Product information

mzr-11557 Ex · Ex-versions

Description

The mzr-11557 Ex micro annular gear pump of the hermetic and chemically inert series is, considering its almost universal suitability for aggressive and corrosive media, a revolution in the pump technology. Driven by a explosion-proof three-phase AC motor the pump covers the flow range from 58 ml/min to 1152 ml/min. Its rotors and functional elements being made of ceramics, the pump shows the highest chemical resistance and an outstanding resistance to wear. Thanks to the use of ceramics as bearing and shaft material, a magnetic coupling, and case components made out of alloy C22 (DIN 2.4602), this pump will take up any challenge in the chemical industry applications.

Advantages

- Ex-certification ATEX conform with EU directive 94/9/EEC
- 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

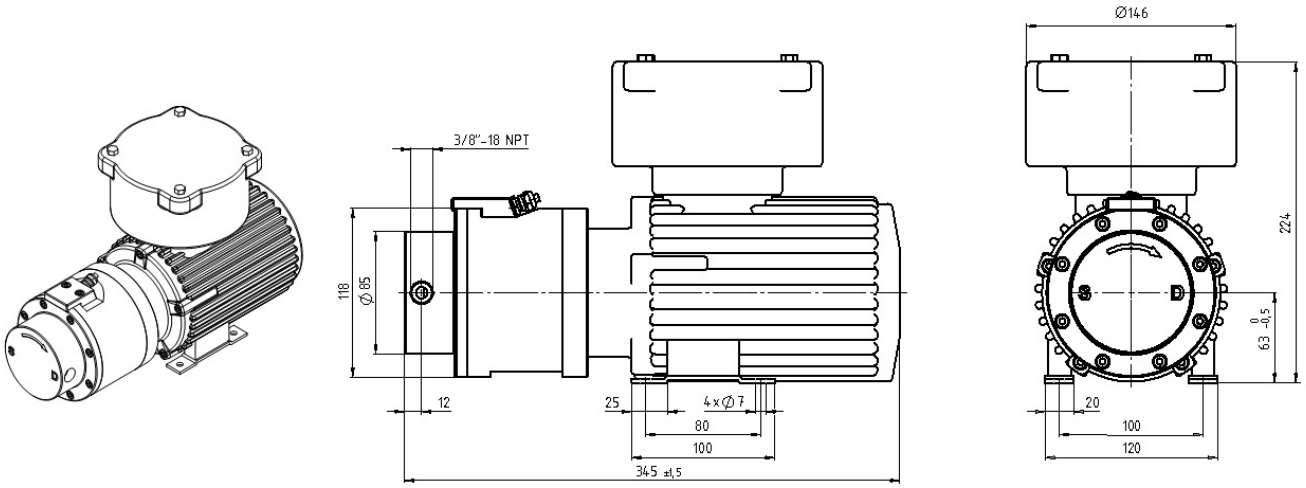
- Chemical processing
- Industrial and plant engineering
- Packaging
- Medical and pharmaceutical industry
- Mini plant technology
- Spray technology
- Dispensing of adhesives
- Ink and paint dosage
- Vacuum applications

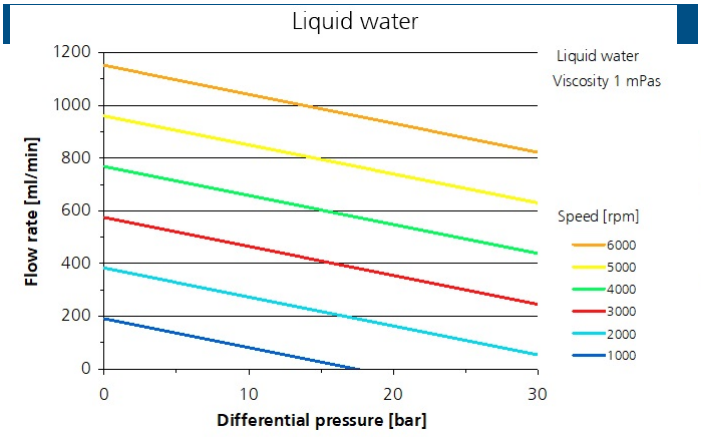
Technical data

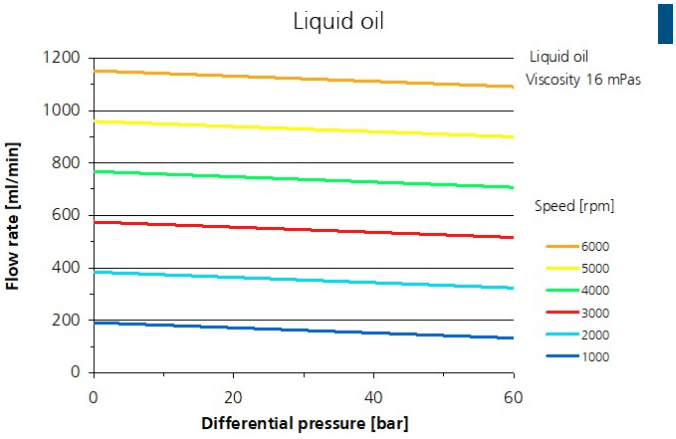
Flow rate	58 - 1152 (29 - 576*) ml/min
Displacement volume	192 µl
Maximum system pressure	60 bar (870 psi) 200 bar * (2900 psi *) (inlet pressure + differential pressure)
Differential pressure range	0 – 60 bar (870 psi)
Ambient temperature range	-20 ... +40 °C (-4 ... +104 °F), -55 ... +60 °C * (-67 ... +140 °F) * °C
Liquid temperature range	-5 ... +40 °C (+23 ... +104 °F)
Viscosity range	0.3 - 1,000 mPas
Ex-certification	CE Ex II 2G c IIB T3
Place of installation	Ex-area zone 1, 2
Precision CV	< 1 % (Coefficient of variation CV)
Velocity range	300 - 6000 (150 - 3000*) rpm
Fluid connection	3/8" NPT internal thread, lateral
Wetted parts	Pump case alloy C22 (2.4602), optional: stainless steel 316L; seals FFPM (Kalrez® Spectrum™ 6375), optional: FPM, EPDM; shaft sintered silicon carbide (SSiC); bearing and wetted functional parts Al2O3 ceramics; rotors partially stabilized ZrO2, optional: tungsten carbide Ni-based
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)	344 x 120 x 227 mm
Weight	approx. 25,000 g
Remarks	* depending on accessories, 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.

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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Last update 2026/04