



SaniForce® 2.0

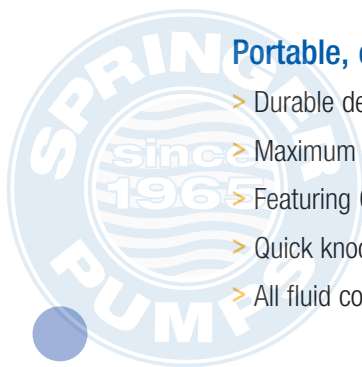
Air-Operated Double Diaphragm Pumps for food, beverage, personal care, cosmetics, & pharmaceutical applications



protect your **PROCESS**

Portable, easy-to-clean, quick knockdown design

- > Durable design for rigorous, continuous use
- > Maximum flow rates up to 250 gpm (567.8 lpm)
- > Featuring Graco's durable, lube-free, non-stick air valve
- > Quick knockdown for easy cleaning, sanitizing, and draining
- > All fluid contact materials are FDA-Compliant and meet CFR Title 21 with Class VI elastomers



PROVEN QUALITY. LEADING TECHNOLOGY.

INGREDIENTS TRAN

SaniForce Solutions

Improved cleanability, safety, and ease of use

protect your **PROCESS**

Food Grade Solutions



SaniForce FG 515 Diaphragm Pump	SaniForce FG 1040 Diaphragm Pump	SaniForce FG 1590 Diaphragm Pump	SaniForce FG 2150 Diaphragm Pump
16 gpm	40 gpm	90 gpm	180 gpm
up to 5,000 cps	up to 10,000 cps	up to 15,000 cps	up to 25,000 cps
Includes Drum Kit	Includes Drum Kit	Includes Drum Kit	Includes Drum Kit

High Sanitation



SaniForce HS 1040	SaniForce HS 1590	SaniForce HS 2150	SaniForce HS 3250
40 gpm	100 gpm	180 gpm	250 gpm
up to 10,000 cps	up to 15,000 cps	up to 20,000 cps	up to 25,000 cps

Typical Materials



Large Particle



SaniForce 1590	SaniForce 3150	SaniForce 4150	SaniForce 3150	SaniForce 4150
80 gpm	130 gpm	90 gpm	130 gpm	90 gpm
up to 15,000 cps	up to 25,000 cps	up to 25,000 cps	up to 25,000 cps	up to 25,000 cps

3A



SaniForce 3A 1590	SaniForce 3A 2150	SaniForce 3A 3250
100 gpm	180 gpm	250 gpm
up to 15,000 cps	up to 25,000 cps	up to 25,000 cps

Pharmaceutical



SaniForce PH 1040	SaniForce PH 1590	SaniForce PH 2150	SaniForce PF 3250
40 gpm	100 gpm	180 gpm	250 gpm
up to 10,000 cps	up to 15,000 cps	up to 25,000 cps	up to 25,000 cps



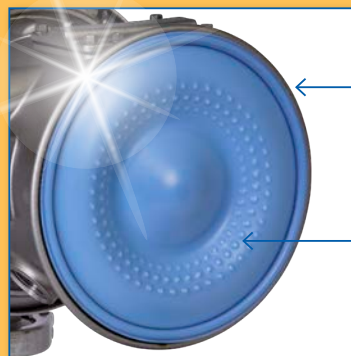
SaniForce® Diaphragms & Air Valves

All SaniForce diaphragm pumps are available with our signature overmolded diaphragms and externally serviceable air valves for cleaner and smoother operations.

With PTFE on the fluid side and EPDM on the air side on our PTFE/EPDM diaphragms, SaniForce diaphragm pumps are one of the easiest to clean in the market. This overmolded fluid side diaphragm plate improves wear, durability and cleanability.

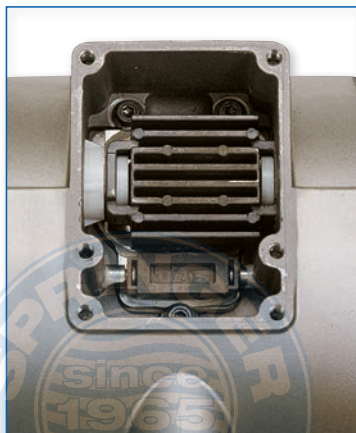
Prevent bacteria growth with the Graco overmolded diaphragm.

- > 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



EDPM backer

PTFE overmolded
fluid side diaphragm



Increase uptime with durable, externally serviceable air valve.

