



CO-AXIAL

Coaxial Agitators, often referred to as Twin-shaft Dispenser (TSD) in the [paint industry](#), consist of a peripheral anchor with scraper impeller operating at low speed and a high speed [Saw Tooth / MCD Cowl Disc](#) impeller both installed on a common shaft. The high-speed cowl disc disperses the solids within the mass, the anchor agitator (with a scraper) assures good transfer of heat while preventing material from sticking to the walls. In the Ink industry, these agitators are installed in Pre-Mix tanks.

[Material of Construction](#) : Carbon Steel | Stainless Steel

[Applications](#) : [Paints, Resins & Inks, Adhesives](#)

5.5 - 180	75 - 300	Atm	Upto 3m

The high speed saw tooth/cowl disc impeller imparts shear forces to the solids to create a uniform dispersion, eliminate agglomeration and reduce the particle size. The low-speed, peripheral anchor blade, generates the required bulk motion feeding the fluid towards the central dispersion zone. The scraper ensures a clean sweep of the vessel wall, often prone to solid deposition.

Twin Shaft Dispensers are widely preferred due to their ability to handle highly viscous fluids, liquid-solid dispersion and blending.

STC-Coaxial agitator as complete production unit with all necessary accessories:

central-peripheral agitator system, vessel, control

Mixing tasks

All Mixing tasks of fluid, pasty and powdery product

- Pastes
- Paints
- Adhesives
- Polymers
- Pharmaceutical products
- Cosmetic products
- Food

Special properties

- Short heating and cooling times

- Fast, homogenous temperature distribution in the whole mixing volume
- Measurement of the core temperature directly at the agitator shaft
- Disposal of bridging during melting powdery substances
- Chrushing of agglomerates from dosing processes
- Avoiding of dead zones or layers
- Fast draw down / stirr in of aggregates
- Easy to clean
- SIP and CIP suitable by sanitary design
- Customized sealing systems
- Process optimized agitator systems
- Wiper- / scraper systems for any direction of rotation

Operation conditions

Drive power central	up to 200 kW
Drive power radial	up to 100 kW
Operating pressure	p = 1 to 11 bar abs
Operating temperature	T = -60 / +300 °C

Application example