

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



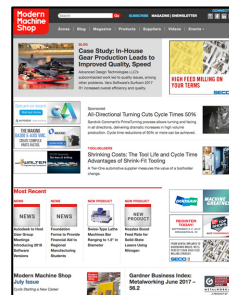
6 Issues in the period
98,294 average circulation

MODERN MACHINE SHOP E-NEWSLETTERS



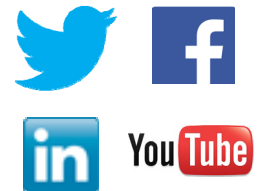
2 E-Newsletters in the period
38 total issued in the period
59,783 average per occurrence
59,674 average per occurrence

MODERN MACHINE SHOP WEBSITE



125,381 average users

MODERN MACHINE SHOP SOCIAL MEDIA



7,968 Twitter followers
7,649 Facebook likes
1,967 LinkedIn group members
161,447 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)	98,294	-	98,294
MODERN MACHINE SHOP E-NEWSLETTERS			
a. MMS Extra (12 issued in the period)	59,783	-	59,783
b. The Shop - Blog (26 issued in the period)	59,674	-	59,674
MODERN MACHINE SHOP WEBSITE (Monthly Users with 246,056 average Pageviews)	125,381	-	125,381
MODERN MACHINE SHOP SOCIAL MEDIA			
a. Twitter followers	*7,968	-	*7,968
b. Facebook likes	*7,649	-	*7,649
c. LinkedIn group members	*1,967	-	*1,967
d. YouTube views	*161,447	-	*161,447

*Social Media claims are cumulative figures, not averages.

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	73
Advertiser and Agency	5,305
Allocated for Trade Shows and Conventions	250
All Other	830
TOTAL	6,458

1. AVERAGE QUALIFIED CIRCULATION BREAKOUT FOR PERIOD

QUALIFIED CIRCULATION	Total Qualified		Qualified Non-Paid		Qualified Paid	
	Copies	Percent	Copies	Percent	Copies	Percent
Individual	98,294	100.0	98,294	100.0	-	-
Sponsored Individually	-	-	-	-	-	-
Addressed	-	-	-	-	-	-
Membership Benefit	-	-	-	-	-	-
Multi-Copy Same Addressee	-	-	-	-	-	-
Single Copy Sales	-	-	-	-	-	-
TOTAL QUALIFIED CIRCULATION	98,294	100.0	98,294	100.0	-	-

2. QUALIFIED CIRCULATION BY ISSUES FOR PERIOD

2017 Issue	Total Qualified
January	98,333
February	98,218
March	98,259
April	98,398
May	98,214
June	98,341

3a. BUSINESS/OCCUPATIONAL BREAKOUT OF QUALIFIED CIRCULATION FOR ISSUE OF MAY 2017
This issue is 0.1% or 96 copies below the average of the other 5 issues reported in Paragraph 2.

