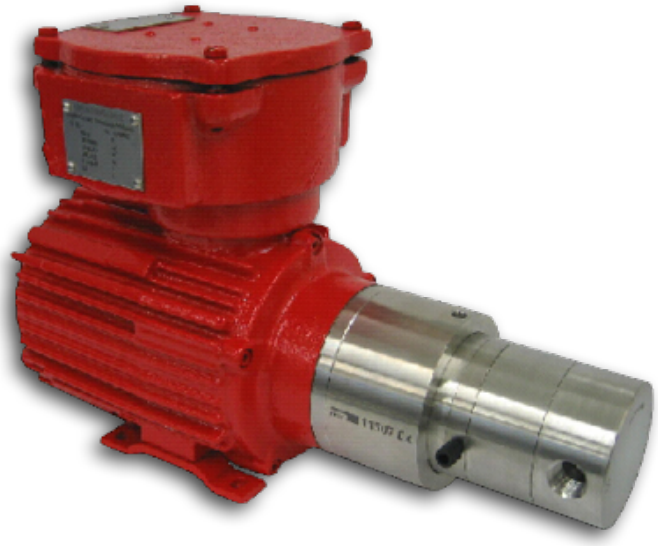
Product information

mzr-11507 Ex · Ex-versions



Description

The micro annular gear pump mzr-11507 Ex is equipped with tungsten carbide rotors and bearings. Hard construction material and precision manufacturing techniques guarantee excellent dosage precision, high service life and wear resistance for low volume dosage of non-lubricating liquids. Driven by a explosion-proof three-phase AC-motor the pump has a compact design and covers the flow range from 58 ml/min to 1152 ml/min. The mzr-11507 Ex is suitable for continuous delivery of low and high viscosity liquids. It achieves high differential pressures and provides a low pulsation flow. Its robustness and the available accessories make it suitable for challenging applications in chemical and process technology.

Advantages

- Ex-certification ATEX conform with EU Directive 94/9/EG
- High dosage precision precision CV < 1 % at low volumes
- Long service life wear-resistant tungsten carbide
- Broad viscosity range water, solvents, adhesives, grease, gel
- Compact dimensions length 358 mm
- High differential pressures achievable also for low viscosity liquids
- Low pulsation delivery, low shear stress rotary micro annular gear technology

Applications

- Chemical processing
- Industrial and plant engineering
- Packaging
- Medical and pharmaceutical industry
- Mini plant technology
- Spray technology
- Dispensing of adhesives
- Ink and paint dosage
- Vacuum applications

Technical data

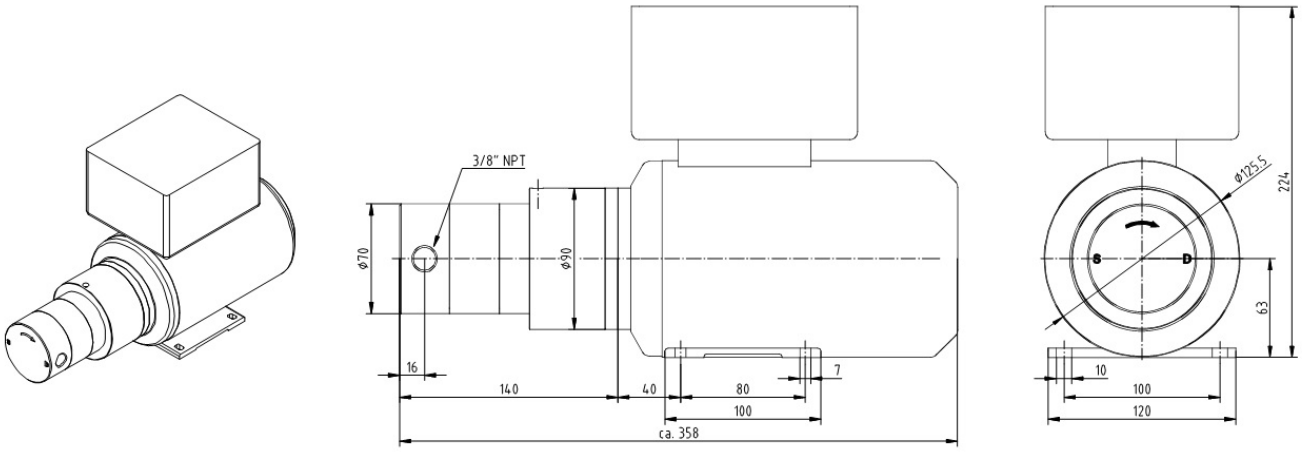
Flow rate	58 – 1,152 (29 - 576 *) ml/min
Smallest dosage volume	100 µl
Displacement volume	192 µl
Differential pressure range	0 – 80 bar (1,160 psi)
Maximum inlet pressure	10 bar (145 psi)
Ambient temperature range	-20 ... +40 °C (-4 ... +104 °F), -55 ... +60 °C * (-67 ... +140 °F) * °C
Liquid temperature range	-5 ... +40 °C (+23 ... 104 °F), -20 ... +120 °C * (-4 ... +248 °F) *
Viscosity range	0.3 - 5,000 (10,000 *) mPas
Ex-certification	CE Ex II 2G Ex h IIC T4 Gb
Place of installation	Ex-area zone 1, 2
Precision CV	< 1 % (Coefficient of variation CV)
Velocity range	300 - 6,000 (150-3,000 *) rpm
Fluid connection	3/8" NPT internal thread, lateral optional 3/8" NPT internal thread, frontal
Wetted parts	stainless steel 316L (1.4435), tungsten carbide Ni-based; shaft seal: graphite-reinforced PTFE, alloy C276 (2.4819); static seals: FPM, optional: EPDM, FFPM
Motor	three-phase AC motor, IEC-Size 063, 2 poles, IP 55, rated voltage 240/400 V, frequency 50 Hz, 250 W
Temperature protection	PTC-resistor, 6 pieces
Dimensions (L x W x H)	358 x 120 x 224 mm
Weight	approx. 22,000 g
Remarks	* with optional modules or alternative motors, Customized solutions on request.

