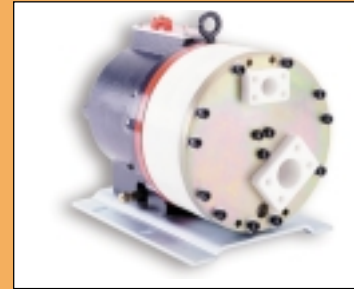


# D-35 Series

Up to 37 gpm (140 l/min)

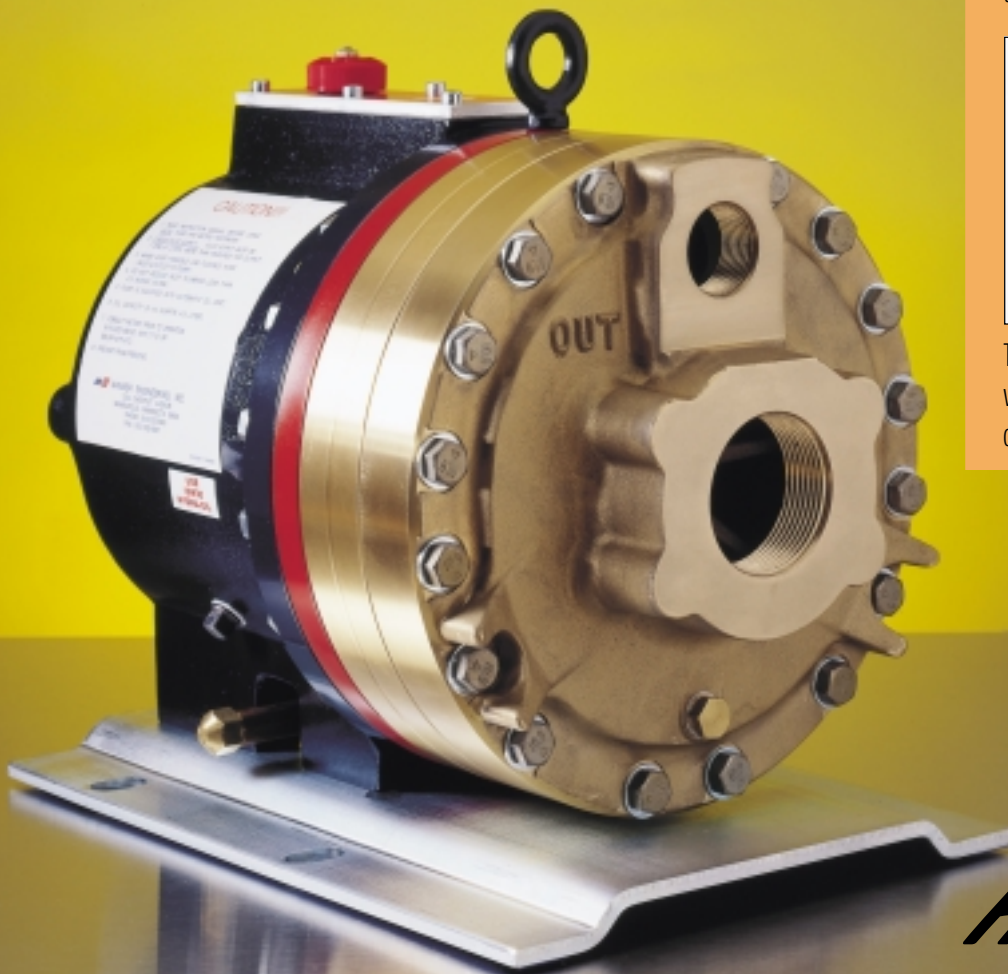
## D-35 Specialized Designs



Hydra-Cell Slurry Duty pumps are specifically designed for abrasive slurry applications. See page 72 for complete specifications.



The D-35 Hydra-Cell can be equipped with an SAE flange pump head for critical performance applications.



