

Hydra-Cell[®]

Industrial Pumps

NEW!

D-15/17 Series

- *New higher pressure to 2,500 psi (172 bar)*
- *New rugged, industrial Hydra-Cell design features*





When we say "Simply Built to Last", we mean it! Wanner Engineering's Hydra-Cell pumps have proven their performance and reliability in some of the toughest industrial equipment and process applications.

- Hot fluids
- Reclaim fluids
- Corrosive fluids
- Slurries
- Abrasives
- Liquid gases
- Wettable powders
- Fertilizers
- Cutting fluids
- Viscous fluids
- Ultrapure fluids
- Chemicals
- Adhesives
- Soap solutions
- Salt water
- Caustics
- and many more...

D-15 with Pump/Motor Adapter

The workhorse of industry . . .

The long-lasting industrial pump solution for high-pressure applications

The dependable, proven, sealless technology of Hydra-Cell pumps is now available in a new high-pressure design. This new design utilizes five diaphragms for a positive displacement delivery that is virtually pulse free. The Hydra-Cell Model D-15 is a horizontally mounted pump that is either direct-coupled or belt-driven to meet your unique needs. The vertically mounted D-17 model is ideal for direct mounting on top of fluid tanks where space is limited. Pump/motor adapters are available for easy motor mounting. Metric versions are also available.

Hydra-Cell Advantages

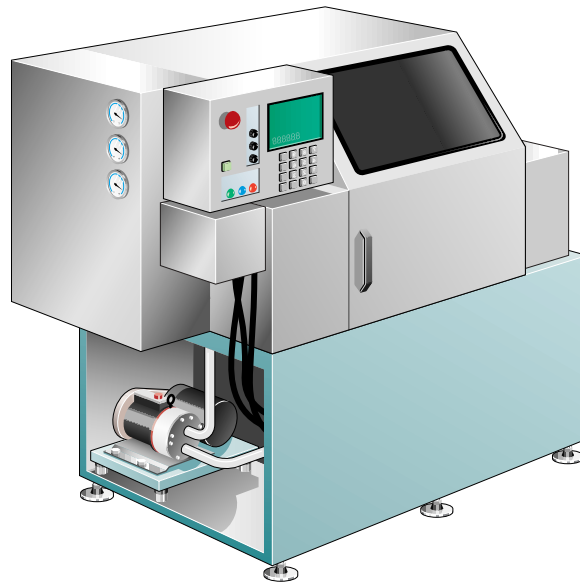
- Sealless design
- Runs dry without damage
- Smooth, low pulse operation
- Hydraulically-balanced, five diaphragm design
- Heavy-duty industrial construction
- Positive displacement
- Self-priming
- Low maintenance
- Low repair costs



D-17 with Pump/Motor Adapter

*Flows up to 13 gpm (50/min)
Pressures to 2500 psi (172 bar)*

Durability, performance and simplicity of design makes Hydra-Cell® the optimum choice for the widest range of pump applications.



Manufacturing:

- Machine tool coolant
- Deep-hole drilling
- High-speed grinding
- Intensifier pump
- Propellant packaging
- Pulp and paper

