



[CLICK TO VIEW](#)

[Table of Contents 2](#)

[List of Tables & Charts 3](#)

[Study Overview 4](#)

[Sample Text, Table & Chart 5](#)

[Sample Profile, Table & Forecast 6](#)

[Order Form 7](#)

[About Freedonia, Custom Research, Related Studies, Corporate Use License 8](#)

Bearings

US Industry Study with Forecasts for 2013 & 2018

Study #2547 | September 2009 | \$4800 | 267 pages



This study was prepared with the special cooperation of the American Bearing Manufacturers Association, and includes data based on an exclusive survey of ABMA members.

www.freedoniagroup.com



The Freedonia Group

767 Beta Drive

Cleveland, OH • 44143-2326 • USA

Toll Free US Tel: 800.927.5900 or +1 440.684.9600

Fax: +1 440.646.0484

E-mail: info@freedoniagroup.com

Table of Contents

EXECUTIVE SUMMARY

MARKET ENVIRONMENT

General	4
Economic Environment.....	5
Cyclical Trends	10
Long Term Trends	13
Market Dynamics.....	14
OEM	15
MRO.....	17
Pricing Patterns	21
Bearing Materials.....	24
Steel.....	25
Other	26
Technology	27
Basic Bearing Technology	28
Recent Technological Developments.....	31
Competitive Technologies	32
Legal & Regulatory Environment.....	35
International Environment.....	38
World Supply & Demand	39
US Foreign Trade	41
Imports	43
Exports	45

PRODUCTS

General	48
Ball Bearings.....	53
Precision Radial	57
Nonprecision Radial.....	60
Thrust & Other.....	62
Roller Bearings	64
Tapered	68
Other	71
Cylindrical.....	73
Needle.....	74
Spherical.....	76
All Other	77
Plain Bearings	78
Journal.....	81
Spherical	82
Thrust & Other.....	83

Mounted Bearings	83
Ball.....	87
Roller	87
Plain	88
Bearing Parts	89
Balls	92
Rollers.....	93
Other Ball & Roller Bearing Parts ...	93
Plain Bearing Parts.....	94

MARKETS

General	95
Original Equipment Manufacturing	98
Motor Vehicles	100
Industry Outlook	101
Bearing Market.....	104
Machinery	107
Industry Outlook	108
Bearing Market.....	110
Engines, Turbines & Power	
Transmission Equipment.....	112
Industry Outlook	113
Bearing Market.....	115
Aerospace Equipment.....	117
Industry Outlook	118
Bearing Market.....	119
Construction, Mining & Oilfield Machinery	122
Industry Outlook	122
Bearing Market.....	124
Material Handling Equipment	126
Industry Outlook	127
Bearing Market.....	128
Farm & Garden Machinery	130
Industry Outlook	130
Bearing Market.....	132
Other OEM Applications.....	134
Maintenance/Repair/Operations	137
Industrial MRO.....	140
Sector Outlook.....	140
Bearing Market.....	143
Services MRO	145
Sector Outlook.....	146
Bearing Market.....	147
Government MRO.....	150
Sector Outlook.....	150
Bearing Market.....	151

INDUSTRY STRUCTURE

General	153
Industry Composition	154
Market Share	157
Product Development & Manufacturing	161
Marketing & Distribution	164
Cooperative Agreements.....	166
Financial Issues	168
Mergers, Acquisitions & Industry Restructuring	170

COMPANY PROFILES

Altra Industrial Motion	175
American Roller Bearing	178
AMSTED Industries	179
Baldor Electric.....	181
Bosch (Robert) GmbH	183
Danaher Corporation.....	185
Delphi Corporation	187
Emerson Electric	188
EnPro Industries	191
Federal-Mogul Corporation.....	193
Frantz Manufacturing	195
General Bearing	196
GKN plc	198
Hephaestus Holdings	200
Iljin Group.....	201
JTEKT Corporation	202
Kaydon Corporation	204
MAHLE International	208
Minebea Company	210
Nachi-Fujikoshi Limited	213
NN Incorporated	215
NSK Limited	217
NTN Corporation	221
Pacamor Kubar Bearings.....	225
RBC Bearings.....	227
Regal-Beloit Corporation	231
Rexnord LLC	232
Saint-Gobain	235
Schaeffler KG.....	238
SKF AB	241
THK Company	248
ThyssenKrupp AG	250
Timken Company.....	251
Tsubaki Nakashima	256
Additional Companies	258

