

Twin Screw Pumps

High Capacity HC / VHC Series

The Compact Pump with High Capacity Performance
for General Industry



 **Bornemann**
Pumps



Bornemann was established in 1853 and has been designing and constructing pumps and pump systems for over 75 years.

In 1934, Bornemann began designing and manufacturing our Twin Screw Pumps with external bearings, which today are still the foundation of our production and the premier pump in our product line.

Agencies and subsidiaries throughout the world guarantee immediate and professional support in all phases of business from extensive consulting through professional engineering to the installation and reliable maintenance of the installed pump and system.

Bornemann is certified under DIN EN ISO 9001.

1853 - 2003: 150 years tradition and innovation.

HC / VHC Series

The High Capacity Pumps

A key design feature of Bornemann's HC / VHC Pumps is their unique screw geometry. These deep-chamber screws allow for an optimum diameter / length ratio, ensuring deflection-free performance and maximum output capacity.

This new screw profile further improves the excellent pump performance characteristics:

- Flow rate is increased by up to 30%
- Total efficiency is improved by up to 15%
- Suction lift capacity is increased up to 8,50 m (27.8 feet)
- Pump weight is reduced by up to 35%
- Space savings of up to 30%
- Pumps can be mounted vertically or horizontally



Series HC

Series VHC



A special seal face material combination of cast chromium against carbon provides excellent dry-running performance of the mechanical seals.

Other seal material options include:

- Tungsten Carbide against Tungsten Carbide faces
- Teflon-encapsulated O-ring
- Secondary lip seals

A locking device preventing push-out and / or turning of the stationary ring is included as standard.

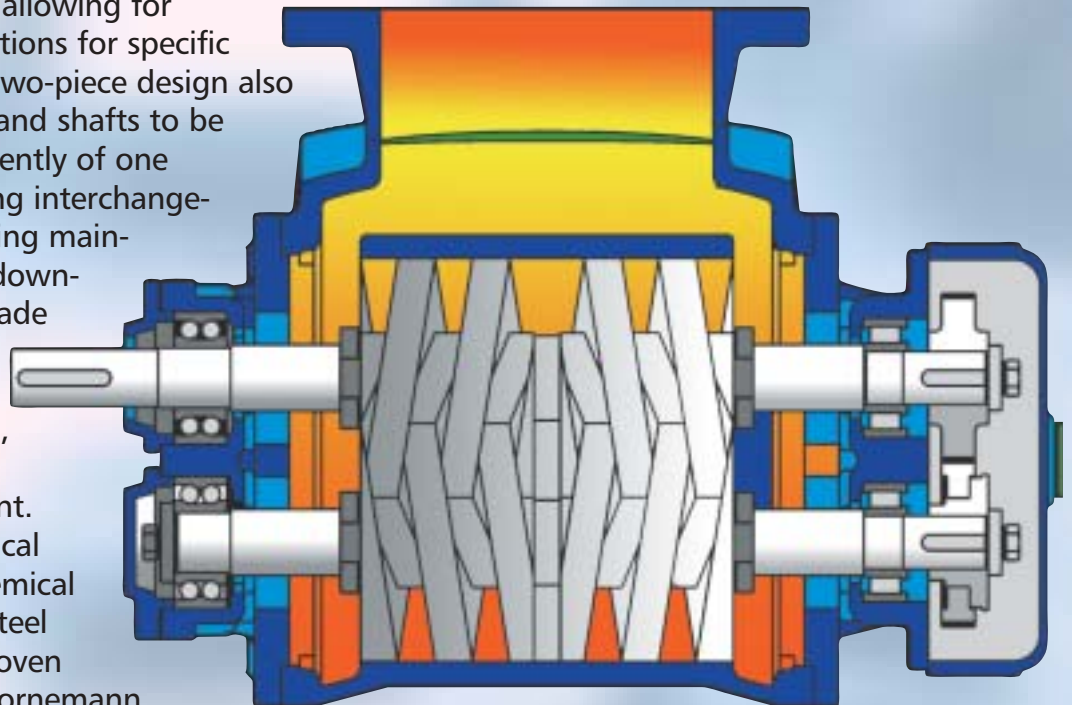
Due to Bornemann's unique design of separately manufactured shafts and screws, many different material combinations are available, thus allowing for optimum combinations for specific applications. This two-piece design also allows the screws and shafts to be replaced independently of one another, maximizing interchangeability while reducing maintenance cost and down-time. Shafts are made of high-quality stainless steel (DIN rating 1.4542, ANSI 630 S.S.) as standard equipment. The excellent physical properties and chemical resistance of this steel grade has been proven on thousands of Bornemann Pumps worldwide. The screws can be supplied in a wide range of materials including cast iron, nodular iron, bronze, and various stainless steel grades - allowing numerous different material combinations to best fit the particular application at hand.

For the pump casing there are various materials available including cast iron, nodular iron, or cast steel.

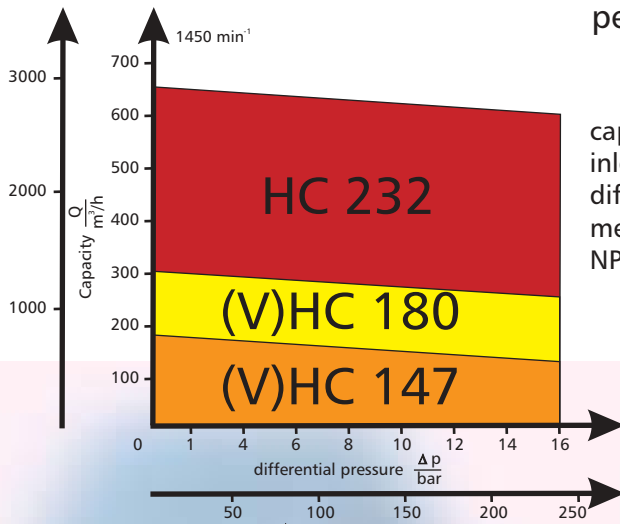
The optional relief valve is designed to ensure a quick response and minimum pressure increase upon opening. All relief valves are designed for 100% of the rated capacity.