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

- Increase durability and reduce repair time with fewer moving parts
- Externally serviceable for quick, inexpensive repairs
- Three-way pilot valve for non-stick operation
- Lube-free for increased sanitation

SaniForce® Rotatable Stand

Many SaniForce diaphragm pumps are available with our convenient rotatable stand.

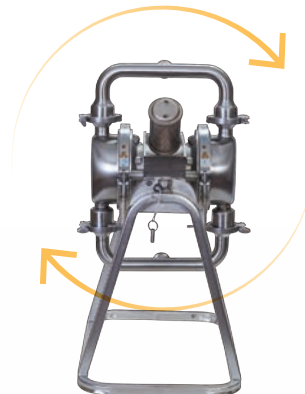
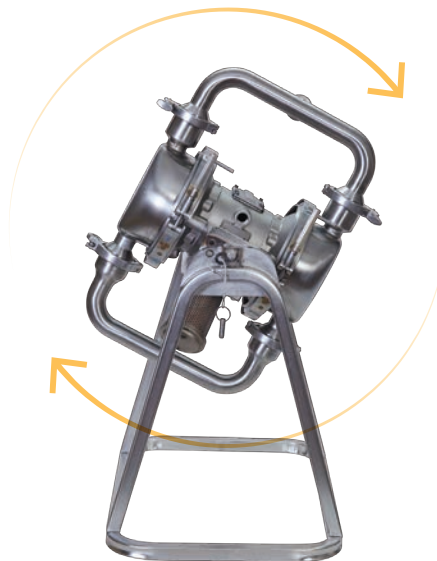
With the need for quick draining and easy servicing many SaniForce diaphragm pumps offer the rotatable stand solution.

Rotatable stand for quick draining and easy servicing

- > Quick-release key
- > Decrease downtime
- > 360° rotation

Available on:

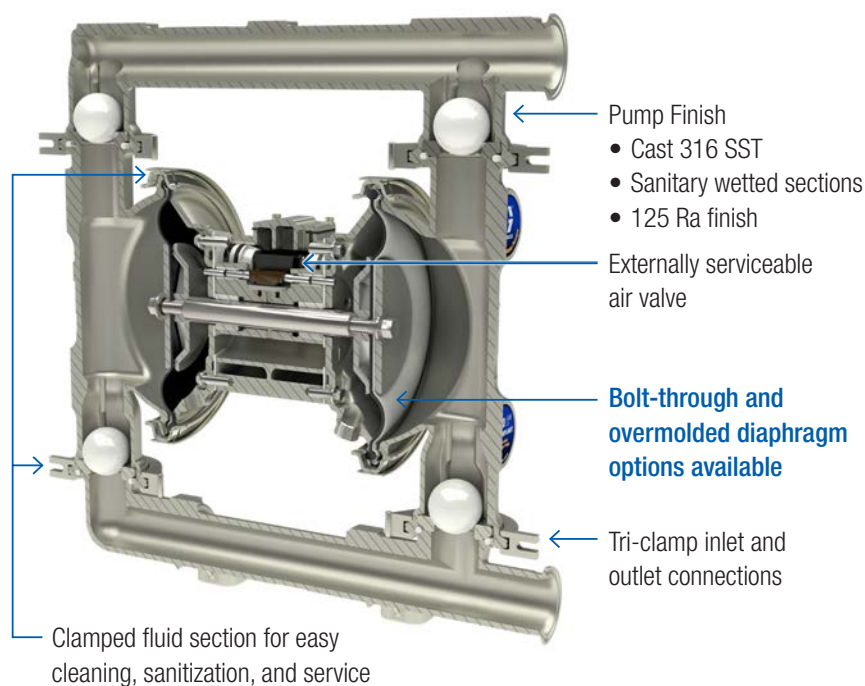
- SaniForce High Sanitation
- SaniForce Large Particle Diaphragm Pumps
- SaniForce 3A Diaphragm Pumps
- SaniForce Pharmaceutical Diaphragm Pumps



SaniForce® Food Grade Diaphragm Pumps

Increase durability and reduce repair time with fewer moving parts.

- Externally serviceable for quick, inexpensive repairs
- Designed for rigorous, continuous use with quick knockdown design for easy cleanability and sanitation
- Ideal for applications requiring high flow rates and portability



Fluid contact areas are all FDA-compliant and meet CFR Title 21



SaniForce 515

1 in Tri-clamp
up to 5,000 cps



SaniForce 1040

1.5 in Tri-clamp
up to 10,000 cps



SaniForce 1590

2 in Tri-clamp
up to 15,000 cps



SaniForce 2150

2.5 in Tri-clamp
up to 25,000 cps

Common Materials

Salad dressings	Edible oils
Condiments	Snack food flavorings
Sauces	Light lotions and creams
Juices and flavored drinks	Beer, wine, & more

SaniForce® High Sanitation Diaphragm Pumps

Easy to clean and sanitize pump for high care applications.

