

# YSTRAL PiloTec

## ystral Technology in the laboratory and pilot plant scale

### Our machines for your research and development

The newest generation of the multi functional YSTRAL PiloTec offers the possibility to use established production procedures at the laboratory scale. Based on Conti-TDS-technology powders may be inducted dust-free, wetted and dispersed under vacuum in a single process step.

A simple exchange of the tools allows the operation as an innovative Multi-Z- or Z-Inline-method with multi stage shear ring systems.

An established procedure with an energy input, independent of the batch size guarantee excellent and consistent results. These very easily may be transferred to the production scale – a safe scale-up to the ystral plant engineering.

### The performance of the YSTRAL PiloTec:

- Induct, wet and disperse powders dust- and loss-free
- Emulsifying, homogenising, wet grinding and mixing
- Highest flexibility due to simple handling of the exchangeable tools
- CIP-capable
- Hygienic Design

### Extension to the YSTRAL PiloTec-Plant

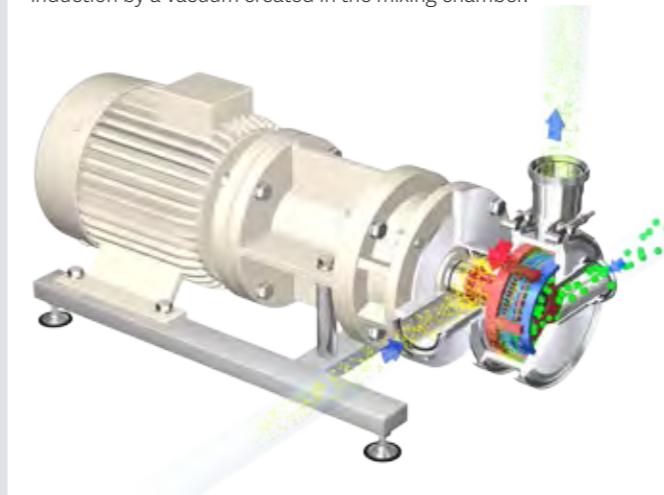
The modular design permits the extension to PiloTec processing systems with ystral mixing technology, systems for handling powders and liquids, monitoring and measuring and sensors, lifts and other modular components.



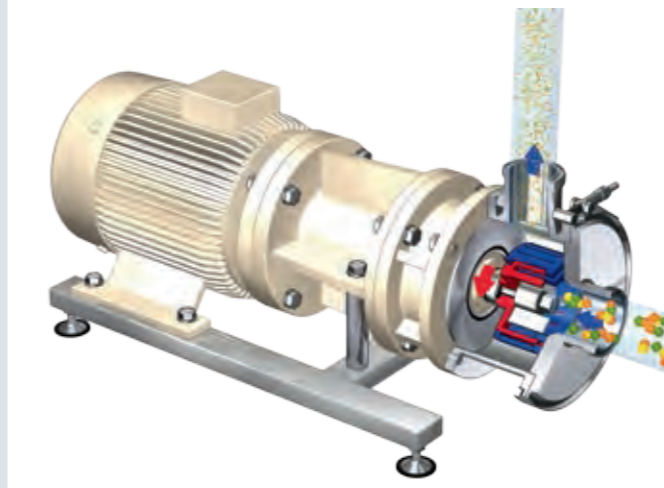
### High flexibility

With the YSTRAL PiloTec we offer our numerous years of experience in industrial processes and flexibility with variable requirements. At any time you can switch from the YSTRAL Conti-TDS operation to the Multi-Z or Z-Inline operation.

**The Conti-TDS operation** provides dust and loss-free powder induction by a vacuum created in the mixing chamber.



**Multi-Z- or Z-Inline operation:** In no time at all you can switch from the Conti-TDS operation to the Multi-Z or Z-Inline operation.



- Dust- and loss-free powder induction using the vacuum created inside the mixing chamber
- Powder induction via an induction tube directly from any container
- Induction of liquids for the production of emulsions
- Easy treatment of sticky, spontaneously swelling, strong foaming powders and powders which are difficult to wet
- Colloidal wetting and dispersing under vacuum
- Complete desagglomeration of the raw materials – higher quality products

- Inline dispersing inside the Conti-TDS-Chamber (Multi-Z)
- Multi stage shear rings with different shear gradients
- Perfect and reproducible dispersing results independent from viscosity in batch or Inline processes
- Shear speed up to max. 60 m/s
- Ideally suited for wet grinding

### Technical Data

<b>Power</b>	4 kW
<b>Voltage</b>	400 V, 50 Hz, special voltages
<b>Speed</b>	infinitely variable up to 12.000 min <sup>-1</sup> with a frequency converter
<b>Shear speed</b>	up to 60 m/s
<b>Dispersing chamber</b>	1.4404 (AISI 316 L)
<b>Flexible batch sizes</b>	from 5 l up to 200 l
<b>Flow rate for liquids</b>	2-14 m <sup>3</sup> /h
<b>Induction speed</b>	for powders up to 15 kg/min
<b>Seal</b>	configuration depending on operational conditions
<b>Options</b>	explosion proof execution, certifications, qualifications

