

## HYGHSPIN – a screw pump for numerous industries

HYGHSPIN screw pumps are used in a wide range of industries – and deliver outstanding results:

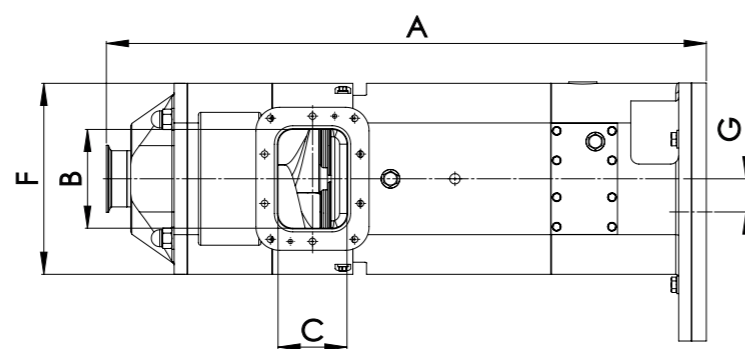
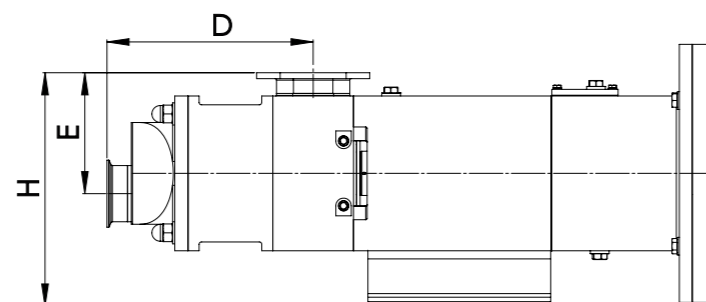
- **Food industry,**  
e.g. bakeries, meat processing, confectionery industry
- **Beverage industry,**  
e.g. fruit juice manufacturing, dairy industry, breweries
- **Pharmaceutical industry**
- **Cosmetics industry,**  
e.g. creams, pastes, lotions
- **Chemical industry,**  
e.g. adhesives, solvents, paints, varnishes, plastics

And in many other industries where materials with a wide range of viscosities need to be transported.



## Technical data

Type	HYGHSPIN 70H	HYGHSPIN 90H	HYGHSPIN 125H
Capacity	100 l/h – 3 m³/h	1 m³/h – 10 m³/h	5 m³/h – 30 m³/h
Max. diameter of solids	20 mm	30 mm	45 mm
Dimensions			
A	613 mm	814 mm	1060 mm
B	98 mm	134 mm	182 mm
C	62 mm	93 mm	122 mm
D	211 mm	278 mm	394 mm
E	125 mm	164 mm	203 mm
F	199 mm	259 mm	349 mm
G	35 mm	45 mm	62,5 mm
H	272 mm	317 mm	419 mm
Weight	70 kg	135 kg	380 kg



## Performance features

Capacity	100 l/h – 30 m³/h
Delivery pressure	10 bar, optionally 25 bar
Suction capacity	NPSHr bis 0,5 m
Viscosity	bis 5.000.000 cSt
Product temperature	–10 to 130° C, with oil cooler 160° C
Cleaning temperature	Up to 140° C
Sterilisation temperature	Up to 145° C
Material for product-contact parts	1.4404 with 3.1 certificate (other materials on request)
Elastomers	HNBR and FDA approved (other elastomers on request)

## 3-in-1-technology: Infeed, conveying, cleaning with just one pump!

### 1. Infeed

Hopper and integral extruder enable radial entry of non-flowable products

### 2. Conveying

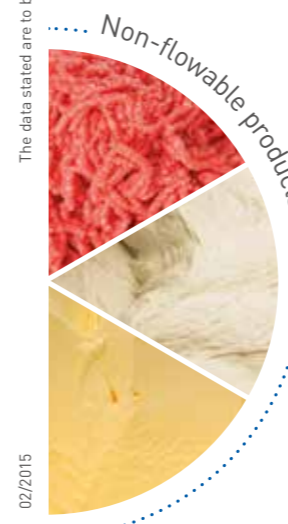
Feed screws with integral extruder

### 3. Cleaning

Proven HYGHSPIN technology:  
No additional pump for  
CIP cleaning required



The data stated are to be understood without engagement and have to be rechecked for every individual project. Subject to technical modifications.



