

**16** DETAILED COST OF MATERIALS, PARTS, AND SUPPLIES

**General** - The materials, parts, and supplies listed below are those commonly consumed in the manufacture, processing, or assembly of the products listed in **2**. Please review the entire list and report separately each item consumed. Leave blank if you do not consume the item. If you use materials, parts, and supplies that are not listed, describe and report them in the "Cost of all other materials . . ." at the end of this section. If you consumed less than \$25,000 of a listed material, include the value with "Cost of all other materials . . ." Census material code 009700 99 8.

Report materials, parts, and supplies purchased, transferred from other plants of your company, or withdrawn from inventory.

If quantities are requested, please use the unit of measure specified.

If the information as requested cannot be taken directly from your book records, REASONABLE ESTIMATES ARE ACCEPTABLE.

**Valuation of Materials Consumed** - The value of the materials, etc., consumed should be based on the delivered cost; i.e., the amount paid or payable after discounts and including freight and other direct charges incurred in acquiring the materials.

Materials received from other plants within your company should be reported at their full economic value (the value assigned by the shipping plant, plus the cost of freight and other handling charges).

If purchases or transfers do not differ significantly from the amount actually put into production, you may report the cost of purchases or transfers. However, if consumption differs significantly from the amounts purchased or transferred, these amounts should be adjusted for changes in the materials and supplies inventories by adding the beginning inventory to the amount purchased or transferred and subtracting ending inventory.

**Contract Work** - Include all materials consumed those you purchased for use by others making products for you under contract. Amounts paid to the companies doing the contract work should be reported in **15**, line A5, and should include freight in and out. On the other hand, materials owned by others but used at this establishment in making products for others under contract or on commission should be excluded.

**Resales** - Cost for products bought and sold or transferred from other establishments of your company and sold without further manufacture, processing, or assembly should be reported in **15**, line A2, not in **16**. The value of these products shipped by this establishment should be reported in **2** under Census product code 000999 8900 6, "Resales."

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Line No.	Materials, parts, and supplies	Census material code	Consumption of purchased materials and of materials received from other establishments of your company		
			Cost, including delivery cost (freight-in)		
			\$ Bil.	Mil.	Thou.
0634		0630	0631		
<b>1</b>	Electric motors and generators . . . . .	335312 01 3			
<b>2</b>	Electrical transmission, distribution, and control equipment . . . . .	001900 B1 6			
	Fluid power products, hydraulic and pneumatic				
<b>3</b>	Fluid power pumps, motors, and hydrostatic transmissions (complete assemblies) . . . . .	333996 01 5			
<b>4</b>	Fluid power cylinders and rotary actuators . . . . .	333995 01 7			
<b>5</b>	Fluid power filters . . . . .	333999 01 9			
<b>6</b>	Valves . . . . .	332912 07 0			
<b>7</b>	Fluid power hose or tube fittings and assemblies . . . . .	332912 03 9			
<b>8</b>	Other hydraulic and pneumatic products . . . . .	001900 89 3			
<b>9</b>	Speed changers, gears, and industrial high-speed drives . . . . .	333612 00 0			
<b>10</b>	Ball and roller bearings (mounted or unmounted) . . . . .	332991 01 7			
<b>11</b>	Pumps and pump parts, excluding fluid power (hydraulic and pneumatic) . . . . .	333911 01 4			

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CONTINUE WITH **16** ON PAGE 9

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**16** DETAILED COST OF MATERIALS, PARTS, AND SUPPLIES - Continued

Line No.	Materials, parts, and supplies	Census material code	Consumption of purchased materials and of materials received from other establishments of your company		
			Cost, including delivery cost (freight-in)		
			\$ Bil.	Mil.	Thou.
0634		0630	0631		
<b>12</b>	Fabricated metal products, excluding forgings and fluid power (hydraulic and pneumatic)				
	Bolts, nuts, screws, washers, rivets, and screw machine products . . . . .	332722 03 2			
<b>13</b>	Metal tanks, heat exchangers, steam condensers, and other boiler products; fabricated steel plate and weldments . . . . .	332000 A1 6			
<b>14</b>	Pipe, valves, and pipe fittings, excluding forgings . . . . .	332919 01 8			
<b>15</b>	Other fabricated metal products, excluding fluid power . . . . .	332000 51 2			
<b>16</b>	Forgings . . . . .	332100 01 5			
	Castings (rough and semifinished)				
<b>17</b>	Iron and steel . . . . .	331510 01 6			
<b>18</b>	Nonferrous (aluminum, copper, etc.) . . . . .	331520 11 4			
	Shapes and forms (excluding castings, forgings, and fabricated metal products)				
	Steel				
<b>19</b>	Bars, bar shapes, and plates . . . . .	331200 07 1			
<b>20</b>	Sheet and strip . . . . .	331200 17 0			
<b>21</b>	All other steel shapes and forms . . . . .	331200 33 7			
	Nonferrous				
<b>22</b>	Aluminum and aluminum-base alloy . . . . .	331000 39 8			
<b>23</b>	Other . . . . .	331000 77 8			
<b>24</b>	Filter paper . . . . .	322120 31 2			
<b>25</b>	Cost of all other materials and components, parts, containers, and supplies consumed ( <i>Specify the principal materials, etc., included in this value.</i> ) ↴	009700 99 8			
<b>26</b>	<b>TOTAL</b> ( <i>Should equal total reported in 16, line A1</i> ) . . . . .	771000 00 7			

