

# Abaque™

## PERISTALTIC HOSE PUMPS | PRODUCT BROCHURE



Missouri Filter & Process Equipment Co  
MOFILCO-Quality, Value, Service  
12025 Manchester Road, Suite 30G  
St Louis MO 63131

314-821-4321

[www.mofilco.com](http://www.mofilco.com)

[mofilco@mofilco.com](mailto:mofilco@mofilco.com)



**ABAQUE™**  
PERISTALTIC HOSE PUMP

Where Innovation Flows



With more than 20 years of experience pumping and transferring difficult chemicals and fluids, the Abaque™ Peristaltic Hose pump will handle your toughest pumping needs – from abrasive and aggressive to shear-sensitive and viscous fluids.



PUMP WITH  
CONFIDENCE

## Abaque™ Peristaltic Hose Pumps

Abaque pumps currently operate in some of the most demanding environments including mining, water and wastewater treatment, energy, chemical processing and OEM applications.

ABAQUE Peristaltic Hose Pumps is the solution for abrasive products containing suspended particles.

- Up to 54 m<sup>3</sup>/h (339 gpm) at 16 bar (232 psi) pressure
- Seal-free Design

### Durable and Rugged

The Abaque pump housing is constructed of heavy-duty ductile iron and steel and designed to provide reliable 24/7 pump operation. The pump utilizes a rugged close-coupled gear reducer.



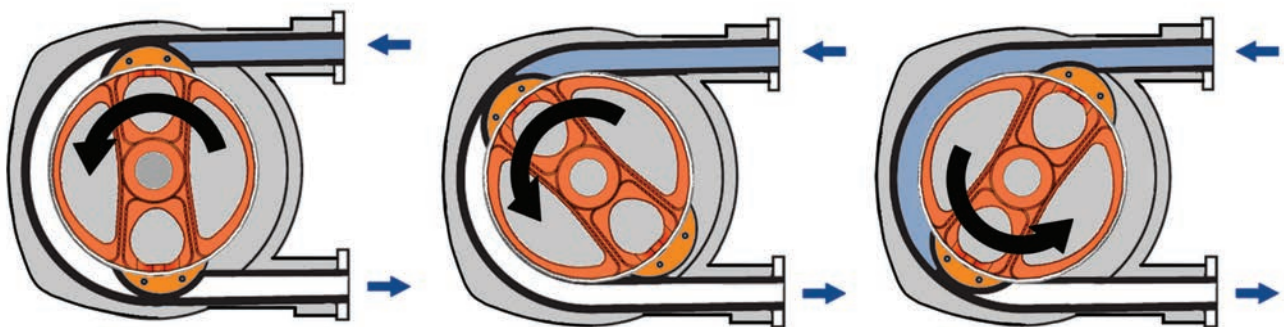
HD20

# Abaque™ Peristaltic Hose Pumps | Principle of Operation

Pumping action is achieved by compression of a circular loop of elastomeric hose with two diametrically opposed rotating shoes. With this rotational motion fluid is pushed ahead inside a hose which is compressed and relaxed by shoes mounted on a rotor. When each shoe reaches the end of the loop, the reinforced tube immediately returns to its original shape, thereby ensuring suction and priming, creating a strong vacuum pulling more fluid inside.

## Resulting in:

- **High performance:** Seal-less design eliminates leaks and product contamination, and have the ability to run dry continuously without adversely affecting the pump's performance, pressure, and accuracy (no slip).
- **Reliability:** The Abaque pump has none of the usual parts that create problems on other pumps: seats, valves, mechanical seals. The hose is the only replacement part.
- **Handling of the toughest pumping challenges,** including extremely abrasive and aggressive fluids, solid loaded liquids, as well as shear sensitive and viscous materials.



