

CURRENT INDUSTRIAL REPORTS SERIES

2010 MA333P — PUMPS (EXCEPT HYDRAULIC) AND COMPRESSORS (SHIPMENTS)

DEFINITIONS AND SPECIAL INSTRUCTIONS

1. Scope of survey

This survey includes firms engaged in manufacturing industrial pumps, (reciprocating, turbine, centrifugal, rotary, diaphragm, and other pumps); domestic water systems; domestic sump pumps; oil well and oil field pumps; hot water heating circulator pumps, and other pumps; air compressors; gas compressors; and vacuum pumps. Excluded from this survey are hand pumps; measuring and dispensing pumps; automotive circulating pumps; hydraulic fluid power pumps; paint-spraying equipment; and compressors for ice making, refrigeration equipment, and air-conditioning units.

2. Figures to be reported

Companies with more than one establishment manufacturing the products covered by this survey are requested to complete a separate report form for each location. If you have not received a separate form for each of your establishments, please call the contact shown on the report form or write to U.S. Census Bureau for additional forms.

a. Quantity and value of shipments

The figures on quantity and value of shipments should include the physical shipments of all products sold, transferred to other establishments within your company, or shipped on consignment, whether for domestic or export sale. The value represents the net sales price, f.o.b. plant, to the customer or branch to which the products are shipped, net of discounts, allowances, freight charges, and returns. Shipments to your own branches should be assigned the same value as comparable sales to unaffiliated customers, i.e., the value includes an appropriate allocation of company overhead and profit. Products bought and resold without further manufacture should not be included in shipments.

Report all driven units, such as pump-driven sets and compressor-driven sets, and pumps and compressors sold without drivers. In column 1, report the number of pumps and compressors shipped; in column 2, report the value of the units in column 1. This value should represent the value of the pump or compressor only and should not include the value of the driver. The exceptions to this are domestic water system and sump pumps and integral diesel-or gas-engine powered gas compressors. The value of shipments figure for these items should include the value of the driver.

For item codes representing value of drivers, do not report quantities.

b. Columnar structure of report

When posting your figures to the original report, please be sure to report the information in the correct columns. These are:

For item codes 1098, 1698, 3298, and 3498:

Column 2 — Value of shipments of drivers sold with driven units. (Column 1 is not used.)

For item codes 1911, 1922, 1933, and 1995:

Column 2 — Value of shipments of parts and attachments sold separately. (Column 1 is not used.)

For other item codes:

Column 1 — Quantity (Number of pumps or compressors shipped).

Column 2 — Value of shipments of driven units, excluding value of drivers (see instructions, item 2a).

3. Definitions

Pump — Device for raising, transferring, moving, or pressurizing fluids.

Compressor — Device for compressing gases, such as air for motive power or natural gas for the transfer of gas or for the recovery of liquid hydrocarbons.

Driver — An electric motor, or a prime mover, such as a steam engine, steam or gas turbine, or internal combustion engine.

CENTRIFUGAL PUMPS (item codes 1129—1176)

Centrifugal pump — A pump in which the pressure is developed principally by the action of centrifugal force. Pumps in the class with single inlet impellers usually have a specific speed below 4200; with double suction impellers, below 6000. In pumps of this class the liquid normally enters the impeller at the hub and flows radially to the periphery.

Single stage pump — A pump in which the total head is developed by one impeller.

Single suction pump — A pump equipped with one or more single suction impellers.

Close coupled pump — A design in which the impeller is mounted on the motor shaft.

Frame mounted pump — A pump design in which the impeller is mounted on a shaft, held in a bearing frame, and coupled to a motor with a flexible coupling.

Double suction pump — A pump equipped with one or more double suction impellers.

Multistage pump — A pump having two or more impellers acting in series in one casing.

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Definitions — Continued

Propeller (or axial flow) pump — A pump which develops most of its head by the propelling or lifting action of the vanes on the liquid. It has a single inlet impeller with the flow entering axially and discharging nearly axially. Pumps of this type usually have a specific speed above 9000.

Mixed flow pump — A pump in which the head is developed partly by centrifugal force and partly by the lift of the vanes of the liquid. This type of pump has a single inlet impeller with the flow entering axially and discharging in an axial and radial direction. Pumps of this type usually have a specific speed from 4200 to 9000.

