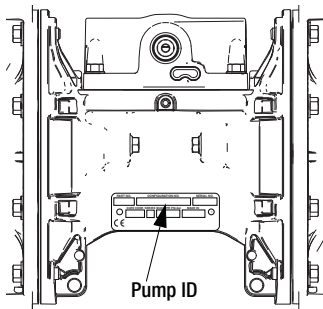


# Husky 1590 Plastic Pumps Air-Operated Double Diaphragm

## Husky 1590 Selector Tool

To order a Husky 1590, use the online selector tool at [www.graco.com/pumpselectors](http://www.graco.com/pumpselectors) or contact your distributor.



**NOTE:** Check the identification plate (ID) for the Configuration Number of your pump. Use the following matrix to define the components of your pump.



Example of Product Selector Tool on [www.graco.com/pumpselectors](http://www.graco.com/pumpselectors).

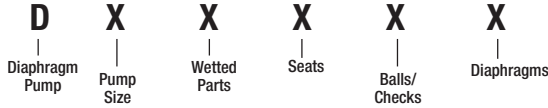
## Pump Configuration Options

Pump (1.5 inch ports, 90 gpm)	Center Section and Air Valve Material	Air Valve/Monitoring	Fluid Covers and Manifolds
<b>P</b> Polypropylene 1590	Aluminum	<b>A01A</b> Standard w/Buna-N Seals	<b>F2</b> PVDF, end flange
		<b>A01D</b> Remote w/ Buna-N Seals	
<b>F</b> PVDF 1590	Stainless Steel	<b>S01A</b> Standard	<b>P2</b> Polypropylene, end flange
		<b>S01D</b> Remote	

Check Valve Seats		Check Valve Balls		Diaphragm		Manifold O-Rings	
<b>BN</b>	Buna-N	<b>AC</b>	Acetal	<b>BN</b>	Buna-N	—	None
<b>FK</b>	Fluoroelastomer	<b>BN</b>	Buna-N	<b>FK</b>	Fluoroelastomer	<b>PT</b>	PTFE
<b>GE</b>	Geolast	<b>FK</b>	Fluoroelastomer	<b>GE</b>	Geolast		
<b>PP</b>	Polypropylene	<b>GE</b>	Geolast	<b>PT</b>	PTFE/EPDM Two-Piece		
<b>PV</b>	PVDF	<b>PT</b>	PTFE	<b>PO</b>	PTFE Overmolded		
<b>SA</b>	17-4 Stainless Steel	<b>SD</b>	440C Stainless Steel	<b>SP</b>	Santoprene		
<b>SP</b>	Santoprene	<b>SP</b>	Santoprene	<b>TP</b>	TPE		
<b>SS</b>	316 Stainless Steel	<b>TP</b>	TPE				
<b>TP</b>	TPE						

# Husky 1590 Plastic Pumps

## Ordering Information



PUMP SIZE (AIR MOTOR TYPE AND MATERIAL)	WETTED PARTS	SEATS	BALLS	DIAPHRAGM
B = 1-1/2" (38.1 mm) Standard: aluminum center section	2 = Poly (flange)	3 = Stainless Steel	1 = PTFE	1 = PTFE
C = 1-1/2" (38.1 mm) Remote: aluminum center section	5 = PVDF (flange)	4 = Hardened SST	2 = Acetal	5 = TPE
T = 1-1/2" (38.1 mm) Standard: stainless steel center section		5 = TPE	4 = Hardened SST	6 = Santoprene
U = 1-1/2" (38.1 mm) Remote: stainless steel center section		6 = Santoprene	5 = TPE	7 = Buna N
		7 = Buna N	6 = Santoprene	8 = Fluoroelastomer
		8 = Fluoroelastomer	7 = Buna N	G = Geolast
		9 = Polypropylene	8 = Fluoroelastomer	
		A = PVDF	G = Geolast	
		G = Geolast		

