



# SaniForce® 2.0

## Container Evacuation Solutions



*protect your* **PROCESS**

**Transfer thick and viscous materials, without heat or dilution, from containers**

- > SaniForce pump line is designed to evacuate low to high viscosity food, beverage, and personal care products
- > FDA-compliant, quick knock-down designs for applications requiring frequent sanitation
- > 99% evacuation rate from most containers
- > Process automation

PROVEN QUALITY. LEADING TECHNOLOGY.

# SaniForce Solutions

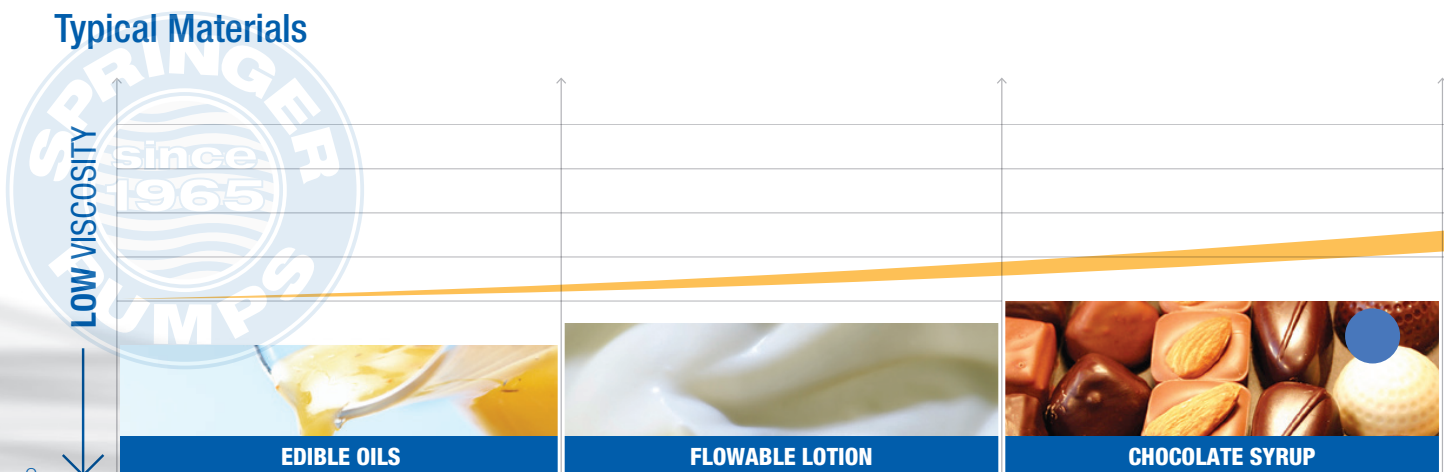
Improve plant efficiency, safety and ergonomics

## CONTAINER EVACUATION



SaniForce FG 515 Diaphragm Pump	SaniForce Drum Pump	SaniForce Piston Pumps	SaniForce Elevator	SaniForce Pail Unloader
Up to 5,000 cps	Up to 50,000 cps	Up to 100,000 cps	Up to 150,000 cps	Up to 100,000 cps
16 gpm	7 gpm	4 gpm	14 gpm	4gpm
Includes Drum Kit			Use with <b>SaniForce 2:1, 5:1 and 6:1 Piston Pumps</b>	

### Typical Materials





SaniForce Diaphragm Pump Drum Unloaders	SaniForce Piston Pump Drum Unloaders	SaniForce SBU (Bin Evacuation Systems)
Up to 100,000 cps	Up to 1,000,000 cps*	Up to 1,000,000 cps*
150 gpm	14 gpm	56 - 300 gpm
Available with SaniForce 1590, 2150, or 3150 HS Diaphragm Pumps	Available with SaniForce 5:1, 6:1 or 12:1 Piston Pumps	Available with SaniForce 5:1 or 12:1 Piston Pumps, or SaniForce 3150 HS Diaphragm Pump

\*When used with priming piston



# SaniForce® Drum Pumps



Reduce downtime with the lightweight, easy to use, portable SaniForce Electric Drum pump.

