

# HYGIENIC PUMPS

**Efficient. Smart. A New Performance Standard.**

Screw pumps for food, beverage, and pharmaceutical industries





# HYGIENIC PUMPS. TO THE NEXT LEVEL.

## Superior Technology for Premium Performance

Screw Pumps are a very reliable and gentle-to-product option in food, beverage and pharmaceutical production. With its new HYPER pump series, *Leistritz* is setting the pace in efficiency, high performance and product protection, efficiency and hygienic standards.

How did it all start? We listened to you very carefully, understood your expectations and put them into practice with our team of experienced engineers.

The new *Leistritz* HYPER Series is approved following industry hygienic standards and comes with a patent on top.

We have also added low pulsation and exact dosing, even in minute quantities to features such as CIP (Cleaning in Place) and SIP (Sterilization in Place).

In addition, you benefit from a broad scope of expertise for your production process delivered by our application engineers.

## HYPER Pump Solutions are designed for the following production lines

### Food Production

e.g. Delicatessen products, ketchup, sauces, confectioneries, baby foods, milk and dairy products

### Beverages Production

e.g. Fruit juices, syrups, concentrates, brewery products

### Pharmaceutical Production

e.g. Raw materials, cell suspension, pectin, glucose, glycerine, blood plasma

### Cosmetics

e.g. Lotions, creams, gels

## Our pledge to you

### Expertise

Benefit from our broad scope of technical expertise, understanding your production processes, greenfield, extension, modernisation and RMO plans for your production lines. Achieve your cost-efficiency and quality standards faster.

### Reliability

*Leistritz* provides the world's most extensive portfolio of screw pumps made in Germany and supports you on your long-term demands for safety in operation.

### Hygiene

HYPER Screw Pumps are designed according to highest hygienic and sanitary standards.

## ■ HYPER Screw Pump Performance Parameters



FLOW RATE  
**0.02 –  
191 m<sup>3</sup>/h**



SPEED  
**up to  
3,600 r/min**



DIFFERENTIAL PRESSURE  
**up to  
25 bar**



PARTICLE SIZE  
**up to  
Ø 41 mm**



# UNDERSTOOD. YOUR APPLICATIONS.

## Solutions with *Leistritz* HYPER Pumps

Precision dosing to stationary mixer for cream	
Product	Dairy cream with 35% fat content
Flow rate	0.4 – 0.8 m³/h
Suction pressure	-0.3 bar
System pressure	4 – 6 bar
Viscosity	10 – 20 cSt
Temperature range	5 – 15°C
CIP (85°C)	2.5 m³/h at 2 bar

High performance dosing pump for bottling ketchup	
Product	Ketchup with herbs
Flow rate	3 – 6 m³/h
Suction pressure	-0.5 bar
System pressure	7 – 9 bar
Viscosity	500 – 1,000 cSt
Temperature range	20 – 30°C
CIP (85°C)	21 m³/h at 2 bar

Gentle-to-product transfer pump for low fat cottage cheese	
Product	Cottage cheese / curd
Flow rate	6 – 8 m³/h
Suction pressure	-0.5 bar
System pressure	12 – 16 bar
Viscosity	1,000 – 2,000 cSt
Temperature range	5 – 10°C
CIP (85°C)	18 m³/h at 2 bar

High performance transfer pump for meat emulsion	
Product	Meat emulsion
Flow rate	10 – 15 m³/h
Suction pressure	-0.6 bar
System pressure	10 – 12 bar
Viscosity	5,000 – 10,000 cSt
Temperature range	3 – 5°C
CIP (85°C)	35 m³/h at 2 bar

"The *Leistritz* HYPER Pump Series handles a very broad range of viscosities, flow s and pressures. Add to that optimised product protection even when processing shear-sensitive products plus top precision when dosing, even in small quantities. That is what makes our HYPER Series so special."

Angelo Perna, Product Manager





# HYPER: ALL-IN-ONE SOLUTION FOR YOUR HYGIENIC PRODUCTION.

The Leistritz HYPER Pump Series comes as a new plug-and-play solution with high pump performance and product protection – and as an option all-in-one solution in stainless steel, including an integrated motor drive. The unit is an eye-catcher thanks to its compact design, hygienic surfaces, easier cleaning inside and out. It answers to advanced demands on hygiene, efficiency and reliability.