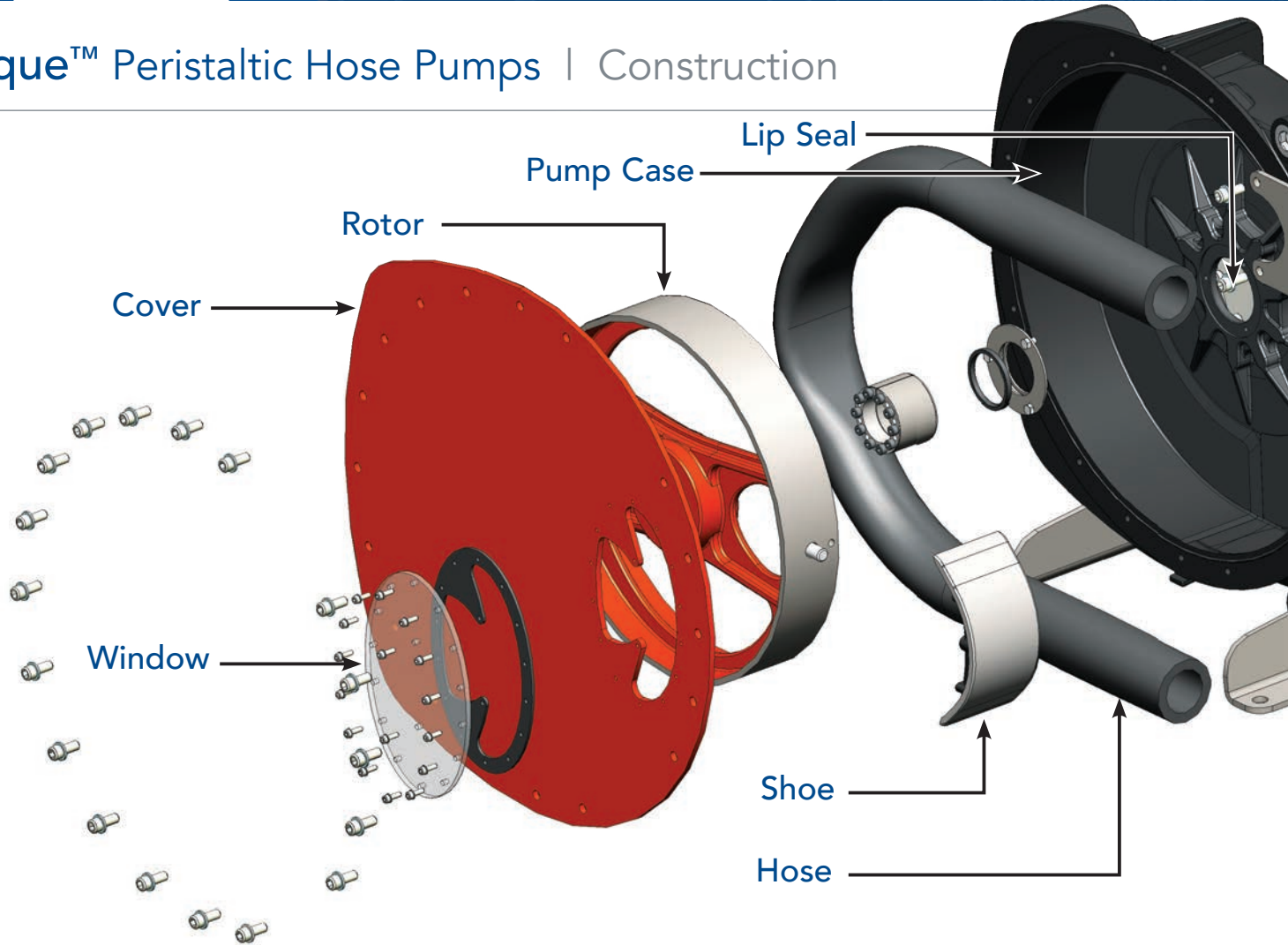
## Applications

- **Ceramic:** ceramic slips, mold filling, filter press
- **Mining:** sludge, clay slurry, lead sulfate, pyrite slurry
- **Water Treatment:** lime liquor, flocculate dispersion, sludge and slurries
- **Building Industry:** liquid or fibrous mortar, liquid plaster, light concrete
- **Chemical Industry:** acid, alcohol, detergent pumping
- **Paint & Coatings:** water base and acrylic paint, pigments, wall coating
- **Filter Press:** filling and pressing
- **Paper Industry:** latex, slurries, kaolin
- **Food Industry:** tomato sauce, mashed potatoes, gelatin, beer slurries, fish paste
- **Balneology:** thermal muds
- **Others:** glue, liquid salt, seed fertilizer