NAICS	BUSINESS AND INDUSTRY	TOTAL QUALIFIED	PERCENT OF TOTAL	MANUFACTURING							
				Company Management, Corporate Executives and Purchasing (B,L)	Production		Engineering		Quality Assurance Control (P,Q)	Product Design Research and Development (H,I,J)	Other Qualified Personnel (A,N,U,X,Z)
					Management (C,R)	Department (D,G,S)	Management (E,V)	Department (F,T)			
325	CHEMICAL MANUFACTURING	384	0.4	120	33	33	43	59	9	55	32
326	PLASTICS AND RUBBER PRODUCTS MANUFACTURING										
326 (Excl. 326199)	Plastics and Rubber Products Manufacturing	616	0.6	149	66	82	94	124	15	71	15
326199	All Other Plastics Product Manufacturing	1,763	1.8	553	224	249	221	326	41	98	51
	Subtotal NAICS 326	2,379	2.4	702	290	331	315	450	56	169	66
327	NONMETALLIC MINERAL PRODUCT MANUFACTURING	277	0.3	74	28	28	27	69	4	27	20
331	PRIMARY METAL MANUFACTURING										
3311	Iron and Steel Mills and Ferroalloy Manufacturing	338	0.3	142	55	49	28	37	3	7	17
3312	Steel Product Manufacturing from Purchased Steel	247	0.3	61	42	33	25	43	12	10	21
3313	Alumina and Aluminum Production and Processing	169	0.2	50	32	25	15	25	7	8	7
3314	Nonferrous Metal (except Aluminum) Production and Processing	198	0.2	52	30	23	22	33	7	19	12
3315	Foundries	846	0.9	180	141	133	99	193	25	46	29
	Sub-Total NAICS 331	1,798	1.9	485	300	263	189	331	54	90	86
332	FABRICATED METAL PRODUCT MANUFACTURING										
33211	Forging and Stamping	1,334	1.4	530	178	181	105	212	41	57	30
33221	Cutlery and Handtool Manufacturing	462	0.5	201	47	71	36	59	6	23	19
33231	Plate Work and Fabricated Structural Product Manufacturing	917	0.9	407	134	127	70	99	16	37	27
33232	Ornamental and Architectural Metal Products Manufacturing	743	0.8	370	99	92	45	73	16	26	22
33241	Power Boiler and Heat Exchanger Manufacturing (pt)	48	-	13	4	9	6	10	-	5	1
33242	Metal Tank (Heavy Gauge) Manufacturing	55	0.1	19	4	8	10	6	1	5	2
33243	Metal Can, Box, and Other Metal Container (Light Gauge) Manufacturing	53	0.1	18	8	6	12	3	1	3	2
33251	Hardware Manufacturing (pt)	333	0.3	117	44	56	35	42	8	20	11
33261	Spring and Wire Product Manufacturing	334	0.3	155	25	38	35	45	9	24	3
33271	Machine Shops	21,566	22.0	14,089	1,770	2,520	648	1,233	493	302	511
33272	Turned Product and Screw, Nut and Bolt Manufacturing	2,090	2.1	922	260	310	130	268	97	38	65
33281	Coating, Engraving, Heat Treating, and Allied Activities	607	0.6	313	86	43	44	47	18	21	35
33291	Metal Valve Manufacturing	900	0.9	168	170	216	71	171	26	62	16
332991	Ball and Roller Bearing Manufacturing	258	0.3	40	25	40	36	75	10	21	11
332992	Small Arms Ammunition Manufacturing	53	0.1	12	6	6	4	17	2	6	-
332993	Ammunition (except Small Arms) Manufacturing	35	-	5	3	10	6	11	-	-	-
332994	Small Arms Ordnance, and Ordnance Accessories Manufacturing	245	0.2	95	22	24	20	54	5	22	3
332996	Fabricated Pipe and Pipe Fitting Manufacturing	208	0.2	64	41	30	19	27	3	12	12
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing (pt)	1,456	1.5	794	122	186	95	153	15	46	45
	Sub-Total NAICS 332	31,697	32.3	18,332	3,048	3,973	1,427	2,605	767	730	815
333	MACHINERY MANUFACTURING										
333111	Farm Machinery and Equipment Manufacturing (pt)	729	0.7	266	89	84	73	130	12	62	13
333112	Lawn and Garden Tractor and Home Lawn and Garden Equipment Manufacturing	129	0.1	42	13	19	11	26	2	13	3
33312	Construction Machinery Manufacturing	606	0.6	153	77	73	59	155	17	58	14
333131	Mining Machinery and Equipment Manufacturing	220	0.2	76	28	36	17	40	7	11	5
333132	Oil and Gas Field Machinery and Equipment Manufacturing	606	0.6	201	116	92	43	84	18	28	24
333241	Food Product Machinery Manufacturing	242	0.2	84	25	46	19	41	5	18	4
333242	Semiconductor Machinery Manufacturing	46	-	6	2	7	9	15	2	4	1
333243	Sawmill, Woodworking, and Paper Machinery Manufacturing	258	0.3	115	19	43	17	38	4	12	10
333244	Printing Machinery and Equipment Manufacturing	103	0.1	35	15	28	3	16	-	4	2
333249	All Other Industrial Machinery Manufacturing	914	0.9	351	85	120	89	130	13	63	63
333314	Optical Instrument and Lens Manufacturing	230	0.2	58	29	31	29	42	10	24	7
333316	Photographic and Photocopying Equipment Manufacturing	80	0.1	23	3	19	11	16	-	7	1
333318	Other Commercial and Service Industry Machinery Manufacturing (pt)	417	0.4	184	28	48	48	58	2	35	14