VERTICAL TURBINE PUMPS (*item code 1180*) — Include submersible pump systems over 5 hp. Report submersible pump systems, 5 hp and under, as domestic water systems, *item codes 1380*.

RECIPROCATING PUMPS (*item code 1182*)

Direct-acting steam-driven — A reciprocating pump and a steam engine built together as a unit. The power to drive the pump is furnished by the steam engine.

ROTARY PUMPS — *item codes 1186—1190*

Rotary pump — A positive displacement pump, consisting of a fixed casing containing gears, cams, screws, vanes, plungers, or similar elements actuated by rotation of the drive shaft. These pumps are characterized by their close running clearances and the absence of suction and discharge valves.

DOMESTIC WATER SYSTEMS (*item codes 1367—1390*) — Include submersible pump systems 5 hp and under. Report submersible pump systems over 5 hp as vertical turbine pumps, *item code 1180*. (See also submersible centrifugal pumps, *item codes 1130—1150*.) Exclude irrigation pumps; report them under industrial pumps by class and type of pump.

Domestic water system — A complete water supply pump system for household and farm use, containing driver, tank, and fittings.

Jet pump — A pump with built-in jet (ejector) assembly for either shallow or deep well use.

Non-jet pump — An electrical reciprocating piston pump for shallow or deep well use.

Submersible pump — A pump completely submerged in water (well, pond, reservoir, etc.) which uses a series of impellers and diffusers (stages) on a single shaft or a helical rotor positive displacement design propelled by an oil-filled or water-lubricated motor.

Domestic hand pumps, etc. — Hand, windmill, or engine-driven well pumps not electrically powered.

OIL-WELL AND OIL-FIELD PUMPS (*item codes 1701—1720*) — Include pumps specially designed for oil-well and oil-field applications (except boiler feed).

AIR COMPRESSORS (*item codes 3300—3341*)

Stationary air compressor — An air compressor which is intended for permanent installation and is typically not mobile.

Portable air compressor — An air compressor which is mountable on wheels, a skid, or a motor truck so as to be typically mobile.

Gas compressors (*item codes 3342—3356*) — Include engine-compressor units which generally consist of an integral engine compressor block that houses both the engine and compressor. (In such machines the engine pistons and compressor pistons are mounted on a common crankshaft.)

VACUUM PUMPS (*item codes 3568—3579*)

Vacuum pump — A device for withdrawing air, gas, or air and gas mixtures from piping systems, enclosed vessels, or enclosed spaces, discharging the air to atmosphere, and removing the moisture.

4. Standard abbreviations

hp — Horsepower

ANSI — American National Standards Institute

API — American Petroleum Institute

ISO — International Organization for Standardization

FM — Factory Mutual Insurance Certification

UL — Underwriters' Laboratories

PSI — Pounds per square inch

GPM — Gallons per minute

PSIG — Pounds per square inch gauge (represents the differential between atmospheric pressure and output pressure of compressors).

C.F.M. — Cubic feet per minute

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5. Comparability

Data reported in this survey should correspond to data reported in the Annual Survey of Manufactures form. The sum of values for item codes shown in column (a) should correspond to dollar values reported under product class codes indicated in column (b) below.

Current Industrial Reports (Form MA333P) Item codes (a)	Annual Survey of Manufactures Product class codes (b)
1199, 1399, 1499, 1799, 1800	3339111
3399, 3599	3339121
3900	3339125
1999	3339115