The HC Pump's axial bearings are a rugged dual angular ball-bearing style that ensures reliable performance under high axial load conditions.

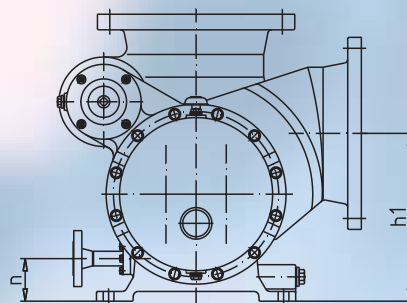
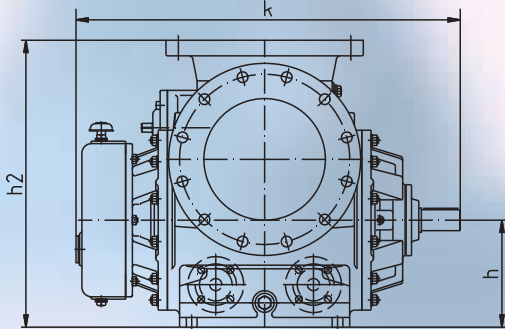
The bearings and timing gears are lubricated in an oil bath. A specially developed gear adjustment mechanism makes service much easier by eliminating the need for gear re-adjustment during maintenance of the pump.



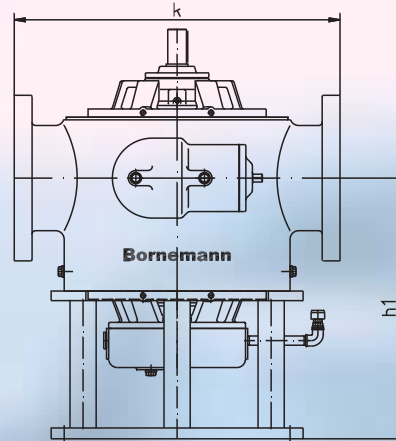
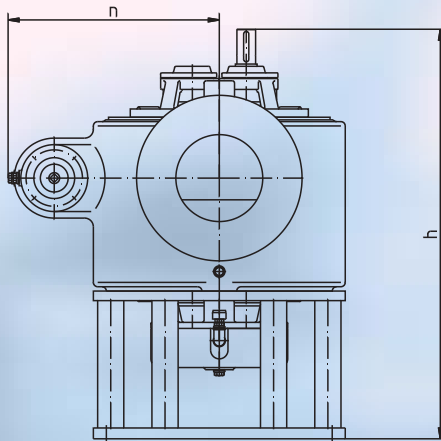
performance data:



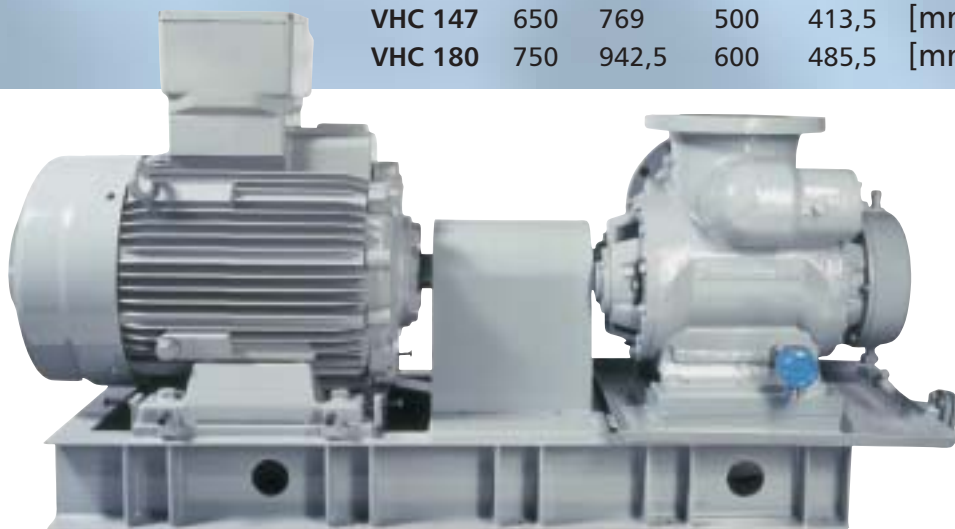
capacity up to 650 m³/h (2900 GMP)
 inlet pressure up to 6 bar (90 psi)
 differential pressure up to 16 bar (230 psi)
 medium temperature up to 100° C (210° F)
 NPSH_{req} up to 1,5 m (4,5 ft)



	k	h	h1	h2	n	
HC 147	675	180	280	344	67,5	[mm]
HC 180	791	220	345	403	87,5	[mm]
HC 232	997	250	415	522	87,5	[mm]



	k	h	h1	n	
VHC 147	650	769	500	413,5	[mm]
VHC 180	750	942,5	600	485,5	[mm]





Pumps and Systems for Industry,
Environmental and Shipbuilding

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Good communication with our customers is an important feature in Bornemann's Quality Program, from initial project consultation to maintenance. Professional support and fast service are top priorities. Specialists in pumps and systems located in our company headquarters and in nearly 100 representatives

and agencies through the world provide professional quality support on a local level. Our employees and representatives are trained at our training center in order to stay current on new technologies and provide the best support available to our customers.

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