

SEPOR, INC.
718 N. FRIES AVE.
P. O. BOX 578
WILMINGTON, CA 90748
PHONE: 310-830-6601
FAX: 310-830-9336



CYCLONE TEST RIG

Sepor's Cyclone Test Rig is designed for laboratory testing of classifying various solids in a slurry. It is equipped with a 3 inch Bauer 5 degree Nylon Cyclone, a propeller mixer, a 100 liter sump (26.4 gallons), a 1-1/2 x 2 BGA rubber lined slurry pump with a 7.5 HP/220, 380 ro 440 V/ 3 Ph/50-60 Hz TEFC motor, a Frequency Inverter for variable speed of the pump, internal piping and valves to circulate the slurry through the cyclone from the sump or to re-circulate the slurry, and a pressure gauge to monitor the pressure drop across the cyclone. All equipment is conveniently mounted on a sturdy structural steel frame with swivel castors for mobility.

The 3 inch cyclone has a typical separation range for particles of 20 to 30 microns in size. Typical applications for these cyclones are to dewater solids in slurries, concentrate solids - especially when no solids exist in the slurry smaller than 20 microns, or to classify solids in slurries in the particle size range of 20 to 30 microns, with the large particle size going to the high % solids underflow and the fine particle sizes going to the dilute overflow.



Cyclone Specifications: The Bauer 3 Inch Cyclone is a tangential feed cyclone, with a 1/8 inch apex, 3 inch diameter cylinder section, a 0.625 inch vortex finder, and is constructed of nylon. Apex's are available lined with urethane and ceramic, with 1/8 inch openings. Particle sizes in the feed should not be larger than 0.3 MM (0.0118"). The volume of slurry required to produce desired separation ranges from 8 GPM @ 12 Feet of Head to 30 GPM @ 60 Feet of Head. Although the cyclone test rig is configured for a Bauer 3 inch cyclone, other cyclones may be used with the rig, with minor modifications for mounting, accomodating cyclones from 0.5" to 3". The pump and sump capacity would be too small for cyclones larger than 3". Custom cyclone test units may be designed for larger cyclones.

Slurry Pump Specifications: The BGA 1-1/2" x 2" Rubber Lined Horizontal Centrifugal Slurry Pump has a 7-1/2 HP 220, 380, 440 Volt/3 Phase/50-60 Hz motor, is connected to a frequency inverter for variable speed, giving the pump an operating range of 300 RPM to 1700 RPM, giving an output of 0-140 GPM @ 0 Ft Head to 60 GPM @ 60 Ft Head. The maximum capacity of the pump, with 10' of Net Positive Suction Head, is 140 GPM @ 48 Feet of Head.

Sump Specifications: The Sump is conical in shape, mild steel construction, is available lined with neoprene, has a 100 liter (26.5 gallon) volume, includes four baffles and a 1/4 HP/1725 RPM propeller mixer with a 4 inch propeller.

Cyclone Test Rig With Unlined Carbon Steel Sump - 050K-001

Cyclone Test Rig With Neoprene Lines Sump - 050K-002

Cyclone Test Rig With Stainless Steel Sump - 050K-004