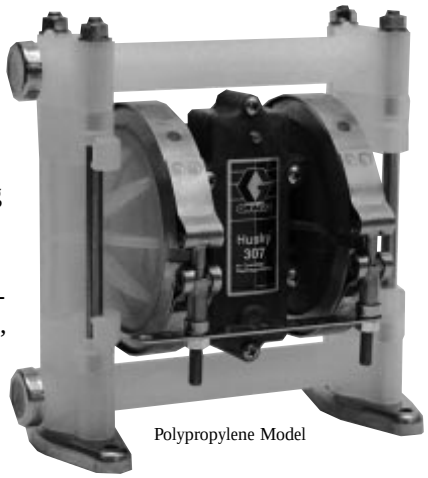
GRACO

First choice when quality counts.™

Husky™ 307 Air-Operated Diaphragm Pump

- Fully groundable acetal model
- Delivery up to 7 gpm (26.5 lpm)
- Operates on as little as 20 psi (1.4 bar, 0.14 MPa) air pressure
- Easy-to-service air valve & ball checks
- Quiet operation—75 dBa at 50 psi (3.5 bar, 0.35 MPa) and 60 cpm



Polypropylene Model

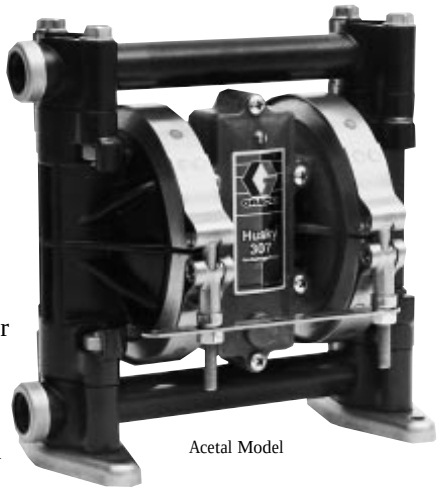
Economical 3/8 inch Diaphragm Pump

Graco's Husky 307 diaphragm pump is designed to operate at low air pressure while delivering a smooth, reliable flow. Husky 307 pumps are ideal for transferring a wide variety of fluids.

Two models are offered:

- Acetal wetted construction suitable for water-, solvent- and petroleum-based fluids, with either Teflon, Hytrel, Buna-N, or Santoprene diaphragms and ball checks.
- Polypropylene wetted construction for most acids and caustic fluids, with either Teflon, Hytrel, Buna-N, or Santoprene diaphragms and ball checks.
- SST balls are also available for abrasive and highly viscous fluids.

Low cost, reliable transfer pump handles a variety of fluids



Acetal Model

New Air Valve Design

The Husky 307 features Graco's new patented air valve design with the following advantages:

- Simplified design (only 15 parts) improves reliability and serviceability – air valve is accessed by removing only six screws and there are no pilot valves.
- Lubricated air is not required.
- Air valve uses compressed air very efficiently, for lower operating cost.
- Air valve will operate on as little as 20 psi (1.4 bar 0.14 MPa). This allows the pump to cycle at low flow rates, producing a gentle pumping action – ideal for shear-sensitive fluids and for spraying coatings.
- Reset button offers convenient re-starting under tough service conditions.

CE

Typical Applications

- Drum transfer for fluids up to 1000 centipoise
- Circulation of low viscosity inks, stains and dyes
- Coolant circulation and evacuation
- Waste fluid removal
- On-demand batch chemical metering
- Low viscosity adhesive supply
- Consistent low pressure air spray or HVLP supply

