

VERDERAIR

Sanitary series

- 3A
- SB
- SF



VAN WIJK & BOERMA

VERDER →

Solutions in Pumping Technology

VERDERAIR SANITARY SERIES

Quick Knock Down Diaphragm Pumps



3A



SF (Sanitary Flapper)



SB (Sanitary Ball)

Produce up to 150 gpm with a 3A-certified and/or compliant air-operated double diaphragm pump from VERDERAIR

FEATURES AND BENEFITS

- Ball (1") and flapper (2.5") pass large solids/chunks with ease without damaging product or clogging pump
- Available in two designs, ball (3A or SB) and flapper (SF) and easily converted from one to the other with optional kit
- Stainless steel fluid ends, meet or exceed a 32 Ra finish and can be disassembled in 5 minutes or less
- 316 Stainless steel center section and air valve offer lube-free operation
- Santoprene®, Buna-N, Viton® and PTFE food-grade elastomers
- 3A or SB are available with 1.5", 2", 3" and 4" tri-clamp connections
- SF comes standard with 3" and 4" tri-clamp connections
- All models are available as stand-mounted or in unloader packages
- Electronic leak detector is standard on the 3A model and is optional on the SB or SF models

PROCESS

PROVEN QUALITY. LEADING TECHNOLOGY.

VERDERAIR 3A Pump

With the highest flow capacity of any air-operated double diaphragm pump certified by 3A, the 3A is designed to meet the stringent sanitation requirements of the milk/dairy industry. It offers flow rates up to 567.8 lpm and passes 25 mm solids.

Mounted on a floor stand and equipped with a leak detector, the 3A can be rotated 185 degrees to drain any excess sanitation chemicals used in the CIP process.

Typical Fluids Handled

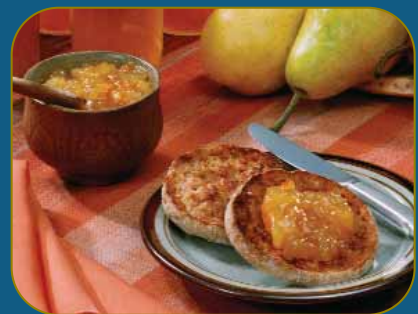
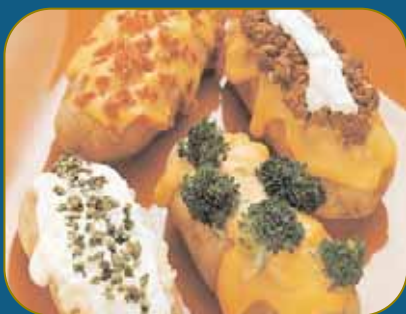
- Sour cream
- Ice cream
- Milk
- Yogurt
- Light-viscosity cheeses
- Pharmaceutical lotions



LEAK DETECTOR

Designed to detect leaks caused when a diaphragm fails, it sounds a built-in audio alarm and signals external shut down of the pump to prevent damage.

Mounted in air covers, the leak detector uses both an optical and conductivity sensor to insure the utmost reliability. Powered by either 24v or 110/220v.



SF Pumps

For materials and fluid streams containing large solids or chunks, which clog a ball-designed pump or are damaged by the pumping action.

The SF easily pumps larger solids and will pass up to 63.5 mm solid without crushing or damaging the product.

Typical Fluids Handled

- Apple or cherry pie filling
- Spaghetti sauce with meat
- Blueberry muffin batter
- Grapes with and without stems
- Raspberries
- Potato salad
- Pickle relish
- Chunky salsa



Flapper



SB Pumps

For applications that benefit from the convenience of quick knock down design, but may not require leak detection.

The SB ball design passes solids up to 25 mm in diameter. The ease of disassembly of the fluid ends, large porting, and high flow capacity, makes the SB the perfect pump for your high volume application needs.