## Benefits for your production line

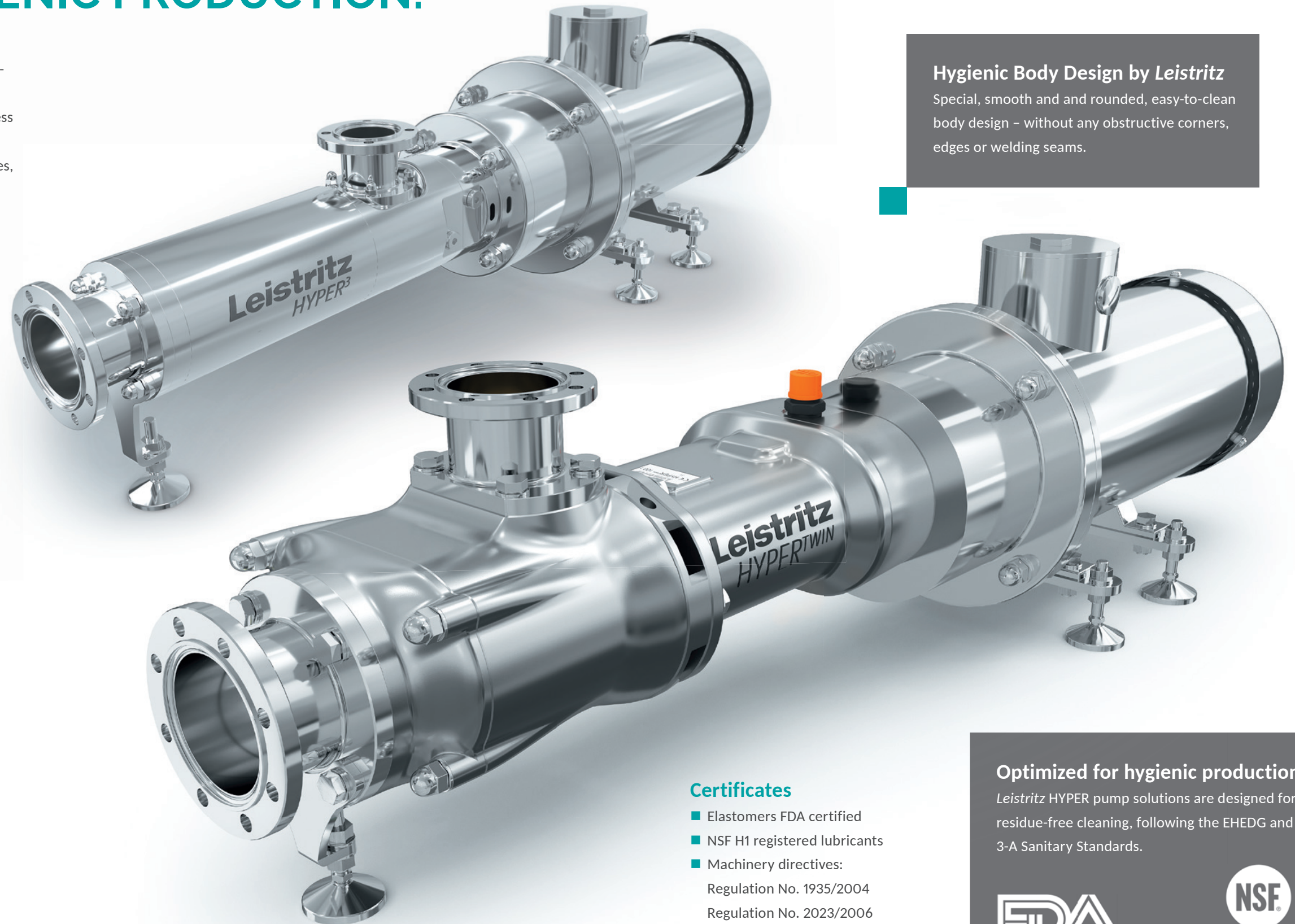
- High volumetric performance
- Smooth, easy-to-clean surfaces
- Improved bearing reliability
- Completely product-flushed mechanical seal without dead spaces
- Product protection
- Optimised CIP and SIP operation
- Low pulsation flow
- Optional: hygienic all-in-one unit in stainless steel and integrated motor drive

## Materials

- Wetted metal parts 1,4404/Ra < 0.8 µm
- Optional surface roughness Ra < 0.2 µm
- Wear resistance hardening 1,200 HV

## Well thought out equipment

- Quick and easy height adjustment thanks to adjustable machine feet
- Horizontal and vertical installation
- Easy installation of pumps with drive unit, bellhousing ensures optimum coupling alignment
- Stainless steel motor cover available



## Hygienic Body Design by Leistritz

Special, smooth and rounded, easy-to-clean body design – without any obstructive corners, edges or welding seams.

