



[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 & Corporate Use License 7](#)

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

# Oil & Gas Infrastructure

---

US Industry Study with Forecasts for **2016 & 2021**

---

Study #2922 | November 2012 | \$5100 | 270 pages

---

[www.freedoniagroup.com](http://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](mailto:info@freedoniagroup.com)

## Table of Contents

### EXECUTIVE SUMMARY

### MARKET ENVIRONMENT

General .....	4
Macroeconomic Outlook .....	5
Demographic Overview .....	8
Manufacturing Overview .....	12
Electricity Generation .....	15
Oil & Natural Gas Overview .....	19
Oil Market Overview .....	22
Production .....	25
Drilling.....	30
Pricing .....	32
Natural Gas Market Overview .....	34
Production .....	36
Drilling.....	42
Pricing .....	43
Unconventional Production .....	45
Shale .....	46
Tight Gas.....	47
Coalbed Methane .....	47
Midstream Sector Overview .....	48
Environmental/Regulatory Considerations	50
Drilling Regulation .....	50
Shale Regulation.....	52
Pipeline Regulation .....	53
International Activity & Foreign Trade .....	54

### PRODUCTS

General .....	57
Pipe.....	59
By Material .....	62
Steel.....	63
Welded .....	66
Seamless .....	68
Fittings .....	70
Plastic.....	71
By Diameter .....	73
Valves .....	75
Automatic.....	78
Conventional.....	80
Compressors .....	82
Centrifugal.....	83
Reciprocating .....	85
Pumps.....	86
Centrifugal.....	88
Positive Displacement.....	90
Parts, Accessories, & Other Pumps .....	91

Gas Processing Equipment .....	94
Monitoring Equipment .....	96
Storage Tanks.....	99
Other .....	101

### MARKETS

General .....	103
Oil.....	105
Natural Gas .....	107
Locations.....	109
Onshore.....	110
Offshore .....	111

### REGIONS

General .....	115
Producing Wells .....	119
Regional Drilling .....	121
Regional Rig Counts .....	123
Oil & Gas Infrastructure	
Demand by Region .....	125
Southern Region .....	128
Texas .....	130
Louisiana.....	132
Arkansas.....	133
Other Southern States .....	133
Midwestern Region .....	134
Oklahoma .....	136
North Dakota.....	138
Ohio .....	139
Other Midwestern States .....	140
Eastern Region .....	141
Pennsylvania .....	143
New York .....	145
West Virginia.....	146
Other Eastern States.....	146
Western Region .....	147
Alaska.....	149
California.....	151
Other Western States .....	152

### INDUSTRY STRUCTURE

General .....	155
Market Share .....	157
Mergers & Acquisitions.....	161
Product Development & Manufacturing ..	166
Cooperative Agreements.....	168
Competitive Strategies.....	170

### COMPANY PROFILES

ABB Limited.....	173
American Cast Iron Pipe.....	174
AMETEK Incorporated .....	175
Balon Corporation .....	178
Benxi Northern Steel Pipes .....	179
Bonney Forge .....	180
Boomerang Tube .....	181
Cameron International .....	182
Chevron Phillips Chemical.....	186
CIRCOR International.....	187
Crane Company .....	189
Dresser-Rand Group .....	192
Dura-Line Holdings.....	194
Ebara Corporation .....	196
Emerson Electric .....	197
EVRAZ plc .....	200
Flowserve Corporation.....	202
FMC Technologies .....	204
Gardner Denver.....	207
General Electric .....	209
Grupo Villacero .....	212
Hyundai Hysco.....	213
ITT Corporation.....	214
J-M Manufacturing .....	216
JFE Holdings .....	218
JMC Steel .....	219
John Wood Group.....	221
Liaoning Northern Steel Pipe .....	222
Nagano Keiki.....	223
National Oilwell Varco.....	225
Northwest Pipe.....	229
OAo TMK .....	230
Paragon Industries .....	232
Parker-Hannifin Corporation.....	233
PSL Limited.....	236
Schlumberger Limited .....	237
SeAH Steel.....	241
Siemens AG .....	242
SKF AB .....	244
SPX Corporation .....	246
Stupp Brothers .....	248
Sulzer Limited .....	249
Tai Feng Qiao Metal Products .....	251
Tenaris SA.....	252
Tianjin Lida Steel Pipe .....	254
Tyco International.....	255

