

Monorotor Mixer

Plow Share & Blade - Discontinuous



Discontinuous Monorotor Mixer

Capacity: 75 to 3,000 litres

Objectives: short mixing time for high capacity and high quality mix

MIXING OF 100% SOLID MATERIALS OR WITH LIQUID INCORPORATION UP TO HIGH VISCOCITY

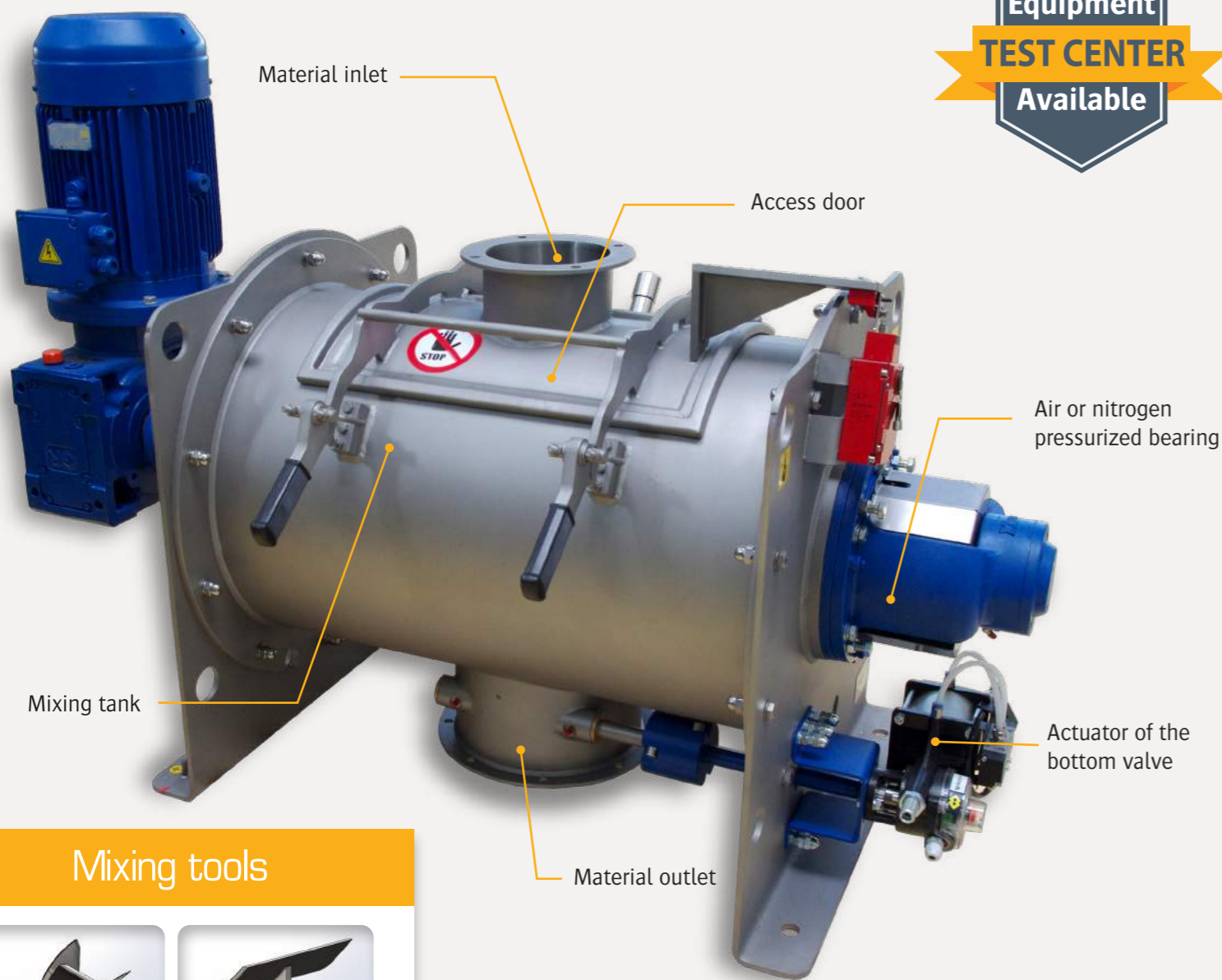
The horizontal single-shaft batch mixers are fitted with plow share or inclined blade type mixing tools to create a swirl in the mixture to engage all the particles in the mixing process. A high mixing accuracy is guaranteed since the dead zones and low-speed movements are avoided. The batch mixers MRS are used to mix powders, granules or short fibers together for moistening, agglomerating, granulating or mixing liquids or pasty products with low viscosity.

