

No attempt has been made to rank the information contained in this report in order of importance, since BPA Worldwide believes this is a judgment, which must be made by the user of the report.

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Manufacturing[®] ENGINEERING



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FIELD SERVED

MANUFACTURING ENGINEERING serves the manufacturing industries with primary focus on metalworking industries. Industries included are furniture and fixtures, primary metal industry, fabricated metal products, machinery (except electrical), electric and electronic equipment, transportation equipment, instruments and related equipment, and miscellaneous manufacturing industries as described in Paragraph 3a.

DEFINITION OF RECIPIENT QUALIFICATION

Qualified recipients are corporate executives, owners and managers, managers of production facilities and operations, manufacturing engineers and manufacturing engineering managers, managers and engineers of quality assurance. Also qualified are consulting engineers, design and R&D engineers and their managers, purchasing professionals, engineering students and others allied to the field.

AVERAGE NON-QUALIFIED CIRCULATION	
NON-QUALIFIED Not Included Elsewhere	Copies
Other Paid Circulation _____	359
Advertiser and Agency _____	2,021
Rotated or Occasional _____	-
Allocated for Trade Shows and Conventions _____	350
Digital _____	-
All Other _____	10,023
TOTAL	12,753

1. AVERAGE QUALIFIED CIRCULATION BREAKOUT FOR PERIOD						
QUALIFIED CIRCULATION	Total Qualified		Qualified Non-Paid		Qualified Paid	
	Copies	Percent	Copies	Percent	Copies	Percent
Individual _____	88,617	98.6	88,617	98.6	-	-
Sponsored Individually Addressed _____	-	-	-	-	-	-
Membership Benefit _____	1,226	1.4	1,226	1.4	-	-
Multi-Copy Same Addressee _____	-	-	-	-	-	-
Single Copy Sales _____	-	-	-	-	-	-
TOTAL QUALIFIED CIRCULATION	89,843	100.0	89,843	100.0	-	-

2. QUALIFIED CIRCULATION BY ISSUES FOR PERIOD	
2011 Issue	Total Qualified
July _____	90,096
August _____	88,066
September _____	90,107
October _____	90,289
November _____	90,143
December _____	90,355

3b. QUALIFICATION SOURCE BREAKOUT OF QUALIFIED CIRCULATION FOR ISSUE OF NOVEMBER 2011					
QUALIFICATION SOURCE	Qualified Within			Total Qualified	Percent
	1 Year	2 Years	3 Years		
I. Direct Request: _____	61,816	17,829	-	79,645	88.4
II. Request from recipient's company: _____	-	-	-	-	-
III. Membership Benefit: _____	1,006	188	-	1,194	1.3
IV. Communication from recipient or recipient's company (other than request): _____	-	-	-	-	-
V. TOTAL - Sources other than above (listed alphabetically): _____	9,304	-	-	9,304	10.3
Association rosters and directories _____	-	-	-	-	-
Business directories _____	-	-	-	-	-
Manufacturer's, distributor's, and wholesaler's lists _____	-	-	-	-	-
*Other sources _____	9,304	-	-	9,304	10.3
VI. Single Copy Sales: _____	-	-	-	-	-
TOTAL QUALIFIED CIRCULATION	72,126	18,017	-	90,143	100.0
PERCENT	80.0	20.0	-	100.0	

*See Additional Data

3c. MAILING ADDRESS BREAKOUT OF QUALIFIED CIRCULATION FOR ISSUE OF NOVEMBER 2011		
MAILING ADDRESS	Total Qualified	Percent
Individuals by name and title and/or function _____	90,143	100.0
Individuals by name only _____	-	-
Titles or functions only _____	-	-
Company names only _____	-	-
Multi-Copy Same Addressee copies _____	-	-
Single Copy Sales _____	-	-
TOTAL QUALIFIED CIRCULATION	90,143	100.0

