

ITE HVR 300 & ITE HVR 380

Product features

The ITE HVR 300 and HVR 380 hydro vacuum cyclones are mechanical components with a cylindrical to conical shape that are used for separating fine particles from suspensions by means of centrifugal force. In the process, the size of particles filtered out during the separation process is subject to the size of the cyclone, particle size, suspension viscosity as well as the pressure generated by the cyclone. Inside the hydro vacuum cyclone, there is a negative pressure that may be adjusted via a pressure line at the cyclone overflow. In turn, this enables the operator to adjust the moisture content of the material discharged.



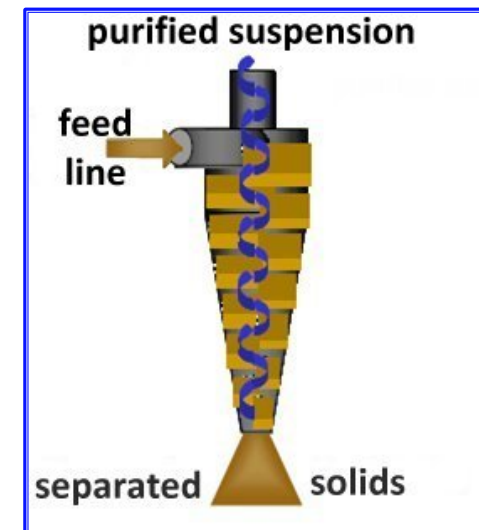
Illus.: Hydro vacuum cyclones

Properties and functions:

- Enhanced protection against abrasion ensured by a coating of natural rubber which is applied to the inner wall of the hydro vacuum cyclone
- Manometer for measuring the pressure inside the hydro vacuum cyclone (measurement range 0 – 2 bar)
- Pressure line equipped with a valve for adjusting pressure inside the hydro vacuum cyclone
- Easy and safe handling
- Low pressure requirements therefore no shearing of material and high capacities at the same time

Functioning

Inside the hydro vacuum cyclone, the suspension entering the device is stirred and set into a circular motion. In turn, this gives rise to centrifugal forces which get stronger towards the bottom of the hydro vacuum cyclone due to its conical design. This way, the small solid particles in the suspension are tossed against the inner wall of the hydro vacuum cyclone, separated at a characteristic cut-point and removed at the cyclone underflow. The purified liquid containing particles smaller than the cut-point will leave the hydro vacuum cyclone via the cyclone overflow.



Illus.: Separation process taking place inside a hydrocyclone

Transport dimensions

ITE HVR 300

- Length 1: 2363 mm
- Length 2: 1626 mm
- Width 1: 762 mm
- Width 2: 254 mm
- Weight: approx. 91 kg

ITE HVR 380

- Length 1: 2642 mm
- Length 2: 1854 mm
- Width 1: 762 mm
- Width 2: 305 mm
- Weight: approx. 142 kg

Technical specifications

ITE HVR 300

- Size of cyclones: 12 inches (305 mm)
- Operating pressure requirement: 0.8 – 1.2 bar
- Throughput: 60 - 80 m³/h
- Cut-point (d₅₀): 45 µm

ITE HVR 380

- Size of cyclones: 15 inches (381 mm)
- Operating pressure requirement: 0.8 – 1.2 bar
- Throughput: 102 - 148 m³/h
- Cut-point (d₅₀): 45 µm
(at 26 s Marsh Funnel Viscosity)

