

Husky 1590 Metal Pumps

Air-Operated Double-Diaphragm

Features

- 1-1/2 in (38.1 mm) ANSI end-porting
- High flow – 100 gpm (378 lpm) in a compact, portable size
- Fluid pressure to 120 psi (8.4 bar, 0.84 MPa)
- Patented, high-reliability closed center air valve is online serviceable
- Lube-free operation
- Epoxy-coated air section
- External controller for optional remote operation
- Stainless steel center section for corrosive applications

Typical Applications

- Filter press
- Tank stripping
- Bilge pumping
- Sand and ball mill pumping
- Oil transfer and oil skimming
- Chemical plating

Typical Fluids Handled

- Latex
- Abrasive fluids
- Slurries: petroleum, lime, clay, ferrite, salt/brine and pumice
- Sludge: secondary and clarifier
- Pottery slip



*Husky 1590 Aluminum
DB3XXX or DC3XXX*



*Husky 1590 Stainless Steel
DB4XXX or DC4XXX*



*Husky 1590 Stainless Steel
DT4XXX or DU4XXX*

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Technical Specifications

Maximum fluid working pressure	120 psi (8.4 bar, 0.84 MPa)
Maximum free flow delivery*	100 gpm (378.5 lpm)
Maximum pump speed	200 cpm
Displacement per cycle**	0.5 gallon (1.96 liter)
Maximum suction lift (DB3366)	20 ft. (6.1 m) dry
Maximum size pumpable solids	0.19 in. (4.8 mm)
Maximum operating temperature***	
PTFE	220°F (104.4°C)
Santoprene	180°F (82.2°C)
Buna-N	180°F (82.2°C)
TPE	150°F (65.5°C)
Fluoroelastomer	250°F (121.1°C)
Geolast	150°F (65.5°C)
Typical sound level at 70 psi air (4.9 bar, 0.49 MPa) air @ 50 cpm	77 dBa
Maximum air consumption	125 scfm (3.5 m3/min)
Air pressure operating range	20 to 120 psi (1.4 to 8.4 bar, 0.14 to 0.84 MPa)
Air inlet size	1/2 npt(f)
Fluid inlet & outlet size	1-1/2 npt(f) or bspt(f)
Weight	
Aluminum	33.5 lb (15.2 kg)
Stainless steel	85.5 lb (38.6 kg)
Stainless steel with stainless steel center section	98.8 lb (44.8 kg)
Instruction manual	.308441

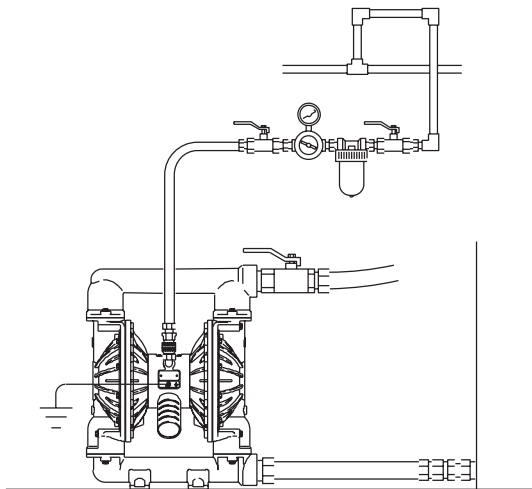
* Flow rates are with muffler and do not vary based on diaphragm material

