

THE INDUSTRIAL MACHINERY CLUSTER IN NEW YORK STATE

Summary

- The Industrial Machinery cluster involves both heavy production equipment and the process and controls involved in creating increasingly automated products for factory, energy, automotive and construction end uses.
- In 2001 New York employment at firms in the Industrial Machinery cluster was 160,703 at 4,655 establishments.
- Five New York regions had greater concentrations of employment in Industrial Machinery than the nation as a whole. These were Central New York (Syracuse), the Finger Lakes (Rochester), the Mohawk Valley (Utica-Rome), the Southern Tier (Binghamton, Elmira) and Western New York (Buffalo, Niagara Falls).
- Employment at Industrial Machinery firms was greatest in Western New York (28,763 in 2001), Long Island (25,475) and the Finger Lakes (24,569).
- Five regions had specializations in Fabricated Metal Manufacturing: Central New York, the Finger Lakes, the Mohawk Valley, the Southern Tier, and Western New York.
- Five regions had specializations in Machinery Manufacturing: the Capital Region, Central New York, the Finger Lakes, the Southern Tier, and Western New York.

- Four regions had specializations in Instruments Manufacturing: Central New York, the Finger Lakes, Long Island, and the Southern Tier.
- Four regions had specializations in Electrical Equipment Manufacturing: Central New York, the North Country, the Southern Tier, and Western New York.

Definition of the Industrial Machinery Cluster

The industrial machinery cluster involves both heavy production equipment and the processes and controls involved in creating increasingly automated products for factory, energy, automotive and construction end uses.¹ The industrial machinery cluster falls into a number of distinct sub-sectors that are subject to unique national and international competitive trends. These sub-sectors are:

- Fabricated Metalworking Manufacturing
- Machinery Manufacturing
- Instruments Manufacturing
- Electrical Equipment Manufacturing

Appendix A contains detailed definitions of these sub-sectors, including the NAICS code categories used to define them.

As the Information Age has been changing the factory floor, it has also changed the nature of the Industrial Machinery cluster. As a result, the industrial machinery sector increasingly incorporates technology that is part of the State's computer hardware and software, imaging, and advanced materials clusters. Therefore, while the total employment involved in this cluster is significantly lower than in many other clusters, such as financial services and distribution, the activities and products contributed by this cluster are integral to the continued vitality of many of the other major clusters in the state.

Each of these industries depends on a labor pool of skilled metalworkers and the educational infrastructure that provide firms with entry-level employees who have the math and other technical skills. These industries are also dependent on the regional presence of professional engineers and industrial research, design and development personnel. Industrial machinery firms tend to invest more in knowledge-intensive skilled labor and R&D and less in capital than other types of manufacturing firms. This R&D-intensiveness requires access to innovative, cutting-edge personnel and strong university-industry relationships. Therefore, the industrial machinery sector requires a regional infrastructure that supports a quality of life – such as housing and education – suitable for the development and retention of both skilled blue collar workers and professional engineers and researchers, as well as the presence of universities with major R&D focuses.

¹ The Transportation Equipment Cluster Profile deals specifically with the automotive industrial sector.

Industrial machinery as an economic sector has historically performed well during economic expansion periods when factories order new equipment to meet a growing number of orders. However, plant modernization strategy has changed from simple strict replacement to upgrading and replacing components of a system to make it more efficient and effective. Eventually, to take advantage of additional efficiencies, firms also replace the heavy machinery component of the system. This means that an increasingly large part of the industrial machinery investment is now information hardware and software, service, design, control and component systems.

New York State Profile and Trends

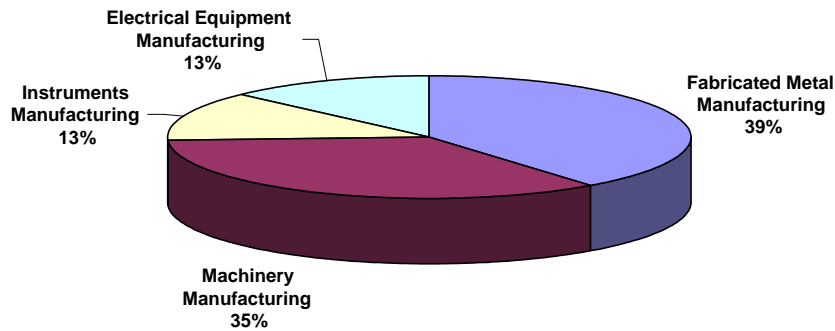
New York State’s Industrial Machinery cluster involved 4,655 establishments employing 160,703 people in 2001. This represents approximately 4% of total U.S. employment in Industrial Machinery (see Table 1).

