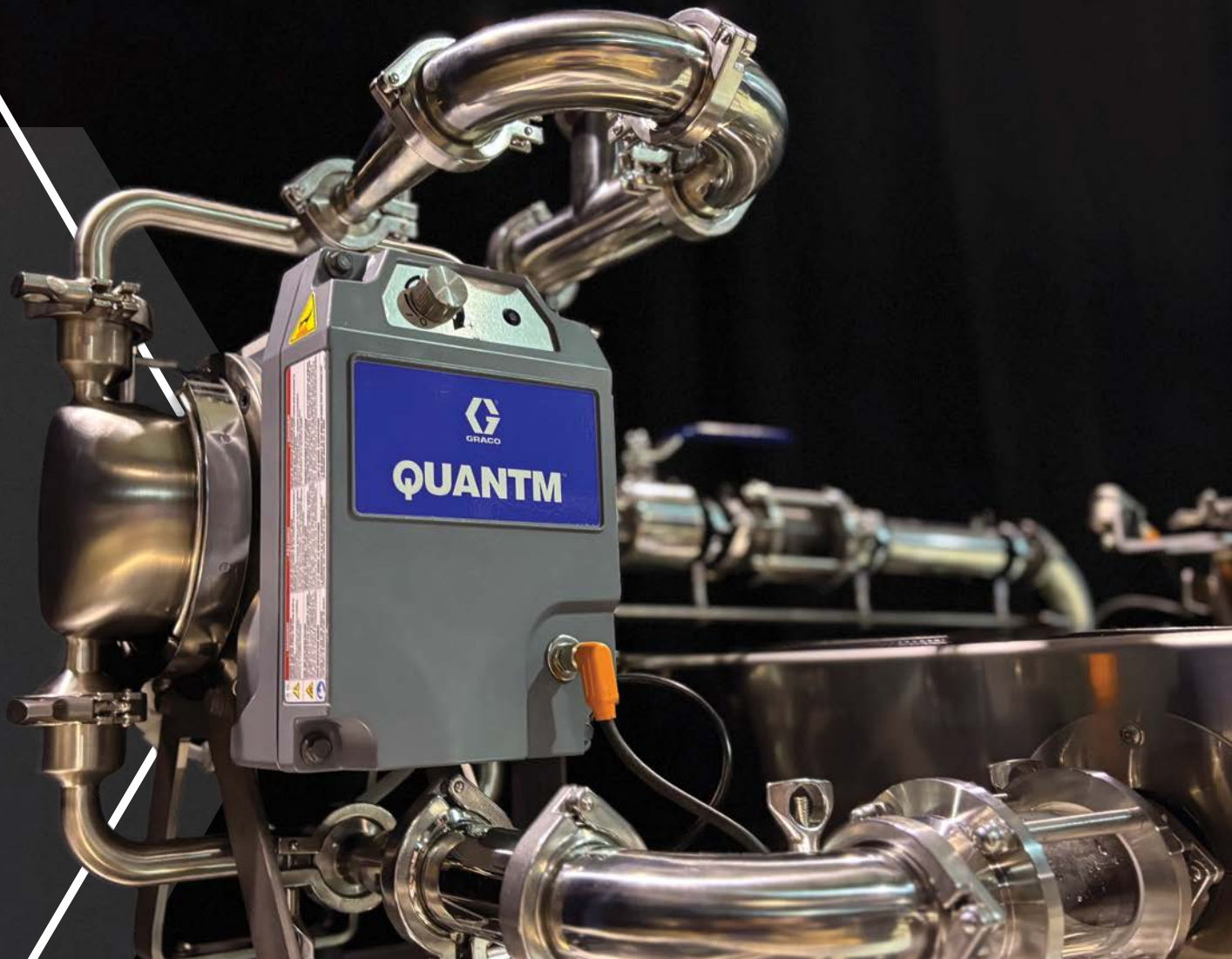


HYGIENIC DOUBLE DIAPHRAGM PUMP OVERVIEW

For Low to Medium Viscosity Ingredient Transfer



M O V I N G M A T E R I A L S T H A T M A T T E R ™



GRACO HYGIENIC DOUBLE DIAPHRAGM PUMP OVERVIEW

Double diaphragm pumps are a strong choice for contaminant-free transfer of sensitive products. With no mechanical seals, they provide a lower-cost durable solution that is easier to repair and maintain compared to other commonly used technologies.