List of Tables

EXECUTIVE SUMMARY

1 Summary Table..... 3

MARKET ENVIRONMENT

1 Macroeconomic Indicators..... 10
 2 Bearing Market, 1998-2008..... 12
 3 Manufacturers' Shipments
 by Industry..... 17
 4 Nonresidential Fixed Investment
 & Equipment Stock 21
 5 Bearing Pricing Deflators 23
 6 World Bearing Demand by Region 41
 7 US Foreign Trade in Bearings..... 42
 8 US Bearing Imports by
 Source, 1998-2008..... 44
 9 US Bearing Exports by
 Destination, 1998-2008..... 46

PRODUCTS

1 Bearing Supply & Demand..... 52
 2 Ball Bearing Supply & Demand.... 56
 3 Precision Radial Ball Bearing
 Supply & Demand 60
 4 Nonprecision Radial Ball Bearing
 Supply & Demand 62
 5 Thrust & Other Ball Bearing
 Supply & Demand 64
 6 Roller Bearing Supply & Demand. 67
 7 Tapered Roller Bearing
 Supply & Demand 71
 8 Other Roller Bearing
 Supply & Demand 73
 9 Plain Bearing Supply & Demand.. 80
 10 Mounted Bearing Supply
 & Demand 86
 11 Bearing Parts Supply & Demand .. 91

MARKETS

1 Bearing Demand by Market..... 97
 2 OEM Bearing Demand by Market.. 99
 3 Motor Vehicle Production
 & Shipments 104

4 Motor Vehicle Bearing Demand ..107
 5 Machinery Shipments109
 6 Machinery Bearing Demand112
 7 Engine, Turbine & Power
 Transmission Equipment
 Shipments114
 8 Engine, Turbine & Power
 Transmission Equipment
 Bearing Demand117
 9 Aerospace Equipment Shipments 119
 10 Aerospace Equipment
 Bearing Demand121
 11 Construction, Mining & Oilfield
 Machinery Shipments124
 12 Construction, Mining & Oilfield
 Machinery Bearing Demand126
 13 Material Handling Equipment
 Shipments128
 14 Material Handling Equipment
 Bearing Demand129
 15 Farm & Garden Equipment
 Shipments132
 16 Farm & Garden Equipment
 Bearing Demand134
 17 Other OEM Bearing Demand.....137
 18 MRO Bearing Demand by Market.139
 19 Industrial Sector Outlook.....142
 20 Industrial Sector MRO
 Bearing Demand145
 21 Service Sector Outlook147
 22 Service Sector Bearing Demand..149
 23 Government Spending
 & Investment.....151
 24 Government Bearing Demand.....152

INDUSTRY STRUCTURE

1 US Bearing Sales by Selected
 Manufacturers, 2008.....156
 2 Capital Spending Patterns:
 Selected Bearing Producers163
 3 Selected Cooperative
 Agreements167
 4 Composite Financial Ratios:
 Selected Bearing Producers170
 5 Selected Acquisitions
 & Divestitures172

List of Charts

MARKET ENVIRONMENT

1 Bearing Market, 1999-2008..... 12
 2 Bearing Pricing, 1998-2018..... 24
 3 Bearing Imports by
 Source, 2008..... 45
 4 Bearing Exports by
 Destination, 2008..... 47

PRODUCTS

1 Bearing Demand by
 Product, 2008 53
 2 Ball Bearings by Product
 Type, 2008 57
 3 Roller Bearing Demand
 by Type, 2008 68
 4 Plain Bearing Demand by
 Product Type, 2008 80
 5 Mounted Bearing Demand
 by Type, 2008 86
 6 Bearing Parts Demand
 by Type, 2008 92

MARKETS

1 Bearing Demand by
 Market, 1998-2018..... 97
 2 OEM Bearing Demand
 by Market, 2008 99
 3 Additional Demand by OEM
 Market, 2013 vs. 2008.....100
 4 MRO Bearing Demand
 by Market, 2008139

INDUSTRY STRUCTURE

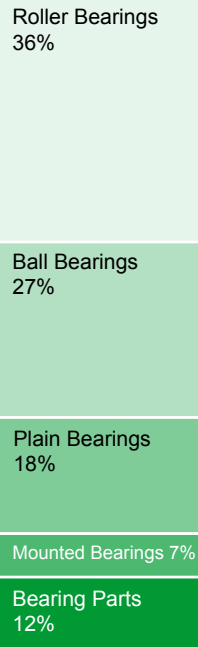
1 US Market Share by
 Company, 2008.....157

Advances will be supported by high-value, large diameter bearings used in wind energy and heavy equipment, as well as by continued growth in aerospace equipment and machinery.