(continued on following page)

## Table of Contents

### COMPANY PROFILES

(continued from previous page)

United States Steel .....	258
United Technologies .....	260
Vallourec SA .....	263
voestalpine AG .....	264
Welspun Corporation.....	265
WL Plastics .....	266
Other Companies Mentioned in Study ....	268

## List of Tables/Charts

### EXECUTIVE SUMMARY

1 Summary Table .....	3
-----------------------	---

### MARKET ENVIRONMENT

1 Macroeconomic Indicators .....	8
2 Population & Households .....	12
3 Manufacturers' Shipments.....	15
4 Electricity Generation by Fuel Source & Plant Type .....	18
5 Oil & Natural Gas Supply & Demand ..	22
6 Crude Oil & Other Liquids Supply & Demand.....	24
Cht Crude Oil Imports by Source, 2011....	25
Cht US Crude Oil Production, 2001-2011..	27
Cht US Crude Oil Production by State, 2011.....	28
Cht US Crude Oil Producing States, 2011 .	29
7 Crude Oil Drilling Indicators.....	32
Cht Crude Oil Prices, 2001-2011.....	34
8 US Natural Gas Supply & Demand.....	39
Cht US Natural Gas Production, 2001-2011.....	40
Cht US Natural Gas Production by State, 2011.....	40
Cht US Natural Gas Producing States, 2011 .....	41
9 Natural Gas Drilling Indicators .....	43
Cht Natural Gas Wellhead Prices, 2001-2011 .....	45
10 Steel Line Pipe Foreign Trade.....	56

### PRODUCTS

1 Oil & Gas Infrastructure Equipment Demand by Type .....	58
Cht Oil & Gas Infrastructure Equipment Demand by Type, 2011.....	59
2 Pipe Demand in Oil & Gas Infrastructure .....	62
3 Pipe Demand in Oil & Gas Infrastructure by Material.....	63
4 Steel Pipe Demand in Oil & Gas Infrastructure by Type .....	65
Cht Steel Pipe Demand in Oil & Gas Infrastructure by Type, 2011.....	66
5 Welded Pipe Demand in Oil & Gas Infrastructure .....	68
6 Seamless Steel Pipe Demand in Oil & Gas Infrastructure .....	70
7 Steel Pipe Fittings Demand in Oil & Gas Infrastructure .....	71
8 Plastic Pipe Demand in Oil & Gas Infrastructure by Type.....	73
9 Oil & Gas Infrastructure Pipe Demand by Diameter .....	75
10 Valve Demand in Oil & Gas Infrastructure .....	78
11 Automatic Valve Demand in Oil & Gas Infrastructure .....	80
12 Conventional Valve Demand in Oil & Gas Infrastructure .....	81
13 Compressor Demand in Oil & Gas Infrastructure .....	83
14 Centrifugal Compressor Demand in Gas Infrastructure .....	85
15 Reciprocating Compressor Demand in Oil & Gas Infrastructure.....	86
16 Pump Demand in Oil & Gas Infrastructure .....	88
17 Centrifugal Pump Demand in Oil & Gas Infrastructure .....	89
18 Positive Displacement Pump Demand in Oil & Gas Infrastructure.....	91
19 Parts, Accessories, & Other Pump Demand in Oil & Gas Infrastructure 94	
20 Gas Processing Equipment Demand in Oil & Gas Infrastructure.....	96
21 Monitoring Equipment Demand in Oil & Gas Infrastructure.....	99
22 Storage Tank Demand in Oil & Gas Infrastructure .....	101

