

# MasoSine Certa process pumps



## FEATURES AND BENEFITS

MasoSine Process Pumps

- Gentle product handling preserves high quality of product
- Impressive suction capability: -0.85 bar (vacuum) / -12.3 psi (atm)
- Almost zero pulsation
- Outstanding energy efficient pumping principle
- Bi-directional running
- Only one shaft and one seal system
- Different port orientations available
- Two year warranty



*Watson-Marlow... Innovation in Full Flow*

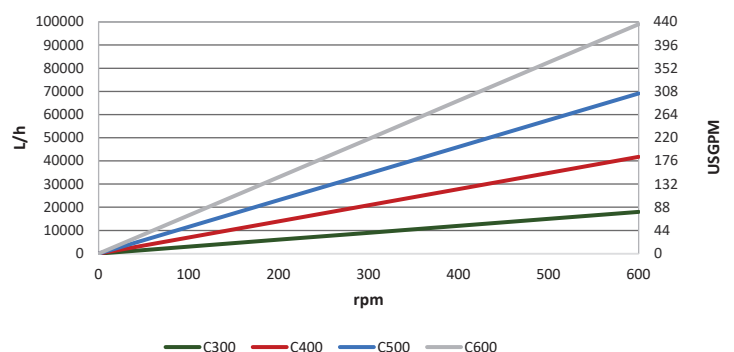
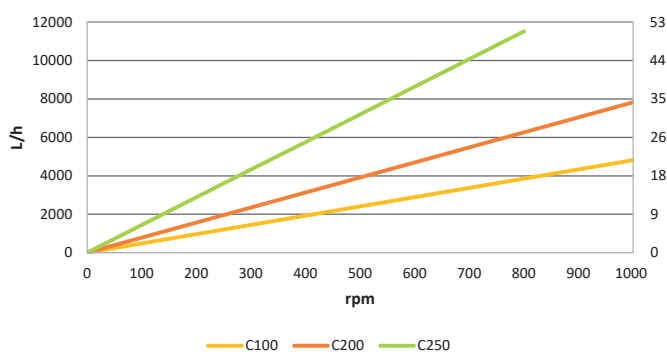
## TECHNICAL DATA

| Technical Data |                       |      |                       |            |       |              |            |                  |     |                     |     |                |      |              |       |
|----------------|-----------------------|------|-----------------------|------------|-------|--------------|------------|------------------|-----|---------------------|-----|----------------|------|--------------|-------|
| Model          | Maximum particle size |      | Volume per revolution |            | Speed | Maximum flow |            | Maximum pressure |     | Maximum temperature |     | Shaft diameter |      | Shaft height |       |
|                | mm                    | inch | litre                 | US gallons | rpm   | l/h          | US gal/min | bar              | psi | C                   | F   | mm             | inch | mm           | inch  |
| Certa 100      | 13                    | 0.51 | 0.08                  | 0.021      | 1000  | 4,800        | 21.1       | 10               | 145 | 100                 | 212 | 28             | 0.98 | 95           | 3.74  |
| Certa 200      | 18                    | 0.71 | 0.13                  | 0.034      | 1000  | 7,800        | 34.2       | 10               | 145 | 100                 | 212 | 28             | 0.98 | 109.5        | 4.31  |
| Certa 250      | 22                    | 0.87 | 0.24                  | 0.063      | 800   | 11,520       | 50.5       | 15               | 217 | 100                 | 212 | 28             | 0.98 | 150          | 5.91  |
| Certa 300      | 30                    | 1.18 | 0.50                  | 0.132      | 600   | 18,000       | 78.9       | 15               | 217 | 100                 | 212 | 50             | 1.97 | 170          | 6.69  |
| Certa 400      | 38                    | 1.50 | 1.16                  | 0.305      | 600   | 41,760       | 183.2      | 15               | 217 | 100                 | 212 | 50             | 1.97 | 200          | 7.87  |
| Certa 500      | 50                    | 1.97 | 1.92                  | 0.505      | 600   | 69,120       | 303.2      | 15               | 217 | 100                 | 212 | 50             | 1.97 | 250          | 9.84  |
| Certa 600      | 60                    | 2.36 | 2.75                  | 0.724      | 600   | 99,000       | 434.2      | 15               | 217 | 100                 | 212 | 65             | 2.56 | 255          | 10.04 |

