

# Our solutions for beer bottle filling

From brewing to bottling - every step in the process has an impact on the quality and taste of great beer. Atlas Copco, a leading brand in the beer industry for compressors and N<sub>2</sub> generator systems, is introducing an innovative and sustainable vacuum solution for the bottling process - helping to improve energy efficiency, reduce lifecycle costs and lower the rejection rate of over/under-filled bottles in your process.

# The beer foam separator

A stable and consistent vacuum is vital for high speed filling machines in the beer industry, but a high amount of foam is generated at the end of the filling process and enters in the vacuum line. This can compromise the vacuum pump leading to poor quality or disruption of filling operation.

Atlas Copco has developed a solution combining a foam separator to it's state-of-the-art GHS VSD+ screw vacuum pump that solves this issue while saving energy and water costs. The Beer Foam Separator (BFS 900) is a smart, easy to install system that provides full protection to the vacuum pump. Fabricated from 304 stainless steel with auto-draining tank and associated logic control system. The excess foam that enters the vacuum

system is effectively collapsed in the foam separator by a calming section with a large diameter for foam settling. The rising liquid level is detected by appropriate sensors and an automatic separation process is initiated by an air lock consisting of electro-pneumatic actuators and a receiver tank to enable drain in continuous operation.

The separator is clean-in-place (CIP) capable and a shower ball mechanism ensures reach to all internal parts granting compliance to required hygienic standards. All functions of the separator and of the vacuum pump have been developed in our logic controller to grant consistent and reliable operations providing maximum flexibility to customer requirements.





### No water wastage

The system requires zero water consumption as compared to other technologies.



### **Energy savings**

Coupled with GHS VSD+ efficient technology, this system delivers up to 40% energy savings.



### **Auto-drain function**

There are control valves to automatically drain, vent, and isolate system components.



### Easy maintenance

The system's integrated cleaning cycle makes onsite cleaning easier.



### Robust design

The stainless-steel construction ensures it is more resistant to corrosion and contamination.



#### **Reliable sensors**

Level sensors measure beer collected in the drain tank and radar type sensor to measure foam level.

# The ideal partner - GHS VSD+ with HEX@™

The GHS VSD<sup>+</sup> range of variable speed-drive oil-injected screw vacuum pumps offers adaptable motor speed as per process demand, a smaller footprint and an innovative new controller to make your beer bottling process energy efficient and sustainable.

- Air cooled, oil injected screw technology reduces water consumption to zero
- Stable vacuum level with set point control grants consistent and continuous operation
- Robust design for extended service intervals and low running costs



## Smarter control with HEX@<sup>TM</sup>

You can monitor operating status, control vacuum levels and integrate your plant management systems anytime, anywhere - all with this one intelligent controller.



## **Technical specifications**

### Beer foam separator

Model	Inlet	Outlet		Dimensions (mm	1)	Weight (kg)	Compressed air for valves			
			Height	Width	Length		Air Supply	Connection	Quality	
BFS 900	G 3"	G 3"	2840	1084	1122	Approx. 390	Min. 4 bar Max. 8 bar	Dia. 10 mm	ISO 8573-1 Class 4	

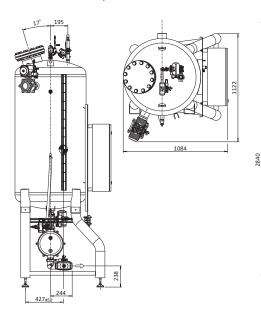
#### GHS VSD+

Model	Nominal displacement		Ultimate pressure		Frequency range	Average absorbed power at minimal speed		Nominal motor rating		Noise level range	Oil capacity	
	m³/h	cfm	mbar (a)	torr	Hz	kW	HP	kW	НР	dB (A)	L	Gal
GHS 350 VSD <sup>+</sup>	400	240	0.35	0.26	20 - 116	1.5	4.7	5.50	7.4	51-65	16	4.23
GHS 585 VSD⁺	560	330			20 - 150			7.5	10	51-68		
GHS 730 VSD⁺	730	430			20 - 200			11	14.8	51-73		
GHS 900 VSD*	870	510			20 - 233			15	20	51-76		

ISO21360-2: 2012 | Electrical specification: 380/460V 50/60Hz IP54 cubicle CSA/UL. 220 V/575 V: Available upon request | Available oils include mineral, synthetic and food grade.

## **Dimension drawing**

### Beer foam separator



### GHS VSD+



### **Preventive Care**



Complete service with our Preventive Care plan



Maximize lifetime of your vacuum pumps



**Cost-effective approach** 



Reliability meets non-stop productivity



Atlas Copco AB www.atlascopco.com/vacuum