

Deepwell SLU Series

Twin Screw Pumps

New loading / unloading system for tankers and barges
Unloading and stripping using only one pump



 **Bornemann
Pumps**



*Joh. Heinr.
Bornemann
GmbH*

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.



Deepwell Series SLU Twin Screw Pumps

Pump System

Bornemann has developed a new loading / unloading pumping system for barges and tankers. Our new SLU series pump is a refined version of our reliable Twin Screw design.

Benefits For The User:

- Unloading and stripping of tanks using only one pump.
- No additional stripping pump is needed.
- Only very small quantities of residues left after stripping.
- Very high pump efficiencies, especially with high viscosity fluids.
- No metal to metal contact in the pump, thus it can be run dry.
- Simple installation, less space requirements on deck.

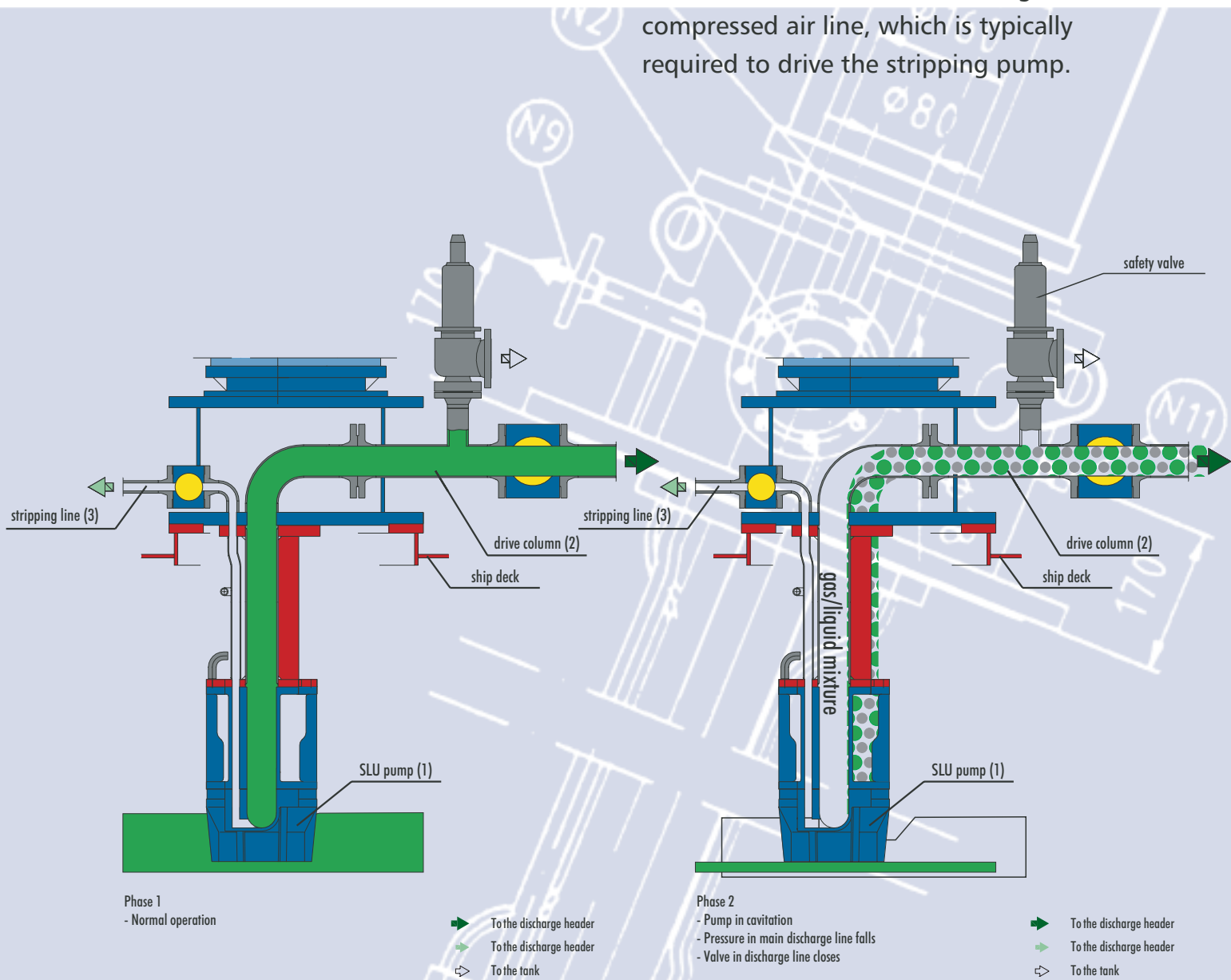


Pump System Unloading Procedure

The SLU Pump System consists of only the SLU pump (1), the drive column (2), and the integral stripping line (3).