- Fewer areas for food and bacteria to hide for increased sanitation and easier cleaning
- Three-way pilot valve for non-stick operation
- Externally serviceable for quick, inexpensive repairs

Patented, durable, lube-free air valve

Tri-clamp and DIN connections

32 Ra formed/welded stainless steel with sanitary finish

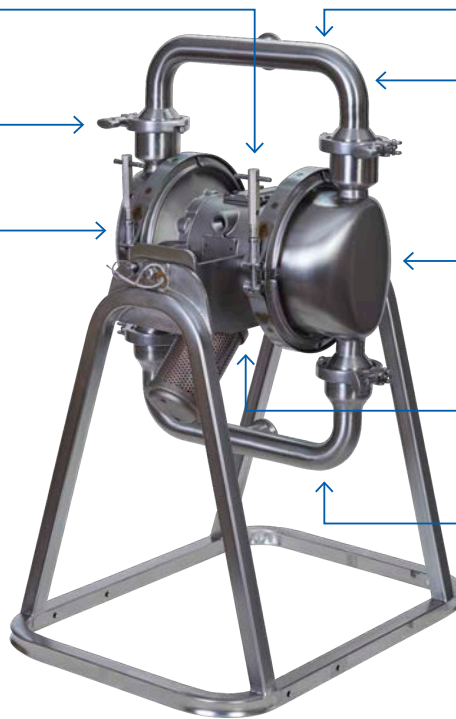
316 L SST Construction

Single piece manifold reduces clamps and areas for food/bacteria to hide

Overmolded and bolt in diaphragm options are available

Leak detector available on HS models

Improved fluid path improves cleanability and sanitization



SaniForce HS 1040

1.5 in tri-clamp
up to 10,000 cps

SaniForce HS 1590

2.0 in tri-clamp
up to 15,000 cps

SaniForce HS 2150

2.5 in tri-clamp
up to 25,000 cps

SaniForce HS 3250

3.5 in tri-clamp
up to 25,000 cps

Common Materials

Personal care

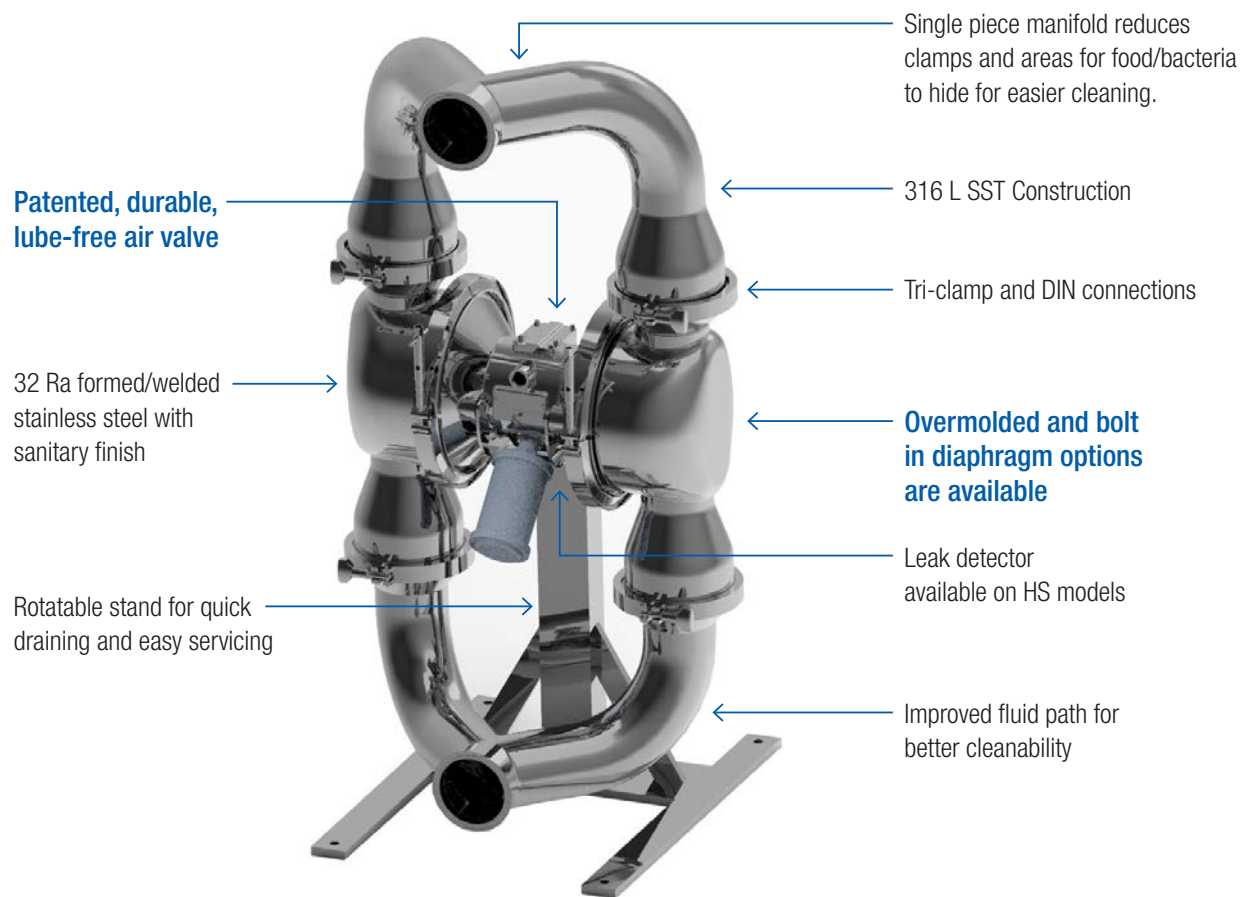
Cosmetics

High care food

SaniForce® Large Particle Diaphragm Pumps

Built to handle solids up to 3.8 inches in diameter.

- Easy to clean tri-clamp connections for a quick knockdown design and minimal downtime