**17-21** Not Applicable.

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**22** DETAIL OF SALES, SHIPMENTS, RECEIPTS, OR REVENUE

**General** - The manufactured products and services listed below are generally made in your industry. If you make products that are not listed, describe and report them in the "All other products made in this establishment" section at the end of **2**. PLEASE DO NOT COMBINE PRODUCT LINES.

If quantities are requested, please use the unit of measure specified.

If the information as requested cannot be taken directly from your book records, REASONABLE ESTIMATES ARE ACCEPTABLE.

**Valuation of Products** - Report the value of the products shipped and services performed at the net selling value, f.o.b. plant to the customer; i.e., after discounts and allowances, and exclusive of freight charges and excise taxes.

If you transfer products to other establishments within your company, you should assign the full economic value to the transferred products; i.e., include all direct costs of production and a reasonable proportion of all other costs and profits.

**Contract Work** - Report PRODUCTS MADE BY OTHERS FOR YOU FROM YOUR MATERIALS on the specific lines as if they were made in this establishment. On the other hand, do not report on the specific product lines PRODUCTS THAT YOU MADE FROM MATERIALS OWNED BY OTHERS. Report only the amount that you received for "commission or contract receipts" under Census code 000930 0000 8.

**Resales** - Do not report on the specific product lines those PRODUCTS BOUGHT AND SOLD OR TRANSFERRED FROM OTHER ESTABLISHMENTS OF YOUR COMPANY AND SOLD WITHOUT FURTHER MANUFACTURE. Report only a value under Census code 000999 8900 6, "Resales."

**Detailed Data Reported Elsewhere** - Items denoted by an asterisk (\*) require totals for groups of products covered in the more frequent Current Industrial Reports (CIR). If you report on the CIR form, the sum of the detailed products should equal the total reported on this form. For corresponding survey item codes, see paragraph 4, "Comparability," of CIR Instruction Manual.

**NOTE:** Only totals are requested; do not duplicate detail reported on the CIR.

Line No.	Products and services *Items correspond to products reported on Current Industrial Reports (CIR)	Census product code	Products shipped and other receipts		
			Value, f.o.b. plant		
			\$ Bil.	Mil.	Thou.
0734		0730	0731		
<b>1</b>	Filters for fluid power systems (hydraulic and pneumatic) Nonaerospace Hydraulic (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products (Including Aerospace), for 2002)* . . .	333999 3100 6			
<b>2</b>	Pneumatic (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products (Including Aerospace), for 2002)* . . .	333999 4100 5			
<b>3</b>	Aerospace (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products (Including Aerospace), for 2002)* . . . . .	333999 6100 3			
	Filters and strainers, except for fluid power systems and parts (See also lines 9-27 for other filtration and separation products.) Filter and strainer assemblies (containment or housing devices), with or without filter element installed				
<b>4</b>	For water . . . . .	333999 1104 0			
<b>5</b>	For other fluids . . . . .	333999 1108 1			
	Filter replacement elements (media)				
<b>6</b>	Reusable (cleanable) . . . . .	333999 1111 5			
<b>7</b>	Nonreusable, including disposable (throwaway) litter cartridges . . .	333999 1212 1			
<b>8</b>	Parts and accessories, sold separately . . . . .	333999 1389 7			
<b>9</b>	Industrial air pollution control equipment, including products made specifically for the collection of particulate or gaseous emissions or other purification of outgoing air . . . . .	333411 1110 3			
<b>10</b>	Parts for industrial air pollution control equipment (for cleaning or purifying outgoing air) . . . . .	333411 1165 7			