**Hydra-Cell**<sup>®</sup>  
SIMPLY BUILT TO LAST

# D-35 Series Performance

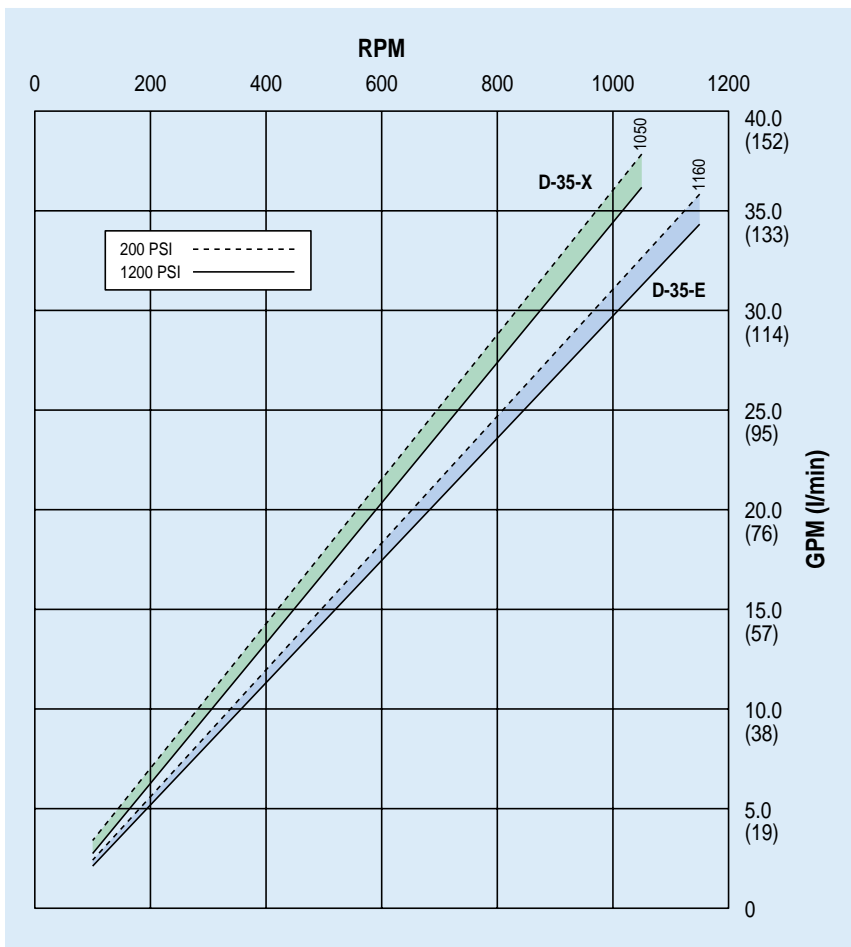
## flow

model	max flow		max input rpm
	gpm	l/min	
D-35-X	37	140	1050
D-35-E	35	132	1150

## pressure

**Maximum Inlet Pressure:**  
250 psi (17.3 bar)

**Pressure Variable To:**  
1200 psi (83 bar)



# D-35 Series Specifications

Maximum Capacity			
	rpm	gpm	l/min
D-35-X	1050	37	140
D-35-E	1150	35	132

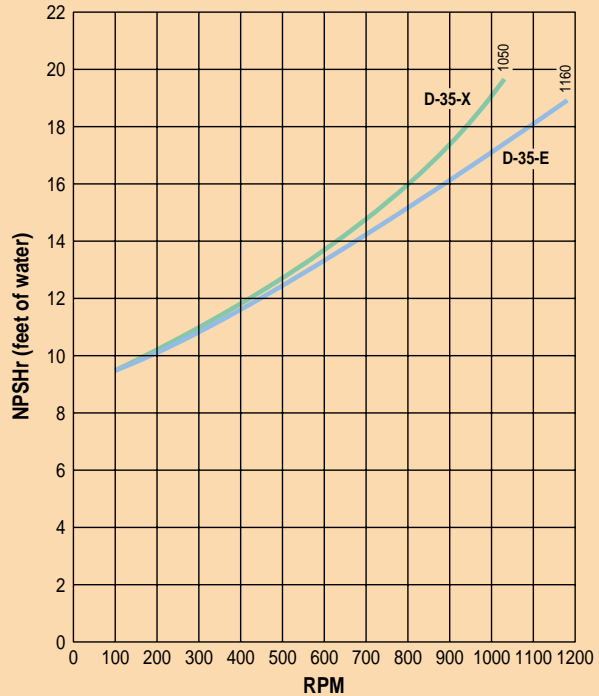
  

Delivery @ max pressure		
	revs/gal	revs/liter
D-35-X	29	7.7
D-35-E	31	8.2

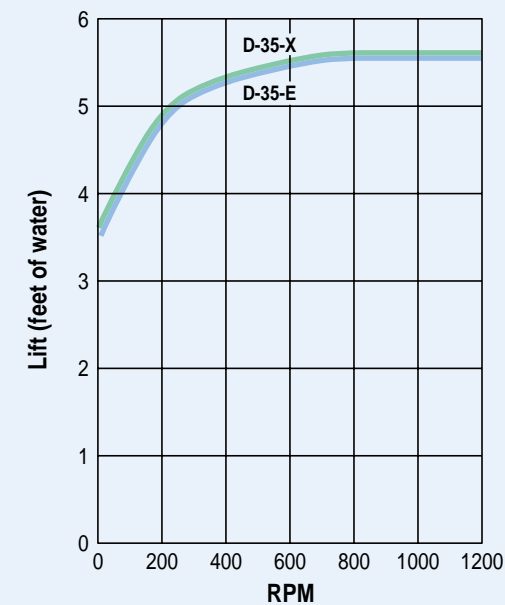
  

<b>Max Inlet Pressure</b>	250 psi (17.3 bar)
<b>Pressure Variable to</b>	1200 psi (83 bar)
