

## Peristaltic pumps Series DSC 65, 80, 100

### Characteristics

- |                       |                          |                   |               |
|-----------------------|--------------------------|-------------------|---------------|
| - Minimum flow-rate   | : 3,1 m <sup>3</sup> /h  | - Self-priming    | : 9 m head    |
| - Maximum flow-rate   | : 65,2 m <sup>3</sup> /h | - Speed DSC 65    | : 7 to 79 rpm |
| - Maximum pressure    | : 15 Bar                 | - Speed DSC 80    | : 5 to 61 rpm |
| - Maximum temperature | : 150 °C                 | - Speed DSC 100   | : 5 to 51 rpm |
| - Cubic capacities    | : 3600 to 10 300 cc      | - Reversible pump |               |



### Advantages



#### Of peristaltic technology

- Self-priming.
- Can be run dry.
- Natural tightness.
- Fast and economical servicing.
- Reversibility.



#### Of design linked with experience

- Versatility (varied products and applications).
- Minimized hose wear (roller squeezing).
- Compatibility with pumped product.
- Control of design, manufacturing and associated services



#### Of PCM POMPES

- A technical-sales network of proficient people available to advise you in selection and installation.
- A stock of pumps and parts over 1500 m<sup>2</sup>.
- Before and after-sales service.

### The range

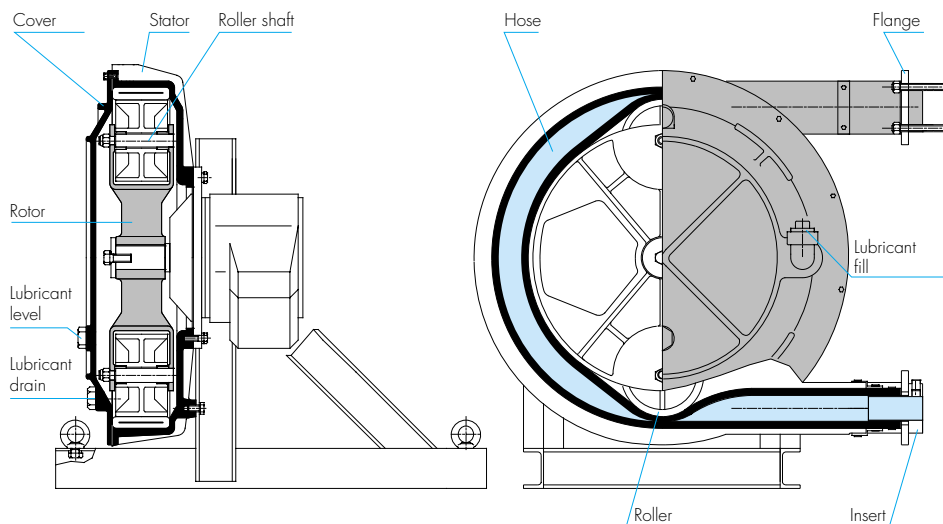
The PCM DELASCO range incorporates 4 series of peristaltic pumps

- PMA series (low flow-rates)
- Z series (low pressure)
- DSC series (high pressure)
- DL series (high pressure)

For more information, request our documentation



## Simplified sectional diagram



## Components material

| COMPONENT | PUMPS                               | MATERIAL   | COMMENTS  |
|-----------|-------------------------------------|--|---|
| Rollers   | All                                 | FGL 250 cast iron  |   |
| Stator    | All                                 | FGL 250 cast iron  | The stator contains an oil bath providing permanent tube lubrication  |
| Rotor     | All                                 | FGL 250 cast iron  |   |
| Flange    | DSC 65<br>DSC 80<br>DSC 100         | Stainless steel (304L)<br>or Polypropylene insert + steel flange<br>Insert steel + steel flange<br>Insert steel (A37) + steel flange | NP 16 ND 65<br>NP 16 ND 80<br>NP 16 ND 100  |
| Hose      | DSC 65, DSC 80<br>DSC 100<br>DSC 65 | Natural rubber<br><br>Nitrile<br>Food nitrile<br>EPDM  | The hose is reinforced by an internal synthetic thread backing.<br>This armature allows operation at 15 bar |

# Peristaltic pumps

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The flow-rates are given for water pumped at 20 °C. These are maximum values that may vary according to the conditions on the suction side (suction height, pipe length, viscosity).