4. GEOGRAPHICAL BREAKOUT OF QUALIFIED CIRCULATION FOR ISSUE OF NOVEMBER 2011					
State	Total Qualified	Percent	State	Total Qualified	Percent
Maine _____	455		Kentucky _____	1,191	
New Hampshire _____	891		Tennessee _____	1,775	
Vermont _____	294		Alabama _____	1,025	
Massachusetts _____	3,485		Mississippi _____	515	
Rhode Island _____	523		EAST SO. CENTRAL	4,506	5.0
Connecticut _____	3,428		Arkansas _____	593	
NEW ENGLAND	9,076	10.1	Louisiana _____	717	
New York _____	3,651		Oklahoma _____	975	
New Jersey _____	1,635		Texas _____	5,019	
Pennsylvania _____	3,995		WEST SO. CENTRAL	7,304	8.1
MIDDLE ATLANTIC	9,281	10.3	Montana _____	165	
Ohio _____	5,722		Idaho _____	252	
Indiana _____	3,267		Wyoming _____	75	
Illinois _____	4,872		Colorado _____	905	
Michigan _____	5,092		New Mexico _____	218	
Wisconsin _____	3,599		Arizona _____	1,170	
EAST NO. CENTRAL	22,552	25.0	Utah _____	831	
Minnesota _____	2,437		Nevada _____	258	
Iowa _____	1,385		MOUNTAIN	3,874	4.3
Missouri _____	1,699		Alaska _____	63	
North Dakota _____	185		Washington _____	1,637	
South Dakota _____	338		Oregon _____	1,005	
Nebraska _____	655		California _____	11,614	
Kansas _____	1,152		Hawaii _____	42	
WEST NO. CENTRAL	7,851	8.7	PACIFIC	14,361	15.9
Delaware _____	119		UNITED STATES	89,456	99.2
Maryland _____	648		U.S. Territories _____	10	
Washington, DC _____	14		Canada _____	554	
Virginia _____	1,352		Mexico _____	1	
West Virginia _____	293		Other International _____	122	
North Carolina _____	2,547		APO/FPO _____	-	
South Carolina _____	1,237		TOTAL QUALIFIED CIRCULATION	90,143	100.0
Georgia _____	1,724				
Florida _____	2,717				
SOUTH ATLANTIC	10,651	11.8			

AVERAGE ANNUAL AUDITED QUALIFIED CIRCULATION AND CURRENT UNAUDITED CIRCULATION STATEMENTS						
6-Month Period Ended:	Audited Data	Audited Data	Audited Data	Audited Data	Circulation Claim	Circulation Claim
	January - June 2009	July - December 2009	January - June 2010	July - December 2010	January - June 2011*	July - December 2011*
Total Audit Average Qualified: _____	98,995	97,443	97,321	97,252	91,430	89,843
Qualified Non-Paid: ___	98,995	97,443	97,321	97,252	91,430	89,843
Qualified Paid: _____						
Post Expire Copies included in Total Qualified Circulation: _	**NC	**NC	**NC	**NC	**NC	**NC
Average Annual Order Price: _____	**NC	**NC	**NC	**NC	**NC	**NC

***NOTE: January - December 2011 data is unaudited. With each successive period, new data will be added until six 6-month periods are displayed.**

**NC = None Claimed.

ADDITIONAL DATA

PARAGRAPH 3b:

Other sources include 9 sources of circulation for quantities of 1 copy or 0.0% to 3,031 copies or 3.4%.

PUBLISHER'S AFFIDAVIT		
We hereby make oath and say that all data set forth in this statement are true.	Date signed	February 10, 2012
Tim Fausch, Group Publisher	State	Michigan
Vince Harrington, Manager, Circulation	County	Wayne
(At least one of the above signatures must be that of an officer of the publishing company or its authorized representative.)	Received by BPA Worldwide	February 10, 2012
IMPORTANT NOTE:	Type	PD
This unaudited circulation statement has been checked against the previous audit report. It will be included in the annual audit made by BPA Worldwide.	ID Number	M018POD1

3a. BUSINESS/OCCUPATIONAL BREAKOUT OF QUALIFIED CIRCULATION FOR ISSUE OF NOVEMBER 2011

This issue is 0.4% or 360 copies above the average of the other 5 issues reported in Paragraph two.

North American Industry Classification System – NAICS Business & Industry Codes – were introduced in 1997, and then revised in 2002. The NAICS system has evolved from the Standard Industrial Classification (SIC) numerical coding system last updated in 2007.

