

Husky 716 Metal Pumps

Air-Operated Double-Diaphragm

Features

- 3/4 in (19.05 mm) center- and end-porting
- No seals to leak or fail
- Quiet running — less than 85 dBa with easy-to-use remote muffler capability for even lower noise levels
- High flow rates in a small, portable package
- External controller for optional remote operation
- Patented, high-reliability closed center air valve is externally serviceable

Typical Applications

- Machine lubrication servicing
- Cleaning fluids and detergents
- Plating and dip tanks
- Water treatment

Typical Fluids Handled

- Oil
- Water
- Most solvents



*Husky 716 Aluminum
D53XXX or D43XXX*



*Husky 716 Stainless Steel
D54XXX or D44XXX*

Husky 716

Metal Pumps

Technical Specifications

Maximum fluid working pressure.....	100 psi (7 bar, 0.7 MPa)
Maximum free flow delivery*.....	16 gpm (61 lpm)
Maximum pump speed.....	400 cpm
Displacement per cycle**.....	0.04 gallon (0.15 liter)
Maximum suction lift (D53331).....	11 ft (3.4 m) dry
Maximum size pumpable solids.....	0.09 in (2.5 mm)
Maximum diaphragm 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)
Typical sound level at 70 psi air (4.9 bar, 0.49 MPa) air @ 200 cpm.....	74 dBa
Maximum air consumption.....	28 scfm (0.672 m ³ /min)
Air pressure operating range.....	25 to 100 psi (1.8 to 7 bar, 0.18 to 0.7 MPa)
Air inlet size.....	1/4 npt(f)
Air exhaust port size.....	3/8 npt(f)
Fluid inlet & outlet size.....	3/4 npt(f) or bspt(f)
Weight	
Aluminum.....	8.5 lb (3.9 kg)
Stainless Steel.....	18 lb (8.2 kg)
Wetted parts (in addition to ball, seat and diaphragm materials—which may vary by pump)	
Aluminum pump.....	Aluminum, Stainless Steel, PTFE, Buna-N, Santoprene, Zinc-Plated Steel
Stainless Steel pump.....	Acetal, Polypropylene, Stainless Steel, Polyester, Santoprene, Fluoroelastomer, Nickel-Plated Brass, Epoxy-Coated Steel
Instruction manual.....	308981

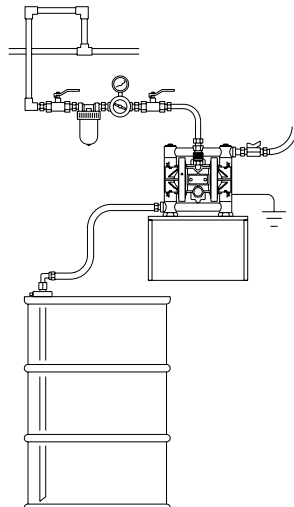
* Flow rates are with muffler and do not vary based on diaphragm material

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

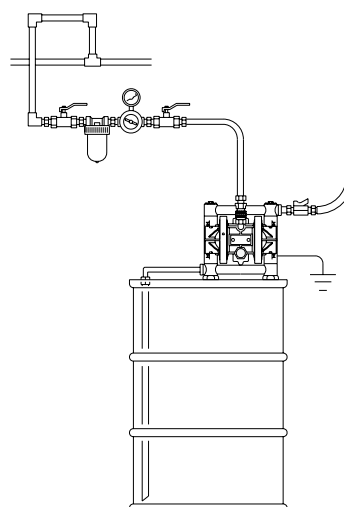
*** Actual pump performance may be affected by prolonged usage at temperature

