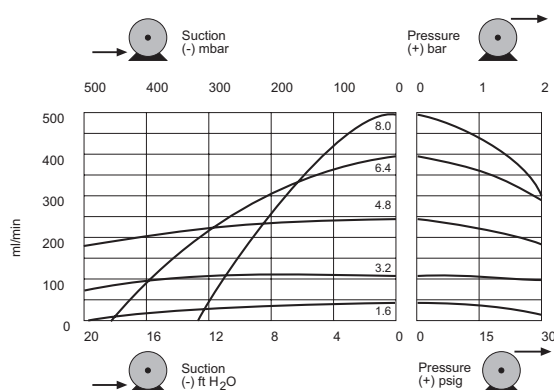
313D/A three roller pumphead attaches to any 500 series cased drive. Single channel pumphead supplied with adapter and bayonet mounting plate. 313D2 pumpheads for 2.4mm wall tubing cannot be extended.

313X three roller extension pumphead attaches to 313D/A or 314D/A pumpheads by bayonet fitting. Can provide up to five additional channels depending on drive torque.



Flow rate ranges (ml/min)

	Tube bore and flow rates (ml/min)							
	Speed rpm	0.5mm	0.8mm	1.6mm	3.2mm	4.8mm	6.4mm	8.0mm
505S, 504S, 505U and 504U	0.5-55	0.02-1.7	0.04-3.9	0.14-15	0.5-55	1.1-121	1.8-198	2.5-275
505S, 504S, 505U and 504U	7.0-170	0.20-5.1	0.48-12	1.84-46	6.8-170	15-374	24-612	34-850
505S, 504S, 505U and 504U	2.0-220	0.06-6.6	0.1-15.4	0.55-60	2-220	4.4-484	7.2-792	10-1100
505Du, 504Du and 505Di	0.25-55	0.01-1.7	0.02-3.9	0.07-15	0.25-55	0.55-121	0.9-198	1.3-275
505Du, 504Du and 505Di	1.0-220	0.03-6.6	0.07-15	0.27-60	1.0-220	2.2-484	3.6-792	5-1100
505Du, 504Du and 505Di	2.0-350	0.06-10.5	0.14-24.5	0.55-95.5	2.0-350	4.4-770	7.2-1260	10-1750

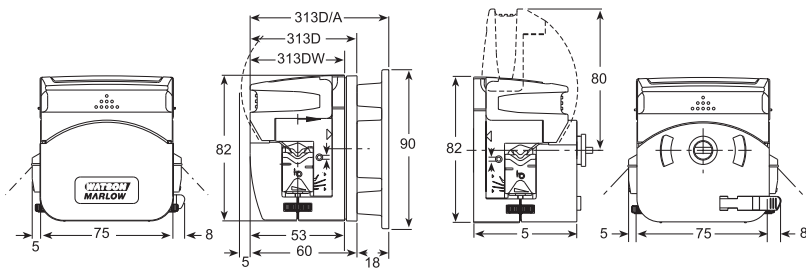


313 pumphead (3 roller)

Use these graphs as a guideline only, the figures and axes are approximate.

Flow rates obtained running at 100rpm.

Suction curves obtained with zero output pressure, pressure curves obtained with zero lift



313D, 313DW, 313D/A

313X (Place between 313D and drive)

313D/A three roller pumphead

Product codes		
313D/A	single channel three roller pumphead for 1.6mm wall tube	033.3401.000
313D2/A	single channel three roller pumphead for 2.4mm wall tube	033.3501.000
314X	extension three roller pumphead for 1.6mm wall tube	033.3431.000