23 Other Equipment Demand in Oil & Gas Infrastructure .....	102
--	-----

### MARKETS

1 Oil & Gas Infrastructure Demand by Market & Location .....	105
2 Oil Infrastructure Equipment Demand .....	107
3 Natural Gas Infrastructure Equipment Demand .....	109
4 Onshore Oil & Gas Infrastructure Demand .....	111
5 Offshore Oil & Gas Infrastructure Demand .....	114

### REGIONS

1 Oil & Gas Producing Areas by Region.....	118
2 Producing Oil & Gas Wells by Type & Region.....	120
Cht Producing Oil & Gas Wells by Region, 2011 .....	120
3 Wells Drilled by Region .....	122
Cht Wells Drilled by Region, 2011 .....	123
4 Active Rotary Rigs by Region .....	124
Cht Active Rotary Rigs by Region, 2011	125
5 Oil & Gas Infrastructure Demand by Market & Region.....	127
Cht Oil & Gas Infrastructure Demand by Region, 2011 .....	128
6 Southern Region: Oil & Gas Infrastructure Demand .....	130
7 Midwestern Region: Oil & Gas Infrastructure Demand .....	136
8 Eastern Region: Oil & Gas Infrastructure Demand .....	143
9 Western Region: Oil & Gas Infrastructure Demand .....	149

### INDUSTRY STRUCTURE

1 US Oil & Gas Infrastructure Equipment Sales by Company, 2011.....	156
Cht Oil & Gas Infrastructure Market Share, 2011 .....	158
2 Selected Acquisitions & Divestitures .....	164
3 Selected Cooperative Agreements ...	169

[Click here to purchase online](#)

*Advances will benefit from the development of shale plays, especially in areas that have not -- until recently -- been major energy producers and will require additional infrastructure.*

## US demand to rise 6.3% annually through 2016

Demand for oil and gas infrastructure equipment is forecast to rise 6.3 percent annually through 2016 to \$12.1 billion. Advances will benefit from the development of shale plays, especially in areas that have not -- until recently -- been major energy producers. These areas will require additional infrastructure in order to economically transport oil and natural gas from the well site. For example, pipeline capacity at the Bakken Shale in North Dakota and Montana is expected to more than double by 2016.

## Upstream shale play drilling to benefit demand

Oil and gas infrastructure equipment demand will also benefit from increased upstream drilling activity. Much of this drilling activity is happening in previously dormant or nontraditional areas, which has created a demand for oil and gas infrastructure. Low natural gas prices have caused many producers to move drill rigs from dry gas areas into the more lucrative liquid plays. Strong liquid play activity is happening in the Eagle Ford Shale in Texas, the Bakken Shale in North Dakota, and the Niobrara Shale in Northern Colorado and Wyoming. However, natural gas prices, while currently low, are expected to recover by 2016. Expectations of this recovery are boosting demand for natural gas pipelines in areas such as the Marcellus Shale.

## US Oil & Gas Infrastructure Equipment Demand, 2016 (\$12.1 billion)



Pipe  
63%

Valves  
11%

Compressors 8%

Pumps 6%

Other Types  
12%

photo: DkuBose NES-Inc.

## Interstate pipeline expansion to add opportunities

In addition to shale plays, significant pipeline opportunities will result from expansion of interstate pipelines. The most notable project is the Keystone XL pipeline, which would deliver crude oil from the Canadian tar sands to the southern US. The final portion of the project has yet to be approved by the US government, although such action is expected within the forecast period.

