

ROTATING RIGHT

SEEPEX GROUP N PROGRESSIVE CAVITY PUMPS

Product group N.



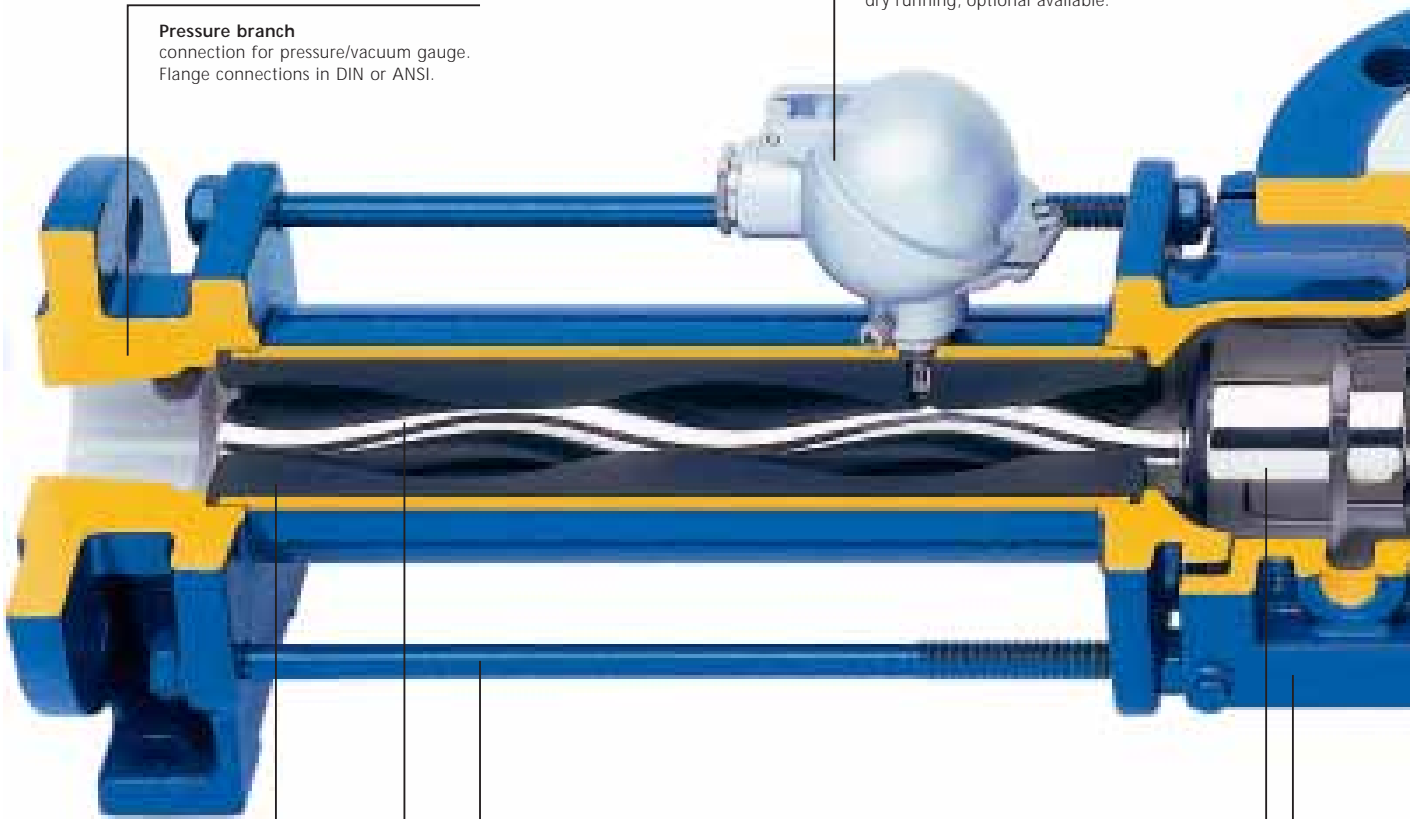
N – Standard pumps

The two ranges of pumps within the product group N form the basis of all seepex progressive cavity pumps. They are available with various rotor/stator geometries (conventional, 6L, and Tricam) and can be applied in virtually all industrial sectors – for conveying thin to viscous media with or without solids.