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# HYGHSPIN

## HOPPER

### The efficient solution for non-flowable products

The HYGHSPIN Hopper is an expansion of the internationally proven HYGHSPIN series of stainless steel pumps. This innovative twin screw pump with feed hopper is capable of easily transporting products with viscosities of up to 5000 Pa·s. The feed screws have been extended so that they draw in non-flowable products underneath the inlet hopper in the same way as an extruder and convey them to the pumping compartment. This ensures particularly gentle handling and completely does away with the need for an external extruder.



The HYGHSPIN Hopper therefore represents a very attractive 3-in-1 solution. Infeed, conveying and cleaning in just one component.

#### Further benefits of the HYGHSPIN Hopper

- **Considerable cost savings**  
Reduced investment and maintenance costs
- **Outstanding quality**  
Made entirely from stainless steel
- **Exceptionally maintenance-friendly**  
No need to remove the pump from the system for maintenance work
- **Maximum flexibility**  
Wide range of products, viscosities and volumes can be handled with just one pump
- **Gentle and uniform product handling**  
Low speed, minimum pulsation, no surges
- **Extremely high hygiene standards**  
No dead spaces and particularly effective flushing of the shaft seal
- **CIP and SIP**  
Cleaning and sterilisation in place, use as CIP feed pump

Twin screw pumps have clear advantages over other pumps such as centrifugal, rotary lobe and gear pumps, particularly in terms of their high flexibility and gentle, low-pulsation feed.

The HYGHSPIN Hopper is available in three sizes: 70, 90 and 125. The maximum feed rate is approx. 30 m<sup>3</sup>/h and the differential pressure of the standard design is max. 10 bar.

#### Four guide bolts with cap nuts

- Rapid assembly/disassembly for inspection and manual cleaning
- Guide bolts for damage-free handling of the components

#### Pump outlet

- Horizontal discharge for perfect emptying
- Various standards and nominal widths available

#### Product-contact surfaces

- Electro-polished for optimum cleaning (Ra < 0,8)

#### Static seals

- Hygienic sealing with form rings – no dead spaces
- FDA-approved elastomers in various qualities

#### Pump inlet

- Feed to integrated extruder
- Design as hopper or flange

#### Bearing support

- Stainless steel with high-performance bearing

#### Synchronisation gearwheels

- Inspection opening with access to gear unit
- Adjustment of flank clearance possible in place without discharging gear oil

#### Drive shaft

- Free shaft end or block design directly connected to the drive unit

#### Gear casing

- Aluminium design with wear-resistant and acid-resistant Teflon coating
- Optional: Stainless steel design