### DSC 65

| Flow-rate<br>m <sup>3</sup> /h | Speed<br>rpm | Motor power (kW) |         |        |        |
|--------------------------------|--------------|------------------|---------|--------|--------|
|                                |              | 5 bar            | 7,5 bar | 10 bar | 15 bar |
| 4,7                            | 11           | 2,2              | 2,2     | 3      | 3      |
| 8,5                            | 20           | 3                | 4       | 5,5    | 5,5    |
| 11,5                           | 27           | 4                | 5,5     | 7,5    | 7,5    |
| 14,1                           | 33           | 5,5              | 7,5     | 7,5    | 9,2    |
| 18,3                           | 43           | 7,5              | 7,5     | 9,2    | 11     |
| 22,2                           | 52           | 7,5              | 9,2     | 11     |        |
| 27,4                           | 64           | 9,2              | 11      |        |        |
| 33,8                           | 79           | 11               |         |        |        |
| 3,1/17,95                      | 7/35         | 11               | 11      | 11     | 11     |
| 3,1/17,95                      | 7/42         | 11               | 11      | 11     |        |
| 4,3/25,7                       | 9,7/58       | 15               | 15      |        |        |
| 5,1/30,8                       | 12/72        | 15               |         |        |        |

### DSC 80

| Flow-rate<br>m <sup>3</sup> /h | Speed<br>rpm | Motor power (kW) |         |        |        |
|--------------------------------|--------------|------------------|---------|--------|--------|
|                                |              | 5 bar            | 7,5 bar | 10 bar | 15 bar |
| 5,9                            | 8,4          | 3                | 3       | 4      | 4      |
| 7,7                            | 11           | 4                | 4       | 4      | 5,5    |
| 11,2                           | 16           | 5,5              | 5,5     | 5,5    | 7,5    |
| 15,4                           | 22           | 5,5              | 7,5     | 7,5    | 11     |
| 19,6                           | 28           | 7,5              | 7,5     | 11     | 11     |
| 26,6                           | 38           | 11               | 11      | 15     |        |
| 36,4                           | 52           | 15               |         |        |        |
| 46,9                           | 67           | 18,5             |         |        |        |
| 3,5/21                         | 5/30         | 15               | 15      | 18,5   | 18,5   |
| 7/42,7                         | 10/61        | 22               |         |        |        |

### DSC 100

| Flow-rate<br>m <sup>3</sup> /h | Speed<br>rpm | Motor power (kW) |         |        |        |
|--------------------------------|--------------|------------------|---------|--------|--------|
|                                |              | 5 bar            | 7,5 bar | 10 bar | 15 bar |
| 11,2                           | 8,8          | 5,5              | 5,5     | 5,5    | 7,5    |
| 15,4                           | 12           | 5,5              | 5,5     | 7,5    | 11     |
| 21,7                           | 17           | 9,2              | 9,2     | 11     | 15     |
| 28,1                           | 22           | 9,2              | 11      | 15     | 18,5   |
| 35,8                           | 28           | 11               | 15      | 18,5   |        |
| 46                             | 36           | 18,5             | 18,5    |        |        |
| 52,4                           | 41           | 22               |         |        |        |
| 62,6                           | 49           | 22               |         |        |        |
| 6/30,7                         | 4,7/24       | 22               | 22      | 22     | 22     |
| 6,9/42,2                       | 5,4/33       | 22               | 22      |        |        |
| 10,7/65,2                      | 8,4/51       | 22               |         |        |        |