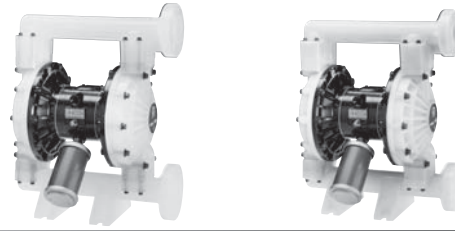
## Popular Models

Material	Part Number (ANSI-Flange)		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						
<b>Standard Pumps with Aluminum Center Section</b>										
Polypropylene	DB2311				Stainless Steel	PTFE	PTFE	DOC311	236273	246947
	DB2377	DC2377			Stainless Steel	Buna-N	Buna-N	DOC377	236273	246947
	DB2777	DC2777			Buna	Buna-N	Buna-N	DOC777	236273	246947
	DB2888	DC2888			Fluoroelastomer	Fluoroelastomer	Fluoroelastomer	DOC888	236273	246947
	DB2911	DC2911			Polypropylene	PTFE	PTFE	DOC911	236273	246947
	DB2955				Polypropylene	TPE	TPE	DOC955	236273	246947
	DB2966				Polypropylene	Santoprene	Santoprene	DOC966	236273	246947
	DB2977				Polypropylene	Buna-N	Buna-N	DOC977	236273	246947
	DB2988				Polypropylene	Fluoroelastomer	Fluoroelastomer	DOC988	236273	246947
	DB29GG	DC29GG			Polypropylene	Geolast	Geolast	DOC9GG	236273	246947
PVDF	DB5311				Stainless Steel	PTFE	PTFE	DOC311	236273	246947
	DB5666				Santoprene	Santoprene	Santoprene	DOC666	236273	246947
	DB5811	DC5911			Fluoroelastomer	PTFE	PTFE	DOC811	236273	246947
	DB5888	DC5888			Fluoroelastomer	Fluoroelastomer	Fluoroelastomer	DOC888	236273	246947
	DB5A11	DC5A11			PVDF	PTFE	PTFE	DOCA11	236273	246947
	DB5A88				PVDF	Fluoroelastomer	Fluoroelastomer	DOCA88	236273	246947

\*Requires CycleFlo or external valve control

\*\* Air control includes air regulator and filter with gauge

## Husky 1590 Plastic Pumps



### Technical Specifications

Husky 1590 Plastic Pumps	Polypropylene	PVDF
Maximum fluid working pressure	120 psi (8.4 bar, 0.84 MPa)	120 psi (8.4 bar, 0.84 MPa)
Maximum free flow delivery*	100 gpm (378.5 lpm)	100 gpm (378.5 lpm)
Maximum pump speed	200 cpm	200 cpm
Displacement per cycle**	0.5 gallon (1.96 liter)	0.5 gallon (1.96 liter)
Maximum suction lift (DB2366)	20 ft (6.1 m) dry	20 ft (6.1 m) dry
Maximum size pumpable solids	0.19 in (4.8 mm)	0.19 in (4.8 mm)
Maximum operating temperature***	150°F (65.5°C)	150°F (65.5°C)
Maximum diaphragm operating temperature***		
PTFE	220°F (104.4°C)	220°F (104.4°C)
Santoprene	180°F (82.2°C)	180°F (82.2°C)
Buna-N	180°F (82.2°C)	180°F (82.2°C)
TPE	150°F (65.5°C)	150°F (65.5°C)
Fluoroelastomer	250°F (121.1°C)	250°F (121.1°C)
Geolast	150°F (65.5°C)	150°F (65.5°C)
Typical sound level at 70 psi (4.9 bar, 0.49 MPa) air @ 125 cpm	77 dBA	77 dBA
Maximum air consumption	125 scfm (3.5 m3/min.)	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)	20 to 120 psi (1.4 to 8.4 bar, 0.14 to 0.84 MPa)
Air inlet size	1/2 npt(f)	1/2 npt(f)
Fluid inlet & outlet size****	1-1/2 in (38.1 mm) ANSI-flange	1-1/2 in (38.1 mm) ANSI-flange
Weight	35 lb (16 kg)	49 lb (22 kg)
Weight with stainless steel center section	48.3 lb (21.9 kg)	62.3 lb (28.2 kg)
Instruction manual	308549	308549

