



White Paper

Advances in Stirred Milling: Improving Profitability of Copper Ore Processing

Edited by on 13. Feb. 2024

[Published in bulk solids handling, Vol. 31 \(2011\) No. 3](#)

The vertical stirred media mill is a proven technology that offers considerable savings in media and energy operating costs that will lower the cost of producing copper significantly. Also, the environmental impact of a copper concentrator is significantly decreased.

Vertical stirred media mills are recognized as energy-efficient grinding machines, but reduced media consumption, lower installation costs, minimal maintenance, and minimal liner wear make the Metso Vertimill solution the lowest total cost of ownership in many applications, substantially improving the profitability of copper concentrators.

The systems has become wide spread in regrind applications, but they have been slow to be adopted in coarser applications. The mill has been proven to grind more efficiently than ball mills even with feeds as coarse as 6 mm.

Much of the hesitation to advance these mills in primary and secondary grinding is the requirement for large quantities of systems to perform the same task as a single ball. While there are still cost advantages with multiple mills of that type compared to a single ball mill, the newly developed 2240 kW) Vertimill lowers the total cost of ownership even further.