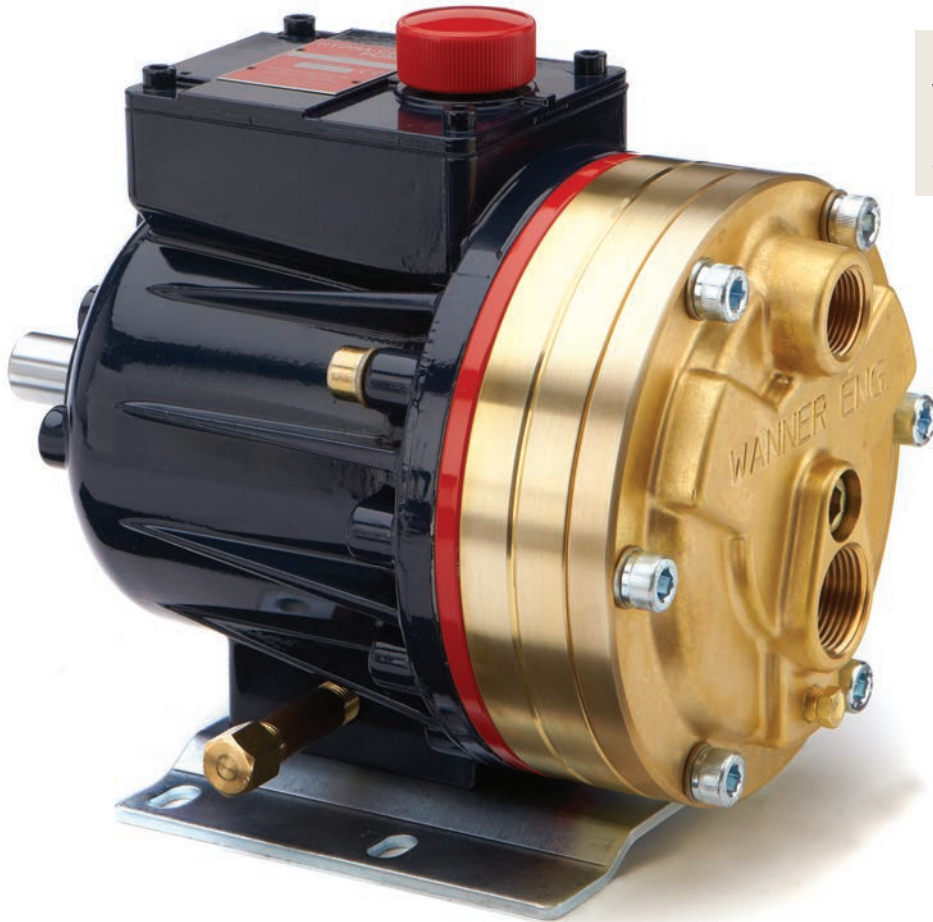


D10 PRO SERIES

Maximum Flow Rate: 8.8 gpm (33.4 l/min)
Maximum Pressure: 1500 psi (103 bar) for Metallic Pump Heads
350 psi (24 bar) for Non-metallic Pump Heads

WANNER™ HYDRA-CELL® PRO
SEAL-LESS PUMP TECHNOLOGIES



Now Featuring Optimized Valve Plate for Improved Performance, Pump Safety & Reliability.

D10 Pro with brass pump head.

UK
CA CE

Versatile, reliable pumps for a wide range of applications.

- Pumps the full spectrum of low-to-high viscosity fluids.
- Features a seal-less design and horizontal disk check valves that enable the pump to handle abrasives and particulates that might damage or destroy other types of pumps.
- Simple, compact design reduces initial investment and lowers maintenance costs.
- Operational efficiencies reduce energy costs.
- Able to run dry without damage (or additional maintenance) to the pump in case of accident or operator error.
- Tolerates non-ideal operating conditions.
- Minimizes maintenance and downtime because there are no mechanical or dynamic seals, packing, or cups to leak, wear, or replace.

