

ABAQUE

Peristaltic (Hose) Pump



Pump With Confidence

The Blackmer ABAQUE Series pump can handle your toughest pumping needs – from abrasive and aggressive to shear-sensitive and viscous materials.

Durable

Ductile iron and steel construction allow higher discharge pressures to 217.5 psi (15 bar). Its solid construction and advanced design also reduce maintenance and repairs.

Reliable

The Blackmer ABAQUE Series pump is self-priming to 29.5 ft (9 meters) 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

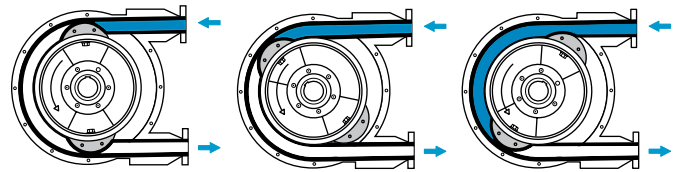
Seal free design eliminates leaks and contamination. Fluids are contained within the hose. The hose is the primary maintenance component.



ABAQUE Peristaltic (Hose) Pump

Principle of Operation

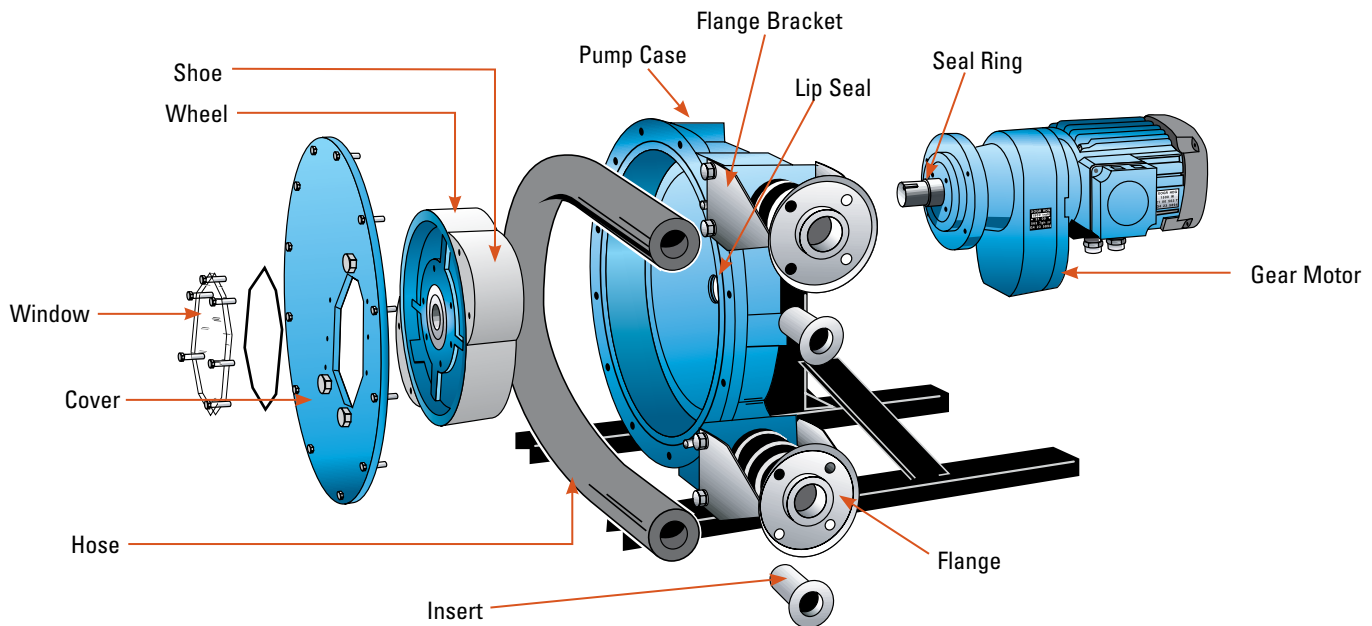
Pumping action is achieved by compression of a circular loop of elastomeric hose with two diametrically opposed rotating shoes. This rotational motion forces the fluid in the hose to move ahead of each shoe. When each shoe reaches the end of the loop, the reinforced tube immediately returns to its original shape, thereby ensuring suction and priming. The pump housing is partially filled with lubricant, aiding smooth running of the shoes on the hose. The inside of the hose and hose inserts are the only pieces of equipment in contact with pumped fluids, allowing aggressive and contaminated fluids to be pumped.