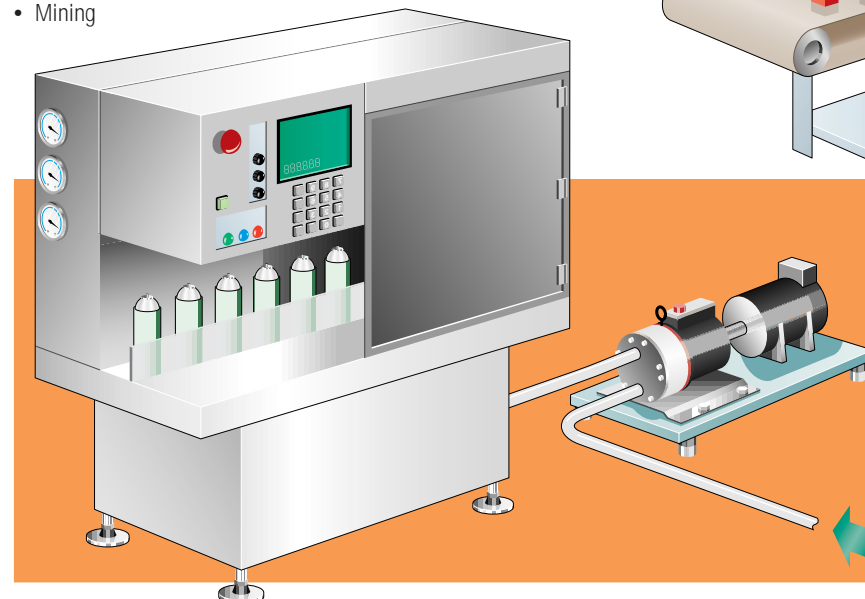
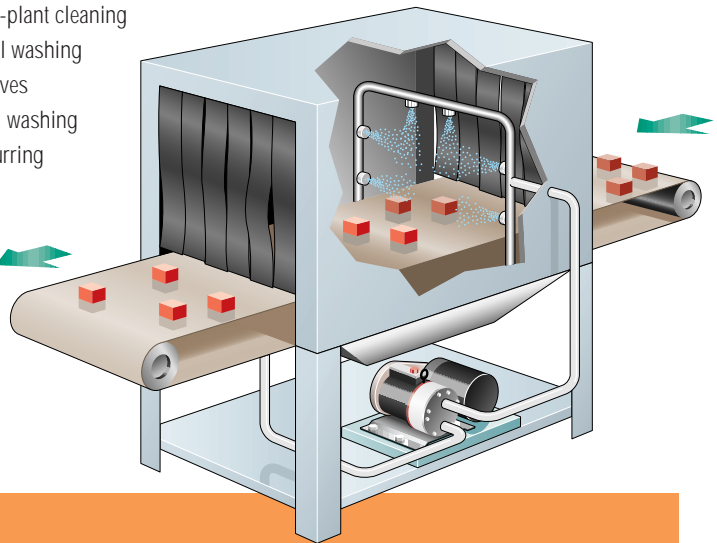
for your application.

Other Applications:

- Oil production and refining
- Metering/chemical injection
- Chemical and petroleum
- Hydrostatic testing
- Boiler feed
- Gas cooling
- Dust suppression
- Directional drilling
- Reverse osmosis – separation
- Mining

Cleaning:

- Food processing/in-plant cleaning
- Tote, tank and barrel washing
- Spray drying abrasives
- Truck, bus and train washing
- High-pressure deburring
- Graffiti removal
- Sewer line cleaning
- Parts washing
- Wet sand blasting



Give us a call and let us put a Hydra-Cell pump to work for your difficult, high pressure fluids.

