

[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](#)



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Welding Equipment & Consumables

US Industry Study with Forecasts for **2015 & 2020**

Study #2785 | October 2011 | \$4900 | 270 pages



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Table of Contents

EXECUTIVE SUMMARY

MARKET ENVIRONMENT

General	4
Macroeconomic Trends	5
Fixed Investment Trends	8
Manufacturing Sector Outlook	11
Metal Product Shipments	14
Motor Vehicle Production	16
Aerospace & Other Transportation Equipment Outlook.....	19
Construction Outlook.....	21
Building Construction Expenditures	24
Nonresidential Building Construction	26

WELDING TECHNOLOGIES

General	29
Welding Technologies	30
Arc Welding	30
Gas Metal Arc Welding	33
Gas Tungsten Arc Welding	37
Shielded Metal Arc Welding	41
Flux-Cored Arc Welding	44
Submerged Arc Welding	46
Other Arc Welding.....	48
Oxyfuel Welding & Cutting.....	50
Resistance Welding	53
Ultrasonic Welding.....	55
Laser Beam Welding	57
Other Welding	59
Automation & the Welding Market	63

WELDING EQUIPMENT & CONSUMABLES OVERVIEW

General	65
Welding Equipment & Consumables Supply & Demand.....	66
Foreign Trade	68
Welding Equipment	68
Welding Consumables	69
Welding Equipment & Consumables Imports by Source.....	71
Welding Equipment & Consumables Exports by Destination	73
Pricing Trends.....	75
Equipment	76
Electrodes & Filler Metals	77
Gases.....	79

Historical Market Trends.....	81
Welder Employment Trends	84
Safety & Health Issues.....	85

WELDING EQUIPMENT

General	89
Welding Equipment Supply & Demand.....	90
Arc Welding Equipment.....	93
Resistance Welding	97
Oxyfuel Welding & Cutting.....	100
Laser Beam Welding	104
Ultrasonic Welding.....	107
Other Welding Equipment.....	109

WELDING CONSUMABLES

General	113
Welding Electrode & Filler Metal Demand ..	115
Welding Electrode & Filler Metal Demand by Material	119
Welding Electrode & Filler Metal Demand by Type	120
Solid Wire Electrodes & Filler Metal....	121
Stick Electrodes & Filler Metal.....	123
Flux- & Metal-Cored Welding Electrodes.....	126
Shielding & Oxyfuel Gases	129
Shielding Gases	131
Argon	135
Helium.....	137
Carbon Dioxide.....	139
Nitrogen	141
Hydrogen	142
Oxyfuel Gases.....	144
Oxygen	146
Acetylene.....	147
Other Fuel Gases.....	150

WELDING EQUIPMENT & CONSUMABLES MARKETS

General	153
Manufacturing	155
Fabricated Metal Products	157
Transportation Equipment	159
Motor Vehicles	160
Marine Equipment.....	162
Aerospace	164
Other Transportation Equipment.....	166
Agricultural, Construction & Mining Equipment.....	167

Other Manufacturing.....	169
Construction	170
Energy & Power Generation.....	173
Repair & Maintenance.....	175
Consumer & Other	177

INDUSTRY STRUCTURE

General	180
Market Share	183
Leading Companies	183
Leading Welding Equipment Producers...	187
Leading Consumable Electrode & Filler Metal Producers	188
Leading Oxyfuel & Shielding Gas Producers.....	189
Competitive Strategies.....	190
Product Development & Manufacturing	193
Distribution & Marketing	195
Mergers, Acquisitions & Industry Restructuring	197

