

# Cavex® Hydrocyclones

CVXT tile lined hydrocyclones

Technical Specifications

**WEIR**

**Minerals**



### Design features

- Extended barrel designed to separate ores.
- Overflow configurations to suit your specific needs.
- Available in 20 or 40 degree cones and in a wide range of spigot sizes.

### Applications

- Dense media separation (DMS).
- Media recovery.
- Media densification (such as coal, diamond, iron and andalusite applications).

## Superior hydrocyclone technology

Our heavy duty Cavex® CVXT hydrocyclone is fabricated from mild steel with over 92% alumina wear resistant tiles or a range of highly wear resistant alloys. The ceramic tiles are bonded to a prepared substrate by a two-part epoxy adhesive for maximum strength.

Available in a large range of sizes to process any feed tonnage requirement. All components are designed for ease of maintenance and operation.

### It's all by design: The Cavex® hydrocyclone shape

Cavex® CVXT tile lined hydrocyclones feature a unique laminar spiral inlet geometry designed to deliver sharper separation, maximum capacity, and a longer wear life than conventional involute or tangential feed inlet designs. Our innovative design provides a natural flow path into the cyclone body, allowing the feed stream to blend smoothly with the rotating slurry inside the chamber.

The result is greatly reduced turbulence through the whole cyclone, dramatically improving separation efficiency.

### Available sizes

250mm, 400mm, 500mm, 650mm, 800mm, 1000mm, 1150mm, 1300mm and 1450mm.

### Inlets sizes

Accommodating a wide top size at specified medium to ore ratios, inlet sizes range from 0.2 - 0.33 as a function of hydrocyclone diameter.

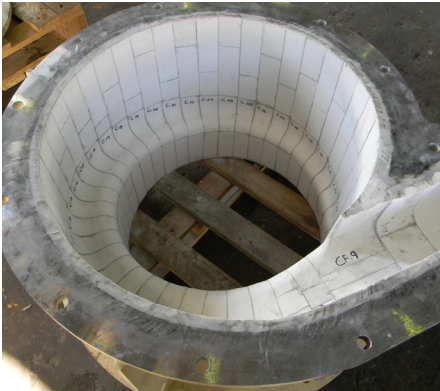
### Vortex finder sizes

To maintain separation efficiency at different operating yields and spigot sizes, we offer a wide range of vortex finder sizes ranging from 0.4 to 0.5, designed to maintain a strong air-core at different spigot sizes.

### Wider spigot size range

Up to five spigot sizes per hydrocyclone. Spigot sizes range from normal to extra high capacity to accommodate low yield ores.

Spigots can be manufactured in different materials to prolong hydrocyclone life and efficiency.



Above: Feed chamber of a Cavex® CVXT 500 hydrocyclone fitted with >92% alumina ceramic tiles which are slip cast moulded

### Extended barrel

Our Cavex® CVXT hydrocyclones can be fitted with an extended barrel which maximises efficiency by increasing the residence time in the hydrocyclone, especially for ores with a high content of near density materials.

### Overflow configurations

Our Cavex® CVXT hydrocyclones have different overflow configuration options to suit your operational needs. Overflow configurations available include:

- Overflow bend - 90 degree standard bend can be modified as required
- Extended overflow pipe - customised to suit specific application
- Wide range of construction materials
- >92% alumina tiled hydrocyclones
- Silicon carbide for high resistance components

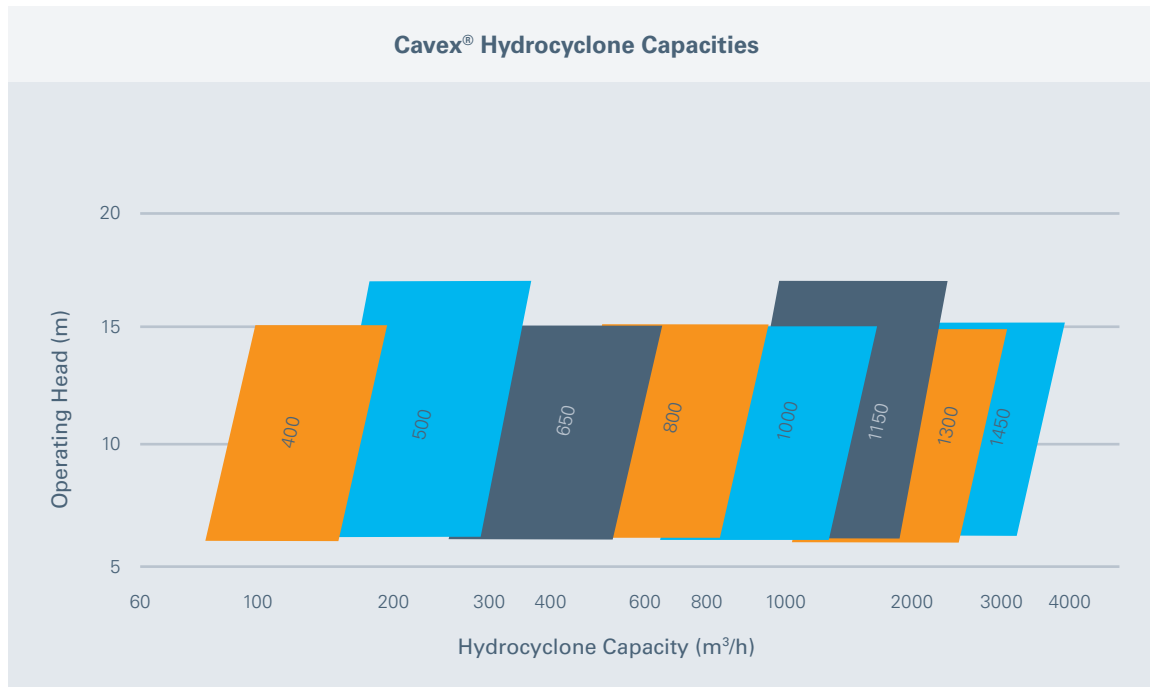
### Complete customisation for optimal performance

Our Cavex® hydrocyclones are backed by our vast Weir Minerals Services™ network. This means our experts are there to support you, every step of the way, wherever you may be.

Our expert team will work with you to improve your throughput and cut rates. And we are on hand to design clusters and systems to ensure your plant reliably operates at peak capacity. We can design hydrocyclone clusters that retrofit into existing spaces to maximise production, and address operational and maintenance issues.

### Lower total cost of ownership

We are committed to developing advanced products that lower your total cost of ownership. This includes developing hydrocyclones with superior performance, as well as components that offer lower wear rates. We achieve this by using an optimal combination of materials in different parts of our Cavex® hydrocyclones with different wear rates.



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