D-15/17 Series Performance

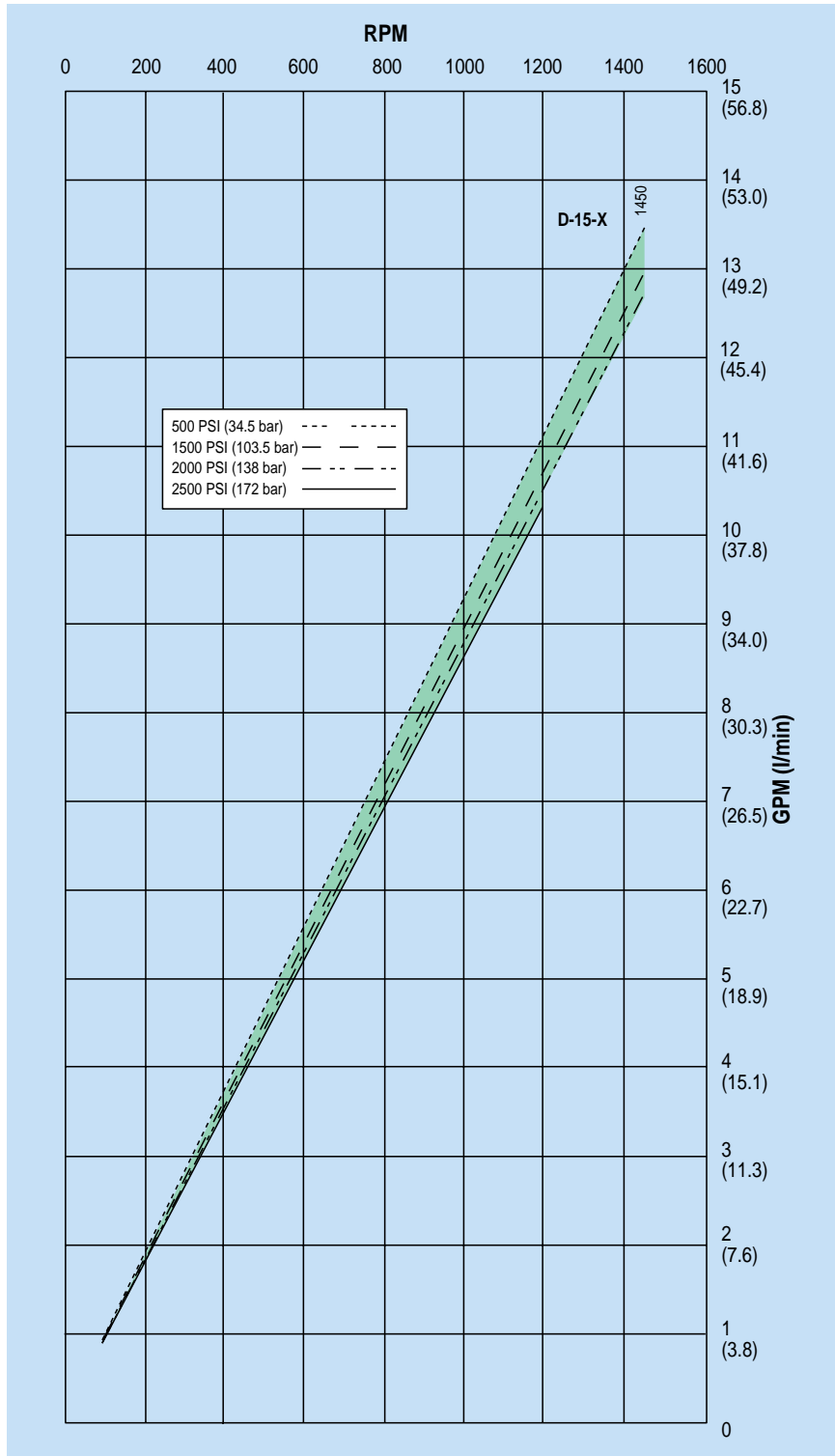
flow

| model | max flow | | max input |
|---------|----------|-------|-----------|
| | gpm | l/min | rpm |
| D-15/17 | 13.4 | 50.7 | 1450 |

pressure

Maximum Inlet Pressure:
500 psi (34.5 bar)

Pressure Variable To:
2500 psi (172 bar)

