

# C Centrifugal Separation

## CINC® V2 Centrifugal Separator/Extractors

### Use for liquid-liquid separation of aqueous and organic mixtures

- ▶ Separate immiscible liquids with specific gravity difference of 0.05 or better
- ▶ Handle droplet sizes up to 10 µm
- ▶ Include interchangeable weirs for accommodating liquids of varying specific gravity and viscosity
- ▶ Automatically handle changes in input ratios, variable flow rates, and flow interruptions
- ▶ Extra inlet port allows the introduction (down to 20 mL/min) of mixing additives to the liquid for extraction, reaction, and washing.
- ▶ Units are simple to inspect, clean (Clean In Place), and autoclave.
- ▶ Separators can replace disk-stack style centrifuges, gravity based decanters, coalescer or DAF type separators, mixer/settler systems, and extraction columns.

**What's included:** CINC V2 centrifugal separator/extractor, 1/8-hp electric motor, VFD controller, high- and low-mix bottom plates, ten weirs ranging from 0.825" to 1.050" in diameter, and a CD-ROM with instructions and weir selection software. Explosion-proof motors include a 50-ft cable and a hazardous environment connection.

### Specifications & Ordering Information

#### Wetted parts

Housing: 316 L stainless steel  
O-rings: Teflon®  
Rotor head and sleeve O-rings: Teflon-encapsulated Viton®

**Rotor size:** 2" (5.08 cm)

**Throughput:** 2000 mL/min (114 L/hour)

**Fittings:** 3/8" NPT(M)

**Dimensions:** 9"W x 25"H x 9"D (22.8 cm x 63.5 cm x 22.8 cm)

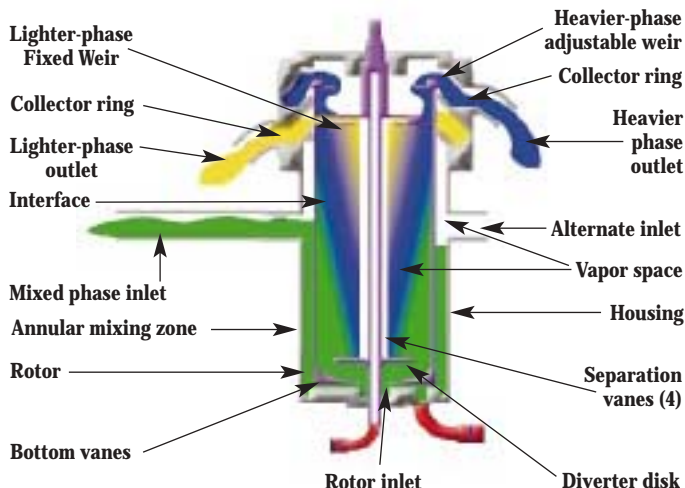
**Shpg wt:** 46 lb (20 kg)

Catalog number	110 VAC models		220 VAC models	
	A-17315-04	A-17315-06	A-17315-00	A-17315-02
Motor type	Standard	Explosion-proof*	Standard	Explosion-proof*
Price				

\*Motor meets all Class I Div 2 Group D requirements; enclosure is NEMA 4X.

### Applications...

- ▶ Mining—solvent recovery and extraction of metals
- ▶ Petroleum—crude oil from produced water
- ▶ Pharmaceutical—antibiotics made in broths
- ▶ Food processing—food oil separation and conditioning
- ▶ Nutraceuticals—separation and extraction
- ▶ Environmental—contaminated ground water separation



Centrifugal separator/extractor 17315-04 shown here with Masterflex® pump system 77911-20 (see pages 1328-1331).

### for a complete System...

We recommend Masterflex® peristaltic pumps for feeding your mixture into the centrifugal separator inlet. Choose the 77911-20 precision pump system or the 77921-40 digital pump system. Each system comes with a pump drive, head, and peristaltic tubing. See pages 1290-1393 for more information on these systems. Inlet/outlet ports are 3/8" NPT(M). See our "Fittings" section to customize your set-up. If you are using Masterflex peristaltic pumps, we recommend ordering the 06349-02 couplings along with 06450-32 barbed fittings. This allows direct connection between the peristaltic tubing and the separator inlet.

### Accessories

Weirs are available in various diameters. Use the large-diameter weirs in applications with high-viscosity liquids.

Catalog number	Weir dia	Price/ea
<b>Replacement weirs</b>		
A-17315-10	0.825"	
A-17315-11	0.850"	
A-17315-12	0.875"	
A-17315-13	0.900"	
A-17315-14	0.925"	
A-17315-15	0.950"	
A-17315-16	0.975"	
A-17315-17	1.000"	
A-17315-18	1.025"	
A-17315-19	1.050"	
<b>Large-diameter weirs</b>		
A-17315-20	1.075"	
A-17315-21	1.100"	
A-17315-22	1.125"	
A-17315-23	1.150"	
A-17315-24	1.175"	

Spare Parts Kit contains common wear parts.

**A-17315-08** Parts kit

### Free offer...

Learn more about these centrifugal separator/extractors with a free CD-ROM; or ask for a demonstration unit for a free trial. For more information, please call our Application Specialists at (800) 323-4340.

### More info...

Easily scale up to larger units with throughput up to 200 GPM! Call us at (800) 323-4340 for more information.

### How it works...

The mixed fluid stream (green) enters the inlet to the separator. The mixed fluid then fills the annular zone and prepares to enter the rotor. As the mixed fluid enters the rotor, it's thrown to the rotor's wall and separation begins as the fluid rises in the rotor. The heavier fluid (blue) separates from the mixed fluid (green). As the heavier fluid builds up, it passes over the weir and into one outlet port, while the lighter fluid (yellow) continues to build and pass into the second outlet port.