

# 505CA pumphead



500 series pumpheads

- Flow rates from 0.6 microlitres to 42 ml/min (0.67 USGPH)
- Flow adjustment through 20 tube sizes and drive speed up to 170rpm
- Fine, lockable 30 turn occlusion scale for fine tuning of flows
- Flow rates accuracy from 0.5%
- Single pumpheads from 4 to 16 channels
- Extension pumpheads to take the pump up to 48 channels
- Cassettes have a sprung track for ideal flow and pressure performance
- 8 driven rollers on planetary gear drive for ultra low pulsation



## 505CA pumphead performance

	Speed (rpm)	Tube bore and flow rates (ml/min)				
		0.13 mm	0.19 mm	0.25 mm	0.38 mm	0.50 mm
530S,530U	0.1 - 55	0.0006 - 0.061	0.0009 - 0.09	0.0014 - 0.16	0.0024 - 0.27	0.004 - 0.44
Max permissible speed	170	0.19	0.29	0.44	1.22	1.90
	Speed (rpm)	0.63 mm	0.76 mm	0.88 mm	1.02 mm	1.14 mm
530S,530U	0.1 - 55	0.008 - 0.79	0.010 - 1.16	0.014 - 1.54	0.020 - 2.04	0.022 - 2.51
Max permissible speed	170	2.82	3.81	5.51	7.11	8.84
	Speed (rpm)	1.29 mm	1.42 mm	1.47 mm	1.52 mm	1.65 mm
530S,530U	0.1 - 55	0.030 - 3.22	0.034 - 3.32	0.038 - 4.14	0.040 - 4.37	0.046 - 5.05
Max permissible speed	170	11.2	13.6		14.5	17.4
	Speed (rpm)	1.85 mm	2.05 mm	2.38 mm	2.54 mm	2.79 mm
530S,530U	0.1 - 55	0.060 - 6.31	0.070 - 7.6	0.090 - 9.84	0.11 - 11.0	0.12 - 12.8
Max permissible speed	170	21.4	26.0	31.2	36.5	41.6

## Technical specifications

	505CA pumphead
Number of channels	4, 8, 12, 16
Number of rollers	8
Max. flow rate continuous	42 ml/min
Max. flow rate continuous	0.067 USGPH (2.52 L/h)
Operating temperature	41 °F to 104 °F (5 °C to 40 °C)
Pump type	Cased
Accuracy	0.5 %
Standards	BS EN (IP31), BS EN 50082-1, BS EN 61010-1, CE
Weight	1.38 - 31.69 lbs (2.7 - 6.2 kg)
Compatible tubing bore size	0.13, 0.19, 0.25, 0.38, 0.5, 0.63, 0.76, 0.88, 1.02, 1.14, 1.29, 1.42, 1.47, 1.52, 1.65, 1.85, 2.05, 2.38, 2.54, 2.79 mm

## Materials of construction

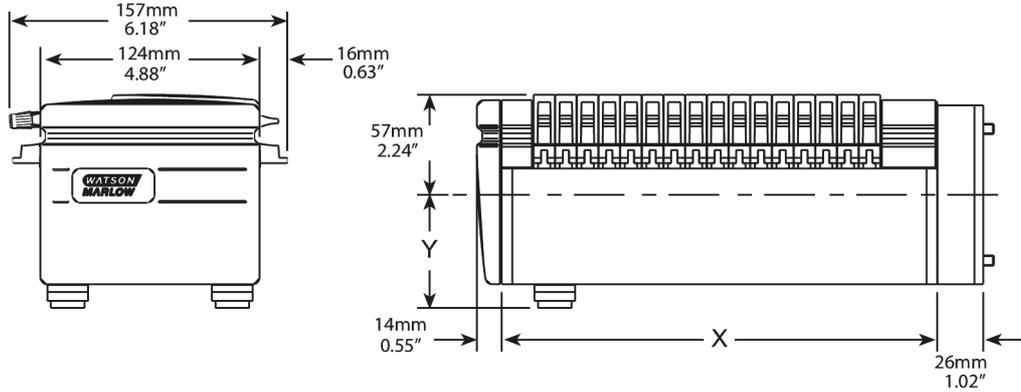
	505CA pumphead
Pumphead body assembly	Acetal, Aluminum, Brass, Verton
Pumphead guard	Verton
Pumphead roller assembly	Stainless steel
Pumphead rotor assembly	Aluminum, Stainless steel

Information listed covers the complete range.

For detailed specifications of individual models/components refer to user manual or contact WMFTS representative.

## 505CA pumphead dimensions

PUMPHEAD	DIM "X"
4	99
8	148
12	197
16	246



## Product codes

Description	Description	Part code
505CA4	505CA4 4 Channel Cassette Pumphead	053.4202.000
505CA8	505CA8 8 Channel Cassette Pumphead	053.4222.020
505CA12	505CA12 12 Channel Cassette Pumphead	053.4242.000
505CA16	505CA16 16 Channel Cassette Pumphead	053.4262.000
505CAX12	505CAX12 12 Channel Extension Cassette Pumphead	053.3442.000
505CAX16	505CAX16 16 Channel Extension Cassette Pumphead	053.3462.000

Tubing ordering codes					
Colour code	Tube	Marprene	Autoclavable Marprene	PVC	Silicone
Orange/black	0.13			980.0013.000	
Orange/red	0.19			980.0019.000	
Orange/blue	0.25	978.0025.000	978.0025.00+	980.0025.000	
Orange/green	0.38	978.0038.000	978.0038.00+	980.0038.000	
Orange/yellow	0.5	978.0050.000	978.0050.00+	980.0050.000	
Orange/white	0.63	978.0063.000	978.0063.00+	980.0063.000	982.0063.000
Black/black	0.76	978.0076.000	978.0076.00+	980.0076.000	982.0076.000
Orange/orange	0.88	978.0088.000	978.0088.00+	980.0088.000	982.0088.000
White/white	1.02	978.0102.000	978.0102.00+	980.0102.000	982.0102.000
Red/red	1.14	978.0114.000	978.0114.00+	980.0114.000	982.0114.000
Grey/grey	1.29	978.0129.000	978.0129.00+	980.0129.000	982.0129.000
Yellow/yellow	1.42	978.0142.000	978.0142.00+	980.0142.000	982.0142.000
Yellow/blue	1.52	978.0152.000	978.0152.00+	980.0152.000	982.0152.000
Blue/blue	1.65	978.0165.000	978.0165.00+	980.0165.000	982.0165.000
Green/green	1.85	978.0185.000	978.0182.00+	980.0185.000	982.0185.000
Purple/purple	2.05	978.0205.000	978.0205.00+	980.0205.000	982.0205.000
Purple/black	2.29	978.0229.000	978.0229.00+	980.0229.000	982.0229.000
Purple/orange	2.54	978.0254.000	978.0254.00+	980.0254.000	982.0254.000
Purple/white	2.79	978.0279.000	978.0279.00+	980.0279.000	982.0279.000

Disclaimer: All flow rates shown were obtained pumping water at 20 °C (68 °F) with zero suction and delivery heads. Watson-Marlow, Pumpsil, PureWeld XL, Bioprene and Marprene are trademarks of Watson-Marlow Limited. Disclaimer: The information contained in this document is believed to be correct but Watson-Marlow Limited accepts no liability for any errors it contains, and reserves the right to alter specifications without notice. GORE and STA-PURE are trademarks of W. L. Gore & Associates. Please state the product code when ordering pumps and tubing.



wmfts.com/global  
10 July 2025