## Certificates

- Elastomers FDA certified
- NSF H1 registered lubricants
- Machinery directives:  
Regulation No. 1935/2004  
Regulation No. 2023/2006  
Regulation No. 10/2011r

## Optimized for hygienic production

Leistritz HYPER pump solutions are designed for residue-free cleaning, following the EHEDG and 3-A Sanitary Standards.





# HYPER<sup>3</sup>: POWERFUL. PATENTED. PRECISION DOSING.

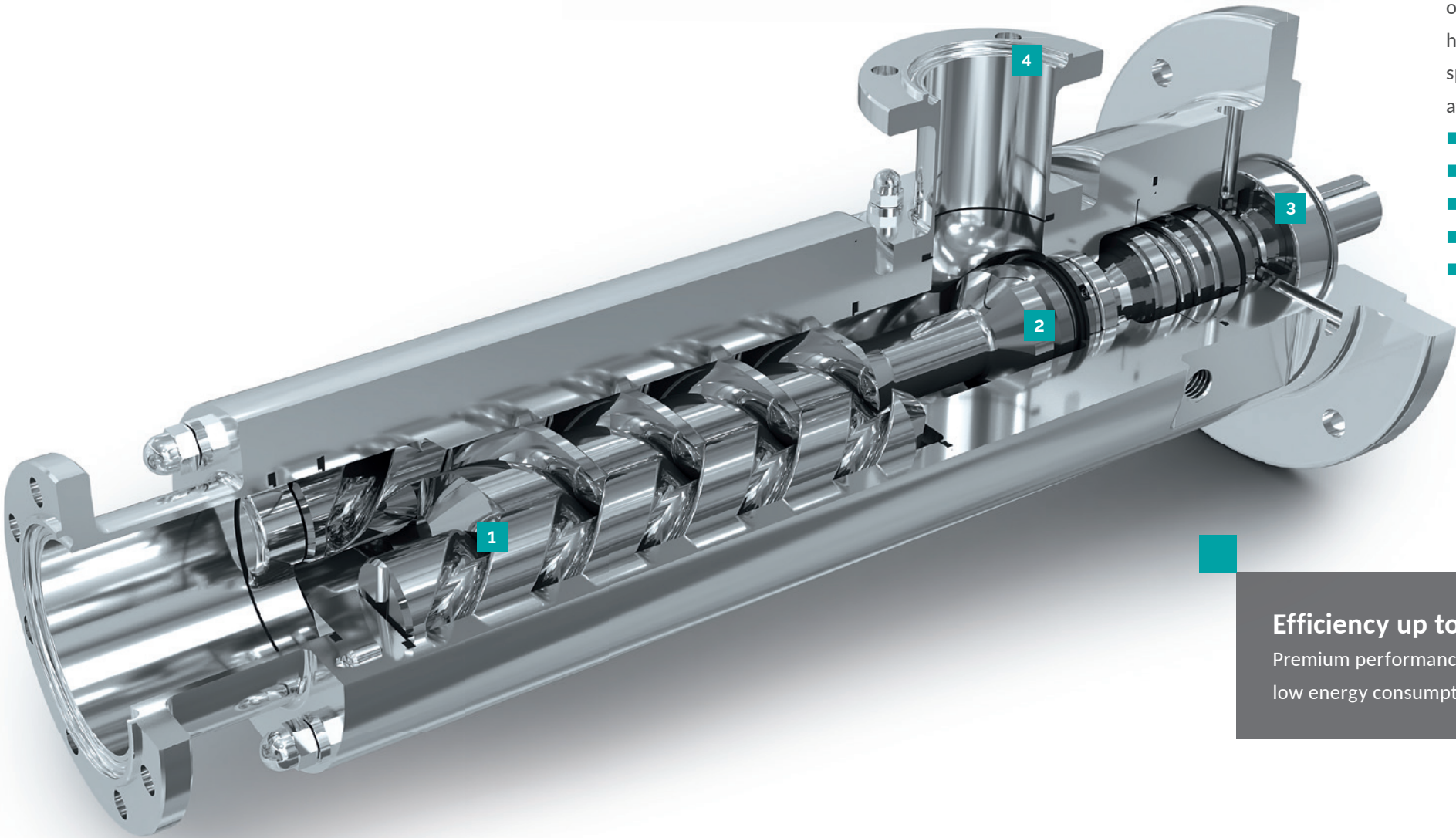
The *Leistritz* HYPER<sup>3</sup> represents a pumping innovation with an unrivalled combination of performance and compact design. In it, the triple screw pump technology takes advantage of a hydrodynamic floatation principle, employed with a spotless track record in countless industrial applications. The result is a best-in-class answer to highest demands on product protection and precision dosing.