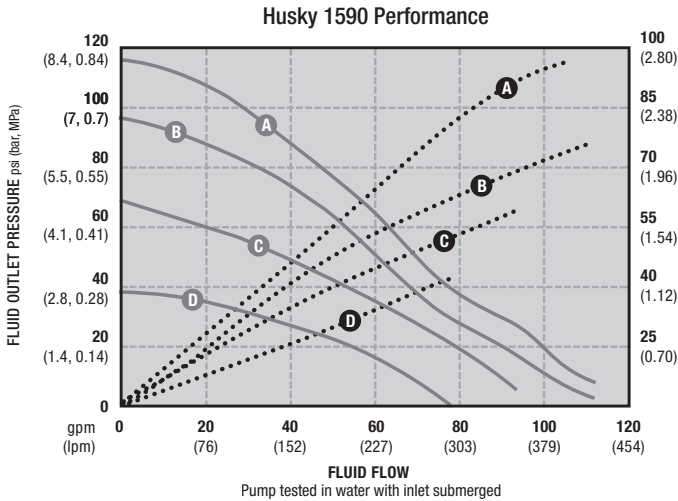
\* Flow rates are with muffler and do not vary based on diaphragm material

\*\* 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

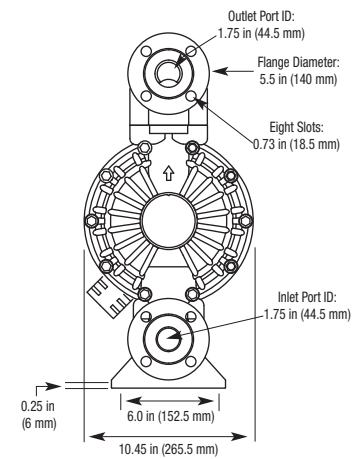
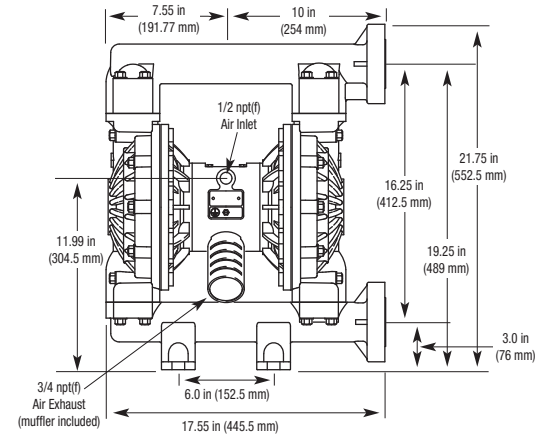
# Husky 1590 Plastic Pumps

## Performance Charts



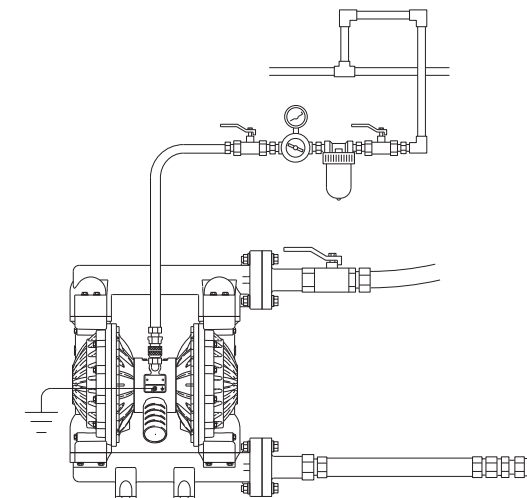
AIR PRESSURE	LEGEND
(A) = at 120 psi (8.4 bar, 0.84 MPa)	Air Consumption.....
(B) = at 100 psi (7 bar, 0.7 MPa)	Fluid Pressure ———
(C) = at 70 psi (4.8 bar, 0.48 MPa)	
(D) = at 40 psi (2.8 bar, 0.28 MPa)	

