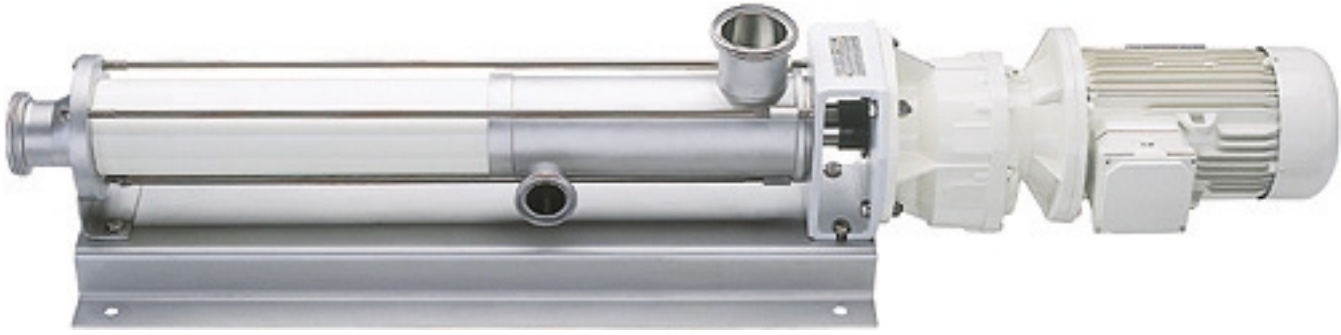
seepex®

Progressive Cavity Pumps

Group **CS**

CS



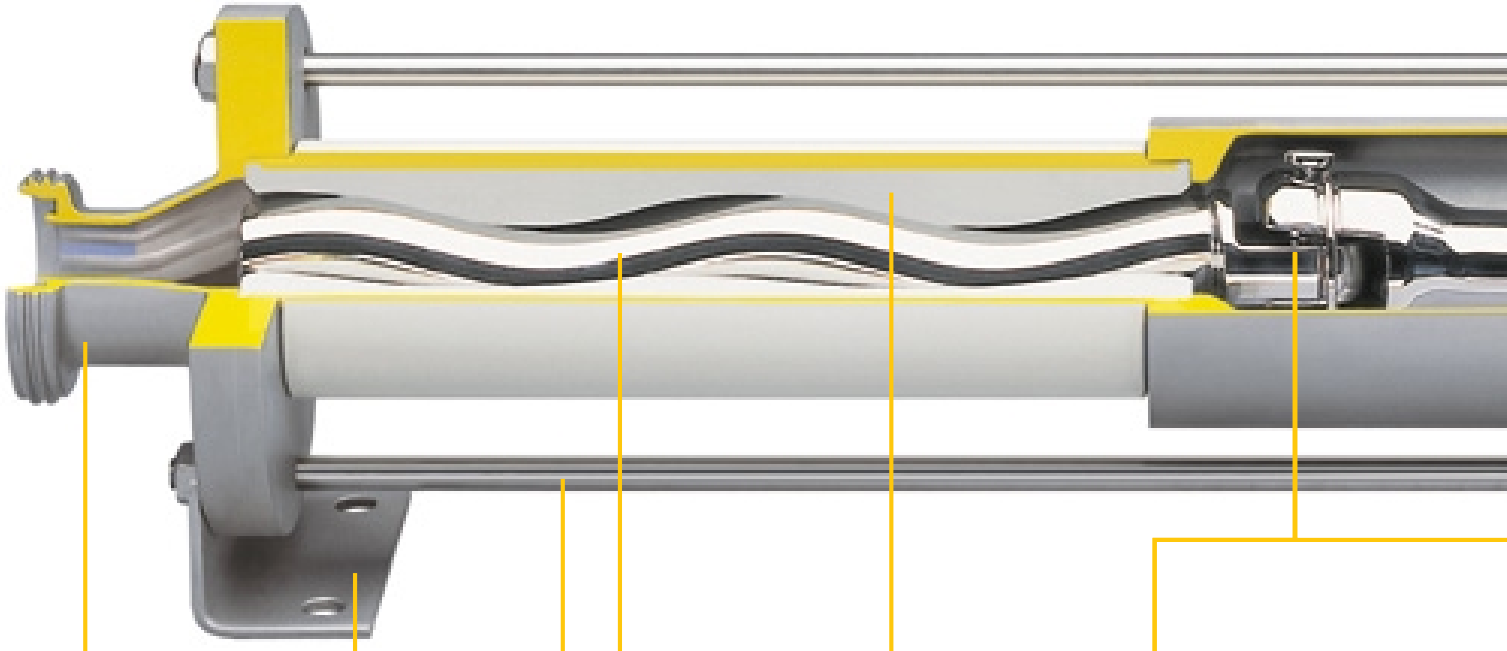
Design of group **CS**

seepex pumps of group **CS** are designed for universal use in the food, pharmaceutical, cosmetic and chemical industries.
These pumps meet the highest standards for gentle handling, sanitation, cleaning and sterilization in place.

