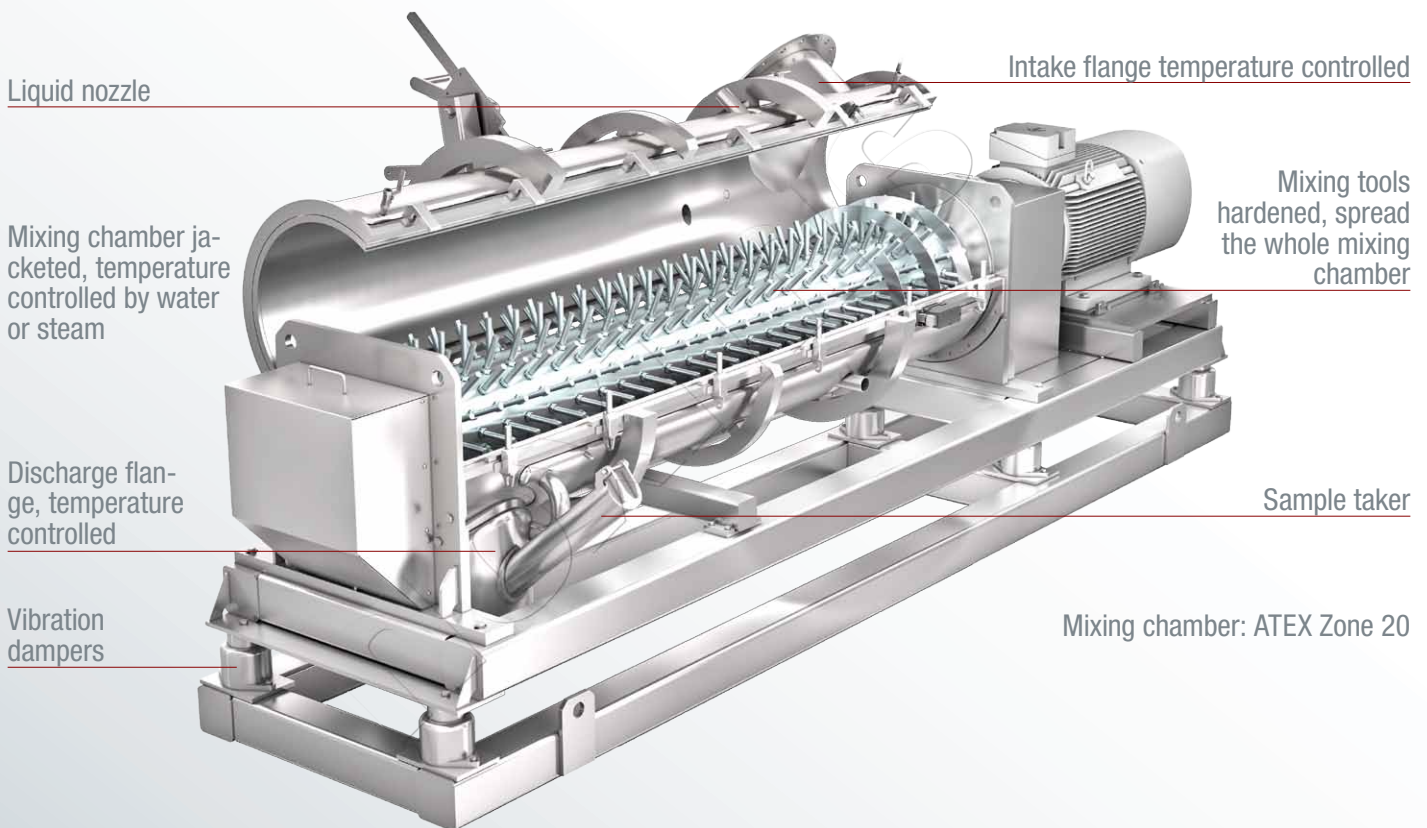


Ring-layer mix-pelletizer Type RMG

For the continuous build-up granulation of dispersive goods into round granules of similar size.