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	158	0.2	43	24	18	15	33	1	15	9
333414	Heating Equipment except Warm Air Furnaces - Manufacturing (pt)	80	0.1	17	7	17	4	20	1	13	1
333415	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing	272	0.3	50	26	44	48	62	4	30	8
333511	Industrial Mold Manufacturing	2,779	2.8	1,353	292	438	177	239	33	128	119
333514	Special Die and Tool, Die Set, Jig, and Fixture Manufacturing	2,759	2.8	1,432	283	426	167	196	32	98	125
333515	Cutting Tool and Machine Tool Accessory Manufacturing	1,851	1.9	759	167	200	94	218	31	88	294
333517	Machine Tool Manufacturing	2,149	2.2	912	202	226	156	298	27	83	245
333519	Rolling Mill and Other Metalworking Machinery Manufacturing	382	0.4	155	35	64	26	49	5	18	30
333611	Turbine and Turbine Generator Set Unit Manufacturing	253	0.3	39	17	39	39	89	8	18	4
333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing	271	0.3	92	30	51	20	57	9	7	5
333613	Mechanical Power Transmission Equipment Manufacturing	349	0.4	88	51	65	34	70	15	19	7
333618	Other Engine Equipment Manufacturing (pt)	444	0.5	155	30	40	50	97	16	48	8
333912	Air and Gas Compressor Manufacturing	201	0.2	55	29	37	15	38	8	13	6
333914	Measuring, Dispensing, and Other Pumping Equipment Manufacturing	405	0.4	100	58	69	41	97	8	23	9
333921	Elevator and Moving Stairway Manufacturing	33	-	16	1	3	5	3	-	4	1
333922	Conveyor and Conveying Equipment Manufacturing (pt)	273	0.3	78	40	53	18	47	2	19	16
333923	Overhead Traveling Crane, Hoist, and Monorail System Manufacturing (pt)	105	0.1	21	18	9	19	24	2	10	2
333924	Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing	192	0.2	41	22	24	35	46	3	18	3
333991	Power-Driven Handtool Manufacturing	144	0.1	59	7	16	15	25	2	10	10
333992	Welding and Soldering Equipment Manufacturing	137	0.1	49	20	23	12	12	4	12	5
333993	Packaging Machinery Manufacturing	207	0.2	44	37	55	16	27	3	16	9
333994	Industrial Process Furnace and Oven Manufacturing	139	0.1	46	13	26	11	28	-	11	4
333995	Fluid Power Cylinder and Actuator Manufacturing	233	0.2	77	35	39	25	36	8	5	8
333996	Fluid Power Pump and Motor Manufacturing	200	0.2	37	19	33	22	60	11	12	6
333997	Scale and Balance (except Laboratory) Manufacturing	34	-	7	2	4	4	9	1	5	2
333999	All Other Miscellaneous General Purpose Machinery Manufacturing (pt)	1,483	1.5	808	137	149	94	154	19	68	54
	Sub-Total NAICS 333	20,113	20.2	8,127	2,131	2,814	1,590	2,825	345	1,130	1,151
334	COMPUTER AND ELECTRONIC PRODUCT MANUFACTURING										
3341	Computer and Peripheral Equipment Manufacturing	211	0.2	59	15	21	30	50	4	24	8
3342	Communications Equipment Manufacturing	376	0.4	74	32	61	64	94	15	33	3
3343	Audio and Video Equipment Manufacturing	53	0.1	11	7	6	6	14	1	7	1
3344	Semiconductor and Other Electronic Component Manufacturing	1,192	1.2	285	109	183	159	258	39	128	31
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	2,709	2.8	893	243	321	274	555	58	235	130
3346	Manufacturing and Reproducing Magnetic and Optical Media	27	-	9	4	1	6	2	-	2	3