Joint connection
consisting of just 5 components. Power transmission through wear resistant, hardened and replaceable joint parts: easily repaired.

Pressure branch
connection for pressure/vacuum gauge. Flange connections in DIN or ANSI.

Dry running protection TSE, thermoelectronic
prevents the stator from being damaged by dry running, optional available.



Stator
the seal on both ends is moulded as an integral part of the elastomeric stator; corrosion of the stator tube is never a problem because the pumped liquid never comes into contact with the metal tube or the bonding adhesive. Available with optional adjustable stator retensioning device.

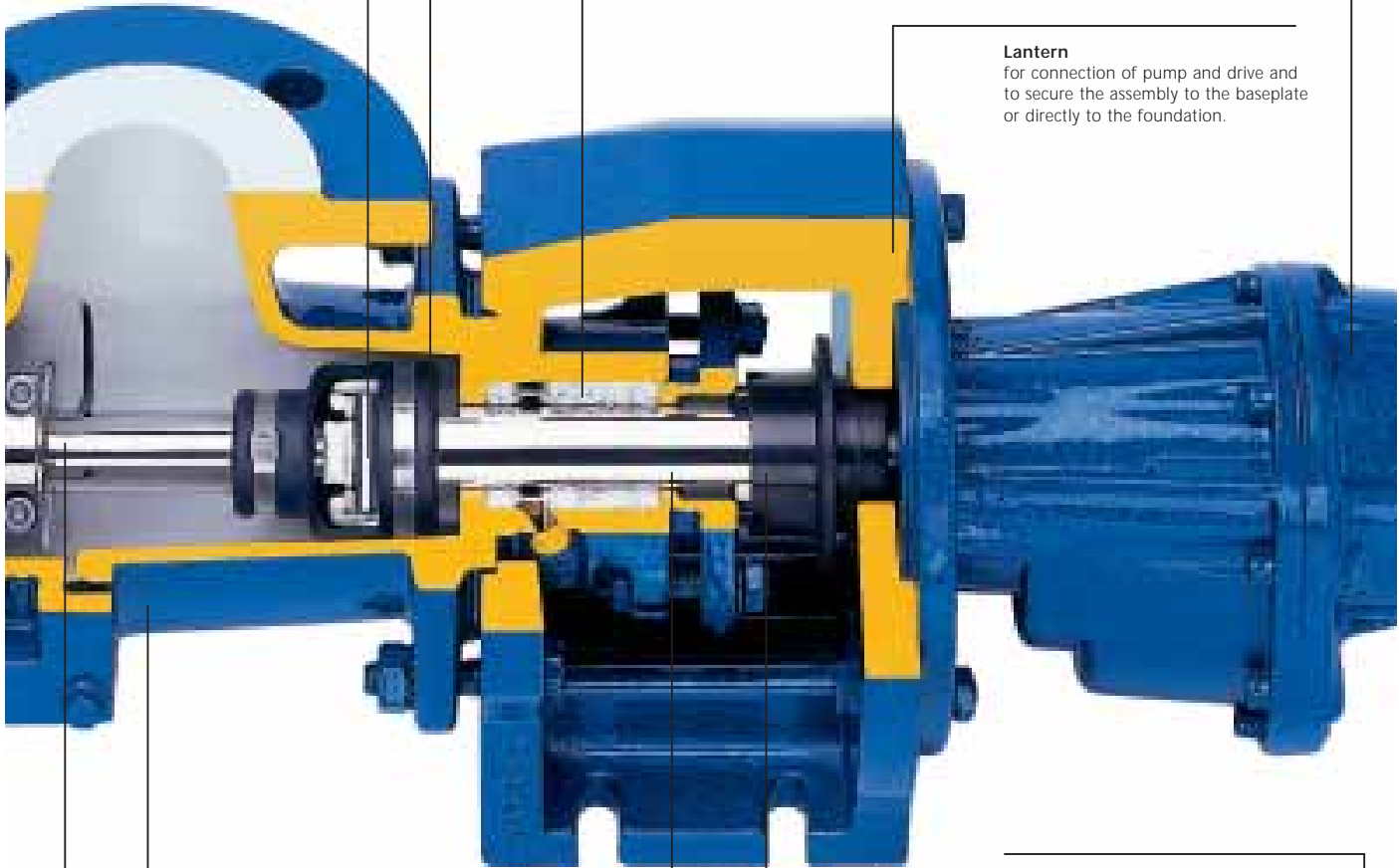
Tie bolts/screws
corrosion proof, optional available in stainless steel design.