NAICS	BUSINESS AND INDUSTRY (SEE NOTES 2, 3 & 4)	TOTAL QUALIFIED	PERCENT OF TOTAL	Company Management, Corporate Executives and Purchasing (B, L)	MANUFACTURING				Quality Assurance/Control (P,Q)	Product Design Research and Development (H,I,J)	Other Qualified Personnel (N)
					Production		Engineering				
					Management (C, R)	Department (D, S)	Management (E)	Department (F, G)			
331	PRIMARY METAL MANUFACTURING										
3311	Iron and Steel Mills and Ferroalloy Manufacturing	350	0.4	130	54	20	36	80	10	14	6
3312	Steel Product Manufacturing from Purchased Steel	314	0.4	92	49	13	48	81	10	18	3
3313	Alumina and Aluminum Production and Processing	976	1.1	415	317	28	84	107	7	16	2
3314	Nonferrous Metal (except Aluminum) Production and Processing	847	0.9	359	263	16	72	114	2	19	2
3315	Foundries	184	0.2	47	20	16	30	54	5	7	5
	Sub-Total NAICS 331	2,671	3.0	1,043	703	93	270	436	34	74	18
332	FABRICATED METAL PRODUCT MANUFACTURING										
332111	Iron and Steel Forging	428	0.5	136	82	35	54	85	7	28	1
332112	Nonferrous Forging	112	0.1	20	17	18	16	25	9	6	1
332114	Custom Roll Forming	2	-	2	-	-	-	-	-	-	-
332115	Crown and Closure Manufacturing	5	-	2	1	-	1	-	-	1	-
332116	Metal Stamping	1,604	1.8	706	309	112	168	242	21	43	3
332117	Powder Metallurgy Part Manufacturing	226	0.3	56	59	21	26	53	-	11	-
332211	Cutlery and Flatware (except Precision) Manufacturing	31	-	13	3	3	1	7	2	2	-
332212	Hand and Edge Tool Manufacturing	741	0.8	308	118	44	60	145	9	54	3
332213	Saw Blade and Handsaw Manufacturing	90	0.1	37	15	6	9	15	-	6	2
332214	Kitchen Utensil, Pot, and Pan Manufacturing	13	-	1	3	2	2	4	-	1	-
332311	Prefabricated Metal Building and Component Manufacturing	50	0.1	23	11	7	1	5	-	3	-
332312	Fabricated Structural Metal Manufacturing	2,286	2.5	1,409	327	109	148	221	28	38	6
332313	Plate Work Manufacturing	276	0.3	133	28	13	29	57	6	9	1
332321	Metal Window and Door Manufacturing	106	0.1	45	21	8	8	10	3	9	2
332322	Sheet Metal Work Manufacturing	1,715	1.9	1,086	214	89	82	178	15	42	9
332323	Ornamental and Architectural Metal Work Manufacturing	394	0.4	259	54	15	25	30	1	9	1
332410	Power Boiler and Heat Exchanger Manufacturing	29	-	5	10	3	5	1	2	3	-
332420	Metal Tank (Heavy Gauge) Manufacturing	894	1.0	416	244	26	91	94	3	20	-
332431	Metal Can Manufacturing	26	-	3	9	1	4	6	2	1	-
332439	Other Metal Container Manufacturing	32	-	16	8	3	2	3	-	-	-
332510	Hardware Manufacturing	138	0.2	37	27	13	9	32	4	14	2
332611	Spring (Heavy Gauge) Manufacturing	18	-	7	3	3	1	-	-	3	1
332612	Spring (Light Gauge) Manufacturing	37	-	24	4	2	3	-	1	1	2
332618	Other Fabricated Wire Product Manufacturing	120	0.1	69	17	5	11	11	1	6	-
332710	Machine Shops	9,671	10.7	6,637	832	560	274	1,151	89	110	18
332721	Precision Turned Product Manufacturing	846	0.9	403	121	85	61	134	19	21	2
332722	Bolt, Nut, Screw, Rivet, and Washer Manufacturing (pt)	143	0.2	48	29	15	12	22	3	13	1
332811	Metal Heat Treating	113	0.1	57	15	7	8	13	6	6	1
332812	Metal Coating, Engraving (except Jewelry and Silverware)	813	0.9	521	105	21	39	84	16	17	10
332813	Electroplating, Plating, Polishing, Anodizing, and Coloring	1,958	2.2	838	415	149	132	338	39	43	4
332910	Metal Valve Manufacturing	1	-	1	-	0	-	-	-	-	-
332911	Industrial Valve Manufacturing	523	0.6	127	100	41	65	134	13	41	2
332912	Fluid Power Valve and Hose Fitting Manufacturing	95	0.1	30	15	11	7	25	3	4	-
332913	Plumbing Fixture Fitting and Trim Manufacturing	78	0.1	19	10	4	12	21	2	10	-
332919	Other Metal Valve and Pipe Fitting Manufacturing	373	0.4	103	66	38	46	88	9	22	1