Applications

- Chemical process industry
- Food industry
- Industrial and municipal water treatment
- Paints and coatings
- Ceramics
- Mining
- Filter press equipment

Construction



Blackmer ABAQUE Series Pump Construction

Pump Case: Ductile iron
Wheel: Ductile iron
Shoes: Aluminum or cast iron
Cover: Steel and Polycarbonate

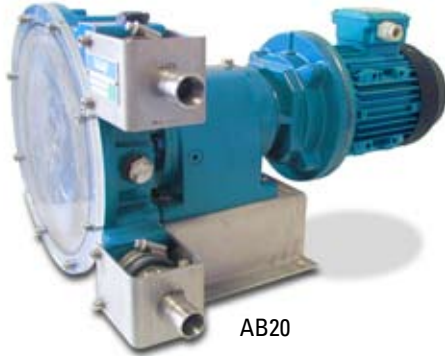
Flange and brackets: Stainless steel - ANSI
Hoses: Natural rubber, Buna (NBR) or EPDM
Hoses inserts: Stainless steel (std.), PPH or PVDF



Hoses

The following hoses are available for use in the ABAQUE pump:

- **Natural rubber:** Highly resilient with excellent abrasion resistance and strength. Generally resistant to diluted acids and alcohols.
- **Buna (NBR):** Highly wear resistant to oily products.
- **EPDM:** High chemical resistance, especially with concentrated acids, alcohols and ketones.



AB20

Options

The ABAQUE pump is available in 9 different sizes, ranging from flow rates of .07 to 211 gpm (.015 to 48 m³/hr).

Also available:

- Leak detector
- Vacuum assist
- Non-metallic inserts (PPH, PVDF)



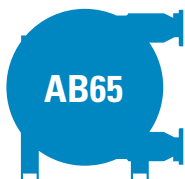
AB40

Performance Data

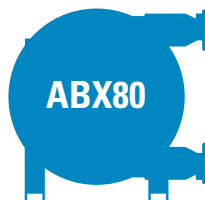
| Flow Rates | | 10 rpm | 20 rpm | 30 rpm | 40 rpm | 50 rpm | 60 rpm | 70 rpm | 80 rpm | 90 rpm | 100 rpm | 110 rpm | 120 rpm | 130 rpm | 140 rpm | Max Discharge Pressure |
|------------|---------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|--------------|---------------|------------------------|
| AB10 | m ³ /hr gpm | 0.015 0.07 | 0.030 0.13 | 0.045 0.20 | 0.060 0.26 | 0.075 0.33 | 0.090 0.40 | 0.105 0.46 | 0.120 0.53 | 0.135 0.59 | | | | | | 116 psi 8.0 bar |
| AB20 | m ³ /hr gpm | 0.08 0.37 | 0.17 0.73 | 0.25 1.10 | 0.33 1.47 | 0.42 1.83 | 0.50 2.20 | 0.58 2.57 | 0.67 2.93 | 0.75 3.30 | | | | | | 116 psi 8.0 bar |
| AB25 | m ³ /hr gpm | 0.17 0.73 | 0.33 1.47 | 0.50 2.20 | 0.67 2.93 | 0.83 3.67 | 1.00 4.40 | 1.17 5.13 | 1.33 5.87 | 1.50 6.60 | 1.67 7.33 | 1.83 8.07 | 2.00 8.80 | 2.17 9.53 | 2.33 10.27 | 217 psi 15.0 bar |
| AB40 | m ³ /hr gpm | 0.52 2.3 | 1.03 4.5 | 1.55 6.8 | 2.07 9.1 | 2.58 11.4 | 3.10 13.6 | 3.62 15.9 | 4.13 18.2 | 4.65 20.5 | 5.17 22.7 | 5.68 25.0 | 6.20 27.3 | 6.72 29.6 | 7.23 31.8 | 217 psi 15.0 bar |
| ABX40 | m ³ /hr gpm | 0.8 3.5 | 1.6 7.0 | 2.4 10.6 | 3.2 14.1 | 4.0 17.6 | 4.8 21.1 | 5.6 24.6 | 6.4 28.2 | 7.2 31.7 | 8.0 35.2 | 8.8 38.7 | 9.6 42.2 | | | 217 psi 15.0 bar |
| AB65 | m ³ /hr gpm | 2.03 8.9 | 4.05 17.8 | 6.08 26.7 | 8.10 35.6 | 10.13 44.6 | 12.15 53.5 | 14.18 62.4 | 16.20 71.3 | 18.23 80.2 | | | | | | 217 psi 15.0 bar |
| ABX80 | m ³ /hr gpm | 5 23.5 | 10.7 46.9 | 16.0 70.4 | 21.3 93.8 | 26.7 117.3 | 32.0 140.7 | | | | | | | | | 217 psi 15.0 bar |
| AB80 | m ³ /hr gpm | 6.5 29 | 13.0 57 | 19.5 86 | 26.0 114 | 32.5 143 | 39.0 172 | | | | | | | | | 217 psi 15.0 bar |
| AB100 | m ³ /hr gpm | 12 53 | 24 106 | 36 158 | 48 211 | | | | | | | | | | | 217 psi 15.0 bar |

