

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Report materials, parts, and supplies purchased, transferred from other plants of your company, or withdrawn from inventory.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

Produced and Consumed - Forgings, foundries, and screw machine products - Report the quantities produced and used in manufacturing other products made in this establishment in **25**. Note that the materials used to produce these items should be reported in **16**.

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 DO NOT USE TO REPORT

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		
1	Fabricated metal products (excluding castings and forgings)				
	Bolts, nuts, screws, washers, rivets, and other screw machine products	332722 03 2			
2	Metal stampings	332000 AC 2			
3	Valves, fittings, and couplings purchased for further assembly	332900 03 4			
4	Other fabricated metal products	332000 29 8			
	Castings (rough and semifinished)				
5	Iron	331511 01 4			
6	Steel	331510 09 9			
7	Aluminum and aluminum-base alloy	331520 05 6			
8	Copper and copper-base alloy	331525 00 6			
9	Other nonferrous castings	331520 09 8			

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

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		
10	Forgings				
	Iron and steel forgings	332111 01 2			
11	Nonferrous	332112 01 0			
	Shapes and forms (excluding castings, forgings, and fabricated metal products)				
	Steel				
12	Bars, bar shapes, and plate	331200 07 1			
13	Sheet and strip	331200 17 0			
14	All other steel shapes and forms	331200 33 7			
	Copper and copper-base alloy				
15	Rods, bars, and mechanical wire (including extruded and/or drawn shapes)	331421 05 7			
16	Pipe and tube	331421 35 4			
17	All other copper and copper-base alloy shapes and forms	331421 45 3			
18	Aluminum and aluminum-base alloy shapes and forms	331000 39 8			
19	All other nonferrous shapes and forms	331000 83 6			
20	Scrap; including iron, steel, and aluminum and aluminum-base alloy (excluding home scrap)	001900 60 4			
21	Electric motors and generators less than 1 horsepower (less than 746 watts)	335312 27 8			
22	Paperboard containers, boxes, and corrugated paperboard	322210 01 4			
	Rubber and plastics hose and belting				
23	Hydraulic and pneumatic hose, rubber and plastics inner tube type, wire or textile reinforced (without fittings)	326220 03 5			
24	Other rubber and plastics hose and belting	326220 05 0			
25	Gaskets and packing and sealing devices (all types)	339991 03 6			
26	Fabricated rubber products, excluding tires, tubes, hose, belting, and gaskets	326000 17 1			

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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		
27	Fabricated plastics products (excluding gaskets)	326100 11 2			
28	Cost of all other materials and components, parts, containers, and supplies consumed (Specify the principal materials, etc., included in this value.) ↗	009700 99 8			
29	TOTAL (Should equal total reported in 16, line A1)	771000 00 7			

17-21 Not Applicable.

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 22. 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.

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

Special Instructions for Nuclear and Industrial Valves - Actuators and parts when shipped with a valve should not be included in the value of the valve but should be reported separately on the appropriate actuators and parts lines.

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

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, including interplant transfers		
			Value, f.o.b. plant		
			\$ Bil.	Mil.	Thou.
	0734	0730	0731		
1	Fluid power valves and parts Aerospace type hydraulic fluid power valves (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products, for 2002)*	332912 1100 2			
2	Aerospace type pneumatic fluid power valves (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products, for 2002)*	332912 3100 0			
3	Nonaerospace type hydraulic directional control valves (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products for 2002)*	332912 5100 8			
4	Nonaerospace type hydraulic valves, except directional control (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products, for 2002)*	332912 7100 6			
5	Nonaerospace type pneumatic directional control valves (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products, for 2002)*	332912 9100 4			
6	Nonaerospace type pneumatic valves, except directional control (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products, for 2002)*	332912 B100 1			
7	Parts for fluid power valves (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products, for 2002)*	332912 D100 9			
8	Fluid power, hose fittings and assemblies Aerospace type hydraulic and pneumatic hose or tube end fittings and assemblies (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products, for 2002)*	332912 F100 7			
9	Nonaerospace type flared (metal) fittings, couplings for, and assemblies of tubing (including assemblies that combine tubing and hose) used in fluid power transfer systems (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products, for 2002)*	332912 H100 5			
10	Nonaerospace type flareless fittings and couplings (including nonmetal fittings) used in fluid power transfer systems (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products, for 2002)*	332912 J100 3			
11	Nonaerospace type hydraulic and pneumatic fittings and couplings for hose (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products, for 2002)*	332912 L100 1			
12	Nonaerospace type hydraulic and pneumatic assemblies of hose (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products, for 2002)*	332912 N100 9			
13	Ball valves, all metals, pressures, and types (including manual and power-operated, on/off valves; excluding automatic control valves, solenoid valves, and regulators) Brass and bronze	332911 5103 4			
14	Parts	332911 5211 5			
15	Hose fittings and couplings	332919 3338 1			

