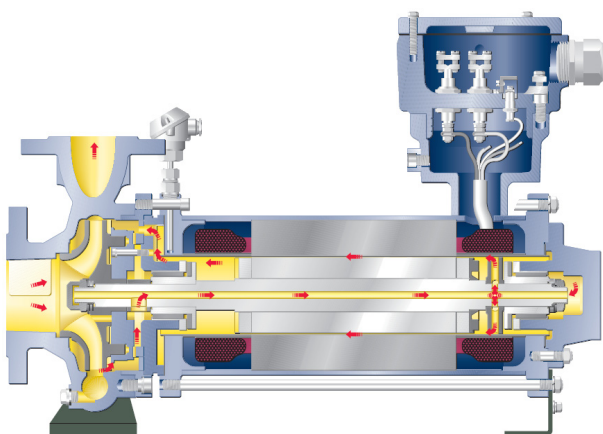


ACHEMA 2009 Model Series HCN / HCNF



General

The HERMETIC pumps included in the design range HCN / HCNF are completely self-contained centrifugal pumps without any shaft sealing, driven electromagnetically by the canned motor. This new product line is a standardized, cost-efficient development for standard chemical applications:

- Proven technology in a new design
- Simplified construction
- Improved internal flow guidance
- High-quality materials
- Integrated monitoring of sense of rotation by ROMi
- Casting quality S3/V3

Application ranges

- HCN / HCNF: $-120\text{ }^{\circ}\text{C}$ to $+120\text{ }^{\circ}\text{C}$
- Flow rate up to $230\text{ m}^3/\text{h}$
- Head up to 140 m
- Pressure rating PN 16
- Vapor pressure up to 12 bar

Application sector

- **HCN:** For the delivery of aggressive, toxic, explosive, precious, inflammable and slightly volatile fluids etc.
- **HCNF:** Liquid gases, e.g. ammonia, freon, carbon dioxide, amines, propane, butane, vinyl chloride, chlorine, phosgene, propylene, hydrocarbon, etc.

Explosion protection

According to EC type examination certificate in line with Directive 94/9/EC

Ⓔ II 2 G EEx de II C T3 bis T6 / Ⓔ II 2 G ck II C Tx

Bearing arrangement / Axial thrust compensation

Hydrodynamic slide bearings of same size consisting of bearing sleeve and bushing are major parts of this pumps. The almost universal bearing combination based on tungsten carbide (W5) and silicon carbide (SiC30) has to be proved to be the best choice. Due to the high-strength material combination of these hydrodynamic sliding bearings radial wear is impossible during operation.

The axial position of the pump shaft is automatically adjusted during operation in order that a balanced condition is created automatically and thus, there are no effects by axial forces on the axial bearing collar. Therefore axial wear cannot occur during operation and has not to be monitored.

HCN / HCNF – standardized chemical pump with canned motor

Versions

Hydraulic HCN / HCNF	Motor 400 V star				
	N24N-2 max 6,0 kW	N34L-2 max 8,0 kW	N34XL-2 max 14,8 kW	N54XL-2 max 24,0 kW	N64XL-2 max 41,0 kW
40-25-200	•				
65-40-160		•	•		
65-40-200		•	•		
80-50-160		•	•		
80-50-200		•	•	•	
80-50-250				•	
100-65-200				•	
100-65-250					•
125-80-200					•

Additional options

- Vapor pressure ≥ 5 bar (external piping)
- Temperature control via T30 or PT100
- Voltage 690 V star or 500 V delta
- Base plate

Materials

Wetted parts		material C
VDMA-no.	Description	Pressure rating PN 16
102	Volute casing	1.4408
160	Adaptor disc	1.4571
161	Distance disc	1.4571
230.01	impeller	1.4408
230.03	Auxiliary impeller	1.4581
360	Bearing support	1.4571
381.01	Bearing cover	1.4571
472.01/02	Slide ring	PTFE/K
513	Wear ring insert	1.4571
520	Backing sleeve	1.4571
525.01	Distance sleeve	1.4571
550.01/02	Bearing sleeve	1.4571/W5 ⁽¹⁾
545.01/02	Bearing bushing	1.4571/SiC30
816	Stator can	2.4610 (Hastelloy C4)
817	Rotor can	1.4571
819	shaft	1.4571
921/922	Shaft nut/impeller nut	1.4571
Non-wetted parts		material C
811	Motor casing	1.0037
812	Motor casing cover	1.0460

⁽¹⁾ denotes Tungsten carbide coating

Testing / Inspection

- Performance guarantee acc. DIN EN ISO 9906, class 2
- Hydrostatic test acc. DIN EN 1333
- Axial thrust measurement
- Leakage test with nitrogen 6 bar under water
- Balancing of shaft and impeller acc. DIN ISO 1940, 6.3

Canned motors

- Power up to 41 kW
- Voltage: 400 V Δ / 50 Hz or 480 V Δ / 60 Hz
- Insulation class: H – 180 °C
- suitably for operation with frequency convertor
- Protections: Motor IP 68, terminal box IP 55
- Motor protection: thermistor KL 180 or PT 100
- Rotation monitoring by ROMi

Painting

- Painting according to HERMETIC-Standard: thickness 120 ym, 2-layer-coating, Colour: Pantone 355 C (green)

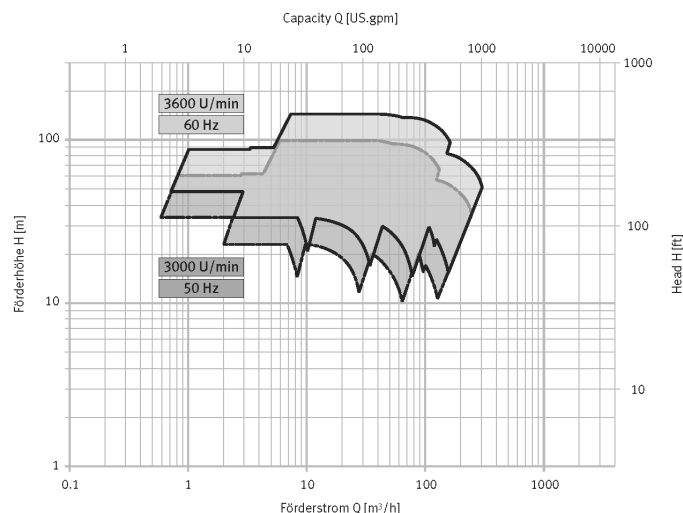
Documentation acc. to HERMETIC-Standard

- Installation and Operation manual
- Technical specification
- Standard-sectional drawing including item number
- Standard-dimensional drawing
- Spare parts list with item numbers
- Performance test report
- Performance test curve
- Certificate of conformity

Delivery time

6 weeks starting from order

Characteristic curves



Deviations from the descriptive standard configuration and descriptive auxiliary options are possible only by selection of another model series. All data on this information sheet correspond to the technical conditions at the time of the expenditure. Technical improvements and changes we reserve ourselves at any time.