

**INNOVATION**

**Leistritz**  
PUMP TECHNOLOGY

# HYPER<sup>3</sup>

World's first Triple Screw Pump for food, beverage, and pharmaceutical industries.



[hygienic.leistritz.com](http://hygienic.leistritz.com)

# HYGIENIC SCREW PUMPS. TO THE NEXT EFFICIENCY LEVEL.

## Superior Triple Screw Pump 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<sup>3</sup> pump series, Leistritz is offering a real game-changer setting the pace in efficiency, high performance and hygienic standards.

Putting 100 years of successful pump engineering experience into a whole new technology brought a revolutionary and powerful solution to the industry.

The new Leistritz HYPER<sup>3</sup> Series is approved following industry hygienic standards.

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

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



# YOUR APPLICATIONS. UNDERSTOOD.

## Example Applications with Leistritz HYPER<sup>3</sup> Pumps

Precision dosing to stationary mixer for cream	
Product	Dairy cream with 35% fat content
Flow rate	0.4 – 0.8 m <sup>3</sup> /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 m <sup>3</sup> /h at 2 bar

Sugary mixed drinks and ice cream mixes	
Product	Ice cream
Flow rate	12 m <sup>3</sup> /h
Suction pressure	-0.3 bar
System pressure	3.0 – 6.0 bar
Viscosity	50 – 500 cSt
Temperature range	5°C
CIP (85°C)	22.5 m <sup>3</sup> /h at 1 bar

High performance dosing pump for bottling ketchup	
Product	Ketchup with herbs
Flow rate	3 – 6 m <sup>3</sup> /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 m <sup>3</sup> /h at 2 bar

Dosing of triple tomato pulp concentrate	
Product	Tomato triple concentrate
Flow rate	3.0 m <sup>3</sup> /h
Suction pressure	-0.7 bar
System pressure	4.0 – 5.0 bar
Viscosity	10,000 - 20,000 cSt
Temperature range	10°C
CIP (85°C)	15 m <sup>3</sup> /h at 1 bar

"The Leistritz HYPER Pump Series handles a very broad range of viscosities, flows 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<sup>3</sup>: ALL-IN-ONE SOLUTION FOR YOUR HYGIENIC PRODUCTION.

The Leistritz HYPER<sup>3</sup> 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 operation
- Low pulsation flow
- Optional: hygienic all-in-one unit in stainless steel and integrated motor drive

## Materials

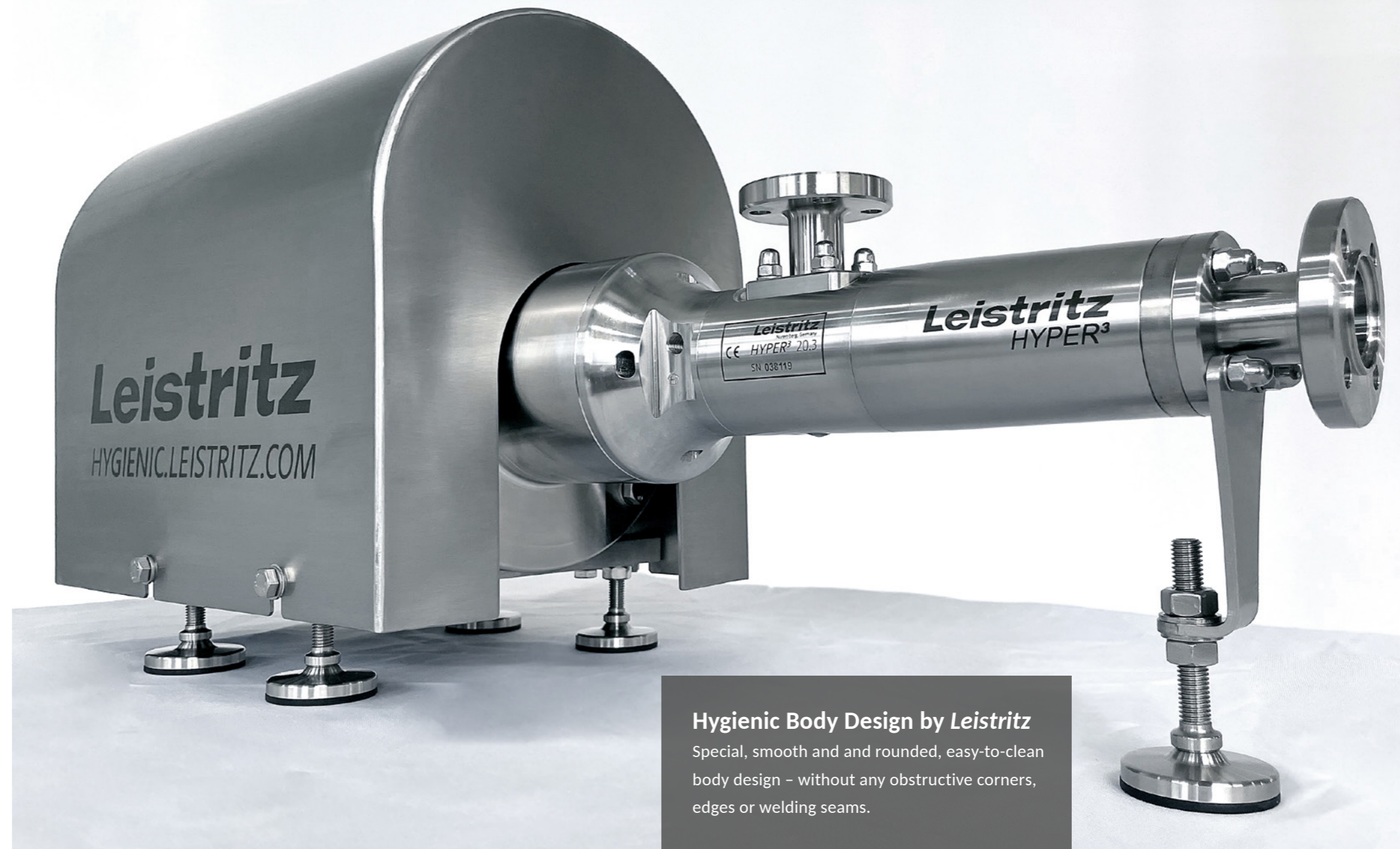
- Wetted metal parts 1,4404/Ra < 0.8 µm
- Optional surface roughness Ra < 0.2 µm
- Wear resistance hardening 1,200 HV