Typical System Drawings

Husky 716 Wall-Mount with Drum Feed



Husky 716 Drum-Mount with Siphon Feed



Husky 716

Metal Pumps

Ordering Information

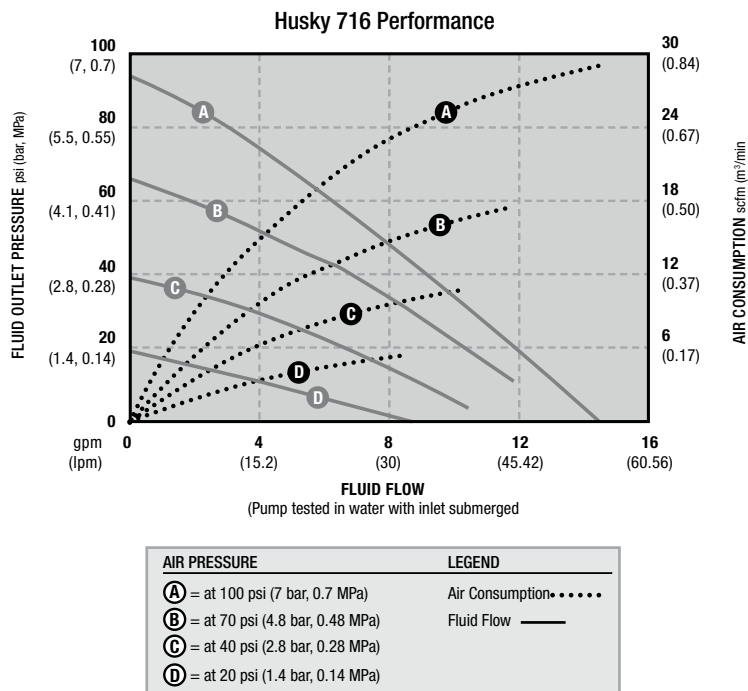
D Diaphragm Pump
X Pump Size
X Wetted Parts
X Seats
X Balls/Checks
X Diaphragms

PUMP SIZE (AIR MOTOR TYPE AND MATERIAL)	WETTED PARTS	SEATS	BALLS	DIAPHRAGM
5 = 3/4" (19.05 mm) Standard: polypropylene center section	3 = Aluminum (npt)	2 = Acetal	1 = PTFE	1 = PTFE
4 = 3/4" (19.05 mm) Remote: polypropylene center section	4 = Stainless Steel (npt)	3 = Stainless Steel	3 = Stainless Steel	5 = TPE
		9 = Polypropylene	5 = TPE	6 = Santoprene
	C = Aluminum (bsp)	A = PVDF	6 = Santoprene	7 = Buna N
	D = Stainless Steel (bsp)	B = SST with viton seal	7 = Buna N	8 = Fluoroelastomer
		C = Santoprene with viton seal	8 = Fluoroelastomer	
		D = Urethane Duckbill		

Accessories

See page 72 for additional accessories.

Performance Chart



Husky 716

Metal Pumps

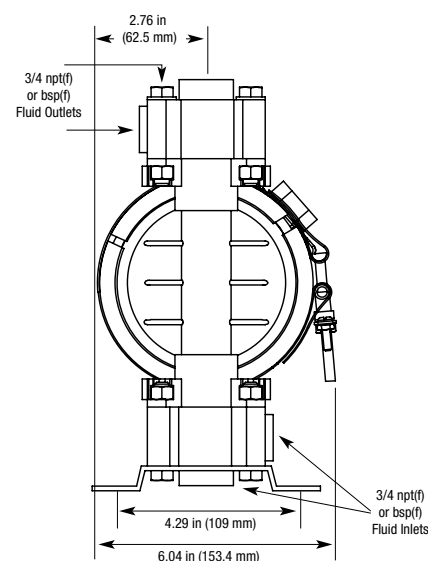
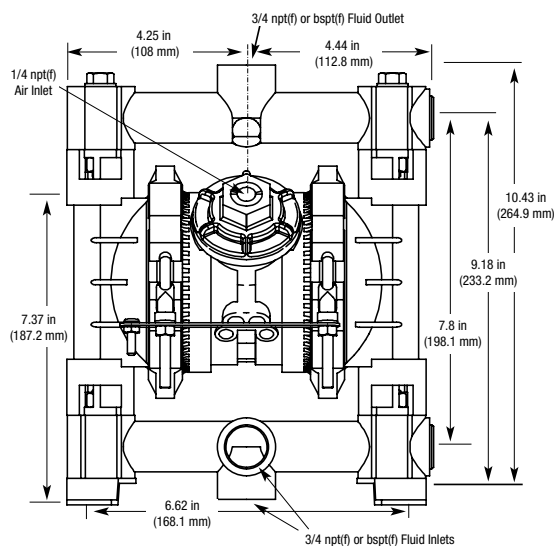
Popular Models