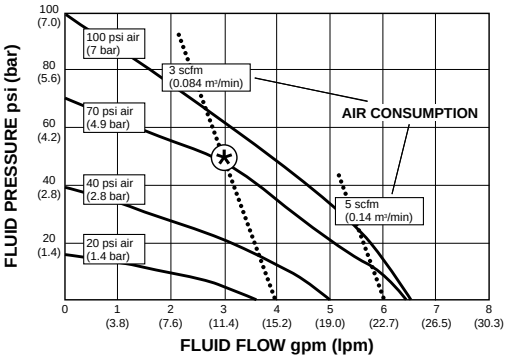
Typical Fluids Handled

- Paints
- Lubricants
- Inks
- Stains
- Solvents
- Coatings
- Dyes

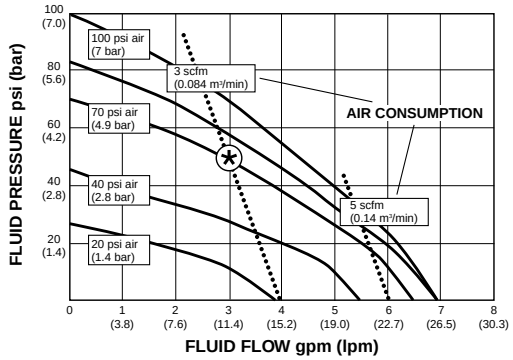
Form No. 305-712
Rev. AA 4/97

Husky 307 Performance

(with Teflon Diaphragm and Ball Checks)



(with Hytrel Diaphragm and Ball Checks)



How to read the performance charts

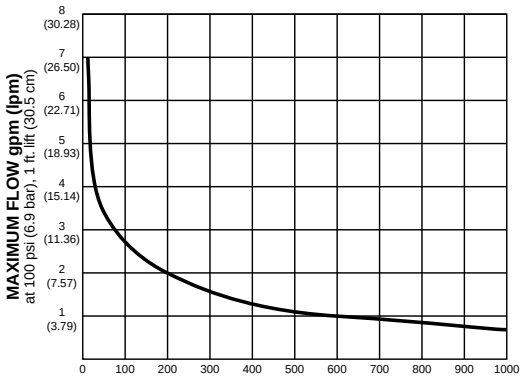
To determine the fluid pressure: Locate the desired *fluid flow* on the horizontal axis, and read up to the appropriate incoming *air pressure* curve. From that intersection, read across to find the *fluid pressure*.

To determine the fluid flow: Locate the desired *fluid pressure* on the vertical axis, and read across to the appropriate incoming *air pressure* curve. From that intersection, read down to the horizontal axis to find the maximum *fluid flow.*

To determine the air consumption: Find the intersection of the *fluid pressure* on the vertical axis and the appropriate incoming *air pressure* curve. Locate the nearest *air consumption* line to interpolate the air consumption.

*For Example (See * on Performance Chart):*
For fluid pressure of 50 psi (3.5 bar, 0.35 MPa) at 70 psi (4.9 bar, 0.49 MPa) incoming air pressure, the maximum fluid flow is 3 gpm (11.4 lpm) and air consumption is 3 scfm (0.084 m³/min).

Viscosity Correction Curve



How to read the viscosity correction chart

To determine the maximum flow rate for any viscosity: On the horizontal axis, find the *viscosity* of the fluid. Move straight up to the intersection of the curve. From that point, read across to the *maximum flow* on the vertical axis.

To adjust the performance chart for higher viscosity fluids: (The performance charts are based on the viscosity of water, 1 centipoise). First determine (A) the *fluid flow* for water using the Performance Chart. Then find (B) the *maximum flow* using the Viscosity Correction Chart. Next, choose (C) the *maximum rated flow* for the pump:

Hytrel diaphragms	7.0 gpm (26.5 lpm)
Teflon diaphragms	6.5 gpm (24.6 lpm)

The *adjusted flow rate* of the higher viscosity fluid is equal to:

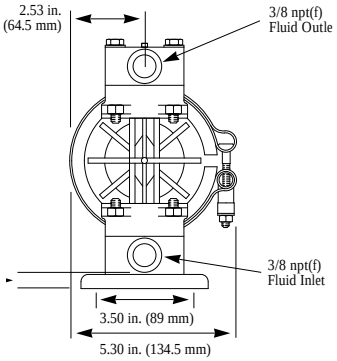
A x B/C

For example: A Teflon diaphragm pump operates at 40 psi (2.8 bar) fluid pressure at 70 psi (4.9 bar) incoming air pressure. What is the adjusted flow rate for a fluid with a viscosity of 600 centipoise?