Universal joint sleeve protection
made of stainless steel, protects the universal joint sleeve against mechanical damage from large/angular solids, optional available.

Inspection ports
on both sides, optional.

Rotor
wear resistant and corrosion-proof materials, with additional surface treatment.

Coupling rod
for power transmission. Improved design, special designs optional available.



Universal joint sleeve with holding bands

protects the grease-filled joints from penetration of the liquid pumped, even in case of maximum vacuum or pressure loading; streamlined design to reduce turbulence and NPSHr.

Shaft sealing

gland packing with or without flushing/seal cage ring or single or double mechanical seals.

Drive

geared motors, variable speed drives or hydraulic motors of all major manufacturers, directly flanged to the pump without additional couplings or guards.

Lantern

for connection of pump and drive and to secure the assembly to the baseplate or directly to the foundation.

Suction casing

with large cross section and designed for smooth flow conditions, with drain plug and connections for pressure/vacuum gauge. Flange connections in DIN or ANSI can be rotated in 90° increments.

Plug-in shaft

connects the drive shaft to the joint; with gland packing the plug-in shaft is used as a shaft protection sleeve; upon request, it is available with wear resistant coating.

Plug-in shaft connection

for easy dismantling of the pump and drive enabling quick replacement of the rotating parts and shaft seals. The plug-in shaft pin secures the shaft connection to the drive and the splash ring protects the bearing from contamination/gland leakage.

Drive casing

for range NS, drive shaft and bearings can be relubricated, also available with double bearing seals to prevent ingress of dust or moisture.

Detail: Range NS

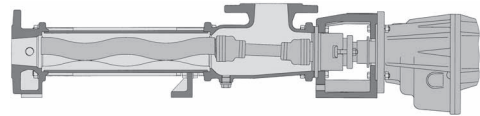


Overview of ranges

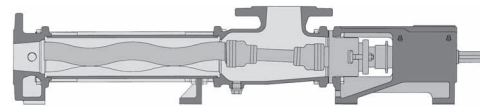
The drive of BN range pumps is directly flange-mounted to the pump. This means that a separate pump bearing is not necessary and the pump is more compact and less expensive. The plug-in shaft connection between drive and the rotating unit simplifies the replacement of rotating wearing parts and the shaft sealing, thereby making the BN range very service-friendly.

In pumps of the NS range the drives are not directly flange-mounted in favour of a universal configuration of the drives. They have a drive casing and a free shaft end, an elastic coupling or a V-belt and a service-friendly plug-in connection. This simplifies the replacement of the rotating wearing parts and the shaft sealing without dismantling the bearing.

Range BN



Range NS/N



Why standard pumps?

Because they are used in applications such as agriculture, ceramics, chemical and biochemical industry, construction, dyeing and varnishing, electroplating, environment technology, fish industry, food and beverage industry, mining, non-metallic minerals, oil production and offshore technology, petrochemicals, pharmaceutical and cosmetics industry, pulp and paper industry, shipbuilding, sugar industry, supply and waste disposal industry, textile industry, vehicle construction and equipment and wood processing industry.

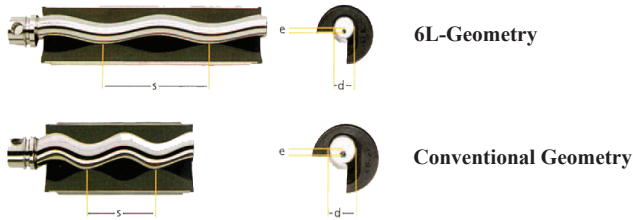
Features

- Minimal pulsation, controlled flow, so that no pulsation dampers or compensators are required
 - Self-priming, even with air or gas liquid mixtures of up to 9 m (29.5') of water
 - Installation versatility as pumps can be mounted either horizontally or vertically and the suction casing can be rotated
 - Products with solids can be conveyed gently without damage
 - Direction of rotation and fluid flow are reversible
- > Conveying capacity: 30 l/h–500 m³/h (0.13 GPM–2200 GPM),
Pressure: up to 48 bar (720 psi)

