

[CLICK TO VIEW](#)

[Table of Contents 2](#)

[List of Tables & Charts 3](#)

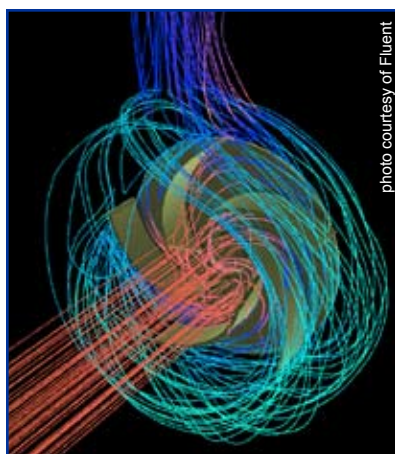
[Study Overview 4](#)

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

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

[Order Form 7](#)

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



Pumps

US Industry Study with Forecasts to **2010 & 2015**

Study #2026 | February 2006 | \$4200 | 302 pages

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
Macroeconomic Overview.....	5
Cyclical Trends.....	5
Long Term Trends.....	9
Manufacturing Outlook.....	11
Nonresidential Fixed	
Investment Outlook.....	13
Utilities Construction Outlook.....	15
Water Works.....	17
Electric Power.....	18
Natural Gas & Other.....	19
Resource Extraction Inds Outlook	20
Historical Market Trends.....	22
Pricing Trends	25
Technological Trends	28
Materials	28
Product Design	30
New Pump Styles.....	31
Regulatory Issues.....	31
World Pump Outlook	35
Demand.....	36
Production	38
Foreign Trade	40
Imports	41
Exports.....	44

PRODUCTS

General	47
Centrifugal.....	50
Single-Stage.....	54
Submersible	56
Other Types.....	58
Multi-Stage	60
Sealless	61
Axial & Mixed Flow	63
All Others	63
Positive Displacement.....	64
Rotary.....	66
Reciprocating	69
Diaphragm	72
Turbine.....	74
Oilfield.....	76
Other Specialty Pumps	80
Domestic Water System Pumps	81
Sump Pumps	82
All Others	83

Pump Drivers, Accessories & Parts.....	84
Accessories & Parts	85
Drivers	88

MARKETS

General	92
Process Manufacturers.....	96
Chemicals	99
Chemical Industry Overview	100
Pump Demand	103
Pulp & Paper	107
Pulp & Paper Industry Overview ...	107
Pump Demand	110
Petroleum Refining.....	113
Petroleum Refining	
Industry Overview	113
Pump Demand	115
Food & Beverages	118
Food & Beverage	
Industry Overview	118
Pump Demand	120
Primary Metals.....	123
Primary Metal Industry Overview..	123
Pump Demand	124
Other Process Manufacturers	126
Utilities.....	128
Water & Sanitation Services.....	130
Water & Sanitation Service	
Industry Overview	130
Pump Demand	134
Electric & Gas Utilities	137
Electric & Gas Utility	
Industry Overview	138
Pump Demand	141
Resource Extraction Industries	145
Crude Petroleum & Natural Gas	146
Crude Petroleum & Natural Gas	
Industry Overview	147
Pump Demand	151
Mining & Other.....	154
Mining Industry Overview	154
Pump Demand	155
Construction	157
Construction Industry Overview	158
Pump Demand	160
Other	162
Discrete Parts Manufacturers	163
Government	164
All Other.....	165

INDUSTRY STRUCTURE

General	166
Market Share	169
Mergers, Acquisitions & Industry	
Restructuring	175
Regional Mfg Concentration.....	179
Product Development & Mfg.....	186
Marketing & Distribution	190
Financial Issues	192
Cooperative Agreements.....	196