# ABAQUE™ PERISTALTIC HOSE PUMPS

## Abaque™ Peristaltic Hose Pumps | Construction



**Pump Case:**

Ductile iron

**Wheel:**

Ductile iron

**Shoes:**

Aluminum or cast iron

**Cover:**

Steel and Plexiglas

**Flange and Brackets:**

Stainless steel - ANSI or DIN

**Hoses:**

Natural rubber, Buna (NBR), EPDM or Hypalon®

**Hoses inserts:**

Stainless steel (std.), PPH or PVDF

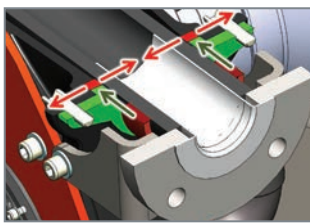
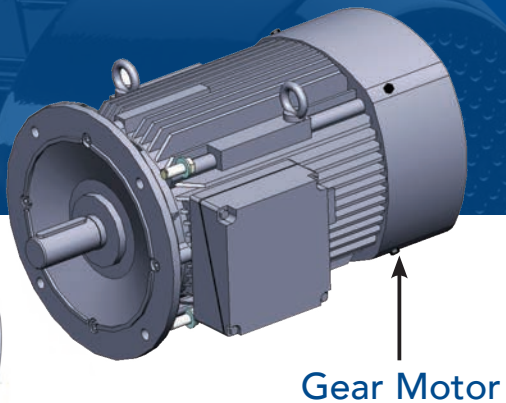
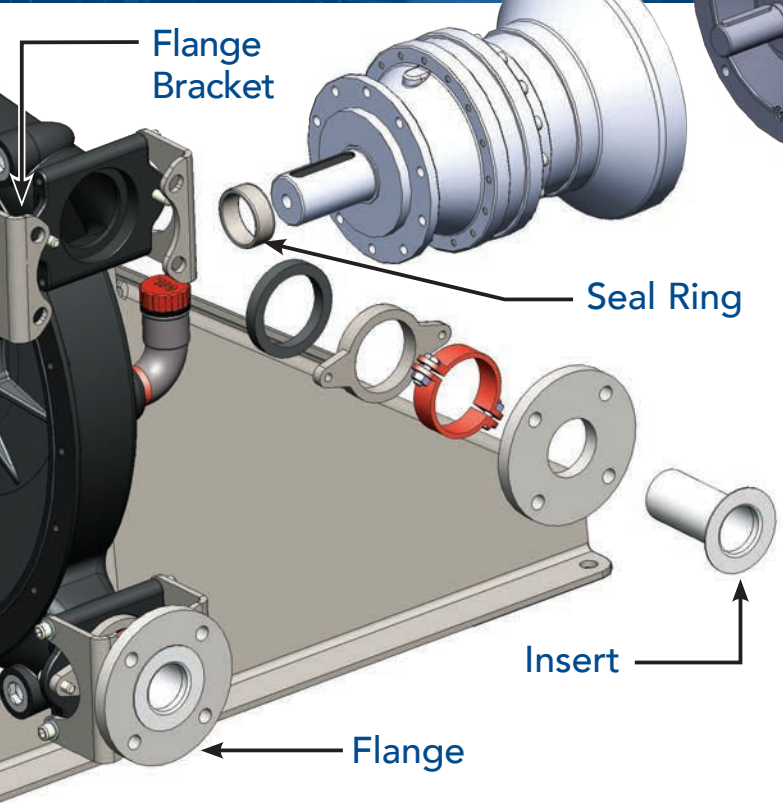
### Options

The Abaque Series pump is available in thirteen different sizes, ranging from flow rates of 15 to 54,000 L/hr (0.07 to 238 gpm).