### Benefits for your production line

- Efficiency
- Precision in dosing even smallest quantities
- Compact design and low weight
- Optimised CIP and SIP operation
- Minimum pulsation
- Improved, easy cleaning inside and out thanks to *Leistritz* Hygienic Body Design

### Technical Data: HYPER<sup>3</sup>

Pump type	20	30	50
Flow rate (m³/h)	0.02 – 2.6	0.1 – 8.8	0.2 – 22.7
Differential pressure (bar) up to	16	25	25
Speed (rpm) up to	3,000		
Particle size (Ø/mm) up to	5	7	10
Viscosity (cSt)	0.5 – 1,000,000		



- 4 Unparalleled versatility**  
Thanks to the modular design of the basic pump, all common hygienic flanges and customer-specific flanges can be easily attached and exchanged:
- DIN 11864-2
  - DIN 11864-1
  - DIN 11851
  - DIN 32676 (Tri-Clamp)
  - All customer specific flanges

**Efficiency up to 96%**  
Premium performance and efficiency, low energy consumption.

- 1 Dosing precision**  
High dosing precision even for smallest quantities thanks to tight tolerances.

- 2 Mechanical seals**  
Plug and play due to single-acting hygienic mechanical seal without dead spaces with optional additional standardized DIN K mechanical seal.

- 3 Oil-free operation**  
Absolutely oil-free operation, thus highest cleanliness of product and system.

# HYPER<sup>TWIN</sup>: HIGHLY EFFICIENT. GENTLE ON PRODUCT AND PIECES.

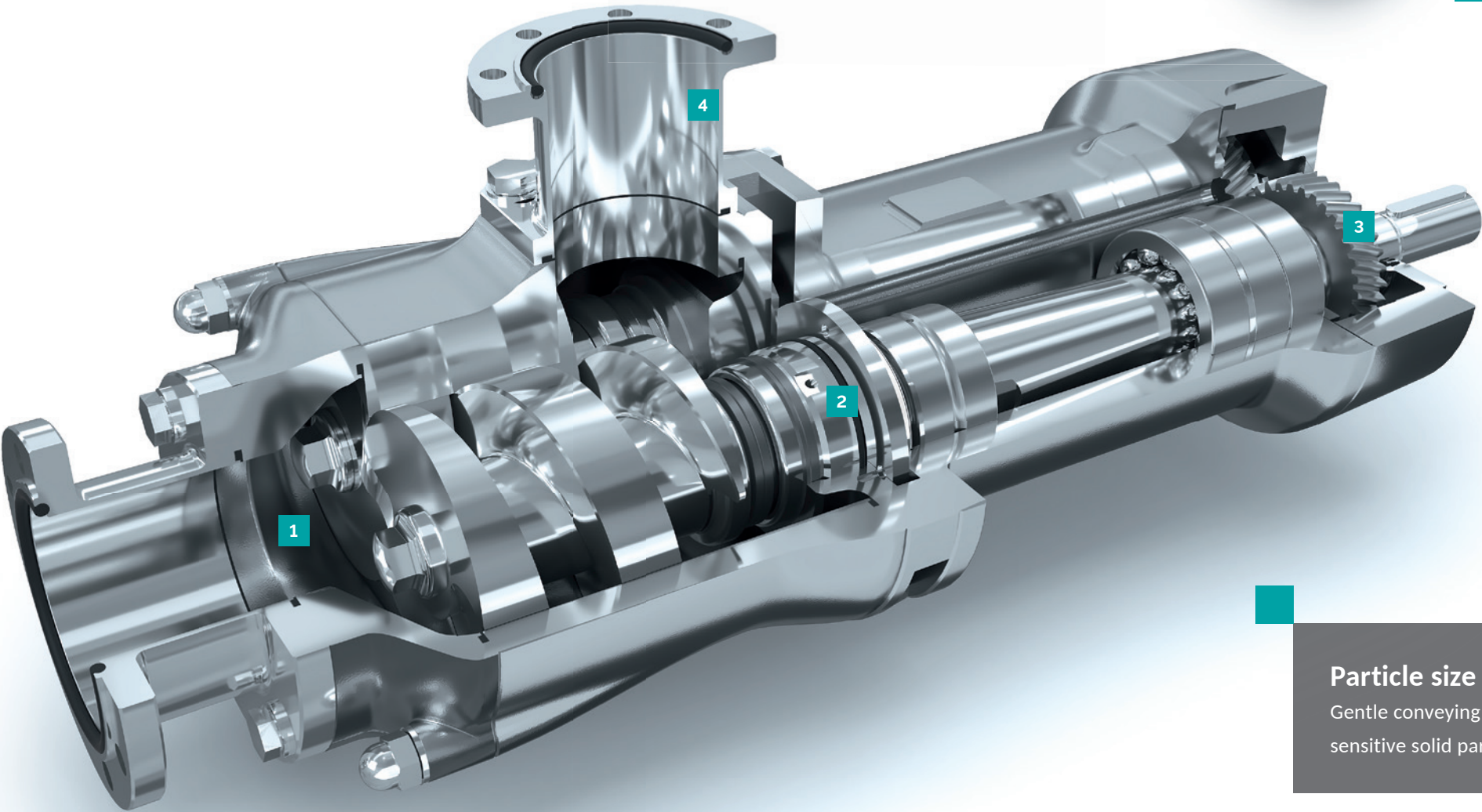
The *Leistritz* HYPER<sup>TWIN</sup> is a further pumping innovation with high performance and flow rate balanced by product protection. The proven twin screw pump technology provides high pump performance on products with large air enclosures and chunky particles. It does so with ease and gentleness.