CONTINUE WITH **22** ON PAGE 11

33331109

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**22** DETAIL OF SALES, SHIPMENTS, RECEIPTS, OR REVENUE - Continued

Line No.	Products and services *Items correspond to products reported on Current Industrial Reports (CIR)	Census product code	Products shipped and other receipts		
			Value, f.o.b. plant		
			\$ Bil.	Mil.	Thou.
0734		0730	0731		
<b>11</b>	Dust collection, air purification equipment, and air washers for heating, ventilating, and air-conditioning systems, clean room applications, and similar functions for cleaning incoming air Air washers, except parts . . . . .	333411 3207 5			
<b>12</b>	Other products, except parts Electrostatic precipitation equipment, except for use in air pollution control (outgoing air purification) applications . . . . .	333411 3211 7			
<b>13</b>	Air filters for air-conditioners and furnaces, etc., of 2400 cubic feet per minute or less . . . . .	333411 3103 6			
<b>14</b>	Other products . . . . .	333411 3231 5			
<b>15</b>	Parts . . . . .	333411 3355 2			
<b>16</b>	Filters for internal combustion engines and motor vehicles . . . . .	336399 1YWV 2			
<b>17</b>	Swimming pool filters . . . . .	333319 9196 9			
<b>18</b>	Electric swimming pool heaters . . . . .	333999 8993 9			
<b>19</b>	Air or gas liquefying machinery . . . . .	333298 1216 9			
<b>20</b>	Parts for distilling, rectifying, fractionating, heat exchange, or air or gas liquefying machinery, or dryers (for chemical manufacturing use) (See lines 19, 95, 96, and 97 for complete units.) . . . . .	333298 1331 6			
<b>21</b>	Other products for separating solids, liquids, or gases Gas separating equipment, complete units . . . . .	333999 8218 1			
<b>22</b>	Steam and vapor separators, complete units . . . . .	333999 8425 2			
<b>23</b>	Sifting and screening machines, complete units . . . . .	333999 8436 9			
<b>24</b>	Centrifugals and separators (except cream, grain, and berry), complete units . . . . .	333999 8321 3			
<b>25</b>	Other products, except filters and strainers, complete units ( <i>Specify kind.</i> ) ↘  	333999 8446 8			
<b>26</b>	Parts for products for separating solids, liquids, or gases, except parts for filters and strainers and fluid power products . . . . .	333999 8451 8			
<b>27</b>	Sewage treatment equipment . . . . .	333319 9YWV 5			
<b>28</b>	Water leak detectors . . . . .	333999 8992 1			
<b>29</b>	Assembly machines . . . . .	333518 1YWV 0			
<b>30</b>	Industrial robots, attachments, and parts . . . . .	333999 8109 2			

CONTINUE WITH 22 ON PAGE 12

CONTINUE ON PAGE 12

33331117

22 DETAIL OF SALES, SHIPMENTS, RECEIPTS, OR REVENUE - Continued					
Line No.	Products and services *Items correspond to products reported on Current Industrial Reports (CIR)	Census product code	Products shipped and other receipts		
			Value, f.o.b. plant		
			\$ Bil.	Mil.	Thou.
0734		0730	0731		
31	Mixers for industrial processes, complete units (Report parts on line 136.) . . . . .	333999 8661 2			
32	Automatic fire sprinklers, complete units and systems (Report parts on line 136.) . . . . .	333999 8763 6			
33	Presses, metal baling, complete units (Report parts on line 136.) . . . . .	333999 8986 3			
34	Hydraulic jacks, complete units (Report parts on line 136.) . . . . .	333999 8989 7			
35	Screwjacks, except automotive; complete units (Report parts on line 136.) . . . . .	333999 8991 3			
36	Gas generating equipment, complete units (Report parts on line 136.) . . . . .	333999 8556 4			
37	Lubricating systems, industrial, centralized and automatic For pneumatic systems, sold separately (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products (Including Aerospace), for 2002)* . . . . .	333999 8880 8			
38	Other than for pneumatic systems, complete units (Report parts on line 136.) . . . . .	333999 8983 0			
39	Compressed air and gas dryers (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products (Including Aerospace), for 2002)* . . . . .	333999 8870 9			
40	Fluid power valves and hose fittings and assemblies (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products (Including Aerospace), for 2002)* . . . . .	332912 WYWW 2			
41	Fluid power cylinders and actuators (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products (Including Aerospace), for 2002)* . . . . .	333995 WYWW 6			
42	Fluid power pumps, motors, and hydrostatic transmission components (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products (Including Aerospace), for 2002)* . . . . .	333996 WYWW 4			
43	Steam, gas, and hydraulic turbines, and turbine generator set units; except aircraft, agricultural, and electrical (Report aircraft steam, gas, and hydraulic turbines, and turbine generator set units on line 45; farm windmill heads and towers for pumping water on line 60; and electrical on lines 139, 140, 141, 142, 143, and 144.) . . . . .	333611 0YWW 2			
44	Carburetors, pistons, piston rings, and engine intake and exhaust valves . . . . .	336311 WYWW 3			
45	Aircraft engines and aircraft engine parts . . . . .	336412 WYWW 9			
46	Gasoline engines (and parts) for automobiles, highway trucks, and buses . . . . .	336312 1YVW 5			
47	Other internal combustion engines and parts (Report electric motors and generators on lines 139, 140, 141, 142, 143, and 144.) . . . . .	333618 WYWW 4			
48	Gasoline service station pumps, including lubricating pumps and grease guns . . . . .	333913 0YWW 2			
49	Vacuum pumps (except laboratory; report those on lines 139, 140, 141, 142, 143, and 144.), air and gas compressors (except refrigeration; report those on line 85.); parts; and industrial spraying and dusting equipment (except for agricultural use; report similar agricultural equipment on line 60.) and parts . . . . .	333912 WYWW 1			
50	Other pumps and pumping equipment (except motor vehicle) . . . . .	333911 WYWW 3			

