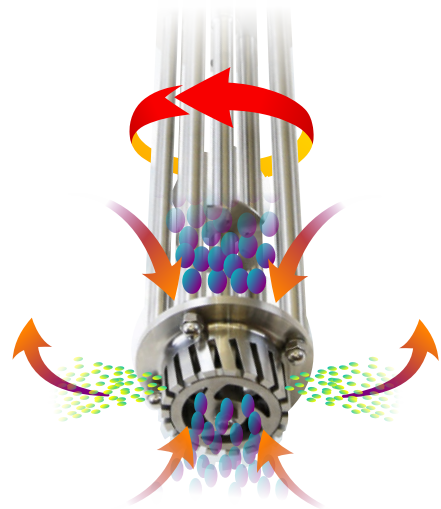


SeFluid high shear batch mixer is a product with advanced technology and is the most widely used model in SeFluid mixing machine series with the largest production and sales volume. Its core component is the high-shear mixing head, which can be assembled on the moving frame, lifting frame, reactor or other vessels as needed to meet the needs of different production processes. The unique structure of the stirring head, which integrates the four functions of dispersing, dissolving, emulsifying and crushing, can effectively solve the mixing problems for you. The precise cooperation between the rotor and stator of the product ensures that the processed materials are subjected to hundreds of thousands of high-speed shears per minute, which is the key to the success of this equipment. The wide variety of stator heads expands the field of application. This series of products are widely used in light industry and chemical industry such as daily chemical, pharmaceutical, food, textile, printing and dyeing, coating, etc. It is the best equipment to replace colloid mill, ball mill, sand mill and high pressure homogenizer. The machine has the advantages of compact structure, small volume, easy operation, fast processing speed and smooth operation, etc. It is a precision equipment integrating high-speed shearing, mixing, dispersing and emulsifying.



How it works?

SeFluid high shear batch mixer series is composed of frame, rotor and stator. Driven by the motor, the machine generates strong centrifugal force in the rotor rotating at high speed, and the material is simultaneously drawn into the working chamber from the upper and lower feeding areas of the working head from the axial direction. The strong centrifugal force throws the material from the radial direction into the narrow and precise gap between the stator and rotor. In addition to the violent motor movement and liquid shear, the material is also subjected to extrusion, impact, tearing and friction. The whole working process, the material constantly cycle up and down tumbling.

The shear head with claw, two-way suction structure (to avoid the upper material is difficult to be sucked into the shear head and caused by the dead angle and whirlpool phenomenon). Under the action of strong centrifugal force generated by the rotor wheel, the outer end of the rotor rotating at high speed to produce at least 15m / s above the line speed, up to 40m / s, and the formation of strong mechanical and hydraulic shear, liquid layer friction, impact tear. Materials at the same time constantly from the stator slot hole in the high-speed radial shot, and then in the container wall resistance to change the flow direction, the formation of the upper and lower two strong turbulent wheezing flow. Finally, the material is repeatedly sucked from the shear head up and down to the working head for shearing. In the precise rotor and stator coordination, after numerous cycles, the material particles are quickly torn in a very short time, crushed into sub-micron finesse, and are rapidly dispersed, mixed, emulsified and homogenized.

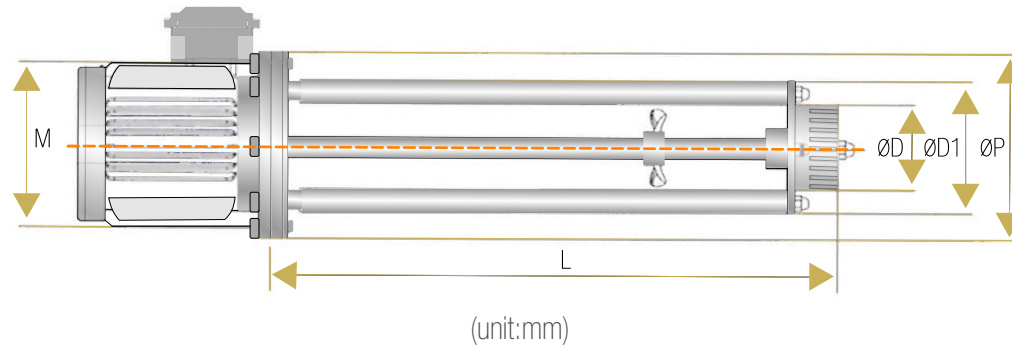
Types of shear head

A large number of experiments have confirmed that different shear heads with different shapes have different mixing effects. According to the actual working conditions, different types of stator heads can be selected to meet the needs of different processes:

- **Mesh shear head:** it is suitable for mixing low-viscosity liquid with the highest shear rate, and is most suitable for the preparation of emulsion and the crushing and dissolving process of small particles in liquid.
- **Long hole shear head:** suitable for rapid crushing of medium solid particles and mixing of medium viscosity liquid. Long hole provides the maximum area of good circulation for surface shear.
- **Round hole shear head:** suitable for general mixing or crushing of large particles. The original hole in the stator head provides the best circulation of all the stator and is suitable for handling materials with higher viscosity.

Technical Specification

(for classical shear head as example)



MODEL	MOTOR POWER (kw)	SPEED (rpm)	CAPACITY (L)	D	D1	P	L	M
SWRL90	1.5	2800-2900	20-50L	80	140	200	355	165
SWRL100	2.2	2800-2900	50-100L	88	140	200	650	165
SWRL120	4	2800-2900	100-300L	120	180	250	750	215
SWRL140	7.5	2800-2900	200-800L	140	210	300	900	265
SWRL160	11	2800-2900	300-1000L	160	230	350	1050	300
SWRL180	18.5	2800-2900	500-1500L	180	250	350	1200	300
SWRL200	22	1400-1500	800-2000L	200	270	350	1200	300
SWRL220	30	1400-1500	1000-3000L	220	320	400	1355	350
SWRL240	37	1400-1500	1500-5000L	240	340	400	1395	350