

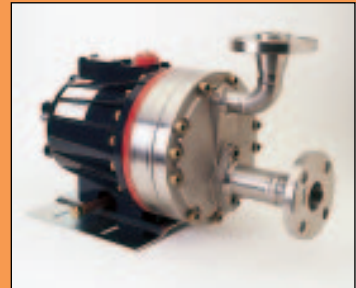
H-25 Series

Up to 20 gpm (75.7/min)

H-25 Specialized Designs



Hydra-Cell Slurry Duty pumps are specifically designed for abrasive slurry applications. See page 78 for complete specifications.



The H-25 Hydra-Cell can be equipped with welded flange pump heads for critical performance applications such as oil/gas installations and chemical process facilities. See page 70.



H-25 with brass pump head



H-25 with polypropylene pump head

Hydra-Cell[®]
SIMPLY BUILT TO LAST

H-25 Series Performance

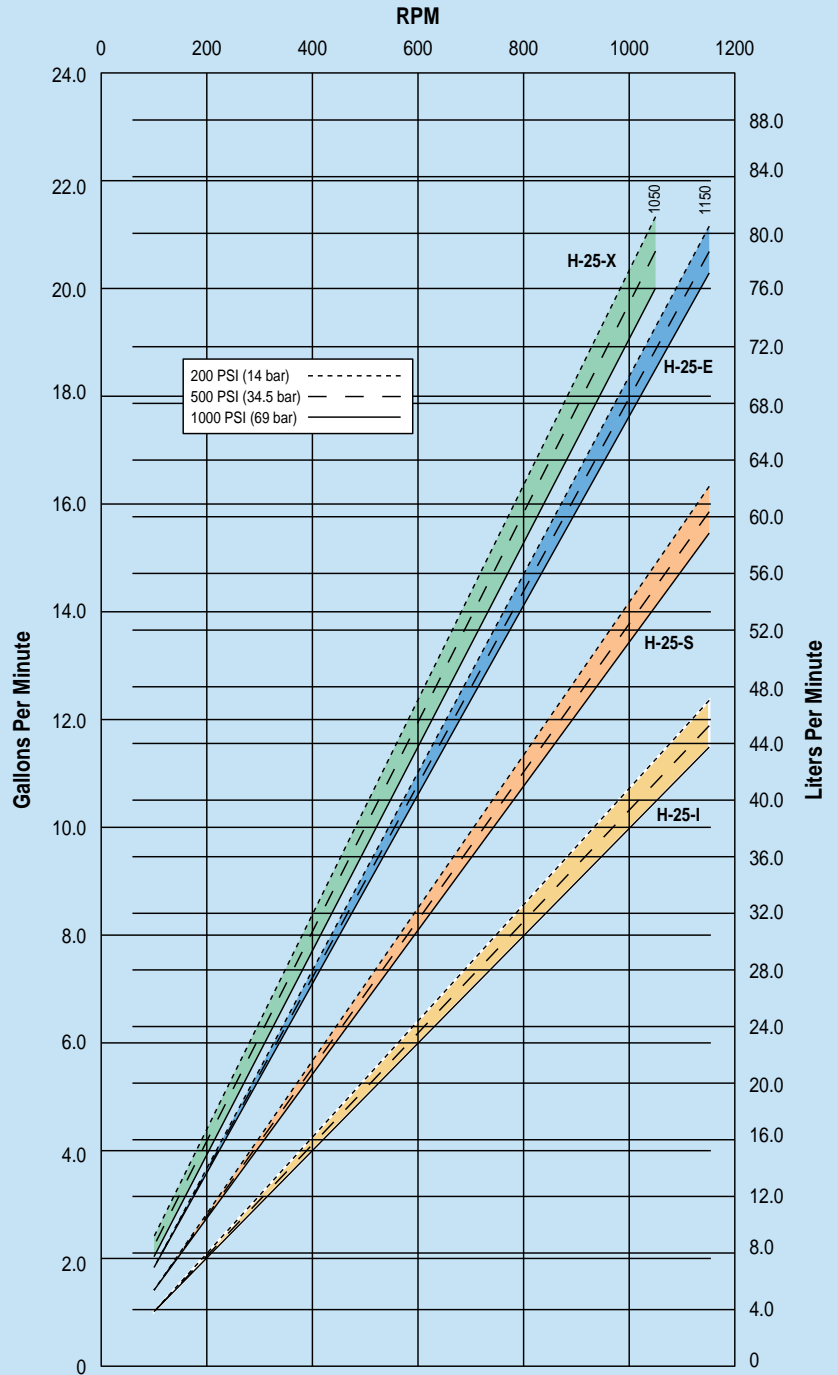
flow

model	max flow		max input rpm
	gpm	l/min	
H-25-X	20	75.7	1050
H-25-E	20	75.7	1150
H-25-S	16	60.6	1150
H-25-I	12	45.4	1150

pressure

Maximum Inlet Pressure:
250 psi (17.3 bar)