In contrast to conventional unloading systems, no additional pump is required for stripping the tank.

This eliminates the need for a large compressed air line, which is typically required to drive the stripping pump.

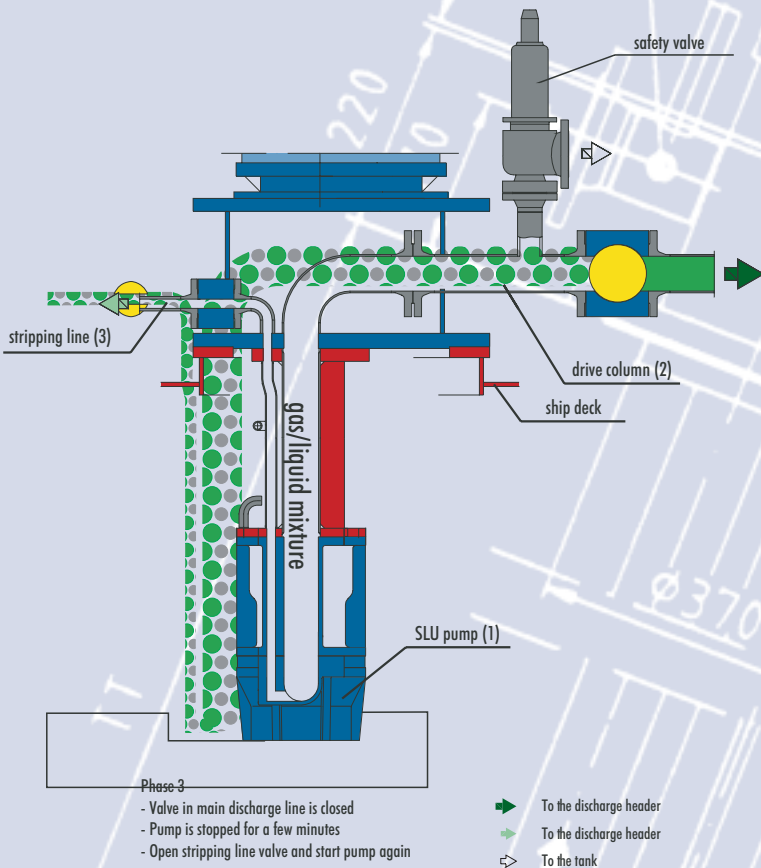


SLU Twin Screw Pumps are self-priming, and there is no metal to metal contact between the fluid conveying screws. During unloading, the conveying screws form enclosed chambers within the pump housing, which physically moves the fluid from the suction at the bottom of the tank, up to the discharge at the top.

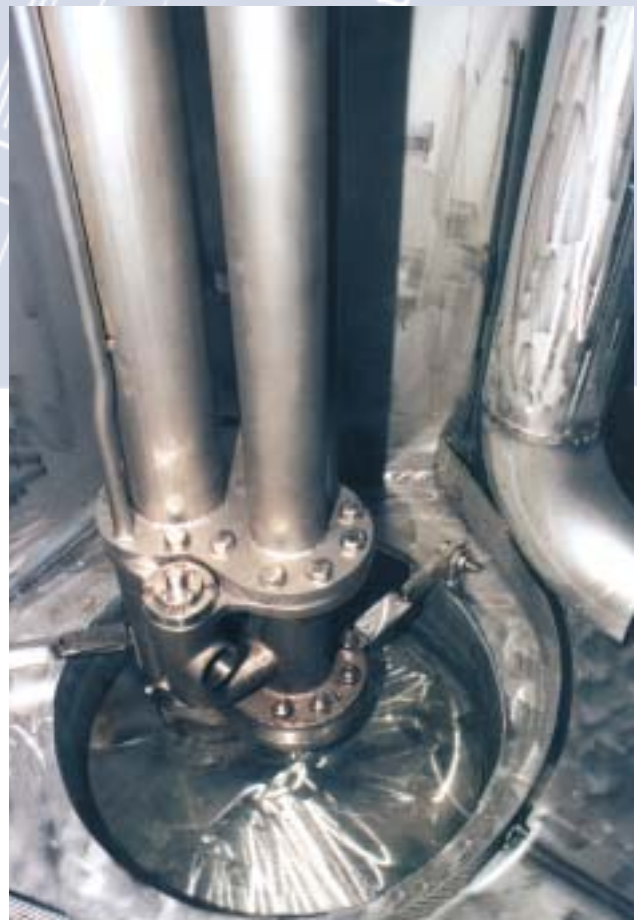
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After the tank has been unloaded, the stripping procedure can begin by stopping the pump and closing the discharge lines on the deck. After waiting



Since there is no metal to metal contact between the conveying screws, the SLU pump can handle entrained gas in liquids and it can be run dry. Only a very small amount of liquid is left in the tank, depending on how close to the bottom the pump is positioned. It is possible to strip the tank down to a liquid level of approximately 0.07 gallons (0.25 liters). A sump is not required for the SLU pump to strip the tank.

