Rotosolver®

The Ultimate Clean Design High Shear Mixer

ADMIX

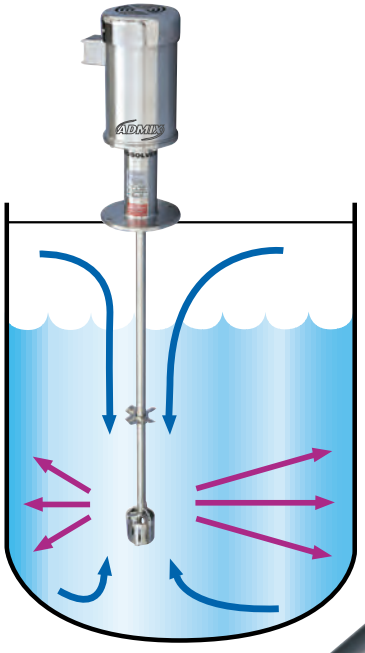
Advanced Mixing Technologies

Improve your process

A truly multifunctional mix head for perfect dispersions, emulsions, powder dissolution, and gum hydration. Complete 100% homogeneity within a viscosity range up to 25,000 cps (Newtonian) and 250,000 cps (Non-Newtonian). Disperse, deagglomerate and provide uniform emulsion droplets down to 3 microns or less. Superior vortex control and tank circulation over conventional rotor-stator type mixers.

Exceptional mechanical design

- Absolutely no wearing parts in the product zone
- Single shaft design with optional sanitary couplings
- Superior clean-in-place capability
- 3-A® (#73-01), USDA-AMS and USDA-Dairy compliant
- All wetted parts polished to 30Ra or better
- Choice of quick disconnect or welded mix head
- Standardized, modular design offers many options to customize units to meet your specific mechanical requirements
- Wet out and disperse Carbopol®, Methocel®, Opadry®, Avicel®, CMC, Xanthan and guar gum, soy proteins, starches, pectin, carrageenan and other "tough" hydrocolloids and ingredients



Flow pattern:
Blue arrows = flow into the mixing head

Purple arrows = expulsion from the mixing head

Avicel® is a trademark of FMC Corporation
Carbopol® is a trademark of Noveon, Inc.
Opadry® is a trademark of BPSI
Methocel® is a trademark of Dow Chemical Company

U.S. Patent #5407271

Your Mixing Technology Partner . . . www.admix.com

How to Select a Rotosolver

Models, Specifications & Performance

The following table lists each of our standard Rotosolver models, along with typical working volumes based on the specific design criteria listed below. To ensure the model and horsepower that you may require, use the appropriate maximum batch column with the process viscosity closest to yours (100 or 1000 cps). All selections are based on a minimum Mixing Intensity of 7.0 (Moderate), and a specific gravity of 1.0.

Higher viscosities, greater mixing intensities, non-standard tank geometries or a specific gravity greater than 1.0 may require a different selection than shown.

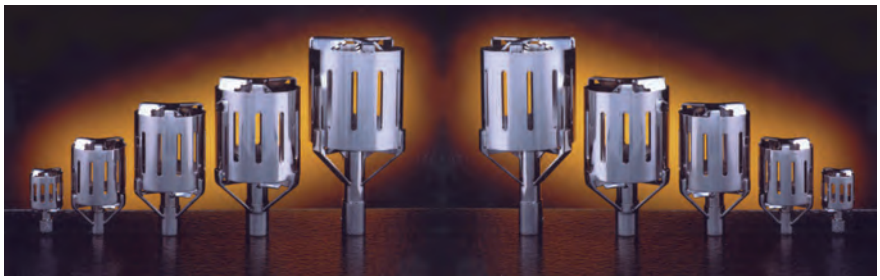
Rotosolver Model	Maximum Batch @ 100 cps (gals) 1	Maximum Batch @1,000 cps (gals) 2	Std. HP	RPM	Mixing Head Diameter (inches)	Tip Speed 3 (ft/sec)	Pumping (gpm) 4	Maximum Shaft Length (inches)	Weight (lbs)
RS-02	10	5	1	3600	2.4	36	479	30	85
85RS70	100	50	5	3600	2.75	42	983	36	75
90RS70	100	50	5	3600	2.75	42	983	36	110
105RS88	400	100	10	3600	3.5	52	1930	36	185
112RS88	400	100	10	3600	3.5	52	1930	48	210
132RS101	600	150	15	3600	4.0	60	2242	48	250
132RS133	750	200	10	1800	5.25	40	2865	48	250
160RS159	1250	400	20	1800	6.25	47	4503	48	465
180RS175	2000	600	30	1800	6.7	52	6376	48	640
200RS200	2500	750	15	1200	7.9	40	6011	84	725
225RS225	4000	1000	25	1200	8.9	45	6980	78	950
250RS250	5000	1500	40	1200	9.8	50	8397	78	1250
280RS275	5000	2000	40	900	10.8	41	10547	110	1450
315RS300	6000	2500	50	900	11.8	46	11941	130	2015
355RS300	6000	2500	60	900	11.8	46	11941	140	2225
400RS300	6000	2500	75	900	11.8	46	11941	150	2500

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

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

(3) **Tip speed (ft/sec)** based on normal motor speed.

(4) **Pumping Rate** is based on waterlike material and used to provide the number of tank turnovers per minute. Turnover rate, along with tip speed and Mixing Intensity, provide the design basis for effective dispersion, emulsification and agglomerate reduction.



For more information:

EMPLOYEE OWNED ...
CUSTOMER FOCUSED

Advanced Dispersion Technology

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. All materials are immediately mechanically ripped by the teeth on the rotors at the top and bottom of the stator.

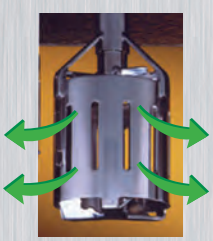
2

The two high-velocity, counter-current streams converge within the stator causing high turbulence and hydraulic 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.

4



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

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