332991	Ball and Roller Bearing Manufacturing	153	0.2	20	18	16	27	42	9	16	5
332992	Small Arms Ammunition Manufacturing	27	-	15	3	0	4	4	-	1	-
332993	Ammunition (except Small Arms) Manufacturing	42	0.1	6	2	4	9	15	2	4	-
332994	Small Arms Manufacturing (pt)	156	0.2	32	22	14	10	58	7	10	3
332995	Other Ordnance and Accessories Manufacturing	49	0.1	9	8	3	8	14	2	5	-
332996	Fabricated Pipe and Pipe Fitting Manufacturing	403	0.5	178	77	16	37	70	10	13	2
332997	Industrial Pattern Manufacturing	70	0.1	50	4	4	3	3	-	5	1
332998	Enameled Iron and Metal Sanitary Ware Manufacturing	6	-	-	3	1	2	-	-	-	-
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing (pt)	410	0.5	210	64	27	32	58	5	11	3
	Sub-Total NAICS 332	25,303	28.1	14,117	3,493	1,554	1,544	3,498	348	662	87
333	MACHINERY MANUFACTURING										
333111	Farm Machinery and Equipment Manufacturing (pt)	949	1.1	668	77	25	43	101	1	33	1
333112	Lawn and Garden Tractor and Home Lawn and Garden Equipment Manufacturing	263	0.3	78	56	17	28	58	5	21	-
333120	Construction Machinery Manufacturing	1,655	1.8	848	239	104	121	242	20	71	10
333131	Mining Machinery and Equipment Manufacturing	272	0.3	125	50	17	26	34	3	15	2
333132	Oil and Gas Field Machinery and Equipment Manufacturing	827	0.9	304	147	65	74	163	17	43	14
333210	Sawmill and Woodworking Machinery Manufacturing	83	0.1	60	8	5	4	6	-	-	-
333220	Plastics and Rubber Industry Machinery Manufacturing	98	0.1	30	13	11	13	19	4	8	-
333291	Paper Industry Machinery Manufacturing	30	-	14	2	6	1	4	-	1	2
333292	Textile Machinery Manufacturing	49	0.1	27	9	3	4	4	2	-	-
333293	Printing Machinery and Equipment Manufacturing	60	0.1	29	11	0	9	6	1	4	-
333294	Food Product Machinery Manufacturing	131	0.1	38	23	15	10	28	3	10	4
333295	Semiconductor Machinery Manufacturing	11	-	3	2	1	3	-	-	2	-
333298	All Other Industrial Machinery Manufacturing	439	0.5	166	63	22	55	78	8	46	1
333311	Automatic Vending Machine Manufacturing (pt)	7	-	4	-	-	-	2	-	1	-
333312	Commercial Laundry, Drycleaning, and Pressing Machine Manufacturing	11	-	5	3	1	-	1	-	1	-
333313	Office Machinery Manufacturing	28	-	9	1	0	4	7	-	7	-
333314	Optical Instrument and Lens Manufacturing	244	0.3	74	33	23	21	57	8	24	4
333315	Photographic and Photocopying Equipment Manufacturing	99	0.1	45	12	3	7	20	2	9	1
333319	Other Commercial and Service Industry Machinery Manufacturing (pt)	319	0.4	176	54	16	17	41	4	7	4
333411	Air Purification Equipment Manufacturing	43	0.1	21	9	4	3	4	1	1	-
333412	Industrial and Commercial Fan and Blower Manufacturing	178	0.2	42	26	15	28	47	4	16	-
333414	Heating Equipment (except Warm Air Furnaces) Manufacturing (pt)	279	0.3	134	27	17	29	47	7	18	-
333415	Air-Conditioning and Warm Air Heating Equipment	604	0.7	157	93	49	73	159	21	46	6
333511	Industrial Mold Manufacturing	195	0.2	117	14	6	9	38	1	10	-
333512	Machine Tool (Metal Cutting Types) Manufacturing	1,150	1.3	495	170	86	94	196	20	74	15
333513	Machine Tool (Metal Forming Types) Manufacturing	364	0.4	161	40	21	41	66	4	29	2
333514	Special Die and Tool, Die Set, Jig, and Fixture Manufacturing	2,553	2.8	1,410	311	190	182	344	29	75	12
333515	Cutting Tool and Machine Tool Accessory Manufacturing	814	0.9	376	90	50	79	161	9	42	7
333516	Rolling Mill Machinery and Equipment Manufacturing	20	-	8	7	2	1	1	-	1	-
333518	Other Metalworking Machinery Manufacturing	205	0.2	78	27	12	33	39	2	13	1
333611	Turbine and Turbine Generator Set Unit Manufacturing	487	0.5	132	62	40	55	138	23	33	4
333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing	275	0.3	77	51	32	23	74	8	10	-