COMPANY PROFILES

Alfa Laval	200
Baker Hughes	202
Cardo AB	205
Colfax Corporation.....	208
Crane Company	211
Danaher Corporation.....	214
Dover Corporation	215
Ebara Corporation	217
Flowserve Corporation.....	220
Franklin Electric.....	224
Gardner Denver	226
General Electric.....	229
Gorman-Rupp Company	232
Graco Incorporated.....	235
Grundfos A/S.....	237
IDEX Corporation.....	240
Illinois Tool Works.....	246
Ingersoll-Rand Company.....	248
Invensys plc.....	250
ITT Industries.....	252
KSB AG	259
Pentair Incorporated.....	263
Putzmeister Group.....	270
Robbins & Myers	272
Schlumberger Limited	274
Schwing GmbH	276
Spirax-Sarco Engineering.....	277
SPX Corporation	279
Sterling Fluid Systems.....	281
Sulzer Limited	283
Tecumseh Products	285
Textron Incorporated	288
Tuthill Corporation	291
United Technologies	293
Weir Group plc.....	297
Other Pump Companies	301

List of Tables & Charts

EXECUTIVE SUMMARY

1 Summary Table..... 3

MARKET ENVIRONMENT

1 Macroeconomic Environment..... 9
2 Manufacturers' Shipments 13
3 Nonresidential Fixed Investment.... 15
4 Utilities Construction Expenditures 17
5 Production by Resource
Extraction Industries 22
6 Fluid Handling Pump
Market Volatility, 1995-2005 24
Cht Fluid Handling Pump
Market Volatility, 1996-2005 25
7 Fluid Handling Pump
Price Deflators 27
Cht Fluid Handling Pump
Pricing Patterns 27
8 World Pump Demand..... 38
9 US Foreign Trade in Pumps..... 41
Cht US Fluid Handling Pump
Imports by Source, 2005 44
Cht US Fluid Handling Pump
Exports by Destination, 2005 46

PRODUCTS

1 Fluid Handling Pump
Supply & Demand by Type..... 49
Cht Fluid Handling Pump
Demand by Type..... 50
2 Centrifugal Pump Supply & Demand 53
Cht Centrifugal Pump
Shipments by Type, 2005..... 54
3 Single-Stage Centrifugal Pump
Supply & Demand 56
4 Submersible Centrifugal Pump
Supply & Demand 58
5 Other Centrifugal Pump
Supply & Demand 60
6 Positive Displacement Pump
Supply & Demand 65

Cht Positive Displacement Pump
Shipments by Type, 2005..... 66
7 Rotary Pump Supply & Demand..... 69
8 Reciprocating Pump
Supply & Demand 71
9 Diaphragm Pump Supply & Demand 74
10 Turbine Pump Supply & Demand 76
11 Oilfield Pump Supply & Demand..... 79
12 Other Specialty Pump
Supply & Demand 81
13 Pump Driver, Accessory & Part
Supply & Demand 85
14 Pump Accessory & Part
Shipments by Pump Type 88
15 Pump Driver Shipments
by Pump Type 91

MARKETS

1 Fluid Handling Pump
Demand by Market..... 95
Cht Fluid Handling Pump
Demand by Market..... 96
2 Process Manufacturing Pump
Demand by Market..... 98
Cht Process Manufacturing Fluid Handling
Pump Demand by Market, 2005... 99
3 Chemical & Pharmaceutical
Shipments..... 103
4 Chemical Industry Pump Demand . 107
5 Paper Product Shipments..... 110
6 Pulp & Paper Industry
Pump Demand..... 113
7 Refined Petroleum
Product Production 115
8 Petroleum Refining Pump Demand 118
9 Food & Beverage Shipments..... 120
10 Food & Beverage Industry
Pump Demand..... 122
11 Primary Metal Product Shipments. 124
12 Primary Metal Industry
Pump Demand..... 126

13 Other Process Manufacturers
Pump Demand..... 128
14 Utilities Pump Demand..... 130
15 Water Withdrawal Trends 134
16 Water & Sanitation Service
Pump Demand..... 137
17 Electricity Generation
by Fuel & Generator..... 141
18 Electric & Gas Utility
Pump Demand..... 144
19 Resource Extraction Industry
Pump Demand..... 146
20 Crude Petroleum & Natural Gas
Supply & Demand 151
21 Crude Petroleum & Natural Gas
Pump Demand..... 153
22 Mining Materials Handled 155
23 Mining & Other Resource
Extraction Pump Demand..... 157
24 Construction Expenditures 160
25 Construction Industry
Pump Demand..... 162
26 Other Fluid Handling
Pump Markets 163

