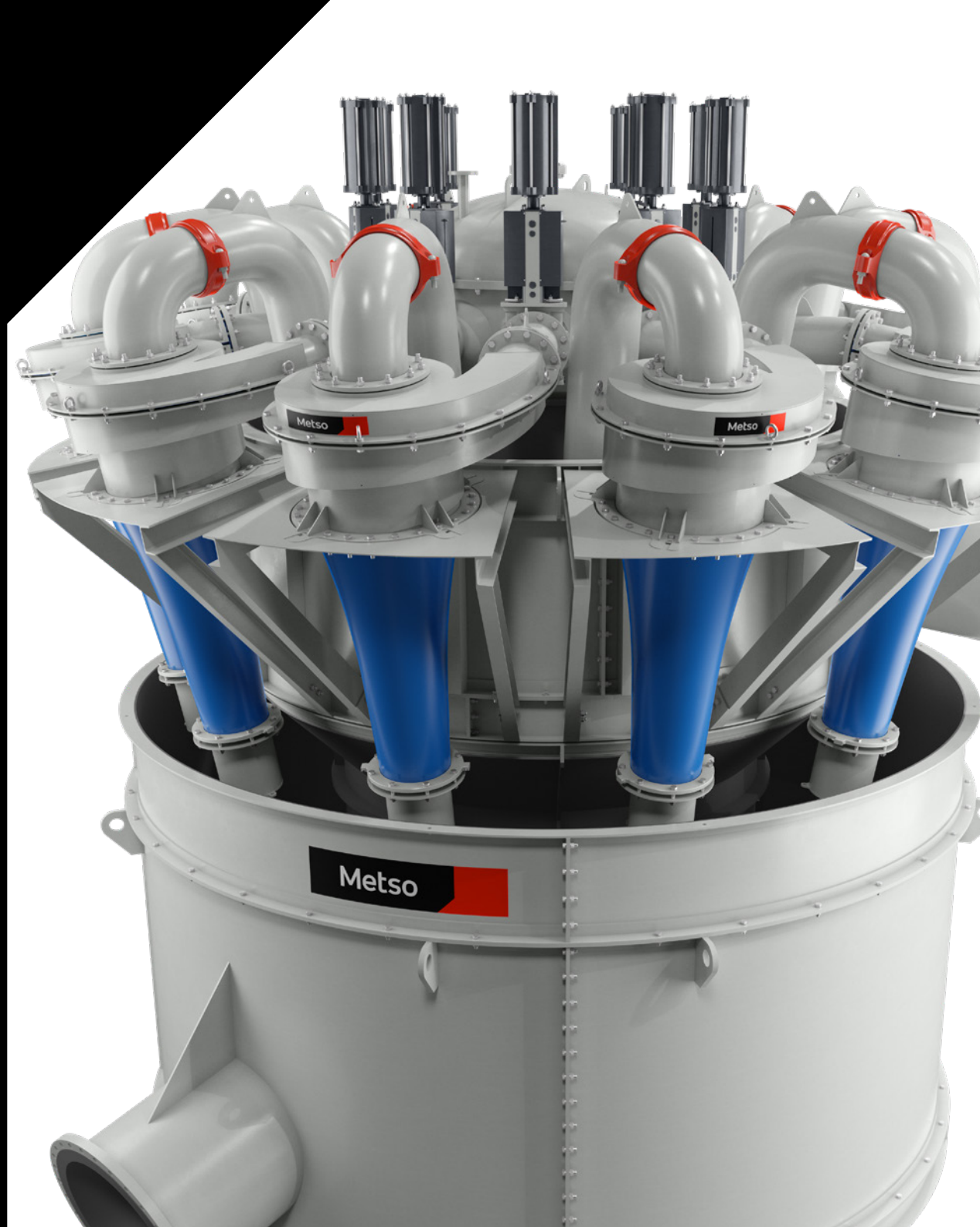
Metso

MHC™ Series Hydrocyclone

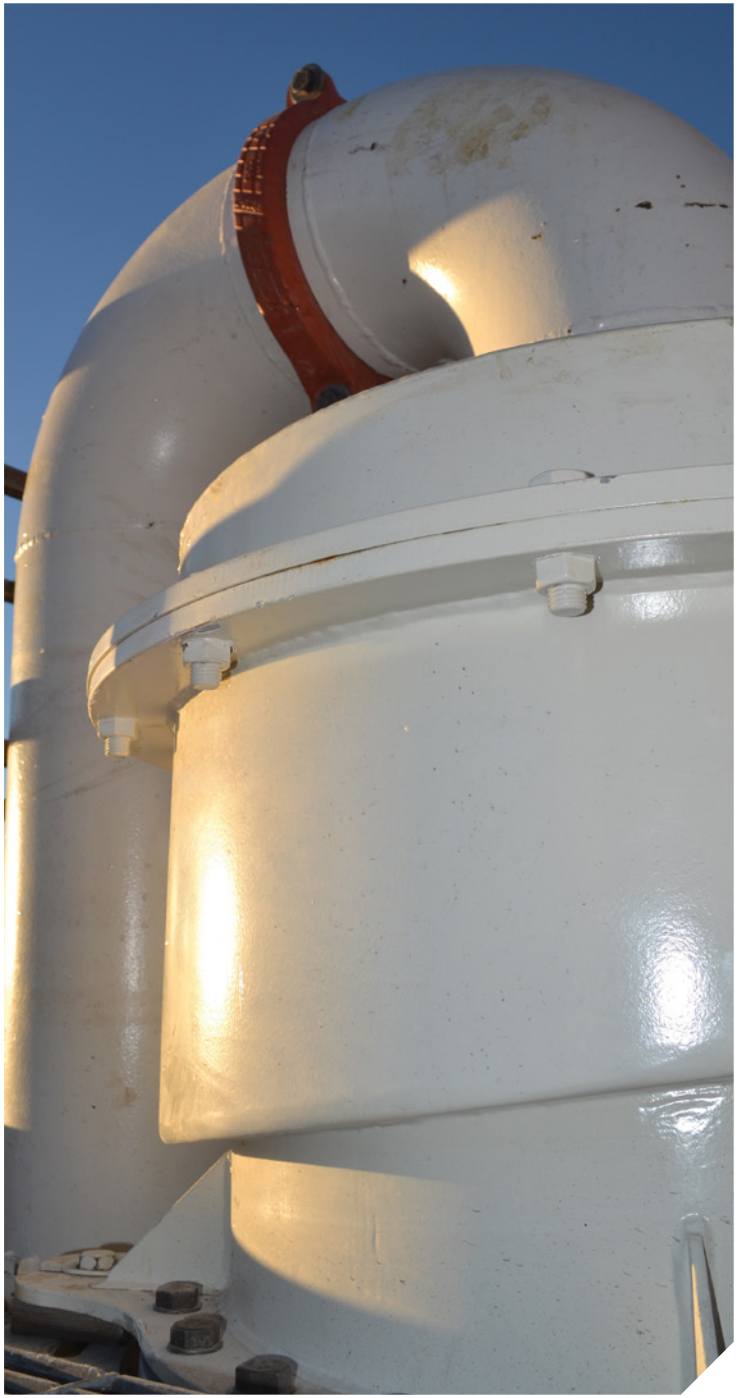
Exceptional efficiency for optimized performance



Optimized process performance and uptime with MHC™ hydrocyclones

Designed to improve complete classification package, the Metso's MHC™ Series hydrocyclone responds to diverse needs, balancing grinding circuit cost and plant performance.