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						
Aluminum	D53211	D43211	D5C211	D4C211	Acetal	PTFE	PTFE	D05211	241657	246946
	D53255	D43255	D5C255	D4C255	Acetal	TPE	TPE	D05255	241657	246946
	D53277	D43277	D5C277	D4C277	Acetal	Buna	Buna	D05277	241657	246946
	D53288	D43288	D5C288	D4C288	Acetal	Fluoroelastomer	Fluoroelastomer	D05288	241657	246946
	D53311	D43311	D5C311	D4C311	Stainless Steel	PTFE	PTFE	D05311	241657	246946
	D53331	D43331	D5C331	D4C331	Stainless Steel	Stainless Steel	PTFE	D05331	241657	246946
	D53355	D43355	D5C355	D4C355	Stainless Steel	TPE	TPE	D05355	241657	246946
	D53366	D43366	D5C366	D4C366	Stainless Steel	Santoprene	Santoprene	D05366	241657	246946
	D53377	D43377	D5C377	D4C377	Stainless Steel	Buna	Buna	D05377	241657	246946
	D53388	D43388	D5C388	D4C388	Stainless Steel	Fluoroelastomer	Fluoroelastomer	D05388	241657	246946
	D53911	D43911	D5C911	D4C911	Polypropylene	Polypropylene	Polypropylene	D05911	241657	246946
	D53955	D43955	D5C955	D4C955	Polypropylene	TPE	TPE	D05955	241657	246946
	D53966	D43966	D5C966	D4C966	Polypropylene	Santoprene	Santoprene	D05966	241657	246946
	D53977	D43977	D5C977	D4C977	Polypropylene	Buna	Buna	D05977	241657	246946
	D53D05	D43D05	D5CD05	D4CD05		Duckbill	TPE	D05D05	241657	246946
	D53D06	D43D06	D5CD06	D4CD06		Duckbill	Santoprene	D05D06	241657	246946
	D53D07	D43D07	D5CD07	D4CD07		Duckbill	Buna	D05D07	241657	246946
Stainless Steel	D54211	D44211	D5D211	D4D211	Acetal	PTFE	PTFE	D05211	241657	246946
	D54311	D44311	D5D311	D4D311	Stainless Steel	PTFE	PTFE	D05311	241657	246946
	D54331	D44331	D5D331	D4D331	Stainless Steel	Stainless Steel	PTFE	D05331	241657	246946
	D54335	D44335	D5D335	D4D335	Stainless Steel	Stainless Steel	TPE	D05335	241657	246946
	D54336	D44336	D5D336	D4D336	Stainless Steel	Stainless Steel	Santoprene	D05336	241657	246946
	D54355	D44355	D5D355	D4D355	Stainless Steel	TPE	TPE	D05355	241657	246946
	D54366	D44366	D5D366	D4D366	Stainless Steel	Santoprene	Santoprene	D05366	241657	246946
	D54377	D44377	D5D377	D4D377	Stainless Steel	Buna	Buna	D05377	241657	246946
	D54388	D44388	D5D388	D4D388	Stainless Steel	Fluoroelastomer	Fluoroelastomer	D05388	241657	246946
	D54911	D44911	D5D911	D4D911	Polypropylene	PTFE	PTFE	D05911	241657	246946
	D54966	D44966	D5D966	D4D966	Polypropylene	Santoprene	Santoprene	D05966	241657	246946

* Requires CycleFlo or external valve control

** Air control includes air regulator and filter with gauge

Dimensions



Pump Selection Key

Wetted Parts Material Options

Acetal *Material used for seats, balls & wetted body parts*

- Wide range of solvent resistance
- Withstands extreme fatigue
- Good level of abrasion resistance
- Groundable for use with flammables
- Not for use with acids or bases

Aluminum *Material used for air motor & wetted body parts*

- Medium corrosion and abrasion resistance
- Not for use with HHC's

Ductile Iron *Material used for wetted body parts*

- High abrasion resistance
- Low cost alternative to stainless steel

Hardened SST *Material used for seats and balls*

- Moderate chemical resistance
- Good abrasion resistance
- Abrasion resistant balls and seats

PVDF *Material used for wetted body parts & seats*

- Strong chemical resistance: acids and bases
- Good abrasion resistance
- High temperature resistance

Polypropylene *Material used for air motor, wetted body parts, seats & balls*

- Wide chemical compatibility
- General purpose
- Inexpensive alternative

Stainless Steel *Material used for air motor, wetted body parts, and seats and balls*

- High level of corrosion and abrasion resistance
- Passivated for use with waterbase coatings

Buna-N *Material used for seats, balls and diaphragms*

- Good for petroleum-based fluids
- Not for use with strong solvents or chemicals
- Food grade

