

## ViaFuge® V12

CARR Biosystems' unique ViaFuge V12 Cell Separation System offers a major breakthrough in gentle cell separations, with no damage at medium to large-scale production levels. The continuous flow ViaFuge V12 allows rapid cell harvesting and supernatant clarifications with unsurpassed viability, 99% recovery of intact cells, and up to 90% reduction in filtration needs.

Upon completion of the separation process, automated CIP/SIP cycles may be performed via the PLC-controlled TrueClean™ operating sequence. The ViaFuge V12 facilitates cGMP compliance by offering a simple, sanitary design including strategic placement of spray-balls and jets, ASME-rated configurations for steam sterilization, and a flexible CIP/SIP software program.

Typical applications include:

- Viable cell recovery of CHO, SF9, Vero, MRC5, and other mammalian cells.
- Sterile operations including media exchange, repeated batch
- Cellular agriculture processing including process intensification and harvest.

### Features

- Complete liquid/solid separations
- Minimizes shear forces on cells
- Optimized and automated operation (CIP/SIP Capable)
- Integrated Cooling Jacket & Spindle Cooling Unit
- Service Hoist
- Shallow (9.6L) and/or Deep (16.7L) Pool Bowls available
- Designs available for:
  - CE Marking
  - 2 bar Steam-In-Place (ASME/PED Rated)
  - Hazardous Environments

### Operating Parameters

Variable Speeds	between 500 – 5.000 x g
Typical Processing Rate*	~30 L/min*
Max. Bowl Speed	5,416 RPM
Max. Concentrate Density	<1.5 g/ml
Bowl Volume	9.6 L (shallow pool), or 16.7 L (deep pool)

\*Processing speeds are application-dependent and may vary.

\*\*Weights and dimensions dependent on system configuration and options required.



### Equipment Specifications

- Designed to meet containment standards consistent with Biosafety Level 1 (BL1) and Biosafety Level 2 (BL2).
- Product-contact materials and surfaces: type 316L, 17-4PH and Nitronic 60 stainless steel, high strength titanium alloy, Teflon, EPDM O-rings and gaskets. Stainless steel finish electropolished to 25 Ra (0.64 micron). Titanium alloy bowl finish 25 Ra (0.64 micron).
- Non-wetted materials: 304 and 316 stainless steel, epoxy-painted steel, manufacturers' standard materials for motors, actuators, and motor conduit boxes.
- System footprint is approximately: 127 cm wide x 249 cm deep x 287 cm high (50" x 98" x 113")\*\*
- Total weight of centrifuge and control's enclosure : 1,116 – 1,889 kg / 2,460 - 4,165 lbs.\*\*

### Utility Requirements

- Motor & Control Panel: 400V/50Hz or 480V/60Hz (configuration dependent)
- Spindle Cooling Unit: 230V/50Hz
- Instrument-quality air only, supplied at 80-100psi