- High unit capacity
- Increased uptime
- Exceptional separation efficiency
- Superior wear life
- Low OPEX
- Improved ease of maintenance

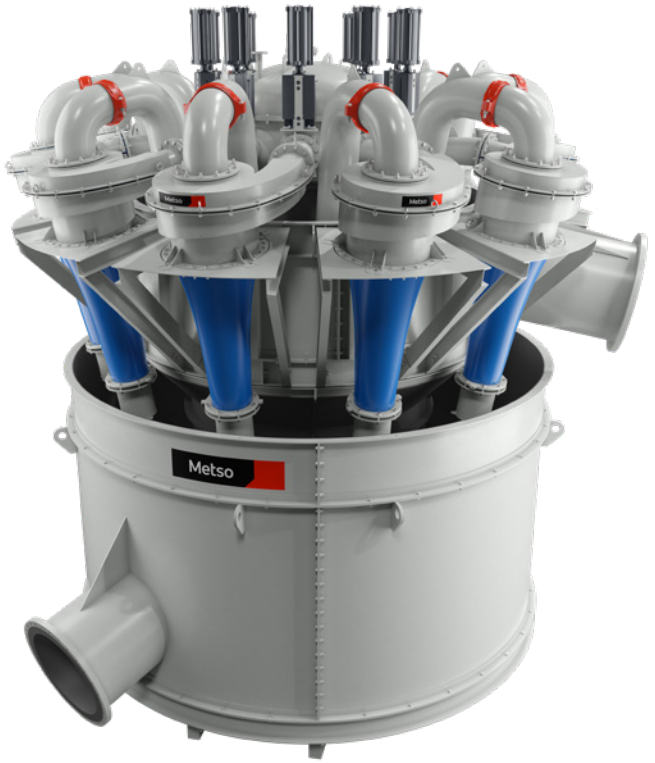


MHC™ hydrocyclones

Cutting edge solution enriching Metso's classification capabilities

The story of innovation and efficiency continues throughout Metso's beneficiation solutions. Our world-class wet fine classification technologies help to increase efficiency, capacity and profitability in customer operations.

The MHC™ Series provides a cutting-edge solution for a wide range of classification duties ranging from primary grinding to fine regrinding applications. The superior manifold design delivers increased unit capacity while minimizing liner wear, bringing improved efficiency and profitability.



Broad product line offering

The MHC™ Series has seven different hydrocyclone sizes available, ranging from 100 to 800 mm in diameter. Each size has a range of vortex finder and apex inserts to fine tune classification performance.

Diverse applications:

- Grinding circuit classification
- Ranges from primary to fine grinding
- Full range of mineral types
- Dewatering and desliming

Why choose Metso MHC™ hydrocyclone?

Equipped with world-class technology and several innovative features, the range offers significant product advantages.

Inlet head design for increased capacity

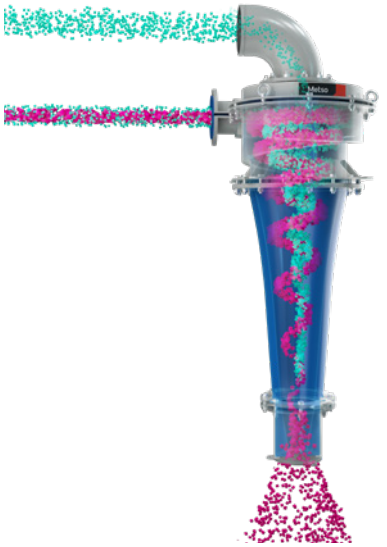
- Developed in coordination with Metso's simulation and modeling scientists using the latest CFD-DEM software
- Inlet head to promote smooth flow of material into the hydrocyclone, minimizing turbulence
- Increased unit capacity and reduced liner wear
- Rigorously tested in laboratory & field

Manifold design for accurate distribution

- Radial manifolds to accurately distribute the feed and collect the underflow & overflow from multiple hydrocyclones operating in parallel
- Wear-resistant linings are incorporated into the feed distributor, as well as the overflow & underflow launders
- Special attention paid toward safe access for monitoring, sampling and maintaining the hydrocyclones & manifold components

Single component conical section

- Single component conical section providing ease of maintenance and lower costs
- Unique conical geometry providing a smooth acceleration of particles to promote a sharp particle separation at a low cost
- Quick, safe and easy liner change out due to the simple design and limited number of parts
- Optional ceramic options for conical section and apex liner for increased liner life



The MHC™ Series design represents the next generation of hydrocyclones

Proven results from extensive pilot testing, supported by over 50 and continuously increasing reference installations.