Geolast *Material used for seats, balls & diaphragms*

- Good abrasion resistance
- Same chemical compatibility as Buna-N and TPE

TPE *Material used for seats, balls & diaphragms*

- Good abrasion resistance
- Often substituted for Buna-N

Santoprene® *Material used for seats, balls & diaphragms*

- Good abrasion and chemical resistance
- Not for use with solvents
- Often substituted for EPDM or EPR
- Food grade

PTFE *Material used for balls & diaphragms*

- Excellent when used with solvents
- Poor abrasion resistance
- Widest chemical compatibility with fluids
- Food grade

Fluoroelastomer *Material used for seats, balls & diaphragms*

- High level of corrosion resistance with acids
- Resists unleaded fuels
- Food grade

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Diaphragm Compatibility

Diaphragm Material Compatibility

Material	Resistance to:	Acids	Alcohols	Solvents	Detergents/Soap	Gasoline Unleaded	Gasoline Leaded	Animal Fat/Oil	Vegetable Oil	Vegetable Juice	Milk Products	Ketchup/Tomato Juice	Fruit Juice	Petroleum-based Oils	Natural Gas	Water	Steam
PTFE		E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
Viton		E	E	P	E	E	E	E	E	E	E	E	E	E	E	E	E
Buna-N		P	E	P	E	P	E	E	E	E	E	E	E	E	E	E	P
EPDM*		F	F	P	E	P	P	F	F	F	E	E	E	P	P	E	E
Santoprene		E	E	P	F	P	P	F	E	E	E	E	E	P	P	E	P
Geolast		P	E	P	E	P	P	E	F	E	E	E	E	E	E	E	P
Hytrel		P	F	F	E	?	?	?	?	?	E	?	?	?	P	E	P
Neoprene		P	F	P	F	P	P	P	P	P	P	?	P	F	E	F	P
EPDM (3A)		F	F	P	E	P	P	F	F	F	E	E	E	P	P	E	E

Key

E	Excellent Compatibility
F	Fair Compatibility
P	Poor Compatibility
?	Unknown

* Used only as backer for PTFE diaphragm



Diaphragm Compatibility

Material	Strengths	Weakness
PTFE/EPDM Two Piece	Widest chemical compatibility, extreme corrosion resistance, very low frictional coefficient, non-adhesive, high heat resistance.	Poor abrasive resistance.
PTFE/EPDM Over-molded	Same as above. Over-molded design does not entrap materials, making it easier to clean. Longer life than above	Same as above. Higher cost.
Thermoplastic Polyester Elastomer (Hytrel)	Good low temp properties. Good abrasion resistance. Often substituted for Buna-N.	Not good with acids. Poor with solvents and alcohols.
Santoprene	Good abrasion and chemical resistance. OK for use with some solvents (e. g. MEK, Acetone), caustic solutions, dilute acids, and alcohols. Often substituted for EPDM or EPR.	Not for use with most solvents.
Buna	Good for petroleum-based fluids, water, oils, hydrocarbons and MILD chemicals (e. g. mineral spirits).	Not for use with strong solvents or chemicals (e.g. acetone, MEK, ozone, chlorinated hydrocarbons, and nitro hydrocarbons)
Fluoroelastomer (Viton)	High heat resistance. Good resistance to aggressive chemicals including acids and some solvents (e.g. xylene and mineral spirits). Good resistance to steam as well as animal, vegetable, and petroleum oils. Resists unleaded fuels.	Not for use with ketones, low molecular weight esters and nitro containing compounds.
Geolast	Good abrasion resistance. Approximately same chemical compatibility as Buna-N.	Not for use with strong solvents or chemicals (e.g. acetone, MEK, ozone, chlorinated hydrocarbons, and nitro hydrocarbons)
Polychloroprene Over-molded (Neoprene)	High resilience. Good with whiskey, wine, beer and natural gas. One source calls an "all purpose polymer ". About 30% higher abrasion resistance than Buna.	Not for use with strong oxidizing acids, esters, ketones, chlorinated aromatic and nitro hydrocarbons.
EPDM, used with 3A pump (Ethylene Propylene Diene M-class rubber)	High heat resistance. Good resistance to gas permeability and to steam. OK with caustic solutions, dilute acids, ketones and alcohols. Recommended for use with CIP Sanitizing Agent OXONIA.	Poor petroleum oil and solvent resistance. Not for use with aromatic hydrocarbons.



Material Viscosity Considerations

- The Husky 205 can handle up to 500 cps material
- The Husky 3275 can handle up to 25,000 cps material