COMPANY PROFILES

Air Products and Chemicals Incorporated ..	201
Airgas Incorporated.....	203
ARCON Welding LLC	204
Atlantic China Welding Consumables	206
CenterLine Windsor Limited	208
Charter International plc.....	210
DAIHEN Corporation	214
Denyo Company Limited.....	216
Doncasters Group Limited.....	217
Fronius International GmbH.....	219
Illinois Tool Works Incorporated	222
Kaierda Group Limited	228
L'Air Liquide SA	229
Lincoln Electric Holdings Incorporated	231
Linde Group	236
Manufacturing Technology Incorporated ...	238
Miyachi Corporation	241
NIMAK GmbH	244
OBARA Corporation.....	246
Panasonic Corporation	248
Praxair Incorporated.....	250
Rofin-Sinar Technologies Incorporated.....	252
Schunk Group	255
Sonics & Materials Incorporated	256
Taylor-Winfield Technologies Incorporated	258
Thermadyne Holdings Corporation.....	260
Tianjin Bridge Welding Materials.....	264
TRUMPF Group	265
voestalpine AG	267

List of Tables/Charts

EXECUTIVE SUMMARY

1 Summary Table 3

MARKET ENVIRONMENT

1 Macroeconomic Indicators 8
 2 Nonresidential Fixed Investment 11
 3 Manufacturers' Shipments 14
 4 Metal Product Shipments 16
 5 Motor Vehicle Indicators 19
 6 Aerospace & Other Transportation Equipment Shipments 21
 7 Construction Expenditures 24

WELDING TECHNOLOGIES

1 Major Arc Welding Processes 32
 Cht Schematic of Gas Metal Arc Welding "MIG" Process 37
 Cht Schematic of Gas Tungsten Arc Welding "TIG" Process 41

WELDING EQUIPMENT & CONSUMABLES OVERVIEW

1 Welding Equipment & Consumables Supply & Demand 68
 2 Welding Equipment Foreign Trade 69
 3 Welding Consumables Foreign Trade 71
 4 Welding Equipment & Consumables Imports by Source 72
 Cht Welding Equipment & Consumables Imports by Source, 2010 73
 5 Welding Equipment & Consumables Exports by Destination 74
 Cht Welding Equipment & Consumables Exports by Destination, 2010 75
 6 Selected Welding Equipment & Consumables Pricing 76
 Cht Welding Equipment Price Indices, 2000-2020 77
 Cht Electrode & Filler Metal Prices, 2000-2020 79
 Cht Selected Gas Prices, 2000-2020 81
 7 US Welding Market, 2000-2010 83
 Cht Historical Market Volatility, 2001-2010 84

WELDING EQUIPMENT

1 Welding Equipment Supply & Demand .. 92

Cht Welding Equipment Demand by Type, 2010 93
 2 Arc Welding Equipment Supply & Demand 97
 3 Resistance Welding Equipment Supply & Demand 100
 4 Oxyfuel Welding & Cutting Equipment Supply & Demand 104
 5 Laser Beam Welding Equipment Supply & Demand 107
 6 Ultrasonic Welding Equipment Supply & Demand 109
 7 Other Welding Equipment Supply & Demand 112

WELDING CONSUMABLES

1 Welding Consumables Supply & Demand 115
 2 Welding Electrode & Filler Metal Demand by Type 117
 Cht Welding Electrode & Filler Metal Demand by Type, 2010 118
 3 Welding Electrode & Filler Metal Demand by Material 120
 4 Solid Wire Electrode & Filler Metal Demand 123
 5 Stick Electrode & Filler Metal Demand 126
 6 Flux- & Metal-Cored Welding Electrode Demand 129
 7 Shielding & Oxyfuel Gas Demand 131
 8 Shielding Gas Demand by Type 133
 Cht Shielding Gas Demand by Type, 2010 134
 9 Argon Shielding Gas Demand 137
 10 Helium Shielding Gas Demand 139
 11 Carbon Dioxide Shielding Gas Demand 141
 12 Nitrogen Shielding Gas Demand 142
 13 Hydrogen Shielding Gas Demand 144
 14 Oxyfuel Gas Demand by Type 145
 15 Welding & Cutting Oxygen Demand 147
 16 Welding & Cutting Acetylene Demand 150
 17 Other Oxyfuel Gas Demand 152