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REFERENCE LIST

FORM MA333P		
PUMPS (EXCEPT HYDRAULIC) AND COMPRESSORS (SHIPMENTS)		
Product code	Item code	Item description
		TOTAL SHIPMENTS (Domestic and export) <i>(Report value in thousands of dollars)</i>
		INDUSTRIAL PUMPS (Excluding hydraulic fluid power pumps, automotive circulating pumps, measuring and dispensing pumps)
3339111401	1098	<i>VALUE OF DRIVERS</i> — Include the value of drivers (motors, engines, etc.), sold with driven units reported elsewhere in product class 3339111, on this line — do not report the values of drivers within the values for the driven units
		Centrifugal pumps
3339111413	1129	Sewage type (non-submersible), vertical or horizontal with non-clog impeller: all sizes
3339111426	1130	Submersible effluent pumps (less than 1" solids handling capacity): all hp
3339111432	1140	Submersible solids handling pumps (solids 1" to 2" inclusive): all hp
3339111434	1148	Submersible nonclog pumps (greater than 2" solids handling capacity): all size discharge
3339111436	1150	Submersible grinder pumps (incorporating a hardened stainless steel cutter mechanism to macerate the solids into a fine slurry): all hp
3339111448	1152	Single and two stage, single and end suction, close coupled with driver
3339111450	1154	Single and two stage, single suction, in-line, close coupled with driver
333911144E	1156	Single stage, single suction, vertical, in-line frame
333911144H	1158	Single stage, single suction, frame or foot mounted, metallic pumps (built to National or International Standards ANSI B73 1 or ISO 2858)
333911144L	1160	Single stage, single suction, frame or foot mounted, non-metallic pumps (built to National or International Standards ANSI B73 1 or ISO 2858)
3339111452	1162	Single stage, single suction, frame or foot mounted, non-ANSI, non-ISO, with or without recessed impeller: all size discharge

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REFERENCE LIST — Continued

FORM MA333P		
Product code	Item code	Item description
		TOTAL SHIPMENTS (Domestic and export) — Continued <i>(Report value in thousands of dollars)</i>
		INDUSTRIAL PUMPS (Excluding hydraulic fluid power pumps, automotive circulating pumps, measuring and dispensing pumps) — Continued
		Centrifugal pumps — Continued
3339111455	1164	Single stage, single suction, replaceable elastomer lined or hard metal, frame or foot mounted
3339111458	1166	Single stage, single suction, centerline mounted
333911145L	1168	Single stage, axially split, double suction: all size discharge
3339111468	1170	Multistage, single or double suction, diffuser design, radially split case
333911146F	1172	Multistage, single or double suction, volute or diffuser design, axially split case
3339111486	1174	Propeller and mixed flow, horizontal and vertical (includes Vertical Turbine over 36"): all sizes
3339111488	1176	All other centrifugal pumps: including single stage, radially split, double suction impeller pumps and sealless centrifugal pumps
3339111496	1180	Vertical Turbine Pumps: including pump with submersible motor, bowl assemblies, and can pot type

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FORM MA333P		
Product code	Item code	Item description
		TOTAL SHIPMENTS (Domestic and export) — Continued <i>(Report value in thousands of dollars)</i>
		INDUSTRIAL PUMPS (Excluding hydraulic fluid power pumps, automotive circulating pumps, measuring and dispensing pumps)— Continued
		Reciprocating Pumps
33391114C7	1182	Driven by electric motor, engine, or steam turbine: reciprocating piston, plunger or diaphragm (not air operated) pumps; including power-pumps for water flooding
33391114D5	1184	Diaphragm Pumps (air operated)
		Rotary Pumps
33391114R9	1186	100 PSI and under designed pressure: all GPM
33391114RG	1188	101 to 249 PSI, designed pressure: all GPM
33391114RN	1190	250 PSI and over, designed pressure
33391114T5	1192	Other Industrial Pumps
3339111pt	1199	Total Industrial Pumps (Excluding hydraulic fluid power pumps, automotive circulating pumps, measuring and dispensing pumps) (Item codes 1098—1192)
		DOMESTIC WATER SYSTEMS (including drivers) — Include the value of drivers (motors, pumps for farm and home use), excluding irrigation pumps
3339111101	1367	Nonsubmersible pump systems (jet and non-jet; including drivers)
3339111108	1380	Submersible pump systems, (including drivers): all hp
3339111107	1390	Domestic hand and windmill pumps, pump jacks, and cylinders (sold separately; including drivers)
3339111pt	1399	Total Domestic Water Systems (including drivers) (pumps for farm and home use), excluding irrigation pumps. (Sum of item codes 1367—1390)