US demand to expand 3% annually through 2013

Ball, roller and plain bearing demand in the US is projected to expand 3.0 percent per year through 2013 to \$10.6 billion. Sales increases for ball and roller bearings, including both mounted and unmounted types and associated parts, will outpace those of plain bearings, reaching \$8.5 billion in 2013. Advances will be supported by sales of high-value, large diameter bearings as the wind energy and heavy equipment markets expand. Continued, albeit moderating, growth in the production of aerospace equipment and machinery will also support gains. Recovery in motor vehicle production from the low levels of 2008, particularly in heavy truck and bus manufacturing, will also benefit bearing suppliers. Market gains will be dampened, however, as US companies in a variety of bearing-using industries continue to move production offshore where labor costs are lower.

Shipments of bearings from US plants are expected to expand 2.8 percent annually through 2013 to \$10.0 billion, slightly below domestic demand increases. Industry output will be stimulated by growth in several key domestic bearing-using industries (e.g., motor vehicles, machinery) and by rising demand in a number of export markets. Further investment in US bearing plants by foreign firms will contribute to production gains as well. US bearing manufacturers' ongoing efforts to improve the quality and performance of their products, and



US Bearing Demand, 2008 (\$9.2 billion)



to increase the efficiency of their manufacturing processes, will also help spur output growth.

Roller bearings to post strongest market gains

The strongest market gains through 2013 will be posted by roller bearings, benefitting from renewed strength in US production of motor vehicles and from sales of advanced, high-value products for applications such as wind turbines and heavy machinery. Demand for mounted bearings and bearing parts will also outperform bearing demand overall. Mounted bearing demand increases will be spurred by original equipment manufacturers' (OEM) desires to simplify

their production processes and reduce future maintenance requirements.

Engine, turbine uses among best prospects

OEM bearing applications, which currently account for 78 percent of all demand, will approximate the performance of maintenance/repair/operations (MRO) applications through 2013. Sales conditions will be particularly strong in the automotive and engine, turbine and power transmission equipment manufacturing markets. MRO bearing demand will be bolstered by growing maintenance expenditures for aerospace equipment and construction machinery.

Copyright 2009 The Freedonia Group, Inc.

[Click here to purchase online](#)

Sample Text, Table & Chart

MARKETS

Bearing Market -- Sales of ball, roller and plain machinery OEM market are expected to increase to \$1.4 billion annually and moderating from the 2008-2009 period. Demand will not be as strong as those forecasted in 2008. Gains will be driven by continued growth in categories of machinery, particularly in power, packaging machines, power transmission machinery (which includes technical machinery and conductor machinery). Increased demand is supported by sales of highly-engineered, higher value bearings designed to improve efficiency and operation.

Demand gains will be restrained to some degree in HVAC and commercial refrigeration machinery shipments. Commercial and service industry machinery shipments are expected to increase less than one percent per year. Furthermore, pressure from large machinery manufacturers to lower costs and the expected decline of some metal prices will hold back bearing sales increases in dollar terms.

Machinery manufacturers use a wide range of bearing products, including all of the major types. Often, bearing manufacturers offer value-added products that meet the needs of a specialized machinery application. For instance, NSK offers a variety of ball and roller bearings specifically for food and beverage processing machinery. In addition to performing the basic function of bearings, these products meet the stringent hygiene requirements of the food and beverage industry. Bearings utilized in machinery are often required to endure heavy loads and extreme operating environments. Danaher's SUPERSMART ball bushing bearings are produced with the company's proprietary 60 CASE LINEAR RACE shaft-deflection technology that optimizes load distribution between ball tracks and ensures uniform ball loading over the entire

110

Copyright 2009 The Freedonia Group, Inc.