Pressure Variable To:
Metallic Heads: 1000 psi (69 bar)
Non-Metallic Heads: 250 psi (17.3 bar)



H-25 Series Specifications

Maximum Capacity

	rpm	gpm	l/min
H-25-X	1050	20	75.7
H-25-E	1150	20	75.7
H-25-S	1150	16	60.6
H-25-I	1150	12	45.4

Delivery @ max pressure

	revs/gal	revs/liter
H-25-X	52	14
H-25-E	58	15
H-25-S	72	19
H-25-I	96	25

Max Inlet Pressure 250 psi (17.3 bar)

Pressure Variable to

Metallic:	1000 psi (69 bar)
Non-Metallic:	250 psi (17.3 bar)

Max Temperature

Metallic Heads:	250°F (121°C) – Consult factory for correct component selection for temperatures above 160°F (71°C)
Non-Metallic Heads:	140°F (60°C)

Inlet Port 1-1/2 inch NPT

Discharge Port 1 inch NPT

Shaft Diameter 1-1/8 inch

Shaft Rotation Bi-directional

Bearings Tapered roller

Oil Capacity 2-1/2 US quarts (2.4 liters), see page 100 for oil selection and specification.

Weight

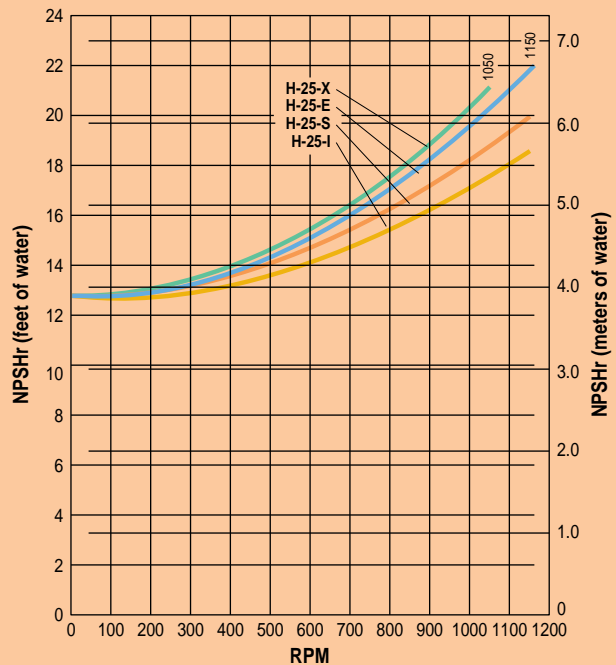
Metallic Heads:	125 lbs (56.8 kg)
Non-Metallic Heads:	90 lbs (40.9 kg)

Calculating Required Horsepower

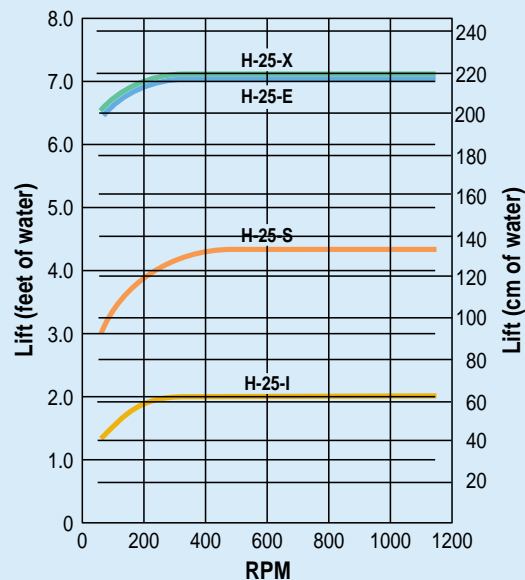
$$\frac{50 \times \text{rpm}}{63,000} + \frac{\text{gpm} \times \text{psi}}{1,460} = \text{electric motor HP}$$

For installation guidelines and other pump selection design considerations, refer to pages 107-111.

