UNIQUE SOLUTIONS MADE BY THE SPECIALIST



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BORNEMANN PUMPS FOR MARINE AND SHIPBUILDING

ECONOMIC, RELIABLE AND COMPETENT PUMP SOLUTIONS









INSTALLING TOMORROW'S PUMP SOLUTIONS TODAY

TOP EFFICIENCY BY THE PIONEER IN PUMP MANUFACTURING

The success of Bornemann pumps in the marine and shipbuilding industry did not occur overnight, in fact, our company is a pioneer when it comes to screw pumps. Whether in new or refurbished ships, Bornemann pumps have always covered a broad range of applications, including loading and unloading tankers as well as providing reliable solutions in the machine room.

Bornemann's flagship product is its twin screw pump, which is available in various designs and performance characteristics to suit the individual application requirements.

Bornemann pump solutions can be found in almost all ships, particularly in supply ships used for the world's oil industry. If efficiency and reliability are a top priority, then the decision has to be Bornemann.



Our pumps have a long history of providing great efficiency and profitability. Bornemann pumps have been used in a broad range of applications for cargo handling, stripping and machine room systems. Bornemann pumps are ideally suited for offshore applications and in platform supply vessels.

Bornemann is the market leader for twin screw and multiphase pumps and one of the highest performing manufacturers of progressive cavity pumps.

WHY SHIPBUILDERS AND THE MARINE INDUSTRY CHOOSE BORNEMANN

Marine operations require intelligent, powerful and, above all, reliable pump solutions. Bornemann offers true performance with total flexibility, because its twin screw pumps and systems can be used in all possible fields within the marine industry - an industry that requires a great range and variety of products to be pumped. For that reason, pump system knowledge and expertise are crucial. Only by being familiar with all marine industry processes can the ideal solution be ensured.

FLEXIBILITY AND PROFITABILITY ARE THE DECIDING FACTORS FOR YOUR PUMP SOLUTION - BORNEMANN OFFERS THE SHIPBUILDING INDUSTRY BOTH

This is where Bornemann twin screw pumps guarantee tried-and-tested product quality. When it comes to loading or unloading tankers, lubricating the main diesel engine, pumping out bilge water and many other applications, Bornemann offers the perfect solution in every situation.

In addition, customers are confident in Bornemann's in-depth expertise. For more than 75 years the company has provided pumps and pump systems for almost any application. All this comes with a global customer service that can only be expected from the pump pioneers themselves.





Bornemann twin screw pumps have proven their worth internationally as loading pumps on tankers, transfer pumps for heavy-duty HFO and as lubricating pumps for supplying the main engine.

Bornemann progressive cavity pumps are used as sludge pumps, bilge pumps and pumps to feed oil extractors.





A HEART THAT BEATS POWERFULLY AND RELIABLY

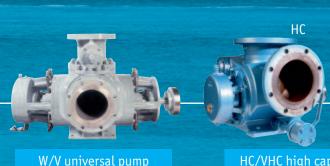
Bornemann twin screw pumps are rotary positive displacement pumps; the gearwheels and roller bearings are externally mounted and never come in contact with the pumped media. Around 80 models are available, in various materials, sizes and forms, providing application-optimised solutions.

Bornemann pumps cover a wide performance range in capacity, pressure, temperature and viscosity. Virtually all types of liquids can be handled i.e. low viscosity liquids such as petrol, hydrocarbons, seawater, or high viscosity liquids such as bitumen, tar, glue, molasses and chemical products.

Bornemann twin screw pumps are double-flow and self priming. The pump is designed to allow for reverse flow by simply There is no metal-to-metal contact between the pump screws changing the shaft direction. The suction becomes the discharge and the housing. As the pumping elements rotate, the interand vice versa, all without any modifications to the pump. meshing of the two screws along with the pump housing form

chambers. These chambers fill with the pumped fluid and transfer it from the suction side to the higher pressure discharge side of the pump.

-		Capacity		Differential pressure		Viscosity	Max. Product Temperature	
	AAT /A.	m³/h	gpm	bar	psi	mm²/s cSt	٥C	٥F
	W/V universal	10 -	50 -	up to	up to	0,5 -	up to	up to
	pump	2,800	12,300	40/60	600/900	200,000	350	660
	HC/VHC							
	high capaci-	up to	up to	up to	up to	1 -	up to	up to
	ty pump	2,500	11,000	16	230	20,000	120	250
	SLI							
A VIII	compact	up to	up to	up to	up to	up to	up to	up to
IN BIN	pump	180	790	16	230	100,000	120	250



HC/VHC high capacity pump

VHC

SLI compact pump

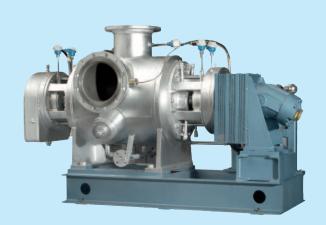




TECHNOLOGICAL COMPETENCE AND EXTENSIVE FLEXIBILITY

- **b** Bornemann twin screw pumps are self priming
- ► Twin screw pumps are ideally suited for viscous liquids
- **Broad product range of both, twin screw and** progressive cavity pumps
- Compact design ensures space-saving set-up
- Functional principle ensures low-pulsation and low-noise operation
- Short-term dry run operation possible
- ▶ High suction lift up to 8,5 m (25 feet)
- Constant flow at varying pressures and volumes
- All essential components are produced by Bornemann
- ▶ Intensive research and development to increase efficiency and profitability

CARGO PUMPS AND SYSTEMS









SLI-Series



	Twin Screw Pumps with External Bearings						
Application:	Cargo Pumps Stripping Pumps Bitumen Pumps Ballast Pumps Booster Pumps						
Design:	Horizontal, vertical and submerged						
Series:	W, V, U, T HC/VHC SLI						
Capacity:	Up to 2,800 m³/h						
Advantages:	Self priming and high suction performance (up to -0,8 bar)						
	Installation on deck up to tank depth of 5,5 m possible – no separate pump is required						
	.						

- ▶ No separate stripping system with extra control devices is required
- High viscosity range possible
- Different delivery heads no booster pumps necessary
- Very low pulsation/noiseless operation

ENGINE ROOM PUMPS Twin Screw Pumps with Internal and External Bearings Application: Main-Engine Lubeoil Pumps HFO-Transfer Pumps Horizontal, vertical Design: and submerged W, V, U, T Series: Capacity: 80 to 800 m³/h Advantages: > Very low NPSH Very low pulsation/noiseless operation

- Smooth oil conveyance
- Constant flow at varying pressures and volumes
- High viscosity range possible







Application: Sludge Pumps, Bilge Pumps, Sewage Pumps

- Horizontal and vertical Design:
- EU, EL, EH Series:
- Capacity : 0.5 to 300 m³/h
- **Advantages:** > Very low pulsation/noiseless operation
 - Rugged compact design
 - Pumping of solids