

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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MODERN MACHINE SHOP is a business-to-business media brand that produces a monthly print magazine, digital media, research and live events for the machining and metalworking market. With an emphasis on applications stories and case histories, Modern Machine Shop provides insight into real world applications of metalworking technology. Helping the subscriber to discover, not only what the technology can do, but how it can change their business, how it can help them serve their customers better and how they can be more profitable as a business enterprise. The parent company Gardner Business Media was established with the launch of Modern Machine Shop magazine in June of 1928. To this day, the Modern Machine Shop brand is recognized around the world as a resource for metalworking product and process technology.

BRAND REPORT PURPOSE

The Brand Report provides a deeper understanding and identification of all audited touch points with customers that have interest in the brand. It is designed to present analysis of all communication channels, including a brand's unique users within each channel of, but not across, multiple media platforms. This non-integrated report contains data for each separate media channel as indicated in the Executive Summary. No attempt has been made to identify or eliminate duplication that may exist across media channels.

CHANNELS

MODERN MACHINE SHOP MAGAZINE



6 Issues in the period
98,571 average circulation

MODERN MACHINE SHOP E-NEWSLETTERS



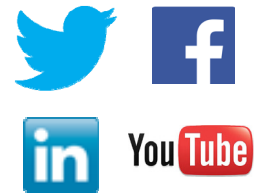
2 E-Newsletters in the period
40 total issued in the period
59,187 average per occurrence
59,189 average per occurrence

MODERN MACHINE SHOP WEBSITE



130,353 average unique browsers

MODERN MACHINE SHOP SOCIAL MEDIA



7,333 Twitter followers
6,725 Facebook likes
1,948 LinkedIn group members
129,150 YouTube views

EXECUTIVE SUMMARY

Below are the Average contacts per occurrence, including frequency per period reported

	Non-Paid	Paid	Average
MODERN MACHINE SHOP MAGAZINE (6 issues in the period)	98,571	-	98,571
MODERN MACHINE SHOP E-NEWSLETTERS			
a. MMS Extra (12 issued in the period)	59,187	-	59,187
b. The Shop - Blog (28 issued in the period)	59,189	-	59,189
MODERN MACHINE SHOP WEBSITE (Monthly Unique Browsers with 247,630 average Page Impressions)	130,353	-	130,353
MODERN MACHINE SHOP SOCIAL MEDIA			
a. Twitter followers	*7,333	-	*7,333
b. Facebook likes	*6,725	-	*6,725
c. LinkedIn group members	*1,948	-	*1,948
d. YouTube views	*129,150	-	*129,150

*Social Media claims are cumulative figures, not averages.

(Including Supplementary Data)

FIELD SERVED

MODERN MACHINE SHOP serves the metalworking industry. Included are plants performing metalworking operations and whose products fall in manufacturing industries. Also served are other manufacturing, wholesale trade, and professional, scientific, technical, and educational services.

DEFINITION OF RECIPIENT QUALIFICATION

Qualified recipients include corporate executives as well as company management, manufacturing production and manufacturing engineering management and departments, quality assurance and quality control management and department, product design management and department, research & development management and department, factory automation management and department, purchasing and other titled and non-titled personnel and company copies.

PURPOSE

Included herein is a supplementary analysis of recipients who responded to the question "Which of the following markets do you manufacture for?"

AVERAGE NON-QUALIFIED CIRCULATION

NON-QUALIFIED Not Included Elsewhere	Copies
Other Paid Circulation	79
Advertiser and Agency	5,347
Allocated for Trade Shows and Conventions	583
All Other	1,152
TOTAL	7,161

1. AVERAGE QUALIFIED CIRCULATION BREAKOUT FOR PERIOD

QUALIFIED CIRCULATION	Total Qualified		Qualified Non-Paid		Qualified Paid	
	Copies	Percent	Copies	Percent	Copies	Percent
Individual	98,571	100.0	98,571	100.0	-	-
Sponsored Individually	-	-	-	-	-	-
Addressed	-	-	-	-	-	-
Membership Benefit	-	-	-	-	-	-
Multi-Copy Same Addressee	-	-	-	-	-	-
Single Copy Sales	-	-	-	-	-	-
TOTAL QUALIFIED CIRCULATION	98,571	100.0	98,571	100.0	-	-

2. QUALIFIED CIRCULATION BY ISSUES FOR PERIOD

2016 Issue	Total Qualified
July	97,820
August	97,807
September	98,727
October	99,455
November	98,450
December	99,168

3a. BUSINESS/OCCUPATIONAL BREAKOUT OF QUALIFIED CIRCULATION FOR ISSUE OF NOVEMBER 2016
This issue is 0.1% or 145 copies below the average of the other 5 issues reported in Paragraph 2.