TECHNICAL SPECIFICATIONS

- Hygienic design
- Possibility to add up to 20% of liquid
- End bearing with sealing of the rotor available in different versions (optional air or nitrogen pressurizing)
- Tank manufactured in carbon steel, wear-resistant steel or 304L/316L stainless steel
- External finish in stainless steel: satin finishing, polishing, blasting
- Wide range of mixing tools
- Dispersion 20 gr./t.
- Max. homogenisation of the mixing: number of Froude of 2.7

OPERATING MODE

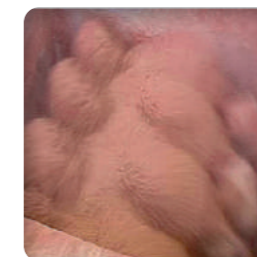
The particular shape, the position and the rotational speed of the mixing tools generate a three-dimensional movement of the different particles present in the tank, favoring their dispersion and their mixing. The complete homogenization and high mixing accuracy are thus guaranteed, even when the particle size and the specific weight of the components are different.



Low maintenance: easy cleaning and access to all the internal parts of the mixer



Short time of mixing (1 to 4 min.)



Excellent reproducibility of batches; maximum homogeneity of the mixings



No product degradation

Advantages



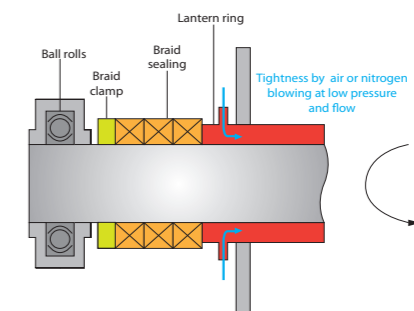
CHARACTERISTICS OF THE MIXING TANK

Models	MRS75	MRS150	MRS300	MRS550	MRS800	MRS1100	MRS2000	MRS3000	
Total volume of the tank	75	150	300	550	800	1,100	2,000	3,000	Possibility of manufacturing mixing tanks with a capacity up to 15,000 litres
Max. working volume in liters*	56	105	210	385	560	770	1,400	2,100	
Engine power in kW	4	7.5	11	18.5	22	22/37**	37/55**	55	

*minimum volume of the mixture is 30% of the total volume for a configuration with plow shares and 15% for a configuration with blades.
**according to the product density

BEARINGS

The bearings are made to hold and seal the shaft of the mixer to ensure its operation. The lantern ring blows air or nitrogen (in ATEX conditions) to prevent the introduction of fines in the shaft bearing mechanism.



CHOPPERS



Blade chopper



Chalice chopper

Choppers are knives used for fast processes of mixing and homogenising of wet and dry materials in the pharmaceutical, chemical, cosmetics, food or plastics industries. These tools offer a high quality material thanks to their abilities of mixing and dispersion in one single operation. Installed next to the plow share, they can easily break down lumps and agglomerates thanks to their compact design with 4 arms. It is possible to use several choppers to enhance the performance of the mixing when incorporating liquid or pasty components.