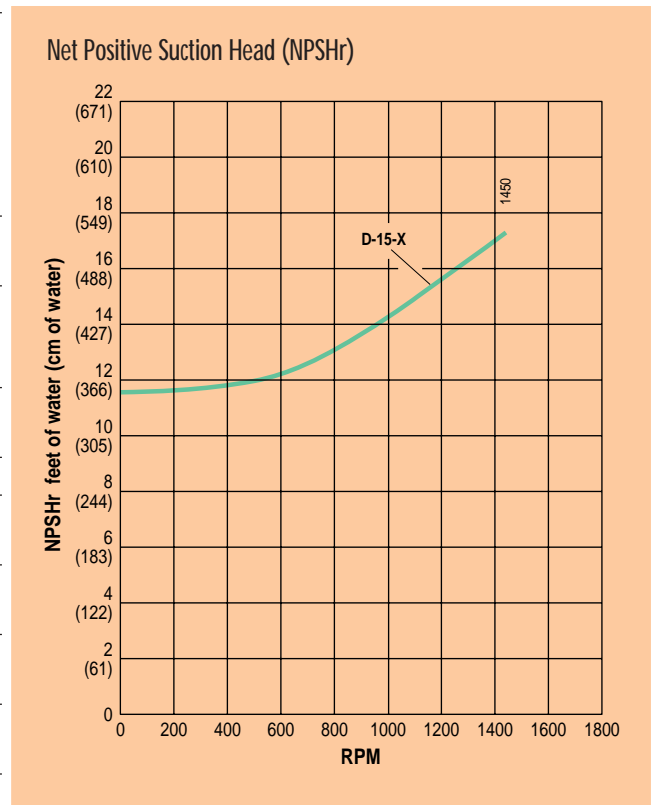


D-15/17 Series Specifications

| Maximum Capacity | | | | |
|------------------|------|---------|------|-------|
| @ Max RPM | psi | (bar) | gpm | l/min |
| 1450 | 500 | (34.5) | 13.4 | 50.7 |
| 1450 | 1500 | (103.5) | 13.0 | 49.2 |
| 1450 | 2000 | (138) | 12.7 | 48.0 |
| 1200 | 2500 | (172) | 10.3 | 38.9 |

| Delivery | | | | |
|----------|------------|-----------|----------|----------|
| | revs/gal | | | |
| | 500 psi | 1500 psi | 2000 psi | 2500 psi |
| | 109 | 112 | 114 | 117 |
| | revs/liter | | | |
| | 34.5 bar | 103.5 bar | 138 bar | 172 bar |
| | 28.8 | 29.6 | 30.2 | 30.9 |

| | |
|-----------------------------|--|
| Max Inlet Pressure | 500 psi (34.5 bar) |
| Pressure Variable to | 2500 psi (172 bar) @ 1200 rpm; 2000 psi (138 bar) @ 1450 rpm |
| Max Temperature | 250°F (121°C) (refer to catalog engineering section, page 94 for temperatures above 160°F) |
| Inlet Port | D-15: 1-1/4 inch NPT female G-15: 1-1/4 inch BSPT female |
| Discharge Port | D-15: 3/4 inch NPT female G-15: 3/4 inch BSPT female |
| Shaft Diameter | 1-1/8 inch (28.58 mm) |
| Shaft Rotation | Bi-directional |
| Bearings | Taper roller bearings |
| Oil Capacity | 2.2 U.S. quart (2.08 liters) |
| Weight | 145 lbs (66 kg) |



Calculating Required Horsepower

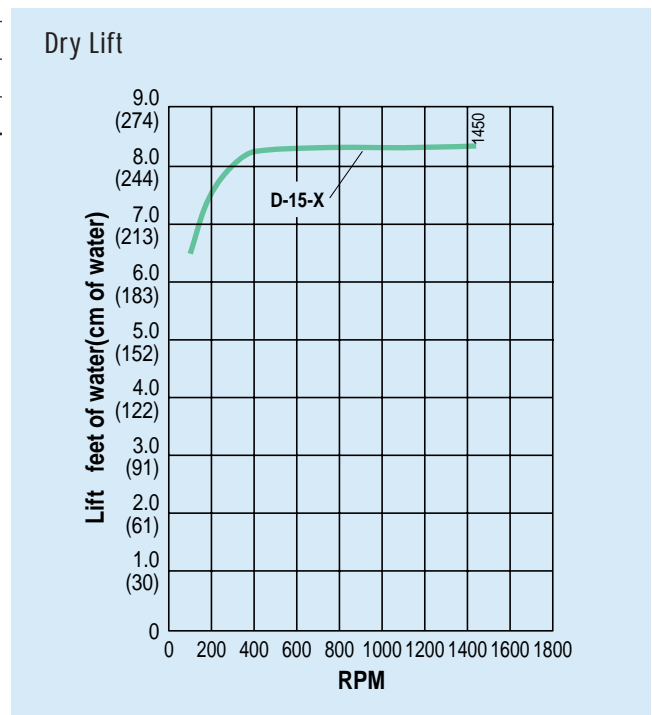
$$\frac{80 \times \text{rpm}}{63,000} + \frac{\text{gpm} \times \text{psi}}{1,460 - \left(\frac{\text{psi} - 500}{20}\right)} = \text{electric motor HP}$$

Calculating Required Kilowatts

$$\frac{80 \times \text{rpm}}{84,428} + \frac{\text{lpm} \times \text{bar}}{511 - \left(\frac{\text{bar} - 35}{4}\right)} = \text{electric motor KW}$$

Calculating Pulley Size

$$\frac{\text{motor pulley OD}}{\text{pump rpm}} = \frac{\text{pump pulley OD}}{\text{motor rpm}}$$

