

## SPECIFICATION FOR PERISTALTIC PUMP M300 SERIES



|                               |   |
|-------------------------------|---|
| <b>Capacity:</b>              | up to 20m <sup>3</sup> /h                                       |
| <b>Self prime:</b>            | up to 9.5mWs  |
| <b>Dry suction height</b>     | max. 9.5mWs (based on water)                                    |
| <b>Max solid size:</b>        | ≤12mm   |
| <b>Discharge pressure:</b>    | should not exceed 2 bar   |
| <b>Weight:</b>                | 52 - 76 kg  |
| <b>Drive types available:</b> | Electric<br>Petrol<br>Diesel<br>Hydraulic<br>Pneumatic<br>Water |

### Description:

A reliable and efficient pump for use within spill response. These pumps operate in the most arduous conditions and are the most effective method in which to pump oily water mixes eliminating the risk of emulsification.

The T300 series were designed for safe, quick and mobile operating conditions; they intergrate all the advantages of standard peristaltic pumps whilst being compact and portable.

These pumps work well with our range of skimmers and oil water separators across a wide range of applications and industries.

### Benefits

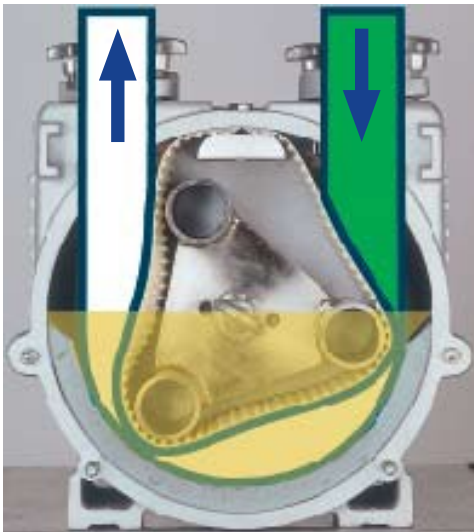
- Ideal for abrasive or viscose media
- Dry running resistant
- Constant volume capacity due to vacuum support
- Can handle media with entrained solids
- Dry self priming
- Mobile, easy to transport design
- No additional vacuum equipment required
- Two stage adjustment of the pumping capacity possible

### Optional Extras

- Suction/discharge hoses
- 180 litre transport drum
- Hose cleaning device and balls
- Suction baskets, suction nozzles, special suction pipes and residue suction nozzles
- Vacuum hose

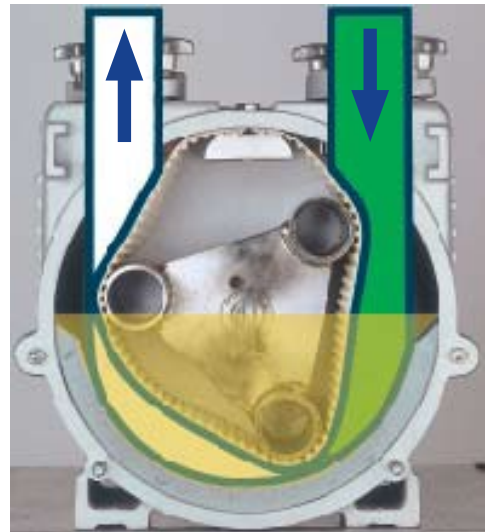
## OPERATION

1)



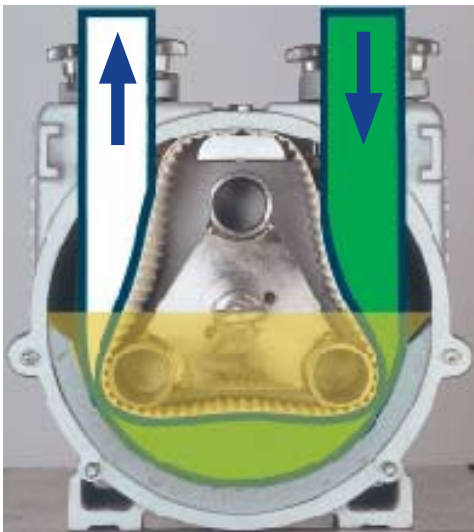
The rotor turns inside the tightly fixed separator. Which is held in the pump housing filled with lubricant. The separator divides the housing into two completely enclosed areas. This means during compression of the pumping hose the suction and discharge sides are hermetically separated.

2)



Air from the suction side is pumped over the separator by the turning of the rotor and exhausted outside the pump. This forms a vacuum inside the pump chamber relative to the suction lift, which supports the elasticity of the hose during restoration to its original full cross-section.

3)



Once the second sliding shoe compresses the hose, a pumping chamber is formed. This volume corresponds exactly to one-third of the pump capacity per rotation. The rotation of the rotor presses the medium inside the hose towards the outlet on the discharge side. During each opening of the hose a vacuum is created on the suction side ensuring constant suction. It also takes place when the hose is empty giving high suction lift conditions.

4)



With each rotation the pumping chamber is reformed and the suction capability is renewed.

## MATERIALS AND CHARACTERISTICS



| Drive Type                          | Electric Motor (Standard)  | Electric Motor (ATEX)       | Electric Motor (change-pole motor) | Petrol Engine          | Diesel Engine               | Hydraulic Engine            | Pneumatic Engine   | Water Turbine         |
|-------------------------------------|--|-----------------------------|------------------------------------|------------------------|-----------------------------|-----------------------------|--------------------|-----------------------|
| Drive                               | 3.6 kW/<br>2920 rpm  | 3.3 kW/<br>2920 rpm         | 3.1 / 2.6 kW/<br>2800 / 1400 rpm   | 3.4 kW/<br>3600 rpm    | 3.5 kW/<br>3600rpm          | 3 kW/<br>3000rpm            | 3 kW/<br>2000rpm   | 3.5 kW/<br>3600rpm    |
| Power Supply                        | three-phase current<br>400V / 50Hz   |                             |                                    | Octane no.<br>≥86      | Cetane no.<br>≥45           | 13 MPa<br>(130 bar)         | 0.6 MPa<br>(6 bar) | 0.85 MPa<br>(8.5 bar) |
| Flow Rate Max.                      | 18 m³/h<br>(300 l/min)   |                             | 9 / 18 m³/h<br>(150 / 300 l/min)   | 20 m³/h<br>(333 l/min) |                             |                             |                    |                       |
| Pumping Pressure Max.               | 0.15 MPa<br>(1.5 bar)  |                             |                                    | 0.2 MPa<br>(2 bar)     |                             |                             |                    |                       |
| Hose Material                       | Natural rubber, Nitrile rubber, or Hypalon   |                             |                                    |                        |                             |                             |                    |                       |
| Connection Material                 | Aluminium (not for M20E Ex, M20H, M20P and M20W), Stainless Steel 1.4571, Electrically-conductive Polypropylene, Brass |                             |                                    |                        |                             |                             |                    |                       |
| On/Off Switch With Motor Protection | X  |                             |                                    | -                      |                             |                             |                    |                       |
| Frame                               | carrying frame   | fire brigade carrying frame | carrying frame                     |                        | carrying frame with handles | fire brigade carrying frame |                    |                       |
| Protection Class                    | IP54   |                             |                                    | -                      |                             |                             |                    |                       |
| Power Connection                    | 5-pole male plug with 1.3 m connecting cable   |                             |                                    | -                      |                             |                             |                    |                       |
| ATEX Classification                 | -  | II 2G c IIB T3              | -                                  | -                      | -                           | II 2G c IIB T3              |                    |                       |