Also available:

- Leak detector
- Vacuum kit
- Non-metallic inserts (PPH, PVDF)
- Pulsation dampener

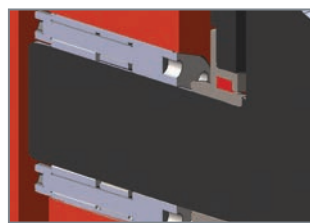




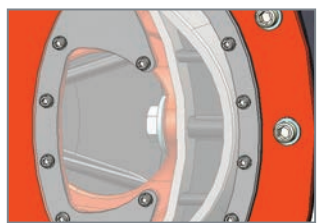
Patented Hose Holding System  
Pressing gland and square section ring provide strong hose holding and efficient tightness



Stronger and lighter rotor design



Simple, robust shaft sealing



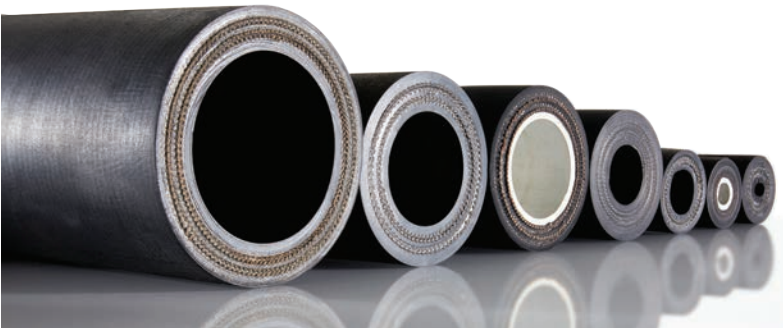
Large window allows for:

- Easy shimming of shoes
- Shoe removal without dismantling cover
- Ease of vacuuming pump body

### Hoses

The following hoses are available for use in the Abaque Series pump:

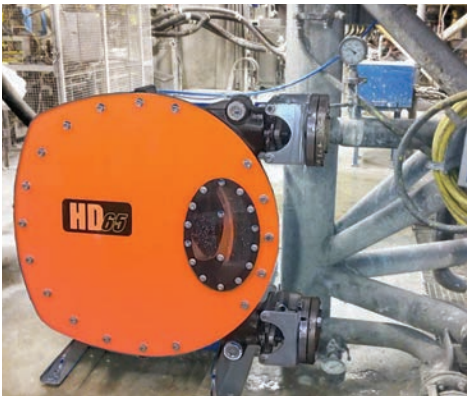
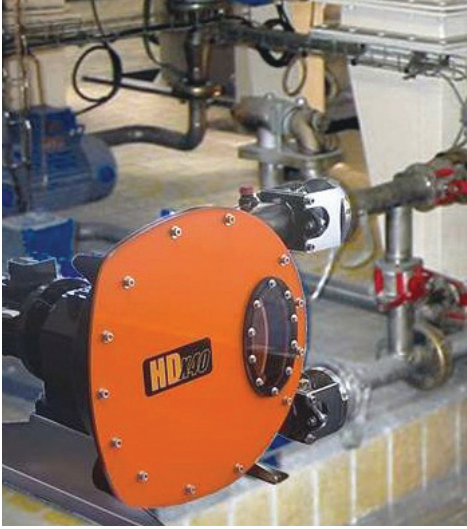
- **Natural rubber:** Highly resilient with excellent abrasion resistance and strength.
- **Buna (NBR):** Highly wear resistant to oily products (FDA approved).
- **EPDM:** High chemical resistance, especially with concentrated acids, alcohols, and ketones.
- **Hypalon®:** Resistant to chemicals. High resistance to oxidants, as well as to concentrated bases and acids.





# THE SOLUTION FOR YOUR TOUGHEST PUMPING NEEDS

## Abaque™ Peristaltic Hose Pumps



HD65

### Durable

Ductile iron and steel construction allow higher discharge pressures to 16 bar (232 psi). Its solid construction and advanced design also reduce maintenance and repairs.

