

Vacuum-mixer dryer, reactor Type VMT

Hot/cold - pressure/vacuum reactions for dry, moist and pasty goods.

The mixer dryer and reactor is suitable for powders, suspensions, pastes and dough (test trials are recommended). Drying is carried out gently but quickly, even if different rheological consistencies occur. The dryer can be used as a sterile apparatus. It meets the requirements of EHEDG and 3-A Sanitary Standards.

Vapour filter heatable; with Clever-Cut® designed inspection door on request.

The mixing tool is mounted and driven only on top; gear box equipped with a cooling device.

Manhole heatable, on the top, sanitary connections for rotational washing nozzles.

Mixing chamber and mixing tool are fully welded and polished.

Choppers can improve the drying process by deagglomeration (mechanically sealed).

Mixing chamber: ATEX Zone 20

Segment ball valve without dead space, vacuum and pressure resistant

Manhole pressure tight with bayonet locking device; with displacer body to avoid dead space (heatable).

SinConvex® mixing tool:
fully temperature
controlled on demand,
provides excellent
mixing quality and
discharge ability.

The reactor is vacuum and pressure tight and heatable by steam, thermal oil or water. On request also insulated.



from Alloy 59



Ceramic plasma coating for wear protection



Mixing shaft, mixing arms and spiral tool are heatable on demand.













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User Benefits

- Particularly fast and gentle drying at low temperatures and low rotational frequencies if, for example, fungal spores, bacterial cultures or effect pigments should be
- It is also possible to mix intensively deagglomerating in the same apparatus, at higher peripheral speeds and with several HighShearBlades.
- The mixer is optional accessible from the side or from above, it can be cleaned fast, safely and convenient; manually or automatically. On request, it can also be sterilized with steam.
- The mixing tool is fully heated and mounted and driven only from above.
- The apparatus is highly gastight. A vacuum of 1 mbar abs. is possible.
- Particularly large heat exchange surfaces advantage extremely short drying times.

Piloting

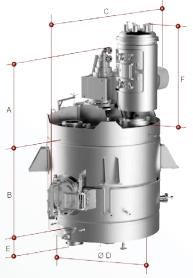
amixon® places special importance on the pilot phase in the test centre. Your mixing processes are simulated here. This way, we support you in your product development phase. amixon® has a main test center in Paderborn (Germany). Further test centers are situated in Japan. Thailand, India. South Korea and the USA.



Technical Data

On request, amixon® manufactures mixer sizes in 100 liter steps from 100 liters to 50,000 liters

Vacuum-mixer dryer, reactor Type VMT The type designation is equal to the batch size in liters. Ideal mixing even at low filling levels.	Approxi- mate gross volume of the mixer	Approximate dimensions of the standard machines Please ask for detailed dimension sheets!					ie	The drive power required can vary widely depending on the bulk density, flow characteristics (viscoplastic phases), rotational frequency and the processing task (such as deagglomeration).		Weight may vary considerably depending on the size of the drive and the type of design. The additional dynamic loads are very low.
		Α	В	C	D	E	F	from	to	
	[liters]	[mm]						[kW]		[kg]
100	130	386	637	1200	637	145	478	1	5	1000
200	260	456	787	1300	787	145	590	3	8	1420
300	390	486	737	1400	918	145	553	5	15	1680
1000	1300	587	1218	1900	1218	145	914	14	48	5100
1500	1950	637	1389	2200	1389	145	1042	19	64	6200
40000	51210	1639	4292	5300	3862	145	3219	121	436	49600



- Usually the vessel dimensions are relatively cubic, so that the height of the cylinder corresponds to the diameter. If desired, amixon® can modify the proportions: "low profile"
- The rotational frequency can vary widely from about 0,8 m/s to about 3,5 m/s. Usually amixon® mixers-dryers, reactors operate at low speed.

 As a welding specialist, amixon® is qualified by European, Japanese and American authorities with regard to different materials. The materials in contact with the mixing goods are either mild steel S355J2Ge, Hardox, austenitic stainless steels 1.4301, 1.4541, 1.4571, 1.4404, 1.4539, 1.4529, Duplex stainless steels 1.4462, 1.4363, and Alloy 59-2.4605, Hastelloy C22 and nickel.
- The mixers meet the highest hygienic requirements and comply with the EHEDG guidelines for dry and wet cleaning. The mixers also meet the FDA hygiene guidelines and the design requirements of 3-A Sanitary Standards.



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amixon® manufactures high precision mixers, vacuum mix-dryers, synthesis reactors and granulators with maximum fabrication depth. All components of the amixon®-mixers are made in Germany. The production of the machines takes place exclusively in the amixon®-factory in Paderborn, Germany.

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