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D10 Pro Series | Performance

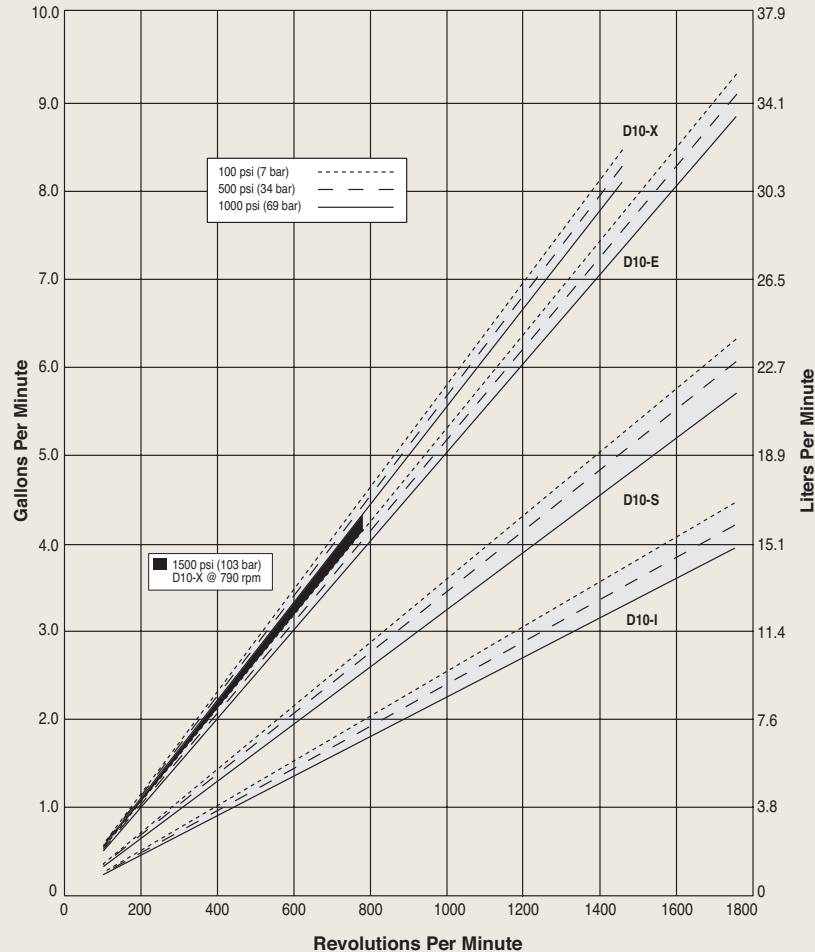
Capacities

Model	Max. Input rpm	Max. Flow Capacities @1000 psi (69 bar)		Max. Inlet Pressure		Max. Discharge Pressure					
		gpm	l/min	psi	bar	Metallic Heads		Polypropylene Heads		PVDF Heads	
						psi	bar	psi	bar	psi	bar
D10-X	1450	8.1	30.6	250	17	1000	69	250	17	350	24
D10-E	1750	8.8	33.4	250	17	1000	69	250	17	350	24
D10-S	1750	6.0	22.7	250	17	1000	69	250	17	350	24
D10-I	1750	4.0	15.0	250	17	1000	69	250	17	350	24

Model	Max. Input rpm	Max. Flow Capacities @1500 psi (103 bar)		Max. Inlet Pressure		Max. Discharge Pressure					
		gpm	l/min	psi	bar	Metallic Heads		Polypropylene Heads		PVDF Heads	
						psi	bar	psi	bar	psi	bar
D10-X	790	4.26	15.1	250	17	1500	103	250	17	350	24
D10-E	790	3.87	14.7	250	17	1500	103	250	17	350	24

Performance and specification ratings apply to D10 configurations unless specifically noted otherwise.

Maximum Flow at Designated Pressure



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

D10 Pro Series | Specifications

Flow Capacities @1000 psi (69 bar)

Model	rpm	gpm	l/min
D10-X	1450	8.10	30.6
D10-E	1750	8.83	33.4
D10-S	1750	6.00	22.7
D10-I	1750	3.96	15.0

Delivery @1500 psi (103 bar)

Model	gal/rev	liters/rev
D10-X	0.0054	0.0205
D10-E	0.0049	0.0186

Delivery @1000 psi (69 bar)

Model	gal/rev	liters/rev
D10-X	0.0056	0.0211
D10-E	0.0051	0.0191
D10-S	0.0034	0.0130
D10-I	0.0023	0.0086

Maximum Discharge Pressure

Metallic Heads:	1000 psi (69 bar) @1450 rpm (D10-X)
	1000 psi (69 bar) @1750 rpm (D10-E, S, I)
	1500 psi (103 bar) @790 rpm (D10-X)
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 500 microns

Inlet Port	1 inch NPT
	150lb ANSI RF flange

Calculating Required Power

$$\frac{15 \times \text{rpm}}{63,000} + \frac{\text{gpm} \times \text{psi}}{1,460} = \text{electric motor hp}$$

$$\frac{15 \times \text{rpm}}{84,428} + \frac{\text{l/min} \times \text{bar}}{511} = \text{electric motor kW}$$

Attention!