Tube ordering codes				
Bore/wall (mm)	Bioprene	Marprene	Peroxide Silicone	Platinum Silicone
0.5 / 1.6	903.0005.016	902.0005.016	910.0005.016	913.0005.016
0.8 / 1.6	903.0008.016	902.0008.016	910.0008.016	913.0008.016
1.6 / 1.6	903.0016.016	902.0016.016	910.0016.016	913.0016.016
3.2 / 1.6	903.0032.016	902.0032.016	910.0032.016	913.0032.016
4.8 / 1.6	903.0048.016	902.0048.016	910.0048.016	913.0048.016
6.4 / 1.6	903.0064.016	902.0064.016	910.0064.016	913.0064.016
8.0 / 1.6	903.0080.016	902.0080.016	910.0080.016	913.0080.016
0.5 / 2.4			910.0005.024	
0.8 / 2.4			910.0008.024	
1.6 / 2.4	903.0016.024	902.0016.024	910.0016.024	913.0016.024
3.2 / 2.4	903.0032.024	902.0032.024	910.0032.024	913.0032.024
4.8 / 2.4	903.0048.024	902.0048.024	910.0048.024	913.0048.024
6.4 / 2.4	903.0064.024	902.0064.024	910.0064.024	913.0064.024
Bore/wall	Neoprene (mm)	STA-PURE®	Tygon	Fluorel®
0.8 / 1.6	920.0008.016			970.0008.016
1.6 / 1.6	920.0016.016	960.0016.016	950.0016.016	970.0016.016
3.2 / 1.6	920.0032.016	960.0032.016	950.0032.016	970.0032.016
4.8 / 1.6	920.0048.016	960.0048.016	950.0048.016	970.0048.016
6.4 / 1.6	920.0064.016	960.0064.016	950.0064.016	970.0064.016
8.0 / 1.6	920.0080.016	960.0080.016	950.0080.016	970.0080.016

® Fluorel is a registered trademark of Dyneon LLC, a 3-M Hoechst Enterprise

® STA-PURE is a registered trademark of W.L Gore & Associates Inc.

Please state the product code when ordering pumps and tubing.

Maximum number of 313/314 pumpheads for 500 series drives															
Silicone															
0.5 bar (7 psig)							2 bar (30 psig)								
Tubing number	112	13	14	16	25	17	18	112	13	14	16	25	17	18	
Tubing bore (mm)	0.5	0.8	1.6	3.2	4.8	6.4	8.0	0.5	0.8	1.6	3.2	4.8	6.4	8.0	
Drive	Speed														
505S, 505U, 505Du, 504S, 504U, 504Du															
55rpm	6	6	6	6	6	4	3	6	6	6	6	5	3	3	
504S	170rpm	6	6	5	3	2	2	1	6	6	5	3	2	1	1
505S, 505U, 505Du, 504S, 504U, 504Du, 505Di															
220rpm	6	6	6	6	6	4	3	6	6	6	6	5	3	3	
505Di	350rpm	6	6	5	5	3	2	2	6	6	6	5	3	2	2
Bioprene, Marprene, Tygon, Neoprene, Viton															
0.5 bar (7 psig)							2 bar (30 psig)								
Tubing number	112	13	14	16	25	17	18	112	13	14	16	25	17	18	
Tubing bore (mm)	0.5	0.8	1.6	3.2	4.8	6.4	8.0	0.5	0.8	1.6	3.2	4.8	6.4	8.0	
Drive	Speed														
505S, 505U, 505Du, 504S, 504U, 504Du															
55rpm	6	6	6	6	5	3	3	6	6	6	6	4	3	3	
504S	170rpm	6	6	4	2	2	1	1	6	6	4	2	2	1	1
505S, 505U, 505Du, 504S, 504U, 504Du, 505Di															
220rpm	6	6	6	6	5	3	3	6	6	6	6	4	3	3	
505Di	350rpm	6	6	5	4	3	2	2	6	6	5	4	2	2	1

Specification

Weight	313D/A	475g
	313D2/A	475g
	313X	345g
	313X2	325g

Materials of construction

Body rear	Glass filled polypropylene
Body front, body front extension	IXEF
Mounting plate, track and lever	IXEF
Rotor, tube clamp, locking tab	Glass filled Nylon
Rollers	MoS2 filled Nylon 6 (Nylatron)
Spindles	Electroless nickel plated, hardened steel
Fixings	Stainless steel
Sealed bearings	Carbon steel



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