NAICS	BUSINESS AND INDUSTRY	TOTAL QUALIFIED	PERCENT OF TOTAL	MANUFACTURING																
				Production					Engineering											
				Purchasing (B,L)	Management (C,R)	Department (D,G,S)	Management (E,V)	Department (F,T)	Quality Assurance Control (P,Q)	Product Design Research and Development (H,I,J)	Other Qualified Personnel (A,N,U,X,Z)									
325	CHEMICAL MANUFACTURING	559	0.6																	
326	PLASTICS AND RUBBER PRODUCTS MANUFACTURING																			
326 (Excl. 326199)	Plastics and Rubber Products Manufacturing	583	0.6	140	66	88	88	110	14	64	13									
326199	All Other Plastics Product Manufacturing	1,654	1.7	534	205	222	225	299	36	97	36									
	Subtotal NAICS 326	2,237	2.3	674	271	310	313	409	50	161	49									
327	NONMETALLIC MINERAL PRODUCT MANUFACTURING	263	0.3	73	27	25	26	64	3	26	19									
331	PRIMARY METAL MANUFACTURING																			
3311	Iron and Steel Mills and Ferroalloy Manufacturing	346	0.4	141	56	49	29	40	5	7	19									
3312	Steel Product Manufacturing from Purchased Steel	241	0.2	61	42	33	24	42	13	10	16									
3313	Alumina and Aluminum Production and Processing	166	0.2	45	29	22	18	27	6	9	10									
3314	Nonferrous Metal (except Aluminum) Production and Processing	181	0.2	47	25	22	21	29	7	20	10									
3315	Foundries	813	0.8	172	139	140	91	177	23	49	22									
	Sub-Total NAICS 331	1,747	1.8	466	291	266	183	315	54	95	77									
332	FABRICATED METAL PRODUCT MANUFACTURING																			
33211	Forging and Stamping	1,318	1.3	531	171	179	106	197	42	53	39									
33221	Cutlery and Handtool Manufacturing	459	0.5	197	43	84	31	53	7	24	20									
33231	Plate Work and Fabricated Structural Product Manufacturing	904	0.9	408	130	130	58	102	13	36	27									
33232	Ornamental and Architectural Metal Products Manufacturing	741	0.8	367	99	98	50	68	17	23	19									
33241	Power Boiler and Heat Exchanger Manufacturing (pt)	50	0.1	13	6	10	7	8	-	5	1									
33242	Metal Tank (Heavy Gauge) Manufacturing	55	0.1	20	3	6	11	6	1	6	2									
33243	Metal Can, Box, and Other Metal Container (Light Gauge) Manufacturing	54	0.1	19	8	6	12	3	1	3	2									
33251	Hardware Manufacturing (pt)	328	0.3	114	45	56	32	47	7	16	11									
33261	Spring and Wire Product Manufacturing	326	0.3	156	29	35	33	39	10	21	3									
33271	Machine Shops	21,276	21.6	14,135	1,719	2,422	619	1,120	466	296	499									
33272	Turned Product and Screw, Nut and Bolt Manufacturing	2,019	2.1	896	255	300	120	263	86	40	59									
33281	Coating, Engraving, Heat Treating, and Allied Activities	596	0.6	313	84	46	42	44	18	20	29									
33291	Metal Valve Manufacturing	840	0.9	156	154	226	62	149	21	59	13									
332991	Ball and Roller Bearing Manufacturing	241	0.2	38	26	41	33	68	8	17	10									
332992	Small Arms Ammunition Manufacturing	44	-	9	4	9	2	15	-	5	-									
332993	Ammunition (except Small Arms) Manufacturing	35	-	6	2	9	6	11	-	1	-									
332994	Small Arms Ordnance, and Ordnance Accessories Manufacturing	229	0.2	92	19	30	15	50	6	15	2									
332996	Fabricated Pipe and Pipe Fitting Manufacturing	205	0.2	67	39	31	17	25	3	11	12									
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing (pt)	1,442	1.5	791	129	187	89	149	16	42	39									
	Sub-Total NAICS 332	31,162	31.7	18,328	2,965	3,905	1,345	2,417	722	693	787									
333	MACHINERY MANUFACTURING																			
333111	Farm Machinery and Equipment Manufacturing (pt)	739	0.8	258	94	93	76	131	12	66	9									
333112	Lawn and Garden Tractor and Home Lawn and Garden Equipment Manufacturing	128	0.1	44	13	21	13	27	2	7	1									
33312	Construction Machinery Manufacturing	612	0.6	157	76	81	61	151	17	51	18									
333131	Mining Machinery and Equipment Manufacturing	227	0.2	74	35	38	19	38	7	11	5									
333132	Oil and Gas Field Machinery and Equipment Manufacturing	622	0.6	211	121	103	37	86	15	26	23									
333241	Food Product Machinery Manufacturing	230	0.2	80	22	42	20	38	5	17	6									
333242	Semiconductor Machinery Manufacturing	43	-	6	3	9	8	13	1	2	1									
333243	Sawmill, Woodworking, and Paper Machinery Manufacturing	254	0.3	108	17	47	14	39	2	16	11									
333244	Printing Machinery and Equipment Manufacturing	106	0.1	33	17	30	3	15	-	6	2									
333249	All Other Industrial Machinery Manufacturing	862	0.9	336	74	107	91	122	10	66	56									
333314	Optical Instrument and Lens Manufacturing	222	0.2	53	23	31	34	37	10	26	8									
333316	Photographic and Photocopying Equipment Manufacturing	79	0.1	20	5	18	12	19	-	3	2									
333318	Other Commercial and Service Industry Machinery Manufacturing (pt)	417	0.4	190	23	53	46	61	1	31	12									

