

PROCESSING

MIXING

A jetstream mixer is the ideal tool for homogeneous mixing and suspending. The rotor creates a flow of liquid within a stator directed to the bottom of the tank. When the "jet" bits the bottom, the flow divides into two streams that are deflected upwards to vertically mix the whole batch. Mixing the product does not induct air either by a vortex or by the mixing shaft itself. All vessel contents, whether high or low viscosity, are mixed homogeneously. Product transfer occurs over all liquid strata in the vessel.

MIXING AND DISPERSING

Similar to the jetstream mixer, the Dispermix stator together with a high speed rotor creates a liquid stream. Due to the patented construction of the Dispermix stator, the stream is separated into two directions. A partial vertical stream is directed to the bottom of the vessel where it is deflected and – similar to the jetstream mixer – causes strong turbulence in the whole vessel. The second partial stream is redirected horizontally and forced to pass through the dispersing zone of the Dispermix bead.

DISPERSING

Dispersing machines work according to the principle of a rotor-stator-system. With a narrow gap between rotor and stator it produces a continuous horizontal pulsing flow of liquid with high turbulence. The inner rotor ring accelerates the product to maximum speed. The stator reduces the speed of the product to zero and then it is again accelerated by the next rotor ring. This results in a very effective particle size reduction and an homogeneous distribution of the particles in the liquid product. The tool is perfect for the production of agglomerate-free pigment suspensions or emulsions with a very narrow droplet spectrum.

X50 X700

X100 X50

X50 X700

X50 X700

X50 X700

X50 X700



PHARMA

COSMETIC

FOOD

CHEMICAL

MIXING

Syrup
Reactive suspension
Reactive solution

Lotion
Shampoo

Dessert
Fruit concentrate
Yoghurt
Sweet milk drinks

Printing ink
Ceramic glaze

MIXING & DISPERSING

Gelatin solution
Carboxyl solution
Tylose solution

Carboxyl solution
Oil/water emulsion
Water/oil emulsion

Dessert
Fruit concentrate
Yoghurt
Sweet milk drinks

Methyl cellulose solution
Suspension
Separating emulsion

DISPERSING

Dragee lacquer
Pigment grinding
Reactive suspension

Lipstick mass
Oil/water emulsion
Water/oil emulsion

Vegetable puree
Fruit puree
Mustard slurry
Sauces
Stabiliser solution

Resin solutions
Pigment suspension
Phalo emulsion
Separating emulsion
Wax emulsion

EMULSIFYING

Creams
Reactive emulsion

Oil/water emulsion
Water/oil emulsion

Dough
Sauce
Soup

Micro capsula mass
Cleaning agent
Cleaning emulsion
Separating emulsion

HOMOGENISING

Cream
Paste
Suspension

Cream

Sauce
Soup

Detergent
Suspension

POWDER WETTING

Activated carbon
suspension
Iodine suspension
Reactive suspension

Pigment suspension

Hardening of
nutriment fat

Acrsill suspension
Activated carbon
suspension
Acrylates
Colour pigments
suspension

Ystral



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MULTIPURPOSE
X100
X50

Multipurpose machine with exchangeable mixing shaft for pilot plant and production

X100

With the X50 and X100 systems the advantages given by machines with exchangeable mixing and dispersing tools now are available as well for batch sizes up to 1.000 litres. With a few actions the mixing shaft can be separated from the drive while a second shaft can be used for continuation of the production. With only one machine, different processing tasks and volumes can be treated with the appropriate tool. Following the requirement for sterile applications in the pharmaceutical industry, all connections are sealed according to the GMP standard. A variety of drives and stands are available for the system.



X 100

DRIVE

3 phases 380-480 V
50/60 Hz, 2,2 and 4,0 kW
also available in Ex,
speed changeable
1.500/3.000 min⁻¹ or
stepless up to 3.000 min⁻¹
with separate or
integrated frequency
converter

SHAFT

Shaft with bearings and
mechanical seal separate
from motor, coupling for
connection to drive.
Immersion depth with
mixing tool approx.
1.000 mm

TOOLS

Y-Jetstream Mixer
D-Dispersing Mixer
X-Disperser

STANDS

moveable or stationary in
a variety of executions



30-1000 l
1-10.000 mPas



30-1000l
1-10.000 mPas



10-500l
1-5.000 mPas

2-50l
1-5.000 mPas

X 50

DRIVE

3 phases 230/380-480 V
50/60 Hz, 1,5 kW
also available in Ex,
speed changeable
1.500/3.000 min⁻¹ or
stepless up to 6.000 min⁻¹
with separate or
integrated frequency
converter

SHAFT

Shaft with bearings and
mechanical seal separate
from motor, coupling for
connection to drive

Shaft LDT-I, LDT-IS
Bearing and seal sub-
mersed in liquid
Immersion depth with
mixing tool
LDT-I: approx. 400 mm
LDT-IS: approx. 600 mm

Shaft Y-MD, Y-MD S
Standard execution, no
bearing and seal immer-
sed in liquid. Immersion
depth with mixing tool
Y-MD: approx. 380 mm
Y-MD S: approx. 620 mm

TOOLS

Y-Jetstream Mixer
D-Dispersing Mixer
X-Disperser

STANDS

moveable or stationary
in a variety of executions



TOOLS

Jetstream
mixing bead:
Homogeneous mixing
and suspending with-
out changing the prop-
erty of the product



Dispermix bead:
Homogeneous mix-
ing, dispersing,
homogenising, and
breaking of agglom-
erates

Dispersing bead:
Desagglomeration,
emulsifying, homo-
genising, dispersing
and dissolving with
particle size reduc-
tion effect

X50

Multipurpose machine with exchangeable mixing shaft for laboratory and pilot plant