Table 1: NYS Percentage Share of Total U.S. Employment in Industrial Machinery, 2001

Sub-Sector	2001
Fabricated Metal Manufacturing	3.95
Machinery Manufacturing	3.96
Instruments Manufacturing	5.16
Electrical Equipment Manufacturing	3.85
INDUSTRIAL MACHINERY CLUSTER	4.07

The Fabricated Metal Manufacturing subsector accounted for 39% of state Industrial Machinery employment, followed by Machinery Manufacturing with 35% of total employment (Figure 1). The Instruments Manufacturing and Electrical Equipment Manufacturing subsectors each accounted for 13% of the total.

**Figure 1
Employment by Cluster Sub-Sectors**



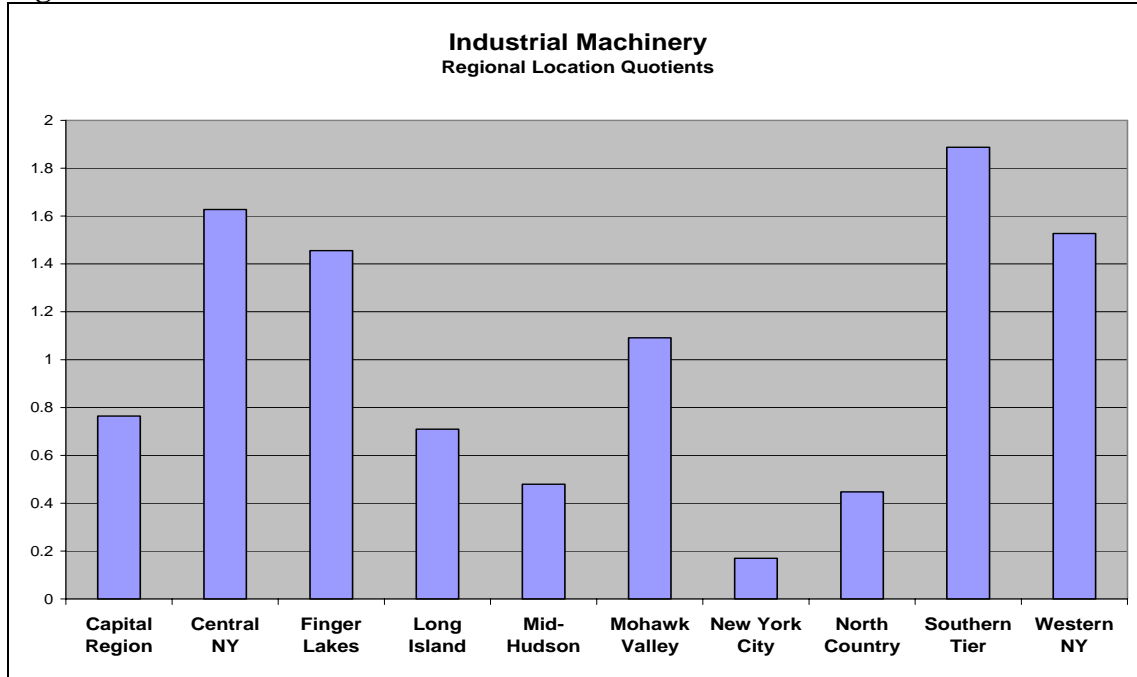
Western New York had the largest amount of employment in the Industrial Machinery cluster in 2001 (Table 2). Employment in the region was 28,763. Long Island (25,475) and the Finger Lakes region (24,569) have similarly high employment levels.

Five New York regions had greater concentrations of employment in Industrial Machinery than the nation as a whole. These were Central New York (Syracuse), the Finger Lakes (Rochester), the Mohawk Valley (Utica-Rome), the Southern Tier (Binghamton, Elmira) and Western New York (Buffalo, Niagara Falls). (See Figure 2.)

