Rotosolver®

The Ultimate Energy Saver High Shear Mixer

Rotosolver Delivers Performance & Efficiency

The Admix Rotosolver® high shear mixer has been an industry leader since 1993. Its patented design provides processors with significant advantages that greatly improve mixing operations. The Rotosolver delivers high shear and flow patterns that result in faster overall batch times, energy savings, batch to batch consistency, and improved product quality.

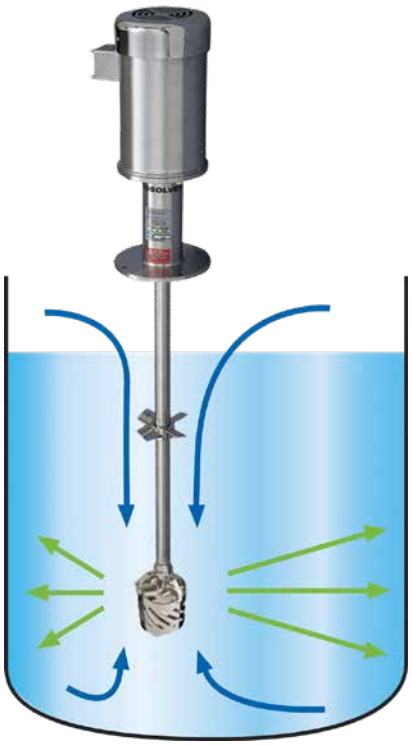
Less Energy Consumption: Through extensive streamlining and utilizing the latest CFD software and rigorous physical testing, our Rotosolver mixing impeller has been designed to maximize efficiency while producing mechanical and hydrodynamic shear and optimally direct flow that is beneficial to the process.

Improved Dispersion: With the Rotosolver, batches can be completed in less time. Powders are 100% hydrated and dispersed, with most mixtures becoming agglomerate-free in under 10 minutes This is due to the Rotosolver's multiple shear zones in combination with a high product flow that enhances the mixing performance in the tank.

Easy-to-Clean Design: The open design of the mixing chamber ensures that conventional CIP procedures provide maximum cleanability.

3-A® #73-01

USDA APPROVED



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 Carbopol®, Methocel®, Opadry®, Avicel®, CMC, xanthan and guar gum, soy proteins, starches, pectin, carrageenan and other "tough" hydrocolloids and ingredients

Typical Selection of a Rotosolver

Models and specifications

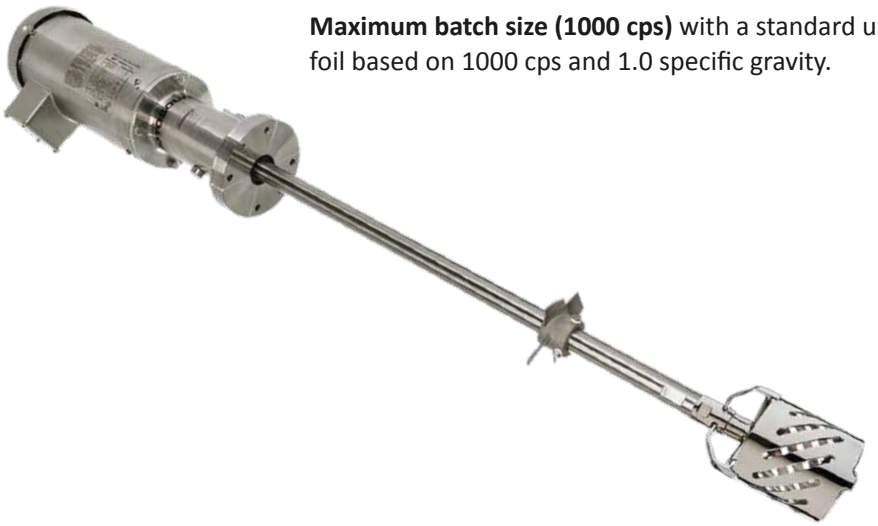
The following table lists many of our standard Rotosolver models, along with typical working volumes based on the specific design criteria listed below. All selections are based on a moderate level of mixing (mixing intensity of 7.0) and a specific gravity of 1.0. However, we customize our mixers for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

Rotosolver Model	Maximum Batch at 100cps (l)	Maximum Batch at 1000cps (l)	Standard (kW)	Speed (rpm)	Mixing Head Diameter (mm)	Foil Head Diameter (mm)	Max Shaft Length (mm)
RS-02	100	40	1.1	3,000	60	76	-
80RS70	900	200	1.1	3,000	70	76	1,000
90RS88	1,000	250	2.2	3,000	88	76	1,100
100RS88	1,400	350	3	3,000	88	102	1,300
112RS133	3,400	750	4	1,500	133	178	1,200
132RS101	3,400	750	5.5	3,000	101	127	1,700
160RS159	5,500	1,300	7.5	1,500	159	202	1,900
180RS159	8,000	2,000	11	1,500	175	216	1,900
200RS200	10,000	2,300	15	1,500	200	203	2,000
225RS250	17,000	4,100	15	1,000	250	279	2,000
250RS250	17,000	4,100	15	1,000	250	279	3,000
315RS300	35,000	9,000	37	1,000	300	318	3,000
355RS300	37,000	10,000	45	1,000	300	330	3,200
400RS300	37,000	10,000	45	1,000	300	330	4,200

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

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



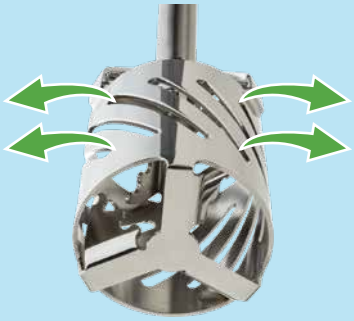
How It Works

The Rotosolver combines the shearing capabilities of a high speed toothed rotor and a slotted stator with the additional advantage of high flow/ circulation from the dual rotor blades. This unique mixing head design provides a four-stage mixing action:

1. Product flow is drawn into the mixing head from above and below. As flow is drawn in, materials and powders pulled down from the top (typically the toughest to disperse) are immediately exposed to two (2) additional mechanical shear zones and one (1) new shear zone from the bottom. These materials are then immediately mechanically ripped by the teeth on the rotor's discharge at the top and bottom of the stator.

2. The two high-velocity, countercurrent streams converge within the stator creating high turbulence and hydrodynamic shear, without momentum loss from obstructions within the stator.

3. Centrifugal pressure forces material to the periphery of the stator where it is subjected to further mechanical shear as material passes through the sharpened edges of the expanded slots in the stator.



4. The high velocity radial discharge combines with slower moving tank flow for additional hydrodynamic shear and circulation.

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