INDUSTRY STRUCTURE

1 Revenue Data: Selected Pump
Manufacturers, 2005 168
Cht Fluid Handling Pump 2005
Market Share by Company 170
2 Selected Acquisitions
& Divestitures..... 177
3 Selected Pump Manufacturing
Plants by State 181
Cht Geographic Distribution of
Pump Manufacturing Plants..... 185
4 Capital Spending Patterns:
Selected Pump Manufacturers... 189
5 Composite Financial Ratios:
Selected Pump Manufacturers... 195
6 Selected Cooperative Agreements. 198

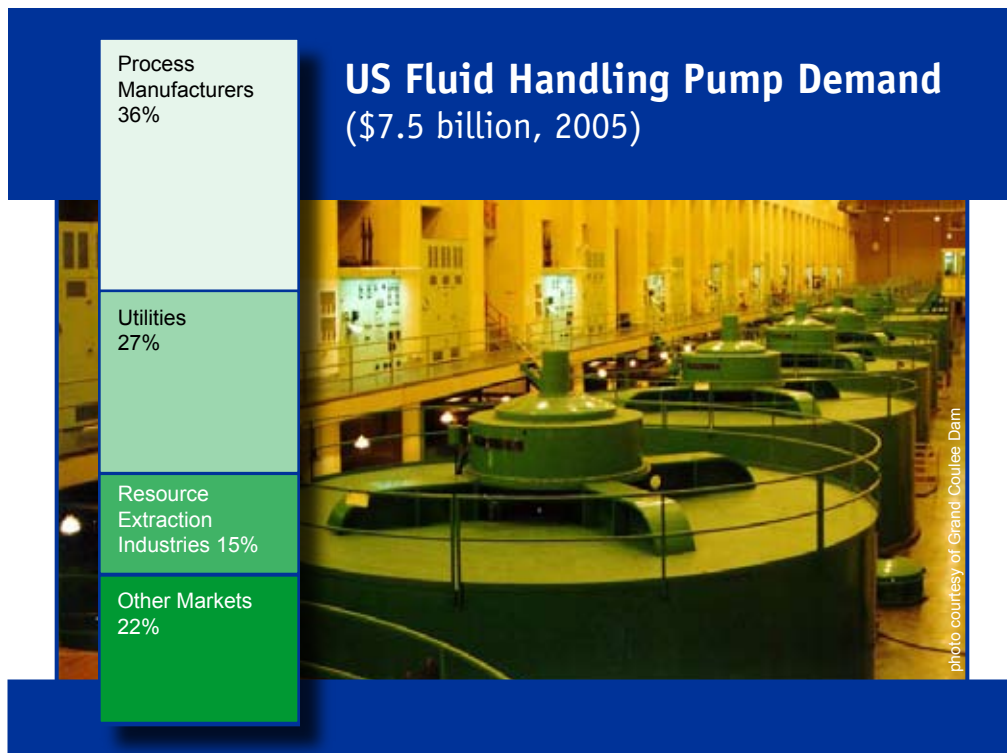
An improved outlook for many pump-using industries, continuing healthy aftermarket prospects among process manufacturers, and the introduction of better performing pumps will drive gains through 2010.

US pump demand to reach \$8.5 billion in 2010

US demand for fluid handling pumps is expected to increase 2.7 percent annually (including price increases) to \$8.5 billion in 2010, supported by an improved outlook for many pump-using industries. In addition, gains will be bolstered by continuing healthy aftermarket prospects among process manufacturers, particularly within the chemical, petroleum refining, and pulp and paper industries, which handle large volumes of harsh fluids. The introduction of new and better performing pumps will also boost growth, although to the extent that these pumps have longer lives, these improvements can adversely impact demand for replacement parts. Moreover, pricing gains will be restricted by competition both among the various types of pumps and from low cost imports.

Process manufacturing market to remain dominant

The process manufacturing market is expected to remain the largest user of pump products due to the wide range of applications and significant fluid handling requirements in many of these industries. In addition, this market is expected to see above average growth through 2010. Growth will benefit from increasing output in most process industries, with particularly strong gains in pharmaceutical shipments. Aftermarket demand will also remain strong. Among the other major markets, utilities are expected to see



the fastest growth, benefitting from rising construction expenditures by utilities providers, particularly electric utilities and natural gas pipelines. In addition, the development of liquified natural gas import facilities will boost gains in the utilities market. The smaller resource extraction and construction markets are expected to see below average increases.