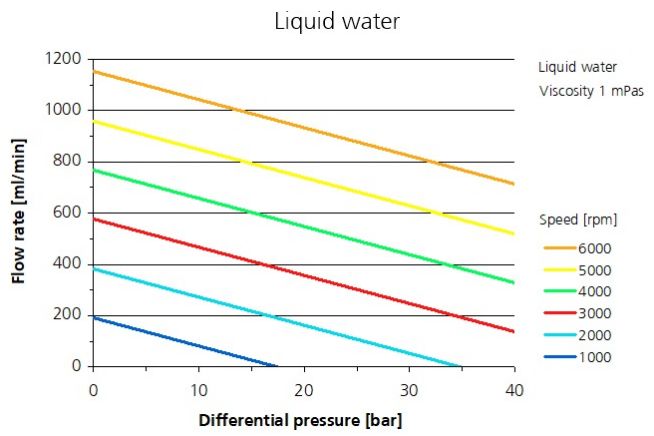
Notice
Even if single parameters are within the indicated performance range of technical data, certain parameter combinations may not be achievable. Single parameters may exceed their indicated performance range under adequate circumstances. For detailed evaluation please contact HNP Mikrosysteme. Actual performance may vary. Specifications are subject to change without notice. This document is subject to change without notice.

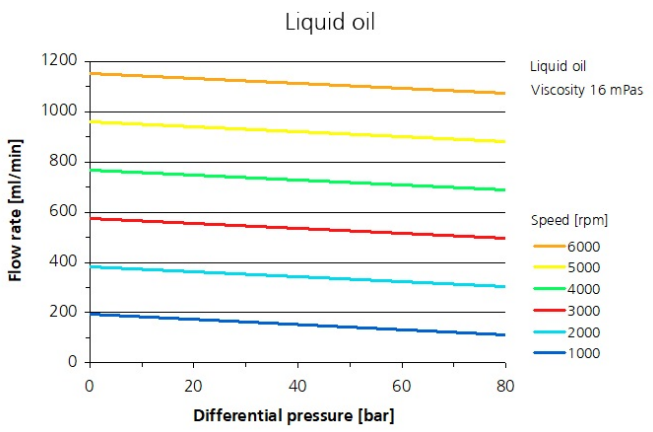
Accessories

- Heat insulation module
- Double shell heating module

Dimensions







Patents and trademarks

Our products are protected by the following national and international patents: DE 10 2018 129 631.2 B3; EP 3 884 162; CN 113 302 399 B; DE 10 2018 129 633.9 B3; EP 3 884 160; CN 113 272 553 B; DE 10 2018 129 634.7 B3; EP 3 884 527; DE 10 2018 129 635.5 B3; EP 3 762 165; DE 10146 793.1; EP 1 354 135 B1; US 7,698,818 B2; DE 10 2011 051 486 B4; EP 2 726 740 B1; US 9,404,492 B2; CN 103 732 921B; EP 2 640 977 B1; US 10,012,220 B2; CN 103 348 141 B; HK 1 185 648 B.

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