User Advantages

Rotor - Stator-Geometries

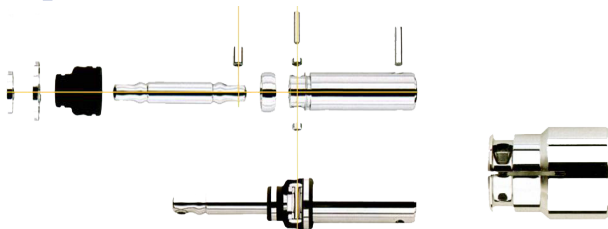
seepex 6L - conventional geometry comparison



smaller rotor diameter
 + reduced eccentricity
 + increased pitch length
 = 6L-Geometry with 20 % lower sliding velocity

- Improved service life (+35-50%) due to lower sliding velocity and longer sealing line
- Better pressure stability due to wider sealing line
- Reduced thrust loads on universal joints and bearings due to smaller rotor diameter and lower eccentricity
- Thrust loads of the conventional design exceed the thrust loads of the 6L-Geometry by approx. 50 %
- Smooth and almost pulsation-free operation
- The "stretched cavities" have a positive influence on vibrations, turbulences, pulsation and shear rates

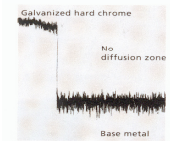
seepex Universal Joint Design



Benefits

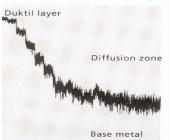
- Only 4 hardened and wear resistant universal joint components (1 coupling rod bush, 2 guide bushes, 1 coupling rod pin)
- Positively sealed, gas and liquid tight elastomer universal joint sleeve
- Optional stainless steel universal joint sleeve protector with unconditioned - 10.000 h/24 months guarantee on the protected universal joint
- Simple and cost-effective to maintain
- Streamlined design, thus improved NPSH conditions
- Simple and cost-effective to maintain

seepex has The Optimum Rotor Surface



Conventional hard chrome plating

No diffusion zone between the base metal and the galvanically applied chrome plating (Hardness up to 600 Vickers)



seepex Duktal high density chrome plating

The duktil coating diffuses deep into the base material (Hardness up to 1250 Vickers)

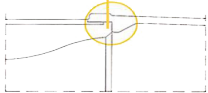
Benefits of the high quality seepex rotor surface

- Reduced starting and operating torque
- Improved efficiencies
- Smoother operations
- Increased service life
- The hardness of the coating is 1250 Vickers versus 180 of the base material
- The adhesion to the base material is excellent with no surface fissures

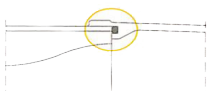
seepex Molded to size stators



seepex molded to size stators are shrink compensated and have cast-on sealing surfaces.



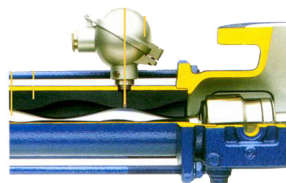
High manufacturing standards guarantee low torque requirements and high efficiencies.



A wide variety of elastomers is available.

Cut-to-size stators with separate gaskets or joints - unthinkable for seepex

seepex Optional TSE Dry Run Protection

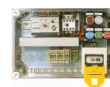


Benefits

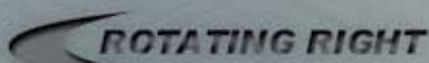
- Universal solution for all applications protects pump and stator against damages caused by frictional heat due to lack of liquid pumped
- Highly efficient low cost dry running protection system



TSE controller for panel mounting



Complete IP55 (NEMA 4) pump control panel with incorporated TSE controller



Head Office:
 6120 Davies Road
 Edmonton, AB
 T6E 4M9

Phone: (780) 485-2010 • Toll Free: (866) 707-7867
 Fax: (780) 485-1938
 • Calgary • Drayton Valley • Lethbridge
www.rotatingright.com