	Sub-Total NAICS 334	4,568	4.7	1,331	410	593	539	973	117	429	176
335	ELECTRICAL EQUIPMENT, APPLIANCE, AND COMPONENT MANUFACTURING										
33511	Electric Lamp Bulb and Part Manufacturing	26	-	3	3	4	4	5	2	4	1
33512	Lighting Fixture Manufacturing	137	0.1	43	17	17	15	27	2	12	4
33521	Small Electrical Appliance Manufacturing	44	-	8	5	6	9	6	2	7	1
33522	Major Household Appliance Manufacturing	79	0.1	10	11	10	6	25	2	13	2
33531	Electrical Equipment Manufacturing	970	1.0	202	105	124	144	258	21	76	40
33591	Battery Manufacturing	67	0.1	8	10	13	6	17	1	11	1
33592	Communication and Energy Wire and Cable Manufacturing	55	0.1	5	9	8	8	14	1	10	-
33593	Wiring Device Manufacturing	254	0.3	45	25	63	29	58	4	22	8
33599	All Other Electrical Equipment and Component Manufacturing	448	0.5	131	51	65	52	76	8	39	26
	Sub-Total NAICS 335	2,080	2.2	455	236	310	273	486	43	194	83
336	TRANSPORTATION EQUIPMENT MANUFACTURING										
336111	Automobile Manufacturing	1,168	1.2	478	75	109	131	202	51	97	25
336112	Light Truck and Utility Vehicle Manufacturing	69	0.1	27	8	8	6	7	1	9	3
336120	Heavy Duty Truck Manufacturing	300	0.3	135	29	12	33	47	6	33	5
336211	Motor Vehicle Body Manufacturing (pt)	883	0.9	474	101	49	73	99	19	48	20
336212	Truck Trailer Manufacturing	541	0.6	346	48	27	40	40	5	18	17
336213	Motor Home Manufacturing	81	0.1	39	10	5	4	13	3	6	1
336214	Travel Trailer and Camper Manufacturing (pt)	303	0.3	236	30	6	4	12	4	7	4
336310	Motor Vehicle Gasoline Engine and Engine Parts Manufacturing	674	0.7	282	58	53	72	119	30	48	12
336320	Motor Vehicle Electrical and Electronic Equipment Manufacturing	734	0.7	356	58	52	75	110	18	54	11
336330	Motor Vehicle Steering and Suspension Components (except Spring) Manufacturing	182	0.2	68	16	12	19	48	10	8	1
336340	Motor Vehicle Brake System Manufacturing	240	0.2	77	23	17	31	55	10	22	5
336350	Motor Vehicle Transmission and Power Train Parts Manufacturing	600	0.6	222	51	50	77	116	31	42	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	229	0.2	93	22	16	30	30	10	24	4
336370	Motor Vehicle Metal Stamping	613	0.6	240	88	48	68	107	20	31	11
336390	Other Motor Vehicle Parts Manufacturing	4,983	5.1	1,971	460	384	550	930	215	361	112
336411	Aircraft Manufacturing	1,312	1.3	360	96	133	167	369	36	116	35
336412	Aircraft Engine and Engine Parts Manufacturing (pt)	1,025	1.1	253	81	126	150	297	40	56	22
336413	Other Aircraft Parts and Auxiliary Equipment Manufacturing	3,615	3.7	1,157	424	447	382	745	173	188	99
336414	Guided Missile and Space Vehicle Manufacturing	205	0.2	40	15	23	27	65	7	22	6
336415	Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing	154	0.2	34	14	27	25	30	7	15	2
336419	Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing	207	0.2	58	17	30	35	38	3	18	8
3365	Railroad Rolling Stock Manufacturing	217	0.2	72	29	22	20	44	6	20	4
3366	Ship and Boat Building	609	0.6	357	52	47	40	60	11	31	11
3369	Other Transportation Equipment Manufacturing	584	0.6	320	36	38	49	86	6	35	14
	Sub-Total NAICS 336	19,528	19.9	7,695	1,841	1,741	2,108	3,669	722	1,309	443