**Benefits for your production lines**

- High flow rates up to 100 m³/h
- Gentle on products with large air enclosures
- Broad viscosity spectrum
- Optimised CIP and SIP operation up to 191 m³/h
- Low pulsation

**Technical Data: HYPER<sup>TWIN</sup>**

Pump type	100	130	150
Flow rate (m³/h)	0.27 – 51.4	0.7 – 106	1.29 – 191
Differential pressure (bar) up to	25		
Speed (rpm) up to	3,600	3,000	3,000
Particle size (Ø/mm) up to	25	33	41
Viscosity (cSt)	0.5 – 1,000,000		
Temperature range (°C)	- 20 to 170		



- 4** **Unparalleled versatility**  
Thanks to the modular design of the basic pump, all common hygienic flanges and customer-specific flanges can be easily attached and exchanged:
  - DIN 11864-2
  - DIN 11864-1
  - DIN 11851
  - DIN 32676 (Tri-Clamp)
  - All customer specific flanges

**Particle size to Ø 41 mm**  
Gentle conveying of sensitive solid particles.

- 1** **Easy-to-clean design**  
Significantly faster, safer cleaning inside and out thanks to the new *Leistritz* Hygienic Body Design.
- 2** **Modular sealing concept**  
Hygienic semi-cartridge mechanical seal unit in single and double-acting design. Free of dead space, mechanical seal is completely flushed by product as well as by cleaning liquid.
- 3** **Plug-and-Play Operation**  
Pre-synchronised for plug-and-play operation. No subsequent synchronisation needed, not even after maintenance.



# You Never Pump Alone.

## Global Services for the Food & Beverage and Pharmaceuticals Industry.

*Leistritz Service* is streamlined to meet the demands of your food & beverages and pharmaceuticals production sites all over the world. We are at your side to safeguard the reliable, trouble-free operation of your production lines at all times.

We have your operations in view using digital technology – supported by a global network of qualified partners close by. "You never Pump alone" is our daily business – practised in the literal sense of the term.



### Headquarters

**Leistritz Pumpen GmbH**  
Markgrafenstraße 36-39  
90459 Nuremberg  
Germany

**T** +49 911 4306-96-625  
**E** [hygienic@leistritz.com](mailto:hygienic@leistritz.com)



### Service Hubs

**Leistritz Italia srl**  
Milano, Italy

**Leistritz Advanced Technologies Corp.**  
Allendale, NJ, USA

**Leistritz Machinery (Taicang) Co., Ltd.**  
Jiangsu & Shanghai, China

**Leistritz SEA Pte. Ltd.**  
Singapore

**Leistritz India Pte Ltd.**  
Chennai, India

**Leistritz Middle East (FZE)**  
Sharjah, United Arab Emirates

*Distributor network  
for regional and local service*