

# 505CA pumphead

500 series pumpheads



## Features and benefits

- 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          | 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     | 0.12 - 12.8  |
| Max permissible speed | 170         | 21.4                              | 26            | 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   | 2.52 L/h (0.067 USGPH)                                                                                                   |
| Operating temperature       | 5 °C to 40 °C (41 °F to 104 °F)                                                                                          |
| Pump type                   | Cased                                                                                                                    |
| Accuracy                    | 0.5 %                                                                                                                    |
| Standards                   | BS EN (IP31), BS EN 50082-1, BS EN 61010-1, CE                                                                           |
| Weight                      | 2.7 - 6.2 kg (1.38 - 31.69 lbs)                                                                                          |
| 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 |

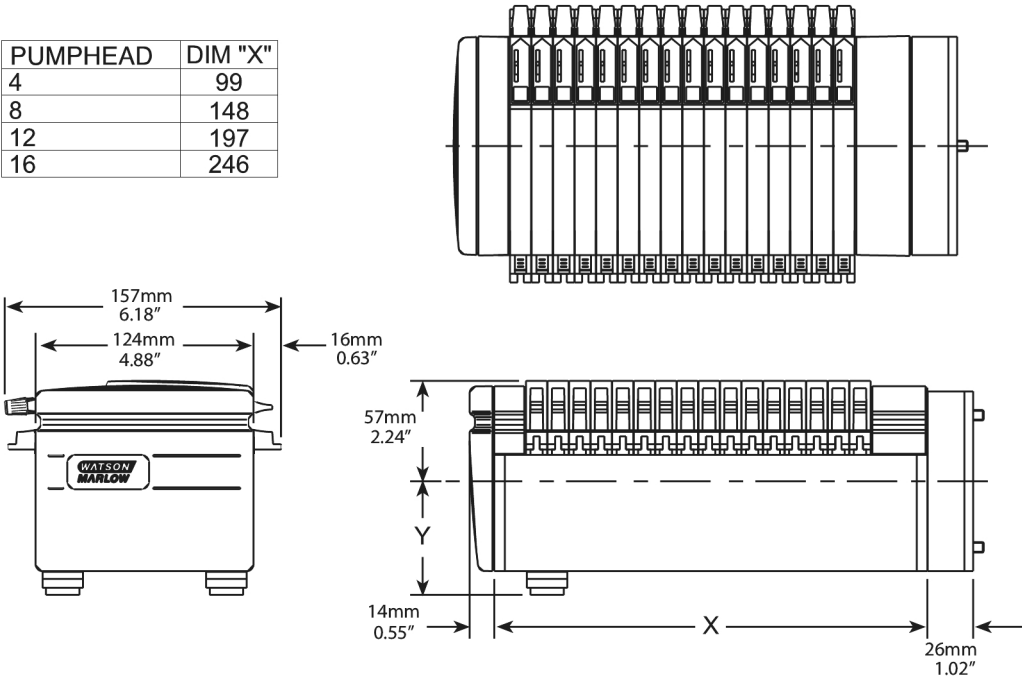
## Materials of construction

|                          | 505CA pumphead                   |
|--------------------------|----------------------------------|
| Pumphead body assembly   | Acetal, Aluminium, Brass, Verton |
| Pumphead guard           | Verton                           |
| Pumphead roller assembly | Stainless steel                  |
| Pumphead rotor assembly  | Aluminium, 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



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.



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