Options



Temperature sensor



Liquid injection device

See all our options on pages 16-17

Mixing tools



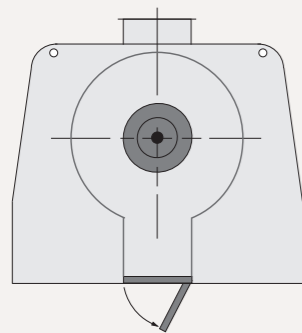
Plow share



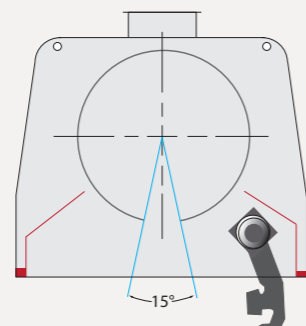
Blade

Discharge Principles

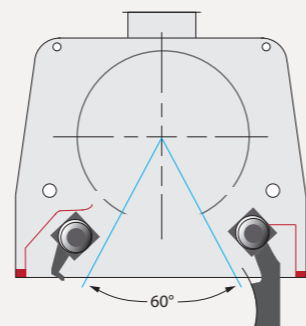
3 DISCHARGE PRINCIPLES



Discharging from bottom hatch



15° discharging



60° discharging

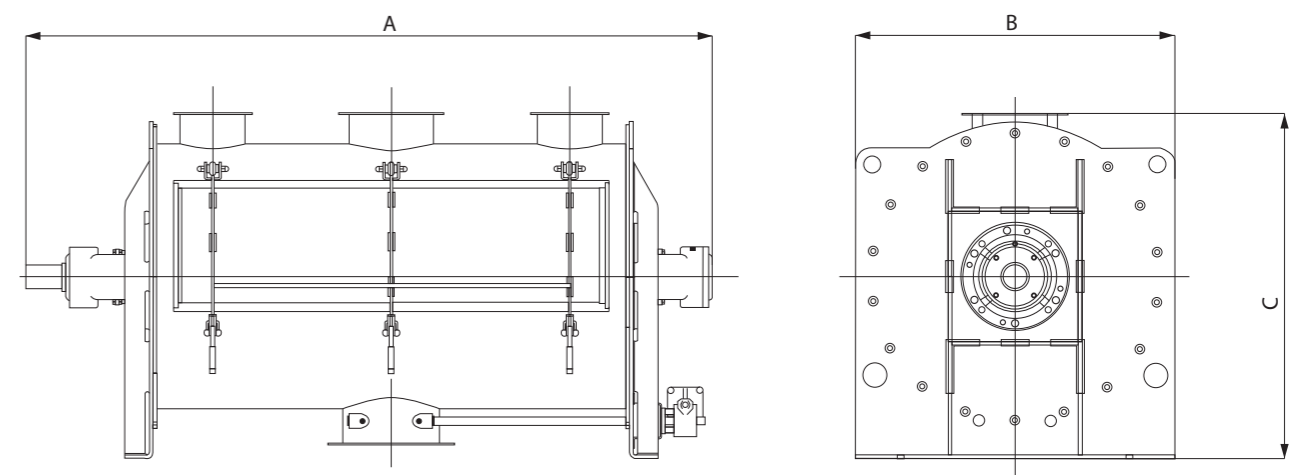


*Bottom hatch opening on the whole length of the mixer

INSTALLATIONS



DISCHARGING FROM BOTTOM HATCH - (DN version) - Dimensions in mm.



Models	A	B	C	Working capacity in dm ³	Empty weight in kg
MRS 75	1,300	611	649	56	245
MRS 150	1,460	670	754	105	350
MRS 300	1,840	770	889	210	550
MRS 550	2,150	930	1,075	385	840
MRS 800	2,350	980	1,151	560	1,080
MRS 1100	2,690	1,100	1,278	770	1,400
MRS 2000	2,960	1,340	1,455	1,400	2,100
MRS 3000	3,920	1,340	1,455	2,100	2,800
MRS 4800	4,520	1,500	1,750	3,360	4,300
MRS 6000	4,820	1,600	1,860	4,200	4,800
MRS 8800	5,390	1,810	2,130	6,160	5,800
MRS 10500	5,630	1,910	2,160	7,350	6,900
MRS 15000	6,124	2,110	2,445	10,500	8,200
MRS 20000	6,617	2,312	2,665	14,000	11,903
MRS 25000	6,888	2,432	2,735	17,500	13,653

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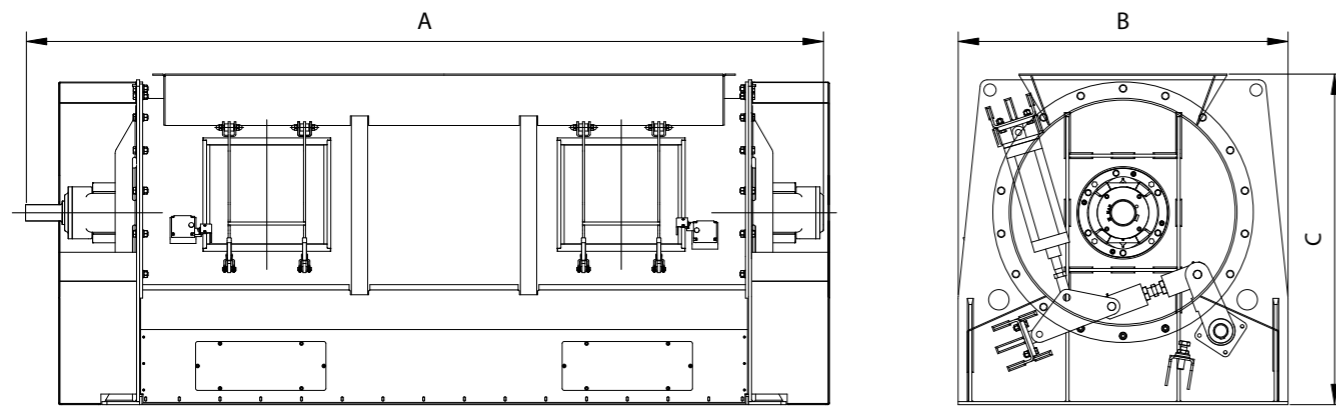
Discharge Principles

Mixers MRS 15/MRS 60 with total discharge device are particularly suitable for dry premixes for the building, cement, tile adhesive, plastering seal, refractory materials, gypsum based materials, insulation materials, indoor and outdoor coatings, chemical materials for building industry, cattle feed, fillers...