Positive displacement pumps to grow the fastest

Centrifugal pumps will continue to be the most commonly used pump design, due to their wide pressure and load handling capability -- including the ability to handle liquids with a high solids content -- and relatively low maintenance costs.

Technological innovations in corrosion- and abrasion-resistance, downsizing and versatility, combined with continued development of sealless centrifugal pumps, will drive demand. However, among the major pump product types, positive displacement pumps will see the fastest demand increases, due to the improved outlooks for most process industries, which are important users of these pumps. Despite the basic, commodity-like nature of many pump products, innovation continues to occur along numerous parameters -- sealless pumps, corrosion-resistant materials, lighter weight or downsized pumps. Such innovations tend to command pricing premiums and may accelerate replacement demand and foster competition.

Sample Text, Table & Forecast

TABLE III-6
POSITIVE DISPLACEMENT PUMP SUPPLY & DEMAND
 (million dollars)

Item	1995	2000	2005	2010	2015
Nonresident Fixed Investment (bil \$)	547	764	840	1170	1495
\$ pos displace/000\$ NFI	1	1	1	1	1
Positive Displacement Pump Demand net exports					
Positive Displacement Pump Shpts					
Rotary					
Reciprocating					
Diaphragm					
% positive displacement	1	1	1	1	1
Fluid Handling Pump Shipments	5500	7030	7530	8000	8700

PRODUCTS

Diaphragm

Diaphragm pump demand is projected to increase 3.2 per cent annually to \$2 billion in 2015, up from the slight decline of the 2000s. Demand is supported by the high level of shipments from the oil and gas, chemical, and pharmaceutical industries, which are the primary users. In addition, the development of improved materials and the utilization of a wider range of materials for diaphragm pumps and components.

Diaphragm pump shipments are expected to rise less rapidly than demand, gaining only \$100 million in 2010. However, despite rising competition from imports, the US is expected to continue to have a trade surplus in diaphragm pumps, albeit one which is expected to continue shrinking for the next decade. Important export destinations include Canada, Germany, the United Kingdom, China, Japan and South Korea.

Basic diaphragm pump designs operate by the periodic movement of a flexible membrane or membranes. These pumps can be divided into three primary categories, based on the mode of driving the diaphragm: mechanical, hydraulic or air-operated. The peripheries of the membranes are sealed to a stationary housing, while the central portion moves in a reciprocating manner. Since diaphragm pumps do not require a mechanical seal or packing, they are often used to handle hazardous fluids which can not be allowed to leak. In addition, diaphragm pumps are self-priming, can generate high suction pressure and can move virtually any flowable material, including chemicals, food additives, glues, paints, wastewater, slurries and even dry powders. This type of pump is also relatively simple to construct and can be manufactured using a wide range of corrosion-resistant materials.

**SAMPLE
 TEXT**

**SAMPLE
 TABLE**

“Rotary pumps constituted the largest share of positive displacement shipments, with more than 40 percent of the total in 2005. However, reciprocating pumps are expected to experience the fastest gains through 2010 supported by solid growth in refined petroleum product shipments, electric utilities construction and, to a lesser extent, chemical shipments. Preventing even faster growth in reciprocating pump shipments will be strong competition from imports.”

--Section III, pg. 65

Sample Pages, Tables & Charts

COMPANY PROFILES

SPX Corporation

13515 Ballantyne Corporate Place
 Charlotte, NC 28277
 704-752-4400
<http://www.spx.com>

Revenues: \$ (4)
 US Revenues
 Employment

Key Products: metering and process pumps; and p

SPX Co distributes products and provides vehicle service industry. Other markets security, chemical processing, pharmaceutical, infrastructure, power generation, petrochemical, telecommunication and mineral processing. The Company operates in five segments: Flow Technology, Industrial Products and Services, Technical Products and Systems, Cooling Technologies and Services, and Service Solutions.

