



MULTOTEC

Cast Iron Dense Medium Cyclones



Your Specialist in Process Equipment



Multotec High Chrome Cast Iron Cyclones

The cast iron range of dense medium cyclones from Multotec provides guaranteed separation efficiencies and maximum wear life. Using state of the art simulation programmes coupled with experience obtained in treating a diverse range of minerals, a highly qualified team of Process Engineers will recommend the correct size and configuration of cast iron cyclone to maximise the separation efficiency for any given dense medium application.

These cyclones are cast in 27 % High Chrome cast iron which provides excellent wear resistance and far outperforms Ni-Hard castings and other cast irons.

The design features and advantages that contribute towards the cost effective operation and high performance of these 27 % high chrome cast iron cyclones are discussed below in more detail. Alternative material alloys are also available for special applications.

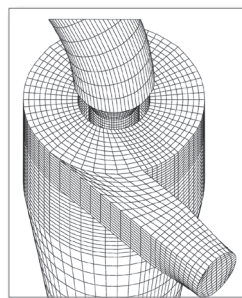
The Multotec Scrolled Evolute Inlet Design

Advantages:

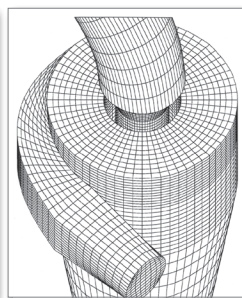
- Maximum efficiency of separation
- Cost effective
- Superiority of design confirmed by Computational Fluid Dynamic Analysis
- Field tested
- Higher capacities than other inlet configurations
- Minimised turbulence
- Reduction in wear rates – especially on the vortex finder
- Overall operating costs are reduced

Applications:

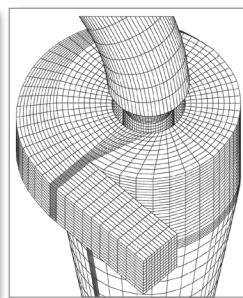
- Coal
- Diamonds
- Iron Ore
- Chrome
- Andalusite
- Flourspar
- Base minerals
- Manganese
- Phosphate
- Tin
- Lithium



Tangential Design

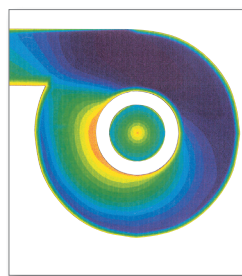


Involute Design

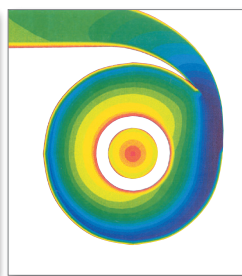


Scrolled Evolute Design

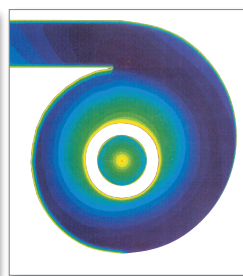
Tangential Velocity Distributions



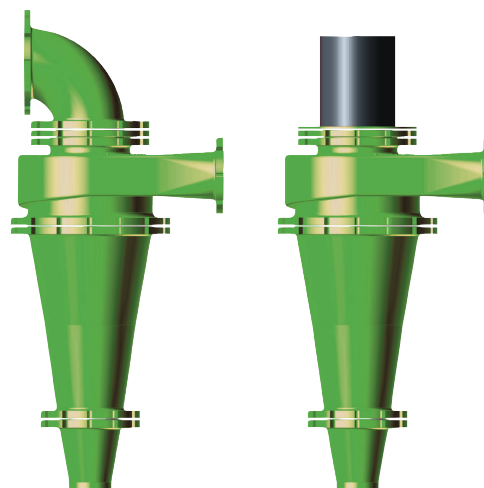
Tangential



Involute

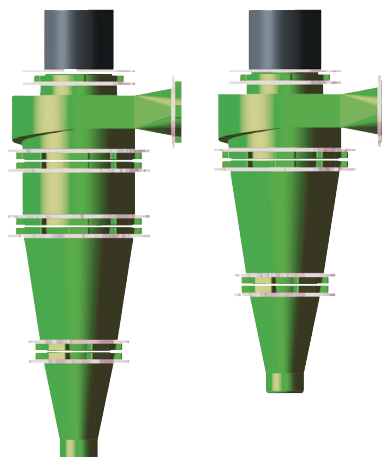


Scrolled Evolute



Overflow Discharge

- Overflow elbow or vortex extension
- Vortex extensions are cheaper, easier to maintain and simplify inspection



Extended Barrel Section

- Increases residence time and efficiency of separation
- Ideal for feed solids that contain high percentages of fine or near density material



Parallel Throat Spigots

- Help preserve spigot size for longer
- Cyclone cut density is, therefore, maintained more consistently

