



BEAKER &
WRENCH

6" Wiped Film Evaporator



Specifications Sheet

Skid Frame:

- + Dimensions (LxWxH):
76"[1.9m] x 30"[0.762m] x 85"[2.16m]
- + Weight: 1,000 lbs [450Kg]
- + Material: Extruded Aluminum
- + 4" castors w/ brakes

Shipping Information:

- + Dimensions (LxWxH):
82.5"[2.01m] x 36.5"[0.93m] x 87.5"[2.22m]
- + Total Weight: 1200 lbs [545Kg]

Electrical Power Distribution Box:

- + Plug: NEMA 14-50
- + Input Voltage: 240VAC
- + External Circuit breaker: 50 amp
- + Nominal current: 15.42amps

Feed Tank:

- + Volume: 40 Liter
- + Material: 316 Stainless Steel
- + Max Temp: [100°C]
- + Heater: 120vac, 4amps combined, 100°C Max Temp
 - 300w UR Recognized Heat Pad, K-type sensor
 - 170w ETL rated heated blanket

Feed Hose:

- + Length: 7'-0" [2.13m]
- + Voltage: 120VAC
- + Amps: 4.5 Amps
- + Max Temp: 450°F[220°C]
- + K-type sensor

Rotor:

- + Wipers: PTFE (Polytetrafluoroethylene)
- + Mesh Baffles: 316 Stainless Steel
- + Motor Voltage: 48VDC
- + Motor Amps: 10 (Max)
- + Motor Watts: 243 (Continuous)
- + Speed: 0-400RPM
- + Digital RPM Readout with control
- + Dust and Splash Resistant

Still Body / Wiped Film Evaporator:

- + Evaporation Surface Area: 2.70ft² [0.25m²]
- + Materials: 316 Stainless Steel
- + Heat Source: oil jacket(baffled)
- + Feed Inlet: KF25
- + Top and Bottom Connections:
6" sanitary flange
- + Clearance Dimensions:
15"L[38.1cm] x 8"W[20.3cm] x 33"H[83.8cm]
- + Approximate Weight: 25 Lbs [11.3Kg]
- + Insulation jacket included

Internal condenser:

- + Single finger coaxial condenser
- + Materials: 316 Stainless Steel
- + Vacuum port: NW80
- + Distillate port: KF25
- + Residue port: KF25
- + Residue heater:
 - 120VAC, 0.78 amp, 150°C Max Temp, K-type sensor
 - 90W, UR Recognized Heat Pad

Still Body Circulator:

- + Model: Huber CC304
- + Bath Volume: 5L
- + Total system oil volume 16L
- + Voltage: 240VAC
- + Amps: 14
- + Liquid: Beaker & Wrench Silicone Heat Transfer Fluid
- + Temperature Range: 28-300 °C
- + Color touch screen interface
- + 3 year manufacturer warranty

Condenser Circulator:

- + Model: Huber Ministat 240
- + Bath Volume: ~5L
- + Bath Fluid: Antifreeze/Water
- + Refrigerant: R290, 0.22lbs [0.099 kg]
- + Color touch screen
- + 10" Fan & Radiator cooling system
- + 3 year manufacturer warranty
- + Temperature range: -45 to 200 °C
- + Temperature stability: ±0.02 °C
- + Dimensions (W x D x H): 11.8in[300mm] x 18.3in[465mm] x 20.3in[516 mm]
- + Heating capacity: 2.1 kW

Operating data:

- + Permissible ambient temp: 5-40 °C
- + Sound pressure level: 59 dB(A)
- + Bath volume: 4.9 L
- + Filling volume min: 4.5 L
- + Power supply: 220-240V 1~/2~ 50/60Hz
- + Current max.: 12 A
- + Fusing: 16 A

Gear Pumps:

- + Voltage: 24VDC
- + Amperage: 0.652
- + Max Rate: 15.0 L/Hr
- + Heater: 120v, 0.5amp, 120°C Max Temp, K-type sensor
- + 45w, UL Recognized Heat Pad
- + Check Valve Included

Cold Trap:

- + Model: Julabo FT900
- + Voltage: 115v
- + Power: 7.0 Amp
- + Temperature Range: -90 to 30°C

8 Channel PID Temperature Controller:

- + UL Listed: **E510826**
- + Voltage: 120VAC
- + Power: 15 amp
- + Power (each channel): 5 amp
- + Resolution: 1.0 °C
- + Accuracy: ±0.25 °C

Vacuum Gauge:

- + Model: KJ Lesker
- + Calibrated traceable to NIST
- + Test for deep vacuum applications
- + Measurements Torr
 - Min: 1.0x10⁻³
 - Max: 1.0x10³
- + Typical Accuracy:
 - 0.1 mTorr resolution (5.0x10⁻⁴ to 1.0x10⁻³ Torr)
 - ±10% of reading (1.0x10⁻³ to 400 Torr)
 - ±2.5% of reading (400 Torr to atm)
- + Input Power: 12VDC, 0.04Amps
- + Communications (standard): Analog, RS232
- + Vacuum manifold Connection: (KF-50)
- + Relief Valve to atmospheric pressure

Diffusion Pump:

- + Model: Agilent Varian HS-2 Water Cooled Diffusion Pump
- + Voltage: 240VAC-
- + Optimum Operating Range: 2x10⁻³ Torr (2.7 mbar) to < 5x10⁻⁹ Torr (6.7 mbar)
- + Maximum Pumping Speed: 285 L/S, Air
- + Power Required (Approximately): 450 W
- + Warmup Time: 25 minutes
- + Cooldown Time:
 - Less than 5 minutes to break jet
 - Less than: 10 minutes to vent pump
- + Fluid: 100mL, all conventional and high performance pump fluids
- + Cooling Water Requirements: 0.1 gpm at 60° °F
- + Inlet temperature (15.6°C to 26.7°C)
- + Backing Pump Size: 5 CFM or larger for optimum throughput
- + Equipped with Diffusion Cooling System

Mechanical Vacuum Pump:

- + Model: BWRV-48
- + Air Displacement: 36.0 CFM
- + Voltage: 240vac
- + Power:
 - In Rush Amps: 25
 - Continuous Load: 5.5 amps
 - Under Max Load: 9.1 amps
- + Approximately one (1) gallon holding tank
- + Requires Premium Vacuum Pump Oil