

Single-Use GenMix HTD



Introduction

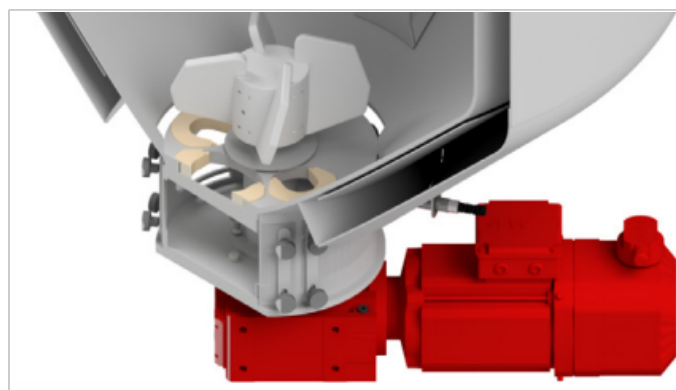
ABEC's single-use Custom Single Run (CSR) offers a GenMix High Turn Down (HTD) solution for upstream or downstream processing of biomaterials, which can work with TFF or support initial or final purification processing needs. Customizable disposable containers (DCs) and systems replicate the mixing performance of a traditional stainless equivalent but offer the flexibility and operational efficiency of single-use technology. ABEC's CSR GenMix HTD has 45 conical-shaped bottom head with a low-profile impeller, allowing turn downs up to and greater than 20:1 while maintaining agitation and sensing capabilities.

Benefits

- Highest product recovery for UF/DF applications
- Maximum processing flexibility
- Rapid product changeover
- lowest supply chain risk



ABOVE 1000L Vw CSR GenMix HTD

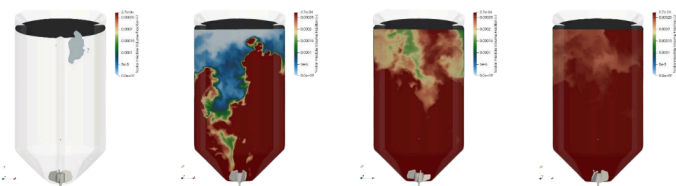


ABOVE: ABEC's mixing system for CSR GenMix utilizes a SEW single mechanical seal gearmotor, a low-profile impeller and stainless baffles welded to the holder

Unique features

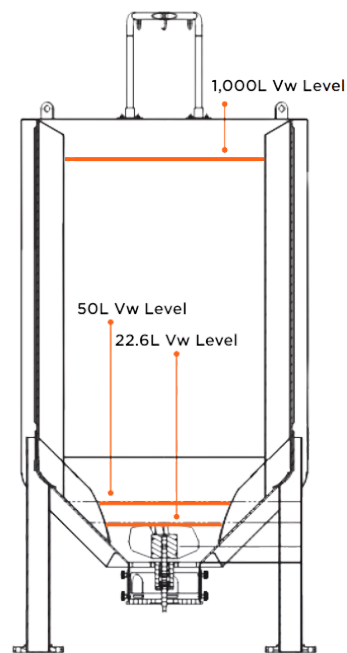
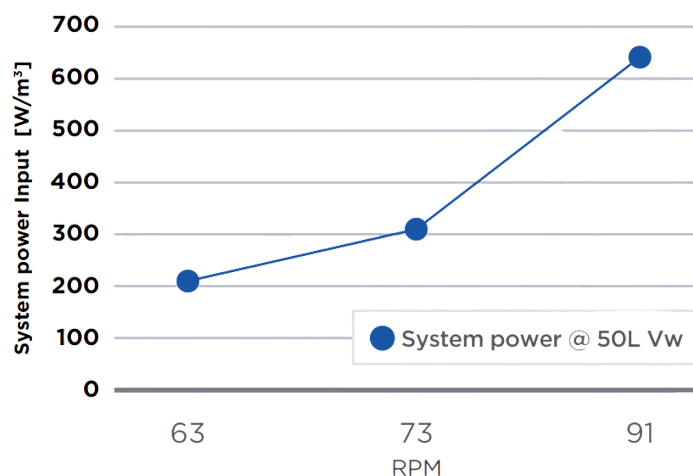
- Customizable size and system configurations to suit process and facility requirements
- Lowest blend times with the highest system power input
- Largest processing volumes
- Customizable Disposable Container (DC) design
- Baffles welded to sidewalls and conical bottom head of CSR holder
- 45 angled conical bottom head minimize fluid hold-up
- Global, in-house manufacturing of equipment and consumables
- Temperature control option via dimpled jacket
- DC installation and removal in less than an hour
- Non-proprietary control system options
- Transparent supply chain with multiple qualified suppliers

BELOW: 28 second blend time of 1,000L Vw CSR GenMix HTD operating at full volume and 250 rpm





**RPM vs System Power Input
1,000L @ 20:1 Turndown**



ABOVE: The right min working volume for a 1,000L GenMix HTD is 22.6L

Typical Specifications

ABEC's CSR systems are customizable to meet specific process and operational requirements. Typical design elements and specification ranges are shown

Working Volumes	Customizable: 500L up to 7,500L
Turndown Ratios	Customizable: > 20:1 with sensing and agitation capability
Agitator Mounting	Bottom Center
Agitator Motor Coupling	Mechanical
Agitator Seal	Mechanical/SiC
No. Baffles	Up to 4
Impeller Type	Customizable: Low profile impeller
Performance at 1,000L	Blend time at max working volume: < 30 seconds at 250 rpm Blend time at 20:1 turndown (50L): 9 seconds at 91 rpm
Filtration Capacity	Full integration with filtration systems including pumps and sensors
Process Controls	Customizable: Open architecture via Emerson, Rockwell, or Siemens hardware and software