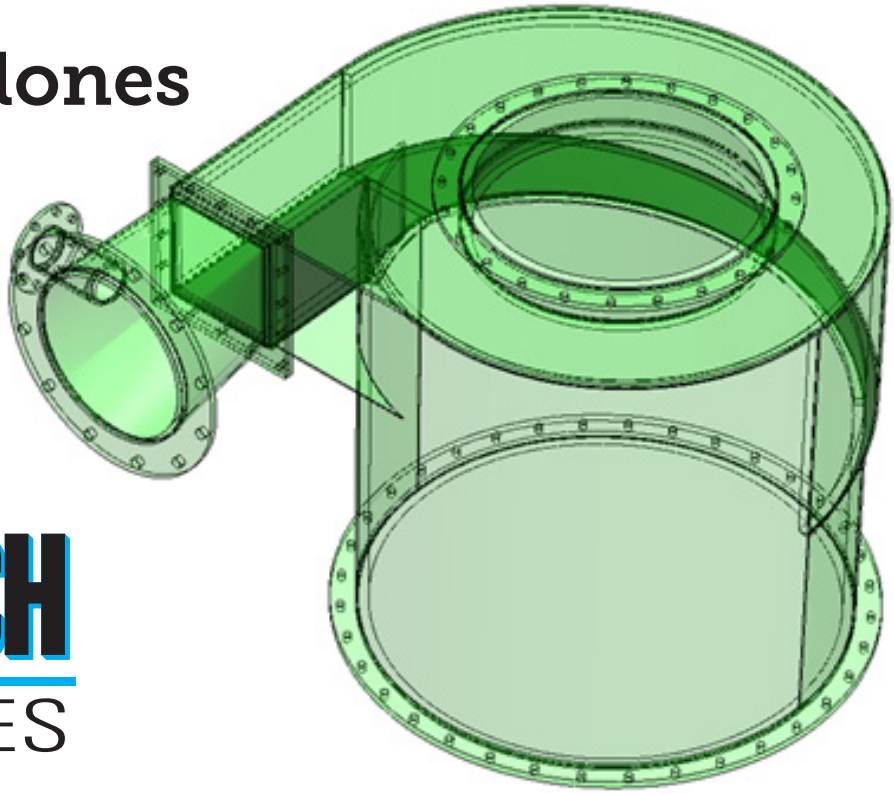
Scrolled Evolute Inlet

HMA WEAR SOLUTIONS

GTech Cyclones Inlet Head



GTECH CYCLONES

There are two main types of inlet heads that are widely used, Tangential and Scrolled Evolute. The Tangential inlet dates back to 1939 when the Dutch States Mine (DSM) started investigating the use of cyclones for cleaning coal. The Scrolled Evolute is a more recent development and has been found to offer several key advantages over the tangential Inlet.

ADVANTAGES

1. The Scrolled Evolute ensures the particles follow their natural downward spiral motion as a result of the scroll. The Tangential inlet is known to have an area of high wear just below the inlet point of the cyclone. This is due to the turbulence that is created at this point due to the interaction of two streams. Subsequently the Scrolled Evolute offers reduced turbulence and increased wear life.
2. Due to lower turbulence, and subsequent lower pressure drop across the inlet, the Scrolled Evolute has a higher capacity than the Tangential inlet.
3. The Scrolled Evolute allows the particles to align themselves before being subjected to the centrifugal forces within the cyclone. This results in improved separation efficiency for both Classification and Dense Medium cyclones.
4. The combination of the scroll and reduced turbulence means that the feed does not directly impact the outside of the vortex finder. This increases the life of the vortex finder to match that of the cyclone, and also maintains cyclone performance for longer.

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