NAICS	BUSINESS AND INDUSTRY	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 (A,N,U,X,Z)		
					Production					Engineering	
					Management (C,R)	Department (D,G,S)				Management (E,V)	Department (F,T)
333413	Industrial and Commercial Fan and Blower and Air Purification Equipment Manufacturing	149	0.2	47	25	19	16	24	-	9	9
333414	Heating Equipment except Warm Air Furnaces - Manufacturing (pt)	76	0.1	16	7	16	3	19	1	12	2
333415	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing	268	0.3	45	26	43	48	66	4	29	7
333511	Industrial Mold Manufacturing	2,763	2.8	1,367	290	438	179	208	32	137	112
333514	Special Die and Tool, Die Set, Jig, and Fixture Manufacturing	2,834	2.9	1,539	254	434	151	185	37	101	133
333515	Cutting Tool and Machine Tool Accessory Manufacturing	1,868	1.9	735	175	191	107	229	26	96	309
333517	Machine Tool Manufacturing	2,080	2.1	897	216	209	150	280	26	78	224
333519	Rolling Mill and Other Metalworking Machinery Manufacturing	378	0.4	152	34	63	30	45	6	22	26
333611	Turbine and Turbine Generator Set Unit Manufacturing	245	0.2	38	19	37	38	85	8	15	5
333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing	257	0.3	88	23	50	16	55	9	11	5
333613	Mechanical Power Transmission Equipment Manufacturing	326	0.3	84	46	64	32	61	12	21	6
333618	Other Engine Equipment Manufacturing (pt)	438	0.4	156	30	37	50	92	17	49	7
333911	Pump and Pumping Equipment Manufacturing (pt)	387	0.4	94	55	71	37	88	8	23	11
333912	Air and Gas Compressor Manufacturing	188	0.2	49	27	34	14	35	8	14	7
333913	Measuring and Dispensing Pump Manufacturing	20	-	4	5	3	2	4	1	1	-
333921	Elevator and Moving Stairway Manufacturing	32	-	15	1	3	5	5	-	2	1
333922	Conveyor and Conveying Equipment Manufacturing (pt)	270	0.3	77	37	59	18	44	2	18	15
333923	Overhead Traveling Crane, Hoist, and Monorail System Manufacturing (pt)	103	0.1	24	15	8	19	26	1	9	1
333924	Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing	192	0.2	40	20	27	31	49	3	20	2
333991	Power-Driven Handtool Manufacturing	140	0.1	56	5	18	14	25	2	9	11
333992	Welding and Soldering Equipment Manufacturing	132	0.1	50	17	24	12	10	4	10	5
333993	Packaging Machinery Manufacturing	205	0.2	41	37	53	20	26	3	16	9
333994	Industrial Process Furnace and Oven Manufacturing	135	0.1	46	13	25	10	24	-	15	2
333995	Fluid Power Cylinder and Actuator Manufacturing	241	0.2	75	35	47	27	35	10	4	8
333996	Fluid Power Pump and Motor Manufacturing	186	0.2	34	19	31	20	55	10	12	5
333997	Scale and Balance (except Laboratory) Manufacturing	33	-	7	2	4	4	7	1	6	2
333999	All Other Miscellaneous General Purpose Machinery Manufacturing (pt)	1,506	1.5	834	146	152	88	153	16	62	55
	Sub-Total NAICS 333	19,993	20.0	8,180	2,102	2,833	1,575	2,712	329	1,129	1,133
334	COMPUTER AND ELECTRONIC PRODUCT MANUFACTURING										
3341	Computer and Peripheral Equipment Manufacturing	210	0.2	56	13	24	30	55	4	23	5
3342	Communications Equipment Manufacturing	373	0.4	74	38	58	60	94	13	30	6
3343	Audio and Video Equipment Manufacturing	54	0.1	12	7	7	6	14	1	6	1
3344	Semiconductor and Other Electronic Component Manufacturing	1,193	1.2	296	103	189	158	253	36	131	27
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	2,726	2.8	902	243	338	282	539	59	241	122
3346	Manufacturing and Reproducing Magnetic and Optical Media	31	-	10	4	2	5	3	-	1	6
	Sub-Total NAICS 334	4,587	4.7	1,350	408	618	541	958	113	432	167
335	ELECTRICAL EQUIPMENT, APPLIANCE, AND COMPONENT MANUFACTURING										
33511	Electric Lamp Bulb and Part Manufacturing	27	-	3	4	5	4	5	2	3	1
33512	Lighting Fixture Manufacturing	139	0.1	43	22	18	15	25	2	11	3
33521	Small Electrical Appliance Manufacturing	40	-	7	5	7	7	6	2	6	-
33522	Major Appliance Manufacturing	76	0.1	9	12	9	6	27	1	11	1
33531	Electrical Equipment Manufacturing	920	0.9	194	96	125	148	229	19	78	31
33591	Battery Manufacturing	67	0.1	9	10	13	7	15	1	11	1
33592	Communication and Energy Wire and Cable Manufacturing	55	0.1	7	10	7	7	14	1	9	-
33593	Wiring Device Manufacturing	254	0.3	47	28	65	25	54	6	23	6
33599	All Other Electrical Equipment and Component Manufacturing	455	0.5	132	51	68	50	74	9	44	27
	Sub-Total NAICS 335	2,033	2.1	451	238	317	269	449	43	196	70
336	TRANSPORTATION EQUIPMENT MANUFACTURING										
336111	Automobile Manufacturing	1,224	1.2	500	79	113	137	217	49	105	24
336112	Light Truck and Utility Vehicle Manufacturing	70	0.1	29	9	8	6	7	1	8	2
336120	Heavy Duty Truck Manufacturing	316	0.3	140	35	9	35	48	5	40	4
336211	Motor Vehicle Body Manufacturing (pt)	897	0.9	475	103	53	77	103	17	50	19
336212	Truck Trailer Manufacturing	562	0.6	373	45	26	41	38	5	19	15
336213	Motor Home Manufacturing	82	0.1	41	9	5	5	13	3	5	1
336214	Travel Trailer and Camper Manufacturing (pt)	310	0.3	238	31	7	5	13	4	8	4
336310	Motor Vehicle Gasoline Engine and Engine Parts Manufacturing	652	0.7	280	53	48	74	116	25	44	12
336320	Motor Vehicle Electrical and Electronic Equipment Manufacturing	759	0.8	368	60	48	79	119	17	58	10
336330	Motor Vehicle Steering and Suspension Components (except Spring) Manufacturing	181	0.2	69	16	12	20	43	10	10	1
336340	Motor Vehicle Brake System Manufacturing	240	0.2	74	26	18	32	54	10	21	5
336350	Motor Vehicle Transmission and Power Train Parts Manufacturing	599	0.6	221	52	55	82	108	32	38	11