- Durable pump construction handles particulates and abrasives in material without damage to pump
- 3 and 4 inch sizes available in both air and electric operated models



Flapper Check

Handles solids up to 3.8 inches without crushing or damaging material



Large Particle Pump Sizes



SaniForce 1590	SaniForce 3150	SaniForce 4150
1.2 in max pumpable solids	2.6 in max pumpable solids	3.8 in max pumpable solids
80 gpm	130 gpm	90 gpm
up to 15,000 cps	up to 25,000 cps	up to 25,000 cps



SaniForce 3150*	SaniForce 4150
2.6 in max pumpable solids	3.8 in max pumpable solids
130 gpm	90 gpm
up to 25,000 cps	up to 25,000 cps

*Shown with optional single inlet & outlet manifolds

Common Materials

Meat & Poultry

Fruit filling materials

Ice cream varigates

SaniForce® 3A Diaphragm Pumps

3A Certified diaphragm pump for handling dairy safely and effectively.

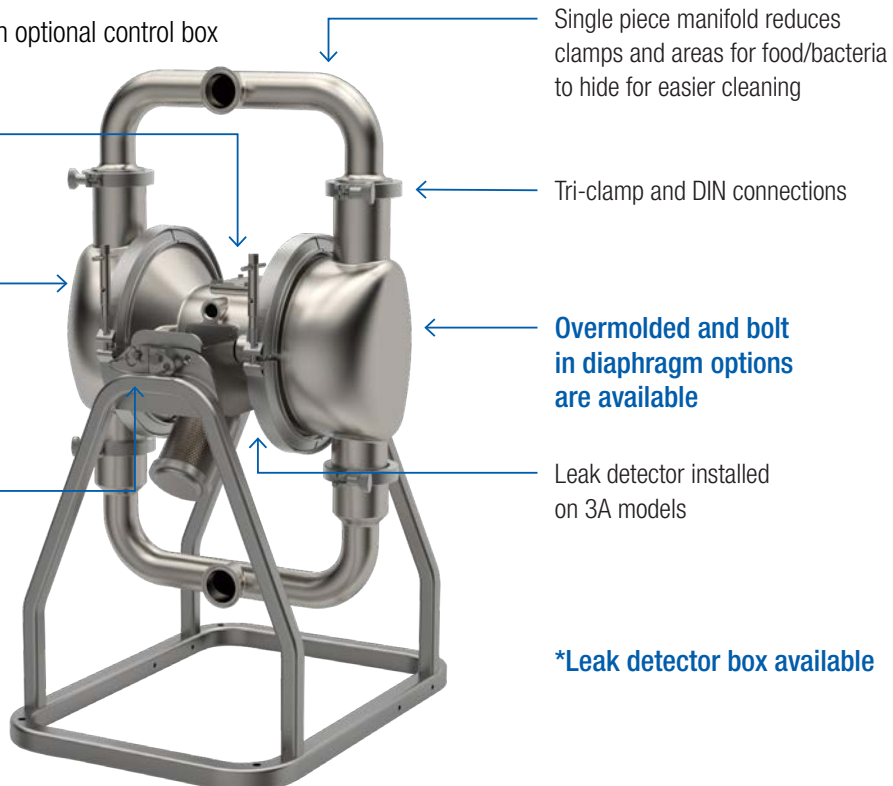
- Increase durability and reduce repair time with fewer moving parts
- Three-way pilot valve for non-stick operation
- Externally serviceable for quick, inexpensive repairs
- Leak sensors installed with optional control box