NAICS	BUSINESS AND INDUSTRY (SEE NOTES 2, 3 & 4)	TOTAL QUALIFIED	PERCENT OF TOTAL	Company Management, Corporate Executives and Purchasing (B, L)	MANUFACTURING				Quality Assurance/Control (P,Q)	Product Design Research and Development (H,I,J)	Other Qualified Personnel (N)
					Production		Engineering				
					Management (C, R)	Department (D, S)	Management (E)	Department (F, G)			
333613	Mechanical Power Transmission Equipment Manufacturing	371	0.4	73	61	44	29	123	7	33	1
333618	Other Engine Equipment Manufacturing (pt)	270	0.3	97	31	14	32	59	5	27	5
333911	Pump and Pumping Equipment Manufacturing (pt)	713	0.8	214	150	47	72	169	16	43	2
333912	Air and Gas Compressor Manufacturing	252	0.3	82	35	23	28	60	3	18	3
333913	Measuring and Dispensing Pump Manufacturing	3	-	-	-	-	1	1	-	1	-
333921	Elevator and Moving Stairway Manufacturing	67	0.1	28	8	4	9	15	1	2	-
333922	Conveyor and Conveying Equipment Manufacturing (pt)	454	0.5	175	79	24	56	76	4	40	-
333923	Overhead Traveling Crane, Hoist, and Monorail System Manufacturing (pt)	126	0.1	42	19	9	12	28	-	13	3
333924	Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing	510	0.6	180	111	32	61	88	7	26	5
333991	Power-Driven Handtool Manufacturing	131	0.2	37	19	12	16	31	3	12	1
333992	Welding and Soldering Equipment Manufacturing	175	0.2	86	18	11	15	33	1	10	1
333993	Packaging Machinery Manufacturing	300	0.3	113	50	19	29	68	-	21	-
333994	Industrial Process Furnace and Oven Manufacturing	78	0.1	38	6	2	10	14	1	4	3
333995	Fluid Power Cylinder and Actuator Manufacturing	214	0.2	59	32	14	24	69	4	12	-
333996	Fluid Power Pump and Motor Manufacturing	139	0.2	40	23	6	23	35	7	5	-
333997	Scale and Balance (except Laboratory) Manufacturing	21	-	9	2	2	2	4	-	2	-
333999	All Other Miscellaneous General Purpose Machinery Manufacturing (pt)	911	1.0	451	116	75	81	133	10	28	17
	Sub-Total NAICS 333	17,477	19.4	7,635	2,490	1,196	1,590	3,191	276	968	131
334	COMPUTER AND ELECTRONIC PRODUCT MANUFACTURING										
3341	Computer and Peripheral Equipment Manufacturing	290	0.3	79	37	18	37	75	5	35	4
3342	Communications Equipment Manufacturing	401	0.4	96	42	16	62	119	17	47	2
3343	Audio and Video Equipment Manufacturing	7	-	1	-	-	-	2	-	4	-
3344	Semiconductor and Other Electronic Component Manufacturing	1,738	1.9	428	242	107	250	447	64	180	20
334510	Electromedical and Electrotherapeutic Apparatus Manufacturing	359	0.4	139	43	12	33	68	8	54	2
334511	Search, Detection, Navigation, Guidance, Aeronautical and Nautical System and Instrument Manufacturing	1,633	1.8	443	202	131	239	410	60	142	6
334512	Automatic Environmental Control Manufacturing for Residential, Commercial and Appliance Use	337	0.4	190	32	16	26	44	6	21	2
334513	Instruments and Related Products Manufacturing for Measuring, Displaying and Controlling Industrial Process Variables	152	0.2	51	16	14	13	37	6	12	3
334514	Totalizing Fluid Meter and Counting Device Manufacturing	51	0.1	23	7	5	7	5	2	2	-
334515	Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals	86	0.1	33	9	10	8	13	4	8	1
334516	Analytical Laboratory Instrument Manufacturing	99	0.1	31	15	7	9	23	2	12	-
334517	Irradiation Apparatus Manufacturing	142	0.2	40	23	7	17	38	6	11	-
334518	Watch, Clock and Part Manufacturing	49	0.1	18	2	5	8	9	1	4	2
334519	Other Measuring and Controlling Device Manufacturing	369	0.4	156	55	18	42	58	5	35	-
3346	Manufacturing and Reproducing Magnetic and Optical Media	19	-	12	3	-	-	-	2	1	1
	Sub-Total NAICS 334	5,732	6.4	1,740	728	366	751	1,348	188	568	43
335	ELECTRICAL EQUIPMENT, APPLIANCE, AND COMPONENT MANUFACTURING										
33511	Electric Lamp Bulb and Part Manufacturing	42	-	18	3	2	3	8	2	6	-
33512	Lighting Fixture Manufacturing	292	0.3	136	38	8	36	40	4	30	-
33521	Small Electrical Appliance Manufacturing	100	0.1	39	18	8	14	12	1	7	1
33522	Major Appliance Manufacturing	112	0.1	12	21	6	14	36	4	17	2
33531	Electrical Equipment Manufacturing	1,040	1.2	296	116	76	160	260	28	97	7
33591	Battery Manufacturing	83	0.1	13	9	6	12	29	4	9	1