- **Easy cleaning and product changeover** - with this simple knockdown design, cleaning between drums or product changeovers has never been easier.
- **Operational flexibility throughout facility** - with electric pump operation, simply plug in the pump to transfer material in minutes.
- **Easy mobility** - lightweight design allows all operators to move pumps between drums to increase output.



## Common Applications

Fluid transfer and supply of low to medium viscosity fluids. Ideal for most food, beverage, cosmetic, or personal care applications.

## Common Materials

Fruit juice, concentrates
Edible oils
Condiments & dressings
Personal care: lotions & creams



# SaniForce® Piston Pumps

MEDIUM VISCOSITIES

Graco's powerful line of piston pumps move extremely difficult materials when others cannot. SaniForce piston pumps have fluid pressures up to 1,200 psi and are ideal for low to medium viscosity materials.

- Air motors improve serviceability, increase efficiency and offer a lower cost of ownership.
- Quick knockdown lowers are made with corrosion resistant stainless steel for long-lasting durability.

Advanced air motor technology



## FDA-Compliant Shroud

- Removable, wash down safe, FDA-compliant shroud lets you easily access the air valve

Available in double ball or priming piston designs



**All SaniForce Piston Pumps have Quick Knockdown Lowers for Fast and Easy Cleaning!**

### SaniForce 2:1

Up to 50,000  
Up to 1.5 gpm (5.7 lpm) at 60 cpm  
Standard and long lengths

### SaniForce 6:1

Up to 100,000  
Up to 4 gpm (15 lpm) at 60 cpm  
Stubby, drum and bin lengths

### SaniForce 5:1

Up to 100,000  
Up to 14 gpm (53 lpm) at 60 cpm  
Stubby and drum lengths

### SaniForce 12:1

Up to 1,000,000+ cps\*  
Up to 8.5 gpm (32 lpm) at 60 cpm  
Stubby length only

\*With drum or bin unloader only

## Common Applications

Fluid transfer and supply of low to medium viscosity fluids. Ideal for most food, beverage, cosmetic, or personal care applications.

## Common Materials

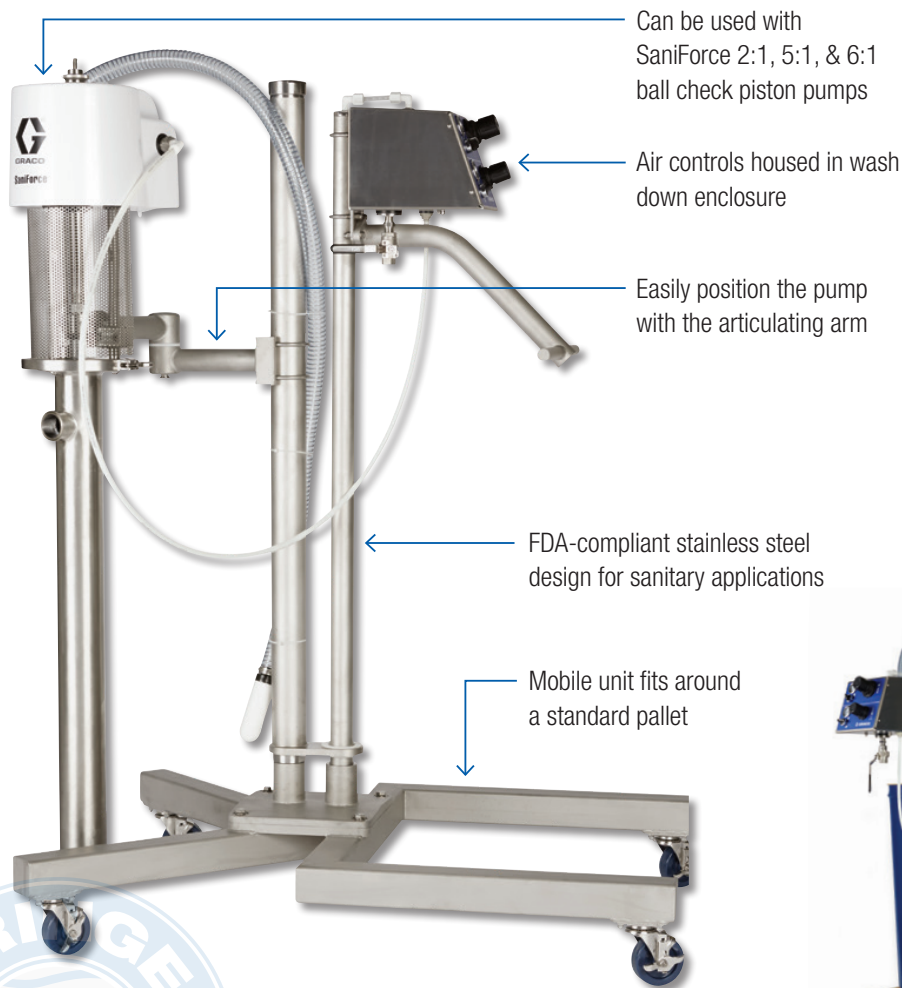
Fruit juice concentrates  
Dressings & sauces  
Ice cream variegates  
Cosmetics

