Slow Speed Mixers- SRM Series



Power Transmission Solutions

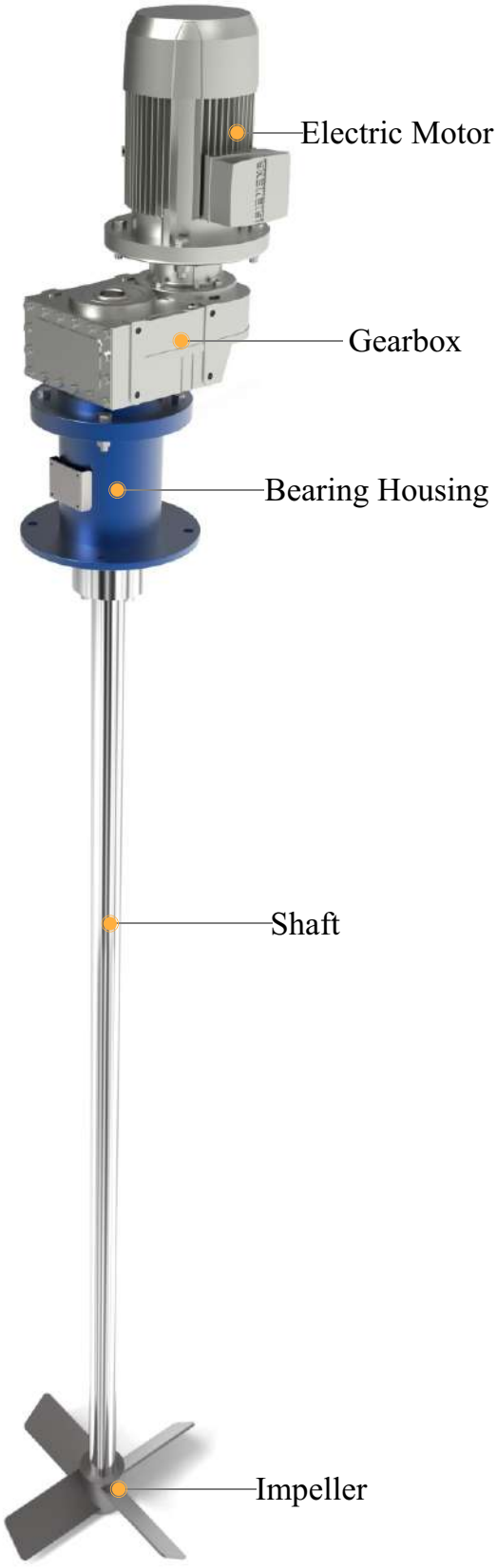
PTS Process Engineering Co

Slow Speed Mixers (SRM)

SRM Series slow-speed mixers are engineered as reliable and cost-efficient solutions for industrial mixing applications, designed for a wide range of process duties requiring stable operation and long-term mechanical integrity.

These units are typically applied in preparation tanks with working capacities ranging from 100 to 5,000 liters, where process fluids are conditioned prior to transfer into reactors or downstream process systems. Typical applications include:

- Dilution and concentration adjustment of chemical solutions.
- Phase transformation processes (e.g., solid-to-liquid conversion).
- Conditioning for reaction, crystallization, and polymerization processes.
- Heat transfer enhancement and bulk homogenization.



Engineering Overview

The performance of the SRM Series can be evaluated from two core perspectives: mechanical integrity and process performance.

Mechanical Design Perspective

Reduced rotational speed directly contributes to extended equipment service life through:

- Extended bearing system lifetime.
- Reduced shaft and impeller wear.
- Lower mechanical and thermal stress levels during operation.
- Improved overall operational reliability.

Process Performance Perspective

- Capability to accommodate larger impeller diameters, minimizing dead zones.
- Increased pumping capacity and improved mixing homogeneity.
- Reduced risk of cavitation and associated erosion phenomena.

Mixer Features

Technical Data

- Suitable for medium to large tanks and low to medium viscosity fluids
- Operating range of 0.2 to 5 m³ tank volume
- Applicable for fluids with viscosity from 0.5 to 500 cP (Centipoise)
- Low vibration levels with minimal shaft run-out (Run-out) during operation





Design Features

- Continuous 24/7 industrial operation with extended service life
- Shaft available in single-piece (direct) or two-piece configuration
- Housing finished with high-durability oven-cured electrostatic powder coating
- Cost-optimized design with reduced capital expenditure

Optional Features

- Explosion-proof (Ex) motors available for hazardous areas upon request
- Chemical-resistant coatings (ETFE / PE), available upon request, ensuring reliable performance in corrosive fluids and severe process conditions

SRM Series Mixer Selection Guidelines

Mixer Selection

SRM Slow Rotation Mixers

Mixer Version Indicator

S Small

M Medium

Tank Capacity Indicator

A	220 Liters	E	500 Liters	I	2000 Liters
B	250 Liters	F	800 Liters	J	2500 Liters
C	300 Liters	G	1000 Liters	K	3000 Liters
D	350 Liters	H	1500 Liters	L	4000 Liters