## Dimensions



## Typical System Drawings

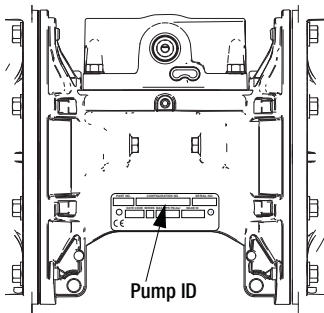
### Husky 1590 Above Ground Gravity Feed



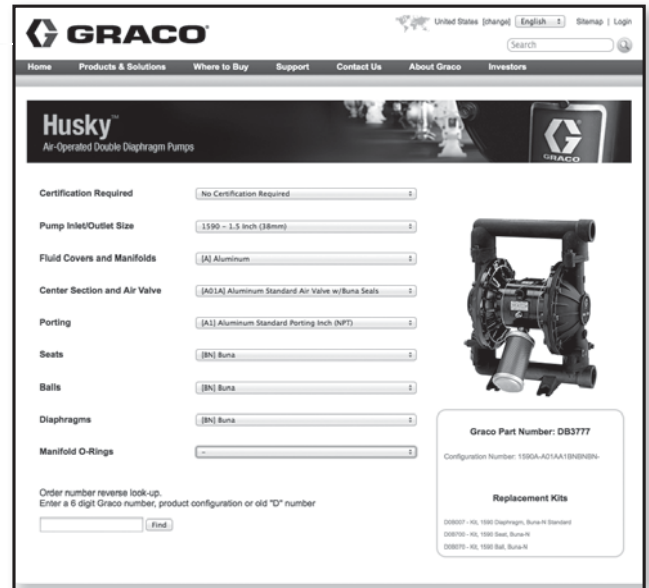
# Husky 1590 Metal Pumps Air-Operated Double Diaphragm

## Husky 1590 Selector Tool

To order a Husky 1590, use the online selector tool at [www.graco.com/pumpselectors](http://www.graco.com/pumpselectors) or contact your distributor.



**NOTE:** Check the identification plate (ID) for the Configuration Number of your pump. Use the following matrix to define the components of your pump.



Example of Product Selector Tool on [www.graco.com/pumpselectors](http://www.graco.com/pumpselectors).

## Pump Configuration Options

Pump (1.5 inch ports, 90 gpm)	Center Section and Air Valve Material		Air Valve/Monitoring	Fluid Covers and Manifolds	
	<b>A</b> ★ Aluminum 1590	Aluminum	<b>A01A</b>	Standard	<b>A1</b>
<b>S</b> ‡ Stainless Steel 1590	<b>A01D</b>		Remote	<b>A2</b>	Aluminum, standard ports, BSPT
	<b>A01E</b>		Standard	<b>S1</b>	Stainless steel, standard ports, NPT
	Stainless Steel	<b>S01A</b>	Standard	<b>S2</b>	Stainless steel, standard ports, BSPT
		<b>S01D</b>	Remote		

★, ‡, or ✕: See **ATEX Certifications** below.

Check Valve Seats		Check Valve Balls		Diaphragm		Manifold O-Rings	
<b>BN</b>	Buna-N	<b>AC</b>	Acetal	<b>BN</b>	Buna-N	—	None
<b>FK</b>	Fluoroelastomer	<b>BN</b>	Buna-N	<b>FK</b>	Fluoroelastomer	<b>PT</b>	PTFE
<b>GE</b>	Geolast	<b>FK</b>	Fluoroelastomer	<b>GE</b>	Geolast		
<b>PP</b>	Polypropylene	<b>GE</b>	Geolast	<b>PT</b>	PTFE/EPDM Two-Piece		
<b>PV</b>	PVDF	<b>PT</b>	PTFE	<b>SP</b>	Santoprene		
<b>SA</b>	17-4 Stainless Steel	<b>SD</b>	440C Stainless Steel	<b>TP</b>	TPE		
<b>SP</b>	Santoprene	<b>SP</b>	Santoprene				
<b>SS</b>	316 Stainless Steel	<b>TP</b>	TPE				
<b>TP</b>	TPE						