** Displacement per cycle may vary based on suction condition, discharge head, air pressure and fluid type

*** Actual pump performance may be affected by prolonged usage at temperature

System Drawing

Husky 1590 Above Ground Gravity Feed



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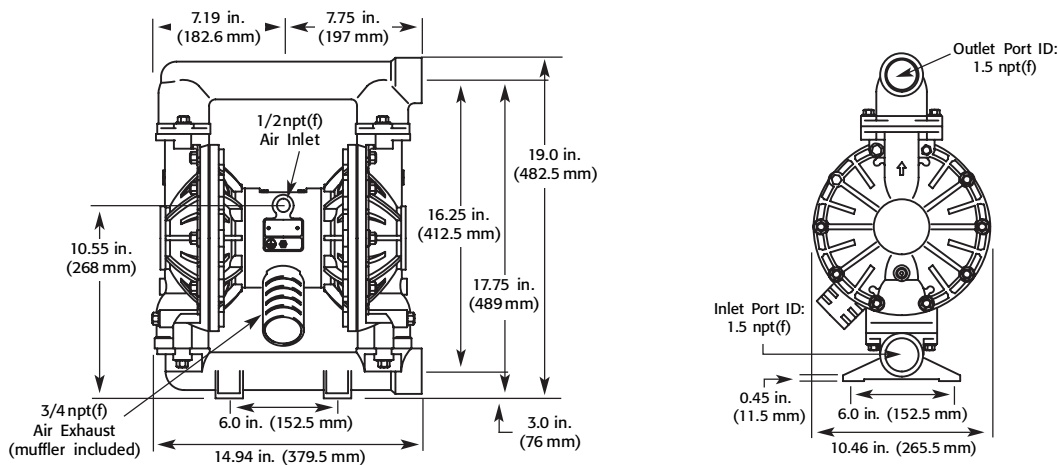
Ordering Information

The highlighted areas indicate possible configurations for the Husky 1590 metal pumps.

PUMP SIZE (AIR MOTOR TYPE AND MATERIAL)	WETTED PARTS	SEATS	BALLS	DIAPHRAGM
1 = 1/4" (6.35 mm) Standard: polypropylene center section	1 = Acetal (npt)	0 = Seat with ball	1 = PTFE	1 = PTFE
2 = 1/4" (6.35 mm) Remote: polypropylene center section	2 = Poly (npt)	2 = Acetal	2 = Acetal	5 = TPE
3 = 3/8" (9.52 mm) Standard: aluminum center section	3 = Aluminum (npt)	3 = Stainless Steel	3 = Stainless Steel	6 = Santoprene
5 = 1/2" (12.7 mm) Standard: polypropylene center section	4 = Stainless Steel (npt)	4 = Hardened SST	4 = Hardened SST	7 = Buna N
4 = 1/2" (12.7 mm) Remote: polypropylene center section	5 = PVDF (npt)	5 = TPE	5 = TPE	8 = Fluoroelastomer
5 = 3/4" (19.05 mm) Standard: polypropylene center section	6 = Ductile Iron (npt)	6 = Santoprene	6 = Santoprene	G = Geolast
4 = 3/4" (19.05 mm) Remote: polypropylene center section		7 = Buna N	7 = Buna N	
7 = 1" (25.4 mm) Standard: aluminum center section	A = Acetal * (bsp)	8 = Fluoroelastomer	8 = Fluoroelastomer	
8 = 1" (25.4 mm) Remote: aluminum center section	B = Poly * (bsp)	9 = Polypropylene	9 = Polypropylene	
R = 1" (25.4 mm) Standard: stainless steel center section	C = Aluminum (bsp)	A = PVDF	A = PVDF	
S = 1" (25.4 mm) Remote: stainless steel center section	D = Stainless Steel (bsp)	G = Geolast	G = Geolast	
B = 1-1/2" (38.1 mm) Standard: aluminum center section	E = PVDF (bsp)			
C = 1-1/2" (38.1 mm) Remote: aluminum center section	F = Ductile Iron (bsp)	B = SST with viton seal		
T = 1-1/2" (38.1 mm) Standard: stainless steel center section		C = Santoprene with viton seal		
U = 1-1/2" (38.1 mm) Remote: stainless steel center section	H = 2 npt Alum Extended			
F = 2" (50.8 mm) Standard: aluminum center section	G = 2 bsp Alum Extended	D = Urethane Duckbill		
G = 2" (50.8 mm) Remote: aluminum center section				
V = 2" (50.8 mm) Standard: stainless steel center section				
W = 2" (50.8 mm) Remote: stainless steel center section				
K = 3" (76.2 mm) Standard: aluminum center section				

