

PSM

High Speed Ploughshare Mixer

The PSM High Speed Ploughshare Mixer operates according to the Turbine Mixing Principle with plough mixing elements generating an effective Fluidized Bed Mixing through the high speed of the blades and the small distance between blades and drum.



PSM attached directly to UAM

Several Applications

Thus, the PSM High Speed Ploughshare Mixer is ideal for mixing of dry materials, semi-wet powders, granules and especially for mixing of sticky and badly-flowing particles, such as fibrous particles and clumped materials. The mixing effect happens in both; radial and axial directions.





Efficiently mixing

The plough share arm spins around through the drum which causes the material to circulate radially from the center to the drum walls and axially through the complete length of the plough. Different particles (e.g. Active Material and Excipients) with a very low mixing ratio of 1:100,000 can be efficiently mixed within few minutes. The stainless steel mixing drum has a removable cover through which the material can be fed and discharged.

Safety System

The Inductive proximity switch safety system stops the UAM Universal Motor Drive automatically when the cover is removed during operation. The drum is attached with an adjustable tension ring to guarantee a perfect seal mechanism. The PSM High Speed Ploughshare Mixer can be directly attached to the UAM Universal Motor Drive, which allows the operator to dynamically adjust the speed to suit the processed material. All contact parts are made of GMP Compliant materials and can be sterilized in accordance with GMP.



Advantages

- » Effective for mixing materials with very low blending ratio (down to 1 : 100,000)
- » Ideal for fibers and clumped substances used for mixing of dry & semi-wet particles
- » Corrosion resistant, medical & food grade contact parts

Features

- » Powerful with plowshare technology
- » Versatile applications for dry & wet powders
- » GMP compliant

Standard Scope of Supply

The PSM (part. no. 40-01190) comes with the following standard scope of supply:

- » SS L316 Cover Plate (part. no. 426-4414214)
- » Safety Guard System (part. no. 426-9396440010)
- » Safety Cable with Plug (part. no. 9396470010)

Application Specifications

Parameter	Specification
Operation principle	High speed fluidized bed mixing; turbo radial and axial mixing
Process range	<ul style="list-style-type: none"> » Turbo blending of special powders (solid/solid) » Blending of highly diluted blends (trace elements blending) » Blending of special wetted powders (solid/liquid)
Feed characteristics	<ul style="list-style-type: none"> » Special sticky and clumped powders » Fibrous powders
Range of applications	Pharmaceutical, herbal & alternative medicine, chemicals & fine chemicals, food, agriculture, cement & ceramics, cosmetics and detergents, paints & pigments

Technical Specifications

Parameter	Specification
Total capacity	5 l.
Operation capacity	Up to 4 l Depends on feed properties, instrument and process parameters
Rotation speed	50-450 rpm
Safety guard	Inductive proximity switch
Instrument dimensions	Approx. 300 x 300 x 320 mm (width x depth x height)
Packaging dimensions	Approx. 480 x 680 x 800 mm (width x depth x height)
Net / Gross weight	Approx. 19.5 / 22 kg

We reserve the right to make technical changes without any prior notice.