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

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

Discharge Port	3/4 inch NPT
	600lb ANSI RF flange

Shaft Diameter	7/8 inch (22.2 mm)
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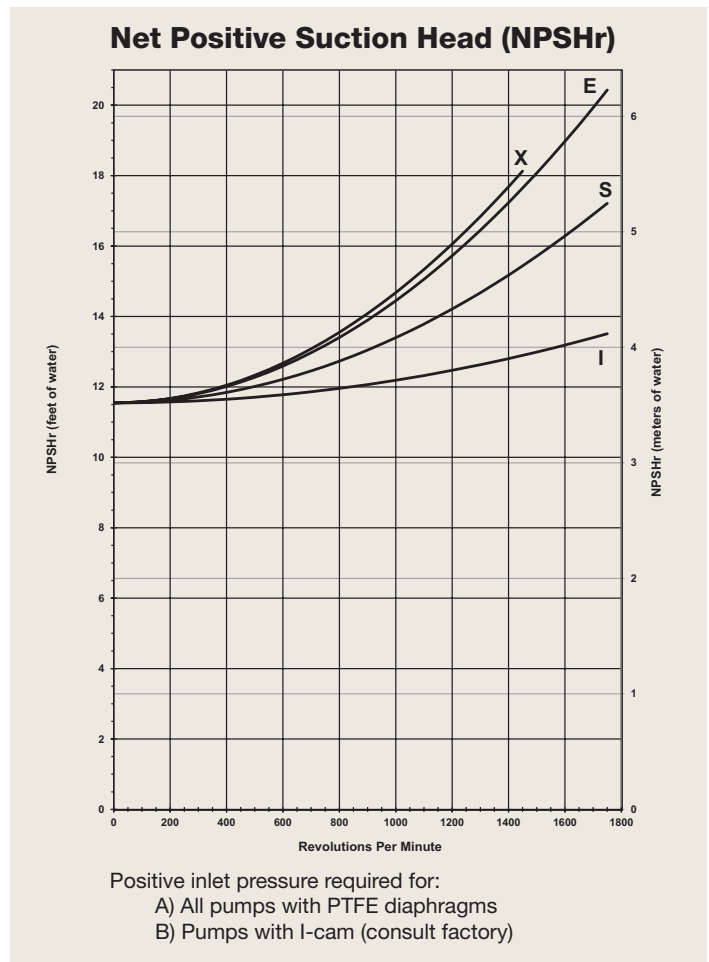
Shaft Rotation	Reverse (bi-directional)
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Bearings	Tapered roller bearings
----------	-------------------------

Oil Capacity	1.1 US quarts (1.05 liters)
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Weight

Metallic Heads:	48 lbs. (21.8 kg)
Non-metallic Heads:	35 lbs. (15.9 kg)

