

SCHNEIDER

Maschinenbau GmbH

Eccentric Screw Pumps



Quality that convinces!

The Universal Joint Design

The universal joint consists of just five, easily assembling components, power is transmitted by robust and proven universal joints.



Joint Seal

- a Universal Joint sleeve
- b Large Holding band
- c Small holding band

Bauteile

- 1 Coupling rod bush
- 2 Retaining sleeve
- 3 Coupling rod pin
- 4 Guide bush
- 5 Guide bush

Completely assembled universal joint



Optimal NPSHR

To ensure the concentricity of the plug-in shaft and accommodate the eccentric motion of the rotor, it is necessary in eccentric screw pumps, to include an universal joint on the rotor and the plug-in shaft, with a coupling rod that transmits the power from the plug-in shaft to the rotor.

The universal joint is streamlined to reduce turbulence in the suction casing and reduce the NPSHR.

Low wear components

The **seepex** universal joint consists of wear resistant, hardened components that can be easily replaced. Each joint consists of a coupling rod bush, two guide bushes and a coupling rod pin. The joint components are positively secured by a retaining sleeve on the rotor head, plug-in shaft head or drive shaft head.

Wearing components are replaceable

The coupling rod bush is press fitted into the coupling rod. This bush has an internal oval shape and is rounded at the top and bottom, to accommodate the eccentric action movement of the rotor.

The general use of a replaceable coupling rod bush and guide bush is characteristic of the **seepex** universal joint guide.

Totally sealed, flexible joint cover

The assembled universal joint is filled with a specially formulated grease and covered with an elastic universal sleeve. The universal joint sleeve is fastened on each end with a metal holding band.

Liquid tight construction for continuous operations

The universal joint is positively sealed to protect against the penetration of the non lubricating or abrasive liquids which are often pumped. This joint cover has proven to be gas and liquid tight in the most severe, continuous operations. This performance cannot be achieved with dynamically loaded „O“-rings or lip seals on the coupling rod.

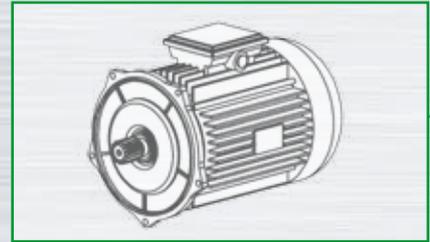
10.000 operation hours warranty

To protect the elastic universal joint sleeve from being cut by large pieces of tramp metal, hard plastic, wood or glass, **Schneider** offers a metal universal joint protector as an option. On so protected joints **Schneider** gives a warranty of 10.000 operation hours in the waste-water area.

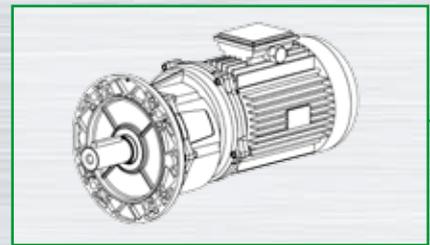
The Models

Type	Category	Revs.	Q (m³/h)
AT 50 M	1 – 6L	700 / 1400	3,0 / 5,3
AT 50 P	1 – 6L	271 / 1430	0,6 – 5,3
AT 50 FU	1 – 6L	140 / 1430	0,5 – 5,3
AT 100 M	2 – 6L	700 / 1400	5 / 10
AT 100 P	2 – 6L	143 / 1429	1 – 10
AT 100 FU	2 – 6L	143 / 1429	1 – 10
AT 150 G	5 – 6L	450 / 900	7,0 / 14
AT 150 P	5 – 6L	190 / 1000	2,0 – 15
AT 150 FU	5 – 6L	150 / 1000	1,5 – 15
AT 200 G	10 – 6L	362 / 734	11 / 22
AT 200/150 P	10 – 6L	95 / 500	2,5 – 15
AT 200 P	10 – 6L	136 / 714	3,6 – 20
AT 200 FU	10 – 6L	100 / 714	3,0 – 20
AT 300 G	17 – 6L	250 / 500	14 / 28
AT 350 G	17 – 6L	275 / 550	17 / 30
AT 300/240 P	17 – 6L	76 – 400	4 – 24
AT 300 P	17 – 6L	90 – 530	5 – 30
AT 250 FU	17 – 6L	76 – 420	4 – 25
AT 350 FU	17 – 6L	70 – 550	4 – 30
AT 400 P	17 – 6L	113 – 674	6 – 38
AT 500/400 G	35 – 6L	200 / 400	20 / 40
AT 500 G	35 – 6L	250 / 500	25 / 50
AT 500/320 P	35 – 6L	60 – 317	6 – 32
AT 500/400 P	35 – 6L	75 – 400	7,5 – 40
AT 500 P	35 – 6L	90 – 500	9 – 50
AT 500 FU	35 – 6L	90 – 500	9 – 50
AT 600/400 G	70-6/641	125-250	20 / 40
AT 600 G	70-6/641	175-350	30 / 60
AT 600 FU	70-6/641	70-350	15 / 60
AT 700/500 G	100-6/661	110-220	25 / 50
AT 700 G	100-6/661	145-280	35 / 70
AT 700 FU	100-6/661	70-280	18 / 70