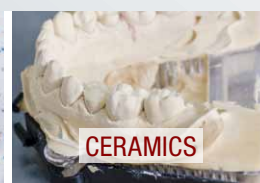
Typical applications: tablet masses, instant tea, baking agents, sugar substitutes, food colourants, cellulose derivatives, building and insulating materials, hot glue, carbon black and black pigment derivatives, detergents, pesticides, chemicals, toners, colour pigments, ceramic colours, sintered materials, cover powders for foundries, metal powder...



Function

The goods to be granulated (dry, moist or suspended with binding agents if applicable) are continuously fed in. The fed-in components are accelerated in a rotating movement and cover the walls of the mixing chamber in the form of a ring layer. This layer is intensively mixed, deagglomerated, compressed and conveyed by the pin tools. Therefore, solid and liquid bridges are formed between the particles.

Granulation seeds are created and grow to a certain size. If the granules grow beyond a certain size, they become fragile and disintegrate. Fine aggregate content formed in this way clings again and is rounded. A balance is created between grain build-up and grain destruction. With an ideal operating mode the RMG produces a stable granulate within tight limits. The peripheral speeds vary from approx. 8 to 35 m/s.



User Benefits

- ✓ Ring-layer mix-pelletizers are frequently operated at high rotational speeds. Therefore, the machines are of particularly solid design. They are easy to service.
- ✓ Larger RMGs are mounted on vibration dampers and dynamically balanced.
- ✓ The mixing chamber often has double walls. This enables the walls to be cooled or heated.
- ✓ The mixing chamber is machine-processed and particularly round. Therefore, the mixing tools have a uniform clearance to the walls, and a particularly narrow grain range can be achieved.
- ✓ The mixing tools can be made of hard metal and may also be equipped with ceramic plating upon request
- ✓ Many special models are available.

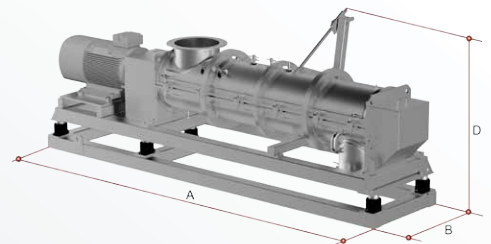
Piloting

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 and the USA.



Technical Data

Ring-layer mix-pelletizer Type RMG	Approx. diameter of the mixing chamber	Approx. length of the mixing chamber	Extended residence time if liquid distribution is difficult and/ or high energy input is needed		Short residence time if liquid distribution is simple and built-up granulation works easy at low energy input		Approximate dimensions		
			Estimated residence time depending on flowability, flow rate and rpm value	Throughput rate must be verified by test trials, then special extrapolation methods are applied	Estimated residence time depending on flowability, flow rate and rpm value	Throughput rate must be verified by test trials, then special extrapolation methods are applied	Data may vary considerably depending on the size of the drive and the type of design Please ask for detailed dimension sheets!		
Type	Ø	L	[Second]	[m³/h]	[Second]	[m³/h]	A	B	D
	mm						[mm]		
10	140	909	21	0,4	9	1,7	1800	150	200
30	203	1282	29	0,7	12	3,4	2400	220	290
50	242	1458	33	1,0	14	4,5	2700	260	330
60	257	1526	35	1,1	14	5,1	2800	280	350
100	306	1731	39	1,5	16	6,8	3200	320	410
200	388	2049	47	2,2	19	10,2	3700	400	520
300	445	2259	51	2,7	21	13,0	4000	460	570
400	491	2420	55	3,2	23	15,3	4300	500	630
600	563	2665	61	4,1	25	19,4	4800	580	710
800	621	2852	65	4,8	27	22,9	5000	640	800
1000	670	3006	68	5,4	28	26,1	5200	690	850
1500	769	3305	75	6,8	31	33,1	5600	830	1200
3000	974	3884	88	10,1	37	49,5	6400	1100	1500



- The particle size enlargement by buildup-granulation normally works fine in this type of ring-layer mixer pelletizer if the goods have granulating properties. Nevertheless, experiments have to be carried out to design the machine properly. To this extent, the throughput rates can extremely differ from these table values. amixon® provides test machines in its test laboratory.



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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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