

# V-series Single Shaft High Speed Dissolvers

## Product Guide

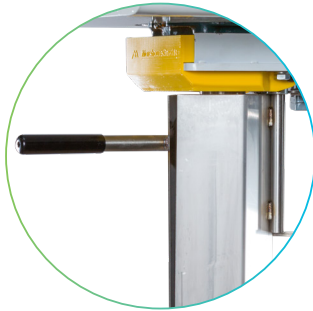
MorehouseCowles V-series standard designs deliver the ultimate dispersion, de-agglomeration and dissolving technology. Its reliable, versatile, and economical design is built for decades of dependable operation. With standard safety features, these dissolvers are designed to help prevent injury without sacrificing performance and reliability.

These dissolvers will process solid-liquid, liquid-liquid and gas-liquid products, either synthetic, organic or inorganic. These units are available in capacities of ¼-gallon to 600-gallon batches. Custom capacities up to 5,000-gallon batches are available upon request.

Safety features for all V-series include:

- Tank holder with limit switch – will not run if tank is not in place
- Lift height limit switch – will not run if unit is raised
- Shaft guard limit switch with clam shell design for easy cleaning – will not run if guard is not closed
- Drive guard – covers belts and pulley





Shaft guard limit switch



Hydraulic lift limit switch



Tank holder limit switch

## SPECIFICATIONS

	V-12-1.0	V-12-2.0	V-14-7.5 & V-14-10	V-24-10, V-24-15 & V-24-20	V-25-25L & V-25-30L	V-38-50L & V-38-60L
<b>CAPACITY (PRODUCT DEPENDENT)</b>	- 1/4 to 1 gallon batches	- 1 to 5 gallon batches	- 35 to 55 gallon batches	- 55 to 165 gallon batches	- 150 to 330 gallon batches	- 300 to 600 gallon batches
<b>MATERIAL VISCOSITY</b>	- Up to 50,000 cP					
<b>MOTOR</b>	- 1 hp	- 2 hp	- 7.5 hp or 10 hp	- 10 hp, 15 hp or 20 hp	- 25 hp or 30 hp	- 50 hp or 60 hp
<b>MOTOR DETAILS</b>	<ul style="list-style-type: none"> <li>- 230/460 volt, 60 Hz, 3 phase</li> <li>- Inverter duty motor 4:1 ratio</li> <li>- Premium efficiency</li> </ul>					
<b>LIFT</b>	- Air operated lift - 10" stroke, heavy-duty industrial cylinder	- Air operated lift - 14" stroke, heavy-duty industrial cylinder	- Air-over-oil operated lift - 38" stroke, heavy-duty industrial cylinder - ASME reservoir	- Air-over-oil operated lift - 48" stroke, heavy-duty industrial cylinder - ASME reservoir	- Air-over-oil operated lift - 48" stroke, heavy-duty industrial cylinder - ASME reservoir	- Air-over-oil operated lift - 54" stroke, heavy-duty industrial cylinder - ASME reservoir
<b>DRIVE</b>	<ul style="list-style-type: none"> <li>- V-belt and sheave</li> <li>- Variable speed via Variable Frequency Drive (VFD/inverter)</li> </ul>					
<b>SHAFT</b>	- Stainless Steel					
<b>SPEED RANGE</b>	- 7600 RPM (4000 FPM) at 60 Hz approx.	- 5000 RPM (5240 FPM) at 60 Hz approx.	- 2300 RPM (4820 FPM) at 60 Hz approx.	- 1900 RPM (4978 FPM) at 60 Hz approx.	- 1400 RPM (5135 FPM) at 60 Hz approx.	- 1122 RPM (5291 FPM) at 60 Hz approx.
<b>IMPELLER BLADE</b>	<ul style="list-style-type: none"> <li>- Genuine Cowles high-shear</li> <li>- 304 stainless steel</li> </ul>					
<b>INSTRUMENTATION</b>	- Digital RPM readout from micro drive	- Digital tachometer in NEMA 7 (explosion proof) housing	- Digital tachometer in NEMA 7 (explosion proof) housing	- Digital tachometer in NEMA 7 (explosion proof) housing	- Digital tachometer in NEMA 7 (explosion proof) housing	- Digital tachometer in NEMA 7 (explosion proof) housing
<b>Utilities Required</b>	<ul style="list-style-type: none"> <li>- Electrical power</li> <li>- Clean, dry, compressed air at 100 psi/g</li> </ul>					
<b>SPECIAL FEATURES</b>	<ul style="list-style-type: none"> <li>- Energy efficient</li> <li>- Variable speed</li> <li>- Designed for easy, less costly maintenance</li> </ul>					
<b>SAFETY FEATURES</b>	<ul style="list-style-type: none"> <li>- Lift height limit switch – will not run if unit is raised</li> <li>- Shaft guard or shaft enclosure with bellows &amp; limit switch on most modles – will not run if guard is not closed</li> <li>- Tank holder with limit switch on most modles – will not run if tank is not in place</li> <li>- Drive guard – covers belts and pulley</li> </ul>					
<b>CONSTRUCTION</b>	<ul style="list-style-type: none"> <li>- Stainless steel for all wetted parts</li> <li>- Non-wetted parts: carbon steel painted with white two-part epoxy</li> </ul>					