Established success in applications across copper, gold, iron ore, and mineral sands, as well as in processes like grinding classification, dewatering, and tailings management.

Metso MHC™ hydrocyclone testing was performed at the pilot scale and at a copper concentrator in southwestern US.

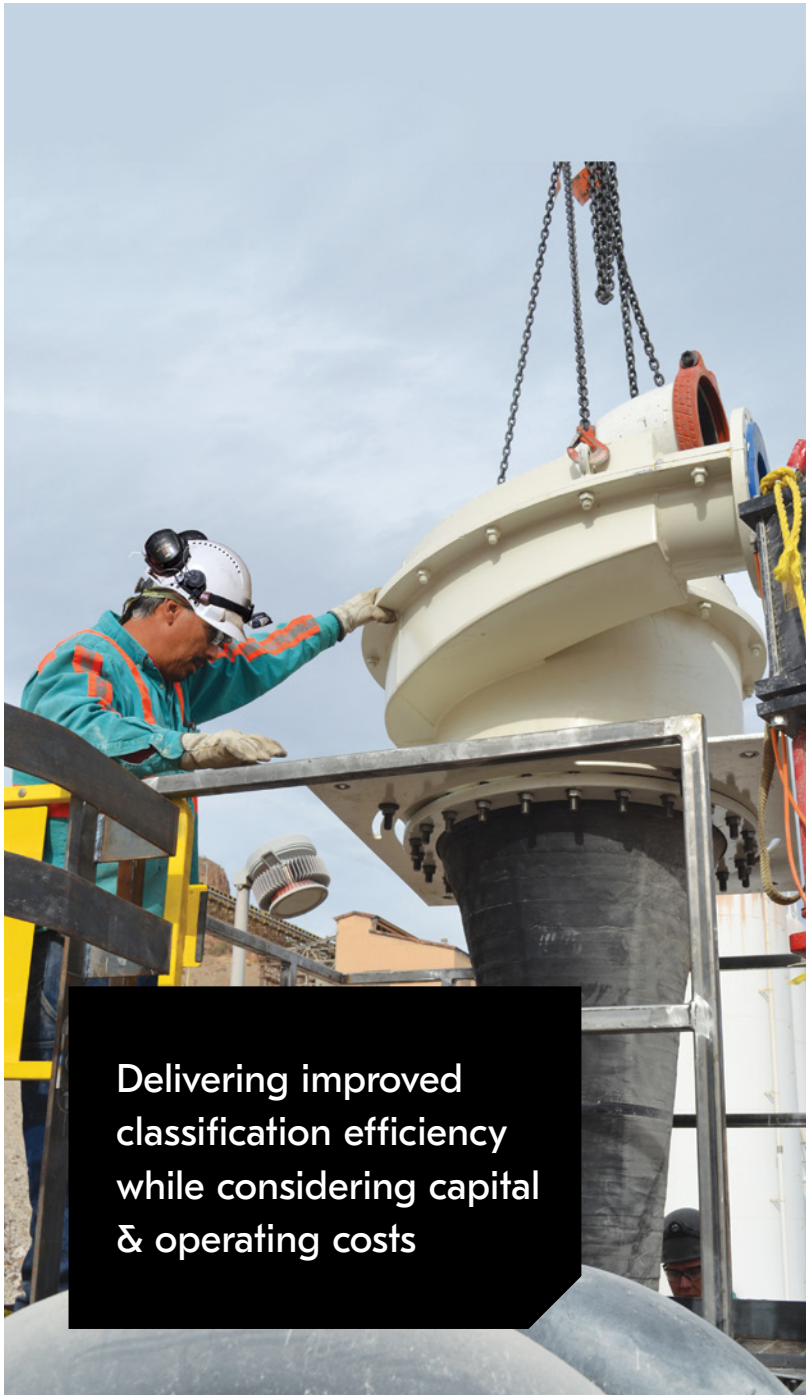
Solution

A Metso MHC-650 (650 mm diameter) was installed in the grinding circuit for wear component prototyping and continued process data collection.

