

DISSOLVING

MIXING

EMULSIFYING

HOMOGENIZING

SUSPENDING

DISPERSING

GASSING

**YTRON**  
PROCESS TECHNOLOGY



# YTRON -Y ByPass

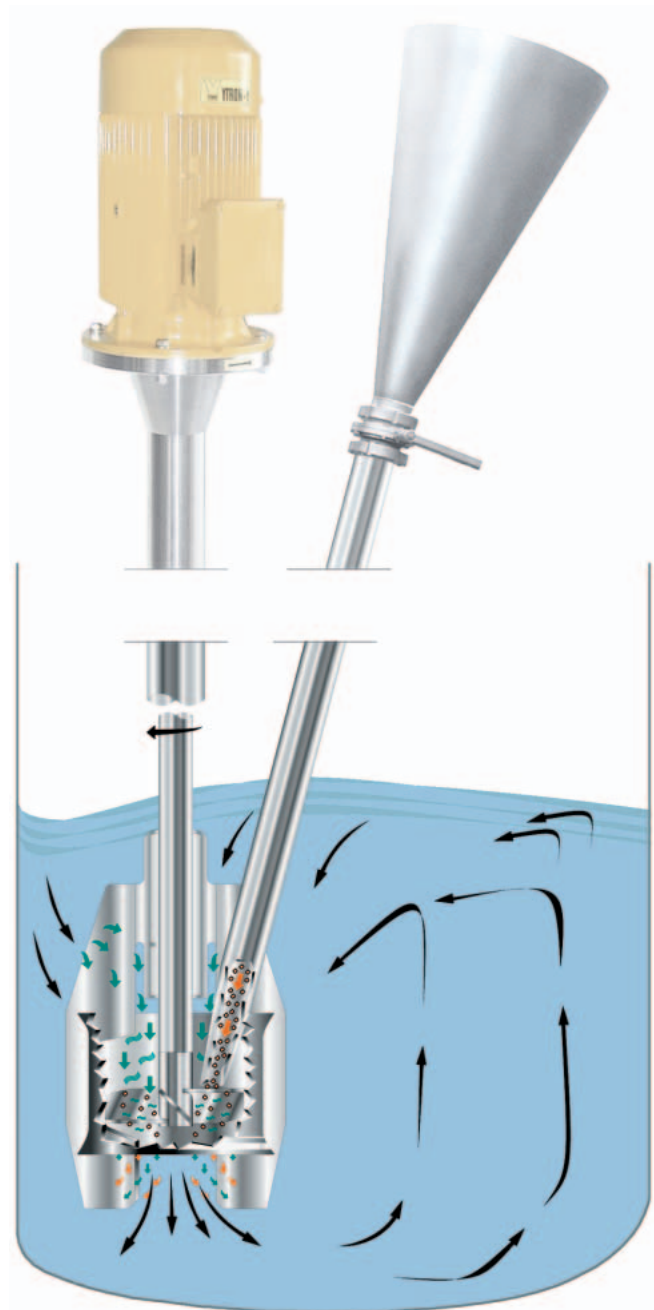


## The YTRON - Y ByPass Principle

Free flowing without a tendency to stick or form lumps such as, Silica, Active Carbon, HPMC, Cocoa, Flour, Carbon Black, can be drawn in below liquid level by the negative pressure created by the rotor/stator system. They are instantly wetted, suspended or dissolved without the formation of lumps

High viscosity products and those that are difficult to dissolve can be injected directly into the YTRON ByPass. This way an instantaneous dissolution or suspension is achieved.

The directed jet stream homogeneously mixes the product into the entire batch.



## Process Order

Once the powder is in the ByPass hopper, silo or BigBag, the YTRON-Y is switched on. The powder valve is opened and the negative pressure created at the YTRON-Y head draws the powder in dispersing it instantly and homogeneously into the liquid. It is not possible for the powder to float on the surface or lay as a sediment on the bottom of the vessel. In order to avoid air entrainment or liquid rising up the ByPass tube, the powder valve is closed once all powder has been sucked in. Once the valve is closed the YTRON-Y can be switched off.

Certain powders with a low bulk density can be sucked directly and dust-free from a bag or other container. In this case, a small amount of air is required to ensure fluidisation of the powder.

YTRON - Y in tank-flange construction with ByPass, installed vertically into a closed vessel  
 Application: Micro-suspending of Agrochemicals



Dust-free incorporation directly from the bag with YTRON-Y ByPass  
 Application: Suspending of Silica for Paints and Colours.

YTRON-Y with ByPass installed in open container  
Application: Dust-free incorporation and suspending of Cocoa Powder into Glucose Syrup



YTRON-Y in tank-flange construction  
Installation in closed reactor  
Application: InLine Emulsification of Detergents.

YTRON-Y with ByPass  
on a Mobile Hoist



YTRON-Y with ByPass  
in Laboratory Design

# YTRON-Y

Model	0	II	III
Power (kW)	0.25	0.55...2.20	0.75...9.00
Rotor Ø (mm)	25...50	70...140	80...240
Rotor speed (1/min)	1,000...5,000	500...3,000	500...3,000
Process	Batch	Batch/Conti	Batch/Conti
ByPass Ø max. (mm)	25	40	80

Model	IV	V
Power (kW)	2.20...22.00	5.50...55.00
Rotor Ø (mm)	100...330	130...370
Rotor speed (1/min)	500...3,000	500...3,000
Process	Batch/Conti	Batch/Conti
ByPass Ø max. (mm)	100	100

According to the application, special construction deviating from standard are available.



YTRON-Y in the Pharmaceutical Industry  
Application: Tablet Coating Solutions

YTRON-Y ByPass in the Brewing Industry  
Application: Suspending of Diatomaceous Earth  
CO<sub>2</sub> inerting for a Continuous Discharge  
of the Product.





The YTRON® range is not mass produced

YTRON® equipment and systems are carefully selected for your individual application. We therefore kindly ask you to provide as detailed as possible a description of your application containing for example:

- Components to be processed
- Viscosity at the beginning and at the end of the process
- The specific gravity (bulk density when adding powders)
- Overall dimensions and shape of the mixing vessel
- Minimum and maximum filling levels of products to be processed
- Working temperature
- Other details that may be relevant

The capacities indicated in this brochure are related to certain applications under standardised conditions. They are not necessarily valid for all products or processes.

The standard materials for the product contact parts are:

- Material 1.4301 / AISI 304
- Material 1.4571 / AISI 316 Ti
- Material 1.4435 und 1.4404 / AISI316 L

Special materials such as 1.4539, Hastelloy etc. are available on request

Fittings can be delivered various types such as  
DIN 11851, DIN 11864, SMS, DS, RJT, Clamp, Flange etc.

We reserve the right to alter the design without previous notice in the interest of development.



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