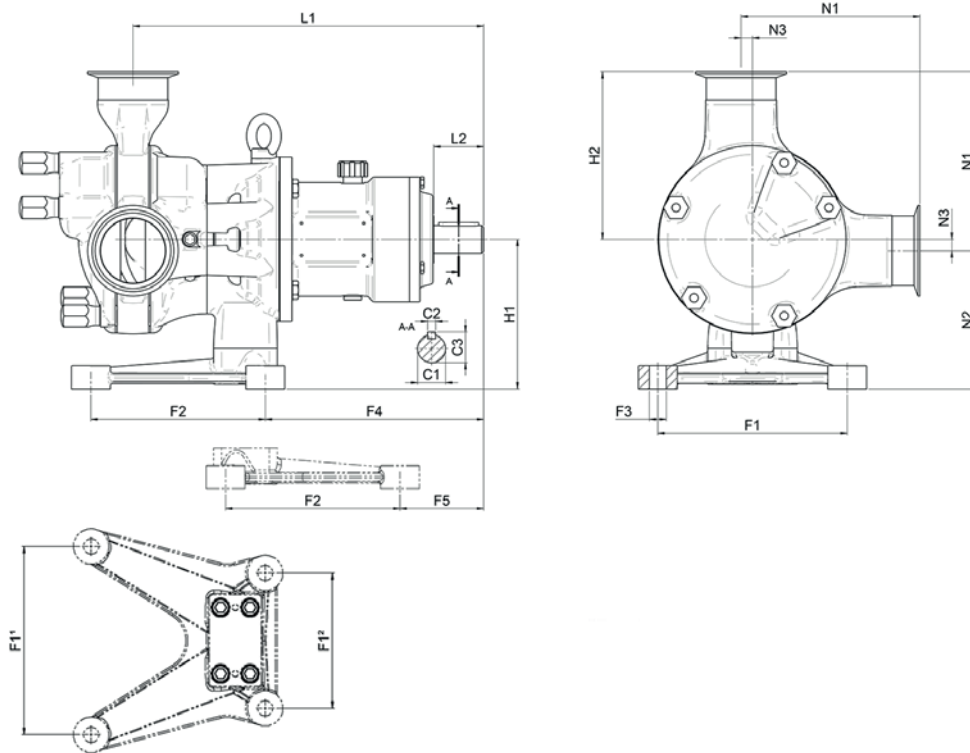
## PERFORMANCE

### Performance curves

These performance curves show the theoretical flow without consideration of slip.