<b>Max Temperature</b>	250°F (refer to engineering section, page 94 for temperatures above 180°F)
<b>Inlet Port</b>	2-1/2 inch NPT or 3 inch SAE flange
<b>Discharge Port</b>	1-1/4 inch NPT or 1-1/4 inch SAE flange
<b>Shaft Diameter</b>	2 inch
<b>Shaft Rotation</b>	Bi-directional
<b>Bearings</b>	Tapered roller
<b>Oil Capacity</b>	5 US quarts (4.7 liters), see page 88 for oil selection and specification.
<b>Weight</b>	240 lbs (109 kg)

Net Positive Suction Head (NPSHr)



Dry Lift



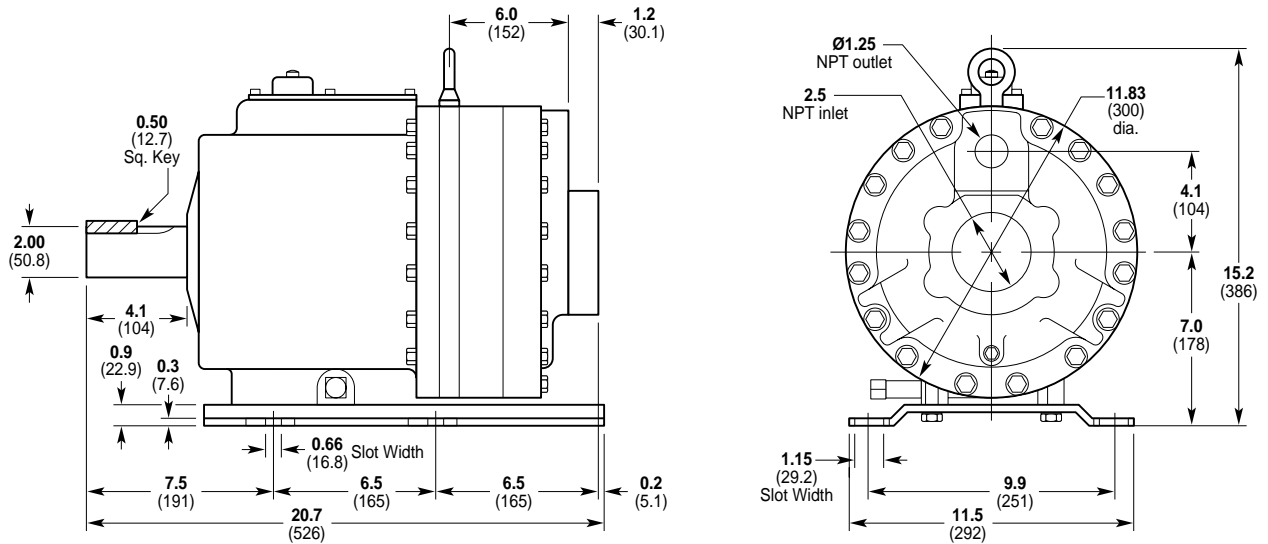
## Calculating Required Horsepower

$$\frac{100 \times \text{rpm}}{63,000} + \frac{\text{gpm} \times \text{psi}}{1,460} = \text{electric motor HP}$$