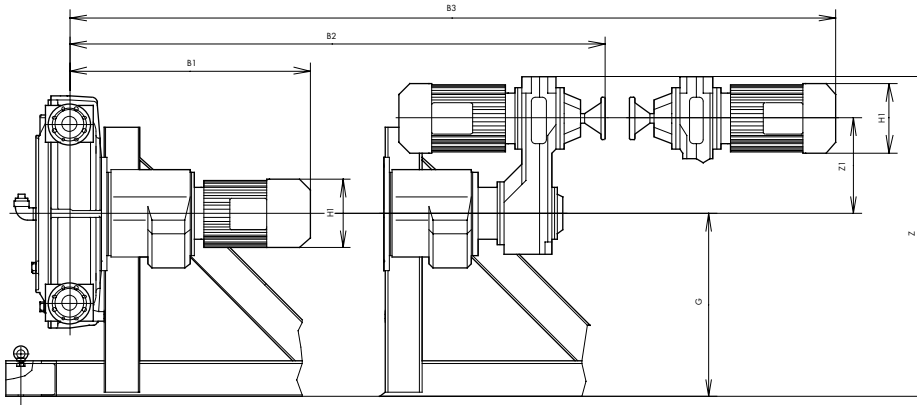
 Continuous use

 Intermittent use

 Nonapplicable

## Dimensions

### Monobloc pump



## Monobloc assembly

| PUMP    |                | Motor power (Kw) |      |      |      |      |      |      |      |      |      |
|---------|----------------|------------------|------|------|------|------|------|------|------|------|------|
|         |                | 2,2              | 3    | 4    | 5,5  | 7,5  | 9,2  | 11   | 15   | 18,5 | 22   |
| DSC 65  | <b>B1</b>      | 751              | 751  | 786  | 831  | 851  | 911  | 911  | -    | -    | -    |
|         | <b>B2</b>      | -                | -    | -    | -    | -    | -    | -    | 1092 | -    | -    |
|         | <b>B3</b>      | -                | -    | -    | -    | -    | -    | 1290 | -    | -    | -    |
|         | <b>Z</b>       | -                | -    | -    | -    | -    | -    | 1108 | 1213 | -    | -    |
|         | <b>Z1</b>      | -                | -    | -    | -    | -    | -    | 380  | 460  | -    | -    |
|         | <b>Ø H1</b>    | 197              | 197  | 221  | 221  | 275  | 275  | 275  | 331  | -    | -    |
|         | <b>MB1</b>     | 580              | 580  | 595  | 600  | 620  | 630  | 635  | -    | -    | -    |
|         | <b>MB2-MB3</b> | -                | -    | -    | -    | -    | -    | 755  | 890  | -    | -    |
| DSC 80  | <b>B1</b>      | -                | 944  | 964  | 944  | 964  | -    | 1024 | 1072 | 1144 | -    |
|         | <b>B2</b>      | -                | -    | -    | -    | -    | -    | -    | 1201 | 1201 | 1201 |
|         | <b>Z</b>       | -                | -    | -    | -    | -    | -    | -    | 1518 | 1518 | 1518 |
|         | <b>Z1</b>      | -                | -    | -    | -    | -    | -    | -    | 460  | 460  | 460  |
|         | <b>Ø H1</b>    | -                | 221  | 275  | 221  | 275  | -    | 275  | 331  | 331  | 331  |
|         | <b>MB1</b>     | -                | 1120 | 1125 | 1120 | 1125 | -    | 1135 | 1200 | 1215 | -    |
|         | <b>MB2</b>     | -                | -    | -    | -    | -    | -    | -    | 1400 | 1420 | 1440 |
| DSC 100 | <b>B1</b>      | -                | -    | -    | 1119 | 1119 | 1119 | 1119 | 1323 | 1395 | 1395 |
|         | <b>B2</b>      | -                | -    | -    | -    | -    | -    | -    | -    | 1296 | 1296 |
|         | <b>Z</b>       | -                | -    | -    | -    | -    | -    | -    | -    | 1510 | 1510 |
|         | <b>Z1</b>      | -                | -    | -    | -    | -    | -    | -    | -    | 460  | 460  |
|         | <b>Ø H1</b>    | -                | -    | -    | 275  | 275  | 275  | 275  | 331  | 331  | 331  |
|         | <b>MB1</b>     | -                | -    | -    | 1555 | 1560 | 1555 | 1560 | 1620 | 1645 | 1660 |
|         | <b>MB2</b>     | -                | -    | -    | -    | -    | -    | -    | -    | 1840 | 1850 |

The dimensions are given for guidance and are not binding on the manufacturer.

