






DESCRIPTION

The extraction through distillation automation system incorporates a continuous extraction and distillation interface enabling complete containment of the active pharmaceutical ingredient.

Featuring ultra sustainable and low-cost CO₂ extraction, the system connects and automates transfer between the extraction system and a high-end dual-stage molecular distillation system. This process eliminates the need for ethanol and winterization.

FEATURES

-  **Eliminates Ethanol Winterization**
-  **Automation**
-  **Full Containment of Extract from Extraction Through Distillation**
-  **Connects Molecular Distillation, E-Series Extractors, and clearSTILL-400**
-  **Preservation/Recovery of Aroma Profile**



EXTENDED

GMP COMPLIANCE

- Intended Use: Oil Conditioning, Storage
- Containment: Enables oil transfer & containment between two processes
- Lubricants: None in direct contact. Gear box requires lubricant. No impact.
- Built in Methods, Maintenance Schedule, and Reminders
- Materials Traceability & Manufacturer's DOC for Contact Materials
- Elastomeric Seals: Viton, PTFE
- PLC GAMP5: Category 3

SYSTEMS CLASSIFICATIONS

E2Di Unit

- Type: Direct Impact
- Documentation: Commissioning, Qualification

Heater

- Type: Indirect Impact
- Documentation: GEP Startup

Sweep Gas

- Type: Direct Impact
- Documentation: Commissioning, Qualification

CLEANABILITY

- Surface Finishes: 0.8 µm or better on all contact surfaces
- Welds: Ground, argon purged
- Fittings: Combination of compression and sanitary
- CIP: Sprayball, low point fluid exit
- CIP Unit
- External

SPECIFICATIONS

ATTRIBUTE	VALUE
General Specifications	
Dimensions (in)	L36" x W64" x H87.5"
Unit Weight (lbs)	400
Footprint (sq ft)	25
Heat Load (kW)	3.5
Mobility:	Leveling Casters
Electrical Specifications	
Voltage (VAC)	208-230/380
Full Load Amps (amps)	25A for 240V 16A for 380V
Phase	3
Frequency (Hz)	50/60
Heating Power (kW)	6
Inlet Valves	
Quantity	3
Type, pneumatically actuated	Inlet ball valve
Control	Dry Contact, Ethernet Communication
Failure Mode:	Normally Closed

ATTRIBUTE	VALUE
Burst Discs	
Quantity	3
Certification	ASME, CE
Exhaust	Exit hard plumbed to vent
Location	High Pressure Side of Ball Valve
Oil Tank	
Quantity	1
Volume (GL, max)	13
Max Pressure	20 psi
Insulation	Vacuum Jacketed
Heater Requirements	
Power (kW, circulating)	6
Location	Off Skid
Gas	
Type	Inert
Quality	Class 2
Certification	
ETL UL 508A Stamped	Yes
CE	Yes
PED or ASME	N/A

ATTRIBUTE	VALUE
Vent	
Connection: 4" Accessory Stainless Steel Sanitary Connection	
Fitting Adaptors Accessory: 4" Sanitary to DIN 32676, ISO, or ASME BPE	
Backflow Prevention: Check Valve	
Control Strategy: Pressure Transducer	
Utilities Required	
Compressed Air: Class 2 Compressed Air, 80 psi, 1 SCCM	
Sweep Gas: Clean Inert Gas (Nitrogen, Argon, CO2)	
Power: 3ph, 208-230/380V, 50/60 Hz for Motors, Heaters	
Vent: Sanitary Exhaust connection, located at least 15 m from HVAC inlet	
Documentation Packages	
Functional Test Protocol Tests & Results	Yes
Declarations of Conformity	Yes
DQ/IQ/OQ Protocol	Yes
Equipment Lists & Documentation	Yes
Calibration Schedules	Yes
Maintenance Schedules	Yes
Critical Clean Protocol	Yes

REQUIRED, SOLD SEPARATELY:

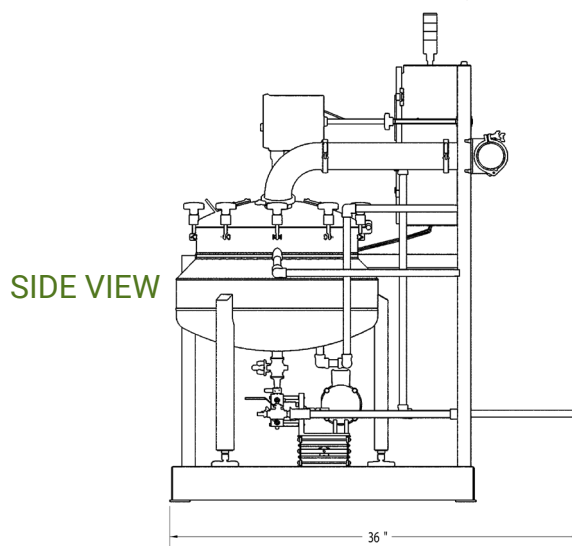
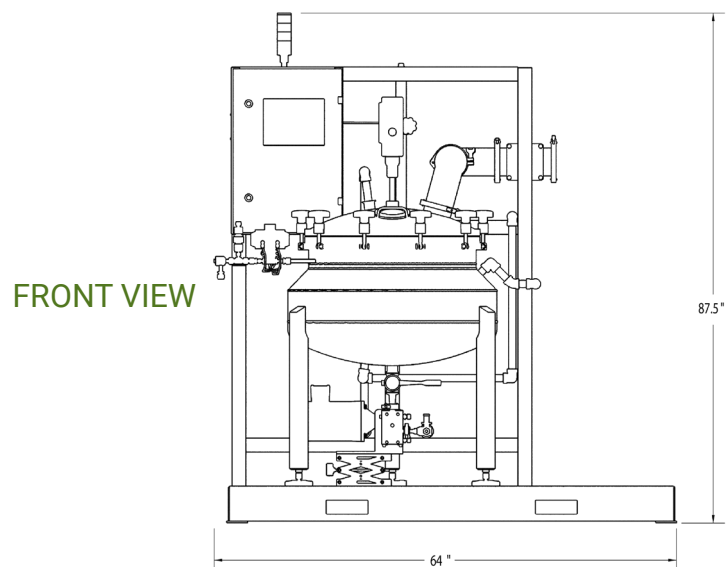
e-140 #10-0063 (240V) | #10-0099 (380V) *OR*
e-180 #10-0010 (240V) | #10-0147 (380V)

clearSTILL-400 #10-0081 (240V) | #10-0143 (380V)

ALSO AVAILABLE, SOLD SEPARATELY:

#80-9621 | Factory Acceptance Test
#80-9622 | Site Acceptance Test
#80-9636 | Design Qualification
#80-9611 | Installation Qualification
#80-9612 | Operational Qualification
#80-9608 | GMP Equip. Commissioning & Training
#80-9606 | GMP Equip. Documentation Package
#80-9609 | Maintenance Package (12 months)

LINE DRAWINGS



To Order:

Extraction to Distillation Interface #10-0174 (240V) | #10-0175 (380V)

Recommended, Sold Separately:

Heater, 1-zone, 6 kW, Recirculating Oil #80-0892 (240V) | #80-0891 (380V)

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