# SaniForce® Elevators

MEDIUM VISCOSITIES

The SaniForce Elevator is ideal for small to medium sized companies that currently unload less than two containers per hour by either scooping or dumping.

- Designed to lower pumps into and lift pumps out of drums, bins, and totes
- Safer and more ergonomic than moving pumps by hand and cleaner than chain/hoist options



Stationary unit with base plate mounted to the floor

## Common Applications

Fluid transfer and supply of medium viscosity fluids. Ideal for most food, beverage, cosmetic, or personal care applications.

## Common Materials

Fruit juice concentrates  
Condiments & dressings  
Flowable lotions & cosmetics

# SaniForce® Pail Unloader



**Increase efficiency with faster change-out of containers.**

- Up to 99% evacuation rate of medium to high viscosity materials
- Designed for quick disassembly. Portable, stainless steel construction
- One size follower plate and seal to accommodate 5 or 7 gallon pails
- Prevents injuries from lifting and dumping material out of containers

Self-priming and run dry capability

Graco 6:1 HP piston pump to transfer your toughest materials

Full 316 SST wetted section

Sealed container for product contamination prevention

Prevents worker injury by eliminating constant lifting and dumping

Portable cart for easy transport

**Evacuate up to 99% of material**

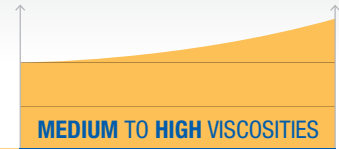
## Common Applications

Fluid transfer and supply of medium to high viscosity fluids. Ideal for most food, beverage, cosmetic, or personal care applications.

## Common Materials

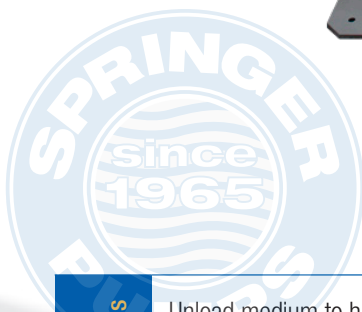
Icing, frostings, & fondants
Caramels & chocolate
Fruit Paste & fillings
Cosmetics

# SaniForce® Drum Unloaders



Superior alternative to manual scooping for improved food and employee safety.

- Designed with a sealed system for food safety
- Available in double ball or priming piston designs
- Tri-clamp connections allow easy cleaning and sanitation



## Common Applications

Unload medium to high viscosity products, +1,000,000 cps\*, from 55-gallon containers without diluting the material

## Common Materials

Tomato paste	Cosmetics
Peanut butter	Jams and jellies
Icing and frosting	Caramel
Toothpaste	Corn syrup



# It's as easy as 1-2-3.

Choose the Ram Frame Material + Control Type + Piston or Diaphragm Pump to build your own SaniForce Drum Unloading System.