CONTINUE WITH 22 ON PAGE 13

CONTINUE ON PAGE 13

33331125

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22 DETAIL OF SALES, SHIPMENTS, RECEIPTS, OR REVENUE - Continued

Line No.	Products and services *Items correspond to products reported on Current Industrial Reports (CIR)	Census product code	Products shipped and other receipts			
			Value, f.o.b. plant			
			\$ Bil.	Mil.	Thou.	
0734		0730	0731			
51	Industrial and commercial fans and blowers (including attic fans), and parts (Report other household, noncommercial kitchen, and small portable fans on lines 139, 140, 141, 142, 143, and 144.) . . . . .	333411 WYWW 4				
52	Industrial valves, except fluid power and plumbing and heating (See lines 40 and 54.) . . . . .	332911 WYWW 4				
53	Fabricated pipe and pipe fittings made from purchased pipe (Specify kind.) ↴  	332996 3YWW 7				
54	Valves and pipe fittings, nec (except plastics pipe fittings, plumbing fixture fittings and trim, and garden hose fittings and couplings; report those products on lines 139, 140, 141, 142, 143, and 144.) . . . . .	332919 WYWW 7				
55	Oil and gas field machinery and equipment (except pumps) . . . . .	333132 WYWW 6				
56	Mining machinery (except oil and gas field), complete units . . . . .	333131 WYWW 8				
57	Parts and attachments for mining machinery, sold separately (including mining drill bits) . . . . .	333131 9YWW 4				
58	Construction machinery and equipment, complete units, including crane and excavator attachments and machinery for mounting on trucks, tractors, and other prime movers (Specify kind.) ↴  	333120 WYWW 1				
59	Parts for construction machinery, sold separately . . . . .	333120 9YWW 7				
60	Farm (and commercial turf) machinery and equipment (Corresponds to value of shipments on CIR Form MA333A, Farm Machinery and Lawn and Garden Equipment, for 2002)* . . . . .	333111 WYWW 0				
61	Overhead traveling cranes, hoists, and monorail systems (except aircraft loading hoists; report those on line 68 and their parts sold separately on line 69.) . . . . .	333923 WYWW 8				
62	Elevator and moving stairways (except farm and conveying equipment; see line 60 and lines 63-67.) . . . . .	333921 WYWW 2				
63	Unit handling conveyors and conveying systems (except hoists and farm equipment) Complete units (Specify kind.) ↴  	333922 1YWW 4				
64	Parts, attachments, and accessories . . . . .	333922 3100 8				

