

Gentle Delivering and Metering

Hose Pumps DULCO®flex for Applications in Laboratories and Industry

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Compact, Robust Design

| Type | Application | Capacity max. [l/h] | Pressure [bar] | Rollers/shoes | Rotor bearing |
|------|-------------|---------------------|----------------|---------------|---------------|
| DFAa | Laboratory | 84 | 2 | Rollers | Drive |
| DFBa | Industry | 375 | 8 | Rollers | Drive |
| DFCa | Industry | 12,000 | 8 | Rollers | Ball bearing |
| DFDa | Industry | 17,500 | 15 | Shoes | Ball bearing |

Hose Pumps manufactured by ProMinent are characterised by their simple functional principle and their compact, robust design. They are self-priming, without gaskets and valves.

The hose pumps of the DULCO®flex series for low, medium and high outputs with a large output range of 17 to 25,000 l/h and a large number of different hose materials are suitable for almost all metering and delivery tasks in laboratories and industry.

While the pumps for low pressures up to 8 bar are equipped with roller technology, pressing shoes are used for higher pressures up to 15 bar.

Because of their design, the hose is the only wearing part which, however, can be quickly and easily replaced.

Advantages

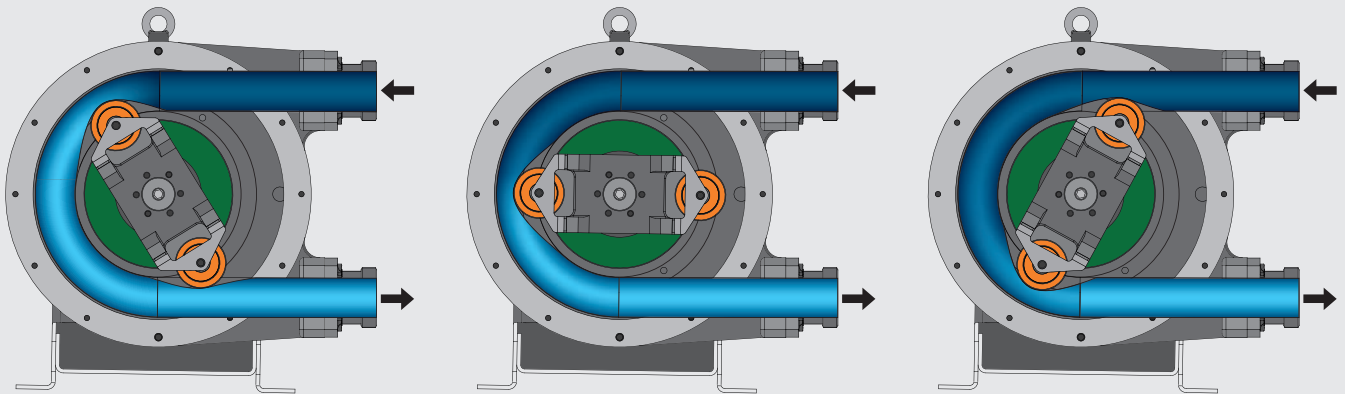
- Easy to operate
- Suitable for continuous operation
- Matching hose materials for different chemicals
- Easy and quick hose replacement
- Can run dry
- Self-priming
- Capacity from 17 to 25,000 l/h
- Pressure range from 2 to 15 bar
- Ideal for delivery of pasty, viscous, abrasive, and outgassing media

Drive options

- Drive without speed control
- Drive with manually adjustable speed
- Drive for frequency converter operation
- No drive

Hose Pumps of the DULCO®flex Series

For Abrasive, Viscous, and Sensitive Media



The metering medium is delivered by squeezing the hose with the rotor in flow direction. No valves are required to do so. Abrasive, viscous, and sensitive media are thus gently delivered.

The pumping process is started by an elastomer hose which is pressed against the pump housing by two rotating rollers or pressing shoes.

The rollers or pressing shoes having passed, the reinforced hose immediately restores its shape and creates a vacuum at the inlet of the pump. The atmospheric pressure provides for a continued flow of the medium. The flow rate is proportional to the speed of the pump.

For pumps of the series DFCa and DFDa, the option vacuum device in the pump housing can support the restoration of the hose's shape. This improves the suction behaviour and provides for a steady delivery of viscous media.

Delivery of media with the following properties

- Pasty and solid-containing
- Viscous
- Abrasive
- Shear-sensitive
- Outgassing
- Corrosive



Further information:

www.prominent.com/peristaltic_pumps

Precise Metering of Smallest Amounts



The hose pump DULCO®flex DFAa is designed as low-pressure pump and suitable for use in laboratories as well as OEM applications. It can be used for precise metering of small quantities up to 84 l/h at 2 bar. The rotor is equipped with 3 rollers to reduce pulsation. The hose can be quickly replaced using the quick-release fastener.

