



I Application

The ME 1100 series of the high shear vertical mixers present a solution for the processes of dispersion, emulsifying, homogenisation and disintegration of solids in a wide range of products in the food-processing, cosmetics, pharmaceutical and fine chemistry industries. These mixers are intended for work under the atmospheric pressure and with the products of either high or low viscosity. The mixers are recommended to work with anchor type agitators if the application involves highly viscous media.

I Operating principle

The high speed and adjusted tolerances between the rotor and the stator result in high suction potential, the product is suctioned from the bottom of the tank and driven to the centre of the head.

The product is suctioned from the lower part of the head and the rotor thrusts it radially. Passing through the openings of the stator the product is mechanically sheared. The particles are sheared by the rotor at 20 m/s. And finally the product is hydraulically sheared while leaving the stator through the slots at a high speed. At the same time the product returns to the working head ensuring the mixing circle and generating a strong circulation inside the tank. The combination of the vertical suction and radial thrust results in a circulation flow

If the size and the power of the mixer are correctly selected, the ingredients contained in the tank pass through the working head hundreds of times that promotes a progressive and uniform homogenization.

Other important feature is the possibility to minimize the aeration of the product.

I Design and features

- High shear, particle size reduction to less than 100 microns.
- V-ring.
- Slotted head (standard).
- Possibility to replace the stator and the bushing without disassembling the mixer.
- Various types of interchangeable heads.
- Motors: IEC B5, IP55, F-class insulation.

I Materials

Parts in contact with the product	AISI316L
Guide bushing	PTFE
V-ring	NBR



Disintegrating head



Fine screen head



I Options

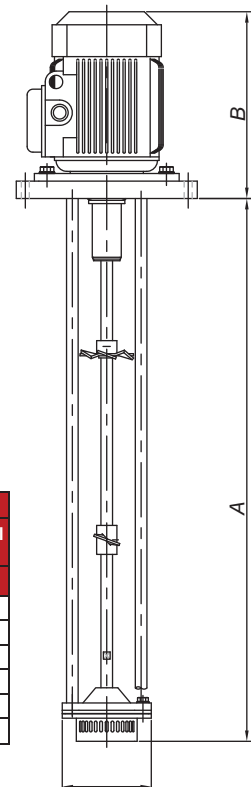
- DIN2632-PN10 flange or rectangular flange for the assembly on a tank.
- Circulation propeller.
- Downthrust propeller.
- Peak friction bushing and ceramic lined shaft for abrasive media.
- Disintegrating head.
- Fine screen head.
- Intermediate flange for long mixers.
- SLIM system.
- Upper suction head.
- Motor shroud.
- Other motor protections.



Circulation propeller



Downthrust propeller



I General dimensions and selection table

	Motor		Dimensions			Flange dimensions				Selection table		
										Viscosity		Additional agitation
	Power	Speed	A	B	øC	øDN	øDe	øDc	nxF	1 cPs	3000 cPs	3000 cPs
ME-1101	1,1	3000	750	258	125	150	250	225	4xø11	300 lts	100 lts	200 lts
ME-1105	4		850	355	170	200	310	280	4xø13	500 lts	300 lts	400 lts
ME-1110	7,5		1206	450	185	250	360	330		1000 lts	750 lts	900 lts
ME-1125	18,5		1392	525	210	250	430	390	4xø17,5	1500 lts	1000 lts	1200 lts
ME-1130	22	1500	1465	615	290	300				2000 lts	1500 lts	1700 lts
ME-1150	37	1000	1770	798	450	500	650	610	8xø18	to be consulted		

Dimensions on the table in mm.

Data of the table is approximate. The selection can vary depending on the application.

Consult Inoxpa Solutions.

