



Graco's Bin Unloader

- Available in diaphragm and piston-style pump configurations
- Evacuates viscous products from 300-gallon containers without dilution
- Extremely fast evacuation with flow rates up to 300 gpm
- Designed with inflatable wiper seals for increased efficiency and faster change-out of bins
- Available in manual and electronic options



3150 BES
(Bin Evacuation System)

300-Gallon BES

For more information visit www.graco.com/sanitary
or call **877-844-7226**

PROVEN QUALITY. LEADING TECHNOLOGY

SQUEEZE **more**
*out of your
bottom line*

Technical Specifications

BES™ 300 (BIN EVACUATION SYSTEM)

BES Part No	BES1xx	BES2xx	BES5xx	BES6xx
Max. working fluid pressure	430 psi (3 MPa, 30 bar)		1000 psi (7 MPa, 70 bar)	1000 psi (7 MPa, 70 bar)
Compressed air requirement	80-100 psi (0.55-0.7 MPa, 5.5-7 bar)		80-100 psi (0.55-0.7 MPa, 5.5-7 bar)	80-100 psi (0.55-0.7 MPa, 5.5-7 bar)
Pneumatic control panel specifications				
Max. inlet air pressure	100 psi (0.7 MPa, 7 bar)		100 psi (0.7 MPa, 7 bar)	100 psi (0.7 MPa, 7 bar)
Air inlet size	3/4 in npt(f)		3/4 in npt(f)	3/4 in npt(f)
Air inlet pump	1 in npt(f)		1 in npt(f)	1 in npt(f)
Fluid Displacement (each pump)	0.23 gal/cycle		0.14 gal/cycle	0.14 gal/cycle
Max. Flow @ 60 cpm*	28 gpm (106 lpm)	54 gpm (204 lpm)	17 gpm (64 lpm)	34 gpm (128 lpm)
Pressure ratio	4.3:1		10:1	10:1
Air consumption @ 70 psi (each pump)	~1.8 scfm per gpm (0.48 MPa, 4.8 bar)		~3.5 scfm per gpm (0.48 MPa, 4.8 bar)	~3.5 scfm per gpm (0.48 MPa, 4.8 bar)
Pump outlet	2 in tri-clamp		2 in tri-clamp	2 in tri-clamp
Communication	RS232 Serial		RS232 Serial	RS232 Serial
Electrical requirements	110 VAC (60 Hz), 15A		110 VAC (60 Hz), 15A	110 VAC (60 Hz), 15A
Overall dimensions in (m)	69 W x 60 D x 118.8 H (1.72 W x 1.52 D x 3.0 H)		69 W x 60 D x 118.8 H (1.72 W x 1.52 D x 3.0 H)	78 W x 60 D x 118.8 H (1.98 W x 1.52 D x 3.0 H)
Evacuation efficiency	2 pumps: 98% 4 pumps: 99%		N/A	N/A
Instruction manual	311163		311163	311163

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

Note: Graco's BES packages are available for a variety of manufacturers' bins and custom systems can be built upon request. Contact Graco at 1-800-543-0339 for more information.

3150 BES

3150 BES Part No	BES3xx	BES4xx
Max. working fluid pressure	120 psi (0.84 MPa, 8.4 bar)	
Compressed air requirement	80-120 psi (0.55-0.84 MPa, 5.5-8.4 bar)	
Pneumatic control panel specifications		
Max. inlet air pressure	120 psi (0.84 MPa, 8.4 bar)	
Air inlet size	3/4 in npt(f)	
Air inlet pump	1/2 in npt(f)	
Fluid Displacement (each pump)	1.03 gal/cycle	
Max. Flow @ 145 cpm*	300 gpm (1,135 lpm)	
Pressure ratio	1:1	
Air consumption @ 70 psi (each pump)	~0.8 scfm per gpm (0.48 MPa, 4.8 bar)	
Pump outlet	3 in tri-clamp	
Max. suction lift	18 ft (5.5 m) wet	10 ft (3.0 m) wet
Max. diaphragm operating temperature (Santoprene, 3A Approved EPDM)	180°F (82.2°C), 275°F (135°C)	
Typical sound level at 70 psi (4.9 bar) air @ 50 cpm	85 dBA	
Weight	3000 lb (1360 kg)	
Instruction manual	311163	

* Flow rates are with muffler and slightly vary based on diaphragm material. Displacement per cycle may vary based on suction condition, discharge head, air pressure and fluid type.

Ordering Information

BES 300

BES Part No.	Max. Working Fluid Pressure per pump (psi (MPa, bar))	Pump Part No.	Pump Quantity	Pump Description	Controls	BIN Manuf.
BES1P1	430 (3, 30)	949704	2	FT14 Sanitary Pump	Electronic	Plywood
BES1P3	430 (3, 30)	949704	2	FT14 Sanitary Pump	Manual	Plywood
BES1P6	430 (3, 30)	949704	2	FT14 Sanitary Pump	Electronic	Plywood
BES2P2	430 (3, 30)	949704	4	FT14 Sanitary Pump	Electronic	Plywood
BES5A1	1000 (7, 70)	949444	2	10:1 Sanitary Bulldog®	Electronic	Arena
BES5A3	1000 (7, 70)	949444	2	10:1 Sanitary Bulldog	Manual	Arena
BES6L2	1000 (7, 70)	949444	4	10:1 Sanitary Bulldog	Electronic	Arena
BES6T2	1000 (7, 70)	949444	4	10:1 Sanitary Bulldog	Electronic	TNT
BES6T4	1000 (7, 70)	949444	4	10:1 Sanitary Bulldog	Manual	TNT

Note: Systems can be special ordered for bin types other than plywood.

Contact your sales rep for additional information.

3150 BES

Part No.	Type	Bin Manuf.	Outlet	Outlet Size	**Diaphragm /Ball Material
BES3P3	Ball	Plywood	Manual	3 in (76 mm)	Santoprene/ PTFE
BES3P1	Ball	Plywood	Electronic	3 in (76 mm)	Santoprene/ PTFE
BES4P3	Flapper	Plywood	Manual	3 in (76 mm)	Santoprene/ N/A

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

**3A Approved EPDM Diaphragm is available for Heavy Duty applications

Additional Pumps and Packages

Graco offers the most complete range of pumps, packages and systems to meet all of your application and cleaning requirements. Whether the material you use comes in pails, drums, bins, totes or tankers, Graco pumps and cleaning systems are designed to provide years of reliable service!

For more information visit

www.graco.com/sanitary

or call **877-844-7226**