Our double diaphragm pumps are designed to tackle rigorous, continuous use applications that require high flow rates and portability. The pumps are manufactured with your productivity in mind – providing you with one of the most reliable pumps in the market.

Runs Dry

Seal-less diaphragm pump design eliminates leaking and failures due to run-dry pump conditions.

Stalls Under Pressure

Graco double diaphragm pumps stall under pressure preventing pump failures from clogged lines or closed valves.

Self-Priming

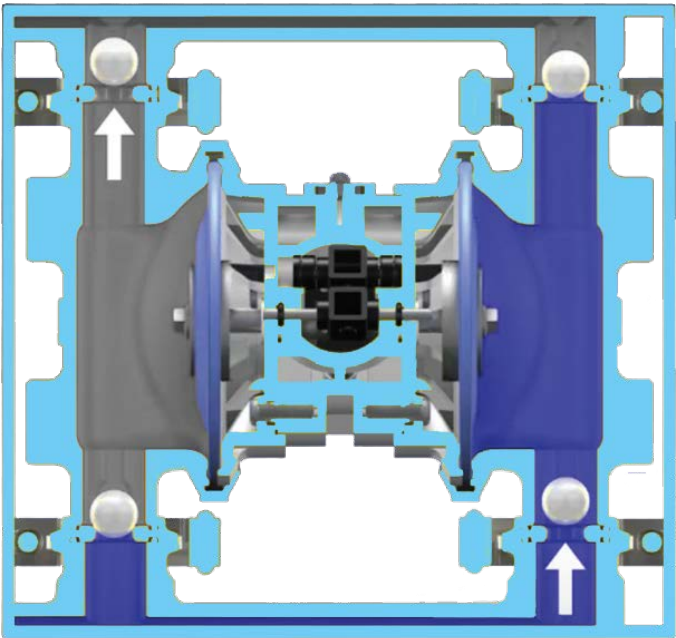
Double diaphragm pumps can pull a suction without being gravity fed or supplied by another source.

Tri-Clamp Fluid Connections

Equipped with tri-clamp connections, offering a quick knockdown design for easy cleanability and a swift maintenance process.

Low-to-Medium Viscosity

Graco double diaphragm pumps can transfer material up to 25,000 cps depending on material characteristics and system configuration.



Overmolded Diaphragms

Graco's overmolded diaphragms design reduces areas that harbor bacteria.

- Improve wear and diaphragm life with no exposed diaphragm plate on the fluid side.
- Longer diaphragm life in moderately abrasive applications that still require PTFE.



Two-piece

Overmolded



Pump Stands

Graco offers an optional 360 degree rotating stand for quick maintenance and to easily drain the pump without disassembly.

- 304 stainless steel construction.
- Wash-down approved.

Flushing & CIP

Designed to reduce downtime and protect product integrity, our equipment offers key sanitation advantages.

- Designed for cleanability and flushing.
- Optimal manifold and fluid cover design to drain for cleaning when rotated.
- Models available that can be CIP flushed per specification and ingredients.

MATERIALS OF CONSTRUCTION	
Diaphragm	Buna-N, EPDM Overmold, FKM (Viton), PTFE/EPDM Overmold, PTFE/Santoprene 2-Piece, Santoprene
Seat	316 Stainless Steel
Ball	Buna-N, EPDM, FKM (Viton), Polychloroprene Weighted, PTFE, Santoprene, Stainless Steel Ball/Flapper
O-Ring	Buna-N, EPDM, FKM (Viton), PTFE

*Material options may vary depending upon pump drive and size.



AIR- AND ELECTRIC-OPERATED DOUBLE DIAPHRAGM PUMPS

SANIFORCE® AODD PUMPS

Graco's SaniForce air-operated double diaphragm pumps are built for easy cleaning and maintenance, with minimal parts and a large fluid cavity that supports fast COP or CIP procedures. Rugged, corrosion-resistant construction ensures reliable performance and long service life, helping you reduce downtime and total cost of ownership.

Durable Pump Technology

Handles the most difficult materials without damaging the pump and is also gentle on shear sensitive material.

Leak Detector Options

Reduce risk with a leak detector and know immediately when your product is leaking.

Flapper Check Options

Available in both ball and flapper check design. The flapper check design provides a delicate, shear-sensitive operation and gently transfers products. This low-shear operation ensures product quality is not damaged or compromised, resulting in the proper transfer of medium to large particles.