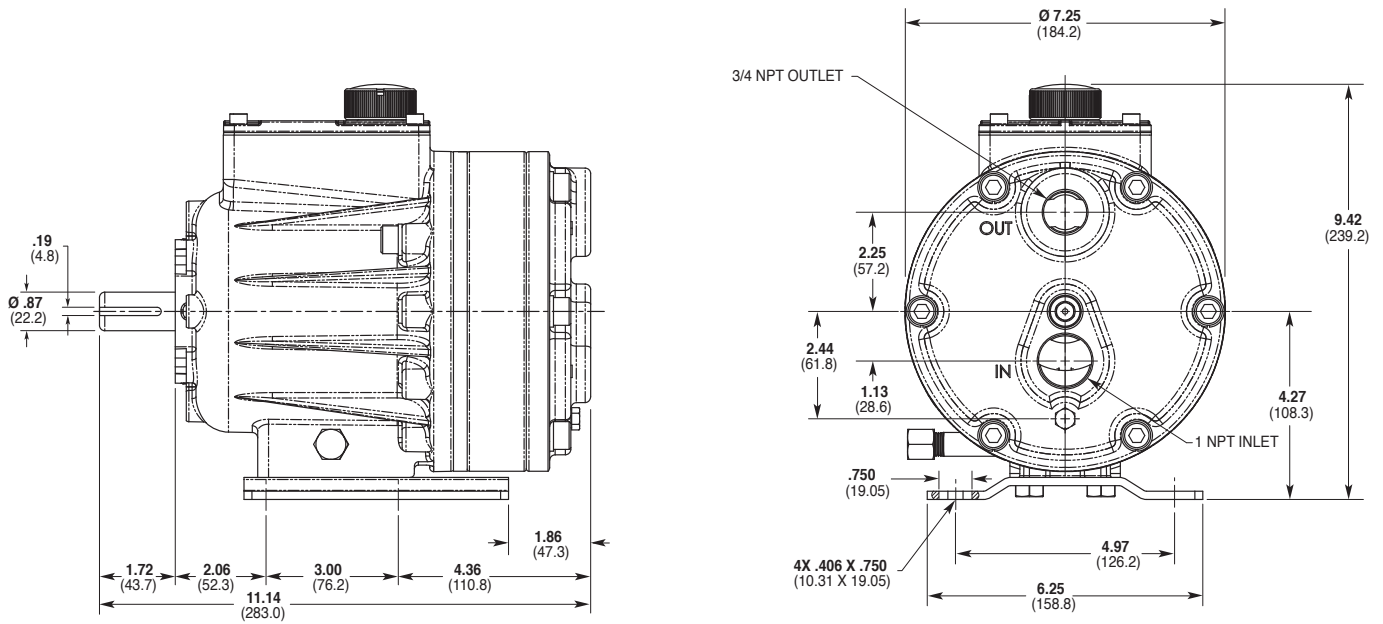


Suction Lift

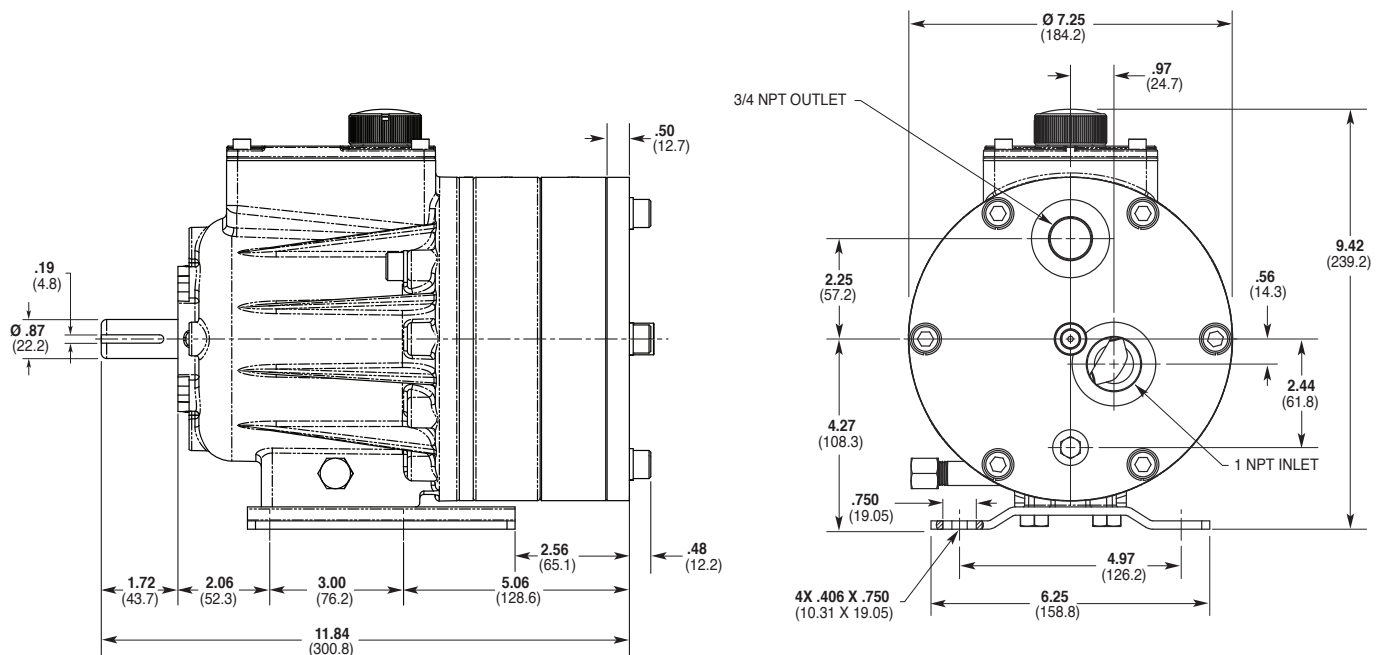
Each Hydra-Cell pump has different lift capability depending on model size, cam angle, speed, and fluid characteristics. To ensure that your specific lift characteristics are met, refer to the inlet calculations regarding friction, and acceleration head losses in your Hydra-Cell Product Manual. Compare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