TABLE IV-6

MACHINERY BEARING DEMAND (million dollars)

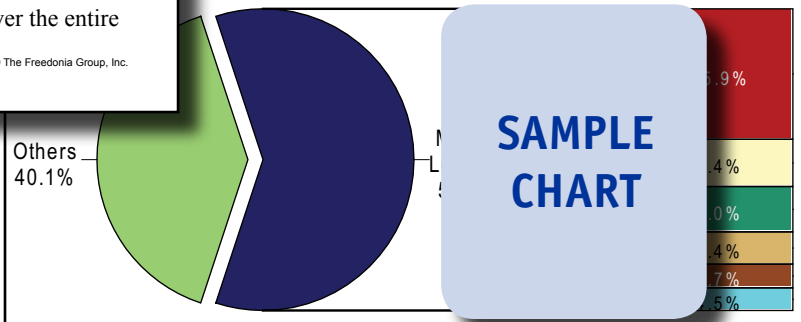
Item	1998	2003	2008	2013	2018
Machinery Shipments (bil \$)	1,140	1,250	1,350	1,450	1,550
\$ bearings/000\$ machinery	1.4	1.5	1.6	1.7	1.8
Machinery Bearing Demand	1,600	1,750	1,900	2,050	2,200
By Machinery Type:					
General Purpose	1,000	1,100	1,200	1,300	1,400
HVAC & Commercial Refrigeration	200	210	220	230	240
Metalworking	150	160	170	180	190
Commercial & Service Industry	100	110	120	130	140
Other	150	160	170	180	190
By Bearing Type:					
Ball & Roller*	1,000	1,100	1,200	1,300	1,400
Plain*	600	650	700	750	800
% machinery	1.4	1.5	1.6	1.7	1.8
OEM Bearing Demand	650	700	750	800	850

* Includes mounted & unmounted bearings, & associated parts

SAMPLE TABLE

CHART V-1

BEARING MARKET SHARE BY COMPANY, 2008 (\$9.2 billion)



SAMPLE CHART

Sample Profile, Table & Forecast

TABLE III-10
MOUNTED BEARING SUPPLY & DEMAND
(million dollars)

Item	1998	2003	2008	2013	2018
Bearing Demand	78	100	120	130	140
% mounted					
Mounted Bearing Demand					
Ball, Unit &/or Split Mounted					
Roller:					
Unit Mounted					
Split Mounted					
Plain					
- imports					
+ exports					
Mounted Bearing Shipments					
price deflator (2000=100)					
Mounted Bearing Shipments (mil 2000\$)	575	475	450	460	485

**SAMPLE
PROFILE**

**SAMPLE
TABLE**

COMPANY PROFILES

American Roller Bearing Company
 400 2nd Avenue, Northwest
 Hickory, NC 28601
 828-624-1460
<http://www.arb.com>

Annual Sales
 Employment

Key Products: thrust and rolling mill bearings

American Roller Bearing Company is a leading manufacturer of rolling-element bearings for various applications. The company is privately held. The Company is active in the US bearing industry through the manufacture of tapered roller, cylindrical roller, ball, thrust and rolling mill bearings. Many of these products are offered in standard and metric dimensions, as well as in outside diameters of up to 72 inches.

American Roller Bearing's tapered roller bearings are offered in single- and double-row styles, while cylindrical roller bearings are made in European-style metric, domestic-style metric, inch-series and journal types. The Company's ball bearings are produced in such designs as angular contact metric and deep groove. Thrust bearings encompass roller, double-acting roller, tapered roller and ball models. Rolling mill bearings from American Roller Bearing are available in TDIE-and VVFT-type roll-neck thrust, multi-row cylindrical and tapered roller, Z-type cluster mill, line shaft and table, and VFTX- and VFTV-type screw-down thrust varieties. In addition, the Company manufactures specialty cylindrical bearings for use in assembly and operating conditions that require non-standard bearings.

178 Copyright 2009 The Freedonia Group, Inc.

"Mounted roller bearing demand is forecast to increase 3.4 percent per year to \$295 million in 2013, outpacing 2003 to 2008 market performance and in line with the forecast growth rate for mounted ball and plain bearings. Manufacturers' efforts to simplify installation and assembly processes will support gains in this market. Furthermore, the introduction of better performing products will contribute to market gains as well."