Net Positive Suction Head (NPSHr)



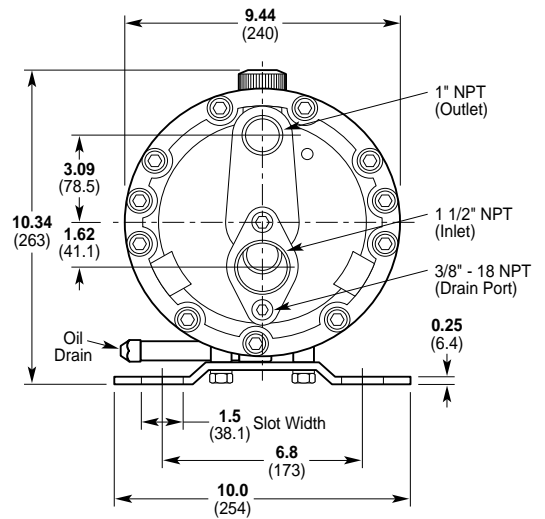
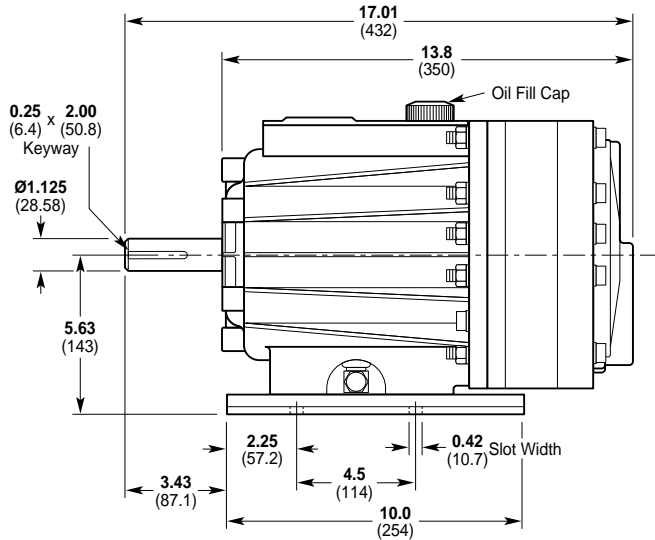
Dry Lift



H-25 Series Dimensions

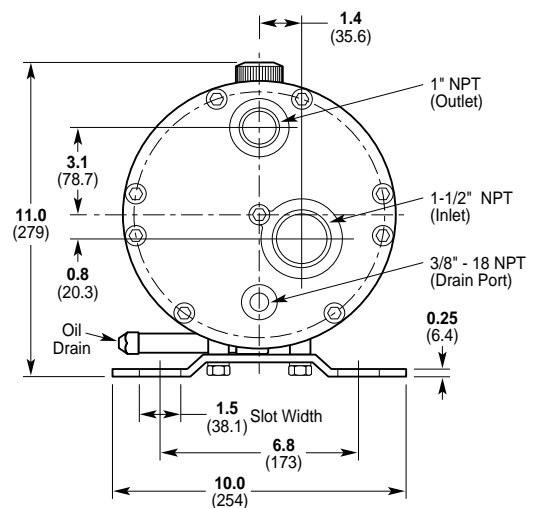
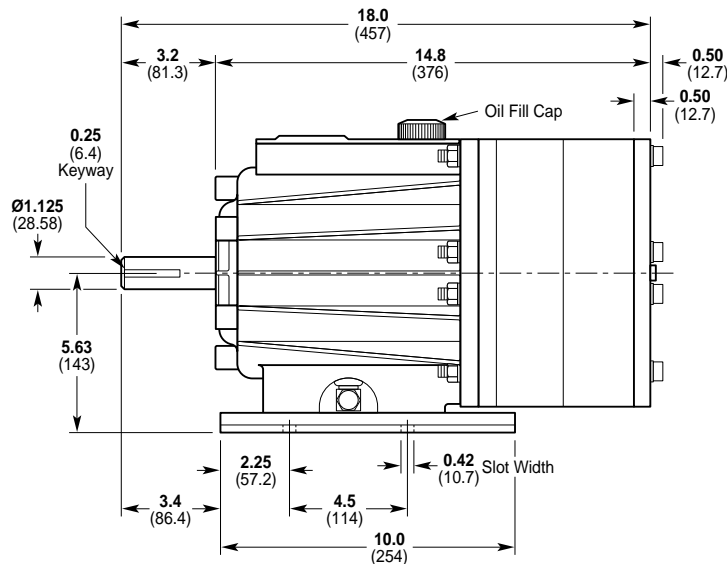
H-25 Models with Metallic Pumping Head