WELDING EQUIPMENT & CONSUMABLES MARKETS

1 Welding Equipment & Consumables Demand by Market 154
 Cht Welding Equipment & Consumables Demand by Market, 2010 155

2 Manufacturing Market for Welding Equipment & Consumables 156
 Cht Manufacturing Market for Welding Equipment & Consumables, 2010.... 157
 3 Fabricated Metal Products Market for Welding Equipment & Consumables 159
 4 Transportation Equipment Market for Welding Equipment & Consumables 160
 5 Motor Vehicle Market for Welding Equipment & Consumables 162
 6 Marine Equipment Market for Welding Equipment & Consumables 164
 7 Aerospace Equipment Market for Welding Equipment & Consumables 166
 8 Other Transportation Equipment Market for Welding Equipment & Consumables 167
 9 Agricultural, Construction & Mining Equipment Markets for Welding Equipment & Consumables 169
 10 Other Manufacturing Markets for Welding Equipment & Consumables 170
 11 Construction Markets for Welding Equipment & Consumables 173
 12 Energy & Power Generation Markets for Welding Equipment & Consumables 175
 13 Repair & Maintenance Markets for Welding Equipment & Consumables 177
 14 Consumer & Other Markets for Welding Equipment & Consumables 179

INDUSTRY STRUCTURE

1 US Welding Equipment & Consumables Sales by Company, 2010 182
 Cht US Welding Equipment & Consumables Market Share, 2010 183
 Cht US Welding Equipment Market Share, 2010 188
 Cht US Consumable Electrode & Filler Metal Market Share, 2010 189
 Cht US Oxyfuel & Shielding Gas Market Share, 2010 190
 2 Selected Acquisitions & Divestitures .. 199

Growth will be fueled in part by an increasing number of welding applications, such as ultrasonic welding for joining dissimilar materials or the welding of nonferrous metals in aerospace equipment.

US demand to rise 6.4% annually through 2015

Demand in the US for welding equipment and consumables is forecast to increase 6.4 percent annually to \$7.1 billion in 2015. Gains will be driven by continued recovery from the economic recession experienced between late 2007 and 2009 in major manufacturing and construction markets. Growth will also be fueled by the increasing number of applications in which various types of welding can be used, such as ultrasonic welding for joining dissimilar materials or the welding of nonferrous metals in aerospace equipment. Although arc, resistance and oxyfuel welding dominate the market, electron beam, friction-stir, laser, and ultrasonic welding methods have found use in aerospace, electronics and packaging applications. The most popular welding methods are used in mature market segments, and demand for them is subject to the cyclical nature of individual markets, although the diversity and number of markets in which welding is used mitigates the effects of this in the welding industry overall.

Arc & resistance welding systems to remain dominant

The welding equipment segment is dominated by arc and resistance welding systems, which accounted for a combined 70 percent of equipment demand in 2010. These will remain the dominant welding techniques, in part due to their successful integration with modern

US Welding Equipment & Consumables Demand, 2010 (\$5.2 billion)

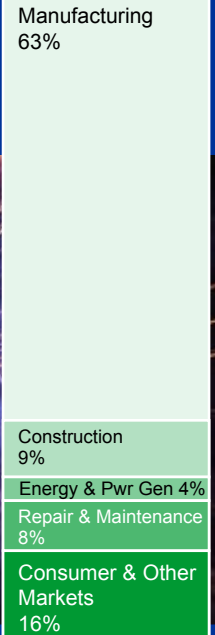


photo: Specialty Steel of America

automation techniques that improve weld deposit rates and alleviate the shortage of skilled welders.

Welding consumables include electrodes, filler metal and industrial welding gases used in oxyfuel welding applications, and shielding gases used primarily in arc welding applications. Consumption of these products is primarily dependent on the amount of arc and oxyfuel welding activity, though arc welding is the dominant market driver. Demand for consumables, which will benefit from both economic recovery and the ubiquity of arc welding processes, will increase 6.3 percent annually and approach \$2.2 billion in 2015.