Options

- Stainless steel base panel
- Single-phase motor
- Two pump heads
- Batch operation with foot switch

| | |
|-----------------------|--|
| Hose diameter | 3.2 to 8 mm |
| Flow rates | 1.6 to 10 ml/rev |
| Hose materials | SOLVA, silicone, Norprene A60G, Norprene A60F (food-grade) |
| Self-priming | up to 8 m |
| Backpressure | up to 2.0 bar |

| Pump type | Flow rate/revolution [ml/rev] | P max [bar] | Capacity at max. pressure [l/h] | Rollers/shoes | Ø hose (internal) [mm] |
|-----------|-------------------------------|-------------|---------------------------------|---------------|------------------------|
| DFAa 003 | 1.6 | 2 | 17 | Rollers | 3.2 |
| DFAa 008 | 10 | 2 | 84 | Rollers | 8.0 |



For Low and Medium Capacities



The hose pump DULCO®flex DFBa is designed for small and medium flow rates up to 375 l/h at 8 bar. With rollers and fabric-reinforced hoses, it is suitable for use in tough industrial applications.

On customer request, pumps of the series DFBa can be equipped with a controller for precise batch metering. For use in the chemical industry, the pumps can be equipped with a Halar-coated pump housing.

Options

- Stainless steel base panel
- Mobile unit
- Rotor with 3 rollers
- Various connections such as BSP, NPT, Tri-clamp, and DIN 11851
- Pulsation dampers
- Leakage sensor (optical)
- Batch operation with foot switch
- Halar-coated housing

| | |
|-------------------------|--|
| Connection sizes | 3/8 - 1" |
| Flow rates | 0.024 - 0,24 l/rev |
| Hose materials | NR, NBR, EPDM, NR-A, Norprene, NBR-A, Hypalon, TYGON |
| Self-priming | up to 8 m |
| Backpressure | up to bar |

| Pump type | Flow rate revolution [l/rev] | P max [bar] | Capacity at max. pressure [l/h] | Rollers/shoes | Ø hose (internal) [mm] | Solid max. [mm] | Weight without drive [kg] | Connection DN |
|-----------|------------------------------|-------------|---------------------------------|---------------|------------------------|-----------------|---------------------------|---------------|
| DFBa 010 | 0.024 | 8 | 56 | Rollers | 10 | 2,5 | 6 | 3/8" |
| DFBa 013 | 0.039 | 8 | 92 | Rollers | 13 | 3,3 | 6 | 3/8" |
| DFBa 016 | 0.092 | 8 | 200 | Rollers | 16 | 4,0 | 13 | 3/4" |
| DFBa 019 | 0.12 | 2 | 600 | Rollers | 19 | 4,8 | 13 | 1" |
| DFBa 022 | 0.24 | 8 | 375 | Rollers | 22 | 5,5 | 22 | 1" |



For High Outputs



The hose pump DULCO®flex DFCa is equipped with rollers and fabric-reinforced hoses. The DFCa is suitable for tough industrial applications and flow rates up to 12,000 l/h at 8 bar backpressure.

A ball-bearing rotor ensures a high level of smoothness and long life. For pumps of the series DFCa, the option vacuum device in the pump housing can support the restoration of the hose's shape. This improves the suction behaviour and provides for a steady delivery of viscous media.

Options

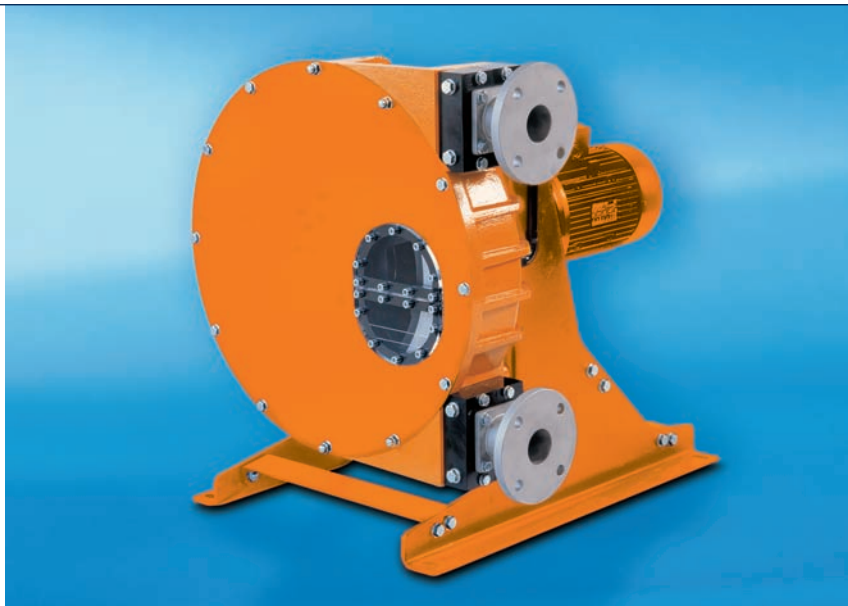
- Stainless steel base panel
- Mobile unit
- Various connections such as BSP, NPT, Tri-clamp, DIN 11851, and flange
- Pulsation dampers
- Leakage sensor (optical)
- Vacuum system