		MANUFACTURING									
		Production					Engineering				
NAICS	BUSINESS AND INDUSTRY	TOTAL QUALIFIED	PERCENT OF TOTAL	Company Management, Corporate Executives and Purchasing (B,L)	Management (C,R)	Department (D,G,S)	Management (E,V)	Department (F,T)	Quality Assurance Control (P,Q)	Product Design Research and Development (H,I,J)	Other Qualified Personnel (A,N,U,X,Z)
336360	Motor Vehicle Seating and Interior Trim Manufacturing	231	0.2	95	22	16	30	30	10	24	4
336370	Motor Vehicle Metal Stamping	623	0.6	250	84	50	71	110	18	31	9
336390	Other Motor Vehicle Parts Manufacturing	4,963	5.0	2,004	472	388	551	892	201	354	101
336411	Aircraft Manufacturing	1,326	1.4	369	94	130	173	373	36	113	38
336412	Aircraft Engine and Engine Parts Manufacturing (pt)	1,035	1.1	254	88	128	144	303	39	59	20
336413	Other Aircraft Parts and Auxiliary Equipment Manufacturing	3,599	3.7	1,169	409	481	368	729	171	180	92
336414	Guided Missile and Space Vehicle Manufacturing	202	0.2	43	12	14	30	69	7	21	6
336415	Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing	158	0.2	34	16	25	27	34	6	15	1
336419	Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing	203	0.2	61	14	28	36	36	3	16	9
3365	Railroad Rolling Stock Manufacturing	223	0.2	73	26	25	22	48	7	17	5
3366	Ship and Boat Building	604	0.6	356	55	50	39	54	8	32	10
3369	Other Transportation Equipment Manufacturing	578	0.6	326	32	48	46	79	6	29	12
	Sub-Total NAICS 336	19,637	20.0	7,842	1,842	1,785	2,130	3,636	690	1,297	415
337	FURNITURE AND RELATED PRODUCT MANUFACTURING										
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	197	0.2	88	29	23	16	19	3	17	2
3372	Office Furniture (including Fixtures) Manufacturing	117	0.1	30	17	17	13	22	2	15	1
3379	Other Furniture Related Product Manufacturing	13	-	3	-	3	2	2	1	2	-
	Sub-Total NAICS 337	327	0.3	121	46	43	31	43	6	34	3
339	MISCELLANEOUS MANUFACTURING										
339112	Surgical and Medical Instrument Manufacturing	2,395	2.4	701	278	288	277	464	110	227	50
339113	Surgical Appliance and Supplies Manufacturing	1,479	1.5	637	148	149	125	229	44	119	28
339114	Dental Equipment and Supplies Manufacturing	338	0.3	171	23	41	22	37	9	25	10
339115	Ophthalmic Goods Manufacturing	161	0.2	75	21	13	13	21	2	11	5
339116	Dental Laboratories	77	0.1	71	-	-	1	-	-	-	5
33991	Jewelry and Silverware Manufacturing	312	0.3	245	14	19	7	13	-	6	8
33992	Sporting and Athletic Goods Manufacturing	458	0.5	300	37	34	21	20	3	27	16
33993	Doll, Toy, and Game Manufacturing	130	0.1	99	10	4	4	3	-	3	7
33994	Office Supplies (except Paper) Manufacturing	128	0.1	86	15	7	2	5	-	3	10
33995	Sign Manufacturing	869	0.9	792	43	8	3	10	-	12	1
33999	All Other Miscellaneous Manufacturing	1,418	1.5	859	113	124	85	110	9	66	52
	Sub-Total NAICS 339	7,765	7.9	4,036	702	687	560	912	177	499	192
	TOTAL METALWORKING MANUFACTURING	90,310	91.7	41,679	8,934	10,853	7,034	12,017	2,203	4,633	2,957
311-324	OTHER MISCELLANEOUS MANUFACTURING	359	0.4	128	40	59	26	45	1	30	30
	TOTAL MANUFACTURING	90,669	92.1	41,807	8,974	10,912	7,060	12,062	2,204	4,663	2,987
42	WHOLESALE TRADE	2,343	2.4	1,159	158	91	88	199	13	56	579
541	PROFESSIONAL SERVICES	2,298	2.3	1,057	89	156	249	346	20	239	142
	OTHER QUALIFIED NAICS, N.E.C.	3,140	3.2	1,399	177	329	124	265	23	130	693
	TOTAL NON-MANUFACTURING	7,781	7.9	3,615	424	576	461	810	56	425	1,414
	TOTAL QUALIFIED CIRCULATION	98,450	100.0	45,422	9,398	11,488	7,521	12,872	2,260	5,088	4,401