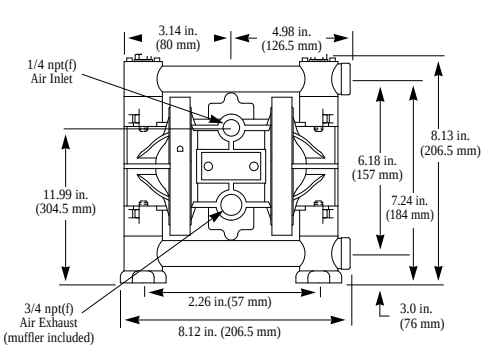
3.5 gpm x 1 gpm / 6.5 gpm = 0.54 gpm
(13.25 lpm x 3.8 lpm / 24.6 lpm = 2.04 lpm)

Dimensions

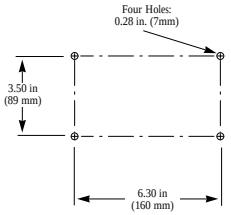
Side View



Front View



Mounting Holes



Form No. 305-712
Rev. AA 4/97

Accessories

222-011 Grounding Wire and Clamp
25 ft. (7.6 m) long

110-223 Air Bleed Valve
Max. working pressure: 300 psi (21 bar, 2.1 MPa). Inlet and outlet: 1/4 npt(f).

Air Line Quick Disconnect
208-536 Coupler 1/4 npt(f).
169-970 Fitting 1/4 npt(m).

110-147 Air Regulator and Gauge
Adjustment range: 0-180 psi (0-11 bar, 0-1.1 MPa). Max. working pressure: 300 psi (21 bar, 2.1 MPa). Inlet and outlet: 1/4 npt(f).

205-090 Air Control Needle Valve
Max. working pressure: 300 psi (21 bar, 2.1 MPa). Inlet: 1/4 npt(m). Outlet: 1/4 npt(f).

110-146 Air Line Filter
Max. working pressure: 300 psi (21 bar, 2.1 MPa). Reusable 20 micron filter and drain cock. Inlet and outlet: 1/4 npt(f).

221-169 Air Hose
Max. working pressure: 300 psi (21 bar, 2.1 MPa). 1/2 in. x 10 ft. (3 m). Coupled 1/2 npt(m) x 1/4 npt(m).

Dynamic Surge Suppressors
Maximum working pressure: 100 psi (7 bar, 0.7 MPa). Fluid inlet and outlet: 3/4 npt(f). Air inlet: 1/4 npt(f).
224-892 Aluminum/Teflon diaphragm
224-893 Aluminum/Buna-N diaphragm
224-894 SST/Teflon diaphragm
224-895 SST/Buna-N diaphragm

Fluid Hoses
Max. working pressure: 300 psi (21 bar, 2.1 MPa). Nylon core, synthetic rubber cover. Inside diameter: 3/8 in. (10 mm), 3/8 npt(fbe).
205-169 3 ft. (0.9 m) long
205-398 6 ft. (1.8 m) long
235-651 10 ft. (3.1 m) long
205-142 25 ft. (7.6 m) long

Groundable Fluid Hoses
Max. working pressure: 300 psi (21 bar, 2.1 MPa). Nylon core, synthetic rubber cover. Inside diameter: 3/8 in. (10 mm), 3/8 npt(fbe).
215-247 5 ft. (1.5 m) long
215-244 25 ft. (7.6 m) long

Fluid Drain Valves
237-534 Stainless Steel/Teflon 3/8 npt(m) x 3/8 npt(f).
208-391 Carbon Steel/Teflon 3/8 npt(m) x 3/8 npt(f).

235-344 Fluid Regulation Kit
Max. working pressure: 250 psi (17.5 bar, 1.75 MPa). Regulated pressure range: 5-100 psi (0.3-7 bar, 0.03-0.7 MPa). Includes SST regulator with Teflon diaphragm, gauge and fittings. Inlet: 3/8 npsm(f). Outlet: 3/8 npt(f) outlet.

113-497 Fluid Pressure Relief Valve
Prevents overpressurization of pump due to thermal expansion or fluid backup in the outlet line. Venting pressure: 150 psi (10.5 bar, 1.05 MPa). Brass and Buna-N, 1/4 npt(m x f).

224-835 Wall Mount Bracket
Carbon steel bracket for wall mounting. Also fits the Husky 715.

235-654 5 Gallon Pail-Cover Mount
Includes SST pail cover, agitator port (plugged), nylon suction tube with strainer.

224-834 Acetal Transfer Kit
55 gallon (200 liter). Drum kit includes bung adapter, suction tube and fittings.

188-181 Air-tight Acetal Bung Adapter
Adapter screws into the 2 in. opening on a closed-head drum to accept a 5/8 in. (19 mm) OD rigid suction tube.

235-509 Bung Adapter Vent
SST vent installs on bung adapter (188-181 or 188-182) to minimize escape of vapor fumes from drum.