### ATEX Certifications

★ All Aluminum 1590 pumps are certified:



‡ Stainless Steel pumps with aluminum or conductive polypropylene centers are certified:



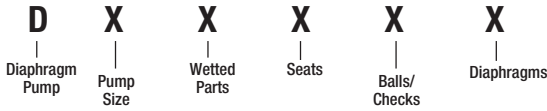
✕ DataTrak and Pulse Count are certified:



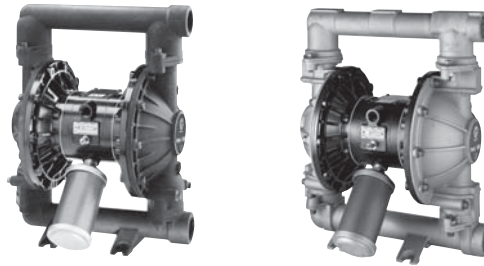
EEx ia IIA T3  
Nemko  
06ATEX1124

# Husky 1590 Metal Pumps

## Ordering Information



PUMP SIZE (AIR MOTOR TYPE AND MATERIAL)	WETTED PARTS	SEATS	BALLS	DIAPHRAGM
B = 1-1/2" (38.1 mm) Standard: aluminum center section	3 = Aluminum (npt)	3 = Stainless Steel	1 = PTFE	1 = PTFE
C = 1-1/2" (38.1 mm) Remote: aluminum center section	4 = Stainless Steel (npt)	4 = Hardened SST	2 = Acetal	5 = TPE
T = 1-1/2" (38.1 mm) Standard: stainless steel center section	C = Aluminum (bspt)	5 = TPE	4 = Hardened SST	6 = Santoprene
U = 1-1/2" (38.1 mm) Remote: stainless steel center section	D = Stainless Steel (bspt)	6 = Santoprene	5 = TPE	7 = Buna-N
		7 = Buna-N	6 = Santoprene	8 = Fluoroelastomer
		8 = Fluoroelastomer	7 = Buna-N	G = Geolast
		9 = Polypropylene	8 = Fluoroelastomer	
		A = PVDF	G = Geolast	
		G = Geolast		



## Technical Specifications

Husky 1590 Metal Pumps	Aluminum	Stainless Steel
Maximum fluid working pressure	120 psi (8.4 bar, 0.84 MPa)	120 psi (8.4 bar, 0.84 MPa)
Maximum free flow delivery*	100 gpm (378.5 lpm)	100 gpm (378.5 lpm)
Maximum pump speed	200 cpm	200 cpm
Displacement per cycle**	0.5 gallon (1.96 liter)	0.5 gallon (1.96 liter)
Maximum suction lift (DB2366)	20 ft (6.1 m) dry	20 ft (6.1 m) dry
Maximum size pumpable solids	0.19 in (4.8 mm)	0.19 in (4.8 mm)
Maximum operating temperature***	150°F (65.5°C)	150°F (65.5°C)
Maximum diaphragm operating temperature***		
PTFE	220°F (104.4°C)	220°F (104.4°C)
Santoprene	180°F (82.2°C)	180°F (82.2°C)
Buna-N	180°F (82.2°C)	180°F (82.2°C)
TPE	150°F (65.5°C)	150°F (65.5°C)
Fluoroelastomer	250°F (121.1°C)	250°F (121.1°C)
Geolast	150°F (65.5°C)	150°F (65.5°C)
Typical sound level at 70 psi (4.9 bar, 0.49 MPa) air @ 125 cpm	77 dBa	77 dBa
Maximum air consumption	125 scfm (3.5 m3/min.)	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)	20 to 120 psi (1.4 to 8.4 bar, 0.14 to 0.84 MPa)
Air inlet size	1/2 npt(f)	1/2 npt(f)
Fluid inlet & outlet size****	1-1/2 npt(f) or bspt(f)	1-1/2 npt(f) or bspt(f)
Weight	33.5 lb (15.2 kg)	86 lb (40 kg)
Weight with stainless steel center section	n/a	98.8 lb (44.8 kg)
Instruction manual	308441	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

