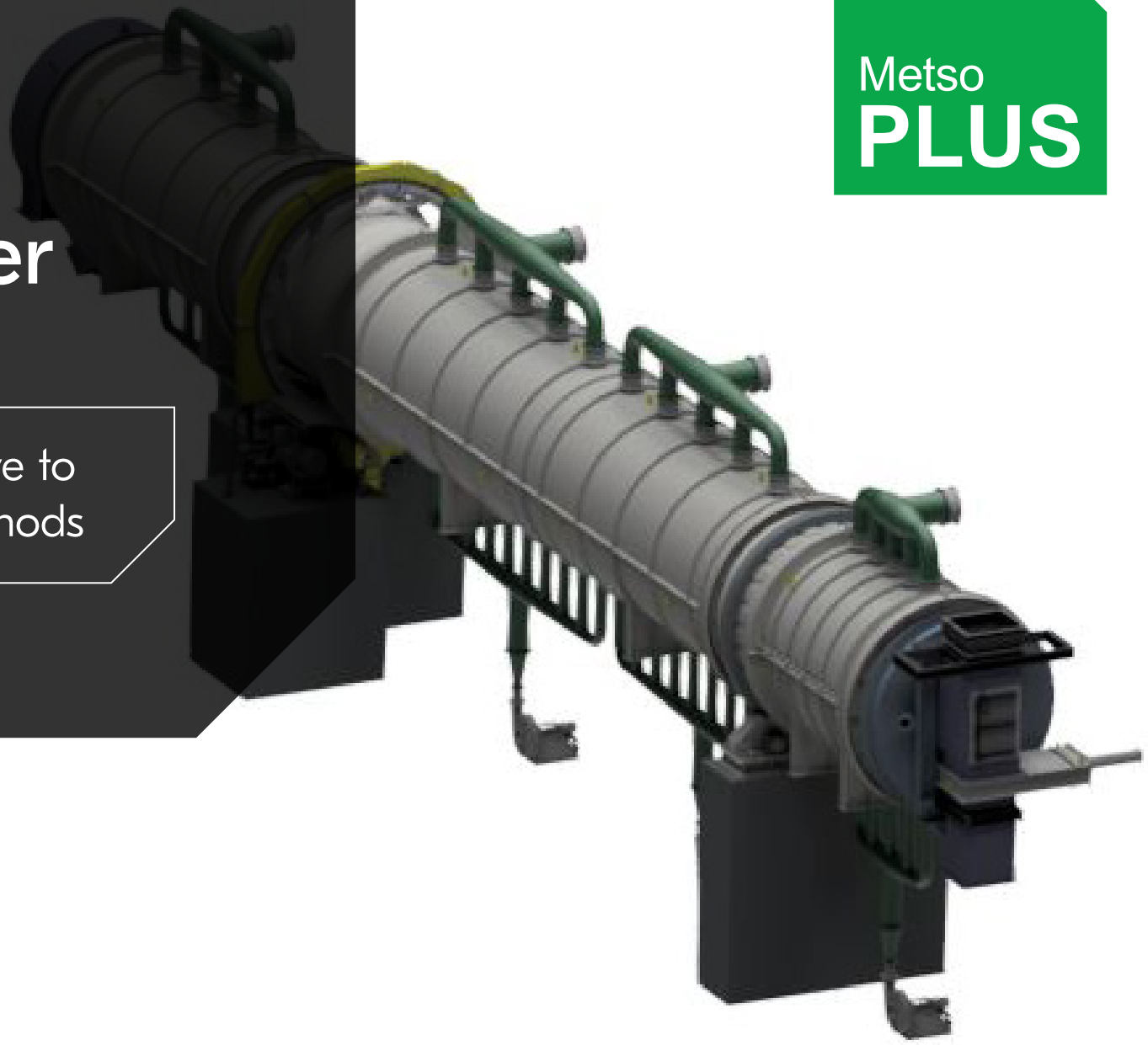
Metso

Cross Flow Rotary Cooler

A sustainable alternative to traditional cooling methods

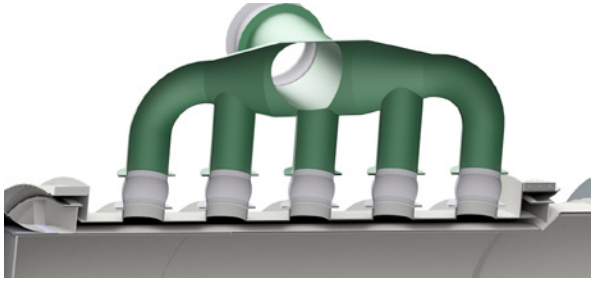


Metso PLUS

Cross Flow Rotary Cooler

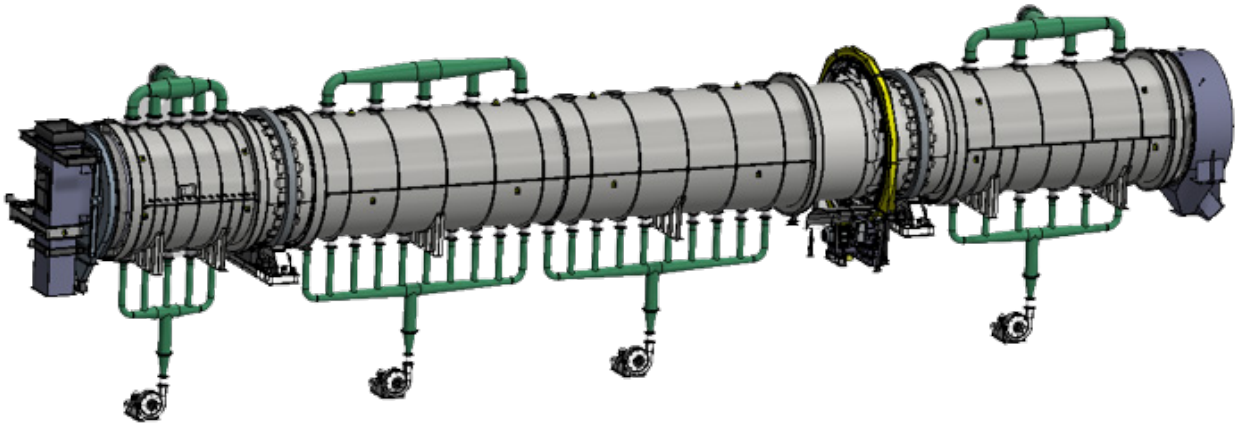
Metso's Cross Flow Rotary Cooler is an innovative solution designed specifically to decrease water consumption and improve energy-efficiency in pyro processing plants. It boasts of a simplified cooler shroud design that reduces overall plant water consumption and is suitable for special applications such as oxidation, fouling or scaling.

It utilizes the indirect heat exchange principle, where heat is transferred into a secondary air stream. The recovered heat can be used in other plant processes and thus, decrease the carbon footprint and enhance sustainability of process plants.



Customer benefits

- Savings in water consumption and capex for water cooling circuit
- Heat recovery and improved plant energy balance
- Hybrid design, allowing for improved temperature control at both nominal and design cases
- 35% lighter shrouds than waterfilm shrouds



Decreasing capex, opex and water consumption

By using an airfilm cooling shroud - which is ~35% lighter than regular water-cooling shrouds - equipment capex and site structural costs become significantly reduced.

Since the cooler design has such flexibility, this enables the Metso Cross Flow Rotary Cooler to perform well with varied applications. Hybrid designs, which incorporate the use of spray water, can also be easily accommodated depending on application and customer preferences.

The benefits continue, as Metso Superdeal Leaf Seals greatly improve the sealing, and the centrifugal blowers have a cooling air rate that is varied by fan motor VFD.

Possible applications for the cross-flow rotary cooler:

- Lithium production
- Rare earth metals
- Battery metals
- Fines processing
- Carbon-based materials

Sustainable technology for a greener future

The global market has identified decarbonization of both industry and society as an essential focus area. There is a tremendous rising demand for electric vehicles, energy storage systems and more. At Metso, we are developing greener technologies with lower carbon footprint to efficiently produce high-grade materials for these technologies and emerging feedstocks.

To process these materials, there are several different process routes available or under development. The selection of the process route and main equipment determines not only the initial investment cost, but also the operational cost and product yields. Metso's cooling technologies are designed to lower plant-wide operational costs to increase the competitiveness of our customers' plants.

1200+ rotary kiln installations

Metso R&D Centre supports optimum process design and equipment layout

120+ years of experience and process know-how

Experience applying kiln technology to various materials: Coke, Lithium, and more

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.**

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