D10 Pro Series | Representative Drawings

D10 Models with Metallic Pump Head Inches (mm)



D10 Models with Non-metallic Pump Head Inches (mm)



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

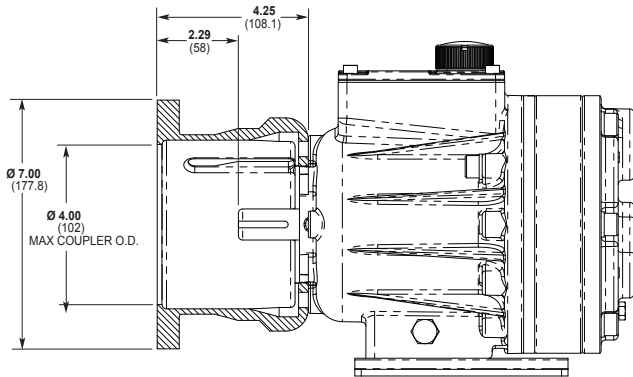
D10 Pro Series | Adapters / Valves

Pump/Motor Adapter Inches (mm)

Part Number: A04-001-1200

For: 56C, 143TC and 145TC frame motors.

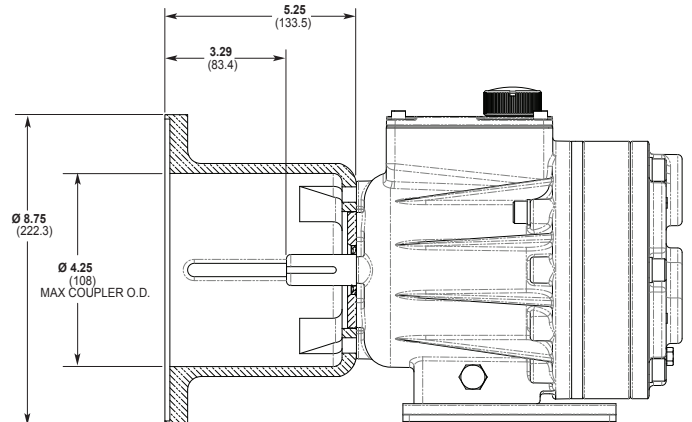
Metric adapter available - consult factory.



Part Number: A04-002-1200

For: 182TC, 184TC, 213TC and 215TC frame motors.

Metric adapter available - consult factory.



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

Valve Selection

A seal-less **C62 Pressure Regulating Valve** is recommended for Hydra-Cell Pro D10 pumping systems, especially for high-pressure requirements or when handling dirty fluids.



A **C22 Pressure Regulating Valve** provides a capable, lower-cost alternative to C62 valves for Hydra-Cell Pro D10 pumping systems.



Skid-mounted D10 Pro with 3hp, 3-phase motor.

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

D10 Pro Series | How to Order

Ordering Information

A complete D10 Series Model Number contains 12 digits including 9 customer-specified design and materials options, for example: D10XKBTHFECA.

1	2	3	4	5	6	7	8	9	10	11	12
D	1	0									

Digit	Order Code	Description
1-3		Pump Configuration
	D10	Shaft-driven (NPT Ports or ANSI Flanges)* <i>*Pump/motor adapters ordered separately. See previous page.</i>
4		Hydraulic End Cam
	X	Max 8.1 gpm (30.6 l/min) @ 1450 rpm
	E	Max 8.8 gpm (33.4 l/min) @ 1750 rpm
	S	Max 6.0 gpm (22.7 l/min) @ 1750 rpm
	I	Max 4.0 gpm (15.0 l/min) @ 1750 rpm
5		Pump Head Version
	K	Kel-Cell NPT Ports
	R	Kel-Cell NPT Ports with Optimized Valve Pocket
6		Pump Head Material
	B	Brass
	C	Cast Iron (Nickel-plated)
	G	Duplex Alloy 2205 Stainless Steel (with Hastelloy C followers & follower screws)
	M	PVDF (with Hastelloy C followers & follower screws)
	N	Polypropylene (with Hastelloy C followers & follower screws)
	P	Polypropylene (with 316L Stainless Steel followers & follower screws)
	R	316L Stainless Steel ANSI flange class 150 x 600
	S	316L Stainless Steel
	T	Hastelloy CW12MW
7		Diaphragm & O-ring Material
	A	Aflas diaphragm / PTFE o-ring
	E	EPDM (requires EPDM-compatible oil – Digit 12 oil code C)
	G	FKM
	J	PTFE (available with E and S cams only; 1200 rpm max.)
	P	Neoprene
	T	Buna-N
8		Valve Seat Material
	C	Ceramic
	D	Tungsten Carbide
	H	17-4 Stainless Steel
	S	316L Stainless Steel
	T	Hastelloy C

