

Husky 515 Plastic Pumps

Air-Operated Double-Diaphragm

Features

- 1/2 in (12.7 mm) center-porting and 3/4 in (19.05 mm) 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
- Drum evacuation
- Plating and dip tanks
- Water treatment

Typical Fluids Handled

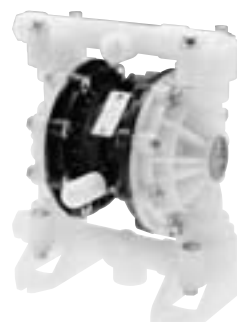
- Cleaning fluids and detergents
- Chemicals
- Ceramic glazes
- Inks
- Solvents and flammables
- Acids and bases



*Husky 515 Groundable Acetal
D51XXX or D41XXX*



*Husky 515 Polypropylene
D52XXX or D42XXX*



*Husky 515 PVDF
D55XXX or D45XXX*

Husky 515

Plastic Pumps

Technical Specifications

Maximum fluid working pressure.....	100 psi (7 bar, 0.7 MPa)
Maximum free flow delivery*.....	15 gpm (57 lpm)
Maximum pump speed.....	400 cpm
Displacement per cycle**.....	0.04 gallon (0.15 liter)
Maximum suction lift (D52331).....	12 ft (3.7 m) dry
Maximum size pumpable solids.....	0.09 in (2.5 mm)
Maximum operating temperature***	
Acetal.....	250°F (120°C)
Polypropylene.....	275°F (135°C)
PVDF.....	300°F (150°C)
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 (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.....	1/2 and 3/4 npt(f) or bspt(f)
Weight	
Acetal.....	7.8 lb (3.5 kg)
Polypropylene.....	6.5 lb (2.9 kg)
PVDF.....	8.5 lb (3.9 kg)
Wetted parts (in addition to ball, seat and diaphragm materials—which may vary by pump)	
Acetal pump.....	Groundable Acetal, PTFE, SST
Polypropylene pump.....	Polypropylene, PTFE, SST
PVDF pump.....	PVDF, PTFE
Instruction manual.....	308981

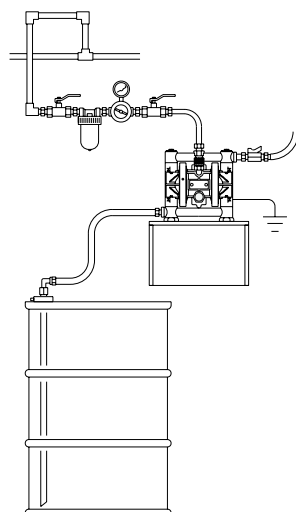
* Flow rates are with muffler and do not vary based on diaphragm material

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

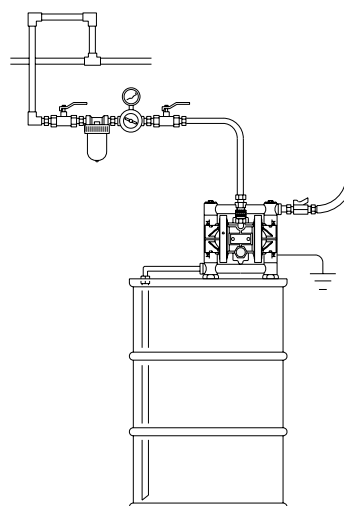
*** Actual pump performance may be affected by prolonged usage at temperature

Typical System Drawings

Husky 515 Wall-Mount with Drum Feed



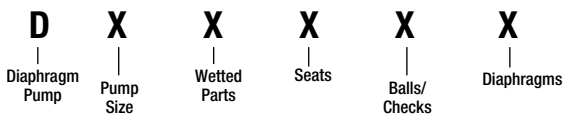
Husky 515 Drum-Mount with Siphon Feed



Husky 515

Plastic Pumps

Ordering Information



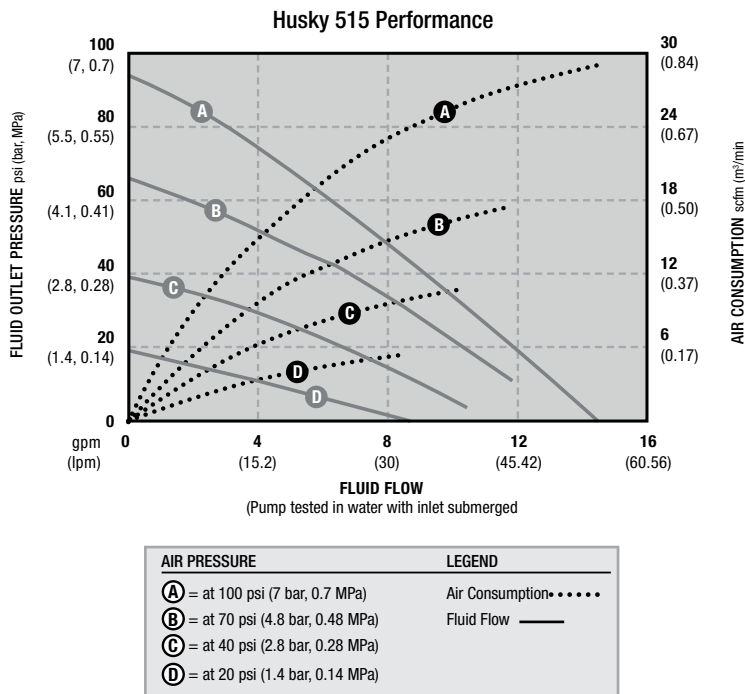
PUMP SIZE (AIR MOTOR TYPE AND MATERIAL)	WETTED PARTS	SEATS	BALLS	DIAPHRAGM
5 = 1/2" (12.7 mm) Standard: polypropylene center section	1 = Acetal (npt)	2 = Acetal	1 = PTFE	1 = PTFE
4 = 1/2" (12.7 mm) Remote: polypropylene center section	2 = Poly (npt)	3 = Stainless Steel	3 = Stainless Steel	5 = TPE
	5 = PVDF (npt)	5 = TPE	6 = Santoprene	6 = Santoprene
	A = Acetal * (bsp)	9 = Polypropylene	8 = Fluoroelastomer	7 = Buna N
	B = Poly * (bsp)	A = PVDF		8 = Fluoroelastomer
	E = PVDF (bsp)	D = Urethane Duckbill		