(B,L) COMPANY MANAGEMENT, CORPORATE EXECUTIVE, PURCHASING: titles include Chairman, General Manager, Owner, Partner, President, Vice President, Buyer, Purchasing Manager and Procurement Chief.

(C,R) MANUFACTURING PRODUCTION MANAGEMENT, FACTORY AUTOMATION MANAGEMENT: titles include Factory Manager, Machine Shop Manager, Manufacturing Manager, Manufacturing Production Manager, Plant Manager, Production Manager, Shop Manager, Tool Room Manager, Works Manager, Factory Automation Manager, Chief Factory Automation Engineer, Manager of Systems Design and Chief Systems Engineer.

(D,G,S) MANUFACTURING PRODUCTION DEPARTMENT, MANUFACTURING (OTHER MANUFACTURING PERSONNEL), FACTORY AUTOMATION ENGINEERS: titles include Foreman, Department Supervisor, Manufacturing Supervisor, Master Mechanic, Plant Supervisor, Production Supervisor, Diemaker, Expediter, Leadman, Factory Automation Engineer, Automation Foreman, CNC Programmer, Systems Designer and Systems Engineer.

(E,V) MANUFACTURING ENGINEERING MANAGERS & 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,T) MANUFACTURING ENGINEERING (ENGINEERS): include most engineering titles where the individual does not manage the department.

(P,Q) QUALITY ASSURANCE/CONTROL (MANAGEMENT & ENGINEERS): titles include Quality Assurance Manager, Quality Control Director, Chief of Quality Engineering, Quality Assurance Engineer, Quality Control Foreman and Quality Supervisor.

(H,I,J) PRODUCT DESIGN AND RESEARCH & DEVELOPMENT (MANAGEMENT, ENGINEERS & OTHER DESIGN PERSONNEL): titles include Director of Design Engineering, Chief Draftsman, Manager of Product Engineering, Director of Research, Design Project Engineer, Development Engineer, Research & Design Engineer, and Draftsman.

(A,N,U,X,Z) OTHER QUALIFIED TITLES N.E.C.: titles include Consultant, Services Mgr, Training Mgr, Instructor, Sales, Marketing and other related titles.

SUPPLEMENTARY DATA FOR ISSUE OF NOVEMBER 2016

This is an analysis of 85,346 or 86.7% recipients who manufacture for the following industries. 59,063 are classified based on their response to the question 'Which of the following markets do you manufacture for?' and 26,283 are classified based on NAICS for their company indicating they are an OEM for the given market.