335921	Fiber Optic Cable Manufacturing	55	0.1	11	4	5	7	19	1	7	1
335929	Other Communication and Energy Wire Manufacturing	23	-	7	6	-	-	9	-	-	1
33593	Wiring Device Manufacturing	142	0.2	26	20	12	24	42	3	14	1
33599	All Other Electrical Equipment and Component Manufacturing	248	0.3	83	29	14	28	52	7	31	4
	Sub-Total NAICS 335	2,137	2.4	641	264	137	298	507	54	218	18
336	TRANSPORTATION EQUIPMENT MANUFACTURING										
336110	Automobile and Light Duty Motor Vehicle Manufacturing	2	-	1	-	-	1	-	-	-	-
336111	Automobile Manufacturing	600	0.7	203	71	49	62	135	20	55	5
336112	Light Truck and Utility Vehicle Manufacturing	24	-	20	3	1	-	-	-	-	-
336120	Heavy Duty Truck Manufacturing	88	0.1	30	15	9	9	20	2	3	-
336211	Motor Vehicle Body Manufacturing (pt)	786	0.9	401	156	48	53	85	7	33	3
336212	Truck Trailer Manufacturing	425	0.5	214	99	23	28	42	2	17	-
336213	Motor Home Manufacturing	62	0.1	28	13	-	7	10	-	4	-
336214	Travel Trailer and Camper Manufacturing (pt)	417	0.5	311	62	4	10	15	7	8	-
336311	Carburetor, Piston, Piston Ring, and Valve Manufacturing	185	0.2	53	34	13	26	46	2	9	2
336312	Gasoline Engine and Engine Parts Manufacturing	156	0.2	118	11	5	3	13	1	5	-
336321	Vehicular Lighting Equipment Manufacturing	122	0.1	38	2	2	12	22	-	1	-
336322	Other Motor Vehicle Electrical and Electronic Equipment Manufacturing (pt)	375	0.4	233	67	7	25	38	3	7	-
336330	Motor Vehicle Steering and Suspension Components (except Spring) Manufacturing	37	-	19	5	1	5	7	-	-	-
336340	Motor Vehicle Brake System Manufacturing	2,133	2.4	749	583	76	236	416	29	36	8
336350	Motor Vehicle Transmission and Power Train Parts Manufacturing	150	0.2	61	17	9	14	36	1	10	2
336360	Motor Vehicle Seating and Interior Trim Manufacturing	255	0.3	213	19	3	7	8	1	4	-
336370	Motor Vehicle Metal Stamping	382	0.4	168	75	17	50	59	2	8	3
336391	Motor Vehicle Air-Conditioning Manufacturing	10	-	3	-	-	3	3	-	1	-
336399	All Other Motor Vehicle Parts Manufacturing (pt)	3,040	3.4	1,421	383	176	303	573	59	110	15
336410	Aerospace Product and Parts Manufacturing	17	-	5	4	1	1	4	-	1	1
336411	Aircraft Manufacturing	1,339	1.5	328	144	85	187	407	57	113	18
336412	Aircraft Engine and Engine Parts Manufacturing (pt)	1,402	1.6	298	120	145	170	521	65	77	6
336413	Other Aircraft Parts and Auxiliary Equipment Manufacturing	3,182	3.5	1,066	487	270	369	683	131	171	5
336414	Guided Missile and Space Vehicle Manufacturing	242	0.3	41	27	18	40	75	14	26	1
336415	Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing	131	0.1	40	19	3	20	28	4	16	1
336419	Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing	261	0.3	73	59	30	29	52	9	7	2
3365	Railroad Rolling Stock Manufacturing	387	0.4	164	97	15	37	44	9	20	1
336611	Ship Building & Repairing	667	0.7	326	100	51	53	101	14	18	4
336612	Boat Building	915	1.0	633	138	13	54	47	15	14	1
336991	Motorcycle, Bicycle, and Parts Manufacturing (pt)	404	0.4	211	46	25	33	61	6	22	-
336992	Military Armored Vehicle, Tank, and Tank Component Manufacturing (pt)	570	0.6	219	104	30	58	128	12	17	2
336999	All Other Transportation Equipment Manufacturing	339	0.4	165	51	18	33	59	4	9	-
	Sub-Total NAICS 336	19,105	21.2	7,853	3,051	1,147	1,938	3,738	476	822	80
337	FURNITURE AND RELATED PRODUCT MANUFACTURING										
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	843	0.9	469	155	30	75	73	7	33	1
3372	Office Furniture (including Fixtures) Manufacturing	437	0.5	183	97	12	50	54	5	35	1
3379	Other Furniture Related Product Manufacturing	8	-	1	2	1	1	2	-	-	1
	Sub-Total NAICS 337	1,288	1.4	653	254	43	126	129	12	68	3
339	MISCELLANEOUS MANUFACTURING										
339110	Medical Equipment and Supplies Manufacturing	8	-	2	-	-	2	4	-	-	-
339111	Laboratory Apparatus and Furniture Manufacturing (pt)	206	0.2	89	46	6	26	33	2	4	-
339112	Surgical and Medical Instrument Manufacturing	5,151	5.7	2,472	742	271	463	739	117	329	18
339113	Surgical Appliance and Supplies Manufacturing	1,372	1.5	629	229	58	135	203	33	82	3
339114	Dental Equipment and Supplies Manufacturing	578	0.6	287	82	34	39	77	10	49	-