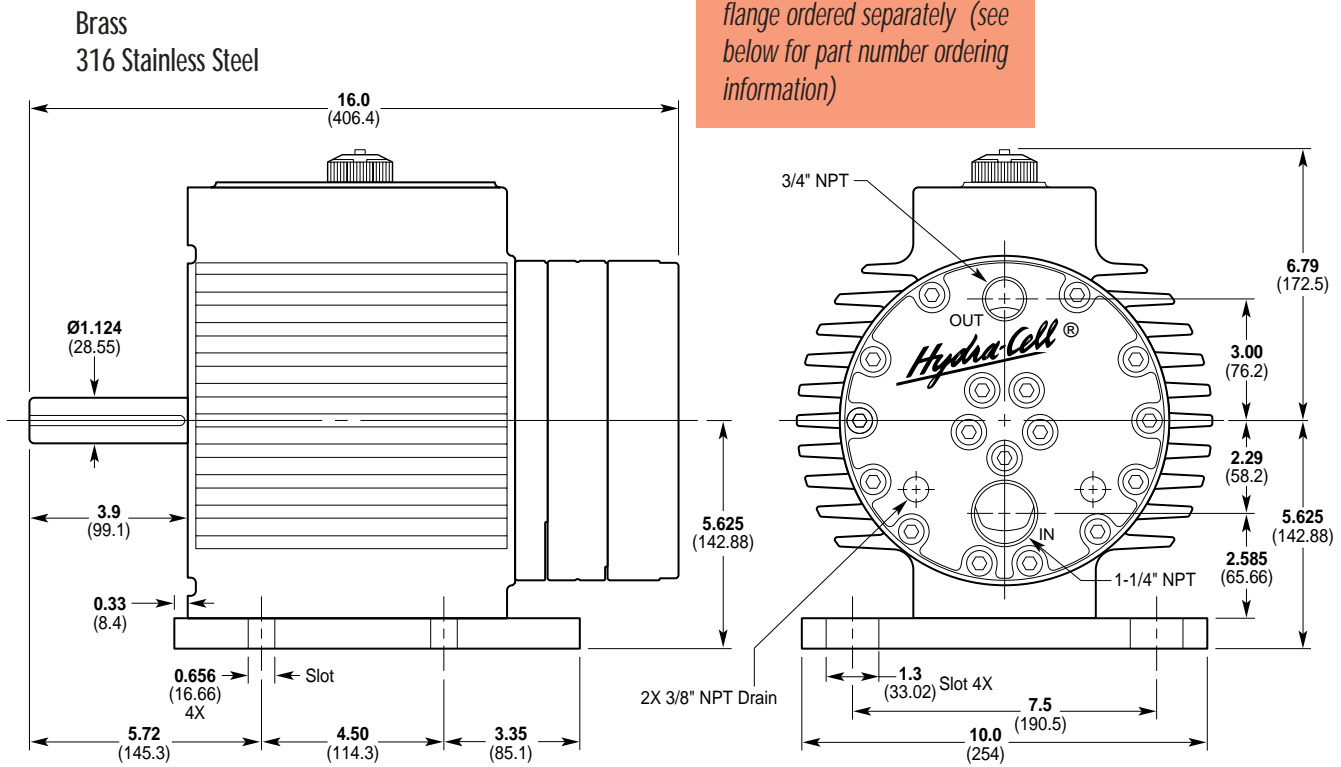


For installation guidelines and other pump selection design considerations, refer to Hydra-Cell catalog pages 92-95.

D-15/17 Series Dimensions

D-15 Models Horizontal Mount

D-15 Pump/Motor Adapter flange ordered separately (see below for part number ordering information)