CONTINUE WITH 22 ON PAGE 14

33331133

**22** DETAIL OF SALES, SHIPMENTS, RECEIPTS, OR REVENUE - Continued

Line No.	Products and services *Items correspond to products reported on Current Industrial Reports (CIR)	Census product code	Products shipped and other receipts		
			Value, f.o.b. plant		
			\$ Bil.	Mil.	Thou.
0734		0730	0731		
<b>65</b>	Bulk material handling conveyors and conveying systems (except hoists and farm equipment) Complete units  Belt conveyors and systems . . . . .	333922 7101 2			
<b>66</b>	Other, including pneumatic, vibrating, screw, portable, apron, en masse, flight, and drag conveyors; bucket elevators; bucket wheel reclaimers, vibrating feeders, bins, apron feeders, gates, and similar unloading and hoists and reclaiming systems; traveling stackers, trippers, centrifugal throwers, and similar loading and storing systems; etc. (Specify kind.) ↴	333922 7YWW 8			
<b>67</b>	Parts (Specify if for belt conveyors.) ↴	333922 9YWW 6			
<b>68</b>	Industrial trucks, tractors, mobile straddle carriers and cranes, and automatic stacking machines, for materials-handling use in and around plants, depots, docks, airports, and terminals (complete units) . . . . .	333924 1YWW 0			
<b>69</b>	Parts for industrial trucks, tractors, mobile straddle carriers and cranes, and automatic stacking machines, for materials-handling use in and around plants, depots, docks, airports, and terminals . . . . .	333924 3YWW 8			
<b>70</b>	Packaging machinery, including wrapping and bottling machinery; complete units . . . . .	333993 1YWW 5			
<b>71</b>	Parts for packaging machinery . . . . .	333993 5100 7			
<b>72</b>	Power-driven handtools (except for construction, report such products on line 58) . . . . .	333991 WYWW 5			
<b>73</b>	Saw blades and handsaws (except power-driven sawing machines for woodworking use, report those on line 108) . . . . .	332213 0YWW 8			
<b>74</b>	Other nonpower-driven handtools and edge tools (except metal cutting dies, report those on line 78) . . . . .	332212 WYWW 7			
<b>75</b>	Metalworking machinery Industrial molds and mold boxes (except for heavy steel ingots, report those on line 112) . . . . .	333511 0YWW 4			
<b>76</b>	Metal cutting type machine tools (except handtools and electric and gas welding and soldering equipment, report handtools on lines 72, 73, and 74; handheld soldering irons on line 74; and other electric and gas welding and soldering equipment on line 83) . . . . .	333512 WYWW 9			
<b>77</b>	Metal forming type machine tools (except handtools and electric and gas welding and soldering equipment, report handtools on lines 72, 73, and 74; handheld soldering irons on line 74; and other electric and gas welding and soldering equipment on line 83) . . . . .	333513 WYWW 7			
<b>78</b>	Special dies and tools, die sets, jigs, and fixtures (Report cutting dies for nonmetals on line 74.) . . . . .	333514 0YWW 8			

CONTINUE WITH 22 ON PAGE 15

33331141

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**22** DETAIL OF SALES, SHIPMENTS, RECEIPTS, OR REVENUE - Continued

Line No.	Products and services *Items correspond to products reported on Current Industrial Reports (CIR)	Census product code	Products shipped and other receipts		
			Value, f.o.b. plant		
			\$ Bil.	Mil.	Thou.
0734		0730	0731		
	Metalworking machinery - Continued				
79	Cutting tool and machine tool accessories (except handtools, report those on lines 72, 73, and 74) . . . . .	333515 WYWW 2			
80	Rolling mill machinery and equipment . . . . .	333516 WYWW 0			
81	Wire-fabricating machines (weaving, drawing, coil conversion or straightening, etc., and drawbenches) and other metalworking machinery, nec (See line 110 for foundry equipment.) . . . . .	333518 3YWW 8			
82	Industrial patterns . . . . .	332997 0YWW 6			
83	Electric and gas welding and soldering equipment (except handheld soldering irons, report those on line 74; report electron beam, ultrasonic, and laser welding equipment on lines 139, 140, 141, 142, 143, and 144.) . . .	333992 WYWW 3			
84	Metal degreasing machinery and parts . . . . .	333298 73G1 6			
85	Air-conditioning, warm air heating, and commercial and industrial refrigeration equipment (Report all air-conditioners here, but report refrigerators for household or farm use on lines 139, 140, 141, 142, 143, and 144.) . . . . .	333415 WYWW 5			
86	Commercial cooking and food-warming equipment (Report products for household use on lines 139, 140, 141, 142, 143, and 144.) . . . . .	333319 1YVW 3			
87	Commercial laundry, dry cleaning, and pressing machinery (Report products for household on lines 139, 140, 141, 142, 143, and 144.) . . . . .	333312 0YWW 7			
88	Commercial and industrial vacuum cleaners, parts, and attachments (Report products for household use on lines 139, 140, 141, 142, 143, and 144.) . . . .	333319 3YVW 1			
89	Automatic vending machines and coin-operated mechanisms for them; and parts . . . . .	333311 WYWW 6			
90	Automotive maintenance equipment, except handtools (See lines 72 and 74.)	333319 5YVW 9			
91	Automatic controls for monitoring residential and commercial environments and appliances (Corresponds to value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, for 2002)* . . . . .	334512 0100 9			
92	Industrial instruments for controlling process variables (Corresponds to value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, for 2002)* . . . . .	334513 0100 7			
93	Physical properties and kinematic testing, inspecting, and measuring equipment (Corresponds to value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, for 2002)* . . . . .	334519 3100 1			
94	Commercial- and institutional-type electric lighting fixtures, including parts and accessories (Corresponds to value of shipments reported on CIR Form MA335L, Electric Lighting Fixtures, for 2002)* . . . . .	335122 1100 5			
95	Chemical manufacturing machinery, equipment, and parts, nec (including pharmaceuticals, soaps, and paints) Distilling, rectifying, or fractionating, complete units (Report parts on line 20.) . . . . .	333298 1201 1			
96	Heat exchange units, complete units (Report parts on line 20.) . . . . .	333298 1206 0			