NAICS	BUSINESS AND INDUSTRY (SEE NOTES 2, 3 & 4)	TOTAL QUALIFIED	PERCENT OF TOTAL	Company Management, Corporate Executives and Purchasing (B, L)	MANUFACTURING				Quality Assurance/Control (P,Q)	Product Design Research and Development (H,I,J)	Other Qualified Personnel (N)
					Production		Engineering				
					Management (C, R)	Department (D, S)	Management (E)	Department (F, G)			
339115	Ophthalmic Goods Manufacturing	465	0.5	338	54	12	20	30	7	4	-
339116	Dental Laboratories	2,736	3.1	2,696	14	2	4	15	2	3	-
33991	Jewelry and Silverware Manufacturing	14	-	3	4	-	-	3	-	2	2
33992	Sporting and Athletic Goods Manufacturing	41	0.1	13	3	5	4	9	-	5	2
339932	Game, Toy and Children's Vehicle Manufacturing	11	-	7	1	-	-	2	-	1	-
33994	Office Supplies (except Paper) Manufacturing	16	-	3	2	3	3	3	1	-	1
33995	Sign Manufacturing	10	-	2	2	1	2	2	-	1	-
33999	All Other Miscellaneous Manufacturing	286	0.3	103	44	18	18	52	9	26	16
	Sub-Total NAICS 339	10,894	12.0	6,644	1,223	410	716	1,172	181	506	42
	Sub Total Metalworking Manufacturing	84,607	93.9	40,326	12,206	4,946	7,233	14,019	1,569	3,886	422
325	Chemical Manufacturing	74	0.1	17	9	3	10	11	3	9	12
326	Plastics and Rubber Products Manufacturing	131	0.2	29	23	5	22	17	7	19	9
327	Nonmetallic Mineral Product Manufacturing	33	-	12	7	-	9	3	-	1	1
	Other Mfg NAICS: 311-316,321-324	103	0.1	21	24	5	13	13	2	6	19
	Sub Total Non-Metalworking Manufacturing	341	0.4	79	63	13	54	44	12	35	41
	Sub Total Manufacturing Industries	84,948	94.3	40,405	12,269	4,959	7,287	14,063	1,581	3,921	463
111-115	Agriculture	1	-	-	-	-	-	-	-	-	1
211-213	Mining	18	-	3	1	-	3	5	1	-	5
221	Utilities	12	-	3	1	-	1	4	1	-	2
233-238	Construction	142	0.2	57	12	7	13	17	10	11	15
421-425	Wholesale Trade Durable Goods	524	0.6	207	55	17	37	60	18	49	81
441-454	Retail Trade	163	0.2	43	26	8	22	25	8	15	16
481-493	Transportation And Warehousing	26	-	2	4	-	-	7	1	3	9
511-562	Services	746	0.8	324	51	17	80	75	12	50	137
611	Educational Services	3,391	3.8	40	34	31	25	61	8	39	3,153
621-624	Health Care	41	-	8	3	2	5	8	1	3	11
711-713	Arts, Entertainment Recreation	15	-	1	2	1	2	1	1	-	7
721-722	Accommodations And Food	5	-	1	1	2	-	-	-	-	1
811-814	Other Services	82	0.1	38	8	2	8	13	2	4	7
921-928	Public Administration	29	-	2	3	4	1	8	2	2	7
	Sub Total Non-Manufacturing	5,195	5.7	729	201	91	197	284	65	176	3,452
	TOTAL QUALIFIED CIRCULATION	90,143	100.0	41,134	12,470	5,050	7,484	14,347	1,646	4,097	3,915