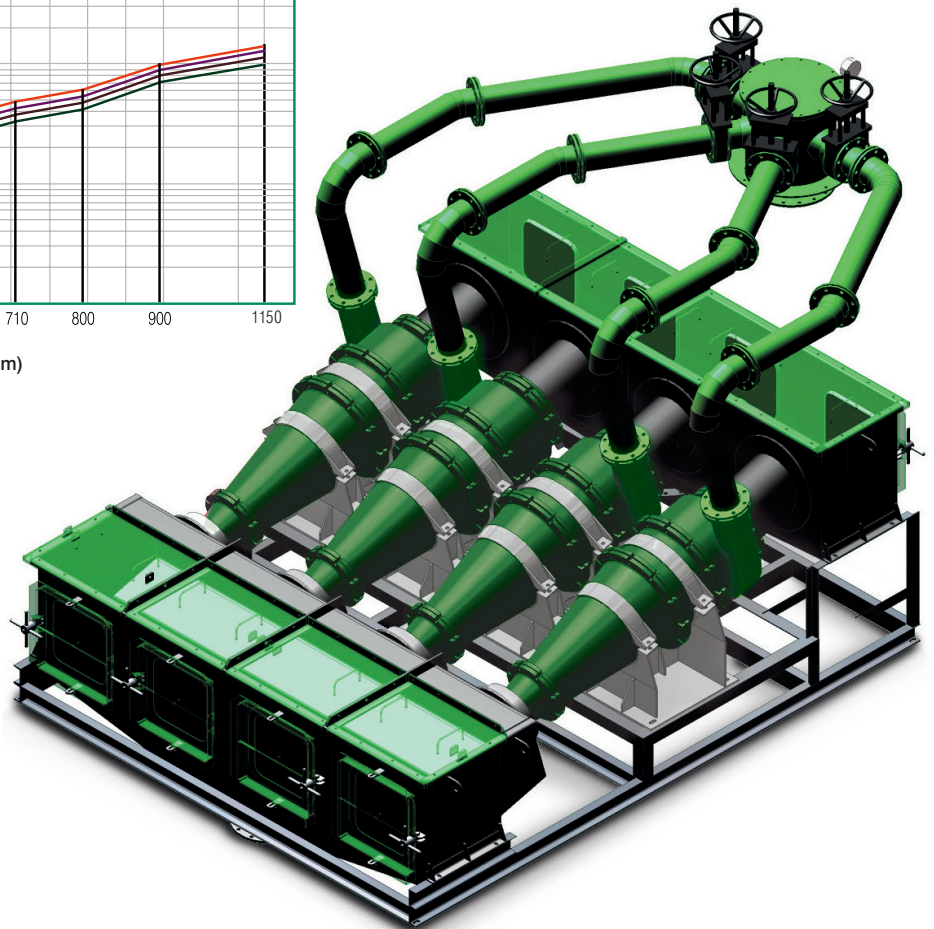
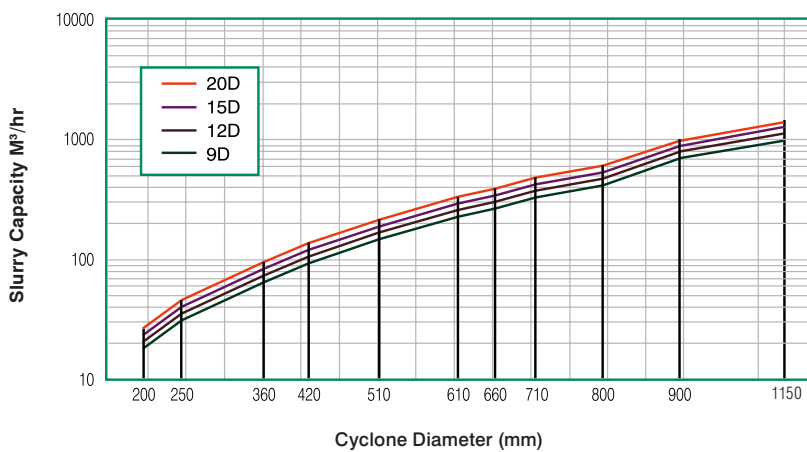
Oversize Spigots

- Worn spigots can be replaced with oversize spigots
- Larger diameter allows for it to be fitted to worn cone without creating an inward step

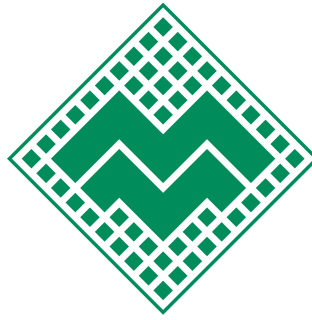
Monocone Spigots

- No groove or inward step
- Improved product life
- Maintains process efficiency through the life of the cyclone
- Improved cyclone efficiency due to smooth profile

Cast Iron Cyclones Capacities



Maximum separation efficiency, low running costs, innovative designs and technology



MULTOTEC



www.multotec.com

Please visit our website for contact details of all our global locations.

Screening Solutions	Mineral Processing Equipment	Sampling Solutions
Wear Lining Solutions	Mill and Scrubber Linings	Solid / Liquid Separation Solutions
Conveyor System Solutions	Pumps	