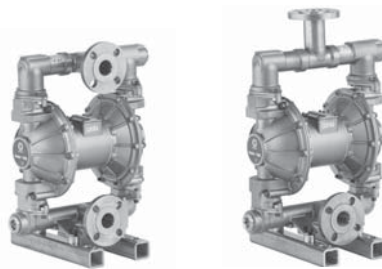
# Husky 1590 Metal Pumps

## Popular Models

Material	Part Number (NPT Ported)		Part Number (BSP Ported)		Seat Material	Ball Material	Diaphragm Material	Fluid Kit	Air Kit	Air Control**
	Standard Air Valve	Remote* Air Valve	Standard Air Valve	Remote* Air Valve						
<b>Standard Pumps with Aluminum Center Section</b>										
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-N	Buna-N	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-N	Buna-N	Buna-N	D0B777	236273	246947
	DB3888	DC3888	DBC888	DCC888	Fluoroelastomer	Fluoroelastomer	Fluoroelastomer	D0B888	236273	246947
	DB3GGG	DC3GGG	DBC911	DCC911	Geolast	Geolast	Geolast	D0B911	236273	246947
	DB3911		DBC911		Polypropylene	PTFE	PTFE	D0B911	236273	246947
	DB3977		DBC977		Polypropylene	Buna-N	Buna-N	D0B977	236273	246947
	Stainless Steel	DB4311	DC4311	DBD311	DCD311	Stainless Steel	PTFE	PTFE	D0B311	236273
DB4341			DBD341		Stainless Steel	Hardened SST	PTFE	D0B341	236273	246947
DB4377		DC4377	DBD377	DCD377	Stainless Steel	Buna-N	Buna-N	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-N	Buna-N	Buna-N	D0B777	236273	246947
DB4888		DC4888	DBD888	DCD888	Fluoroelastomer	Fluoroelastomer	Fluoroelastomer	D0B888	236273	246947
DB4GGG		DC4GGG	DBD911	DCD911	Geolast	Geolast	Geolast	D0B911	236273	246947
DB4911			DBD911		Polypropylene	PTFE	PTFE	D0B911	236273	246947
<b>Corrosion Resistant Pumps with Stainless Steel Center Section</b>										
Stainless Steel	DT4311	DU4311	DTD311	DUD311	Stainless Steel	PTFE	PTFE	D0B311	255061	246947
	DT4377	DU4377	DTD377	DUD377	Stainless Steel	Buna-N	Buna-N	D0B377	255061	246947
	DT4388	DU4388	DTD388	DUD388	Stainless Steel	Fluoroelastomer	Fluoroelastomer	D0B388	255061	246947
	DT4666	DU4666	DTD666	DUD666	Santoprene	Santoprene	Santoprene	D0B666	255061	246947
	DT4888	DU4888	DTD888	DUD888	Fluoroelastomer	Fluoroelastomer	Fluoroelastomer	D0B888	255061	246947
	DT4911	DU4911	DTD911	DUD911	Polypropylene	PTFE	PTFE	D0B911	255061	246947