## 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

**Efficiency up to 96%**

Premium performance and efficiency, low energy consumption.



## Hygienic Body Design by Leistritz

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



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

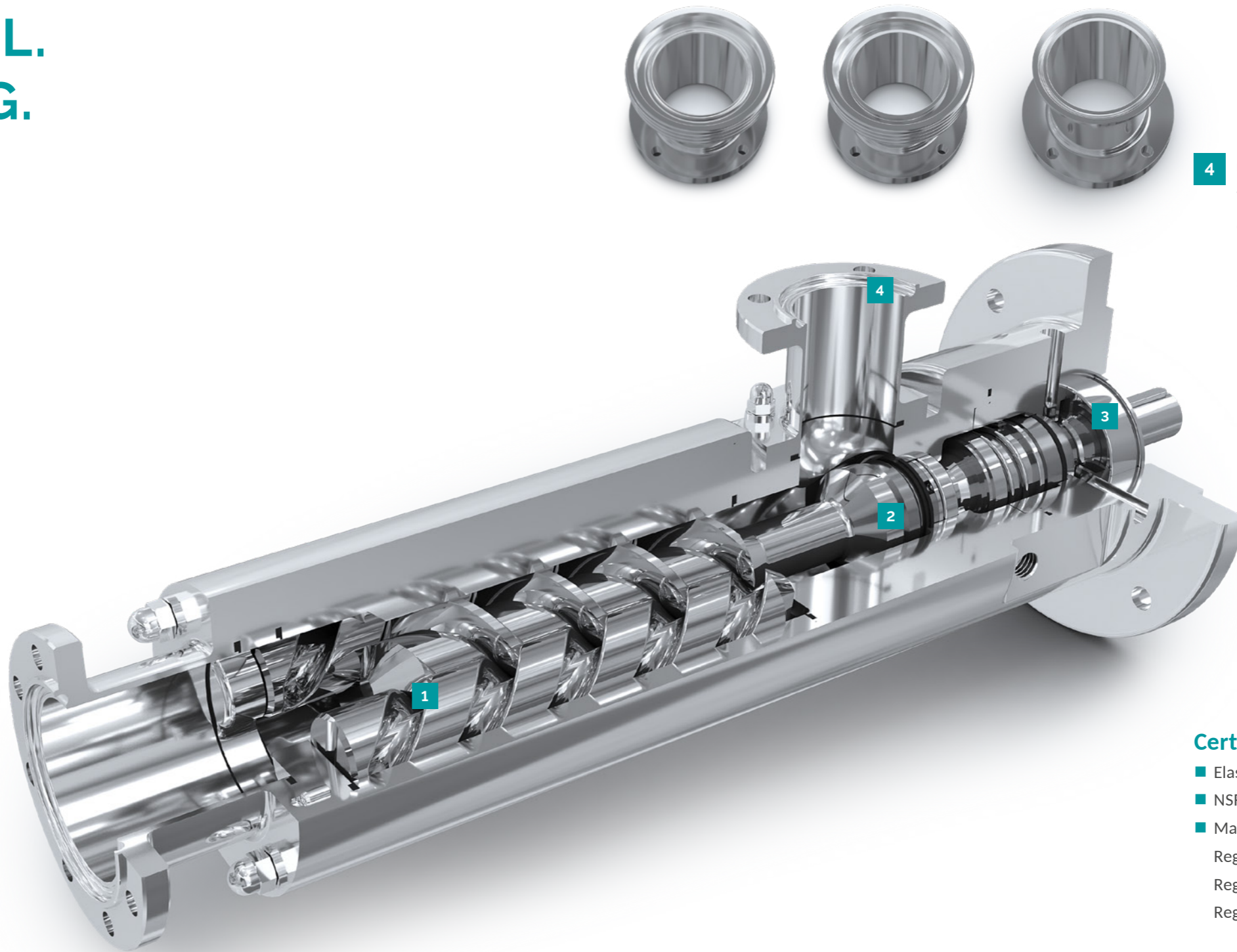
The Leistritz HYPER<sup>3</sup> represents a pumping innovation with an unrivalled combination of performance and compact design. In it, the triple screw pump technology takes advantage of a hydrodynamic floatation principle, employed with a spotless track record in countless industrial applications.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

## Benefits for your production line

- Highest efficiency in Screw Pumps
- Precision in dosing even smallest quantities
- Compact design and low weight
- Optimised CIP operation
- Minimum pulsation
- Improved, easy cleaning inside and out thanks to *Leistritz Hygienic Body Design*
- No synchronization needed
- Absolutely oil-free operation

### Optimized for hygienic production

*Leistritz HYPER* pump solutions are designed for residue-free cleaning.



## 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)
- SMS 1145
- All customer specific flanges

## Certificates

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

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

Pump type	20	30	50
Flow rate (m <sup>3</sup> /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		

## 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.

# 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 4306-96-6623  
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*