Table 2

REGION	Establishments	Employment
Capital Region	211	10,380
Central NY	283	16,938
Finger Lakes	621	24,569
Long Island	1,064	25,475
Mid-Hudson	464	12,180
Mohawk Valley	159	5,393
New York City	862	18,571
North Country	57	1,714
Southern Tier	229	16,720
Western NY	705	28,763
TOTAL	4,655	160,703

Figure 2



Regional Highlights

Western New York (Buffalo, Jamestown, Niagara Falls)

	Establishments	Employment	Location Quotient
Metal Mfg	410	14172	1.78
Machinery Mfg	219	9374	1.50
Instruments Mfg	29	1326	0.67
Electrical Equip Mfg	47	3892	1.48

- Western New York had 28,763 employees at 705 establishments in the Industrial Machinery cluster.
- Western New York employment in Industrial Machinery was 53% higher than would be expected based on national level employment patterns.
- Western New York has sizeable employment levels in three Industrial Machinery subsectors: Metal Fabrication Manufacturing (14,172), Machinery Manufacturing (9,374), and Electrical Equipment Manufacturing (3,892).
- Within the cluster, the region had employment 78% greater than what would be expected for Fabricated Metal Manufacturing. The regional location quotient for Machinery Manufacturing was 1.50, while the LQ for Electrical Equipment was 1.48.
- Among the Western New York companies in the Industrial Machinery cluster are:

Dresser Rand – a producer of centrifugal and reciprocating compressors, steam turbines, expanders, gas turbine packages, and control systems.

Cummins Engine – a leading producer of diesel engines.

Cooper Turbocompressor – a producer of products and services for centrifugal air compression equipment.

Long Island

	Establishments	Employment	Location Quotient
Metal Mfg	621	10436	0.69
Machinery Mfg	250	6871	0.58
Instruments Mfg	106	5905	1.55
Electrical Equip Mfg	87	2263	0.45

- Long Island had 25,475 employees at 1,064 establishments in the Industrial Machinery cluster.
- Long Island has sizeable employment levels in two Industrial Machinery subsectors: Metal Fabrication Manufacturing (10,436) and Instruments Manufacturing (5,905).
- Within the cluster, the region had employment 55% greater than what would be expected for Instruments Manufacturing.
- Long Island industrial machinery firms were significantly smaller, on average than firms in other regions of the State. Among them are:

Curtis Wright Flow Control - engineers, designs and manufactures, distributes and services valves, pumps and other flow control products for both nuclear and non-nuclear applications.

Deutsch Relays – designs and manufactures hermetically sealed electro-mechanical relays, electronic timing relays and relay mounting hardware.

Altronix – offers a line of electronics components for the security, fire alarm, surveillance, and home automation industries.

Finger Lakes (Rochester)

	Establishments	Employment	Location Quotient
Metal Mfg	336	10231	1.43
Machinery Mfg	229	9938	1.77
Instruments Mfg	32	2704	1.51
Electrical Equip Mfg	24	1697	0.72

- The Finger Lakes had 24,569 employees at 621 establishments in the Industrial Machinery cluster.
- Finger Lakes employment in Industrial Machinery was 46% higher than would be expected based on national level employment patterns.

- The Finger Lakes region has sizeable employment levels in two Industrial Machinery subsectors: Metal Fabrication Manufacturing (10,231) and Machinery Manufacturing (9,938).
- Within the cluster, the region had employment 77% greater than what would be expected for Machinery Manufacturing. The regional location quotient for Instruments Manufacturing was 1.51, while the LQ for Fabricated Metal Manufacturing was 1.43.
- Among the Finger Lakes companies in the cluster are:

Gleason Corporation – a leading producer of gears and gear machines.

SPX Corporation – a producer of industrial products and vehicle components.

Pfautler, Inc. – a producer of glass lined equipment.

Central New York (Syracuse)

	Establishments	Employment	Location Quotient
Metal Mfg	163	5049	1.15
Machinery Mfg	81	7017	2.03
Instruments Mfg	15	2926	2.66
Electrical Equip Mfg	24	1946	1.34

- Central New York had 16,938 employees at 283 establishments in the Industrial Machinery cluster.
- Central New York employment in Industrial Machinery was 63% higher than would be expected based on national level employment patterns.
- Central New York has sizeable employment levels in two Industrial Machinery subsectors: Machinery Manufacturing (7,017) and Instrument Manufacturing (2,926).
- Within the cluster, the region had employment 166% greater than what would be expected for Instruments Manufacturing. The regional location quotient for Machinery Manufacturing was 2.03, while the LQ for Electrical Equipment was 1.34 and the LQ for Fabricated Metal Manufacturing was 1.15.
- Among the Central New York Industrial Machinery companies are:

AAF-McQuay – another producer of heating, ventilating and air conditioning equipment.