* = BSP plastic in 1/2" (12.7mm) pumps
 1" > Plastic pumps flange connections
 3" Aluminum pumps flange connections

Dimensions



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Metal Pumps

Popular Models

Material	Part Number (NPT Ported)		Part Number (BSP Ported)		Materials for Seats	Materials for Balls	Materials for Diaphragms	Fluid Kit	Air Kit	Air Control*
	Standard Air Valve	Remote Air Valve	Standard Air Valve	Remote Air Valve						
Standard Pumps with Aluminum Center Section										
Aluminum	DB3311	DC3311	DBC311	DCC311	Stainless Steel	PTFE	PTFE	D0B311	236273	246947
	DB3341		DBC341		Hardened SST	Stainless Steel	PTFE	D0B331	236273	246947
	DB3366	DC3366	DBC366	DCC366	Stainless Steel	Santoprene	Santoprene	D0B366	236273	246947
	DB3377	DC3377	DBC377	DCC377	Stainless Steel	Buna	Buna	D0B377	236273	246947
	DB3525	DC3525	DBC525	DCC525	TPE	Acetal	TPE	D0B525	236273	246947
	DB3555		DBC555		TPE	TPE	TPE	D0B555	236273	246947
	DB3666	DC3666	DBC666	DCC666	Santoprene	Santoprene	Santoprene	D0B666	236273	246947
	DB3777	DC3777	DBC777	DCC777	Buna	Buna	Buna	D0B777	236273	246947
	DB3888	DC3888	DBC888	DCC888	Fluoroelastomer	Fluoroelastomer	Fluoroelastomer	D0B888	236273	246947
	DB3GGG	DC3GGG	DBC3GGG	DCC3GGG	Geolast	Geolast	Geolast	D0B3GGG	236273	246947
	DB3911		DBC911		Polypropylene	PTFE	PTFE	D0B911	236273	246947
	DB3977		DBC977		Polypropylene	Buna	Buna	D0B977	236273	246947
Stainless Steel	DB4311	DC4311	DBD311	DCD311	Stainless Steel	PTFE	PTFE	D0B311	236273	246947
	DB4341		DBD341		Hardened SST	Stainless Steel	PTFE	D0B331	236273	246947
	DB4377	DC4377	DBD377	DCD377	Stainless Steel	Buna	Buna	D0B377	236273	246947
	DB4525		DBD525		TPE	Acetal	TPE	D0B525	236273	246947
	DB4666	DC4666	DBD666	DCD666	Santoprene	Santoprene	Santoprene	D0B666	236273	246947
	DB4777	DC4777	DBD777	DCD777	Buna	Buna	Buna	D0B777	236273	246947
	DB4888	DC4888	DBD888	DCD888	Fluoroelastomer	Fluoroelastomer	Fluoroelastomer	D0B888	236273	246947
	DB4GGG	DC4GGG	DBD3GGG	DCD3GGG	Geolast	Geolast	Geolast	D0B3GGG	236273	246947
	DB4911		DBD911		Polypropylene	PTFE	PTFE	D0B911	236273	246947
Corrosion Resistant Pumps with Stainless Steel Center Section										
Stainless Steel	DT4311	DU4311	DTD311	DUD311	Stainless Steel	PTFE	PTFE	D0B311	236273	246947
	DT4377	DU4377	DTD377	DUD377	Stainless Steel	Buna	Buna	D0B377	236273	246947
	DT4388	DU4388	DTD388	DUD388	Stainless Steel	Fluoroelastomer	Fluoroelastomer	D0B388	236273	246947
	DT4666	DU4666	DTD666	DUD666	Santoprene	Santoprene	Santoprene	D0B666	236273	246947
	DT4888	DU4888	DTD888	DUD888	Fluoroelastomer	Fluoroelastomer	Fluoroelastomer	D0B888	236273	246947
	DT4911	DU4911	DTD911	DUD911	Polypropylene	PTFE	PTFE	D0B911	236273	246947

* Air control includes air regulator and filter with gauge

Performance Charts

See www.graco.com/process for performance charts.

Accessories

See page 76 for additional accessories.