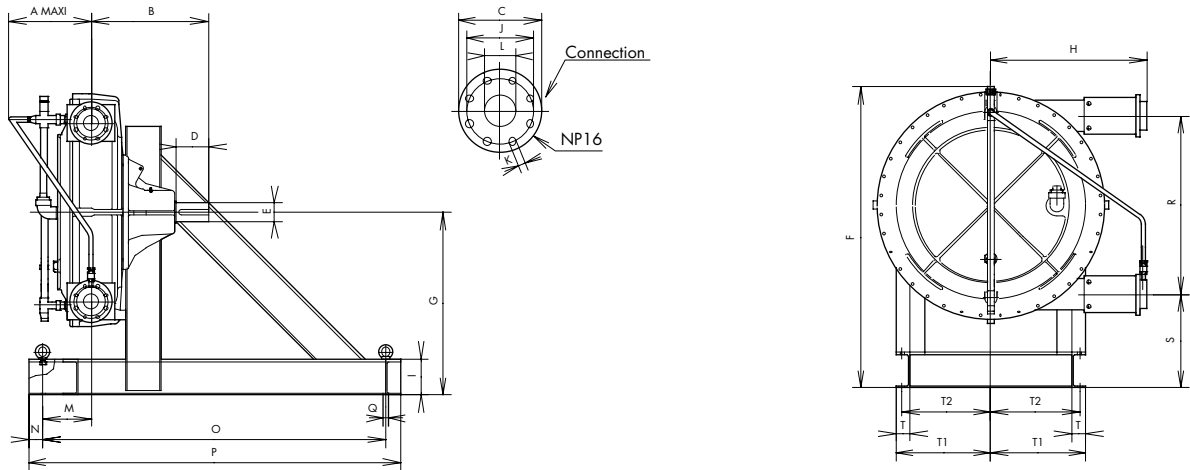
MB1, MB2, MB3: Weight in kg.

MB1: Weight of motor-gear configuration.

MB2/MB3: Weight of variable-speed motor gear.

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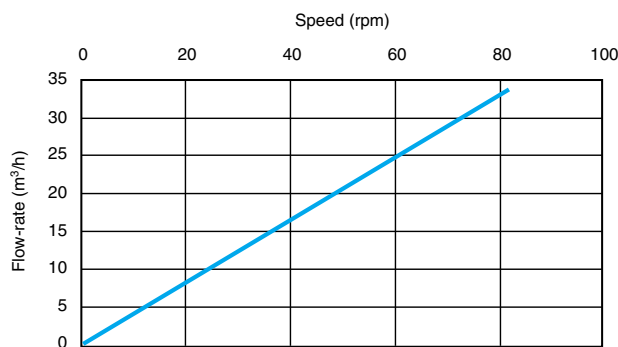
## Bearing pump (bare shaft)