\*Requires CycleFlo or external valve control

\*\* Air control includes air regulator and filter with gauge



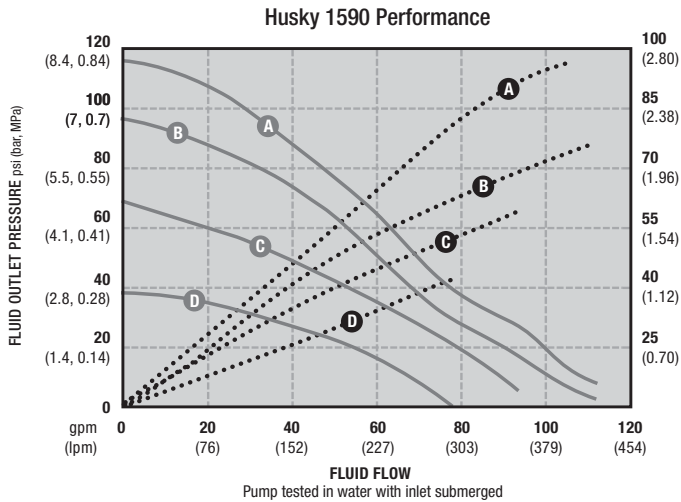
### Stainless Steel Flange Models\*

Part Number	Outlet Orientation	Seat Material	Ball Material	Diaphragm Material	Air Valve	Seat Kit	Ball Kit	Diaphragm Kit
25C654	Horizontal	Stainless Steel	PTFE	Overmolded PTFE	236273	D0B300	D0B010	253627
25C656	Vertical	Stainless Steel	PTFE	Overmolded PTFE	236273	D0B300	D0B010	253627
DBR311	Horizontal	Stainless Steel	PTFE	PTFE	236273	D0B300	D0B010	D0B001
DBP311	Vertical	Stainless Steel	PTFE	PTFE	236273	D0B300	D0B010	D0B001
DBR366	Horizontal	Stainless Steel	Santoprene	Santoprene	236273	D0B300	D0B060	D0B006
DBP366	Vertical	Stainless Steel	Santoprene	Santoprene	236273	D0B300	D0B060	D0B006

\*All stainless steel flange models have a fixed center inlet.

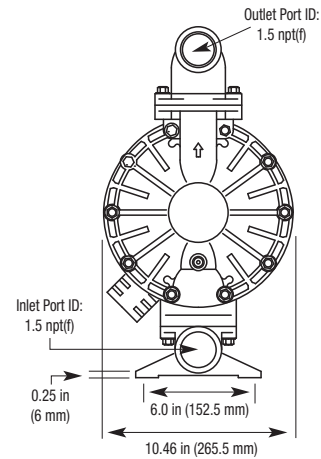
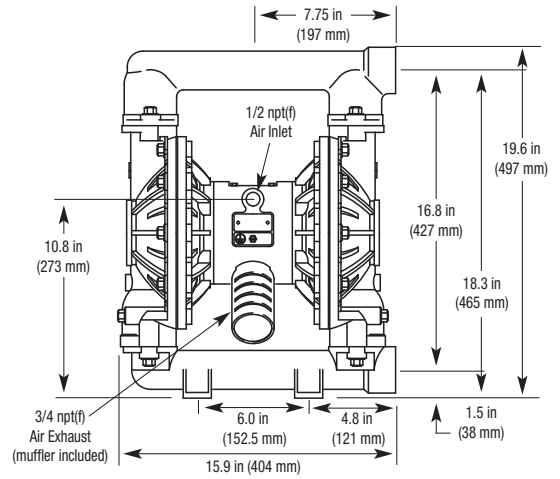
# Husky 1590 Metal Pumps

## Performance Charts



AIR PRESSURE	LEGEND
<b>A</b> = at 120 psi (8.4 bar, 0.84 MPa)	Air Consumption •••••
<b>B</b> = at 100 psi (7 bar, 0.7 MPa)	Fluid Pressure ———
<b>C</b> = at 70 psi (4.8 bar, 0.48 MPa)	
<b>D</b> = at 40 psi (2.8 bar, 0.28 MPa)	

## Dimensions



Refer to manual 308441 for additional dimensions

## Typical System Drawings

### Husky 1590 Above Ground Gravity Feed