Advantages of **seepex** pumps group **CS**:

- Streamlined, "dead zone free" pump casings avoid product build-up.
- Polished finish of wetted casing walls and rotating parts simplify CIP.
- Easily replaced joint components reduce service time and cost.
- Proven mechanical seals, selected for the application conditions, ensure product integrity.
- A wide selection of elastomers which meet FDA standards ensure product integrity and compatibility.
- CIP (**C**leaning **I**n **P**lace) with high flow rates inside the pump casing ensures positive cleaning.
- SIP (**S**terilisation **I**n **P**lace) with high-temperature steam is possible if the pump is cycle operated.
- Pumps of group **CS** are authorized by the 3-A Sanitary Symbol Council and EHEDG regulations.

Range **BCSO**



Pressure Branch
made of stainless steel, with internally polished finish and externally satin finish. Designed for efficient dead zone free flow with horizontal off set bottom, to allow complete draining. Standard connection to DIN 11851, 11864 or Tri Clamp® alternatives.

Support
made of stainless steel, satin finish for superior resistance to corrosive cleaning and sanitizing chemicals.

Rotor
in **6L**-geometry with the renown advantages ***information ADV, page 4+5,*** alternatively with additional surface coating ***information ADV, page 10.***

Tie Bolts
and all other fittings are corrosion proof.

Molted-to-size Stator
in **6L**-geometry with the renown advantages ***information ADV, page 4+5,*** molded in a metal tube with sealing bonds at both ends to prevent product contact of the metal tube, optionally available with even wall thickness ***information ADV, page 11.*** Optionally available with stator tube in stainless steel.

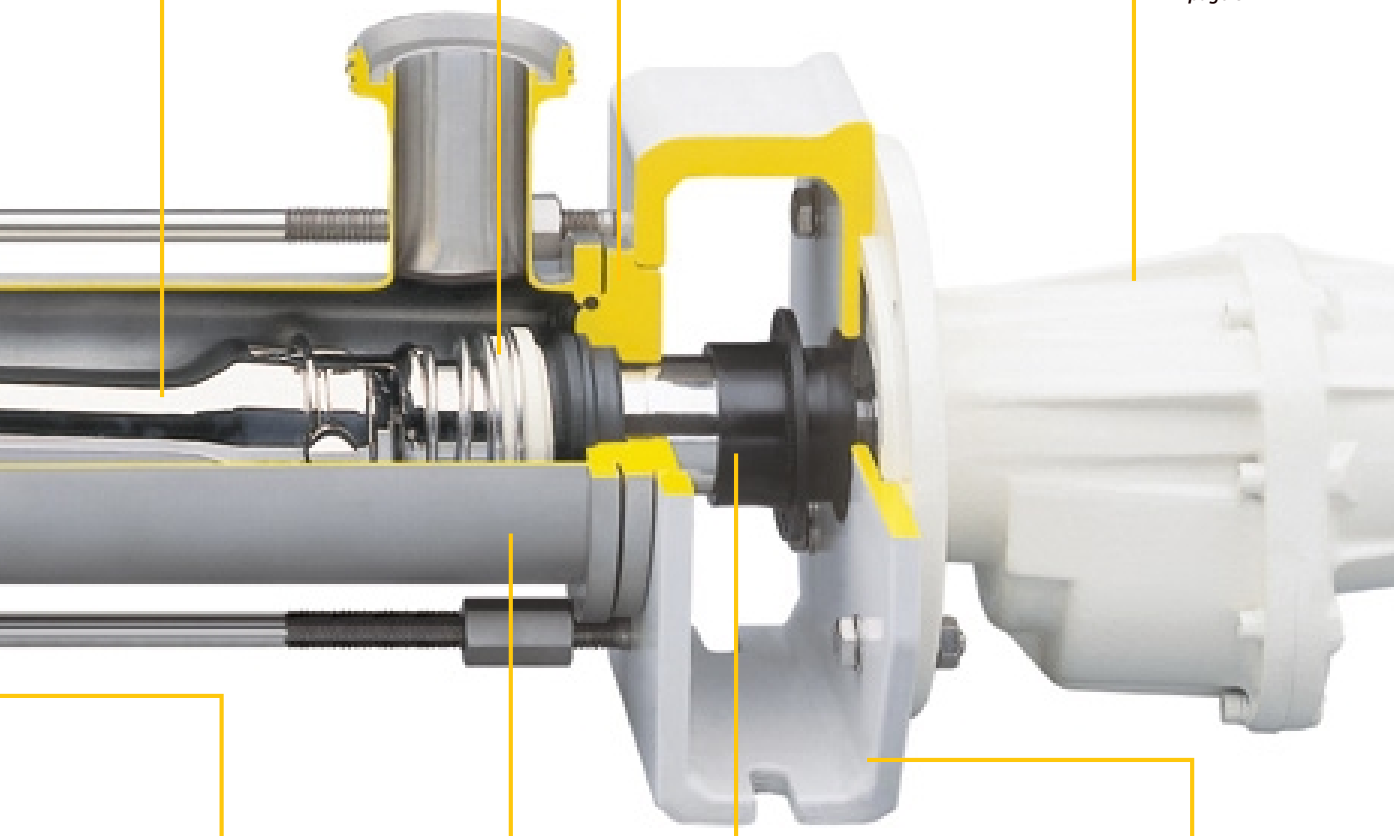
Open fork joint
for transmission of power, **BCSO** model designed as an open "hygienic joint" for optimum cleaning as well as highest resistance to corrosion and wear. Service-friendly due to assembly without special tools. Range **BCSB** designed with closed pin joint ***(page 4).***