## Plastic pipe to outpace dominant steel pipe types

Demand for pipe will benefit from construction of new transmission lines

and the need for gathering systems at new drilling sites. Plastic pipe will post faster gains than steel due to widespread use in gathering applications. However, steel pipe will remain the dominant material because of its high pressure resistance. Welded pipe will continue to comprise the majority of steel pipe demand, due to its lower cost compared to seamless pipe. Demand for equipment such as valves, pumps, and compressors will benefit from new and expanding pipelines, given that this equipment is necessary to manage oil and gas flow through the system. Repair and replacement activity will provide opportunities across all product types, because safety is a primary concern in the industry.

Copyright 2012 The Freedonia Group, Inc.

[Click here to purchase online](#)



**Sample Text,  
 Table & Chart**

**PRODUCTS**

**Compressors**

Demand for compressors in gas infrastructure applications is expected to rise. Advances will benefit a byproduct of infrastructure pipeline product through

**SAMPLE TEXT**

Compressors are an essential part of natural gas pipelines. Large pipelines need periodic booster compression to overcome the drop in pressure caused by friction within the pipeline. For interstate pipelines, natural gas needs to be highly pressurized. This is done by compressor stations, which are located every 40 to 100 miles along the pipeline. Mainline compression stations operate continuously, whereas booster stations are used periodically to complement mainline compression. Compressors are also used to transport gas from offshore platforms to the shore. In offshore applications, there is a compression station at the head of the line but no additional stations along the line. Therefore, these lines require relatively high pressure to keep the gas flowing all the way to the destination.

In addition to primary compressors, onshore pipelines have standby units available in case of mechanical failure. This is because slowdowns in the pipeline can lead to significant loss of revenue.

Compressors also play an important role in natural gas storage. Compressors inject natural gas into storage reservoirs for storage and later extract the gas into the pipeline for delivery. Activity is often seasonal, reflecting demand for natural gas. However, as spot market activity and short term weather changes can often lead to frequently change their operating patterns.

82

Copyright 2012

**TABLE IV-2**

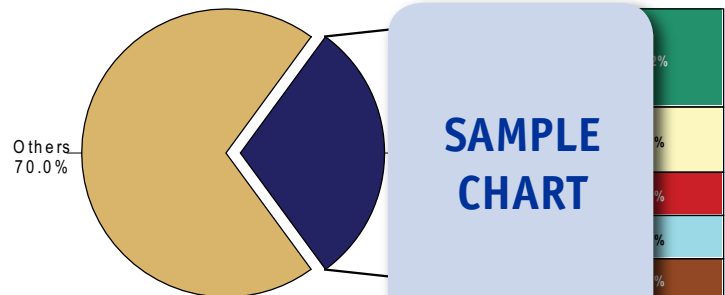
**OIL INFRASTRUCTURE EQUIPMENT DEMAND  
 (million dollars)**

Item	2001	2006	2011	2016	2021
Crude Oil/Liquids Prdn (mil barrels) \$ infrastructure/000 barrels					
Oil Infrastructure Demand					
Pipe					
Pumps					
Valves					
Storage Tanks					
Monitoring Equipment					
Other					

**SAMPLE  
 TABLE**

**CHART VI-1**

**OIL & GAS INFRASTRUCTURE MARKET SHARE  
 (\$8.9 billion, 2011)**



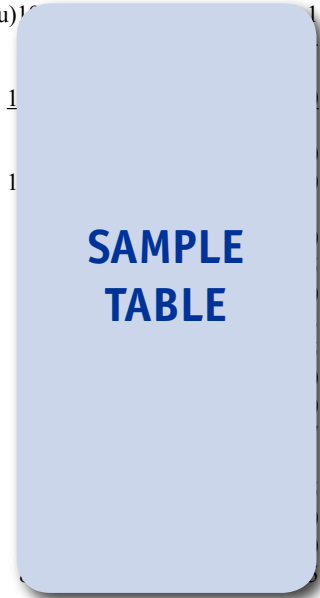
**SAMPLE  
 CHART**

**Sample Profile,  
 Table & Forecast**

**TABLE V-6**

**SOUTHERN REGION: OIL & GAS INFRASTRUCTURE DEMAND  
 (million dollars)**

Item	2001	2006	2011	2016	2021
Southern Oil/Gas Production (quad Btu)/ \$ infrastructure/bil Btu					
Oil & Gas Infrastructure Demand	1				
By Application:					
Oil					
Natural Gas	1				
By Product:					
Pipe					
Valves					
Compressors					
Pumps					
Gas Processing Equipment					
Monitoring Equipment					
Storage Tanks					
Other					
By State:					
Texas					
Louisiana					
Arkansas					
Other					