| | | |
|---------------|-----------------------------------|---------------------------------------|
| Legend | Constant Duty at Maximum Pressure | Intermittent Duty at Maximum Pressure |
|---------------|-----------------------------------|---------------------------------------|

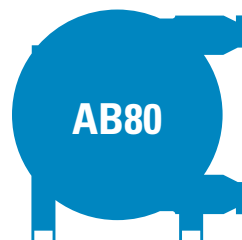
*Flow rates may vary depending upon application.



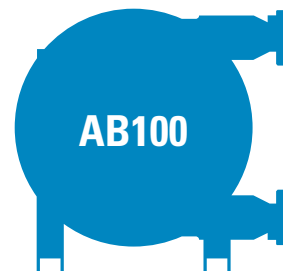
AB65



ABX80



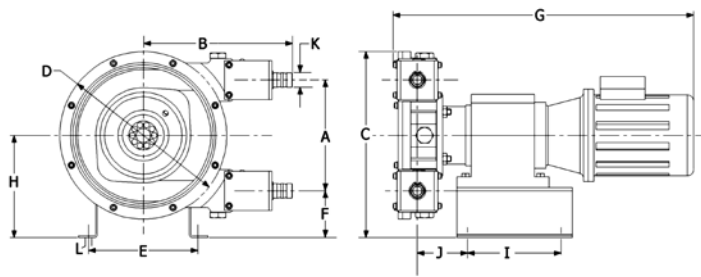
AB80



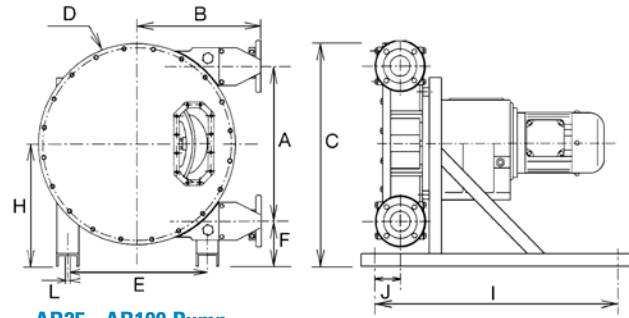
AB100



ABAQUE Peristaltic (Hose) Pump



AB10 - AB20 Pump



AB25 - AB100 Pump

Dimensions (inches)

