GENERAL FEATURES

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

Key features

- Maximum efficiency of separation, cost-effective, superiority of design confirmed by Computational Fluid Dynamic Analysis, field-tested, higher capacities than other inlet configurations, minimum turbulence reduction in wear rates, especially on the vortex finder, and overall lower operating costs
THE MAX RANGE OF CYCLONES
MAX DENSE MEDIUM CYCLONES

Multotec has developed the MAX range of cyclones, the ultimate in alumina tiled cyclone engineering design. Computational Fluid Dynamic Analysis, 3D computer-aided design and extensive field experience were combined to produce the MAX cyclone design.

These cyclones couple the highly efficient Multotec scrolled evolute inlet design with an engineered tile wear surface, thus ensuring MAXimum efficiency of separation and MAXimum wear life.

MAX Dense Medium Cyclones

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

DESIGN OPTIONS

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

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

27% Chrome Cast Iron Cones
- Used for applications where large tramp metal may be fed into the cyclone

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

Parallel Throat Spigots
- Help preserve spigot size for longer
- Cyclone cut density is, therefore, maintained more consistently
Engineered Tiles

The use of standard pressed tiles, which are hand cut, results in gaps between the tiles. The epoxies used to bond the tiles wear more rapidly than the alumina tiles. As wear progresses, the tile surface becomes increasingly uneven, resulting in accelerated wear.

Each tile is specifically designed for its place in the complete tile kit, ensuring a very tight fit with a minimum of space at the joints. Tile widths are selected to provide a smooth internal surface. The end result is a long lasting wear surface.

Engineered tiles are pressed with chamfered sides and then cut precisely, whilst in the green state, to the required shape. This ensures that gaps between the tiles are minimised.

The final product - a Scrolled Evolute cyclone with a premium quality, precision engineered, alumina tile wear surface.

Standard Tiles

Tangential Design

Involute Design

Scrolled Evolute Design

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
MAX DENSE MEDIUM CYCLONES

**MAX Capacities - ‘A’ Vortex Finder**

- A Inlet 12D
- A Inlet 9D
- AB Inlet 12D
- B Inlet 9D
- B Inlet 12D
- B Inlet 9D

**MAX Capacities - ‘XA’ Vortex Finder**

- A Inlet 12D
- A Inlet 9D
- AB Inlet 12D
- B Inlet 9D
- B Inlet 12D
- B Inlet 9D