

High shear impact mixer

The Cyclomix is a revolutionary high speed paddle mixer designed for intensive mixing of cohesive powders. The mixing principle is based on a combination of high shear and high impact forces which can be used for different applications. The Cyclomix combines different processes in one single machine.

Typical applications

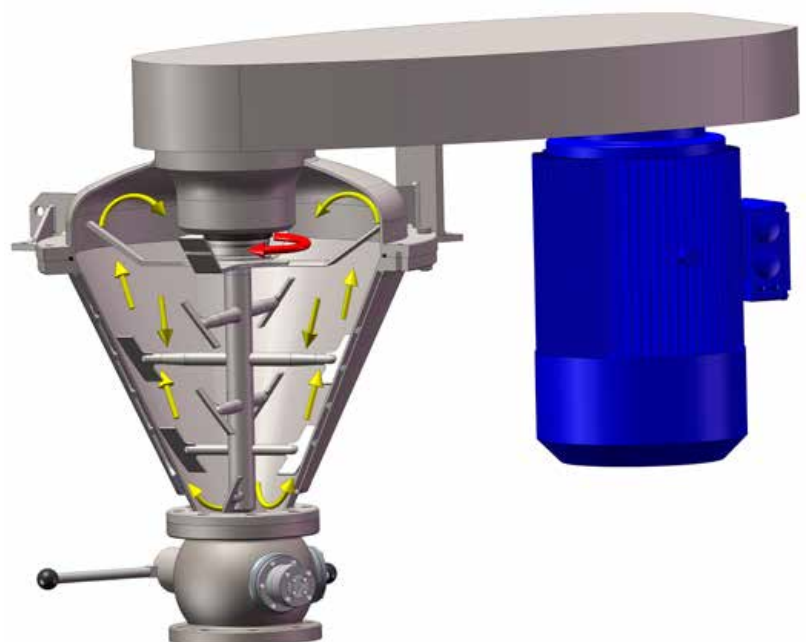
The Cyclomix is suitable for a wide variety of process applications, including:

- Intensive mixing of cohesive powders, slurries and liquids
- Coating of powders with powders or liquids
- Agglomeration by temperature or moisture addition
- Dispersion of pigments
- (Vacuum) drying at low temperature with liquid recovery
- Spheronisation of particles
- Grinding or de-agglomeration
- Heating or cooling

Working principle

The mixing vessel is conical shaped and has a central rotor which rotates at a tip speed of 3 up to 30 m/s. The speed of the rotor creates centrifugal forces that push the product to the vessel wall where the shape of the vessel causes an upward movement.

The domed cover guides the product towards the centre of the mixer and at the top, an impact blade efficiently disperses cohesive powders and liquids and controls particle size. The patented mixing mechanism of the Cyclomix ensures a homogeneous end product and an ultra-short batch time.





Key features

Combined high shear and impact mixing

The unique combination of high shear and impact forces are used for mixing cohesive and/or sticky products.

Excellent temperature control

The design of the Cyclomix ensures accurate control of the product temperature. It offers an intensive mixing process with effective heat transfer between the heat-controlled jacketed wall and the product, enabling effective cooling and heating.

Seals above product zone

The rotor in the Cyclomix is driven from the top, and therefore has no seals or bearings that come in direct contact with the product.

Easy discharge

The Cyclomix has a conical shaped vessel with a central outlet at the bottom that guarantees easy discharge and optimal yield.



Multi-processor

High shear High impact

Temperature control

Mixing & Agglomeration

Models & specifications

The Cyclomix is available in a wide range of sizes, ranging from 0.1 up to 2000 litres. A few sizes with their basic characteristics are described below. Detailed information is available on request.

Size	[l]	5	15	50	150	500	1000	2000
Vessel diameter	[mm]	300	530	650	950	1400	1840	2250
Outlet diameter	[mm]	80	100	150	200	300	350	400
Height incl. drive-unit	[mm]	280	670	713	823	1178	2657	3125
Typical motor power	[kW]	0.75 - 5.5	1.5 - 15	4 - 30	11 - 75	30 - 110	45 - 160	65 - 240