| | |
|-------------------------|----------------------------------|
| Connection sizes | 1 ¼" - DN 80 |
| Flow rates | 0.43 - 15.83 l/rev |
| Hose materials | NR, NBR, EPDM, Hypalon, Norprene |
| Self-priming | up to 8 m |
| Backpressure | up to 8 bar |

| Pump typ | Flow rate/ revolution [l/rev] | P max [bar] | Capacity at max. pressure [l/h] | Rollers/ shoes | Ø hose (internal) [mm] | Solid max. [mm] | Weigh without drive [kg] | Connection DN |
|----------|-------------------------------|-------------|---------------------------------|----------------|------------------------|-----------------|--------------------------|---------------|
| DFCa 030 | 0.43 | 8 | 700 | Rollers | 28 | 7.0 | 62 | 1 1/4" |
| DFCa 040 | 0.91 | 8 | 1,550 | Rollers | 35 | 8.8 | 89 | 1 1/2" |
| DFCa 050 | 1.46 | 8 | 2,400 | Rollers | 40 | 10.0 | 140 | DN40 |
| DFCa 060 | 3.12 | 8 | 6,000 | Rollers | 55 | 13.8 | 235 | DN50 |
| DFCa 070 | 8.05 | 8 | 12,000 | Rollers | 65 | 16.3 | 440 | DN65 |
| DFCa 70D | 15.83 | 4 | 25,000 | Rollers | 2 x 65 | 16.3 | 850 | DN80 |



For High Flow Rates and High Pressures



The hose pump DULCO®flex DFDa is designed for largest flow rates and high pressures. It is equipped with pressing shoes and fabric-reinforced hoses. The pump housing is filled with glycerine to reduce friction. A ball-bearing rotor ensures a high level of smoothness and long life. The DFDa delivers flow rates up to 17,500 l/h at backpressures up to 15 bar in tough industrial applications.

For pumps of the series DFDa, the option vacuum device in the pump housing can support the restoration of the hose's shape. This improves the suction behaviour and provides for a steady delivery of viscous media.

Options

- Stainless steel base panel
- Mobile unit
- Various connections such as Tri-clamp, DIN 11851, and flange
- Pulsation damper
- Leakage sensor (optical)
- Vacuum system

| | |
|-------------------------|----------------------------------|
| Connection sizes | DN25 - DN100 |
| Flow rates | 0.3 - 20.0 l/rev |
| Hose materials | NR, NBR, EPDM, Hypalon, Norprene |
| Self-priming | up to 8 m |
| Backpressure | up to 15 bar |

| Pump typ | Flow rate/revolution [l/rev] | P max [bar] | Capacity at max. pressure [l/h] | Rollers/shoes | Ø hose (internal) [mm] | Solid max. [mm] | Weight without drive [kg] | Connection DN |
|----------|------------------------------|-------------|---------------------------------|----------------|------------------------|-----------------|---------------------------|---------------|
| DFDa 025 | 0.3 | 15 | 1,000 | Pressing shoes | 25 | 6.3 | 57 | DN25 |
| DFDa 032 | 0.62 | 15 | 1,700 | Pressing shoes | 32 | 8.0 | 89 | DN32 |
| DFDa 040 | 1.40 | 15 | 2,600 | Pressing shoes | 40 | 10.0 | 150 | DN40 |
| DFDa 060 | 3.21 | 15 | 4,000 | Pressing shoes | 57 | 14.3 | 252 | DN65 |
| DFDa 070 | 6.66 | 15 | 10,000 | Pressing shoes | 65 | 16.3 | 530 | DN65 |
| DFDa 100 | 20.00 | 15 | 17,500 | Pressing shoes | 100 | 25.0 | 1,100 | DN100 |



Worldwide Contact



The ProMinent group is represented in more than 100 countries of the world. This guarantees a worldwide availability of the products and short distances to the customer. All over the world, we offer identical quality standards for products and services. For you at site: Experience and know-how in water treatment and metering technology.

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