Brass
Cast Iron
316 Stainless Steel
Nickel Alloy (C Series)



H-25 Models with Non-metallic Pump Head

Kynar®
Polypropylene



H-25 Series Options

Materials of Construction

H-25 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
Cast Iron (nickel plated)
Kynar®
Nickel Alloy (Hastelloy Remelt, CMW12D)
Polypropylene



Valves

17-4 PH Stainless Steel
17-7 PH Stainless Steel
Ceramic
Hastelloy® C
Nitronic 50
Tungsten Carbide



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
Tungsten Carbide



Valve Spring Retainers

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

H-25 Series Accessories

Options, Accessories and Custom Designs

- Valves, page 84
- Couplings, page 95
- Pump/Motor Baseplates and Guards, page 96
- Hose Connectors, page 99
- Hydra-Oil, page 100
- Oil Cooler and Filtering System, page 102
- Oil Level Monitoring Kit, page 103
- Oil Reservoir, page 104
- Tool Kits, page 105



Welded Flange Pump Heads

The H-25 Hydra-Cell can be equipped with welded flange pump heads for critical performance applications such as oil/gas installations and chemical process facilities.



Design Features

- 316 stainless steel flanges
- Ductile iron pump housing
- 1-1/2" x 150# ANSI pipe flange inlet; 1" x 600# ANSI pipe flange outlet

H-25 Series How To Order

Ordering Information

A complete H-25 Series Model Number contains 12 digits of customer-specified design options: for example H25XFBNHFECA.



Digit	Order Code	Description
1-3		Pump Configuration
	H25	Shaft-driven
4		Hydraulic End Cam
	X	Max 20 gpm (75.7 lpm) @ 1050 rpm
	E	Max 20 gpm (75.7 lpm) @ 1150 rpm
	S	Max 16 gpm (60.6 lpm) @ 1150 rpm
	I	Max 12 gpm (45.4 lpm) @ 1150 rpm
5		Pump Head Version
	F	Version F Pump Head
6		Pump Head Material
	B	Brass
	C	Cast Iron (nickel plated)
	M	Kynar® (with Hastelloy® C followers & follower screws)
	N	Polypropylene (with Hastelloy® C followers & follower screws)
	P	Polypropylene (with 316 stainless steel followers & follower screws)
	R	316 Stainless Steel ANSI flange weldment
	S	316 Stainless Steel
	T	Nickel Alloy (Hastelloy® Remelt, CMW12D)
7		Diaphragm & O-ring Material
	E	EPDM (requires EPDM-compatible oil – Digit 12 oil code C or D)
	G	Viton®-XT
	J	Teflon® (available with E and S cams only; 1050 rpm max; cannot be used with non-metallic heads)
	N	Buna-N
	P	Neoprene
	T	Buna-N-XS
	V	Viton®
8		Valve Seat Material
	C	Ceramic
	D	Tungsten Carbide
	H	17-4 PH Stainless Steel
	N	Nitronic 50
	T	Hastelloy® C

Digit	Order Code	Description
9		Valve Material
	C	Ceramic
	D	Tungsten Carbide
	F	17-4 PH Stainless Steel – Machined
	H	17-7 PH Stainless Steel – Stamped
	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 duty oil
	B	40-wt for continuous duty (use with 316 SST or Hastelloy® pump head (standard))
	C	30-wt EPDM-compatible oil
	D	40-wt high-temp EPDM-compatible oil
	E	30-wt food-contact oil
	F	40-wt high-temp food-contact oil
	G	5W30 cold-temp severe duty oil
	H	15W50 high-temp severe duty synthetic oil

Replacement Hydraulic End Assembly

Complete H-25 Hydraulic End Assemblies are available as replacement items. The Hydraulic End contains all drive end components from the drive shaft up to and including the diaphragms. All Hydraulic Ends are factory tested and shipped with oil. To order a Replacement Hydraulic End, specify the desired Cam (Digit 4), the Diaphragm and O-ring Material (Digit 7), and the Hydra-Oil (Digit 12).

Part Number*

H25 4* XX 7* XXXX 12*

* Order Code Digits 4, 7 and 12 must be filled in when ordering.