

BAINITE

INTERMESHING TYPE INTERNAL MIXER

Bainite Intermeshing type Internal Mixers are widely preferred by non tyre as well as tyre industries. Data shows with increase silica mixing intermeshing mixers are gaining popularity in tyre segments also. Higher surface to volume ratio (in comparison to Tangential Mixer) and spiral water cooling design makes it right choice for those mixing where temperature rise is sudden. Interlocking design of Intermeshing rotors allows the compound to flow over and around the nogs into the high shear zones maximizing the dispersion of the ingredients and fillers within the batch.

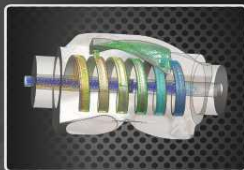
Salient Features

- * Capacities ranges from 25L to 320L
- * Rotor Type – HP5
- * Pneumatic or Hydraulic Ram operation with Ram Position Indicator
- * Swing type drop door and toggle latch design for locking.
- * Large hopper throat for easy feeding.
- * Direct drive or uni-drive gear box.
- * Constant or Variable Speed Drive.
- * PLC/SCADA and Recipe Management Software.
- * Optimal utilization of space – Flexi Layout



Superior Metallurgy

All the parts, comes in contact with compound, are surface treated for wear protection. For accuracy all the parts are machined on CNC and ultrasonically/hydraulically tested. Stress relieving is done after welding. We have developed range of options for hard surface treatment for application like Silica.



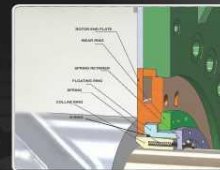
Cooling

Effective water cooling passage is drilled in Rotors, Chambers, Floating Weights, Rotor End Plates and Drop Doors. This ensures uniform batch temperature without localised heat build up situation. Provision for thermocouple is provided in door top and chamber for measuring compound temperature. We also offer Temperature Control Unit (TCU) for heating/cooling as per your requirement



Rotor

Each HP5 rotor has one long wing and two small nogs for mixing. Long wing has wider tip which greatly enhance dispersion effect. Most of the mixing happens between the rotors. Rotor is made in two piece design and drilled for water passage close to material surface.



Dust Seal

Self sealing design ensures no leakage of material from rotor ends. Working faces are stellited and ground to smooth finish. water passage for cooling as option can be provided in bigger sizes.

Discharge Door

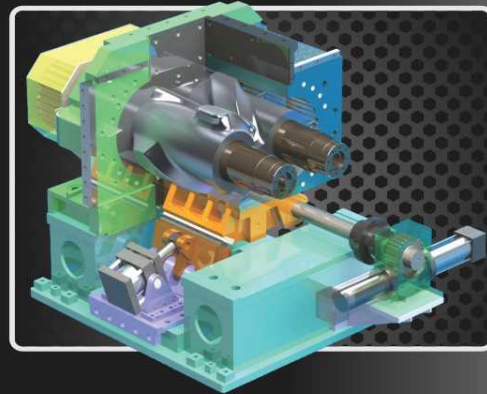
Bainite offers hinged type "swing away" design operated by single/double rack and pinion . 135° opening ensures quick drop of batch. Door top is positively locked by toggle type hardened steel latch on a hardened steel contact plate. Latch is actuated by a hydraulic cylinder. During maintenance door can be locked at 180° opening

Feed Hopper

Large steep charging area for rapid feeding. Radius bottom floating weight to present maximum cooling and mixing surfaces to the compounds. Dust extraction hood fitted as standard. Charging door is pneumatically/ hydraulically operated.

Drilled Side

Chambers are dovelled close to lip area and have higher included angle of lip to avoid inward banding or shearing of lips due to hydraulic closing and locking pressure of door. This design allows larger discharge door area.



Hydraulic Ram

- * Eliminate compressed air requirement, lower operating costs and energy saving
- * Provide constant working pressure to the ram. Ram operation is not affected by variation in the plant compressed air. This results in increase product uniformity and repeatability.
- * Motion of ram is smooth and its speed can be controlled and regulated. This allows efficient mixing of different compounds.
- * Pressure control and ram down speed control is possible.

Safety Arrangement

- * Bearing & Dust Seal Protection – Temperature Sensor & Hooter provided
- * Feeding Door – Manual Locking
- * Drop Door – During Maintenance can be locked at 180 Deg opening
- * Floating Weight – Locking pin provided during maintenance.

TECHNICAL DATA

Machine Size /Model No Mixing Chamber Net Volume Rotor Type	Litre	BMIM25 25L HP5	BMIM50 50L HP5	BMIM95 95L HP5	BMIM150 150L HP5	BMIM210 210L HP5	BMIM320 320L HP5
Batch Size @ 0.65 FF 1.15 SG	Kg	18	37	71	112	157	239
Main Motor Details	KW	55	150	250	420	800	1560
Typical Torque Rating	KW/RPM	1.1	3.7	6.4	10.5	20	26
Typical Mixing Speed	RPM	50	40	40	40	40	60

Over All Dimensions (Approx) with Motor & Gear Box

		3.5	6	6.0	6.5	6.5	7.5
Length	m						
Width	m	2.0	3.6	4.0	4.5	5.0	5.5
Height	m	2.5	4.5	5.0	5.5	5.5	5.8
Mass *	Tonn	6	10	14	19	25	38

Only for Mixer Module*



BAINITE MACHINES PRIVATE LIMITED

Your Partner In The Rubber & Tyre Industry

R-216/217 TTC Indl. Area MIDC, 4th Road Rabale, Navi Mumbai - 400 701. INDIA. Tel.: + 91-22-2769 0156 Fax: + 91-22-2769 9249
E-mail: sales@bainitemachines.in

for more details, please call us or visit us at www.bainitemachines.in