- (B) CORPORATE EXECUTIVE titles include Chairman, General Manager, Owner, Partner, President, Vice President.
- (C) MANUFACTURING PRODUCTION MANAGEMENT titles include Factory Manager, Machine Shop Manager, Manufacturing Manager, Manufacturing Production Manager, Plant Manager, Production Manager, Shop Manager, Tool Room Manager and Works Manager.
- (D) MANUFACTURING PRODUCTION DEPARTMENT titles include Foreman, Department Supervisor, Manufacturing Supervisor, Master Mechanic, Plant Supervisor, Production Supervisor.
- (E) MANUFACTURING ENGINEERING MANAGEMENT titles include Chief Tool Engineer, Chief of Manufacturing Development, Director of Manufacturing Engineering, Chief Methods Engineer, Manager of Process Engineering, Director of Production Engineering, Manager of Tool Design and Head of Tool Engineering.
- (F) MANUFACTURING ENGINEERING DEPARTMENT (ENGINEERS) include most engineering titles where the individual does not manage the department.
- (G) MANUFACTURING (OTHER MANUFACTURING PERSONNEL) titles include Diemaker, Expediter, Leadman, Chief Machinist and Chief Toolmaker.
- (P) QUALITY ASSURANCE/CONTROL MANAGEMENT titles include Quality Assurance Manager, Quality Control Director, Chief of Quality Engineering.
- (Q) QUALITY ASSURANCE/CONTROL ENGINEERS titles include Quality Assurance Engineer, Quality Control Foreman, Quality Supervisor.
- (H) PRODUCT DESIGN, RESEARCH AND DEVELOPMENT MANAGEMENT titles include Director of Design Engineering, Chief Draftsman, Manager of Product Engineering and Director of Research.
- (I) PRODUCT DESIGN, RESEARCH AND DEVELOPMENT ENGINEERS titles include Design Project Engineer, Development Engineer, Research & Design Engineer.
- (J) PRODUCT DESIGN, RESEARCH AND DEVELOPMENT (OTHER DESIGN PERSONNEL) titles include Draftsman.
- (R) FACTORY AUTOMATION MANAGEMENT titles include Factory Automation Manager, Chief Factory Automation Engineer, Manager of Systems Design, Chief Systems Engineer.
- (S) FACTORY AUTOMATION ENGINEERS titles include Factory Automation Engineer, Automation Foreman, Systems Designer, Systems Engineer.
- (L) PURCHASING titles include Buyer, Procurement Chief, and Purchasing Manager.