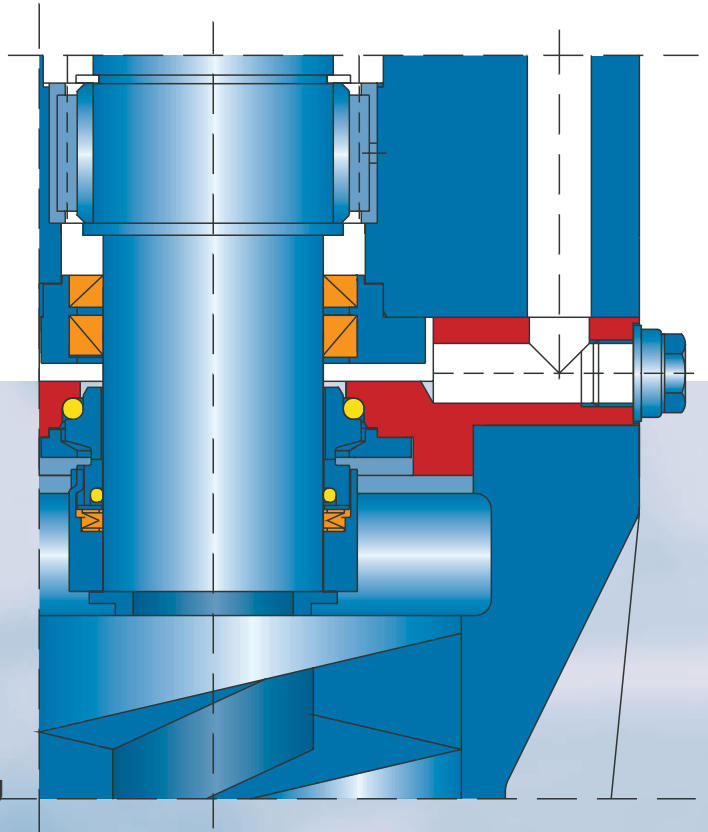


Hold of a chemicals tanker with installed Bornemann Deepwell twin screw pump, series SLU

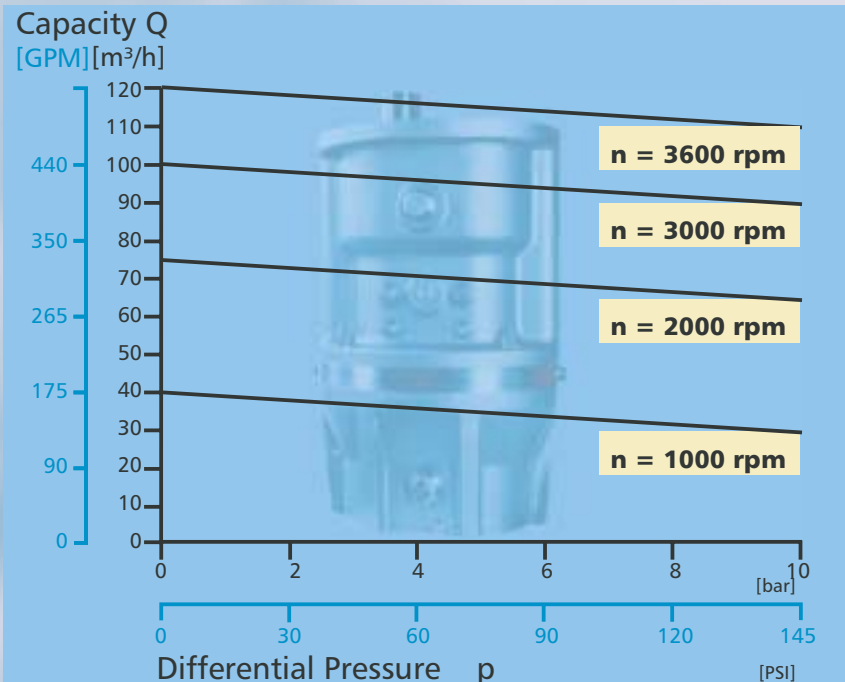
Technical Data

Shaft Sealing System

The SLU pump sealing system is comprised of a conventional mechanical seal along with a double lip seal arrangement, which forms a barrier chamber between the pumped fluid and the shaft lubricant. Possible seal leaks can be detected (before an actual seal failure occurs) by measuring the amount of seal leakage obtained during the mechanical seal purging operation.