Impeller Type Selection

1 Propeller With Zero Pitch

2 Pitched Blade Turbine

3 Saw Blade

Wet Parts Material

S4 SS 304

S6 SS 316L

S8 Super Duplex SS

Powder Coating

0 N/A

P Polyethylene

T ETFE

Electric Motor Selection

A IP 55 (STANDARD)

B EX db IIB zone1

C EX db IIC zone1

D EX eb IIC zone1

E EX ec zone2

Motor Supply

1 Single PHASE 220/230 VAC

3 Three PHASE 230/400 VAC

Shaft Connection Type

DC Direct Coupling

FC Flange Coupling

Housing Coupling Type

1 Flange Type

2 Clamp Type

Housing Coating

C1 Polyester

C2 Epoxy

C3 3 Layer Coating

Gearbox Selection

U SIEMENS

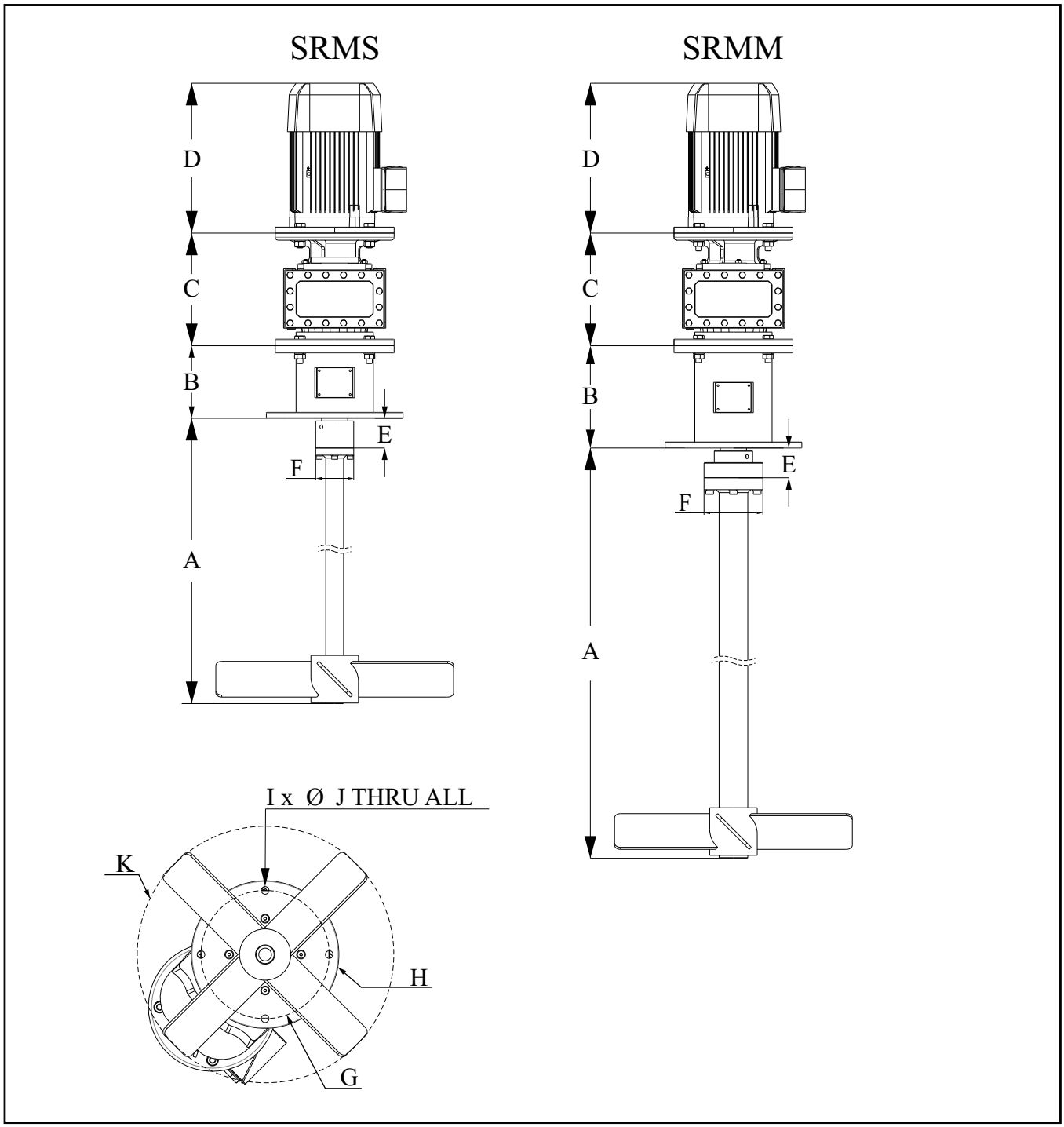
V NORD

X BREVINI

Y SEW

Z ROSSI

SRM Series Mixer Dimensional Drawing



Mixer Model	Motor Frame Size	Speed Range	A	B	C	D	E	F	G	H	I	J	K
		RPM	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
SRMS	IEC80/90/100	20 ~ 400	600~1600	122	190	252/297/335	50	64	200	230	4	12(M10)	200~400
SRMM			1200~3000	172				99					250~600