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

D10 Pump Housing is standard as Cast Aluminum.
Upgrade to Ductile Iron available.

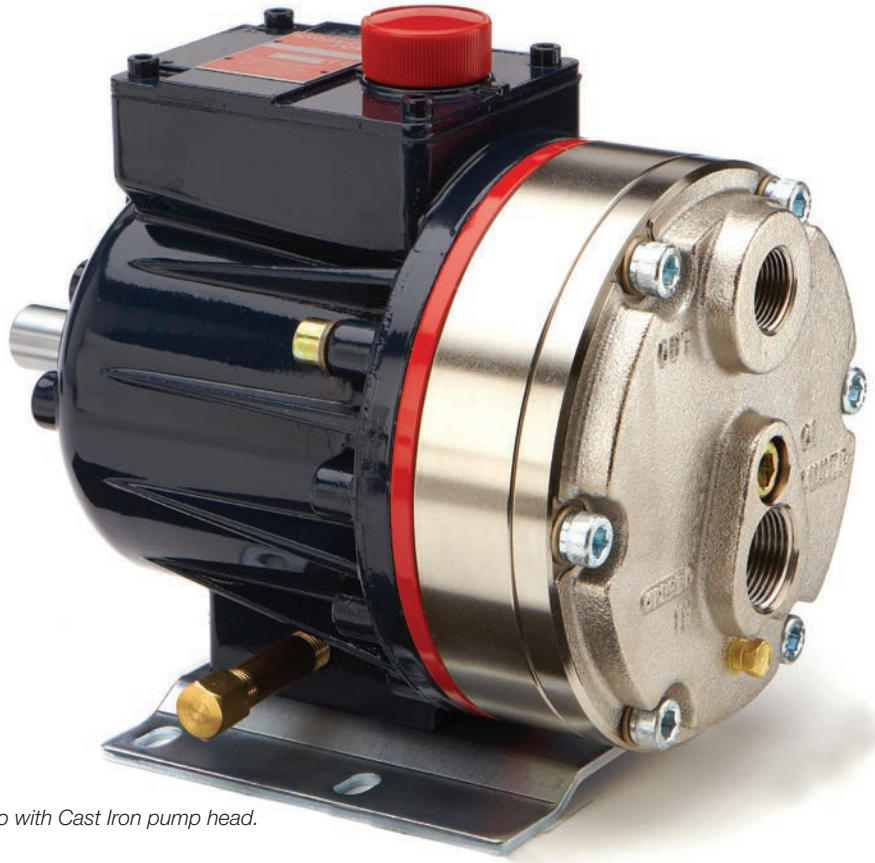
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D10 Pro Series | Options

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

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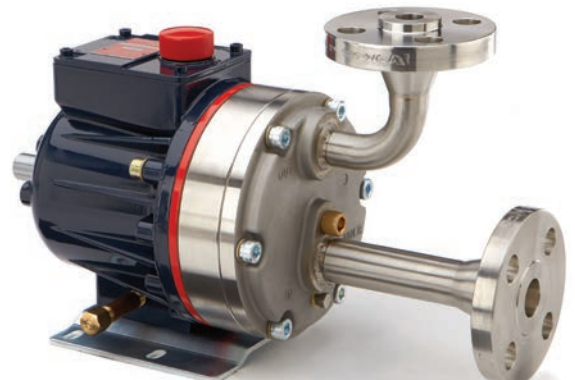
D10 Pro with Cast Iron pump head.



D10 Pro with Brass pump head.



D10 Pro with Polypropylene pump head.



D10 Pro with 316L Stainless Steel pump head and ANSI flanges.