BUSINESS AND INDUSTRY	Totals	Company Management, Corporate Executives, Purchasing (B,L)	Manufacturing Production Management (C,R)	Manufacturing Production Department (D,G,S)	Manufacturing Engineering Management (E,V)	Manufacturing Engineering Department (F,T)	Quality Assurance, Quality Control (P,Q)	Product Design, Research & Development (H,I,J)	Other Qualified Personnel (A,N,U,X,Z)
Aerospace/Aviation									
OEMs, Components & Parts	7,124	2,088	672	883	864	1,706	284	447	180
Captive Shops, Contract Shops & Job Shops	37,350	15,327	3,959	5,628	2,850	4,910	1,007	1,877	1,792
Other Qualified: R&D, Consultants, Testing & Design, Q/A	3,791	1,699	200	269	234	453	25	195	716
Totals	48,265	19,114	4,831	6,780	3,948	7,069	1,316	2,519	2,688
Automotive/Transportation									
OEMs, Components & Parts	11,709	5,157	1,096	856	1,245	1,911	407	815	222
Captive Shops, Contract Shops & Job Shops	41,312	16,990	4,386	6,053	3,261	5,640	965	2,152	1,865
Other Qualified: R&D, Consultants, Testing & Design, Q/A	4,128	2,008	210	268	262	430	23	219	708
Totals	57,149	24,155	5,692	7,177	4,768	7,981	1,395	3,186	2,795
Medical/Dental									
OEMs, Components & Parts	4,709	1,744	490	518	461	796	173	422	105
Captive Shops, Contract Shops & Job Shops	30,455	12,190	3,173	4,672	2,386	4,151	772	1,569	1,542
Other Qualified: R&D, Consultants, Testing & Design, Q/A	3,136	1,428	154	200	174	326	25	197	632
Totals	38,300	15,362	3,817	5,390	3,021	5,273	970	2,188	2,279
Oil & Gas/Energy									
OEMs, Components & Parts	849	285	156	141	56	124	22	37	28
Captive Shops, Contract Shops & Job Shops	37,134	13,995	4,120	5,855	3,042	5,463	1,000	1,926	1,733
Other Qualified: R&D, Consultants, Testing & Design, Q/A	3,036	1,347	171	225	177	341	22	156	597
Totals	41,019	15,627	4,447	6,221	3,275	5,928	1,044	2,119	2,358
Military/Defense									
OEMs, Components & Parts	975	275	75	126	133	242	24	79	21
Captive Shops, Contract Shops & Job Shops	39,936	14,572	4,332	6,086	3,503	6,186	1,203	2,243	1,811
Other Qualified: R&D, Consultants, Testing & Design, Q/A	3,190	1,339	171	249	208	392	24	185	622
Totals	44,101	16,186	4,578	6,461	3,844	6,820	1,251	2,507	2,454
Offroad/Construction/Agriculture									
OEMs, Components & Parts	1,479	459	183	195	150	309	31	124	28
Captive Shops, Contract Shops & Job Shops	40,447	16,187	4,258	5,856	3,291	5,892	1,065	2,140	1,758
Other Qualified: R&D, Consultants, Testing & Design, Q/A	3,144	1,465	171	206	170	353	14	155	610
Totals	45,070	18,111	4,612	6,257	3,611	6,554	1,110	2,419	2,396

Note 1: OEM, Components & Parts: Corresponding Industry NAICS

Note 2: Captive Shops, Contract Shops & Job Shops: Respondents in Mfg NAICS (311-339) not Industry-Specific

Note 3: Other Qualified: R&D, Consultants, Testing & Design, Q/A: Respondents in non-Mfg NAICS

SUPPLEMENTARY DATA FOR ISSUE OF NOVEMBER 2016

This is an analysis of 32,648 recipients in the indicated NAICS classifications, of whom 27,372 manufacture for the following industries based on their response to the question "Which of the following markets do you manufacture for?"

Contract Shops & Job Shops (NAICS 326199, 33271, 33272, 33281, 333511, 333514, 333999)	Totals	Company Management, Corporate Executives, Purchasing (B,L)	Manufacturing Production Management (C,R)	Manufacturing Production Department (D,G,S)	Manufacturing Engineering Management (E,V)	Manufacturing Engineering Department (F,T)	Quality Assurance, Quality Control (P,Q)	Product Design, Research & Development (H,I,J)	Other Qualified Personnel (A,N,U,X,Z)
Aerospace/Aviation	17,863	9,413	1,839	2,717	900	1,412	492	474	616
Automotive/Transportation	19,494	10,389	2,016	2,818	1,022	1,572	468	568	641
Medical/Dental	14,677	7,598	1,519	2,273	775	1,192	375	411	534
Oil & Gas/Energy	15,830	8,219	1,723	2,496	769	1,231	429	382	581
Military/Defense	15,949	8,156	1,737	2,462	836	1,282	467	429	580
Offroad/Construction/Agriculture	16,934	9,062	1,716	2,530	856	1,336	427	442	565