Kilian Manufacturing – leading producer of custom bearings.

Southern Tier (Binghamton, Elmira)

	Establishments	Employment	Location Quotient
Metal Mfg	129	4242	1.13
Machinery Mfg	62	5455	1.86
Instruments Mfg	19	4077	4.35
Electrical Equip Mfg	19	2946	2.38

- The Southern Tier had 16,720 employees at 229 establishments in the Industrial Machinery cluster.
- Southern Tier employment in Industrial Machinery was 89% higher than would be expected based on national level employment patterns.
- The Southern Tier has sizeable employment levels in two Industrial Machinery sub-sectors: Instrument Manufacturing (4,077) and Electrical Equipment Manufacturing (2,946).
- Within the cluster, the region had employment 335% greater than what would be expected for Instruments Manufacturing. The regional location quotient for Machinery Manufacturing was 1.86, while the LQ for Electrical Equipment Manufacturing was 2.38 and the LQ for Fabricated Metal Manufacturing was 1.13.
- Among the Southern Tier region's leading firms in the cluster are:

Hardinge, Inc. – a producer of metal cutting products.

Pall Corporation – a producer of filtration and separation equipment.

Hilliard Corporation – a producer of industrial filters, clutches and brakes.

Regional Industrial Machinery Companies

Company Name	City
Capital Region (Albany, Schenectady, Troy)	
Atlas Copco Compressors Inc	Voorheesville
Ball Corp	Saratoga Springs
Espey Manufacturing & Electron	Saratoga Springs
GE Energy	Schenectady
General Electric Co Inc	Fort Edward
Intermagnetics General Corp	Latham
Kaz Inc	Hudson
North American Industrial Svcs	Ballston Spa
Tougher Industries Inc	Albany
Von Roll Isola USA Inc	Schenectady
Central New York (Syracuse)	
Advanced DC Motors Inc	East Syracuse
Anaren Microwave Inc	East Syracuse
ARCOM LABS	Syracuse
Armstrong Mold Corp	East Syracuse
CABLExpress Technologies	North Syracuse
Carrier Corp	Syracuse
Cooper Crouse-Hinds	Syracuse
Crucible Specialty Metals	Syracuse
CXTEC	Syracuse
Dielectric Laboratories Inc	Cazenovia
Eagle Comtronics Inc	Syracuse
Ferris Industries Inc	Munnsville
Fulton Boiler Works Inc	Pulaski
Fulton Thermal Corp	Pulaski
Goulds Pumps Inc	Auburn
Hand Held Products Inc	Skaneateles Falls
INFICON Inc	East Syracuse
Lockheed Martin Corp	Syracuse
Manth-Brownell Inc	Kirkville
Marquardt Switches Inc	Cazenovia
McQuay International	Auburn
Pall Corp	Cortland
PPC	East Syracuse
Seneca Data Distributors Inc	North Syracuse
Tactair Fluid Controls Inc	Liverpool
United Radio Inc	East Syracuse
Welch Allyn Inc	Skaneateles Falls
Young & Franklin Inc	Liverpool

Finger Lakes (Rochester)

Alstom Signaling Inc	Rochester
American Precision Industries	Arcade
Bernz O Matic Surefire	Medina
Bosch Security Systems	Fairport
Caldwell Manufacturing Co Inc	Rochester
Chapin	Batavia
Corning Tropol Corp	Fairport
Crosman Corp	East Bloomfield
Eastman Kodak Co	Rochester
ENI Technology Inc	Rochester
Ferro Corp	Penn Yan
Garlock Sealing Technologies	Palmyra
Gleason Works	Rochester
Graham Corp	Batavia
Harris Corp	Rochester
IEC Electronics Corp	Newark
ITT Goulds Pumps	Seneca Falls
Meridian Automotive Systems	Canandaigua
Microwave Data Systems Inc	Rochester
Nationwide Precision Products	Rochester
NexPress Digital LLC	Rochester
Park Enterprises Inc	Rochester
Parker Hannifin Corp	Lyons
Pfautler Inc	Rochester
Sentry Group	Rochester
Southco Inc	Honeoye Falls
SPX Process Equipment	Rochester
Star Headlight & Lantern Co	Avon
Stone Construction Equipment	Honeoye
Ultralife Batteries Inc	Newark
Valeo Electrical System Inc	Rochester
Xerox Corp	Rochester