Welding electrodes and filler metal accounted for 73 percent of all consumables in 2010, with oxyfuel and shielding gases accounting for the rest. Solid wire electrodes are the largest product category for electrodes and filler metal in dollar terms. However, emergent consumable products such as flux- and metal-cored electrodes are the most rapidly growing product segment, having gained increased acceptance in the general marketplace. Among the gases, oxygen and acetylene are dominant in metal joining and cutting. Argon is by far the most commonly used shielding gas, followed by carbon dioxide.

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WELDING EQUIPMENT

Welding Equipment Supply & Demand

Demand for welding equipment in the US approached \$10 billion in 2010, having increased at a 2.4 percent annual rate from 2005, however, demand has remained flat. There were increases in intervening years, but the sharp economic downturn in the US negated increases in welding equipment demand, which carried over the limited recovery experienced in 2010. Gains in welding equipment demand will average 2.4 percent annually through 2015. They will be supported by the construction market, which grew between 2007 and 2010, and the energy markets. Expenditures in welding equipment will be offset by alternative metalworking and joining processes, as well as the substitution of metals as manufacturing materials, such as the increase in composites or other nonmetallic materials in aircraft construction.

Arc welding equipment leads demand, having accounted for 29 percent of total welding equipment demand in 2010. Overall share of arc welding equipment has been climbing based on the popularity of the process across all sectors of the economy that use it. Economic recovery will drive robust growth of 7.3 percent per annum through 2105, when demand for arc welding equipment will reach \$2.1 billion.

Second in market share is resistance welding, which accounted for 29 percent of welding equipment demand in 2010. This welding method has typically accounted for between 28 and 30 percent of welding equipment demand since 2000. Resistance welding is used predominantly in industries where thin sections or layers of metal are joined, such as the motor vehicle, aerospace, appliance and other industries. The process will remain a mainstay in metalworking.

90

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SAMPLE TEXT

TABLE V-1

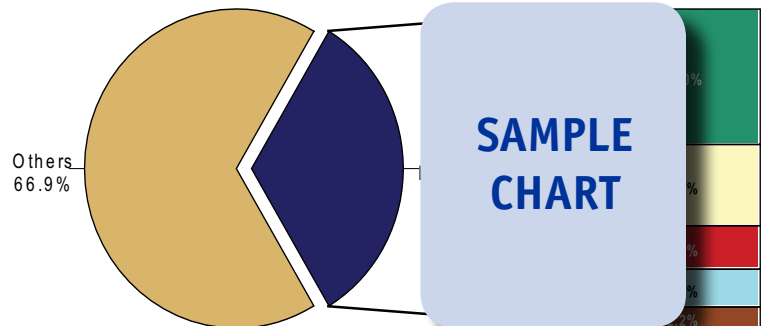
WELDING EQUIPMENT SUPPLY & DEMAND
(million dollars)

Item	2000	2005	2010	2015	2020
Nonresidential Fixed Investment (bil \$)					20
Durable Goods Shipments (bil \$)					0
\$ equipment/000\$ NFI					6
\$ equipment/000\$ durables					2
Welding Equipment Demand					0
Arc Welding					0
Resistance Welding					0
Oxyfuel Welding & Cutting					0
Laser Beam Welding					0
Ultrasonic Welding					0
Other Welding					0
net exports					0
Welding Equipment Shipments					0
Arc Welding					0
Resistance Welding					0
Oxyfuel Welding & Cutting					0
Laser Beam Welding					0
Ultrasonic Welding					0
Other Welding					0

SAMPLE TABLE

CHART VIII-1

US WELDING EQUIPMENT MARKET SHARE, 2010
(\$3.6 billion)



SAMPLE CHART

**Sample Profile,
 Table & Forecast**

TABLE VI-7
SHIELDING & OXYFUEL GAS DEMAND
 (million dollars)

Item	2000	2005	2010	2015	2020
Nonresidential Fixed Investment (bil \$)					
Fabricated Metal Product Shipments (bil \$)					
\$ gases/000\$ NFI					
\$ gases/000\$ fab metal					
Oxyfuel & Shielding Gas Demand					
Shielding Gases					
Oxyfuel Gases					
% oxyfuel & shielding gases					
Welding Consumables Demand	1200	1410	1520	1600	1710