235-504 Agitator Kit
Stainless steel agitator (222-695) and fittings for mounting on a 5 gallon (20 liter) pail cover.

235-500 Acetal Remote Suction Kit
55 gallon (200 liter). Drum kit contains air-tight bung adapter, rigid suction tube, hose and fittings for feeding a remote wall-mounted pump.

235-643 Acetal Inlet Strainer Kit
20 mesh strainer mounts ahead of pump inlet to filter fluid coming from drum.

112-032 100 Mesh Strainer Insert
100 mesh stainless steel wire strainer for use with 235-643 strainer kit.

224-820 Air Valve Kit
Replacement air valve assembly.

Split Manifold Kit (2 kits required)
Enables you to convert the Husky 307 pump to a dual fluid inlet, dual fluid outlet or both.
237-210 for Husky 307 Polypropylene Pumps
237-211 for Husky 307 Acetal Pumps

Technical Specifications

Max. fluid pressure . . . . . 100 psi (7 bar, 0.7 MPa)
Max. free flow delivery
  Teflon diaphragm . . . . . 6.5 U.S. gpm (24.6 l/min)
  Hytrel diaphragm . . . . . 7.0 U.S. gpm (26.5 l/min)
Displacement
  Teflon diaphragm . . . . . 0.020 gal/cycle (0.076 liters/cycle)
  Hytrel diaphragm . . . . . 0.021 gal/cycle (0.079 liters/cycle)
Max. pump speed . . . . . 330 cpm
Max. size pumpable solids . . . . . 1/16 in. (1.6 mm)
Max. suction lift . . . . . 12 ft. (3.7 m) dry; 21 ft. (6.4 m) wet
Operating temperature range . . . . . 40-150°F (4.4 - 65.5°C)
Typical noise level at 50 psi (3.5 bar) @ 50 cpm . . . . . 75 dBa
Air inlet size . . . . . 1/4 npt(f)
Fluid inlet and outlet size . . . . . 3/8 npt(f)
Wetted parts:
  Acetal pump . . . . . acetal with SST fibers, and Teflon
  Polypropylene pump . . . . . polypropylene and Teflon
  Diaphragms . . . . . Teflon, Hytrel, Santoprene, and Buna-N
  Seats . . . . . acetal, 316 SST, or polypropylene
  Polypropylene pump . . . . . Teflon, 316 SST, Hytrel, Santoprene, and Buna-N
Weight . . . . . 5.2 lbs (2.4 kg)
Instruction manual 308-553

Ordering Information

		Select One from Each Column			
Diaphragm Pump	**Air Motor**	**Fluid Section**	**Seats**	**Balls**	**Diaphragms**
D	**3** (poly)	**1** (acetal) **2** (poly)	**2** (acetal) **3** (316 SST) **9** (polypropylene)	**1** (Teflon) **3** (316 SST) **5** (Hytrel) **6** (Santoprene) **7** (Buna-N)	**1** (Teflon) **5** (Hytrel) **6** (Santoprene) **7** (Buna-N)

Teflon® and Hytrel® are registered trademarks of Du Pont. Santoprene® is a registered trademark of Monsanto.

Conversion/Repair Kits

Conversion/Repair Kits may be ordered separately. To repair the seats, balls and diaphragms, select the six digits which describe your pump from the following matrix, working from left to right. The first three digits are always D03. The remaining three digits define the materials of construction. A choice of zero allows you to omit that component. Example: To order Teflon diaphragms only for a Husky 307 pump order D03-001.

			Select One from Each Column		
Diaphragm Pump	**Kit**	**O-Ring**	**Seats**	**Balls**	**Diaphragms**
D	**0**	**3** (Teflon)	**2** (acetal) **3** (316 SST) **9** (polypropylene)	**1** (Teflon) **3** (316 SST) **5** (Hytrel) **6** (Santoprene) **7** (Buna-N)	**1** (Teflon) **5** (Hytrel) **6** (Santoprene) **7** (Buna-N)

Sales/Distribution
North America Toll Free 800-367-4023
Telephone 612-623-6743
Fax 612-623-6580
Contact sales personnel
Locate authorized distributors
Product information literature

GRACO INC.
P.O. Box 1441
Minneapolis, MN 55440-1441

© 1997-1995, 1993 Graco Inc. Form No. 305-712 Rev. AA 4/97 Printed in the U.S.A.