- All pumps feature an on-demand workflow capability and can also be taken apart quickly for applications that require frequent sanitation

**1**

Ram Frame Material



Stainless Steel

OR



Painted Carbon Steel

**2**

Controls Type



Enclosed Controls  
(Available with SST frame only)



Exposed Controls

**3**

SaniForce Piston Pump

OR SaniForce Diaphragm Pump



SaniForce 6:1



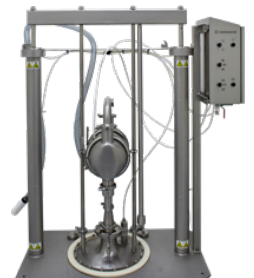
SaniForce 5:1



SaniForce 12:1



SaniForce 1590



SaniForce 3150

**4**

Static or inflatable wiper



# SaniForce® Bin Evacuation Systems

MEDIUM TO HIGH VISCOSITIES

## Clean unloading of materials without introducing airborne bacteria

Save time and money in your facility by unloading materials over 1,000,000 cps efficiently from 300-gallon (1,135.6 l) "bag-in-bin" containers – eliminating manual scooping or bin dumping.

Complete bin unloading saves money and provides better process control while removing the need for costly booster pumps.

Fluid outlet piping for easier installation

Bin guides include back stop for better bin positioning

Inflatable seal improves retention in plate and creates better seal for improved evacuation without the crevices and fasteners of a wiper seal

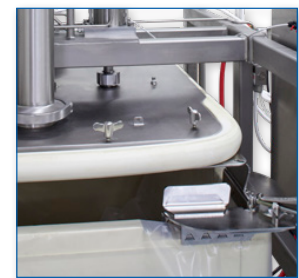
Two pump or four pump systems available with Graco piston pumps

Pneumatic safety circuit prevents loss of air pressure in cylinders

Automated controls remove unnecessary worker interaction and automate the unload process

Available with pneumatic or electronic controls

Evacuate up to 99% of material



Inflatable wiper creates a tight seal preventing contaminants from entering the container

### Common Applications

Evacuate viscous products from their original 300-gallon containers without dilution

### Common Materials

Tomato paste	Cosmetics
Peanut butter	Jams and jellies
Icing and frosting	Caramel
Toothpaste	Corn syrup

# It's as easy as 1-2-3.

Choose the Ram Frame Material + Control Type + Piston or Diaphragm Pump to build your own SaniForce Bin Evacuation System.

- All pumps feature an on-demand workflow capability and can also be taken apart quickly for applications that require frequent sanitation.

**1**

Stainless Steel Frame



**2**

Controls Type



Enclosed Controls  
(Available with SST frame only)

Exposed Controls

**3**

SaniForce Piston Pump

OR SaniForce Diaphragm Pump



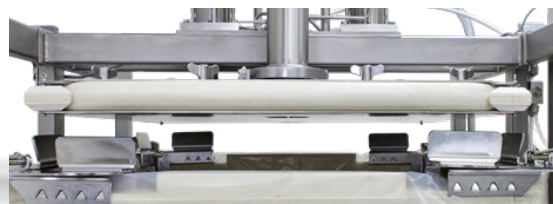
SaniForce 5:1

SaniForce 2150 HS  
Bin Evacuation System

SaniForce 3150 HS  
Bin Evacuation System

**4**

Inflatable wiper and plate size. White or black inflatable seal.



# APPLICATIONS

## Application Overview

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

- **FOODS:** Low to high viscosity ingredients including juices & flavored drinks, salad dressings & condiments, edible oils, snack food flavorings, frostings, beer & wine, caramels & chocolate syrups, jams & fruit fillings, tomato paste, peanut butter, and more



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



- **PERSONAL CARE:** Lotions & creams, 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](http://www.graco.com/sanitary)

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