

# Material Handling Equipment & Systems

Study # 1856  
November 2004  
\$4100

## US demand to rise 4.3% per annum through 2008

The market for material handling equipment and systems in the US will increase 4.3 percent per year through 2008 to \$20.4 billion, benefitting from an improving capital investment climate and expanding economic activity. Demand will be generated by technological innovations resulting in improved productivity and efficiency, increased safety and greater ease of operations, especially in such advanced/automated segments as material handling robots, automated guided vehicles (AGVs) and high-end services.

## Advanced equipment to grow the fastest

Through 2008, the advanced/automated segment will see healthy gains, outpacing conventional equipment with 4.8 percent annual gains to reach \$6 billion. Automated storage and retrieval systems will remain the largest advanced/automated category. However, several smaller product segments, such as material handling robots and software, will

Industrial Trucks & Lifts	36%
Conveying Equipment	26%
Automated Storage & Retrieval	13%
Other Advanced Systems & Parts	10%
Hoists, Cranes & Monorails	9%
Software & Services	6%

## Material Handling Demand (\$20.4 billion, 2008)

Material handling robots (below) and other advanced products will see the fastest growth through 2008.



photo courtesy of Hardface Alloys, Inc.

exhibit the most dynamic growth. Increasingly, material handling products will be computer-integrated into larger-scale factory automation and automated warehouse-type environments, where they will be linked to other aspects of the supply chain management process. Robots and software will play significant roles in this progression.

## Conventional equipment to remain dominant

Demand for conventional material handling equipment -- industrial trucks and lifts, conveying equipment, and hoists, cranes and monorails -- will reach

\$14.4 billion in 2008 on annual gains of 4.2 percent. Conventional equipment will continue to account for the vast majority of material handling systems demand, despite increasing automation in manufacturing and other markets. Industrial trucks and lifts will remain the largest category of conventional material handling equipment and will see the most rapid gains among the primary conventional segments.

## Durable goods manufacturing to remain top market

Durable goods manufacturing represented 35 percent of material handling equip-

ment demand in 2003. Growth over the forecast period will be above the industry average. Gains in durable goods markets will benefit from a greater use of advanced/automated material handling equipment to enhance worker safety, as well as increase productivity and efficiency, particularly as US manufacturers continue to face competition from low cost countries.

Nondurable goods manufacturing will also see above-average advances through 2008, led by healthy growth in the chemicals and food and beverages markets. Other industries -- such as construction, and trade and distribution -- are very mature and will see gains below the industry average.

## Study coverage

Details on these and other key findings are available in the 298-page Freedonia industry study, **Material Handling Equipment & Systems**, priced at \$4100. It provides historical US demand data (1993, 1998, 2003) plus forecasts to 2008 and 2013 by material handling product, service and market. The study also presents company market share data and profiles 39 US industry competitors.



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### Company Profiles also feature:

- Timely information on public/private companies
- Operations of pertinent division/sector/subsidiary
- Product lines, trade names, technical overviews
- Mergers/acquisitions, closures, expansion decisions

**TABLE VI-16**  
**FOOD & BEVERAGE MANUFACTURERS**  
**MATERIAL HANDLING DEMAND**  
 (million dollars)

Item	1993	1998	2003	2008	2013
Food & Beverage Shipments (bil \$ material handling/000\$ shpt					
Food & Beverage Mfrs MH Demar					
Conventional					
Advanced/Automated					
% food & beverage mfrs					
Nondurable Goods Material Handl					

Source: The Freedonia Group, Inc.

### ADVANCED/AUTOMATED SYSTEMS

#### Material Handling Robots

Demand for material handling robots has increased significantly over the past several years. Demand for material handling robots has increased significantly over the past several years. Demand for material handling robots has increased significantly over the past several years. Demand for material handling robots has increased significantly over the past several years. Demand for material handling robots has increased significantly over the past several years.

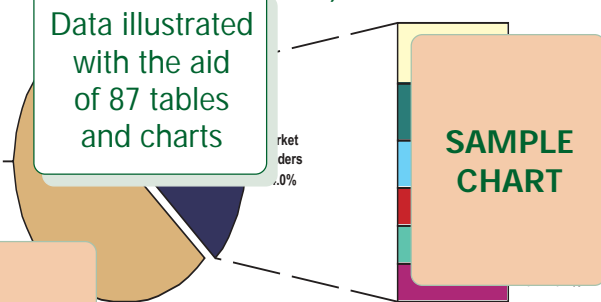
Explanations that support each table's data and forecasts

In the most basic terms, robots may be defined as programmable manipulators, able to physically move various items and make human-like motions. They are thus widely used in such industrial applications as welding, assembly and painting/coating. They are also highly suited to perform automated material handling functions, with material handling robots accounting for over a third of the total robotics market in any given year. Material handling robots are extremely versatile, able to perform such tasks as parts transfer, machine loading and unloading, palletizing/depalletizing and stacking/unstacking in order picking systems. Utilization tends to be optimized when interfaced with conventional handling or load unitization devices, and/or with other automated material handling systems.