Externally Serviceable Air Valve

With the fewest moving parts and complete external serviceability, SaniForce air valves deliver leading efficiency and reduce downtime. The lube free, non-stick design is one of the most hygienic options on the market.



QUANTM™ EODD PUMPS

The QUANTM electric-operated double diaphragm (EODD) pumps combine the advantages of an AODD pump like self-priming, stalling under pressure, and increased diaphragm life with the efficiency of an electric drive.



Electric Drive

QUANTM pumps are up to 80% more efficient than AODD pumps and also eliminate the requirement for compressed air, relieving the load on air compressors.

Quiet Operation

Eliminating compressed air drives a significant noise reduction, resulting in a 23% reduction in sound pressure over standard AODD pumps as well as a 90% decrease in sound intensity.

Integrated Control

Control the pump with the turn of a dial with intelligent automatic priming feature. The control includes FEP compliant coating, and is IP66 wash-down rated.

Automation

All QUANTM pumps are equipped with an I/O port for remote or PLC pump control to start or stop the pump and adjust speed.

Small Footprint

QUANTM pumps are similar in size to Graco's AODD pumps. Removal of the gearbox reduces footprint compared to other electric options.





FLUID SECTIONS WITH SURFACE FINISH FOR MOST APPLICATIONS

Graco presents a wide range of solutions for food, beverage, personal and pharmaceutical applications. Our double diaphragm pumps are designed with your productivity in mind, offering safe and easy handling while meeting the highest standards and requirements in the industry. Our Hygienic Double Diaphragm pump range consists of six different pump types, available in multiple sizes, that come in air-operated and electrically driven designs. Each pump is thoroughly tested before it leaves our factories.



USP
Class VI classified



BEVERAGE SERIES (BV)

Designed for high-volume beverage transfer in wineries, breweries and distilleries.

- Surface finish: 125 Ra
- Available sizes ranging from 1" up to 2"
- Air-operated
- Flow rates: up to 150 gpm (568 lpm)



FOOD GRADE (FG)

Designed for general food and beverage transfer applications such as juices, sauces, condiments and light lotions.

- Surface finish: 125 Ra
- Available sizes ranging from 1/2" up to 2"
- Air and electric driven options
- Flow rates: up to 160 gpm (568 lpm)



HIGH SANITATION (HS)

Designed for high-volume beverage transfer in wineries, breweries and distilleries.

- Surface finish: 125 Ra
- Available sizes ranging from 1" up to 3"
- Air and electric driven options
- Flow rates: up to 150 gpm (568 lpm)



3A APPROVED (3A)

Designed for 3A applications such as dairy, yogurt and cottage cheese.

- Surface finish: 32 Ra
- Available sizes ranging from 1" up to 3"
- Air and electric driven options
- Flow rates: up to 230 gpm (870 lpm)



LARGE PARTICLE (LP)

Designed for large particle transfer such as boiled eggs, meats and poultry applications.

- Surface finish: 32 Ra
- Available sizes ranging from 1 1/2" up to 4"
- Air and electric driven options
- Flow rates: up to 130 gpm (492 lpm)



PHARMACEUTICAL (PH)

Designed for ultra-high care and pharmaceutical applications such as medical creams and solvent transfer.

- Surface finish: 20 Ra
- Available sizes ranging from 1" up to 3"
- Air and electric driven options
- Flow rates: up to 230 gpm (870 lpm)



BEVERAGE PUMPS

SAFE, COST EFFECTIVE SOLUTION FOR YOUR BEVERAGE TRANSFER NEEDS

SaniForce Beverage (BV) series pumps are ruggedly constructed for beverage transfer. The bolt-through fluid sections and tri-clamp fluid connections with FDA compliant elastomers deliver a safe, cost effective solution for wineries, breweries, distilleries and general beverage transfer.

