# **H25 PRO SERIES**

Maximum Flow Rate: 20.0 gpm (75.9 l/min) Maximum Pressure: 1000 psi (69 bar) for N

1000 psi (69 bar) for Metallic Pump Heads 350 psi (24 bar) for Non-metallic Pump Heads

## **WANNER** HYDRA-CELL PRO

SEAL-LESS PUMP TECHNOLOGIES



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H25 Pro with 316L Stainless Steel pump head.

### A higher standard of pump performance and efficiency.

- Integrates Wanner Hydra-Cell® Pro seal-less pump technologies for the highest levels of volumetric and energy efficiencies across a full rpm range.
- Seal-less design API 674 pumps that also exceed API 675 standards for accuracy, linearity and repeatability.
- True positive displacement pumping action achieves overall efficiency of >90%, targeting improvements at lower speeds and higher pressures.
- No mechanical dynamic seals, packing, or cups to leak, wear or replace – reduces maintenance, costs and downtime.

- Pumped liquid is 100% contained prevents degradation, contamination and environmental risks.
- Patented ADPC (Advanced Diaphragm Position Control) and hydraulic oil management system protects diaphragms under closed or restricted inlet conditions.
- Can run dry indefinitely without damage to the pump.
- Reliably handles a wide range of viscosities and shear sensitivities, corrosive liquids, abrasives, slurries and particulates.
- Reduced ownership costs in acquisition, operation, service, maintenance, and energy use.



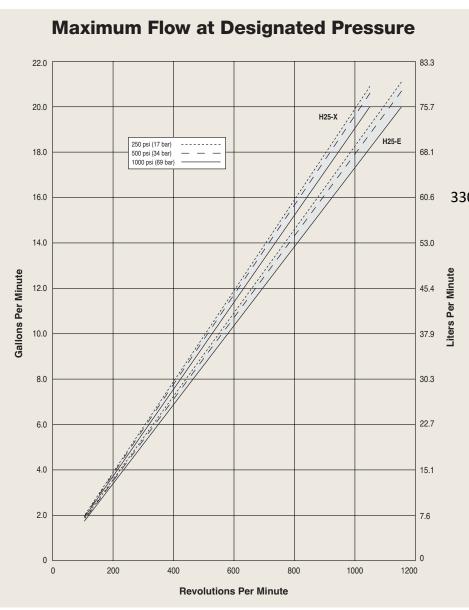


## **H25 Pro Series** | Performance

### **Capacities**

	Max.	Max. Flow Capacities		Max.	Inlet	Max. Discharge Pressure					
	Input	@1000 psi (69 bar)		Pressure		Metallic Heads		Polypropylene Heads		PVDF Heads	
Model	rpm	gpm	I/min	psi	bar	psi	bar	psi	bar	psi	bar
H25-X	1050	20.0	75.7	250	17	1000	69	250	17	350	24
H25-E	1150	20.0	75.9	250	17	1000	69	250	17	350	24

Performance and specification ratings apply to H25 configurations unless specifically noted otherwise.





### **Illinois Location:**

(847) 841-7867 860 Church Rd Elgin, IL 60123

### **Minnesota Location:**

(651) 758-7867

330 Mill Bay South Suite 1511 Afton, MN 55001

PumpSupplyInc.com

Due to the Wanner Engineering Continuous Improvement Program, specifications and other data are subject to change.

## **H25 Pro Series** | Specifications

Flow Capacities @1000 psi (69 bar)				
Model	rpm	gpm	I/min	
H25-X	1050	20.0	75.7	
H25-E	1150	20.0	75.9	

**Delivery** @1000 psi (69 bar)

Model	gal/rev	liters/rev
H25-X	0.0190	0.0721
H25-E	0.0174	0.0660

#### **Maximum Discharge Pressure**

Metallic Heads: 1000 psi (69 bar)

Non-metallic Heads: 250 psi (17 bar) Polypropylene

350 psi (24 bar) PVDF

**Maximum Inlet Pressure** 250 psi (17 bar)

### **Maximum Operating Temperature**

Metallic Heads: 250°F (121°C)

> Consult factory for correct component selection for temperatures from 160°F

(71°C) to 250°F (121°C).