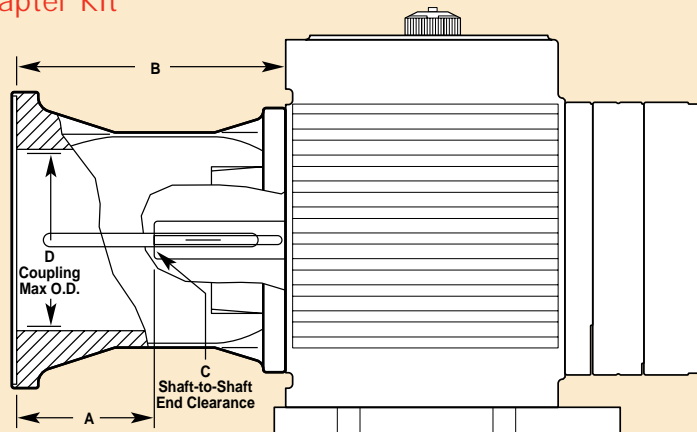


D-15/17 Series Accessories

Pump/Motor Adapter Kit

Pump/Motor Adapter Kits are designed to fit several NEMA/IEC frame sizes. Kits are ordered separately for all D-15 and all D-17 models.

Each kit includes the adapter flange and all necessary mounting hardware (excluding coupler).



| Adapter Kit Motor Size | Kit Part Number | A | B | C | D |
|-------------------------|-----------------|-------------|-------------|-------------|--------------|
| NEMA 182TC/184TC | A04-041-1200 | 4.1 (104.1) | 8.0 (203.2) | 1.71 (43.4) | 4.75 (120.7) |
| NEMA 213TC/215TC | A04-041-1200 | 4.1 (104.1) | 8.0 (203.2) | 0.96 (24.4) | 4.75 (120.7) |
| NEMA 254TC/256TC | A04-041-1200 | 4.1 (104.1) | 8.0 (203.2) | 0.33 (8.4) | 4.75 (120.7) |
| NEMA 284TC/286TC | A04-041-1202 | 4.5 (114.3) | 8.4 (213.4) | 0.14 (3.6) | 4.75 (120.7) |
| IEC 132 (B5 Flange) | A04-041-1201 | 4.1 (104.1) | 8.0 (203.2) | 1.09 (27.7) | 4.75 (120.7) |
| IEC 160 (B14 Face) | A04-041-1203 | 4.3 (109.2) | 8.2 (208.3) | 0.15 (3.8) | 4.75 (120.7) |
| IEC 160/180 (B5 Flange) | A04-041-1205 | 4.3 (109.2) | 8.2 (208.3) | 0.15 (3.8) | 4.75 (120.7) |

Optional Accessories

Like our other Hydra-Cell pumps, the new D-15/17 can be outfitted with a variety of Wanner accessories to meet your specific application requirements:

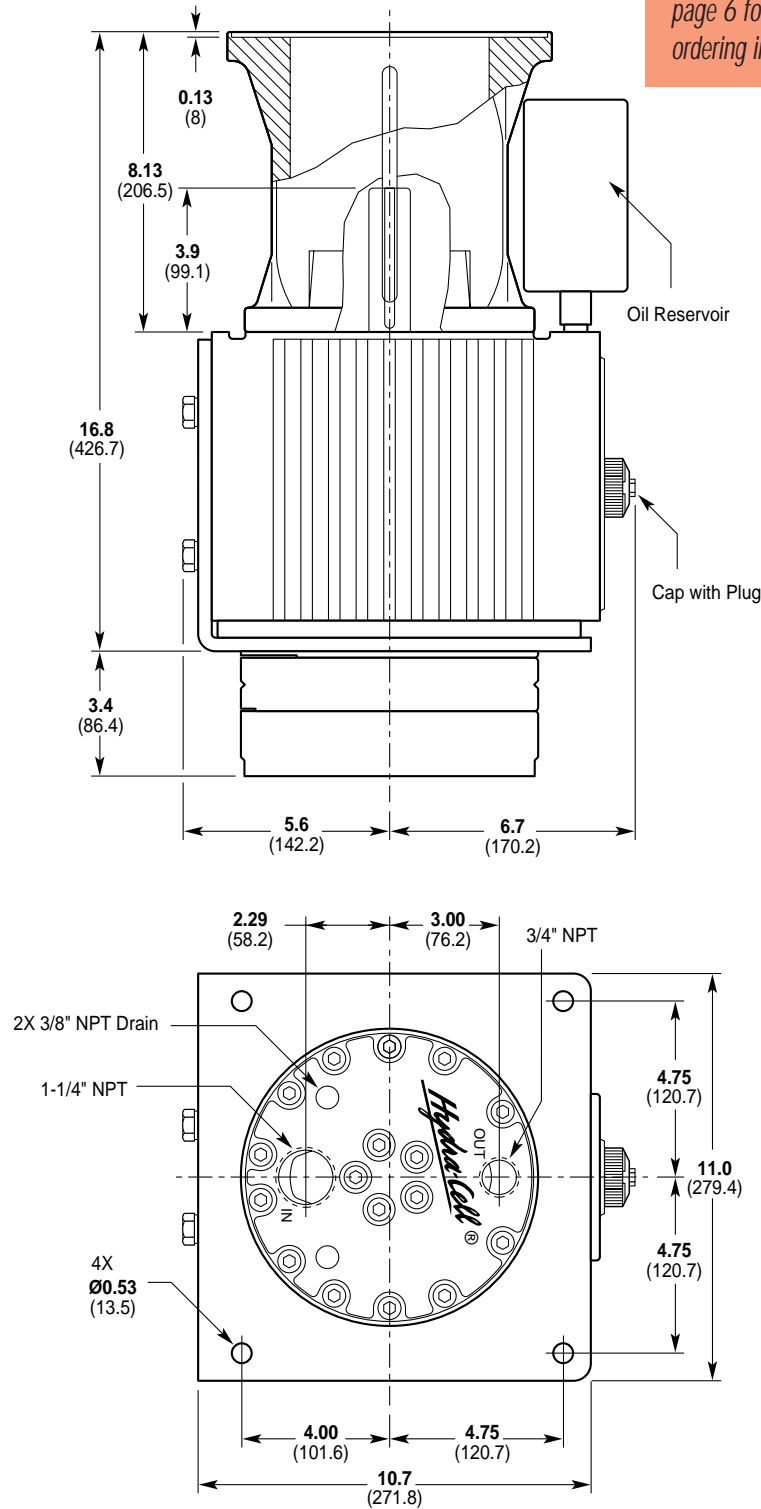
- Valves
- Couplers
- Pump repair kits for valves, diaphragms, or complete fluid end.
- Oil level monitor kit

D-15/17 Series **Dimensions**

D-17 Models Vertical Mount

Brass
316 Stainless Steel

*D-17 Pump/Motor Adapter
flange ordered separately (see
page 6 for part number
ordering information)*



D-15/17 Series **How To Order**

Ordering Information

A complete D-15/17 Series Model Number contains 12 digits including 8 customer-specified design options: for example D15XABTHFECCG.



3 Pump Orientation

- 5 Horizontal pump⁽²⁾
- 7 Vertical pump⁽²⁾

6 Pumping Head Material

- B Brass
- S 316 Stainless Steel

7 Diaphragm & O-ring Material

- G Viton®-XT
- T Buna-N-XS

8 Valve Seat Material

- D Carbide
- H 17-4 PH Stainless Steel
- N Nitronic 50

9 Valve Material

- D Carbide
- F 17-4 PH Stainless Steel
- N Nitronic 50

10 Valve Springs

- E Elgiloy®
- T Hastelloy® C

11 Valve Spring Retainers

- C Celcon
- M Kynar®
- P Polypropylene
- Y Nylon

12 Hydra-Oil

- A 10W30 standard duty oil
- B 40-wt for continuous duty
- E 30-wt food-contact oil
- F 40-wt high-temperature food-contact oil
- G 5W30 cold-temperature severe duty synthetic oil

(1) Both D-15 and D-17 models are equipped with and X Cam configuration which provides a maximum 13.4 gpm (50.7 lmin) flow rate at 1450 rpm.

(2) Both D-15 and D-17 models are available with a pump/motor adapter which is ordered separately. (See page 6 for part number ordering information.)



Wanner Engineering, Inc.

1204 Chestnut Avenue, Minneapolis, MN 55403 USA
 (612) 332-5681 FAX (612) 332-6937
 Toll Free FAX (USA only) (800) 332-6812
 Email: sales@wannereng.com
 Website: www.hydra-cell.com
 Document Fax Back System: (510) 745-0440



Wanner International Ltd.

Grange Court, Grange Road
 Tongham, Surrey GU10 1DW, England
 Tel +44 (0) 1252 781234
 FAX Tel +44 (0) 1252 781235
 Email: sales@wannerint.com