**COMPANY PROFILES**

**CIRCOR International Incorporated**  
 25 Corporate Drive, Suite 130  
 Burlington, MA 01803  
 781-270-1200  
<http://www.ci>

Revenues: \$  
 US Revenues  
 Employment:

**SAMPLE PROFILE**

Key Products: ; sw  
 gauges; ultras skid  
 matograph systems, headers, and pipeline pigging and flow assurance  
 products

CIRCOR International is a manufacturer of valves and related products for a wide range of industries. The Company operates in three segments: Energy, Flow Technologies, and Aerospace.

CIRCOR is active in the US oil and gas infrastructure industry through the Energy segment, which had 2011 revenues of \$395 million. The segment, which operates as CIRCOR Energy Products Incorporated (Oklahoma City, Oklahoma), designs, manufactures, and distributes valves and other flow control products for the upstream and midstream oil and gas, and petrochemical processing markets.

CIRCOR Energy Products makes a range of valves and other items under numerous brand names, such as KF VALVES, MALLARD CONTROL, CONTROMATICS, HYDROSEAL, SAGEBRUSH, PIPELINE ENGINEERING, and PIBIVIESSE. KF VALVES products comprise ball, check, needle, gate, globe, and butterfly valves, while CONTROMATICS offerings include ball valves and actuators.

187 Copyright 2012 The Freedonia Group, Inc.

“Demand for oil and gas infrastructure equipment in Texas is projected to increase 6.3 percent per year to \$2.5 billion in 2016, about the average for the region. Texas will account for a large share of the region’s net gain in demand, due mainly to sustained growth in oil drilling and liquids development in shale formation. In particular, the Eagle Ford formation will provide strong opportunities for infrastructure demand. In addition, ...”  
 --Section V, pg. 131

ONLINE: www.freedoniagroup.com

MAIL: Print out and complete the order form and send to The Freedonia Group (see address at the bottom of this form)

PHONE: Call toll free, 800.927.5900 (US) or + 1 440.684.9600

FAX: + 1 440.646.0484 (US)

EMAIL: info@freedoniagroup.com

Free Handling & Shipping

There is NO charge for handling or UPS shipping in the US. Expect delivery in 3 to 5 business days. Outside the US, Freedonia provides free airmail service. Express delivery is available at cost.

Orders Outside of the US

Checks must be made payable in US funds, drawn against a US bank and mailed directly to The Freedonia Group. For wire transfers please contact our customer service department at info@freedoniagroup.com. Credit cards accepted.

Credit Card Orders

For convenience, Freedonia accepts American Express, MasterCard or Visa. Credit card purchases must include account number, expiration date and authorized signature.

Save 15%

If you order three (3) different titles at the same time, you can receive a 15% discount. If your order is accompanied by a check or wire transfer, you may take a 5% cash discount (discounts do not apply to Corporate Use Licenses).

