

WHEN PERFORMANCE COUNTS...



FERRY OFFERS RELIANCE HIGH-INTENSITY MIXERS FOR ROTATIONAL MOLDERS TO PROVIDE CONSISTENT COLOR BLENDING & BETTER CONTROL OF RAW MATERIAL COSTS

Reliance RFM HIGH-INTENSITY MIXERS: This series of High-Intensity Mixing equipment has been designed and refined over many years. The solutions that we offer benefit our customers' maintenance, production, and manufacturing requirements. These units are supplied with domestically-sourced components for easy part replacement. There is a support team in place team to meet your mixing solution needs.

High-intensity mixing requires energy and controlled heat. The typical tip speed of the mixing tools is 20 meters per second. Chemical reactions are generally achieved in such processes where fusion or absorption is essential. They can be used to create agglomerates and vacuum dry materials.

These high-intensity mixers are manufactured with efficiency and user friendliness in mind. The assemblies and components are engineered to maximize production and minimize downtime associated with a plant's maintenance program.

Mixer Bowl: The mixer bowls are a single-shell unit construction made of 304 Stainless Steel. The interior is polished to a high finish. Specially-engineered bowls can be supplied in a two-piece design for applications where cleaning and cross-contamination is an issue. Mixer bowls can be made with or without a jacket.

To extend the life of the bowl, the lower third of the bowl can be provided with wear-resistant coating. Also, the bowl bottom can be made out of thicker material extending the natural life of the bowl material.

Mixer Lid: The mixer lids are flanged-dish ends that are machined flat and supplied with a dome-shaped gasket that supplies a leak-proof seal with the top ring of the mixer bowl and hand-operated, latch-toggle clamps hold the lid closed. Lids are equipped with a pneumatic cylinder to open in a clamshell or swivel manner and a safety switch to remove power from the motor when the lid is in the open position. Constructed of 304 Stainless Steel, they can be mirror polished for easy cleaning.

Mixer Tools: The high-intensity mixer tools are specially designed to fluidize material and create a deep vortex flow pattern within the mixer bowl. The mixing tools include a horn-shaped blade, fluidizing blades, and a bottom scraper separated by spacers for blade height adjustment. They are self-cleaning and polished smooth.

Mixer Deflector: The mixer deflectors are designed to turn the material into the vortex of the mixer. By forcing the material *continued on back*



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back into the center of the bowl, a highly-homogenized endproduct can be achieved. In addition, the frictional heat generated within the bowl increases due to the forced impact of particles. The deflectors can be mounted on the lid or can be welded or bolted from the side wall of the bowl. Side wall deflectors can be adjustable or fixed.

Mixer Discharge: The discharge openings are large for fast and efficient removal of material from the mixer bowl. The discharge plug is contoured to match the bowl bottom and is pneumatically actuated using a double-acting air cylinder. The discharge plug is furnished with an o-ring for proper sealing. In addition, the assemblies can be supplied with easy-clean features that facilitate fast turn arounds.

Mixer Control: Standard controls include a starter, timers and push buttons to control the operation of the mixer. A temperature meter is also mounted on the panel door. The mixer controls can be furnished with a variable-frequency drive for the motor. The motor can be operated at Low or High Speed. The speeds are adjusted through the VFD and saved.

Mixer Pedestal: The rectangular pedestal is made of structural steel components per ASME A-36 standard and all welding is to be done as per the AWS D.1 standard. The pedestal encloses the bearings and supports the bowl mounting flange.

All Mixers are Fully-Assembled & Tested:

Mixers ship complete including: mechanical assembly of the unit, wiring of the electrical devices to a terminal strip inside a junction box and air piping of all pneumatic devices to a common terminal. Each unit is test run to verify smooth running of the agitator and function of the safety interlocks. Each unit has a warranty: 12 months from start-up or 18 months from shipment.



RFM 500L High-Intensity Mixer Swivel-Lid Shown.

Reliance High-Intensity RFM Mixers for Rotational Molding

RFM Model	Total Capacity L	Batch lbs.	Weight kgs.	Motor Size* H.P.
200L	200	120	54	30
300L	300	180	81	40
400L	400	270	122	50
500L	500	360	163	60
600L	600	450	204	60
700L	700	540	245	75
800L	800	630	285	100
1000L	1000	720	326	100
1200L	1200	900	408	125
1500L	1500	1080	490	150
2000L	2000	1440	653	175

^{*}Based on Material Bulk Density of 26 lbs./cu.ft.