--Section III, pg. 87

OTHER STUDIES

Industrial Fasteners in China

Demand for industrial fasteners in China will rise 10.7% yearly through 2013, driven mainly by rapid growth in the production of industrial machinery and motor vehicles. Externally threaded fasteners will remain dominant and lead gains among standard types, while aerospace-grade fasteners grow the fastest overall from a small base. This study analyzes the 44.7 billion yuan industrial fastener industry in China, with forecasts for 2013 and 2018 by product and market. It also details market share and profiles industry participants.

#2531 09/2009..... \$5200

Diesel Engines & Related Parts

US diesel engine product demand will rise 6.2% annually through 2013. Motor vehicle uses will outpace the non-motor vehicle segment as consumers choose diesel's better fuel economy and towing/hauling power. New emission control regulations will also drive gains via the upgrading or replacement of older, noncompliant engines. This study analyzes the \$14.5 billion US diesel engine and parts industry, with forecasts for 2013 and 2018 by product, material and market. It also details market share and profiles industry players.

#2464 02/2009..... \$4700

Wind Turbine Systems

US wind turbine system demand will grow 6.8% annually through 2012, driven by rising interest in domestic energy and government incentives. Public utilities will increase their market share while independent power producers remain dominant. The New England and Middle Atlantic subregions will grow the fastest. This study analyzes the \$7.3 billion US wind turbine system industry, with forecasts for 2012 and 2017 by type, component, application and region. It also evaluates market share and profiles industry players.

#2439 01/2009..... \$4600

World Material Handling Products

Global demand for material handling products will grow 5% annually through 2012, with the strongest gains in rapidly developing areas such as China and India. Growth in the nondurable goods sector will outpace the larger durable goods manufacturers market. Advanced/automated products will grow the fastest. This study analyzes the \$104.6 billion world material handling product industry, with forecasts for 2012 and 2017 by type, market, world region and 37 countries. It also evaluates market share and profiles industry players.

#2392 09/2008..... \$5700

World Bearings

Global demand for ball, roller and plain bearings will climb 6.4% annually through 2012. Gains will be driven by a shift toward more expensive, better performing units. Demand in developing parts of Asia, Eastern Europe, Africa/Mideast and Latin America will outpace sales in the US, Western Europe and Japan. This study analyzes the \$48.4 billion world bearing industry, with forecasts for 2012 and 2017 by product, market, world region and for 30 countries. It also evaluates company market share and profiles industry competitors.

#2383 08/2008..... \$5700

About The Freedonia Group

The Freedonia Group, Inc., is a leading international industry market research company that provides its clients with information and analysis needed to make informed strategic decisions for their businesses. Studies help clients identify business opportunities, develop strategies, make investment decisions and evaluate opportunities and threats. Freedonia research is designed to deliver unbiased views and reliable outlooks to assist clients in making the right decisions. Freedonia capitalizes on the resources of its proprietary in-house research team of experienced economists, professional analysts, industry researchers and editorial groups. Freedonia covers a diverse group of industries throughout the United States, the emerging China market, and other world markets. Industries analyzed by Freedonia include:

- Chemicals • Plastics • Life Sciences • Packaging • Building Materials • Security & Electronics • Industrial Components & Equipment • Automotive & Transportation Equipment • Household Goods • Energy/Power Equipment

[Click here to learn more about Freedonia](#)

Freedonia Custom Research

Freedonia Custom Research delivers the same high quality, thorough and unbiased assessment of an industry or market as an industry study. Since the research initiative is based upon a company's specific needs, companies harness Freedonia's research capabilities and resources to answer unique questions. When you leverage the results of a Freedonia Custom Research engagement, you are able to obtain important answers to specific questions and issues associated with: mergers and acquisitions, new product launches/development, geographic expansion, entry into new markets, strategic business planning, and investment and funding decisions.

Freedonia Custom Research is ideal for companies seeking to make a strategic difference in the status quo and focus on future business growth. Working side by side with clients, Freedonia's team is able to define a research project that is custom-tailored to answer specific questions and provide the basis from which a company can make informed business decisions.

[Click here to learn more about Custom Research](#)



[Click here for complete title list](#)



[Click here to visit freedoniagroup.com](http://www.freedoniagroup.com)