Rotosolver® CX

The Ultimate Design in High Shear Dispersion

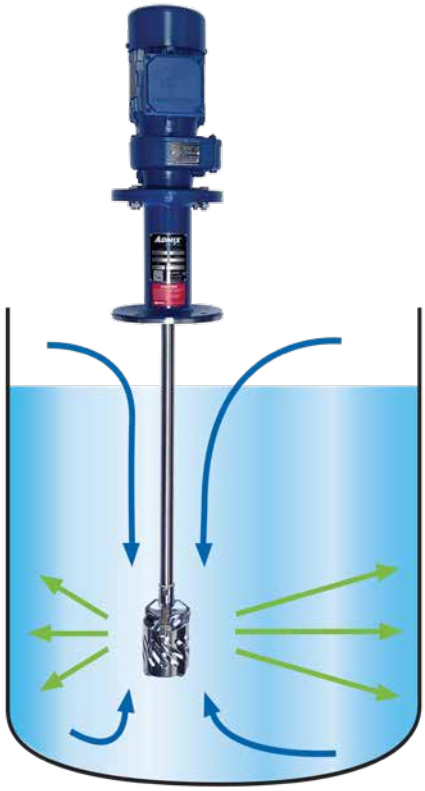
Performance and Efficiency

The Admix Rotosolver® CX is an in-tank disperser designed for fast incorporation of powders into liquids. The patented design of its shear head is the key to achieving homogenous dispersions in less time than traditional dispersion blades. Shorter batch times, higher quality dispersions, and lower energy consumption are some of the key performance advantages that the Rotosolver delivers.

Less Energy Consumption: The slotted shear head of the Rotosolver CX generates high pumping action within the mixing vessel, thus consuming less energy and requiring lower horsepower motors than competitive models.

Time Saving Dispersion: With the Rotosolver CX, batches can be completed in less time compared to mixing with conventional dispersion discs. Powders are 100% hydrated and dispersed, and agglomerate-free in as little as 10 minutes in many cases. This is due to multiple shear zones in the Rotosolver shear head, combined with high product flow which results in superior dispersion performance. Additionally, many products that typically require a two-stage process can now be completed in the same tank with the Rotosolver technology.

Easy-to-Clean Design: The open design of the mixing chamber ensures that cleaning for formula changeovers requires minimal time and effort.



Flow pattern:
Blue arrows = flow into the mixing head

Green arrows = expulsion from the mixing head

- Reduce energy consumption up to 30%
- Increase overall shear rates
- Reduce batch times for increased capacity
- Improved cleanability
- Retrofit available for existing installations
- Wet out and disperse powders, fillers, rheology modifiers, resin, and let down liquids in one convenient process

Typical Selection of a Rotosolver

The following table lists many of our standard Rotosolver CX models, along with typical working volumes based on the specific design criteria listed below. All selections are based on a moderate level of mixing (mixing intensity of 7.0) and a specific gravity of 1.0. However, we customize our mixers for specific applications.

Higher viscosities, greater mixing intensities, non-standard tank geometries or a specific gravity greater than 1.0 may require a different selection than shown. Different ingredients may require higher tip speeds for best performance and a different mixer selection may also be necessary. Please contact Admix for a design of the optimum mixer configuration.

Models and specifications

Rotosolver CX Model	Maximim Batch at 100 cP[1] (volume in gal)	Maximim Batch at 1000 cP[2] (volume in gal)	Standard (HP)	Mixing Head Diameter (inches / mm)
RS-02	10	5	1	2.4 / 60
80RS70	250	55	5	2.75 / 70
90RS70	250	55	5	2.75 / 70
100RS88	650	175	10	3.5 / 88
112RS88	650	175	10	3.5 / 88
132RS101	860	220	15	4.0 / 101
132RS133	1250	330	10	5.25 / 133
160RS159	2500	600	20	6.25 / 159
180RS175	4000	1000	30	6.7 / 175
200RS200	4000	1000	20	7.9 / 200
225RS225	5000	1250	30	8.9 / 225
250RS250	6250	1500	50	9.8 / 250
315RS300	8000	2500	50	11.8 / 300
355RS300	8000	2500	60	11.8 / 300
400RS300	10000	2500	75	11.8 / 300

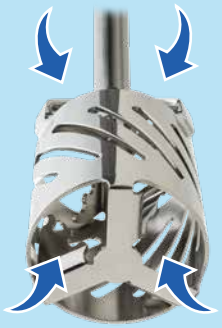
(1) Maximum batch size (100 cps) with a standard upper foil based on 100 cps and 1.0 specific gravity.

(2) Maximum batch size (1000 cps) with a standard upper foil based on 1000 cps and 1.0 specific gravity.

How It Works

The unique design of the Rotosolver CX produces high flow, in addition to high shear, resulting in batch process times that are much faster than conventional in-tank rotor/stator designs. The Rotosolver mix head design generates four stages of mixing action for optimal for dispersion:

1. Product flow is drawn into the mixing head from above and below. The resultant flow creates vigorous tank motion, pulling materials and powders from the top of the tank surface (typically the toughest to disperse), instantaneously exposing them to shear zones in the Rotosolver shear head, where these materials are mechanically ripped apart (dispersed).



2. The two high-velocity, counter-current streams converge within the shear head, creating high turbulence and hydrodynamic shear.

3. Pressure, created by the two streams, forces material out the side slots of the shear head, where the resulting radial streams are subjected to further mechanical shear, as material passes through the edges of the slots in the chamber wall.

4. The high velocity radially discharged streams impact the slower moving tank flow for additional hydrodynamic shear and circulation, thus ensuring high flow, with no dead spots in the mix tank.

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