CONTINUE WITH 22 ON PAGE 16

33331158



22 DETAIL OF SALES, SHIPMENTS, RECEIPTS, OR REVENUE - Continued					
Line No.	Products and services *Items correspond to products reported on Current Industrial Reports (CIR)	Census product code	Products shipped and other receipts		
			Value, f.o.b. plant		
			\$ Bil.	Mil.	Thou.
0734		0730	0731		
	Chemical manufacturing machinery, equipment, and parts, nec (including pharmaceuticals, soaps, and paints) - Continued				
97	Dryers, complete units (Report parts on line 20.) . . . . .	333298 1211 0			
98	Mixing, kneading, crushing, grinding, sifting, homogenizing, emulsifying, or stirring machines, complete units (Report parts on line 100.) . . . . .	333298 1121 1			
99	Other (except air or gas liquefying machinery; see lines 19 and 20.), complete units (Report parts on line 100.) . . . . .	333298 1226 8			
100	Parts for products listed on lines 98 and 99 . . . . .	333298 1336 5			
	Other machinery (and parts), used for specific industrial purposes (by industry in which products are used)				
101	Semiconductor manufacturing . . . . .	333295 0YWW 4			
102	Printing trades (except textile printing; see line 105) . . . . .	333293 WYWW 6			
103	Paper industries (except printing; see line 102) . . . . .	333291 WYWW 0			
104	Food products (except packaging and refrigeration; see lines 63-67, 70, 71, 85, and 86) . . . . .	333294 WYWW 4			
105	Textiles (except sewing machines; report industrial sewing machines on lines 111 and household sewing machines on lines 139, 140, 141, 142, 143, and 144.) . . . . .	333292 WYWW 8			
106	Plastics working (except patterns and molds; see lines 75 and 82) . . . . .	333220 1YVW 3			
107	Rubber working (excluding tire molds) . . . . .	333220 3YVW 1			
108	Woodworking (except saws and handtools included on lines 72-74) . . . . .	333210 WYWW 0			
109	Printed circuit board manufacturing (except testing) . . . . .	333298 5YVW 5			
110	Foundries (except patterns and molds; see lines 75 and 82) . . . . .	333298 3YVW 7			
111	Other, including glass making, petroleum refining, desalination, metal finishing, sewing, stone or ceramics (or clay, etc.) working, concrete products forming, wood kilning, battery making, wire or cable insulating, cotton ginning, etc., for specific industry use . . . . .	333298 7YVW 3			
	Castings				
	Ferrous				
112	Gray and ductile iron castings . . . . .	331511 WYWW 3			
113	Steel investment castings . . . . .	331512 0YWW 4			
114	Other . . . . .	331513 WYWW 9			
	Nonferrous				
115	Aluminum (and aluminum-base alloy) die-casting . . . . .	331521 0100 3			
116	Other nonferrous die-castings (including copper) . . . . .	331522 0YWW 3			

CONTINUE WITH 22 ON PAGE 17

33331166

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22 DETAIL OF SALES, SHIPMENTS, RECEIPTS, OR REVENUE - Continued

