

# APT™

ADVANCED POWDER TECHNOLOGY  
AND MICRONISATION

# MX150



Effective  
Speedy Mixing of  
Ultra-Fine Powders



# SUPERMIX BLENDER

## SuperMix Mx150 ...

SuperMix blender MX150 is sanitary, USDA-accepted design, in line with Good Manufacturing Practice and the most demanding pharmaceutical specifications worldwide.

It is designed for the specific characteristics of micronised powders that are composed of ultra-fine particles between 2-20 microns and can be used for larger granulometries, up to 800µm.

Mixing speed is continuously adjustable over a wide range and allows processing of any kind of dry powders. Liquid ingredients can be added to the product through the pressurized spraying system.

### INTELLIGENT DESIGN

Inside the mixer, the ingredients are forced into a spiral trajectory by the bottom blades. The particles circulation is ascendent, along the walls, toward the couvercle that returns the stream to the center of the mixing bowl, above the helix.

Liquid ingredients are injected by a special spraying device into the main stream of particles, from the centre of the couvercle. Due to the high turbulence in the descending stream, all the



SUPERMIX MX150

fine liquid particles distribute evenly throughout the mass of powder.

High-speed circulation and the effect obtained with the special internal shape are combined so that the constituent parts of the product are indistinguishable from one another, being perfectly dispersed.

The mixing bowl and the couvercle can be independently heated or cooled with factory hot/chilled water or other thermal agents, to avoid raise of temperature for sensitive products.

The machine can be also heated to accelerate the process for poor-flowing powders or liquids.

The mixing process is made at atmospheric pressure, the air in excess, that results from the increased volume of powder, being exhausted to atmosphere through a HEPA filter, with retention class 99.999% DOP, certified.

To avoid oxidation and prevent the risk of dust explosion, the mixer can be inerted with argon or nitrogen.

### QUALITY CONSTRUCTION

SuperMix blender features jacketed body and couvercle that can be independently heated or cooled, according to the product specification.

The liquid spray system and its storage tank are embedded in the couvercle, being kept at the desired temperature by the thermic fluid.

The mixing volume has a special shape, created by the mixing bowl and the couvercle that feature elliptical dish ends with large radius toward the shallow concave body.

An intelligent mechanism of pivots and arms, actuated by pneumatic cylinders, provide for the tight closure, opening of the couvercle and overturn of the entire vessel for easy discharge of product.

The mixer has a clean design, without bolts or other connecting devices that are difficult to clean and typical source of cross-contamination.

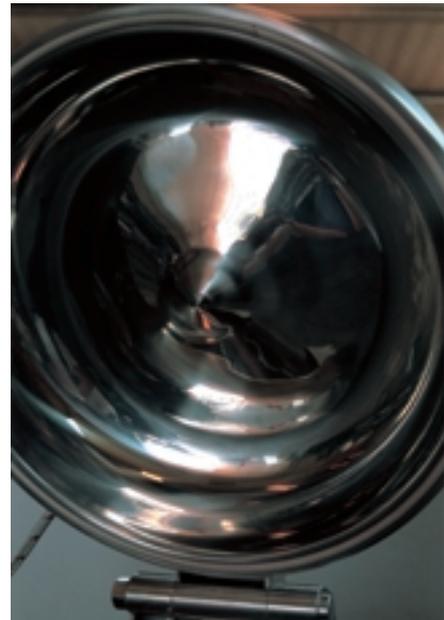
The mixing blades are directly driven by a strong, 3-phase motor. A digital, electronic inverter allows stepless regulation of speeds across a wide range and features adjustable current limiting circuit factory-set to prevent overloading.



ADVANTAGE OF TOTAL OPENING

The contact parts are AISI316 stainless steel, hand polished with extrafine, mirror finish 320-360 grit, Ra 0.25-0.32µm.

Super-mirror finish of contact parts, 400-600 grit Ra 0.16-0.25µm is also available. This perfect finishing is used for very sticky powders, with tendency to clog the mixing bowl.



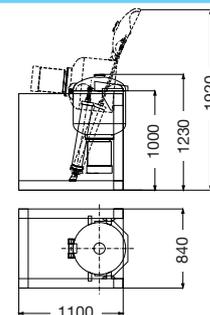
LOOK INSIDE FOR QUALITY



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### TECHNICAL CHARACTERISTICS

SuperMix Blender	MX150
Nominal volume	150 lt
Mixing capacity (final)	90 lt
Mixing speeds	min. 40 rpm
	max. 4500 rpm
Expected mix time	40-90 sec
Cooling/heating water	1/2"
Supply Pressure (rec'd)	2 bar
Installed power	7.5 kW



ALL DIMENSIONS IN MILLIMETERS

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... what a high-tech powder blender should be