### Reliable

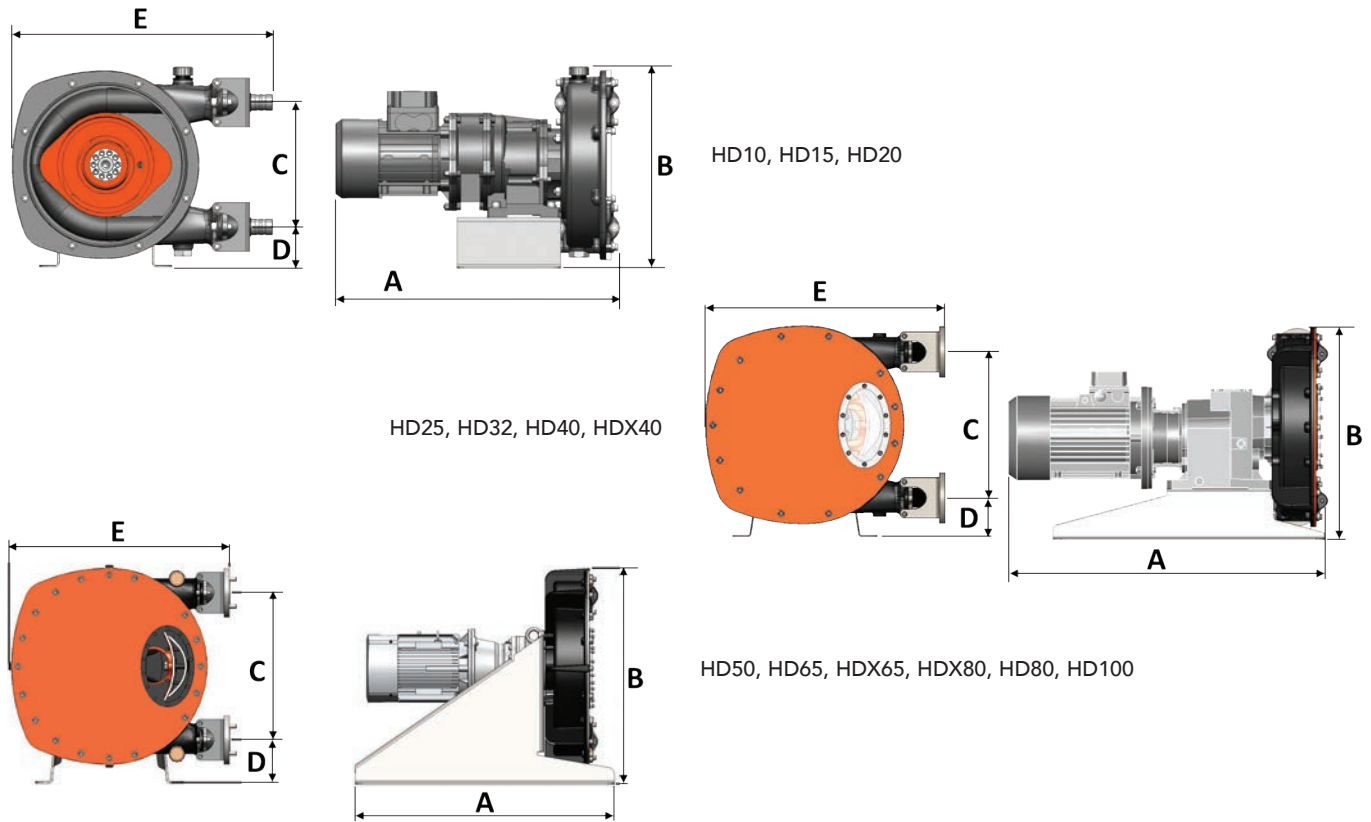
The Abaque Series pump is self-priming to 9.5 m (32.8 ft) manometric lift. This pump is able to run dry continuously without detrimental effects. The pump is capable of running in forward or reverse.

### Seal-Free

Seal-free design eliminates leaks and contamination. Fluids are contained within the hose. The hose is the primary maintenance component.

### Performance Data

|                               |              |     | HD10 | HD15 | HD20 | HD25  | HD32  | HD40  | HDX40 | HD50   | HD65   | HDX65  | HDX80  | HD80   | HD100  |
|-------------------------------|--------------|-----|------|------|------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Maximum flow rate             | Intermittent | l/h | 135  | 450  | 750  | 2,670 | 5,300 | 7,200 | 9,600 | 15,300 | 18,200 | 26,000 | 37,300 | 39,000 | 54,000 |
|                               |              | gpm | 0.59 | 1.98 | 3.30 | 11.76 | 23.34 | 31.70 | 42.27 | 67.36  | 80.13  | 114.47 | 164.23 | 171.71 | 237.75 |
|                               | Continuous   | l/h | 105  | 340  | 580  | 1,670 | 3,200 | 4,650 | 6,400 | 9,300  | 12,150 | 17,500 | 21,300 | 26,000 | 36,000 |
|                               |              | gpm | 0.46 | 1.50 | 2.55 | 7.35  | 14.09 | 20.47 | 28.18 | 40.95  | 53.49  | 77.05  | 93.78  | 114.47 | 158.50 |
| Maximum differential pressure |              | bar | 7.5  | 7.5  | 7.5  | 16    | 16    | 16    | 16    | 16     | 16     | 16     | 16     | 16     | 16     |
|                               |              | psi | 109  | 109  | 109  | 232   | 232   | 232   | 232   | 232    | 232    | 232    | 232    | 232    | 232    |