Result

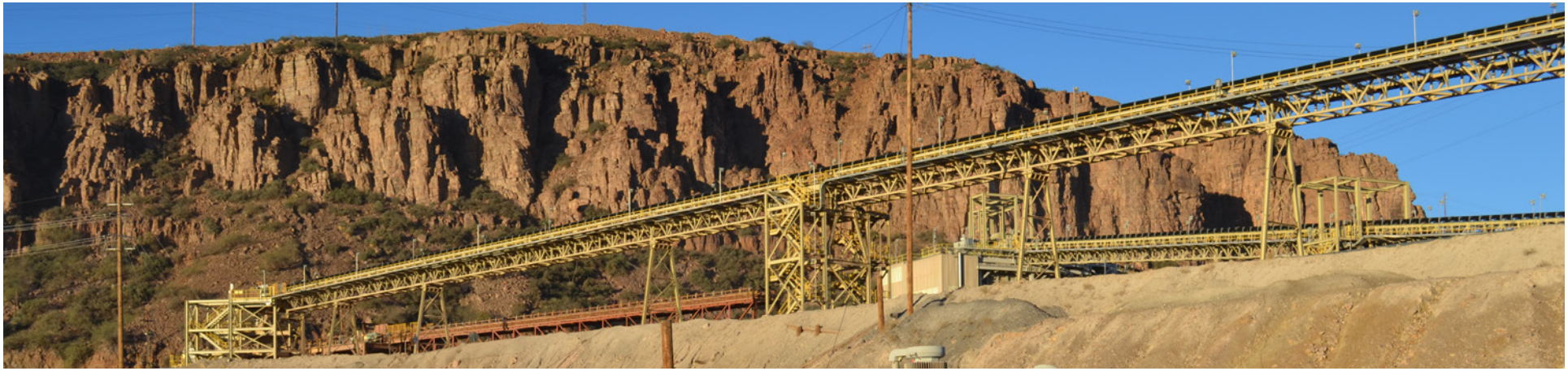
Based on extensive test program the MHC™ Series offer significant advantages over previously available technologies.

- Industry leading with an increased flow rate for a given pressure drop.
- Wear components within the individual units are optimized to promote even wear life throughout the entire assembly.
- Increased overall wear life and consistent performance throughout the hydrocyclone lifecycle.



MHC™ Series hydrocyclone technical specifications

Model	Body diameter (mm)	Height (mm)	Weight (kg)	Material	Inlet pipe size (inches)	Overflow pipe size (inches)
MHC™100	100	876	8	All Polyurethane	2	2
MHC™150	150	1 064	18.5	All Polyurethane	3	3
MHC™250	250	1 491	125	Steel housing with polyurethane	4	5
MHC™375	375	1 708	210	Steel housing with polyurethane	6	8
MHC™500	500	2 001	375	Steel housing with polyurethane	8	10
MHC™650	650	2 441.3	800	Steel housing with polyurethane	10	14
MHC™800	800	2 943.3	1 225	Steel housing with polyurethane	12	18



The next generation hydrocyclone

Designed to improve complete classification package, MHC™ Series hydrocyclone responds to diverse needs, balancing grinding circuit cost and plant performance.

Metso is a frontrunner in providing sustainable technologies, end-to-end solutions and services for the aggregates, minerals processing and metals refining industries globally. By helping our customers increase their productivity, improve their energy and water efficiency and environmental performance with our process and product expertise, we are the **partner for positive change.**

Metso

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