Coupling Rod
made of 300 series stainless steel for power transmission. On request with propellors or feed screw ***information OPT, page 3.***

Single Acting Mechanical Seal,
flushed by the product and located inside the suction area for optimal cleaning. For details and other seals see ***page 5.***

Mechanical Seal Housing
made of 300 series stainless steel for mounting the mechanical seal, available with quench.

Drive
gear motors, variable speed drives or frequency controlled drives, directly flanged to the pump without additional coupling ***information ADV, page 6,***
upon request with cover made of stainless steel ***information DRI, page 5.***



Open pin joint
newly developed hygienic joint, designed for higher pressures and flow rates.

Suction Casing
made of stainless steel, internally polished externally satin finished. "Dead zone free" design with suction connection above the mechanical seal enables CIP solutions to flow through the entire casing. Choice of off-set CIP-connection for residue-free cleaning and complete draining. Options with jackets for heating. Standard connections according to DIN 11851, 11864 or Tri Clamp®.

Plug-in Shaft connection for quick disassembly of pump and drive, for easy replacement of the rotating parts and shaft seals; with plug-in shaft pin and splash ring seal to secure the plug in shaft connection and to protect the drive bearing from contamination ***information ADV, page 8.***

Plug-in Shaft
made of 300 series stainless steel. Open design for easy CIP and designed to mount the mechanical seal.

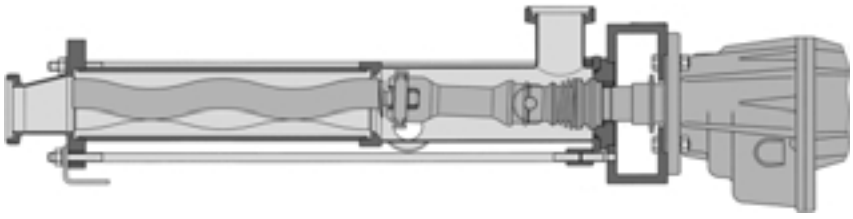
Lantern
in corrosion resistant design, optionally made of stainless steel, for connection of pump and drive and to secure the assembly to the baseplate or skid.

Summary of Ranges

Range BCSO

The pumps of range **BCSO** are equipped with open "hygienic" joints. With **CIP** flushing, a residue-free cleaning is ensured. They fulfill the highest demands for hygienic cleaning and resistance to corrosion and wear. Beside the special design of coupling rod and rotor or plug-in shaft end, the open fork joint consists of only two components, the pin and the circlip. For higher pressures and flow rates, **seepex** additionally offers a newly developed open pin joint. Service work can be performed easily and quickly without tools. Meets the specifications of the 3A-Sanitary Standards of the US and EHEDG regulations.