## OPTIONS:

### LIFT

1. Custom lift height and stroke
2. Electric, hydraulic lift in lieu of air-over-oil system
3. Platform-bearing on lift assembly – allows the operator to manually rotate the mixing shaft side-to-side with very little force
4. Pneumatic power-driven rotator – allows the unit to rotate between two tanks remotely using a joystick control

### DRIVE

1. Variable Frequency Drive (VFD/ Inverter), NEMA 1 (non-explosion proof, for non-hazardous areas)
2. Operator Basic Pendant Remote Control, NEMA 7 (explosion proof) includes:
  - On/Off button
  - Red Mushroom Stop button
  - Potentiometer for speed control
3. Operator Master Control Remote Control, NEMA 7 (explosion proof) includes:
  - On/Off button
  - Red Mushroom Stop button
  - Potentiometer for speed control
  - Digital ammeter
  - Digital tachometer
4. Drive Cabinet, NEMA 12 (dust proof) for protection against environment and easy installation of inverter

### SPEED

1. Custom speed range for various dissolving applications

### IMPELLER BLADE

1. POLY-PELLER™ blade in lieu of high-shear blade – no additional cost
2. Full line of specialty impeller blades

### CONSTRUCTION

1. 316L stainless steel wetted parts
2. All stainless steel

### LID

1. Tank dust cover (lid) with gas spring and bellows to raise lid and lift together

\* Optional upgrades for V-12-1.0 may be limited. Please see data sheet for additional details.

# Genuine MorehouseCowles impeller blades

Genuine MorehouseCowles impellers have a unique design that significantly reduces dissolving time, making them the most efficient impellers available. For optimal performance, utilize only genuine MorehouseCowles impellers. MorehouseCowles offers the widest selection of off-the-shelf impeller designs in sizes from 2" to 40" in diameter.

## Hi-Shear Impellers

The go-to blade of our line, whether dispersing low or high viscosity materials or mixing dry to liquid or liquid to liquid products, it offers the best combination of pumping and hi-shear.

## Hi-Vane Impellers

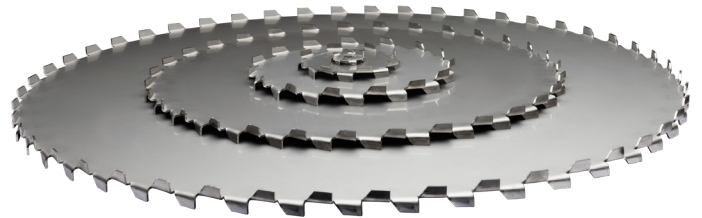
Hi-Vane Impellers fill the intermediate range between low-speed and high-speed mixing. High-volume pumping action and radial flow promote better blending, while low shear minimizes temperature rise.

## Pick Impellers

For rapid dispersion of fibrous materials or solid materials such as rubber, MorehouseCowles Pick Impeller alternates high-shear vanes with sharp horizontal blades for rapid cutting.

## POLY-PELLER™ Impeller

The POLY-PELLER is used for similar applications as the hi-shear impeller, but it is designed for abrasive applications such as waterbased, titanium-dioxide dispersions, or where the products cannot be in contact with metal.



Made in the USA

For more information, visit [morehousecowles.com](https://www.morehousecowles.com) or contact MorehouseCowles experts today at [sales@morehousecowles.com](mailto:sales@morehousecowles.com) or +1 (909) 627 7222.