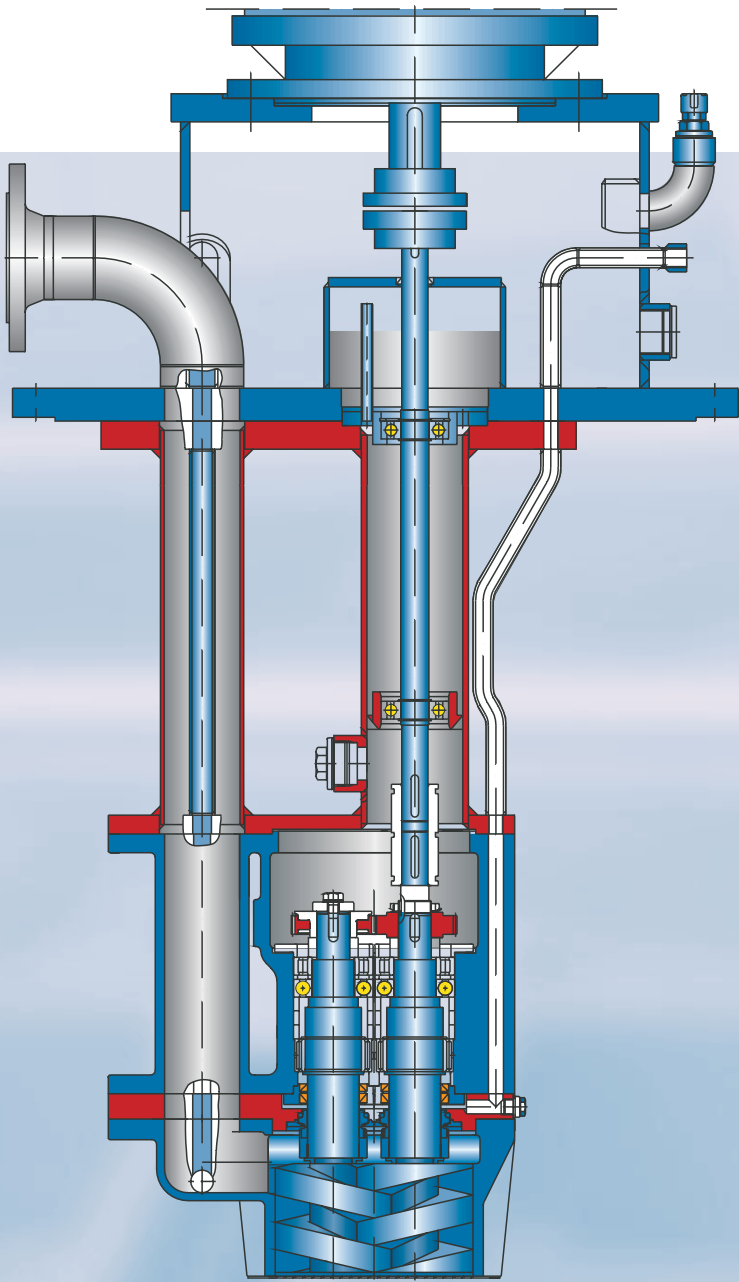


SLU 125



Due to the inherent nature of a Twin Screw pump, the SLU pump operates independently of the fluid viscosity and density. Thus this pump can handle a wide range of viscosities with little or no change in performance.

Stainless Steel is the standard material for SLU pumps, however other materials may be available depending on the application. Capacities of up to 500 gpm (120 m³/h) are available at differential pressures of up to 145 psi (10 bar).



Drives

SLU pumps can be operated with various types of drive, e.g. hydraulic or electric motors and can be operated at either constant speed or over a wide speed range.

Installations

Numerous successful installations have proven the design of our SLU Twin Screw Pump Series.

Good communication with our customers is an important feature in Bornemann's Quality Program, from initial project consultation to pump maintenance. Professional support and fast service are also top priorities. Specialists in pumps and pump systems located in our company headquarters and in nearly 100 Bornemann representatives and agencies through the world provide professional quality support on a local level. Our employees and representatives are regularly 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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