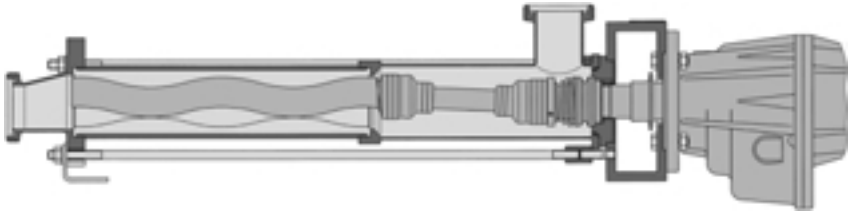
open pin joint



open fork joint

Range BCSB

The pumps of range **BCSB** differ from range **BCSO** only by the universal joint design. For range **BCSB**, the proven closed pin joints used for the **seepex** pumps of ranges **BN/NS** are installed. These cost-saving pin joints are filled with a special food-grade grease. Also, they are closely sealed by elastic universal joint sleeves and metal holding bands. They are particularly suitable for highly abrasive liquids and very high operating pressures ***information ADV, page 9.***

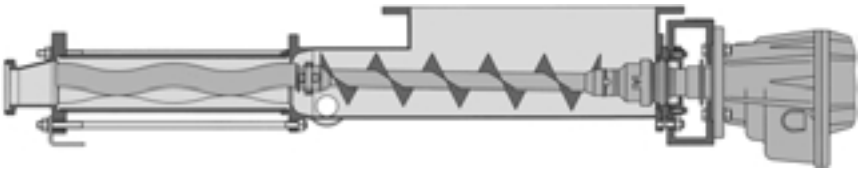


closed pin joint

Range BTCS

Range **BTCS** uses an inlet hopper with a cylindrical compression zone. Products with a poor flowability are fed via the auger feed screw on the coupling rod to the rotor and stator. Optimal filling of the conveying cavities is achieved by the action of the auger in the compression zone. Generally, **BTCS** pumps are equipped with the open and service-friendly universal joints.

open pin joint

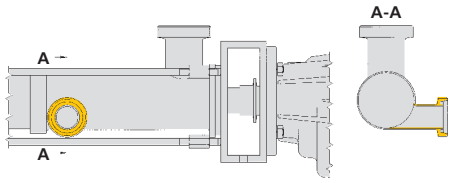


open fork joint

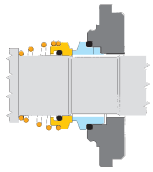
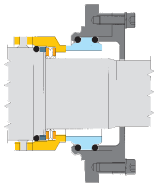
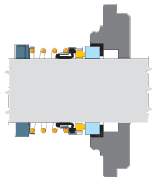
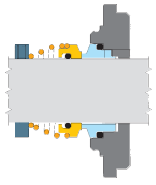
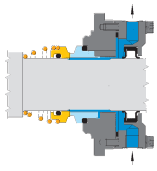
Design Variants

CIP connection

to flush the suction with high velocity cleaning liquids for complete cleaning as well as draining by an off set arrangement of the CIP branch.



mechanical seals

Design	Code	Products	pressure admissible at the shaft seal	Remarks	Used in pump range	
single-acting, conical spring, dependent of direction of rotation, unbalanced	G60	low- to high viscosities with low solids	-0.15 up to +25 bar (-2 to +360 psi)	economical standard seal for food, beverage and pharmaceutical industries	BCSO	
single-acting, double 'o'ring mounted stationary seat, wave spring independent of direction of rotation, balanced	G61	low- to high viscosities with high solids, adhesive, abrasive	-0.15 up to +16 bar (-2 to +230 psi)	mechanical seal for products which are difficult to seal in the food and pharmaceutical industries	BCSO BTCS	
single-acting, independent of direction of rotation, balanced	G66	low- to high viscosities with high solids, adhesive, abrasive	-0.25 up to +25 bar (-4 to +360 psi)	mechanical seal for products which are difficult to seal in the food and pharmaceutical industries	BCSO BCSB BTCS	
single-acting, elastomer bellows, independant of direction of rotation, unbalanced	GA	low- to high viscosities with high solids, abrasive	-0.15 up to +12 bar (-2 to +174 psi)	seals which is resistant to wear for the fiber- and chemical industries	BCSB	
single-acting, conical spring, dependant of direction of rotation, balanced	GB	low- to high viscosities with low solids	-0.15 up to +25 bar (-2 to +360 psi)	economical standard seal for the food, beverage and pharmaceutical industries	BCSB	
mechanical seal with quench for designs G60 to GB	...M	crystallizing, adhesive	acc. to the information given in G60 to GB vacuum upto -0.5 bar (-7 psi)	unpressurized quench supply filled with appropriate liquid for lubrication when a vacuum exists or when pump is installed in vertical position	BCSO BCSB BTCS	

additional mechanical seal designs available upon request

seepex

all things flow

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