

Operation.....

TDS induction mixers induct the powder into the liquid. Simultaneously they mix and disperse the product in the vessel. They work according to the principle of a jetstream mixer and provide all of its advantages. Sedimentation is avoided and absolute homogeneity is guaranteed during the whole process. Using a Dispermix-TDS machine offers additional dispersing effect during induction and mixing.

Principle

Powder is inducted through an induction hose and brought into the liquid below the surface. It is finely distributed and immediately wetted and dispersed. The required vacuum to induct the powder is created in the mixing head of the machine itself according to the Venturi principle. The fine distribution of the powder when it comes in contact with the liquid results in spontaneous and complete wetting of all powder particles.

Installation.....

TDS induction mixers or TDS Dispermix are installed on a flange or a transom on top of a tank. When several vessels have to be used, the machine may be attached to a portable lifting device.

Construction.....

The machine has a two speed motor, high speed for induction and low speed for mixing and dispersing the product after induction. A separate cleaning connection allows the inner parts of the machine to be cleaned. The TDS machine works without bearings and seals in the medium. Motor and shaft may be separated very easily and all rotating parts are protected against accidental contact. The machine is certified by The Employer's Liability Insurance Association.

Advantages.....

No dust is produced during induction. Inducting directly from paper bags facilitates and speeds up the handling of the powder and avoids harmful dust in the air. Crusts on the walls of the vessel and along the mixing shaft are not created. If no powder has to be inducted, the machine can be used as a standard jetstream mixer or Dispermix.

TDS INDUCTION MIXER

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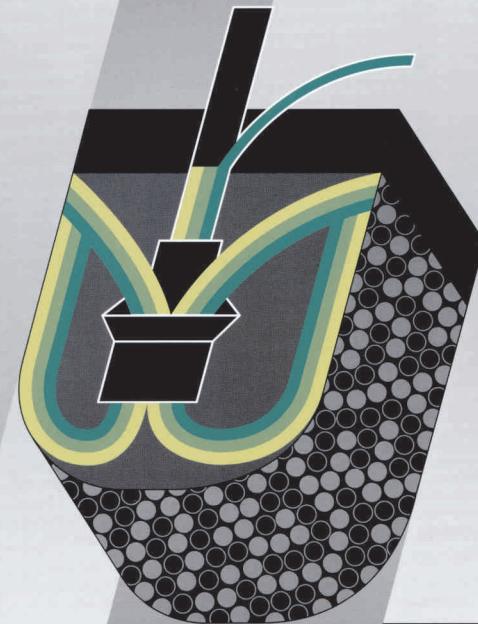
TECHNICAL DATA

Power	1,1 - 25 kW
Voltage	230 / 400 V, 50 Hz, special voltages available on request
Speed	1.500 / 3.000 rpm
	Stepless from 360 - 3.600 rpm (with a frequency converter)
Bearing flange	coated aluminium, stainless steel
Immersed parts	stainless steel 1.4571, 1.43539
Sealing	lip seal or mechanical seal depending on the application
Mixing head	135 - 350 mm diameter
Immersion depth	up to 1.200 mm, with foot bearing up to 1.600 mm
Ball valve	3/4" to 1 3/4", full bore, manually or automatically operated
induction hose	light vacuum proof induction hose with copper trace to avoid static surcharge.

The ystral program

- Jetstream mixers
- Dispersing mixers
- Batch dispersers
- Inline dispersers
- Powder wetting machines
- Laboratory dispersers
- Stands
- Processing systems

Ystral



TDS INDUCTION MIXER

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TDS INDUCTION MIXER

Dust-free induction, mixing & dispersing all in one machine

The best way of handling powders is to use a process that does not allow the formation of dust at all. Higher product quality by effective wetting, dispersing and better utilisation of the raw material are further arguments in favour of the ystral Transporting and Dissolving System (TDS). With TDS induction mixers, sophisticated processes may be undertaken easily and economically. It is possible to induct liquids and gases as well.



VARIANTS

ADVANTAGES

- Processing advantages:
- * induction of powders into liquid dust-free, directly from paper bag, container or fibre drum.....
 - * no extraction system required.....
 - * immediate and complete wetting below the liquid surface in the vessel.....
 - * no crusts are formed at the wall of the vessel or along the mixing shaft.....
 - * better use of raw materials compared to conventional wetting systems.....
 - * after powder wetting the machine may be used as a mixer further to mix and disperse the product.....
 - * liquids and gases may be inducted as well.....
 - * CIP cleaning - no disassembly
 - * additional dispersion when using a Dispermix-TDS machine

APPLICATION

- High-grade silica:
 - * treatment of Aerosil, Cab-O-Sil or similar without dust.....
 - * short wetting and suspension time.....
- Silica:
 - * no unhealthy concentration of dust in the air.....
 - * no dust comes out of the liquid in the vessel.....
 - * no change of characteristics of the silica by inducting and mixing.....
- Activated carbon:
 - * no contamination of the environment by carbon particles.....
 - * activated carbon is kept in suspension by the mixer itself.....