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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, including interplant transfers		
			Value, f.o.b. plant		
			\$ Bil.	Mil.	Thou.
0734		0730	0731		
16	Nonaerospace type hydraulic fluid power cylinders and actuators, linear and rotary	333995 1100 6			
17	Nonaerospace pneumatic (linear and rotary) fluid power cylinders and actuators (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products, for 2002)*	333995 3100 4			
18	Parts for hydraulic and pneumatic fluid power cylinders and actuators (including accumulators, cushions, nonvehicular shock absorbers, and related items) (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products, for 2002)*	333995 5100 2			
19	Aerospace type fluid power cylinders and actuators, hydraulic and pneumatic	333995 7100 0			
20	Fluid power pumps, motors, and hydrostatic transmission components Nonaerospace pumps, reciprocating types (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products, for 2002)*	333996 1100 4			
21	Nonaerospace pumps, rotary and other types (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products, for 2002)*	333996 3100 2			
22	Nonaerospace motors (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products, for 2002)*	333996 5100 0			
23	Aerospace pumps and motors (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products, for 2002)*	333996 7100 8			
24	Parts for pumps and motors (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products, for 2002)*	333996 9100 6			
25	Filters for pneumatic fluid power systems, nonaerospace	333999 4100 5			
26	Filters for hydraulic and pneumatic fluid power systems, aerospace (Corresponds to value of shipments reported on CIR Form MA333N, Fluid Power Products, item codes 3325 and 3327)*	333999 6100 3			
27	Flexible metal hose and tubing, stainless steel	332999 5111 2			
28	Aircraft parts and auxiliary equipment, excluding hydraulic and pneumatic subassemblies and engines Aircraft subassemblies and parts, except aircraft propellers, helicopter rotors, and parts thereof for military aircraft (U.S. military aircraft and any other aircraft built to military specifications)	336413 5313 2			
29	Aircraft subassemblies and parts, except aircraft propellers, helicopter rotors, and parts thereof for civilian aircraft	336413 5416 3			
30	Ordnance and accessories, nec	332995 2100 6			
31	Rubber inner tube type pneumatic and hydraulic hose	326220 8125 8			
32	Sediment, hydrant, lawn, hose bibb, and sill cock faucets	332913 7111 1			
33	Turbine generator parts and accessories (sold separately)	333611 0776 7			
34	Hydraulic power-driven handtools	333991 1151 8			

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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, including interplant transfers		
			Value, f.o.b. plant		
			\$ Bil.	Mil.	Thou.
0734		0730	0731		
35	Lubricating systems, industrial, centralized and automatic, for pneumatic systems, sold separately	333999 8880 8			
36	Missile and space vehicle engine and/or propulsion parts and accessories for other customers	336415 7107 1			
37	All other products made in this establishment - <i>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.</i>	18			
38		26			
39		34			
40		42			
41		59			
42		67			
43	Contract work - Receipts for work done for others on their materials (<i>Specify products worked on and kind of work.</i>) ↴	000930 0000 8			
44	Miscellaneous receipts Sales of scrap and refuse	000999 8013 8			
45	Receipts for repair work	000999 8061 7			
46	Receipts for research and development work not attributable to aircraft, aircraft engines; aircraft parts; missile systems, space vehicle systems; complete missile or space vehicle engines and/or propulsion units, and/or missile and space vehicle components	000999 8041 9			
47	Other miscellaneous receipts	000999 8098 9			
48	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.)	000999 8900 6			
49	TOTAL (<i>Should equal 4, line A</i>)	770000 0000 8			

23-25 Not Applicable.

33232133

26 SPECIAL INQUIRIES

A. SELECTED PRODUCTS PRODUCED AND CONSUMED

- Report below the quantity of each listed item produced in this establishment and used in manufacturing other products made in this establishment.
- Purchases or receipts of the items specified below should be reported only in 16.
- Materials used to produce the items specified below should be reported in 16.
- Quantities produced for sale as such and not for incorporation in other products should be reported in 2.
- Report quantities in the unit of measure specified.

Mark "X" if not performed at this establishment

- | | | |
|--|------|--------------------------|
| 1. Ferrous foundries | 8301 | <input type="checkbox"/> |
| 2. Nonferrous foundries, excluding die-casting | | |
| a. Aluminum | 8302 | <input type="checkbox"/> |
| b. Copper | 8303 | <input type="checkbox"/> |
| c. Zinc | 8304 | <input type="checkbox"/> |
| d. Other | 8305 | <input type="checkbox"/> |
| 3. Nonferrous die-casting foundries | 8306 | <input type="checkbox"/> |

Unit of measure for quantities	Quantities produced in this establishment and used in manufacturing other products made in this establishment
short tons	
1000 lb	
1000 lb	
1000 lb	
1000 lb	
1000 lb	

4. Did this establishment produce precision turned products (on screw machines, turning centers, and CNC equipment)?

8308 Yes 8309 No

B. AEROSPACE CONTRACTS

Percentage of your aerospace contracts (reported as value of shipments in 2) is based on a variation of

- | | | | |
|---|------|--|--|
| 1. Fixed price contract (using completed contract method) | 8610 | | |
| 2. Fixed price contract (using percentage of completion method) | 8611 | | |
| 3. Cost plus contract | 8612 | | |
| 4. TOTAL (Sum lines 1 through 3). | | | |

2002	
Percentage (Report nearest whole percent)	
	%
	%
	%
1 0 0	%

27 Not Applicable.

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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"/>
1. Product design/engineering			
2. Order fulfillment			
0923 <input type="checkbox"/>	8072 <input type="checkbox"/>	0943 <input type="checkbox"/>	0963 <input type="checkbox"/>
a. 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. 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"/>
c. Warehousing of finished products			
0926 <input type="checkbox"/>	8075 <input type="checkbox"/>	0946 <input type="checkbox"/>	0966 <input type="checkbox"/>
d. 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"/>
e. 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"/>
f. 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"/>
g. Processing of returned merchandise			

B. During 2002 did this establishment:

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



33232158

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 <table border="1"> <tr> <th>Month</th> <th>Day</th> <th>Year</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	Month	Day	Year			
Month	Day	Year						
	0015 <input type="checkbox"/> Sold or leased to another operator - Give date at right AND enter new name and mailing address below ↴	→						

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 Yes 0079 No - Enter time period covered →

FROM 0070	Month	Year	TO 0071	Month	Year

0072 Name of person to contact regarding this report 0073 Title

Telephone 0074	Area code	Number	Extension	Fax 0075	Area code	Number
		-				-

0076 Internet e-mail address Date completed
0069

Month	Day	Year

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

33232166