3b. QUALIFICATION SOURCE BREAKOUT OF QUALIFIED CIRCULATION FOR ISSUE OF NOVEMBER 2016

QUALIFICATION SOURCE	Qualified Within			Total Qualified	Percent
	1 Year	2 Years	3 Years		
I. Direct Request:	63,482	23,325	-	86,807	88.2
II. Request from recipient's company:	11	-	-	11	-
III. Membership Benefit:	-	-	-	-	-
IV. Communication from recipient or recipient's company (other than request):	3,662	-	-	3,662	3.7
V. TOTAL - Sources other than above (listed alphabetically):	7,970	-	-	7,970	8.1
Association rosters and directories	-	-	-	-	-
*Business directories	7,220	-	-	7,220	7.3
Manufacturer's, distributor's, and wholesaler's lists	-	-	-	-	-
*Other sources	750	-	-	750	0.8
VI. Single Copy Sales:	-	-	-	-	-
TOTAL QUALIFIED CIRCULATION	75,125	23,325	-	98,450	100.0
PERCENT	76.3	23.7	-	100.0	

*See Additional Data

3c. MAILING ADDRESS BREAKOUT OF QUALIFIED CIRCULATION FOR ISSUE OF NOVEMBER 2016

MAILING ADDRESS	Total Qualified	Percent
Individuals by name and title and/or function	98,450	100.0
Individuals by name only	-	-
Titles or functions only	-	-
Company names only	-	-
Multi-Copy Same Addressee copies	-	-
Single Copy Sales	-	-
TOTAL QUALIFIED CIRCULATION	98,450	100.0

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 2014	July - December 2014	January - June 2015	July - December 2015	January - June 2016*	July - December 2016*
Total Audit Average Qualified:	95,478	96,381	96,319	96,619	96,675	98,571
Qualified Non-Paid:	95,478	96,381	96,319	96,619	96,675	98,571
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 2016 data is unaudited. With each successive period, new data will be added until six 6-month periods are displayed.

**NC = None Claimed.

GEOGRAPHICAL BREAKOUT OF QUALIFIED CIRCULATION FOR ISSUE OF NOVEMBER 2016*

State	Total Qualified	Percent	State	Total Qualified	Percent
Maine	421		Kentucky	1,184	
New Hampshire	710		Tennessee	1,659	
Vermont	238		Alabama	1,023	
Massachusetts	2,281		Mississippi	381	
Rhode Island	340		EAST SO. CENTRAL	4,247	4.3
Connecticut	1,892		Arkansas	523	
NEW ENGLAND	5,882	6.0	Louisiana	706	
New York	3,738		Oklahoma	1,007	
New Jersey	1,693		Texas	5,020	
Pennsylvania	4,748		WEST SO. CENTRAL	7,256	7.4
MIDDLE ATLANTIC	10,179	10.3	Montana	228	
Ohio	7,031		Idaho	351	
Indiana	3,956		Wyoming	136	
Illinois	6,813		Colorado	930	
Michigan	7,387		New Mexico	297	
Wisconsin	4,348		Arizona	1,254	
EAST NO. CENTRAL	29,535	30.0	Utah	789	
Minnesota	2,975		Nevada	292	
Iowa	1,559		MOUNTAIN	4,277	4.4
Missouri	1,938		Alaska	90	
North Dakota	239		Washington	1,825	
South Dakota	366		Oregon	1,001	
Nebraska	638		California	8,998	
Kansas	1,172		Hawaii	60	
WEST NO. CENTRAL	8,887	9.0	PACIFIC	11,974	12.2
Delaware	128		UNITED STATES	92,416	93.9
Maryland	852		U.S. Territories	81	
Washington, DC	40		Canada	5,833	
Virginia	1,230		Mexico	120	
West Virginia	283		Other International	-	
North Carolina	2,200		APO/FPO	-	
South Carolina	1,197				
Georgia	1,522				
Florida	2,727				
SOUTH ATLANTIC	10,179	10.3			
			TOTAL QUALIFIED CIRCULATION	98,450	100.0

