How it Works

- Hot material enters the top of the Bulk Material Heat Exchanger

- Material flows in between plates filled with water or other heat transfer fluid

- When material touches cooled plates the heat is dissipated through conduction

- Cooling fluid moves counter-current to material, ensuring even cooling

- Vibrations can be added to the bottom of the cooling tower to help sluggish materials move in a plug flow

- After slowly moving through the heat transfer plates, cooled material is discharged at bottom outlet for storage or further processing

- A rotary valve installed at the outlet controls the vertical product flow rate

Contact us about our test unit available in Carrier’s state-of-the-art Louisville test lab
Indirect Cooling

The product is cooled when it moves across plates with water or other heat transfer fluids flowing internally through them. The product touching these plates cool by conduction, and since there is no direct contact between material and cooling fluid there is no risk of contamination or need for dust collection or scrubbers.

Low Emissions

Since moving air is not used in the cooling process, there is no issue with emissions or dust, making it perfect for locations or materials with strict emission regulations.

High Material Quality

The material moves slowly in a plug flow through the cooler, reducing product degradation and preventing abrasion of the equipment. The closed environment in the cooler means it can be operated consistently through different external conditions.

Small Footprint

Designed to move the product vertically, the BMHX has a small footprint compared to other cooling technologies. This allows it to fit into existing plants with minimal retrofiting and makes it flexible to current operational requirements.

Low Operating Cost

Operating without moving parts and few ancillary components means the Carrier BMHX is low maintenance and easy to keep operating efficiently. The cooler is designed for easy cleaning and part replacement, reducing downtime and expenses.

Energy Efficient

The Carrier BMXH uses gravity to move the material being processed and does not rely on large amounts of process air. Instead, the equipment uses passive cooling through conduction, resulting in minimal energy use compared to other methods.
Since 1950, Carrier Vibrating Equipment has been designing and manufacturing custom foundry equipment, with our equipment trusted in production lines around the world.

We know the unique issues facing the foundry industry, and our engineers are experienced in solving those issues. Our R&D department is constantly finding new ways to increase your casting quality and efficiency.

We can help at every point of your foundry line.

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