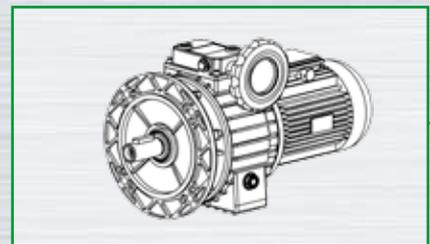
Thread: DIN or other special threads for the wine sector



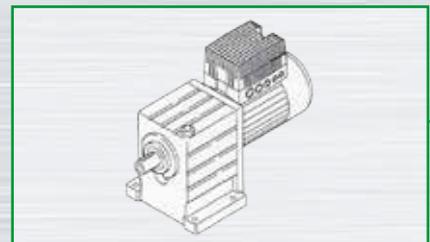
Type M Direct motor drive



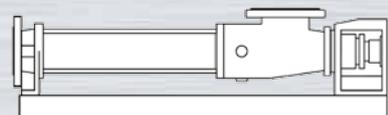
Type G Spur gearmotor drive



Type P Motorvariator drive



Type FU Frequency converter drive



Accessories

- Bypass
- Dry run protection
- Electronic pressure gauge
- Frequency converter with remote control

Accessories

Electronic pressure gauge



- ease of use
- easy handling
- Stainless steel housing V4A = AISI 316 L
- ceramic membrane, insensitive to pressure surges
- sterile version
- Protection class IP 67

Dry run protection



- Stainless steel housing V4A = AISI 316 L
- sterile version
- Protection class IP 67

Handheld transmitter for frequency converter with radio remote control



- Protection class IP 66
- Shockproof

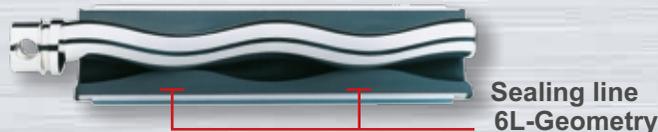
Advantage / 6L-Geometry

Idea:

Basis of all considerations was the optimization of the service life of eccentric screw pumps as well as a service facilitating construction. Simply, the 6L-geometry allows the use of a smaller diameter rotor and a longer sealing line which reduces wear and improves efficiency.

Comparison:

Increased service life due to reduced sliding velocity and a longer sealing line.



Increased Service Life

comparison to the conventional rotor and stator configuration, the 6L-geometry has a reduced sliding velocity (about 20 %) at the same speed range due to the smaller rotor diameter and eccentricity.

This velocity reduction increases significantly the service life of the rotor and stator components, the main wearing items in an eccentric screw pump.

Stability in Pressure and Flow

The longer sealing line of the 6L-geometry also maintains a constant pressure and flow rate for longer periods even in case of extreme wear.

Straight line flow with low pulsation



Improved Flow

The longer configuration of rotor and stator provides a more „straight line“ flow through the pump. This reduces vibration, turbulence, shear rates and pulsation.

Standard design:

- Pump casing AISI 304 / in 3A-design AISI 316L in sterile version with open universal joints - if required.
- Trolley made of INOX stainless steel / basic frame made of INOX stainless steel
- Material mechanical seal: SIC/SIC
- Motor protection reversing switch

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Impeller Pumps

Flotation Pumps

**Eccentric Screw Pump
Vario Control VC**

Eccentric Screw Pumps

Frequency converter
in a stainless steel housing

Flow Meter

SCHNEIDER

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