Long Island

Advanced Acoustic Concepts Inc	Hauppauge
Aeroflex Inc	Plainview
Air Techniques Inc	Hicksville
American Technical Ceramics	Huntington Station
Audiovox Corp	Hauppauge
BAE Systems	Greenlawn
Barand	Melville
Biodex Medical Systems Inc	Shirley
Canon USA Inc	New Hyde Park
Cooper Lighting Inc	Hicksville
Curtiss-Wright Flow Control	Farmingdale
Data Device Corp	Bohemia
Dayton T Brown Inc	Bohemia

Ducon Technologies Inc	Farmingdale
Duro Dyne Corp	Bay Shore
EDO Corp	Deer Park
Festo Corp	Hauppauge
Fonar Corp	Melville
Frequency Electronics Inc	Uniondale
Great Neck Saw Manufacturers	Mineola
Honeywell	Syosset
I W Industries Inc	Melville
ILC Industries Inc	Bohemia
Koch Entertainment	Port Washington
Konica Minolta Graphic Imaging	Glen Cove
L I F Industries Inc	Port Washington
L-3 Communications Inc	Hauppauge
Mannix Architectural Window	Brentwood
Mason Industries Inc	Smithtown
Mill-Max Manufacturing Corp	Oyster Bay
Nortel	Bohemia
Pall Corp	Greenvale
Parker Hannifin Corp	Smithtown
Photocircuits Corp	Glen Cove
Quality Transmission	
Component	New Hyde Park
Slant Fin Corp	Greenvale
Spellman High Voltage Elexs	Hauppauge
Standard Microsystems Corp	Hauppauge
Symbol Technologies Inc	Holtsville
Techno Inc	New Hyde Park
Telephonics Corp	Farmingdale
Telephonics Corp	Huntington
Veeco Instruments Inc	Woodbury

Mid-Hudson

Ametek Rotron	Woodstock
BAE Systems Info & Electronic	Yonkers
Fuji Photo Film USA Inc	Valhalla
IBM	Poughkeepsie
IBM	Wiccopee
IBM	Armonk
Imperial Schrade Corp	Ellenville
LSI Industries	New Windsor
Metal Container Corp	Newburgh
Philips Semiconductors Inc	Hopewell Junction
Powers Fasteners Inc	New Rochelle
Presray Corp	Pawling
Reliable Automatic Sprinkler	Mount Vernon
Stewart EFI New York LLC	Yonkers

Mohawk Valley (Utica, Rome)

CONMED Corp	Rome
Fountainhead Group Inc	New York Mills
Kasson & Keller Inc	Fonda
PAR Technology Corp	New Hartford
Remington Arms Co Inc	Ilion
Union Tools Inc	Frankfort
Universal Music & Video Dstbn	Gloversville
Ward Products LLC	Amsterdam

North Country (Watertown, Ogdensburg, Plattsburgh)

A Schonbek & Co Inc	Plattsburgh
Tyco Healthcare Kendall	Watertown

New York City

A L Eastmond & Sons Inc	Bronx
Acme Architectural Products	Brooklyn
Acme Steel Partition Co Inc	Brooklyn
Armitron Corp	Long Island City
Cooper Wiring Devices	Long Island City
Crystal Window & Door Systems	Flushing
Ellanef Manufacturing Corp	Corona
Feiss Industries	Bronx
Industrial Acoustics Co Inc	Bronx
IPC Communications Inc	New York
Kepeco Inc	Flushing
Leviton Manufacturing Co Inc	Little Neck
Linear Lighting	Long Island City
M Z Berger & Co Inc	Long Island City
Mini-Circuits	Brooklyn
Mitsui & Co USA Inc	New York
Print International	New York
Skyline Windows	New York
Sony BMG Music Entertainment	New York
UMG Recordings Inc	New York
Universal Music Group	New York
US Window Factory	Richmond Hill
Volt Information Sciences Inc	New York
Widex Hearing Aid Co Inc	Astoria

Southern Tier (Binghamton, Elmira, Corning)

Amphenol Corp	Sidney
Amphenol Interconnect Products	Endicott
Avanex Corp	Painted Post