## Dimensions

|        |     | HD10  | HD15  | HD20  | HD25    | HD32    | HD40    | HDX40   | HD50    | HD65    | HDX65       | HDX80       | HD80        | HD100       |
|--------|-----|-------|-------|-------|---------|---------|---------|---------|---------|---------|-------------|-------------|-------------|-------------|
| A      | mm  | 475*  | 525*  | 525*  | 665     | 695     | 695     | 810     | 1,020   | 1,020   | 1,300       | 1,300       | 1,400       | 1,540       |
|        | in  | 18.7* | 20.7* | 20.7* | 26.18   | 27.36   | 27.36   | 31.89   | 40.16   | 40.16   | 51.18       | 51.18       | 55.12       | 60.63       |
| B      | mm  | 235   | 325   | 325   | 430     | 515     | 515     | 625     | 825     | 825     | 1,035       | 1,035       | 1,300       | 1,545       |
|        | in  | 9.25  | 12.8  | 12.8  | 16.93   | 20.28   | 20.28   | 24.61   | 32.48   | 32.48   | 40.75       | 40.75       | 51.18       | 60.83       |
| C      | mm  | 115   | 192   | 192   | 262     | 330     | 330     | 430     | 554     | 554     | 746         | 746         | 876         | 1,040       |
|        | in  | 4.53  | 7.56  | 7.56  | 10.31   | 12.99   | 12.99   | 16.93   | 21.81   | 21.81   | 29.37       | 29.37       | 34.49       | 40.95       |
| D      | mm  | 62    | 63    | 63    | 98      | 105     | 105     | 110     | 143     | 143     | 152         | 152         | 182         | 199         |
|        | in  | 2.44  | 2.48  | 2.48  | 3.86    | 4.13    | 4.13    | 4.33    | 5.62    | 5.62    | 5.98        | 5.98        | 7.16        | 7.83        |
| E      | mm  | 310   | 405   | 405   | 500     | 620     | 620     | 706.5   | 835     | 835     | 1,075       | 1,075       | 1,340       | 1,520       |
|        | in  | 12.2  | 15.94 | 15.94 | 16.68   | 24.41   | 24.41   | 27.81   | 32.87   | 32.87   | 42.32       | 42.32       | 52.76       | 59.84       |
| Weight | kg  | 18-20 | 26-32 | 26-32 | 71-83   | 108-118 | 113-123 | 175-200 | 295-345 | 300-350 | 625-635     | 635-645     | 875-965     | 1,175-1,265 |
|        | lbs | 40-44 | 57-70 | 57-70 | 156-183 | 238-260 | 249-271 | 389-441 | 650-760 | 661-772 | 1,378-1,400 | 1,400-1,422 | 1,930-2,127 | 2,590-2,789 |

\* May vary, depending on gear reducer and motor.



PSG Auxerre  
ZI la Plaine des Isles, 2 rue des Caillottes  
F-89000 AUXERRE - FRANCE  
T +33 (0) 3 86 49 86 30  
F +33 (0) 3 86 46 42 10

PSG California  
22069 Van Buren Street  
Grand Terrace, CA 92313, USA  
T +1 (909) 422-1730  
F +1 (909) 783-3440

[contact.abaque@psgdover.com](mailto:contact.abaque@psgdover.com)  
[psgdover.com/abaque](http://psgdover.com/abaque)



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**Missouri Filter & Process Equipment Co**  
MOFILCO-Quality, Value, Service  
12025 Manchester Road, Suite 30G  
St Louis MO 63131

314-821-4321 [www.mofilco.com](http://www.mofilco.com)  
[mofilco@mofilco.com](mailto:mofilco@mofilco.com)