| Pump | A (in.) | B (in.) | C (in.) | D (in.) | E (in.) | F ¹ (in.) | G ¹ (in.) | H ¹ (in.) | I (in.) | J ¹ (in.) | K ² (in.) | L (in.) | M (in.) | N (in.) | Weight ³ (lb.) |
|-------|---------|---------|---------|---------|---------|----------------------|----------------------|----------------------|---------|----------------------|----------------------|---------|---------|---------|---------------------------|
| AB10 | 4.53 | 7.72 | 10.71 | 7.48 | 7.48 | 4.7 | 23.82 | 6.97 | 6.69 | 3.15 | 0.63 | 0.35 | 5.79 | 4.13 | 33 |
| AB20 | 7.56 | 10.20 | 12.80 | 11.42 | 7.48 | 3.19 | 25.6 | 6.97 | 6.69 | 3.31 | 0.98 | 0.35 | 7.15 | 6.50 | 49 |
| AB25 | 10.31 | 12.19 | 16.34 | 14.96 | 8.66 | 3.70 | 32.87 | 8.86 | 22.44 | 3.78 | 1 | 0.59 | 8.09 | 7.68 | 110 |
| AB40 | 12.99 | 15.00 | 20.63 | 18.74 | 12.40 | 4.76 | 40.16 | 11.26 | 25.98 | 5.08 | 1.5 | 0.59 | 10.73 | 10.08 | 198 |
| ABX40 | 16.93 | 16.36 | 24.25 | 22.91 | 13.39 | 4.33 | 34.06 | 12.80 | 37.40 | 3.54 | 1.5 | 0.59 | 10.02 | 11.02 | 264 |
| AB65 | 21.81 | 17.91 | 31.57 | 28.35 | 20.04 | 6.50 | 41.73 | 17.40 | 37.40 | 6.10 | 2.5 | 0.75 | 12.48 | 15.63 | 506 |
| ABX80 | 29.37 | 22.91 | 39.53 | 37.24 | 22.83 | 6.22 | 49.21 | 20.91 | 43.31 | 4.72 | 3 | 0.75 | 15.75 | 18.94 | 880 |
| AB80 | 34.49 | 28.76 | 49.41 | 43.70 | 27.17 | 10.31 | 56.50 | 27.56 | 51.18 | 8.09 | 3 | 1.10 | 17.76 | 25.20 | 1,650 |
| AB100 | 40.94 | 32.17 | 59.25 | 53.94 | 32.28 | 11.81 | 59.06 | 32.28 | 74.80 | 11.61 | 4 | 1.10 | 22.52 | 29.92 | 2,200 |

Dimensions (millimeters)

| Pump | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F ¹ (mm) | G ¹ (mm) | H ¹ (mm) | I (mm) | J ¹ (mm) | K ² (mm) | L (mm) | M (mm) | N (mm) | Weight ³ (kg) |
|-------|--------|--------|--------|--------|--------|---------------------|---------------------|---------------------|--------|---------------------|---------------------|--------|--------|--------|--------------------------|
| AB10 | 115 | 196 | 272 | 190 | 190 | 120 | 605 | 177 | 170 | 80 | 16 | 9 | 147 | 105 | 15 |
| AB20 | 192 | 259 | 325 | 290 | 190 | 81 | 650 | 177 | 170 | 84 | 25 | 9 | 181.5 | 165 | 26 |
| AB25 | 262 | 309.5 | 415 | 380 | 220 | 94 | 835 | 225 | 570 | 96 | 25 | 15 | 205.5 | 195 | 56 |
| AB40 | 330 | 381 | 524 | 476 | 315 | 121 | 1,020 | 286 | 660 | 129 | 40 | 15 | 272.5 | 256 | 102 |
| ABX40 | 430 | 415.5 | 616 | 582 | 340 | 110 | 865 | 325 | 950 | 90 | 40 | 15 | 254.5 | 280 | 130 |
| AB65 | 554 | 455 | 802 | 720 | 509 | 165 | 1,060 | 442 | 950 | 155 | 65 | 19 | 317 | 397 | 244 |
| ABX80 | 746 | 582 | 1,004 | 946 | 580 | 158 | 1,250 | 531 | 1,100 | 120 | 80 | 19 | 400 | 481 | 457 |
| AB80 | 876 | 730.5 | 1,255 | 1,110 | 690 | 262 | 1,435 | 700 | 1,300 | 205.5 | 80 | 28 | 451 | 640 | 790 |
| AB100 | 1,040 | 817 | 1,505 | 1,370 | 820 | 300 | 1,500 | 820 | 1,900 | 295 | 100 | 28 | 572 | 760 | 963 |

¹ Gear Motor - actual dimensions may vary with final selection

² AB25 - AB100 are ANSI 150 Flanges; AB10 - AB20 use Hose Barb Connections

³ WEIGHTS ARE APPROXIMATE AND DO NOT INCLUDE REDUCERS OR MOTORS

ALL INFORMATION IS SUBJECT TO CHANGE

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