Traditionally, most applications using material handling robots have been industrial in nature, with the automotive, industrial machinery and

**CHART VII-1**

**US MATERIAL HANDLING EQUIPMENT & SYSTEMS MARKET SHARE, 2003**  
 (billion)



Data illustrated with the aid of 87 tables and charts

SAMPLE CHART

### COMPANY PROFILE

**Richards-Wilcox**  
 600 South Lake  
 Aurora, IL 60505  
 630-897-6951  
<http://www.ricw.com>

Sales: \$1.2 billion  
 Employees: 1,000

Key Products: Conveyors, cranes, hoists, lifts, trucks, and other material handling equipment.

Richards-Wilcox is a leading manufacturer of material handling equipment and overhead conveyor systems. In February 2003, the company was purchased from its former parent, Dexion Corporation, by a company's management team for approximately \$1.2 billion. The company operates a 400,000-square-foot production facility in Aurora, Illinois.

For the material handling industry, the Company produces standard conveyor, and power and free conveyor systems. Among Richards-Wilcox's standard conveyors are ZIG-ZAG, SAFE-RAIL, PAINTLINE and I-BEAM types. The Company's ZIG-ZAG enclosed track chain conveyors, which have a capacity of 75 pounds per vertical load wheel, are designed to protect products from contamination that typically falls from open chain conveyors, as well as to shield the chain from abrasives, airborne dirt and solvents. Additionally, ZIG-ZAG conveyors, which have applications in carton and tote distribution, trash handling, progressive assembly, paint finishing systems, investment casting and other operations, can be upgraded to include all existing components. Richards-Wilcox's SAFE-RAIL conveyor system, developed for handling heavy-duty applications, features a load capacity of up to 10,000 pounds. This conveyor offers such benefits as easy installation, component compatibility with all of the Company's conveyor systems. SAFE-RAIL is designed for use in such applications as manual transport and assembly, synthetic fiber handling, light-duty bridge cranes, tire retread systems, tool support systems and batch paint systems.

Profiles for 39 US industry participants

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### World Packaging Machinery

Global demand for packaging machinery will accelerate through 2008 to US\$31 billion. Markets in China, India, Mexico and Argentina will exhibit some of the fastest gains. Labeling and coding machinery will continue leading gains based on more labeling regulations and shippers' need to track products. This study analyzes the global packaging machinery industry to 2008 and 2013 by product, application, world region and for 34 countries. It also evaluates company market share and profiles major producers.

#1874 ..... 12/2004 ..... \$5100

### Industrial Power Transmission Components

US demand for industrial power transmission equipment will grow 6.1% annually through 2008. Clutches and brakes, along with pulleys and sheaves, will lead gains. Rapid growth in construction and metalworking machinery will help make the industrial machinery segment the fastest growing major market. This study analyzes the \$2.8 billion US industrial power transmission component industry to 2008 and 2013 by product and market. It also presents company market share data and profiles leading competitors.

#1843 ..... 09/2004 ..... \$3900

### Nanotech Tools

The US market for nanotech tools will jump 30% annually through 2008. Microscopes and related tools dominate now but measurement, fabrication/production and simulation/modeling tools will grow the fastest. Electronics and life sciences markets will emerge first; industrial, construction, energy generation and other applications will arise later. This study analyzes the \$245 million US nanotech tools industry to 2008, 2013 and 2020 by product and market. It also evaluates market share and profiles major firms.

#1838 ..... 08/2004 ..... \$4200

### Industrial Rubber Products

US demand for industrial rubber products will grow 5.1% annually through 2008. Aftermarket opportunities will be found in the increased maintenance necessary for aging equipment, aircraft, vehicles and buildings. Industrial machinery will be the fastest growing market while motor vehicles remain the largest. This study analyzes the \$13.6 billion US industrial rubber product industry to 2008 and 2013 by type and market. It also presents company market share data and profiles leading industry competitors.

#1808 ..... 07/2004 ..... \$3900

### Sensors

US demand for sensors will grow 7.8% annually through 2008, driven by sales of more advanced types used in motor vehicles, consumer electronics and information technology. Products such as proximity and positioning sensors, complementary metal-oxide silicon (CMOS) imaging sensors, and MEMS-based speed sensors will lead gains. This study analyzes the \$9.5 billion US sensors industry to 2008 and 2013 by product and market. It also presents market share data and profiles industry competitors.

#1800 ..... 05/2004 ..... \$3900

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## TITLE

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