Line No.	Products and services *Items correspond to products reported on Current Industrial Reports (CIR)	Census product code	Products shipped and other receipts		
			Value, f.o.b. plant		
			\$ Bil.	Mil.	Thou.
0734		0730	0731		
	Castings - Continued				
	Nonferrous - Continued				
117	Other aluminum (and aluminum-base alloy) castings . . . . .	331524 0YWW 9			
118	Other copper (and copper-base alloy) castings . . . . .	331525 0YWW 6			
119	Other nonferrous castings . . . . .	331528 0YWW 0			
120	Heat treating of metal (heat treating, pickling, annealing, brazing, shot peening, tempering, etc.) . . . . .	332811 0100 7			
121	Sheet metal work . . . . .	332322 WYWW 4			
122	Fabricated plate work and weldments . . . . .	332313 0YWW 6			
123	Welding repair shop services . . . . .	000976 9200 8			
124	Cold-heading (or warm- or hot-heading) products, including metal fasteners	332722 WYWW 5			
125	Precision turned products (made on screw machines, turning centers, CNC equipment, etc.) . . . . .	332721 WYWW 7			
126	Automotive stampings . . . . .	336370 0100 0			
127	Metal crowns and closures . . . . .	332115 0YWW 5			
128	Other metal stampings . . . . .	332116 WYWW 0			
129	Iron and steel forgings . . . . .	332111 WYWW 1			
130	Nonferrous forgings . . . . .	332112 WYWW 9			
131	Wire products, nec, made from purchased wire (Specify product and whether ferrous or nonferrous.) ↘	332618 WYWW 5			
132	Galvanizing, lacquering, enameling, and allied services to metals, for the trade . . . . .	332812 0YWW 7			
133	Receipts for machine shop job work and job order repairs . . . . .	332710 0100 1			
134	Other general industrial machinery, nec, complete units (Specify kind.) ↘	333999 8995 4			
135	Metal bellows . . . . .	332999 5121 1			
136	Parts and attachments for compressed air and gas dryers, centralized and automatic industrial lubricating systems, industrial mixers, automatic fire sprinklers, metal baling presses, jacks, gas generating equipment, and other general industrial machinery and equipment, nec . . . . .	333999 8996 2			

CONTINUE WITH 22 ON PAGE 18

CONTINUE ON PAGE 18

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22 DETAIL OF SALES, SHIPMENTS, RECEIPTS, OR REVENUE - Continued					
Line No.	Products and services *Items correspond to products reported on Current Industrial Reports (CIR)	Census product code	Products shipped and other receipts		
			Value, f.o.b. plant		
			\$ Bil.	Mil.	Thou.
0734		0730	0731		
137	Textile fire hoses . . . . .	333999 9150 5			
138	Miscellaneous machinery products, except electrical, nec (Specify kind.) . .	333999 9110 9			
	All other products made in this establishment - Specify and report each product with sales value of \$50,000 or more that cannot be assigned to one of the "listed products and services". For all remaining products, write "Other" and report a single total value.				
139		18			
140		26			
141		34			
142		42			
143		59			
144		67			
	Contract work - Receipts for work done for others on their materials (Specify products worked on and kind of work.) ↘				
145		000930 0000 8			
	Resales - Sales of products bought and sold without further manufacture, processing, or assembly (The cost of such items should be reported in 15, line A2.) . . . . .				
146		000999 8900 6			
	Miscellaneous receipts				
147	Receipts for installation (or construction) of products of this establishment . . . . .	000999 8031 0			
148	Other miscellaneous receipts (including receipts for repair work, etc.) . .	000999 8098 9			
149	<b>TOTAL</b> (Should equal 4, line A) . . . . .	770000 0000 8			

23-27 Not Applicable.



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If not shown, please enter your 11-digit Census File Number (CFN) from the mailing address.

**28** ESTABLISHMENT ACTIVITIES

**A.** Indicate activities that were performed by this establishment or were performed for this establishment by another company during 2002.  
(Mark "X" ALL that apply.)