TECHNICAL SPECIFICATIONS

- Motorizations from 22 kW to 200 kW
- Productivity: 2 to 15 batches/h. (depending on recipe and configuration of the machine)
- Material residue < 0.1%
- Shorter discharging time thanks to the unique unloading door system
- Mixing tank made of carbon steel, wear resistant steel or 304L/316L stainless steel
- Exterior finish in stainless steel: satin finishing, polishing, blasting

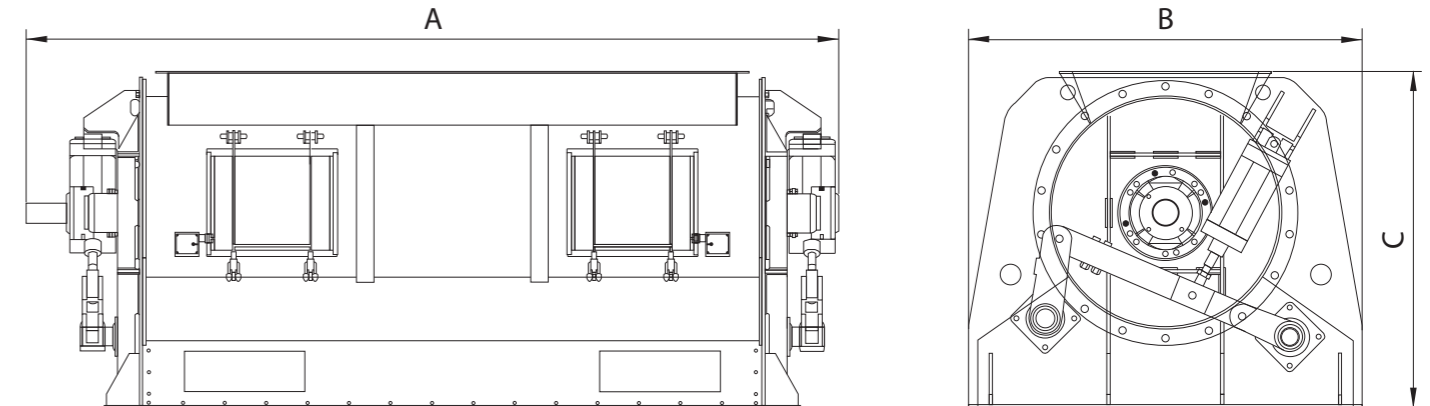
DISCHARGE FROM 15° HATCH - Dimensions in mm.



Models	A	B	C	Working capacity in dm ³	Empty weight in kg
MRS15-550	2,150	1,250	1,200	385	690
MRS15-800	2,350	1,200	1,250	560	850
MRS15-1100	2,615	1,500	1,500	770	1,200
MRS15-2000	2,920	1,900	1,650	1,400	2,400
MRS15-3000	3,920	1,900	1,650	2,100	3,000
MRS15-4800*	4,550	2,000	1,790	3,360	3,800
MRS15-6000*	4,870	1,960	1,900	4,200	4,400
MRS15-8800*	5,390	2,200	2,200	6,160	5,300
MRS15-10500*	5,630	2,400	2,430	7,350	6,900
MRS15-15000*	6,124	2,800	2,525	10,500	8,000

*Discharge door pneumatically actuated

DISCHARGE FROM 60° HATCH - Dimensions in mm.



Models	A	B	C	Working capacity in dm ³	Tare weight in kg
MRS60-550	2,150	1,250	1,200	385	650
MRS60-800	2,400	1,200	1,250	560	810
MRS60-1100	2,690	1,350	1,500	770	1,100
MRS60-2000	3,030	1,500	1,650	1,400	2,280
MRS60-3000	3,900	1,500	1,650	2,100	2,550
MRS60-4800*	4,550	1,780	1,790	3,360	3,600
MRS60-6000*	4,820	1,820	1,900	4,200	4,200
MRS60-8800*	5,382	2,000	2,200	6,160	5,050
MRS60-10500*	5,630	2,110	2,400	7,350	6,500
MRS60-15000*	6,124	2,380	2,500	10,500	7,600

*Discharge door pneumatically actuated



▶ The unloading door opening on the whole length of the mixer ensures complete draining with almost zero residual of the material in very short time.

