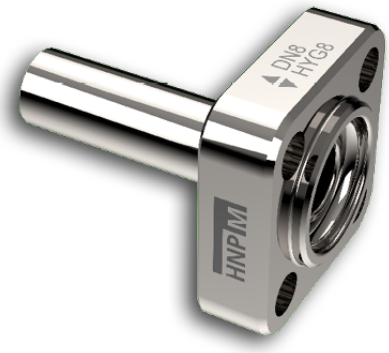
Product information

Flange connection HYG · Flange connection HYG



Description

The HYG flange connection is the ideal hygienic connection solution for micropumps and filters in sensitive and demanding process applications.
It enables a low dead volume, easy-to-clean connection and is perfectly suited for processes with the highest demands on cleanliness, sterility, and cleanability – such as in the pharmaceutical and food industries.

The connection follows the principles of hygienic design: the construction eliminates dead spaces and contamination traps, supports fast and residue-free cleaning, and is ideally suited for CIP and SIP processes. As required by hygienic design standards, the surface roughness of all media-contacting areas is very low, with Ra < 0.8 µm.

The connection is compatible with mzr® micro annular gear pumps from the High Performance, Modular, and Hermetically Inert Series, as well as with most F-MI filters. It supports pump sizes 63, 72, and 115. Using the hygienic HYG flange connection enables simple and efficient installation into the process system.

Key Advantages of flange connection HYG

- Low dead volume, hygienic design. The construction follows the principles of hygienic design: smooth, flow-optimized surfaces without dead zones or gaps prevent contamination traps and product residues. Ideal for CIP and SIP processes - ensuring safe cleaning and reliable process hygiene.
- Corrosion-resistant materials for demanding media. Manufactured from stainless steel 1.4404 (316L) or optionally Alloy C22 (2.4602). High resistance to aggressive cleaning and process media – even with frequent sterilization.
- Reliable under pressure and temperature. Designed for operating temperatures from -40 °C to +100 °C and a maximum operating pressure of 60 bar – ideal for demanding and variable process conditions.

Technical data

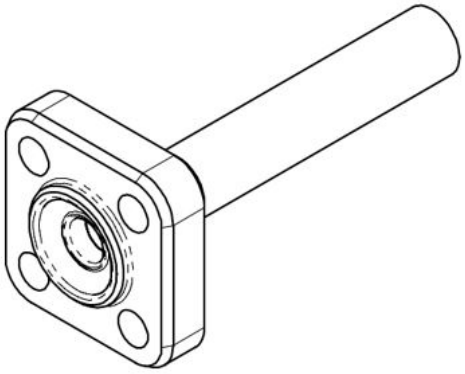
Materials	Stainless steel 316L (1.4404), optional: alloy C22 (2.4602)
Seal materials	FPM, FFPM, EPDM
Max. operating pressure	60 bar [870 psi]
Operating temperature range	-40 … +100 °C (-40 … +212 °F) *
Remarks	* observe the temperature limits of the seal equipment

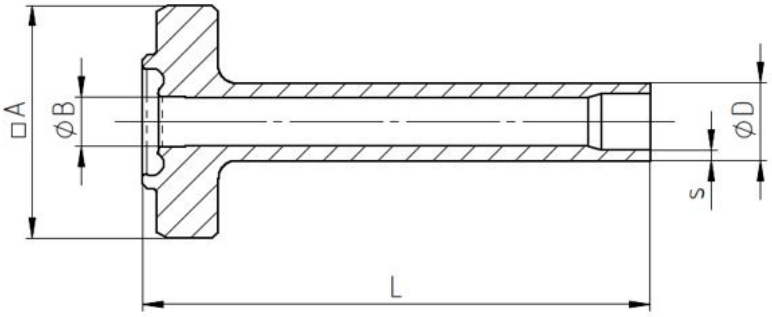
Notice
Even if single parameters are within the indicated performance range of technical data, certain parameter combinations may not be achievable. Single parameters may exceed their indicated performance range under adequate circumstances. For detailed evaluation please contact HNP Mikrosysteme. Actual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

Applications

- Pharmaceutical production
- Food manufacturing
- Beverage processing
- Biotechnology
- Microreaction technology
- Laboratory applications
- Analytical systems
- Filling
- Dosing

Dimensions





	A [mm]	B [mm]	L [mm]	D [mm]	s [mm]	O-RING	SCREW SIZE
HYG4-DN4	19	4	41,5	6	1	5 x 2	M3 x 10
HYG4-DN1/4"	19	4	41,5	6,35	0,89	5 x 2	M3 x 10
HYG8-DN8	30	8	41,5	10	1	10 x 3,5	M5 x 16
HYG8-DN3/8"	30	8	41,5	9,52	0,89	10 x 3,5	M5 x 16

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.
HNPM®, mzr®, MoDoS®, µ-Clamp®, µDispense®, LiquiDoS®, smartDoS®, colorDoS®, MSM®, are registered German trademarks of HNP Mikrosysteme GmbH.

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