*See Additional Data

E-NEWSLETTER CHANNEL

2016	MMS Extra	The Shop - Blog
JULY		
July 1	-	61,181
July 6	61,111	-
July 8	-	61,109
July 15	-	60,916
July 20	60,740	-
July 22	-	60,805
July 29	-	60,657
AUGUST		
August 3	60,495	-
August 5	-	60,343
August 12	-	60,400
August 17	60,316	-
August 19	-	60,250
August 26	-	60,156
SEPTEMBER		
September 2	-	59,971
September 7	59,681	-
September 9	-	59,617
September 12	-	59,728
September 14	-	59,224
September 16	-	59,377
September 21	59,399	-
September 23	-	59,394
September 30	-	59,209
OCTOBER		
October 5	59,117	-
October 7	-	58,936
October 14	-	58,823
October 19	58,738	-
October 21	-	58,711
October 28	-	58,564
NOVEMBER		
November 2	58,354	-
November 4	-	58,314
November 11	-	58,168
November 16	58,115	-
November 18	-	58,005
November 28	-	57,829
DECEMBER		
December 2	-	57,065
December 7	56,868	-
December 9	-	56,731
December 16	-	56,668
December 21	57,315	-
December 22	-	57,153
AVERAGE:	59,187	59,189

MMS Extra E-Newsletter (12 issued in the period)
 The Shop - Blog E-Newsletter (28 issued in the period)

WEBSITE CHANNEL

WWW.MMSONLINE.COM

2016	PAGE IMPRESSIONS	USER SESSIONS	UNIQUE BROWSERS	UNIQUE BROWSER FREQUENCY	PAGE DURATION	USER SESSION DURATION
July	238,184	157,266	125,558	1.25	02:38	01:22
August	264,023	170,615	137,421	1.24	02:34	01:24
September	268,939	176,217	142,252	1.24	02:20	01:14
October	258,701	165,569	135,690	1.22	02:15	01:17
November	235,534	155,501	125,663	1.24	02:27	01:17
December	220,397	142,941	115,536	1.24	02:24	01:19
AVERAGE:	247,630	161,352	130,353	1.24	02:26	01:19

July – December 2016 data was provided by Google Analytics. All website activity is audited by BPA Worldwide.

WEBSITE GLOSSARY

Page Impressions: A Page Impression is recorded each time a page implanted with the JavaScript code (tag) is displayed in a browser window. This will occur whether the page is served directly from the web server, from a proxy, or from the browser's cache.

User Sessions: A single continuous set of activity attributable to a cookie'd browser resulting in one or more pulled text and/or graphics downloads from a site. A period of 30 minutes of inactivity will terminate the session.

Unique Browsers: An identified and unduplicated Cookie'd Browser that accesses Internet content or advertising during a measurement period.

Unique Browser Frequency: Unique Browser Frequency represents the average number of times a Unique Browser visits a site during a reporting period. This is calculated by dividing the total number of User Sessions by the number of Unique Browsers.

Page Duration: The average time spent viewing any page on a web site.

User Session Duration: The average time visitors remain on a site per session.

For info on how to obtain online ad campaign performance metrics across multiple sites, visit www.adcompli.com

SOCIAL MEDIA CHANNEL

Modern Machine Shop Social Media



Twitter followers

<http://twitter.com/mmsonline>



Facebook likes

<http://www.facebook.com/mmsonline>



LinkedIn group members

<http://www.linkedin.com/grp/home?gid=4074615>



YouTube views

<https://www.youtube.com/user/mmsonlinevideos>

2016

	Twitter followers	Facebook likes	LinkedIn group members	YouTube views
Beginning Balance:	6,704	5,305	1,946	101,429
July	6,813	5,649	1,944	103,904
August	6,939	5,883	1,943	108,288
September	7,057	6,156	1,941	115,217
October	7,162	6,361	1,948	119,814
November	7,234	6,543	1,945	124,555
December	7,333	6,725	1,948	129,150

ADDITIONAL DATA

MAGAZINE:

PARAGRAPH 3b:

Business directories include 1 source of circulation for quantities of 7,220 copies or 7.3%.

Other sources include 6 sources of circulation for quantities of 16 copies or 2.1% to 518 copies or 69.1%, including NTMA member list.

GEOGRAPHIC DISTRIBUTION:

Geographic data for E-Newsletter, Website and Social Media is not reported at the media owner's option.

PUBLISHER'S AFFIDAVIT

We hereby make oath and say that all data set forth in this statement are true.

Travis Egan, Publisher

Julie Ball, Circulation Manager

(At least one of the above signatures must be that of an officer of the publishing company or its authorized representative.)

IMPORTANT NOTE:

This unaudited brand report has been checked against the previous audit report. It will be included in the annual audit made by BPA Worldwide.

Date signed

State

County

Received by BPA Worldwide

Type

ID Number

January 16, 2017

Ohio

Hamilton

January 16, 2017

BD

M102B0D6

About BPA Worldwide:

A not-for-profit organization since 1931, BPA Worldwide is governed by a tripartite board comprised of media owners, advertising agencies and advertisers. Headquartered in Shelton, Connecticut, USA, BPA has the largest membership of any media-auditing organization in the world, spanning more than 30 countries. Globally, BPA audits media properties including consumer magazines, newspapers, web sites, events, email newsletters, databases, wireless, social media and other advertiser-supported media—as well as advertiser and agency members. Visit www.bpaww.com for the latest audit reports, membership information and publishing and advertising industry news.