Non-metallic Heads: 140°F (60°C)

**Maximum Solids Size** 800 microns

**Inlet Port** 1-1/2 inch NPT

150lb ANSI RF flange

**Discharge Port** 1 inch NPT

600lb ANSI RF flange

#### **Calculating Required Power**

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

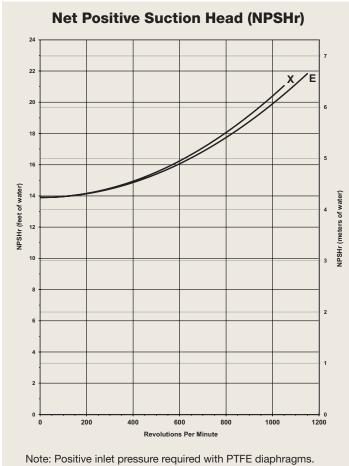
$$\frac{50 \times \text{rpm}}{84,428} + \frac{\text{l/min x bar}}{511} = \text{electric motor kW}$$

When using a variable frequency drive (VFD) controller, calculate the hp or kW at minimum and maximum pump speed to ensure the correct hp or kW motor is selected. Note that motor manufacturers typically de-rate the service factor to 1.0 when operating with a VFD.

### **Calculating Pulley Size**

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

Shaft Diameter	1-1/8 inch (28.6 mm)	
<b>Shaft Rotation</b>	Reverse (bi-directional)	
Bearings	Tapered roller bearings	
Oil Capacity	3.3 US quarts (3.1 liters)	
Weight		
Metallic Heads:	125 lbs. (56.8 kg)	
Non-metallic Heads:	90 lbs. (40.9 kg)	



#### **Suction Lift**

Each Hydra-Cell pump has different lift capability depending on model size, cam angle, speed, and fluid characteristics. To ensure that your specific lift characteristics are met, refer to the inlet calculations regarding friction, and acceleration head losses in your Hydra-Cell Product Manual. Compare those calculations to the NPSHr curves above.

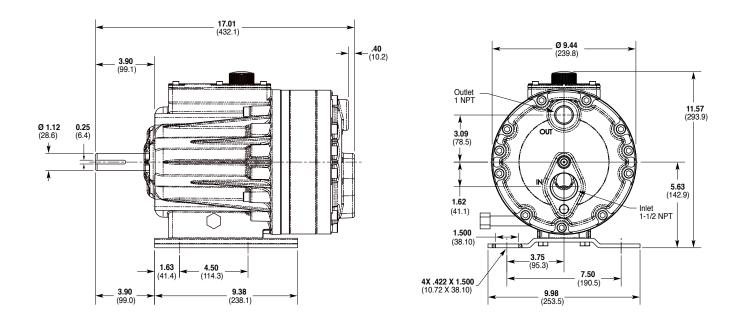


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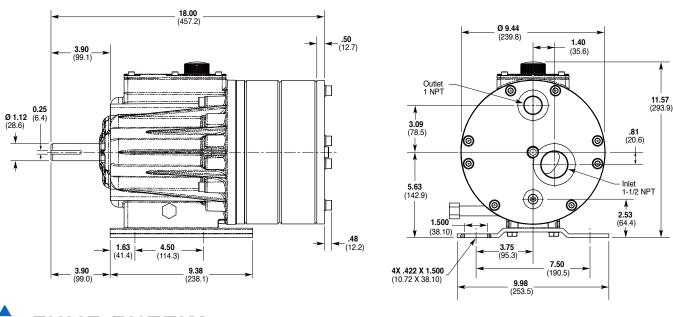


# **H25 Pro Series** | Representative Drawings

### **H25 Models with Metallic Pump Head Inches (mm)**



### **H25 Models with Non-metallic Pump Head Inches (mm)**





Note: Dimensions are for reference only. Contact factory for certified drawings.



## **H25 Pro Series** | Adapters / Valves

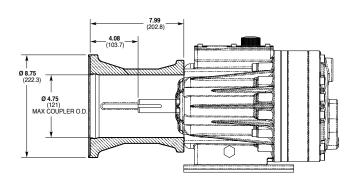
### Pump/Motor Adapter Inches (mm)



For: 182TC, 184TC, 213, 215TC, 254 and

256TC frame motors.

Metric adapter available - consult factory.

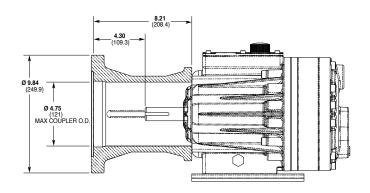




#### Part Number: A04-041-1202

For: 284TC and 286TC frame motors.

Metric adapter available - consult factory.