## DIMENSIONS



### Pump size

| Model | Nozzles |       |       |      |      |      | Foot    |           |     |       |     |       | Length |       |       |      | Height |       |     |      | Coupling |       |       |       |     |       |    |      |      |      |
|-------|---------|-------|-------|------|------|------|---------|-----------|-----|-------|-----|-------|--------|-------|-------|------|--------|-------|-----|------|----------|-------|-------|-------|-----|-------|----|------|------|------|
|       | N1      |       | N2    |      | N3   |      | F1      |           | F2  |       | F3  |       | F4     |       | F5    |      | L1     |       | L2  |      | H1       |       | H2    |       | C1  |       | C2 |      | C3   |      |
|       | mm      | in.   | mm    | in.  | mm   | in.  | mm      | in.       | mm  | in.   | mm  | in.   | mm     | in.   | mm    | in.  | mm     | in.   | mm  | in.  | mm       | in.   | mm    | in.   | mm  | in.   | mm | in.  | mm   | in.  |
| C100  | 139     | 5.47  | 85    | 3.35 | 10   | 0.39 | 120     | 4.72      | 135 | 5.31  | Ø12 | Ø0.47 | 143    | 5.63  | 57    | 2.24 | 265    | 10.43 | 50  | 1.97 | 95       | 3.74  | 129   | 5.08  | Ø28 | Ø1.10 | 8  | 0.31 | 31   | 1.22 |
| C200  | 155     | 6.10  | 99.5  | 3.92 | 10   | 0.39 | 120     | 4.72      | 135 | 5.31  | Ø12 | Ø0.47 | 167.5  | 6.59  | 81.5  | 3.21 | 298.5  | 11.75 | 50  | 1.97 | 109.5    | 4.31  | 145   | 5.71  | Ø28 | Ø1.10 | 8  | 0.31 | 31   | 1.22 |
| C250  | 191.5   | 7.54  | 138.5 | 5.45 | 11.5 | 0.45 | 190     | 7.48      | 175 | 6.89  | Ø17 | Ø0.67 | 219    | 8.62  | 84    | 3.31 | 352    | 13.86 | 50  | 1.97 | 150      | 5.91  | 180   | 7.08  | Ø28 | Ø1.10 | 8  | 0.31 | 31   | 1.22 |
| C300  | 237.5   | 9.35  | 152.5 | 6.00 | 17.5 | 0.69 | 250     | 9.84      | 215 | 8.46  | Ø20 | Ø0.79 | 285    | 11.22 | 154   | 6.06 | 455.5  | 17.93 | 80  | 3.15 | 170      | 6.69  | 220   | 8.66  | Ø50 | Ø1.97 | 14 | 0.55 | 53.5 | 2.11 |
| C400  | 323.5   | 12.74 | 169   | 6.65 | 31   | 1.22 | 266.5   | 10.49     | 254 | 10.00 | Ø21 | Ø0.83 | 301    | 11.85 | 169   | 6.65 | 513.5  | 20.22 | 77  | 3.03 | 200      | 7.87  | 292.5 | 11.52 | Ø50 | Ø1.97 | 14 | 0.55 | 53.5 | 2.11 |
| C500  | 326.5   | 12.85 | 225   | 8.86 | 25   | 0.98 | 320/230 | 12.6/9.06 | 295 | 11.61 | Ø26 | Ø1.02 | 323    | 12.72 | 129.5 | 5.10 | 564    | 22.20 | 77  | 3.03 | 250      | 9.84  | 301.5 | 11.87 | Ø50 | Ø1.97 | 14 | 0.55 | 53.5 | 2.11 |
| C600  | 343     | 13.50 | 227   | 8.94 | 28   | 1.10 | 320/230 | 12.6/9.06 | 295 | 11.61 | Ø26 | Ø1.02 | 362.5  | 14.27 | 169   | 6.65 | 638.5  | 25.14 | 110 | 4.33 | 255      | 10.04 | 315   | 12.40 | Ø65 | Ø2.56 | 18 | 0.71 | 69   | 2.72 |

## POSSIBLE NOZZLE ORIENTATIONS

|              |              |               |              |              |              |               |              |
|--------------|--------------|---------------|--------------|--------------|--------------|---------------|--------------|
|              |              |               |              |              |              |               |              |
| <b>10-02</b> | <b>12-03</b> | <b>02-04*</b> | <b>03-06</b> | <b>04-08</b> | <b>06-09</b> | <b>08-10*</b> | <b>09-12</b> |

\*Note: According to EHEDG regulations, the pump head should always be completely self-draining. In a standard installation this can only be assured in the 02-04 or 08-10 nozzle positions.

## OPTIONS AND ACCESSORIES

- Pump jacketing available to maintain the duty fluid temperature
- Static and dynamic flush systems available
- Single mechanical seal or single mechanical seal with flush
- Double mechanical seal, either flushed only or pressurized
- Flush and double mechanical seal can be retrofitted without any modification

All flow rates shown were obtained pumping water at 20C (68F) with zero suction and delivery heads.  
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**masosine**  
Process Pumps

wmftg.com  
info@wmftg.com  
+44 (0) 1326 370370