This activity was performed -			
By this establishment	By another establishment of this company	By another company	Not at all
0921 <input type="checkbox"/>	8071 <input type="checkbox"/>	0941 <input type="checkbox"/>	0961 <input type="checkbox"/>
<b>1.</b> Product design/engineering . . . . .			
<b>2.</b> Order fulfillment			
0923 <input type="checkbox"/>	8072 <input type="checkbox"/>	0943 <input type="checkbox"/>	0963 <input type="checkbox"/>
<b>a.</b> Bundling or kitting (combining multiple items into a prepackaged product) . . . . .			
0924 <input type="checkbox"/>	8073 <input type="checkbox"/>	0944 <input type="checkbox"/>	0964 <input type="checkbox"/>
<b>b.</b> Pick and pack (taking goods from inventory and packaging them to fill orders). . . . .			
0925 <input type="checkbox"/>	8074 <input type="checkbox"/>	0945 <input type="checkbox"/>	0965 <input type="checkbox"/>
<b>c.</b> Warehousing of finished products . . . . .			
0926 <input type="checkbox"/>	8075 <input type="checkbox"/>	0946 <input type="checkbox"/>	0966 <input type="checkbox"/>
<b>d.</b> Breaking bulk (reducing large shipments into smaller portions for customers) . . . . .			
0927 <input type="checkbox"/>	8076 <input type="checkbox"/>	0947 <input type="checkbox"/>	0967 <input type="checkbox"/>
<b>e.</b> Local delivery (within a city, town, or other local area, including adjoining towns and suburban areas) . . . . .			
0928 <input type="checkbox"/>	8077 <input type="checkbox"/>	0948 <input type="checkbox"/>	0968 <input type="checkbox"/>
<b>f.</b> Long distance delivery (beyond local areas and commercial zones) . . . . .			
0932 <input type="checkbox"/>	8078 <input type="checkbox"/>	0952 <input type="checkbox"/>	0972 <input type="checkbox"/>
<b>g.</b> Processing of returned merchandise . . . . .			

**B.** During 2002 did this establishment:

- |  |                                   |                                  |
|--|-----------------------------------|----------------------------------|
| <b>1.</b> Manage inventory owned by this establishment AND held at this location? . . . . .  | 0936 <input type="checkbox"/> Yes | 0937 <input type="checkbox"/> No |
| <b>2.</b> Manage inventory owned by this establishment BUT held at a customer's location? . . . . .  | 0956 <input type="checkbox"/> Yes | 0957 <input type="checkbox"/> No |
| <b>3.</b> Manage inventory owned by another company BUT held at this location? . . . . .   | 0976 <input type="checkbox"/> Yes | 0977 <input type="checkbox"/> No |
| <b>4.</b> Manage inventory owned by another company AND held somewhere other than at this location? . . . . .  | 0994 <input type="checkbox"/> Yes | 0995 <input type="checkbox"/> No |
| <b>5.</b> Contract with another firm for any of your production using materials owned by this location? . . . . .  | 8041 <input type="checkbox"/> Yes | 8042 <input type="checkbox"/> No |
| <b>6.</b> Send any partially completed products to a foreign facility for processing that were then returned to this establishment for completion? . . . . . | 8044 <input type="checkbox"/> Yes | 8045 <input type="checkbox"/> No |
| <b>7.</b> Manufacture products for a government to their specifications? . . . . .   | 8047 <input type="checkbox"/> Yes | 8048 <input type="checkbox"/> No |
| <b>8.</b> Manufacture products for another business to their specifications? . . . . .   | 8016 <input type="checkbox"/> Yes | 8017 <input type="checkbox"/> No |
| <b>9.</b> Manufacture products for a final retail customer to their specifications? . . . . .  | 8060 <input type="checkbox"/> Yes | 8062 <input type="checkbox"/> No |



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**29 OPERATIONAL STATUS**

Activity that best describes this establishment's status at the end of 2002  
(Mark "X" only ONE box.)

0011 <input type="checkbox"/> In operation	0013 <input type="checkbox"/> Temporarily or seasonally inactive			
0012 <input type="checkbox"/> Under construction, development, or exploration	0014 <input type="checkbox"/> Ceased operation - Give date at right →	0018	Month	Day
	0015 <input type="checkbox"/> Sold or leased to another operator - Give date at right AND enter new name and mailing address below ↴			Year

0060 Name of new owner or operator		0061 Employer Identification Number		
		Enter EIN of new owner (9 digits) →		
0062 Mailing address (number and street, P.O. Box, etc.)				
0063 City, town, village, etc.		0064 State	0065 ZIP Code	

Remarks (Please use this space for any explanations that may be essential in understanding your reported data.)

**30 CERTIFICATION** - This report is substantially accurate and was prepared in accordance with the instructions.

Is the time period covered by this report a calendar year?								
0078 <input type="checkbox"/> Yes	0079 <input type="checkbox"/> No - Enter time period covered →	FROM	Month	Year	TO	Month		
		0070			0071	Year		
0072 Name of person to contact regarding this report				0073 Title				
Telephone	Area code	Number		Extension	Fax	Area code	Number	
0074					0075			
0076 Internet e-mail address					Date completed	Month	Day	Year
					0069			

**Thank you for completing your 2002 Economic Census form.**  
**PLEASE PHOTOCOPY THIS FORM FOR YOUR RECORDS AND RETURN THE ORIGINAL.**

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