The Company participates in the US pumps industry through the Flow Technology segment, which had revenues of \$878 million in 2005. The segment encompasses SPX's activities for the design, production and sale of products used to process or transport fluids, as well as solutions and products for heat transfer applications and airflow treatment systems. The Flow Technology segment includes the Valves and Controls and Process Equipment division, which operates as SPX Process Equipment (Delavan, Wisconsin). SPX Process Equipment is engaged in the manufacture of pumps, valves, mixers, fittings, heat exchangers and other products. The division produces and sells pumps and other products through the Waukesha Cherry-Burrell, LIGHTNIN, Bran + Luebbe and Plenty Mirrless Pumps business units.

279

Copyright 2007 The Freedonia Group, Inc.

TABLE IV-2

PROCESS MANUFACTURING PUMP DEMAND BY MARKET (million dollars)

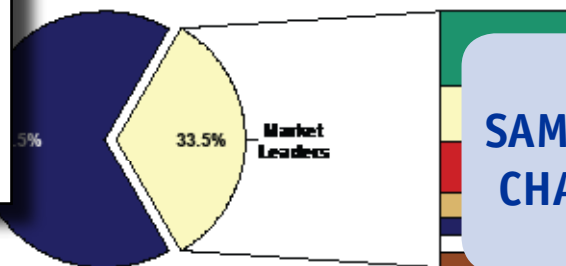
Item	1995	2000	2005	2010	2015
Process Manufacturers' Shpts (bil \$)	187				262
\$ pump/000\$ shpts					99
Process Manufacturers Pump Demand 1					10
Chemicals					10
Pulp & Paper					10
Petroleum Refining					10
Food & Beverages					10
Primary Metals					15
Other Process Manufacturers					15
% process mfrs	3				10
Total Fluid Handling Pump Demand	5087	6340	7480	8340	9550

SAMPLE
 TABLE

SAMPLE
 PROFILE

CHART V-1

HANDLING PUMP MARKET SHARE BY COMPANY, 2005 (\$7.5 billion)



SAMPLE
 CHART

*Sector sales include PACED pumps unit, which the company reported for sale in 1998.

OTHER STUDIES

World Pumps

The world pump market will rise 4.8% yearly through 2010. Gains will be led by developing regions, although the outlook for pumps will improve in advanced nations. Centrifugal pumps will remain the most common, while diaphragm types will post the fastest gains. Utilities will offer the best market opportunities. This study analyzes the \$29.2 billion world pump industry to 2010 and 2015 by product, market, world region and for 32 countries. It also evaluates market share and profiles major players.

#2098 08/2006 \$5600

World Mining Equipment

Global mining machinery demand will grow 9.3% yearly through 2009. Gains will be driven by an up-swinging prices for copper, silver and gold and by strong demand for coal as an alternative to oil and natural gas. Eastern Europe will lead gains followed by Asia, the Africa/Mideast region and Latin America. This study analyzes the \$17.7 billion global mining equipment industry to 2009 and 2014 by type, application, world region and for 32 countries. It also evaluates market share and profiles major players.

#2021 04/2006 \$5400

World Industrial Valves

The world market value of industrial valves will rise 5.4% yearly through 2009 based on healthy end use sectors, especially energy. Developed nations will lag global average gains yet improve on recent performance. Automatic valves will outpace conventional types as process manufacturers seek to boost efficiency. This study analyzes the \$50 billion world industrial valve industry to 2009 and 2014 by product, market, world region and for 34 countries. It also evaluates market share and profiles major players.

#1994 10/2005 \$5200

World Gaskets & Seals

Global gasket and seal demand will grow 5.5% annually through 2009 based on production gains for gasket- and seal-using products such as motor vehicles in most parts of the world. India and China will present the best prospects, followed by Eastern Europe, Latin America and the Africa/Mideast region. This study analyzes the \$30 billion world gasket and seal industry to 2009 and 2014 by market, source, product, world region and for 31 countries. It also details market share and profiles major players.

#1963 08/2005 \$5100

World Turbines

Global turbine demand will grow 6.5% annually through 2009. Power generation applications will outpace those of turbine-based aircraft engines. Strongest gains will occur in China and most other developing regions, although developed markets will also post healthy growth in specific product segments. This study analyzes the \$63 billion world turbine industry to 2009 and 2014 by product, application, world region and for 22 countries. It also evaluates company market share and profiles major producers.

#1945 06/2005 \$5200

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)