Pump Finish

- Cast 316 SST
- 125 Ra finish
- Bolted fluid section
- Quick knock-down fluid connections



AIR-OPERATED	SaniForce 1040 BV	SaniForce 1590 BV	SaniForce 2150 BV
Max. flow rate	41 gpm (155 lpm)	100 gpm (379 lpm)	150 gpm (568 lpm)
Max. fluid pressure	120 psi (8 bar 0.8 MPa)	120 psi (8 bar, 0.8 MPa)	120 psi (8 bar, 0.8 MPa)
Fluid passage size	1 in. (25.4 mm)	1.5 in. (38 mm)	2 in. (51 mm)
Max. pumpable solids	1/8 in. (3.2 mm)	3/16 in. (4.8 mm)	1/4 in. (6.3 mm)

FOOD GRADE PUMPS

INCREASE DURABILITY AND REDUCE REPAIR TIME WITH FEWER MOVING PARTS

Pump Finish

- Cast 316 SST
- 125 Ra finish



ELECTRIC	QUANTM h30 FG	QUANTM h80 FG	QUANTM h120 FG
Max. flow rate	30 gpm (114 lpm)	80 gpm (300 lpm)	120 gpm (454 lpm)
Max. fluid pressure	100 psi (7 bar 0.7 MPa)	120 psi (8 bar, 0.8 MPa)	60 psi (4 bar, 0.4 MPa)
Fluid passage size	1 in. (25.4 mm)	1.5 in. (38 mm)	2 in. (51 mm)
Max. pumpable solids	1/8 in. (3.2 mm)	3/16 in. (4.8 mm)	1/4 in. (6.3 mm)

AIR-OPERATED	SaniForce 515 FG	SaniForce 1040 FG	SaniForce 1590 FG	SaniForce 2150 FG
Max. flow rate	16 gpm (61 lpm)	41 gpm (151 lpm)	100 gpm (379 lpm)	160 gpm (605 lpm)
Max. fluid pressure	100 psi (7 bar 0.7 MPa)	120 psi (8 bar, 0.8 MPa)	120 psi (8 bar, 0.8 MPa)	120 psi (8 bar, 0.8 MPa)
Fluid passage size	0.5 in. (12.7 mm)	1 in. (25.4 mm)	1.5 in. (38 mm)	2 in. (51 mm)
Max. pumpable solids	3/32 in. (2.4 mm)	1/8 in. (3.2 mm)	3/16 in. (4.8 mm)	1/4 in. (6.3 mm)



HIGH SANITATION PUMPS

EASY TO CLEAN AND SANITIZE PUMP FOR HIGH CARE APPLICATIONS

Pump Finish

- 316 L SST
- 32 Ra finish
- FDA compliant



ELECTRIC	QUANTM h30 HS	QUANTM h80 HS	QUANTM h120 HS
Max. flow rate	30 gpm (114 lpm)	80 gpm (300 lpm)	120 gpm (454 lpm)
Max. fluid pressure	100 psi (7 bar, 0.7 MPa)	120 psi (8 bar, 0.8 MPa)	60 psi (4 bar, 0.4 MPa)
Fluid passage size	1 in. (25.4 mm)	1.5 in. (38 mm)	2 in. (51 mm)
Max. pumpable solids	0.42 in. (10.7 mm)	0.5 in. (12.7 mm)	0.5 in. (12.7 mm)

AIR-OPERATED	SaniForce 1040 HS	SaniForce 1590 HS	SaniForce 2150 HS	SaniForce 3250 HS
Max. flow rate	41 gpm (151 lpm)	105 gpm (398 lpm)	180 gpm (681 lpm)	230 gpm (870 lpm)
Max. fluid pressure	120 psi (8 bar, 0.8 MPa)	120 psi (8 bar, 0.8 MPa)	120 psi (8 bar, 0.8 MPa)	100 psi (7 bar, 0.7 MPa)
Fluid passage size	1 in. (25.4 mm)	1.5 in. (38 mm)	2 in. (51 mm)	3 in. (76.2 mm)
Max. pumpable solids	0.42 in. (10.7 mm)	0.5 in. (12.7 mm)	0.5 in. (12.7 mm)	3/4 in. (19 mm)

3A PUMPS

3A CERTIFIED DIAPHRAGM PUMP FOR HANDLING FOOD AND DAIRY SAFELY AND EFFECTIVELY



Pump Finish

- 316 L SST
- 32 Ra finish
- FDA compliant



ELECTRIC	QUANTM h80 3A	QUANTM h120 3A
Max. flow rate	80 gpm (300 lpm)	120 gpm (454 lpm)
Max. fluid pressure	120 psi (8 bar, 0.8 MPa)	60 psi (4 bar, 0.4 MPa)
Fluid passage size	1.5 in. (38 mm)	2 in. (51 mm)
Max. pumpable solids	0.5 in. (12.7 mm)	0.5 in. (12.7 mm)