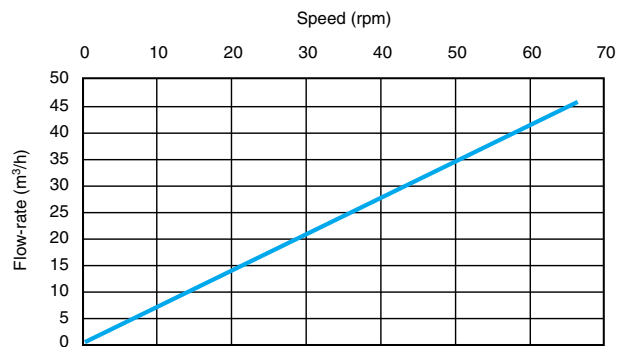
## Bearing mounted

| PUMP    | A   | B   | C   | D   | E   | F    | G   | H   | I   | J   | K     | L  | M   | N  | O    | P    | Q    | R    | S   | T  | T1  | T2  | weight<br>kg |
|---------|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-------|----|-----|----|------|------|------|------|-----|----|-----|-----|--------------|
| DSC 65  | 423 | 513 | 185 | 100 | 55  | 1057 | 575 | 650 | 100 | 145 | 4xM16 | 60 | 165 | 50 | 1170 | 1270 | 4x18 | 740  | 205 | 50 | 345 | 327 | 550          |
| DSC 80  | 440 | 571 | 200 | 160 | 90  | 1457 | 885 | 756 | 175 | 160 | 8xM16 | 75 | 233 | 70 | 1660 | 1800 | 4X26 | 864  | 453 | 70 | 460 | 430 | 990          |
| DSC 100 | 480 | 648 | 220 | 200 | 100 | 1555 | 885 | 883 | 175 | 180 | 8xM16 | 95 | 197 | 70 | 1800 | 1800 | 4X26 | 1024 | 373 | 70 | 460 | 430 | 1290         |

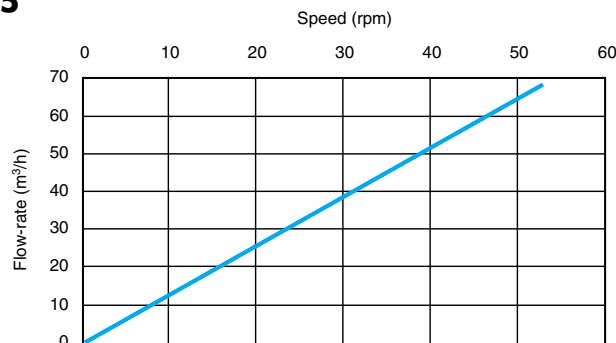
## Performances



**DSC 65**



**DSC 80**



**DSC 100**



*From pumps to process*

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# Peristaltic pumps DSC 65, 80, 100 series

## Applications

*This table is not exhaustive. It refers to the more basic applications. There are many others in a variety of fields.*

| ACTIVITY SECTOR                                 | APPLICATION EXAMPLES   |   |
|---|--|---|
| • Water treatment                               | Lime milk dosing<br>Bacteriological sludge transfer                              | Filter-press feed   |
| • Paper-cardboard making                        | Coating fluid transfer<br>Titanium dioxide (TiO <sub>2</sub> ) transfer          | Waste water - charged water transfer<br>Glue or resin transfer                          |
| • Building, public works, quarries and ceramics | Liquid enamel transfer<br>Slip transfer<br>Coating transfer<br>Desludging        | Decanting sludge transfer<br>Cement grout transfer<br>Glue and emulsion transfer        |
| • Food  | Wine lees - grape mold transfer<br>Fruit puree transfer<br>Potato waste transfer | Process sludge transfer<br>Slaughterhouse waste/greasy water/<br>viscera/blood transfer |
| • Chemicals                                     | Charged effluent transfer<br>Liquid chalk transfer                               | Soda aluminate transfer<br>Sulfate and oxide transfer                                   |
| • Other sectors                                 | Coating product transfer (foundry)<br>Bentonite transfer                         | Nuclear effluent transfer   |

## Pumped products

### Density:

Maximum density: 2. Above 2, consult us.

### Particles:

The maximum particle size must not exceed 1/3 of the inside diameter of the hose. For soft particles (whole fruit or fruit pieces; pieces of meat or fish), the size can be the same as the hose diameter.

### Dry matter:

Concentrations can be up to 25 to 60 % of dry matter depending on the density.

The pump speed must be adjusted to prevent wringing out the charged liquids or causing the suction end to block.

### Viscosity:

From 0 to 40,000 centipoises depending on the diameter of the hose and the pump operating speed. For high viscosity levels, examination of a sample or a pumping test may sometimes be necessary. Consult us.

## Temperature (limits)

| Tube material  | Continuous service<br>≥ 8 h/day | Intermittent service<br>Sequence of 10 to 20 min | Occasional service<br>Instantaneous temperature peak |
|----------------|---------------------------------|--|--|
| Natural rubber | 5 to 80° C                      | 90° C  | 100° C   |
| EPDM           | 5 to 110° C                     | 120° C   | 150° C   |
| Nitrile        | 5 to 90° C                      | 100° C   | 110° C   |
| Food nitrile   | 5 to 90° C                      | 100° C   | 110° C   |