B T Raymond Inc	Greene
B W Elliott Manufacturing Co	Binghamton
BorgWarner Morse Tec	Ithaca
Corning Inc	Corning
Eaton Electrical Inc	Horseheads
Emerson Power Transmission	Ithaca
Felchar Manufacturing Co	Binghamton
Hardinge Inc	Elmira
Harvard Custom Manufacturing	Owego
Hilliard Corp	Elmira
IBM	Endicott
Lockheed Martin Systems	Owego
NLX Corp	Binghamton
Philips Lighting Co	Bath
Raymond Corp	Greene
Sanmina-SCI Corp	Owego
Therm Inc	Ithaca
Thomas & Betts Corp	Horseheads
Universal Instruments Corp	Binghamton
Vulcraft Of New York Inc	Chemung

**Western New York (Buffalo,
Jamestown, Niagara Falls)**

Accellent	Orchard Park
Alcas Corp	Olean
Alstom Power Air Preheater Co	Wellsville
American Axle & Manufacturing	Buffalo
API Basco	Buffalo
Astronics Corp	East Aurora
AVOX Systems Inc	Lancaster
Caplugs LLC	Buffalo
Chautauqua Hardware Corp	Jamestown
Cooper Power Systems	Olean
Cooper Turbocompressor Inc	Buffalo
Cummins Engine Co Inc	Lakewood
Curbell Inc	Orchard Park
Curtis Screw Co LLC	Buffalo
Danaher Motion	Amherst
Derrick Corp	Buffalo
Dresser-Rand Co	Wellsville
DRS EW & Network Systems	Buffalo
Harmac Medical Products Inc	Buffalo
Hope's Windows Inc	Jamestown
Intel Corp	Getzville
ITT Heat Transfer Fluid Tech	Cheektowaga
Luminescent Systems Inc	East Aurora
Markar Architectural Products	Lancaster
McGard Inc	Orchard Park
Moog Inc	East Aurora

Motorola Inc
Northrop Grumman Amherst
Systs
Par Industries LLC
Sherwood
Strippit LVD
Swagelok
Valeo Inc
Whiting Door Manufacturing

Elma
Buffalo
Amherst
Lockport
Akron
North Tonawanda
Jamestown
Akron

APPENDIX A: Cluster Definition

Empire State Development defines the Industrial Machinery cluster as composed of these NAICS industries:

Fabricated Metal Manufacturing Subsector

332111	Iron and Steel Forging
332112	Nonferrous Forging
332114	Custom Roll Forming
332115	Crown and Closure Manufacturing
332116	Metal Stamping
332117	Powder Metallurgy Part Manufacturing
332211	Cutlery and Flatware (except Precious) Manufacturing
332212	Hand and Edge Tool Manufacturing
332213	Saw Blade and Handsaw Manufacturing
332214	Kitchen Utensil, Pot, and Pan Manufacturing
332311	Prefabricated Metal Building and Component Manufacturing
332312	Fabricated Structural Metal Manufacturing
332313	Plate Work Manufacturing
332321	Metal Window and Door Manufacturing
332322	Sheet Metal Work Manufacturing
332323	Ornamental and Architectural Metal Work Manufacturing
332410	Power Boiler and Heat Exchanger Manufacturing
332420	Metal Tank (Heavy Gauge) Manufacturing
332431	Metal Can Manufacturing
332439	Other Metal Container Manufacturing
332510	Hardware Manufacturing
332611	Spring (Heavy Gauge) Manufacturing
332612	Spring (Light Gauge) Manufacturing
332618	Other Fabricated Wire Product Manufacturing
332710	Machine Shops
332721	Precision Turned Product Manufacturing
332722	Bolt, Nut, Screw, Rivet, and Washer Manufacturing
332811	Metal Heat Treating
332812	Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers
332813	Electroplating, Plating, Polishing, Anodizing, and Coloring
332911	Industrial Valve Manufacturing
332912	Fluid Power Valve and Hose Fitting Manufacturing
332913	Plumbing Fixture Fitting and Trim Manufacturing
332919	Other Metal Valve and Pipe Fitting Manufacturing
332991	Ball and Roller Bearing Manufacturing
332992	Small Arms Ammunition Manufacturing
332993	Ammunition (except Small Arms) Manufacturing
332994	Small Arms Manufacturing
332995	Other Ordnance and Accessories Manufacturing
332996	Fabricated Pipe and Pipe Fitting Manufacturing

332997 Industrial Pattern Manufacturing
332998 Enameled Iron and Metal Sanitary Ware Manufacturing
332999 All Other Miscellaneous Fabricated Metal Product Manufacturing