* = BSP plastic in 1/2" (12.7mm) pumps

Accessories

See page 72 for additional accessories.

Performance Chart



Husky 515

Plastic Pumps

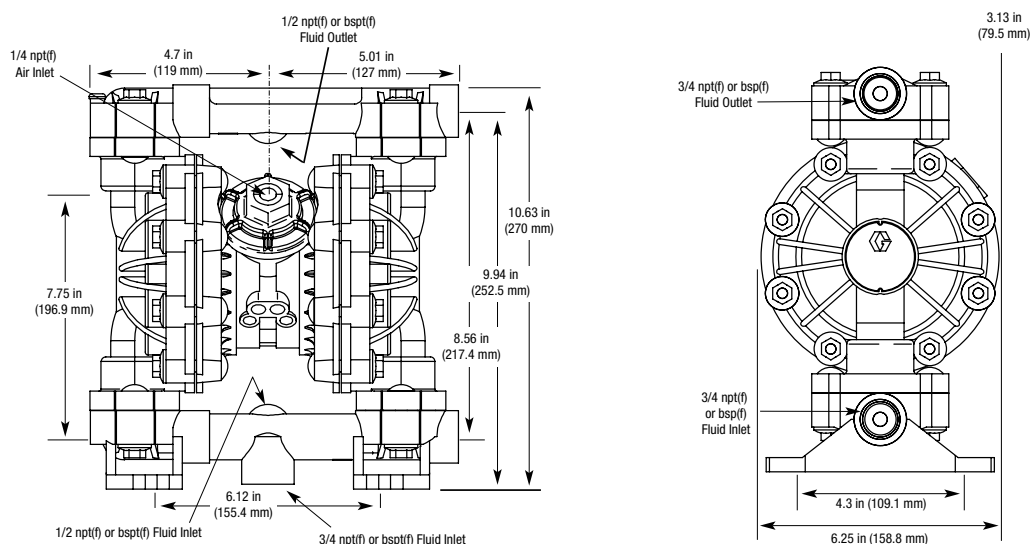
Popular Models

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						
Acetal	D51211	D41211	D5A211	D4A211	Acetal	PTFE	PTFE	D05211	241657	246946
	D51255	D41255	D5A255	D4A255	Acetal	TPE	TPE	D05255	241657	246946
	D51277	D41277	D5A277	D4A277	Acetal	Buna	Buna	D05277	241657	246946
	D51311	D41311	D5A311	D4A311	Stainless Steel	PTFE	PTFE	D05311	241657	246946
	D51331	D41331	D5A331	D4A331	Stainless Steel	Stainless Steel	PTFE	D05331	241657	246946
	D51D05	D41D05	D5AD05	D4AD05	Duckbill		TPE	D05D05	241657	246946
	D51D06	D41D06	D5AD06	D4AD06	Duckbill		Santoprene	D05D06	241657	246946
Polypropylene	D51D07	D41D07	D5AD07	D4AD07	Duckbill		Buna	D05D07	241657	246946
	D52211	D42211	D5B211	D4B211	Acetal	PTFE	PTFE	D05211	241657	246946
	D52277	D42277	D5B277	D4B277	Acetal	Buna	Buna	D05277	241657	246946
	D52311	D42311	D5B311	D4B311	Stainless Steel	PTFE	PTFE	D05311	241657	246946
	D52331	D42331	D5B331	D4B331	Stainless Steel	Stainless Steel	PTFE	D05331	241657	246946
	D52336	D42336	D5B336	D4B336	Stainless Steel	Stainless Steel	Santoprene	D05336	241657	246946
	D52911	D42911	D5B911	D4B911	Polypropylene	PTFE	PTFE	D05911	241657	246946
	D52955	D42955	D5B955	D4B955	Polypropylene	TPE	TPE	D05955	241657	246946
	D52966	D42966	D5B966	D4B966	Polypropylene	Santoprene	Santoprene	D05966	241657	246946
	D52977	D42977	D5B977	D4B977	Polypropylene	Buna	Buna	D05977	241657	246946
	D52988	D42988	D5B988	D4B988	Polypropylene	Fluoroelastomer	Fluoroelastomer	D05988	241657	246946
	D52D05	D42D05	D5BD05	D4BD05	Duckbill		TPE	D05D05	241657	246946
	D52D06	D42D06	D5BD06	D4BD06	Duckbill		Santoprene	D05D06	241657	246946
	D52D07	D42D07	D5BD07	D4BD07	Duckbill		Buna	D05D07	241657	246946
PVDF	D55A11	D45A11	D5EA11	D4EA11	PVDF	PTFE	PTFE	D05A11	241657	246946
	D55A88	D45A88	D5EA88	D4EA88	PVDF	Fluoroelastomer	Fluoroelastomer	D05A88	241657	246946

*Required Cycleflo to 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