AIR-OPERATED	SaniForce 1590 3A	SaniForce 2150 3A	SaniForce 3250 3A
Max. flow rate	105 gpm (398 lpm)	180 gpm (681 lpm)	230 gpm (870 lpm)
Max. fluid pressure	120 psi (8 bar, 0.8 MPa)	120 psi (8 bar, 0.8 MPa)	100 psi (7 bar, 0.7 MPa)
Fluid passage size	1.5 in. (38 mm)	2 in. (51 mm)	3 in. (76.2 mm)
Max. pumpable solids	0.5 in. (12.7 mm)	0.5 in. (12.7 mm)	3/4 in. (19 mm)



PHARMACEUTICAL PUMPS

PHARMACEUTICAL GRADE DIAPHRAGM PUMP

Pump Finish

- 316 L SST
- 20 Ra finish
- FDA compliant
- USP Class VI classified



ELECTRIC	QUANTM h30 PH	QUANTM h80 PH	QUANTM h120 PH
Max. flow rate	30 gpm (114 lpm)	80 gpm (300 lpm)	120 gpm (454 lpm)
Max. fluid pressure	100 psi (7 bar, 0.7 MPa)	120 psi (8 bar, 0.8 MPa)	60 psi (4 bar, 0.4 MPa)
Fluid passage size	1 in. (25.4 mm)	1.5 in. (38 mm)	2 in. (51 mm)
Max. pumpable solids	0.42 in. (10.7 mm)	0.5 in. (12.7 mm)	0.5 in. (12.7 mm)

AIR-OPERATED	SaniForce 1040 PH	SaniForce 1590 PH	SaniForce 2150 PH	SaniForce 3250 PH
Max. flow rate	41 gpm (151 lpm)	105 gpm (398 lpm)	180 gpm (681 lpm)	230 gpm (870 lpm)
Max. fluid pressure	120 psi (8 bar, 0.8 MPa)	120 psi (8 bar, 0.8 MPa)	120 psi (8 bar, 0.8 MPa)	100 psi (7 bar, 0.7 MPa)
Fluid passage size	1 in. (25.4 mm)	1.5 in. (38 mm)	2 in. (51 mm)	3 in. (76.2 mm)
Max. pumpable solids	0.42 in. (10.7 mm)	0.5 in. (12.7 mm)	0.5 in. (12.7 mm)	3/4 in. (19 mm)

LARGE PARTICLE PUMPS

BUILT TO HANDLE SOLIDS UP TO 3.8 INCHES IN DIAMETER

Pump Finish

- 316 L SST
- 32 Ra finish
- FDA compliant



ELECTRIC	QUANTM h80 2-in. LP	QUANTM h120 3-in. LP
Max. flow rate	90 gpm (340 lpm)	105 gpm (398 lpm)
Max. fluid pressure	100 psi (7 bar, 0.7 MPa)	60 psi (4 bar, 0.4 MPa)
Fluid passage size	1.5 in. (38 mm)	3 in. (76.2 mm)
Max. pumpable solids	1.2 in. (30.5 mm)	2.46 in. (62.5 mm)

AIR-OPERATED	SaniForce 1590 LP	SaniForce 3150 LP	SaniForce 4150 LP
Max. flow rate	105 gpm (398 lpm)	130 gpm (492 lpm)	90 gpm (340 lpm)
Max. fluid pressure	120 psi (8 bar, 0.8 MPa)	120 psi (8 bar, 0.8 MPa)	120 psi (8 bar, 0.8 MPa)
Fluid passage size	1.5 in. (38 mm)	3 in. (76.2 mm)	4 in. (101.6 mm)
Max. pumpable solids	1.2 in. (30.5 mm)	2.5 in. (63 mm)	3.8 in. (96.5 mm)



APPLICATION OVERVIEW

Transfer options available for low to high viscosity materials from food to personal care to pharmaceuticals.

FOOD & BEVERAGE

Salad dressings, condiments, sauces, juices and flavored drinks, edible oils, snack food flavorings, beer, wine and more.



DAIRY

Yogurt, cottage cheese, ice cream ingredients



MEAT AND POULTRY

Eggs, poultry viscera, fish products, chicken nuggets, blood slurry/sludge



PERSONAL CARE

Cosmetics, facial scrubs, lotions, creams, toothpaste, deodorant base, petroleum jelly, lip gloss



PHARMA

Medical creams & lotions, blood products, (bio)pharmaceuticals, alcohol, vaccines, plasma





MOVING MATERIALS THAT MATTER™



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