Typical Fluids Handled

- Fruit juice
- Jams and jellies
- Corn syrup
- Tomato sauces
- Flowable cheese spreads
- Pizza sauces
- Tomato paste
- Icing
- Salsa
- Fruit purees



Ball and Seat



The Simplicity of the Air Valve

Our Air-Operated Double Diaphragm Pumps feature extremely reliable, externally serviceable air valves that make the Sanitary Series pumps among the best in the industry.



top view of air valve

FEATURES AND BENEFITS

- Fewer moving parts means increased durability and less repair time
- Three-way pilot valve for true non-sticking operation
- Externally serviceable for quick, inexpensive repairs
- The elimination of o-rings and a spool valve prevents centering; a common problem with competitive pumps
- Lube-free operation for cleaner operation – essential when handling food products

Features and Benefits

A EASY MAINTENANCE

- Low internal volume reduces waste and makes clean-up easy

B UNIQUE, PATENTED AIR VALVE

- Three-way pilot valve for no-stick operation
- All parts are replaceable without opening wet body parts
- No air-line lubrication required

C PRECISION-FITTED PARTS

- Long-wearing end bearings assure positive rod alignment and are easy to replace

D PROTECTIVE EXHAUST PORT

- Common port for all exhaust prevents vapors in room from attacking air motor seals

E RUGGED EXTERIOR CONSTRUCTION

- 316 SST construction resists corrosion, prevents leakage and ensures clean fluid changes

F POSITIVE SEAL DESIGN

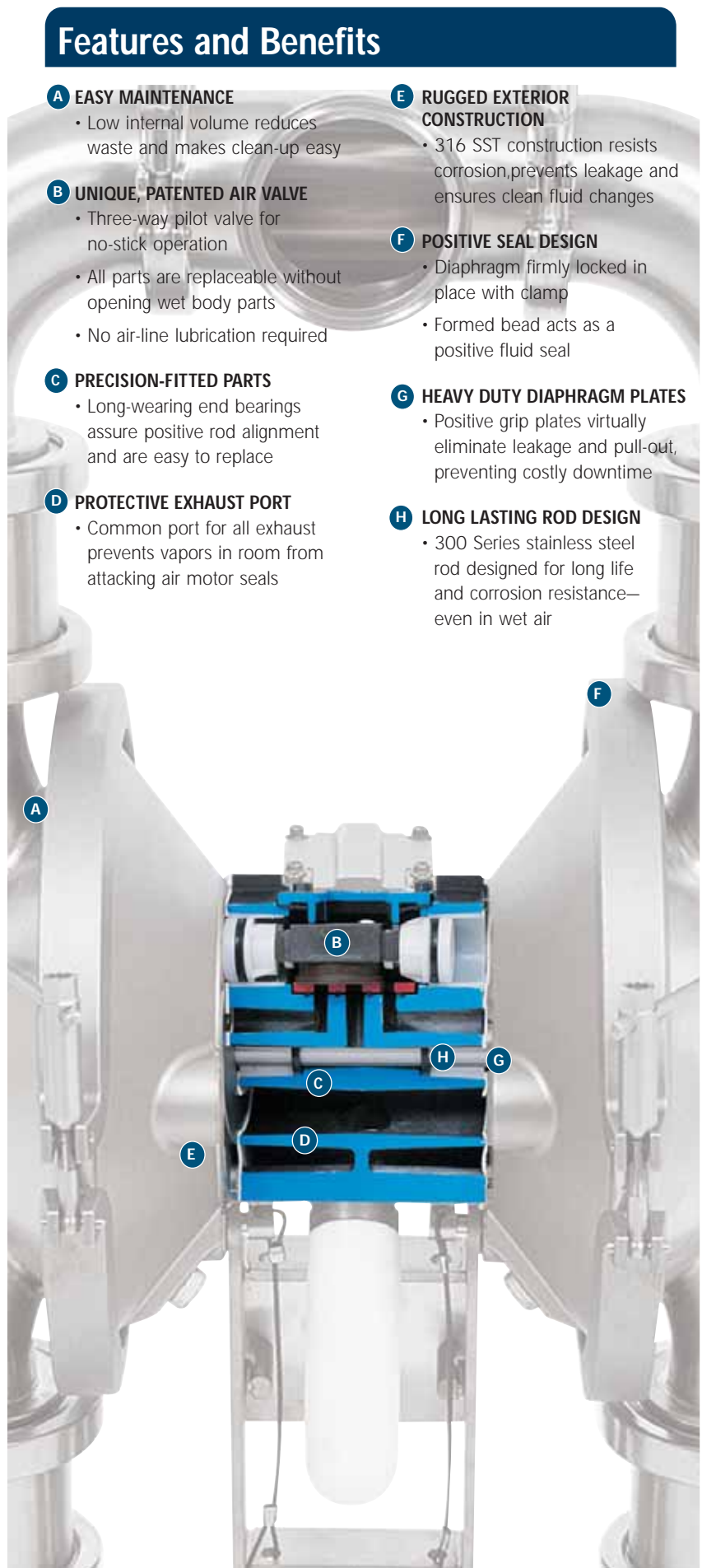
- Diaphragm firmly locked in place with clamp
- Formed bead acts as a positive fluid seal