#### Shaft seal

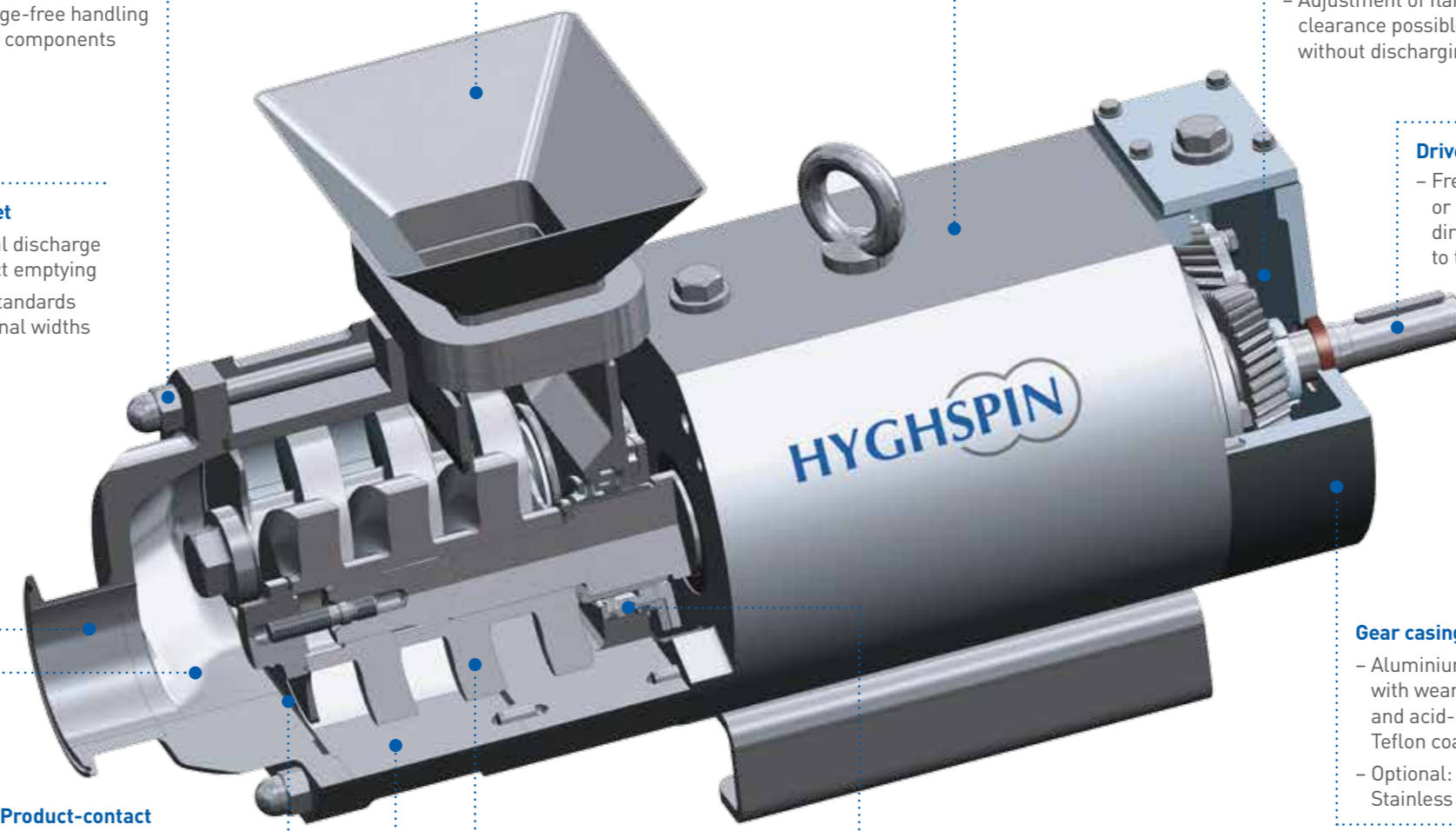
- Compact cartridge-design lip seal with self-lubricating PTFE lips with dry-running capability

#### Pumping elements

- Precision feed screws with integrated extruder as infeed unit
- Optional: Kolsterised surfaces

#### Pump housing

- Wear-resistant Jung chromium-carbide coating
- Optional: Kolsterised surfaces



### Jung Process Systems – experience and competence

Jung Process Systems has been a specialist manufacturer of stainless steel screw pumps since 2009 and offers outstanding quality as well as far-reaching competence in the field of pump technology. The company manufactures twin screw pumps for all requirements and sectors and offers comprehensive worldwide support.

All pumps in the HYGHSPIN series are extremely compact, space-saving and maintenance-friendly. They offer high availability with minimum downtimes for maintenance work (optimal MTTR).

All models are based on the principles of hygienic design and therefore meet the required quality standards for use in the food, beverage, cosmetics, bio-pharmaceutical and chemical industries. The company's in-house production facilities offer logistical flexibility with reduced delivery times and a quality management system certified to ISO 9001:2008.

