

Effective High Shear Technology

The Dynashear CX features a first-in-class tandem shear head design. It combines the benefits of both an axial and a radial stage, creating excellent shear and flow characteristics. The result is droplet size reduction as low as 2 - 3 microns and a very narrow distribution, plus flow capacities that are substantially higher than existing inline mixers.



Makes Your Job Easier and Faster!

- Easy to operate
- Mixing is completed in minutes
- Designed for rapid cleanability and changeovers
- Easy to disassemble and reassemble
- Low maintenance design
- Minimum downtime – no bushings, wear sleeves, shims or bearing supports to wear out
- Technology designed for 24/7 operation

Specification Highlights:

- Seal pressure ratings up to 450 PSI at 400° F, model dependent
- Balanced single and double-barrier mechanical seals designed for durability under extreme operating conditions. Lab model has single seal only.
- Processes from .3 - 175 gallons per minute, model dependent
- VFD standard on lab model



VFD interface

DS-215
lab scale model

The DS-215 is designed for product development, simulation, and scale up. Predictable, repeatable results from lab to full production!



Create Better Emulsions for:

Paints, Inks, Coatings
Lubricants
Adhesives
Agricultural Products

Improves Your Process

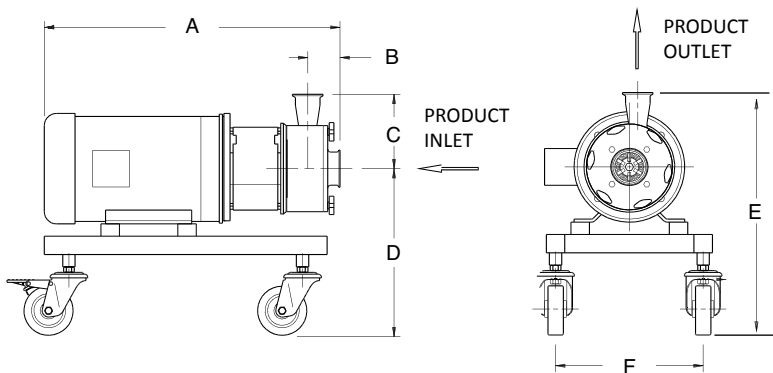
The Dynashear CX is designed to provide maximum versatility to meet your processing needs, and is offered in several different configurations. Whether you are looking for a stand alone inline mixer, a mixer to augment your batch process agitator, or further product refinement, our Dynashear models ensure consistent quality with precise reproducibility.

Sizing and Engineering Data

| CX Model | Axial Diameter (inches) | Axial Tip Speed (FPM/FPS) | Radial Diameter (FPM/FPS) | Radial Tip Speed (FPM/FPS) | Motor Size (HP) | Motor Speed (RPM) | Flow Rate (GPM) | Seal Pressure Rating |
|----------|-------------------------|---------------------------|---------------------------|----------------------------|-----------------|-------------------|-----------------|----------------------|
| DS-215 | 1.25 | 2258 / 37 | 2.13 | 3832 / 64 | 2 | 6900 | 22 | 150 PSI @ 200° F |
| DS-425 | 2.25 | 2121 / 35 | 4.25 | 4006 / 67 | 5 | 3600 | 65 | 450 PSI @ 400° F |
| DS-575 | 3.66 | 3450 / 58 | 5.75 | 5419 / 90 | 20 | 3600 | 175 | 450 PSI @ 400° F |
| DS-850 | 5.62 | 2650 / 44 | 8.5 | 4005 / 66 | 40 | 1800 | 350 | 450 PSI @ 400° F |

Note: Flow rates based on 1 centipoise. High viscosity liquids, solids concentrations, or discharge head conditions may require an auxiliary feed or stuffing pump.

Dimensions



| CX Model | Dimensions (inches) | | | | | | Sanitary Fitting Size | |
|----------|---------------------|-----|-----|------|------|------|-----------------------|--------|
| | A | B | C | D | E | F | Inlet | Outlet |
| DS-215 | 16.6 | 1.8 | 4.1 | 13.7 | 17.8 | 12.0 | 1.5" | 1" |
| DS-425 | 25.0 | 2.6 | 6.1 | 13.1 | 19.2 | 12.0 | 2.5" | 2" |
| DS-575 | 32.2 | 3.1 | 9.3 | 14.9 | 24.2 | 14.5 | 4" | 3" |
| DS-850 | 43.5 | 6.8 | 7.6 | 19.9 | 27.5 | 22 | 6" | 4" |

Note: Dimensions are approximate and subject to change.
DS-215 comes standard on a mobile cart, bringing overall dimensions to: 28" length, 18" width, 39" height.

Advanced Dual Stage Design

The Primary Axial Stage

An axial flow rotor feeds into a stator with multiple small ports, forcing material between their faces and out through the ports. This mechanical and hydraulic action causes tremendous shearing action and "pre-mixes" materials prior to entering the secondary stage. Particle and droplet size reduction down to 5 - 7 microns is typical in this stage.



The Secondary Radial Stage

A radial, high flow rotor discharging through a slotted stator provides additional mechanical and hydraulic shear. Centrifugal force allows the mixture to be pushed away from the shaft and along the radius of the stator, forcing high speed expulsion at the edge of the slots.



A substantial momentum change in flow occurs, resulting in beneficial residence time for further refining of the mixture. Stable emulsions with droplet sizes of 2 - 3 microns or less are typical within this stage.

The Benefits of Advanced Mechanical Design

This combination provides greater efficiency and effectiveness over conventional inline mixers that offer either all axial or all radial technology only. This unique design makes the Dynashear much more effective at deagglomerating without damaging the particle.