G HEAVY DUTY DIAPHRAGM PLATES

- Positive grip plates virtually eliminate leakage and pull-out, preventing costly downtime

H LONG LASTING ROD DESIGN

- 300 Series stainless steel rod designed for long life and corrosion resistance—even in wet air



Drum Unloader

The Drum Unloader evacuates barely flowable products from their original 200 l containers without diluting the material.

Unloader packages come standard with an inflatable ram plate seal, which minimizes seal leakage and allows quick replacement of the empty container. The available packages will empty 21.5", and 23" fiber, 22.5" metal, and 23.25" plastic tapered drums. With flow rates up to 390 l/min, extremely fast evacuation rates are possible.

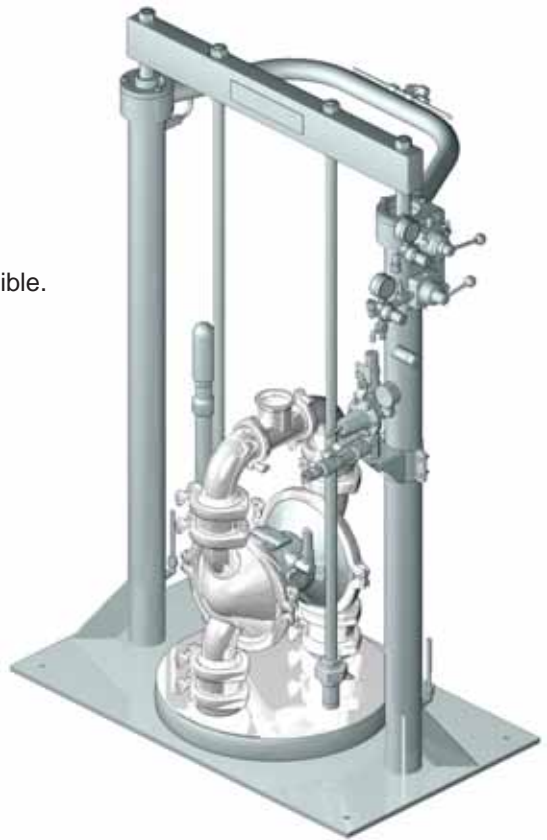
Typical Fluids Handled

- Tomato paste
- Light peanut butter
- Heavier ointments
- Icing
- Frostings

Technical Specifications

Maximum Fluid pressure 120 psi (8.4 bar, 0.84 MPa)
 Maximum flow @ 60 cpm* 60 gpm (234 lpm)
 Maximum flow @ 100 cpm* 100 gpm (390 lpm)
 Viscosity range of package 10,000 to 20,000 cps
 Maximum inlet air pressure 120 psi (8.4, 0.84 MPa)
 Air inlet size 3/4 npt(f)
 Evacuation efficiency 99%
 Instruction manual 309505

**Flow rates based on full displacement of lower and S.G.=1*



Type	Plate Size	Outlet Size	Diaphragm/ Ball Material
Ball	21 1/2" (546 mm)	3" (76 mm)	PTFE
Ball	22 1/2" (572 mm)	3" (76 mm)	PTFE
Flapper	21 1/2" (546 mm)	3" (76 mm)	PTFE
Flapper	22 1/2" (572 mm)	3" (76 mm)	PTFE

VERDERAIR VA 80 BES

The VA 80 BES (Bag Evacuation System) evacuates barely flowable products from their original 300-gallon containers without diluting the material.