**SAMPLE
 TABLE**

COMPANY PROFILES

ARCON Welding LLC
 2203 Northwood Drive, Building 10
 Salisbury, MD 21801
 410-572-6000
 http://www.arcwelding.com

Annual Sales:
 Employment:

Key Products: arc, tungsten inert gas, and other welding applications

**SAMPLE
 PROFILE**

ARCON Welding is a producer of welding machines and accessories. The privately held company mainly serves customers operating in rough or harsh environments, including shipyards, mines, offshore oil rigs, construction sites, paper mills, power plants and fertilizer manufacturing facilities.

The Company's welding equipment includes portable machines for manual metal arc (MMA), tungsten inert gas (TIG), flux-cored arc welding (FCAW), metal inert gas (MIG) and other welding applications. In general, ARCON Welding Equipment's welders are made with fiberglass cases and are designed to offer constant power. Certain models incorporate COMMAND ARC, a MIG transfer mode that is used to sense arc voltage. When the arc length reaches 12 volts, COMMAND ARC releases a pulse of current and voltage to expel the molten tip of the wire across the arc onto the work, thereby minimizing spatter and eliminating short-circuiting associated with conventional metal transfer activities.

204

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"In 2010, nitrogen demand in welding applications approached 1.3 billion cubic feet valued at \$5 million. Growth in demand will be driven by gains in fabricated metal product shipments. Consequently, nitrogen demand will reach 1.4 billion cubic feet valued at \$6 million in 2015. Growth by volume will average a relatively slow 1.5 percent per year for this period, reflecting the limited use of nitrogen in welding mixtures."

--Section VI, pg. 141

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OTHER STUDIES

World Construction Machinery

World demand for construction machinery is projected to expand 6.5 percent annually through 2015. Over half of all additional demand will come from the Asia/Pacific region, although the rate of growth will slow from the pace of the 2005-2010 period. Cranes, loaders and excavators will expand at above-average rates. This study analyzes the \$125 billion world construction machinery industry, with forecasts for 2015 and 2020 by product, world region and for 36 countries. The study also evaluates company market share and profiles industry players.

#2776 August 2011 \$6100

Machine Tools in China

Machine tool demand in China will rise 14.2 percent annually through 2014, bolstering the country's position as the largest machine tool consumer and producer. The dominant metal cutting machine segment will slightly outpace metal forming types. The transportation equipment market will grow the fastest. This study analyzes the 200 billion yuan machine tool industry in China, with forecasts for 2014 and 2019 by product, market and region. The study also evaluates company market share and profiles industry participants.

#2757 August 2011 \$5400

World Machine Tools

World demand for machine tool products is projected to increase 9.4 percent annually through 2014. The best prospects will be found in the developing world, especially China and India. The industrial sector will remain the largest market, but the transportation sector will post the strongest gains coming off a weak 2009. This study analyzes the \$77 billion world machine tool industry, with forecasts for 2014 and 2019 by type, market, world region and for 19 countries. The study also evaluates company market share and profiles industry competitors.

#2739 April 2011 \$5900

Abrasives

Demand for abrasives in the US will rise four percent annually through 2014. Durable goods manufacturing will remain the dominant market, with the motor vehicle segment growing the fastest. Nonmetallic coated and bonded abrasives and loose grains and powders will outperform metallic abrasives. This study analyzes the \$4.7 billion US abrasives industry, with forecasts for 2014 and 2019 by raw material, product and market. It also evaluates company market share and profiles industry players.

#2696 October 2010 \$4800

World Industrial Gases

Global demand for industrial gases will increase 8 percent yearly through 2014. The Asia/Pacific region will remain the fastest growing based on its ever expanding manufacturing base. The Africa/Mideast region will also exceed average growth rates, driven in part by its large oil reserves and refining industry. This study analyzes the \$35.7 billion world industrial gas industry, with forecasts for 2014 and 2019 by market, type, world region and for 27 countries. It also evaluates company market share and profiles industry participants.

#2659 August 2010 \$5900

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