Note: Dimensions are for reference only. Contact factory for certified drawings.

### **Valve Selection**

A seal-less **C63 Pressure Regulating Valve** is
recommended for Hydra-Cell
Pro H25 pumping systems,
especially for high-pressure
requirements or when
handling dirty fluids.



A C23 Pressure Regulating Valve provides a capable, lower-cost alternative to C63 valves for Hydra-Cell Pro H25 pumping systems.





For complete specifications and ordering information, consult the Hydra-Cell Master Catalog.

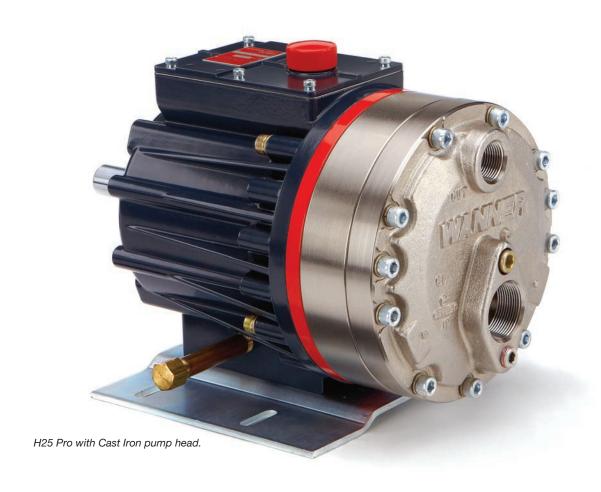


## **D10 Pro Series** | Options

#### **Consult the Hydra-Cell Master Catalog for:**

- Motors, bases, couplings and other pump accessories
- Hydra-Oil selection and specification information
- Design considerations, installation guidelines, and other technical assistance in pump selection











H25 Pro with Polypropylene pump head.



H25 Pro with 316L Stainless Steel pump head and ANSI flanges.



## **H25 Pro Series** | How to Order

### **Ordering Information**

A complete H25 Series Model Number contains 12 digits including 9 customer-specified design and materials options, for example: H25XPCTHFECA.

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Digit	Order Code	Description
1-3	H25	Pump Configuration Shaft-driven (NPT Ports or ANSI Flanges)* *Pump/motor adapters ordered separately. See previous page.
4	X E	Hydraulic End Cam  Max 20.0 gpm (75.7 l/min) @ 1050 rpm  Max 20.0 gpm (75.9 l/min) @ 1150 rpm
5	P M	Pump Head Version Hydra-Cell Pro Machined housing to accept C-face adapter/gearbox
6	B C G	Pump Head Material Brass Cast Iron (Nickel-plated) Duplex Alloy 2205 Stainless Steel (with Hastelloy C followers & follower screws)
	M N R S T	PVDF (with Hastelloy C followers & follower screws) Polypropylene (with Hastelloy C followers & follower screws) 316L Stainless Steel ANSI flange class 150 x 600 316L Stainless Steel Hastelloy CW12MW
7	A B E G J P	Diaphragm & O-ring Material  Aflas diaphragm / PTFE O-ring  Butyl  EPDM (requires EPDM-compatible oil –  Digit 12 oil code C)  FKM  PTFE (available with E cam only; 1050 rpm max.)  Neoprene  Buna-N
8	C D H N	Valve Seat Material Ceramic Tungsten Carbide 17-4 Stainless Steel Nitronic 50 Hastelloy C

	Order	
Digit	Code	Description
9		Valve Material
	C	Ceramic
	D	Tungsten Carbide
	F	17-4 Stainless Steel
	N	Nitronic 50
	T	Hastelloy C
10		Valve Springs
	Ε	Elgiloy
	T	Hastelloy C
11		Valve Spring Retainers
	C	Celcon
	Н	17-7 Stainless Steel (used with metallic heads only)
	M	PVDF
	P	Polypropylene
	T	Hastelloy C (used with metallic heads only)
	Υ	Nylon (Zytel)
12		Hydra-Oil
	Α	10W30 standard-duty oil
	В	40-wt for continuous-duty oil (use with 316L SST
		or Hastelloy CW12MW pump head – standard)
	C	30-wt EPDM-compatible oil
	E	Food-contact oil
	G	5W30 cold-temp severe-duty synthetic oil
	Н	15W50 high-temp severe-duty synthetic oil

### **H25 Pump Housing is standard as Cast Aluminum.**

Upgrade to Ductile Iron available.



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