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FORM MA333P		
Product code	Item code	Item description
		TOTAL SHIPMENTS (Domestic and export) — Continued <i>(Report value in thousands of dollars)</i>
		DOMESTIC SUMP PUMPS, 1 hp or less, including the value of drivers if shipped as complete unit —Include the value of drivers (motors, engines, etc), sold with shipments of driven units reported in product class 3339111, within the values of shipments of products with which they are sold.
3339111235	1435	Pedestal, including drivers: 1 hp or less
3339111242	1442	Submersible, including drivers:1 hp or less
3339111pt	1499	TOTAL DOMESTIC SUMP PUMPS, 1 hp or less, including the value of the driver if shipped as complete unit (Sum of item codes 1435—1442)
3339111335	1698	OIL-WELL AND OIL-FIELD PUMPS (excluding boiler feed) (including the value of the driver if shipped as a complete unit)
3339111341	1701	VALUE OF DRIVERS — Include the value of drivers (motors, engines, etc), sold with driven units reported elsewhere in product class 3339111, on this line — <i>do not</i> report the values of drivers within the values for the driven units.
3339111364	1720	Subsurface pumps for oil well pumping
3339111pt	1799	Other oil well and oilfield pumps, including mud pumps (slush pumps) — <i>specify kind</i>
3339111pt	1800	TOTAL OIL-WELL AND OIL-FIXED PUMPS (excluding boiler-feed) (Sum of items codes 1698—1720)
		OTHER PUMPS (including drivers) excluding packaged pumps, hard pumps, automotive circulating pumps, locomotive pumps, hydraulic fluid power pumps, measuring dispensing pumps, and industrial spraying equipment.
		PARTS AND ATTACHMENTS FOR PUMPS AND PUMPING EQUIPMENT whose product codes begin with 333911
3339115144	1911	Aftermarket (spare) parts for centrifugal pumps
3339115155	1922	Aftermarket (spare) parts for vertical turbine pumps
3339115166	1933	Aftermarket (spare) parts for reciprocating pumps
3339115199	1995	Other
3339115	1999	TOTAL PARTS and attachments for pumps and pumping equipment, excluding hydraulic fluid power and air and gas compressors, (including packaged pumps) (Sum of item codes 1911—1995)

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FORM MA333P		
Product code	Item code	Item description
		TOTAL SHIPMENTS (Domestic and export) — Continued <i>(Report value in thousands of dollars)</i>
		AIR AND GAS COMPRESSORS
3339121115	3298	VALUE OF DRIVERS — Include the value of drivers (motors, engines, etc), sold with driven units reported elsewhere in product class 3339121, on this line — <i>do not</i> report the values of drivers within the values for the driven units.
		Air Compressors
3339121128	3306	Stationary, reciprocating, single acting: all hp
3339121133	3308	Stationary, reciprocating, double acting
3339121144	3310	Stationary, rotary positive, discharge pressure 50 PSIG and under: all hp sizes Stationary, rotary positive, discharge pressure of 51 PSIG and over:
3339121156	3318	150 hp and under
3339121158	3320	151 hp and over
3339121166	3322	Stationary, centrifugal and axial
3339121178	3341	Portable: all C.F.M

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FORM MA333P		
Product code	Item code	Item description
TOTAL SHIPMENTS (Domestic and export) — Continued <i>(Report value in thousands of dollars)</i>		
AIR AND GAS COMPRESSORS — Continued		
Gas Compressors		
Stationary, centrifugal and axial		
3339121183	3342	Natural gas
3339121188	3343	All other gases
3339121198	3354	Stationary reciprocating
33391211CC	3356	Stationary rotary positive
33391211FF	3388	Other compressors (excluding refrigeration, air-conditioning, and ice making), including air motors, rebuilt compressors, compressor packages, and packaged compressor units assembled from purchased compressors — <i>specify kind</i>
3339121pt	3399	Total air and gas compressors (excluding refrigeration, air-conditioning, and ice making), including air motors, rebuilt compressors, compressor packages, and packaged compressor units assembled from purchased compressors — <i>specify kind</i> (Sum of item codes 3298—3388)
VACUUM PUMPS (excluding laboratory)		
3339121225	3498	VALUE OF DRIVERS — Include the value of drivers (motors, engines, etc.), sold with driven units reported elsewhere in product class 3339121, on this line — do <i>not</i> report the values of drivers within the values for the driven units
3339121268	3568	Low vacuum, 29.5 in mercury vacuum and lower: all hp
3339121279	3579	High vacuum, 29.6 in mercury vacuum and over: all hp
3339121pt	3599	Total Vacuum Pumps (excluding laboratory) (Sum of item codes 3498—3579)
PARTS AND ATTACHMENTS FOR AIR AND GAS COMPRESSORS AND VACUUM		
PUMPS		
3339125	3900	Parts and attachments for air and gas compressors and vacuum pumps (excluding laboratory)

10/06/10