**Machinery
Manufacturing
Subsector**

333111 Farm Machinery and Equipment Manufacturing
333112 Lawn and Garden Tractor and Home Lawn and Garden Equipment Manufacturing
333120 Construction Machinery Manufacturing
333131 Mining Machinery and Equipment Manufacturing
333132 Oil and Gas Field Machinery and Equipment Manufacturing
333210 Sawmill and Woodworking Machinery Manufacturing
333220 Plastics and Rubber Industry Machinery Manufacturing
333291 Paper Industry Machinery Manufacturing
333292 Textile Machinery Manufacturing
333293 Printing Machinery and Equipment Manufacturing
333294 Food Product Machinery Manufacturing
333295 Semiconductor Machinery Manufacturing
333298 All Other Industrial Machinery Manufacturing
333311 Automatic Vending Machine Manufacturing
333312 Commercial Laundry, Dry-cleaning, and Pressing Machine Manufacturing
333313 Office Machinery Manufacturing
333319 Other Commercial and Service Industry Machinery Manufacturing
333411 Air Purification Equipment Manufacturing
333412 Industrial and Commercial Fan and Blower Manufacturing
333414 Heating Equipment (except Warm Air Furnaces) Manufacturing
Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing
333415
333511 Industrial Mold Manufacturing
333512 Machine Tool (Metal Cutting Types) Manufacturing
333513 Machine Tool (Metal Forming Types) Manufacturing
333514 Special Die and Tool, Die Set, Jig, and Fixture Manufacturing
333515 Cutting Tool and Machine Tool Accessory Manufacturing
333516 Rolling Mill Machinery and Equipment Manufacturing
333518 Other Metalworking Machinery Manufacturing
333611 Turbine and Turbine Generator Set Units Manufacturing
333612 Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing
333613 Mechanical Power Transmission Equipment Manufacturing
333618 Other Engine Equipment Manufacturing
333911 Pump and Pumping Equipment Manufacturing
333912 Air and Gas Compressor Manufacturing
333913 Measuring and Dispensing Pump Manufacturing
333921 Elevator and Moving Stairway Manufacturing
333922 Conveyor and Conveying Equipment Manufacturing
333923 Overhead Traveling Crane, Hoist, and Monorail System Manufacturing
333924 Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing
333991 Power-Driven Hand tool Manufacturing
333992 Welding and Soldering Equipment Manufacturing
333993 Packaging Machinery Manufacturing
333994 Industrial Process Furnace and Oven Manufacturing
333995 Fluid Power Cylinder and Actuator Manufacturing

333996	Fluid Power Pump and Motor Manufacturing
333997	Scale and Balance (except Laboratory) Manufacturing
333999	All Other Miscellaneous General Purpose Machinery Manufacturing
Instrument Manufacturing Subsector	
334511	Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufa
334512	Automatic Environmental Control Manufacturing for Residential, Commercial, and Appliance Use Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industria
334513	Variables
334514	Totalizing Fluid Meter and Counting Device Manufacturing
334515	Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals
334516	Analytical Laboratory Instrument Manufacturing
334517	Irradiation Apparatus Manufacturing
334518	Watch, Clock, and Part Manufacturing
334519	Other Measuring and Controlling Device Manufacturing
Electrical Equipment Subsector	
335110	Electric Lamp Bulb and Part Manufacturing
335121	Residential Electric Lighting Fixture Manufacturing
335122	Commercial, Industrial, and Institutional Electric Lighting Fixture Manufacturing
335129	Other Lighting Equipment Manufacturing
335211	Electric Housewares and Household Fan Manufacturing
335212	Household Vacuum Cleaner Manufacturing
335221	Household Cooking Appliance Manufacturing
335222	Household Refrigerator and Home Freezer Manufacturing
335224	Household Laundry Equipment Manufacturing
335228	Other Major Household Appliance Manufacturing
335311	Power, Distribution, and Specialty Transformer Manufacturing
335312	Motor and Generator Manufacturing
335313	Switchgear and Switchboard Apparatus Manufacturing
335314	Relay and Industrial Control Manufacturing
335911	Storage Battery Manufacturing
335912	Primary Battery Manufacturing
335921	Fiber Optic Cable Manufacturing
335929	Other Communication and Energy Wire Manufacturing
335931	Current-Carrying Wiring Device Manufacturing
335932	Noncurrent-Carrying Wiring Device Manufacturing
335991	Carbon and Graphite Product Manufacturing
335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing

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