**Patented, durable,
lube-free air valve**

32 Ra formed/welded
stainless steel with
sanitary finish

Rotatable stand for quick
draining and easy servicing



Single piece manifold reduces
clamps and areas for food/bacteria
to hide for easier cleaning

Tri-clamp and DIN connections

**Overmolded and bolt
in diaphragm options
are available**

Leak detector installed
on 3A models

***Leak detector box available**



SaniForce 3A 1590

up to 15,000 cps



SaniForce 3A 2150

up to 25,000 cps



SaniForce 3A 3250

up to 25,000 cps

**Common
Materials**

Dairy

Yogurt

Cottage cheese

Ice cream ingredients

and more

SaniForce® Pharmaceutical Diaphragm Pumps

Pharmaceutical grade diaphragm pump.

- Increase durability and reduce repair time with fewer moving parts
- Three-way pilot valve for non-stick operation
- Externally serviceable for quick, inexpensive repairs
- 20Ra electropolished finish

Patented, durable, lube-free air valve

20 Ra formed/welded stainless steel with electropolished sanitary finish

Rotatable stand for quick draining and easy servicing

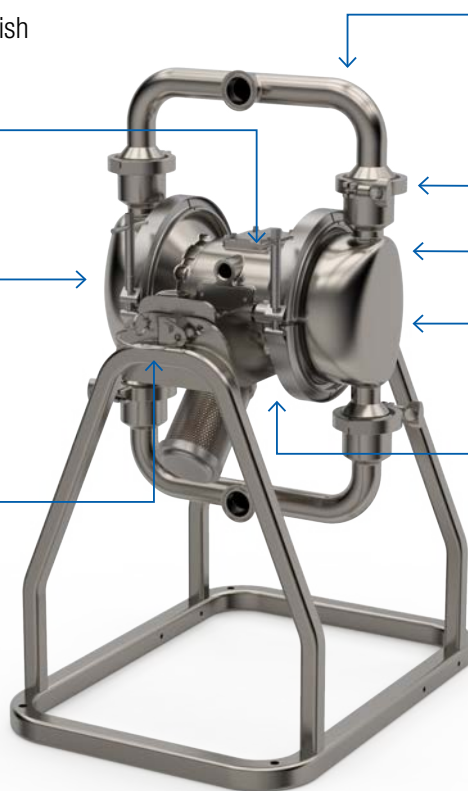
Single piece manifold reduces clamps and areas for food/bacteria to hide for easier cleaning

Tri-clamp and DIN connections

316L SST wetted sections

Overmolded and bolt in diaphragm options are available

Leak detector available for Pharma models 1590, 2150, and 3250



SaniForce PH 1040

up to 10,000 cps



SaniForce PH 1590

up to 15,000 cps



SaniForce PH 2150

up to 25,000 cps



SaniForce PH 3250

up to 25,000 cps

Common Materials

Medical creams & lotions

Organic reagent

Blood products

Bio pharmaceuticals

Alcohol & Solvent Transfer

APPLICATIONS

Application Overview

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

- **FOODS:** Salad dressings and condiments, sauces, juices and flavored drinks, edible oils, snack food flavorings, light lotions and creams, beer and wine, and more



- **DAIRY:** Yogurt, cottage cheese, ice cream ingredients

- **MEAT and POULTRY**



- **PERSONAL CARE:** Cosmetics, and high care food



- **PHARMA:** Medical creams & lotions, organic reagent, blood products, bio pharmaceuticals, alcohol and solvent transfer



protect your **PROCESS**

All written and visual data contained in this document are based on the latest product information available at the time of publication. Graco reserves the right to make changes at any time without notice.

Call today for product information or to request a demonstration.

800.328.0211 or visit us at www.graco.com/sanitary

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