

HIGH AND LOW SPEED GLUE BLENDERS

Gentle and effective blending of particles and resin





CMC TEXPAN designs and manufactures glue blenders in both high speed and low speed execution.

High speed glue blenders represent a conventional technique: nevertheless, they are still appreciated due to their compactness and cost-effectiveness. CMC TEXPAN high speed blenders are based on consolidated common features, yet they incorporate some innovations aimed at increasing performance and achieving good quality results.

On the other hand, a crucial issue to be dealt with whenever it comes to blending is how to preserve the geometric shape of particles. This is very important, as an excessive reduction of particle size would generate dust and result in spots, as well as in an increase of glue consumption.

CMC TEXPAN low speed blenders (for Surface and Core Layer) ensure high retention and mixing times. In this way, the centrifugal effect (exerted on the particles by the rotation speed) decreases, thus reducing particle impact and fragmentation.

To ensure a better performance of the machine, the inlet material shall be dispensed by means of CMC TEXPAN glue blender dosing bin, whose function is to ensure a constant and flawless feeding of furnish to the machine.

Basically speaking, a glue blender is a hollow cylindrical chamber, made up by two half shells (allowing machine opening) and locating a mixing shaft at its inside (in C.L. glue blenders, the first section of the mixing shaft is made up by a screw conveyor drum, to avoid particle impact).

The mixing shaft is equipped with mixing tools of different shape and arrangement, according to the geometrical properties of the particles to be glued and to the specific function expected for that section of the machine (pre-mixing, mixing or conveyance towards machine discharge).

In low speed glue blenders, the centrifugal force with which particles are thrown against the chamber walls is reduced, thus preserving particle geometry.

Mixing chamber walls may be provided with a ceramic or tungsten carbide coating, reducing wear problems and ensuring longer operating life.

The mixing chamber is surrounded by an outer case, with a cooling system located between outer case and inner chamber (the mixing shaft can also be provided with a separate cooling system) to prevent material build-ups on the surfaces involved in the process and also to keep particles at the correct temperature.

Material discharge from the blender is achieved by means of a pneumatically operated automatic discharge gate (MTCU) whose function is to keep a constant filling level inside the mixing chamber.

Glue blenders may be carried out in different types and sizes, according to the required type of gluing and material quantity to be mixed with glue. Arrangement and configuration are individually studied to comply with each installation scenario.





They are available in following versions:

- "RLE" low-speed blenders for S.L. particles;
- "RLI" low-speed blenders for C.L. particles;
- "RVE" = high-speed blenders for S.L. particles;
- "RVI" = high-speed blenders for C.L. particles

Advantages:

- very homogeneous distribution of resin;
- less particle fragmentation;
- better cleanliness;
- less glue spots;
- reduced maintenance costs.

LOW SPEED BLENDERS - STANDARD RANGE (RLE = low-speed blenders for S.L. particles / RLI = low-speed blenders for C.L. particles)											
(NLE = 10W-speed biefiders for S.L. particles / NLI = 10W-speed biefiders for C.L. particles)											
ТҮРЕ	Diam. mm	Length mm	Volume I	Capacity		Installed power (kW/poles)		Cooling system			
				min. t/h	max. t/h	shell. open.	main motor	l/h	kcal/h [1]	kW [1]	
RLE/RLI 4	480	2.500	452	0,6	4,0	0	45/4	4.300	30.100	36	
RLE/RLI 6	530	3.000	662	1,0	6,0	2,2/4	75/4	6.100	42.700	50	
RLE/RLI 8	600	3.000	848	1,5	8,0	2,2/4	75/4	6.900	48.300	57	
RLE/RLI 10	700	3.000	1.155	2,0	10,0	2,2/4	75/4	8.100	56.700	66	
RLE/RLI 12	700	3.500	1.347	2,5	12,0	2,2/4	90/4	9.600	67.200	79	
RLE/RLI 15	800	4.000	2.011	3,0	15,0	2,2/4	90/4	12.300	86.100	101	
RLE/RLI 18	850	4.000	2.270	3,5	18,0	2,2/4	90/4	14.200	99.400	116	
RLE/RLI 22	850	4.500	2.554	4,0	22,0	2,2/4	110/6	16.000	112.000	131	
RLE/RLI 30	900	5.000	3.181	5,0	30,0	2,2/4	132/6	20.500	143.500	167	
RLE/RLI 40	900	6.000	3.817	6,0	40,0	2,2/4	160/6	24.500	171.500	200	
RLE/RLI 50	1.200	6.000	6.786	10,0	50,0	4,0/4	200/6	33.000	231.000	269	
RLE/RLI 60	1.200	6.500	7.351	15,0	60,0	4,0/4	250/6	35.000	245.000	285	

HIGH SPEED BLENDERS - STANDARD RANGE (RVE = high-speed blenders for S.L. particles / RVI = high-speed blenders for C.L. particles)											
ТҮРЕ	Diam. mm	Length mm	Volume I	Capacity		Installed power (kW/poles)		Cooling system			
				min. t/h	max. t/h	shell. open.	main motor	l/h	kcal/h [1]	kW [1]	
RVE/RVI 1.5	296	1.250	86	0,3	1,5	0	18.5/4	1.500	10.500	13	
RVE/RVI 3.5	380	1.470	167	0,5	3,5	0	22/4	2.400	16.800	20	
RVE/RVI 6	440	1.680	255	1,0	6,0	0	30/4	3.000	21.000	25	
RVE/RVI 8	480	1.980	358	1,5	8,0	0	45/4	4.000	28.000	33	
RVE/RVI 12	530	2.210	488	2,0	12,0	0	55/4	5.000	35.000	41	
RVE/RVI 16	600	2.200	622	3,0	16,0	0	75/4	6.000	42.000	49	
RVE/RVI 20	700	2.200	847	4,0	20,0	0	90/4	7.500	52.500	62	
RVE/RVI 30	800	2.680	1.347	5,0	30,0	2,2/4	132/4	12.000	59.500	98	
RVE/RVI 40	800	4.000	2.011	6,0	40,0	2,2/4	160/4	12.500	87.500	102	

[1] based on particle temperature = 65° C and $\Delta t = 7^{\circ}$ C