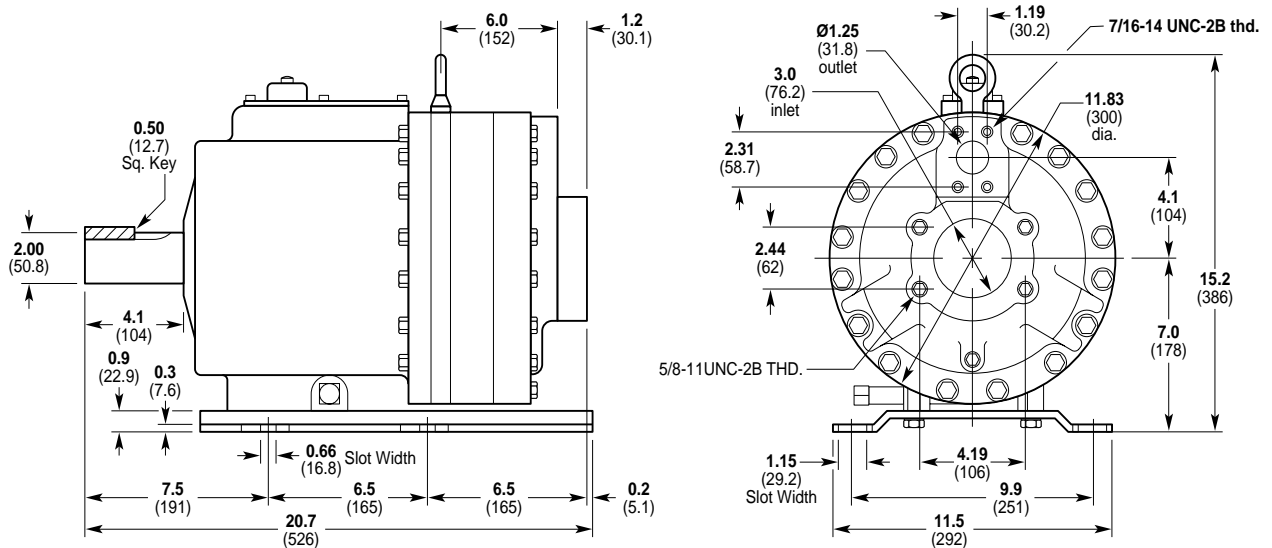
For installation guidelines and other pump selection design considerations, refer to pages 92-95.

# D-35 Series Dimensions

## D-35 Models with NPT Inlet/Outlet Ports



## D-35 Models with SAE Flange Inlet/Outlet Ports



# D-35 Series Options

## Materials of Construction

D-35 Hydra-Cell pumps are manufactured in a variety of heavy-duty materials to meet specific pumping needs. Refer to the design section for more information on appropriate material selection and chemical compatibility. Other customized materials are available by special order. Contact factory application engineering department for further information.



### Pumping Head

316 Stainless Steel  
Brass  
Ductile Iron, Nickel Plated  
Nickel Alloy (Hastelloy Remelt, CMW12D)



### Valves

17-4 PH Stainless Steel  
Ceramic  
Hastelloy® C  
Nitronic 50



### Diaphragms & O-rings

Buna-N  
Buna-N-XS  
EPDM  
Neoprene  
Teflon®  
Viton®  
Viton®-XT



### Valve Springs

17-7 PH Stainless Steel  
Elgiloy®  
Hastelloy® C



### Valve Seats

17-4 PH Stainless Steel  
Ceramic  
Hastelloy® C  
Nitronic 50



### Valve Spring Retainers

17-7 PH Stainless Steel  
Celcon®  
Hastelloy® C  
Kynar®  
Nylon (Zytel®)  
Polypropylene

# D-35 Series Accessories

## Options, Accessories and Custom Designs

- Valves, page 78
- Hydra-Oil, page 88
- Couplers, page 87
- Hose Connectors, page 87
- Tool Kits, page 90



# D-35 Series How To Order

## Ordering Information

A complete D-35 Series Model Number contains 12 digits including 9 customer-specified design options: for example D35XABNHFECA.

1	2	3	4	5	6	7	8	9	10	11	12
D	3	5									

### 4 Hydraulic End Cam

- X Max 37 gpm (140 lpm) @ 1050 rpm
- E Max 35 gpm (132 lpm) @ 1150 rpm

### 5 Inlet/Discharge Fluid Ports

- A NPT
- G SAE Flange

### 6 Pumping Head Material

- B Brass
- C Ductile Iron, nickel plated
- S 316 Stainless Steel
- T Nickel Alloy (Hastelloy Remelt, CMW12D)

### 7 Diaphragm & O-ring Material

- E EPDM (requires 30 or 40 wt EPDM-compatible hydraulic end oil)
- G Viton®-XT
- J Teflon® (available with E cam only; 1050 rpm max)
- N Buna-N
- P Neoprene
- T Buna-N-XS
- V Viton®

### 8 Valve Seat Material

- C Ceramic
- H 17-4 PH Stainless Steel
- N Nitronic 50
- T Hastelloy® C

### 9 Valve Material

- C Ceramic
- F 17-4 PH Stainless Steel (machined)
- N Nitronic 50
- T Hastelloy® C

### 10 Valve Springs

- E Elgiloy®
- H 17-7 PH Stainless Steel
- T Hastelloy® C

### 11 Valve Spring Retainers

- C Celcon
- H 17-7 PH Stainless Steel
- M Kynar®
- P Polypropylene
- T Hastelloy® C
- Y Nylon (Zytel)

### 12 Hydra-Oil

- A 10W30 (standard)
- B 40-wt for continuous-duty (use with 316 SST or Hastelloy pump head (standard))
- D 40-wt high-temp EPDM-compatible oil
- F 40-wt high-temp food-contact oil
- G 5W30 cold-temp severe duty oil
- H 15W50 high-temp severe-duty synthetic oil