

WALKERWALKER MAGNETICS GROUP
O.S. WALKER**TURBO-MILL™ Magnetic Milling Chucks****POWERFUL MAGNETIC CLAMPING PASSES THE TEST FOR TOOL STEEL PRODUCER**

Customer Name: Bohler-Uddeholm
Location: Mississauga, Ontario
Application: Face Milling
 Edge Milling
Material: Bohler-Uddeholm Specialty Steels
Challenges: Mill finish top and bottom > 2.5" thickness
 Metal removal rate @ 2-2.5 mil per pass
 Flatness: .004" per foot
 Parallel: .002" TIR
 Square: +/- .001"



Bohler-Uddeholm is the world's largest producer of high performance tool steels, with a long history of supplying tooling materials for metal forming and plastics applications. The company is well known for its high tolerance face and edge milling of various tool steels, with chamfering and radiusing capabilities of its bars and plates, that offer users superior surface finish, tighter tolerances and exceptional repeatability from piece to piece.

To keep up with global customer demands, Bohler-Uddeholm expanded its machining capabilities at the company's Mississauga, Ont., Canada operation. Three new units were added to its impressive array of grinding and vertical milling machines already in use at the facility: a Toshiba VMC 85 with a 24" x 33" x 96" table to handle up to 11,000-lbs. work pieces; a Kekeisen 33" x 51" mill; and, a Heckert CWK 800 for edges and ends that can accommodate work pieces up to 2,700-lbs. with surface dimensions of 12.5" – 27.5" x 17"- 35.5".

Each of the new machines was delivered with a Walker Turbo-Mill™ MMC magnetic milling chuck, that provides powerful workpiece clamping for profiling, face milling, edge milling, plunge milling, slotting, and drilling. These unique chucks eliminate the use of traditional clamping methods in CNC machining centers, including tombstone applications.



Powerful workholding and easy workpiece removal is achieved with the Turbo-Mill chuck at the touch of a button. Its superior magnetic workholding ability is ideal for a variety of vertical or horizontal machining applications. The chucks feature electronically activated permanent holding, and can be disconnected from their power supply for use in off-machine pallet loading applications.

"We specifically asked for Walker," says Don Behm, Bohler-Uddeholm's plant manager. "We had enormous trust and faith in their product's capability versus any of the competitive products out there today," he explained.

To prove the Turbo-Mill MMC chuck's ability, however, Behm put it to the test. In a typical application Bohler-Uddeholm removes 2.0 to 2.5 mil of material per pass. To qualify the holding power of the Turbo-Mill, a 20" x 30" piece of Ramax (420 s\`s) steel was set up on the Kekeisen and an eight millimeter depth of cut was made. "Despite the incredible forces applied during that process, the material did not move at all," states Behm.

The Walker Turbo-Mill includes drilled and tapped holes in the magnetic face that are used for quick and easy positioning of riser blocks. Standard 0.75" riser blocks allow workpieces to be located above the magnetic chuck to accommodate through machining operations without risk of damage to the magnetic surface of the chuck.

The holding power of the Turbo-Mill with a 3.0" riser block customized for Bohler-Uddeholm – nearly four-times the work height in a standard milling application – was not only successfully demonstrated, but the exceptional tolerance of the finished test piece was substantiated.

WALKER**WALKER MAGNETICS GROUP**

Walker Magnetics Group
 World Headquarters
 Worcester, MA 01606 USA
 (800) 962.4638 • (508) 853.3232
 www.walkermagnet.com

The Walker companies offer the widest range of magnetic products and systems than any other manufacturer in the world. As a global leader in the design, development and manufacture of magnetic technologies for industry and applied science, we can deliver a performance-engineered solution for your workholding, material handling and separation, lifting or conveying application. Whether it's a single standard magnet or a totally customized system, magnetic measurement and analysis or rebuild and repair, the one name best known for quality and innovation is Walker.



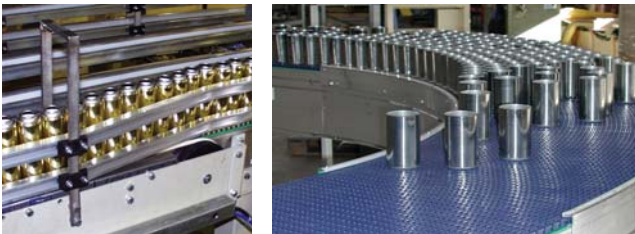
Walker electromagnetic and permanent chucks are used worldwide as cost-effective solutions for a variety of turning, milling, grinding, EDM and other machining operations.



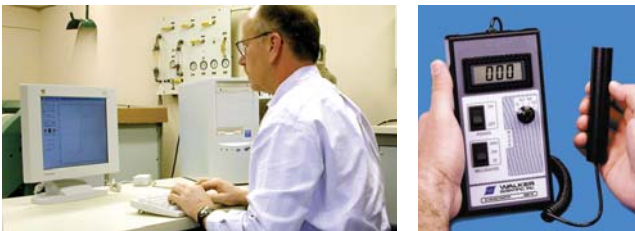
Walker lift magnets - with lifting capacities from 66 lbs. to 112,000 lbs. - are ideal for all types of material handling applications in manufacturing plants, shipyards, warehouses, and steel mills.



Walker all-welded and cast steel scrap handling magnets range in diameter from 26" to 100", and are widely used in the scrap metal industry. Designed for cool operation and maximum lift performance, these magnets are especially suitable for lifting operations from confined areas such as rail cars or trucks.



As a leading manufacturer of magnetic and non-magnetic conveying systems, Walker is used around the globe to significantly increase production rates in can making and processing. They reduce noise levels and damage to containers, providing uninterrupted transport of products from work area to work area, floor to floor.



Walker Scientific has a broad line of innovative instrumentation and measurement technologies to support magnetic research and the manufacturing market, making it the best single source for institutional and industrial applications.



The Walker companies provide complete service on all Walker products at any time, wherever products and systems are located. Innovative capabilities such as magnet repair and rebuilding or redesign, can meet and often exceed the original performance specifications.