

Kneader / Mixer Machine with Sigma Blades



Kneader/Mixer Machine have two Sigma Blades which are most widely used in Kneader/Mixer machine Design.

Description

The Sigma Blades Kneader/Mixer is capable of starting and operation with either liquids or solids or combinations of both.

Modifications in blades - face, design have been introduced to increased particular effects, such as shredding or wiping.

The Sigma Blades have good mixing action i.e. thorough mixing, readily discharges materials which do not stick to the Sigma Blades, and relatively easy to clean when sticky materials are being processed.

The Sigma Blades used in Kneader / Mixer are tangential blades and are run at different speeds, with the advantages of faster mixing from constant change of relative position, greater wiped heat-transfer area per unit volume, and less riding of material above the blades.

For Kneader/Mixer machine with Sigma Blades, mixing action is combination of bulk movement, smearing, folding, dividing, and re-combing as the material is pulled and squeezed against Sigma Blades, Saddle and side walls.

The Sigma blades are pitched to achieve "End-to-End" circulation. Rotations of Sigma Blades are such that material is drawn down over the Saddle. Clearances are as close as 1 to 3mm mm.

Kneader/Mixer machines are tilted for discharge, to achieve 100 percent discharge and thorough cleaning between batches.

Generally for Kneader / Mixer machines upto 200 Liters capacity, the tilting mechanism is manual and over 200 Ltrs. capacity by Hydraulic Cylinders and Power Pack Unit.

Kneader/Mixer machines are provided with Water-cooled jacketed through Body Manufactured from M.S/S.S304, For Sigma blades shafts are provided with anti-friction bearing, with properly designed seals and packing glands.

Sigma Blades are driven through A.C. Electric Motor, Flexible Coupling / Fluid Coupling / Geared Couplings and open spur gearing mechanism.

Double Arm Sigma Mixer Capacity Table

Model no	Total Capacity	Working Capacity	Motor Rating		Container Dimension			Overall Mixer Size		
			Standard	Heavy	Length	Width	Height	Length	Width	Height
SM - 03	5	2 - 3	0.75	1	150	150	150	625	375	550
SM - 05	8	3 - 5	1	2	200	200	200	650	500	800
SM - 10	15	5 - 10	2	3	320	320	250	1100	750	850
SM - 25	50	20 - 25	3	5	400	400	300	1500	1150	1100
SM - 75	100	50 - 75	7.5	10	500	500	500	1900	1500	1650
SM - 100	150	70 - 100	10	15	600	600	550	2000	1700	1850
SM - 150	225	110 - 150	15	20	650	650	600	2200	1800	1950
SM - 200	300	150 - 200	20	25	750	750	700	2400	1850	2000
SM - 300	450	225 - 300	25	30	850	850	750	2700	1950	2050
SM - 400	600	300 - 400	30	40	900	900	800	2800	2100	2100
SM - 500	800	400 - 500	40	50	1000	1000	875	3000	2150	2250
SM - 750	1100	500 - 750	50	60	1150	1150	1000	3300	2200	2350
SM - 1000	1400	700 - 1000	60	75	1250	1250	1100	3500	2250	2500

*** Electrical Motor Capacity can be changed as per product requirement. ***

Overall Dimension is for reference, it may be Vary.