Corporate Use License

Now every decision maker in your organization can act on the key intelligence found in all Freedonia studies. For an additional \$2600, companies receive unlimited use of an electronic version (PDF) of the study. Place it on your intranet, e-mail it to coworkers around the world, or print it as many times as you like,

Click here to learn more about the Corporate Use License

ORDER FORM

F-WEB.-2922

Oil & Gas Infrastructure ..... \$5100

- Corporate Use License (add to study price) \* + \$2600
Additional Print Copies @ \$600 each \*
Total (including selected option) \$

Enclosed is my check (5% discount) drawn on a US bank and payable to The Freedonia Group, Inc., in US funds (Ohio residents add 7.75% sales tax)

- Bill my company American Express MasterCard Visa

Credit Card # grid

Expiration Date MM YY

Signature

Name

Title

Company

Division

Street (No PO Box please)

City/State/Zip

Country

Phone Fax

Email

\* Please check appropriate option and sign below to order an electronic version of the study.

Corporate Use License Agreement

The above captioned study may be stored on the company's intranet or shared directory, available to company employees. Copies of the study may be made, but the undersigned represents that distribution of the study will be limited to employees of the company.

Signature

Individual Use License Agreement

The undersigned hereby represents that the above captioned study will be used by only individual(s) who are employees of the company and that the study will not be loaded on a network for multiple users. In the event that usage of the study changes, the Company will promptly notify Freedonia of such change and will pay to Freedonia the appropriate fee based on Freedonia's standard fee schedule then in effect. Note: Entire company corporate use license, add \$2600; one additional user, add \$600; two additional users, add \$1200; three additional users, add \$1800.

Signature

**OTHER STUDIES**

**Large Diameter Pipe**

US large diameter pipe demand will rise 6.2 percent yearly through 2016 to 197 million feet. Storm and sanitary sewers will remain the leading market, while drainage and water transmission will grow the fastest. Concrete pipe will rebound from a depressed base to be the fastest growing material, while HDPE will surpass steel as the most common type. This study analyzes the 146 million foot US large diameter pipe industry, with forecasts for 2016 and 2021 by market and material. The study also evaluates company market share and profiles industry players.

#2974 .....December 2012 ..... \$5100

**World Oilfield Equipment**

Global demand for oilfield equipment will rise 3.8 percent yearly through 2016 to \$109 billion. Growth will be strongest in developing areas, where better infrastructure will benefit drilling activity. New, more expensive techniques to drill for unconventional reserves such as shale oil and oil sands will boost spending on oilfield equipment. This study analyzes the \$90.6 billion world oilfield equipment industry, with forecasts for 2016 and 2021 by product, world region and for 23 major countries. The study also evaluates company market share and profiles industry players.

#2937 .....October 2012 ..... \$6100

**Well Stimulation Materials**

US demand for well stimulation materials is forecast to rise 10.2 percent annually to nearly \$12 billion in 2016. Growth will be driven by continued advances in hydraulic fracturing technology designed to increase the productivity of both new and existing wells. Proppants, gases, and base fluid materials will be among the fastest growing products. This study analyzes the \$7.4 billion US well stimulation material industry, with forecasts for 2016 and 2021 by product and regional market. The study also evaluates company market shares and profiles industry players.

#2867 .....March 2012..... \$5100

**World Mining Equipment**

The world market for mining equipment is projected to climb 8.5 percent annually through 2015 to \$92 billion. The Asia/Pacific region will remain the fastest growing market. Metals and coal mining will lead gains by application. Mining drills and breakers will pace demand among product segments. This study analyzes the \$61 billion world mining equipment industry, with forecasts for 2015 and 2020 by application, product, world region and for 31 countries. The study also evaluates company market share and profiles industry competitors.

#2840 .....January 2012 ..... \$6200

**World Industrial Valves**

Global demand for industrial valves will rise 5.4 percent annually through 2015. Growth will be driven by continuing robust gains in the Asia/Pacific region, as well as strong recovery in the US and West European markets. Automatic valves will outpace conventional types. The oil and gas industry will see strong growth in valve demand. This study analyzes the \$71.8 billion world industrial valve industry, with forecasts for 2015 and 2020 by product, world region and for 34 major countries. The study also evaluates company market share and profiles industry competitors.

#2809 .....November 2011 ..... \$5900

**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)