Standard with an inflatable ram plate seal, the VA 80 BES minimize seal leakage and allows quick replacement of the empty container. An all-pneumatic version is available for applications that don't require metering or batch control. An electronic version is available for those applications that do.

Equipped with two pumps and with flow rates up to 100 gpm each, bin evacuation times of less than three minutes are possible.

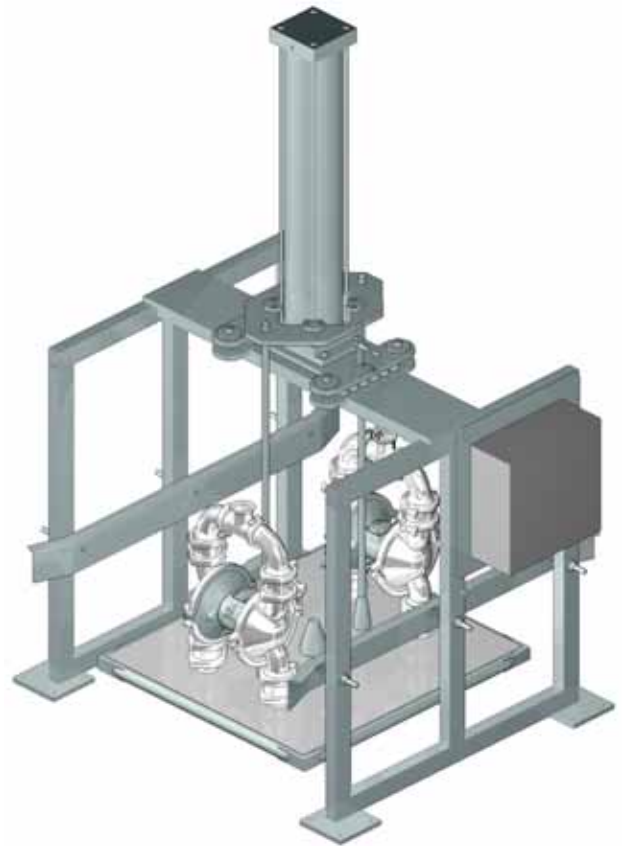
Typical Fluids Handled

- Tomato paste
- Light peanut butter
- Heavier ointments
- Icing and frostings

Technical Specifications

Maximum fluid pressure 120 psi (8.4 bar, 0.8 MPa)
 Maximum flow @ 60 cpm* 120 gpm (468 lpm)
 Maximum flow @ 100 cpm* 200 gpm (780 lpm)
 Viscosity range of package 10,000 to 20,000 cps
 Maximum inlet air pressure 120 psi (8.4 bar, 0.84 MPa)
 Air inlet size 3/4 npt(f)
 Evacuation efficiency 98%

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



Ordering Information

Type	Pump Bin Manufacturer	Outlet Controls	Outlet Size	Diaphragm/ Ball Material
Ball	Plywood	Pneumatic	3" (76 mm)	PTFE
Ball	Plywood	Electronic/ Pneumatic	3" (76 mm)	PTFE

Note: Contact process marketing for ordering information on non-plywood bins.

Pumps and Packages

Verder offers the most complete range of pumps, packages and systems to meet all of your application requirements. Whether the materials you use comes in pails, drums, bins, totes or tankers, Verder has the solution. From fruit juices to fruit paste, from sliced tomatoes to paste, and from peanut oil to peanut butter, Verder pumps are designed to provide years of reliable service!



Verderair FDA Plus Diaphragm Pumps



Verderair FDA Diaphragm Pumps



300-Gallon BES (Bin Evacuation System)



Piston Pump



55-Gallon Unloader Packages