337	FURNITURE AND RELATED PRODUCT MANUFACTURING										
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	206	0.2	93	29	18	17	26	4	17	2
3372	Office Furniture (including Fixtures) Manufacturing	117	0.1	32	16	16	11	26	2	12	2
3379	Other Furniture Related Product Manufacturing	13	0.0	3	-	3	2	2	1	2	-
	Sub-Total NAICS 337	336	0.3	128	45	37	30	54	7	31	4
339	MISCELLANEOUS MANUFACTURING										
339112	Surgical and Medical Instrument Manufacturing	2,442	2.5	723	278	275	282	490	107	230	57
339113	Surgical Appliance and Supplies Manufacturing	1,457	1.5	630	138	129	124	240	47	120	29
339114	Dental Equipment and Supplies Manufacturing	344	0.4	173	28	33	26	40	7	28	9
339115	Ophthalmic Goods Manufacturing	159	0.2	72	20	12	17	18	2	12	6
339116	Dental Laboratories	77	0.1	70	-	-	1	-	-	-	6
33991	Jewelry and Silverware Manufacturing	307	0.3	241	14	15	6	11	-	11	9
33992	Sporting and Athletic Goods Manufacturing	460	0.5	304	36	35	19	21	3	27	15
33993	Doll, Toy, and Game Manufacturing	125	0.1	94	11	3	3	5	-	3	6
33994	Office Supplies (except Paper) Manufacturing	130	0.1	84	16	9	4	4	-	3	10
33995	Sign Manufacturing	882	0.9	801	44	10	4	9	-	13	1
33999	All Other Miscellaneous Manufacturing	1,417	1.4	834	118	121	88	129	10	67	50
	Sub-Total NAICS 339	7,800	8.0	4,026	703	642	574	967	176	514	198
	TOTAL METALWORKING MANUFACTURING	90,960	92.6	41,475	9,065	10,765	7,115	12,488	2,300	4,678	3,074
311-324	OTHER MISCELLANEOUS MANUFACTURING	380	0.4	137	45	43	33	52	2	32	36
	TOTAL MANUFACTURING	91,340	93.0	41,612	9,110	10,808	7,148	12,540	2,302	4,710	3,110
42	WHOLESALE TRADE	2,448	2.5	1,223	157	92	104	211	13	59	589
541	Professional, Scientific, and Technical Services	2,296	2.4	1,027	87	126	257	364	22	261	152
611	Educational Services	528	0.5	99	28	28	17	34	1	29	292
	OTHER QUALIFIED NAICS, N.E.C.	1,602	1.6	775	110	204	86	190	17	96	124
	TOTAL NON-MANUFACTURING	6,874	7.0	3,124	382	450	464	799	53	445	1,157
	TOTAL QUALIFIED CIRCULATION	98,214	100.0	44,736	9,492	11,258	7,612	13,339	2,355	5,155	4,267

(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 MAY 2017

This is an analysis of 85,088 or 86.6% recipients who manufacture for the following industries. 58,348 are classified based on their response to the question 'Which of the following markets do you manufacture for?' and 26,740 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	7,116	2,056	685	863	871	1,710	286	458	187
Captive Shops, Contract Shops & Job Shops	37,599	15,366	3,957	5,521	2,907	5,129	1,060	1,846	1,813
Other Qualified: R&D, Consultants, Testing & Design, Q/A	3,610	1,618	184	208	242	438	23	193	704
Totals	48,325	19,040	4,826	6,592	4,020	7,277	1,369	2,497	2,704
Automotive/Transportation									
OEMs, Components & Parts	11,600	5,038	1,077	848	1,212	1,935	433	808	249
Captive Shops, Contract Shops & Job Shops	41,535	17,022	4,398	5,896	3,318	5,849	1,018	2,137	1,897
Other Qualified: R&D, Consultants, Testing & Design, Q/A	3,950	1,911	191	211	275	427	24	209	702
Totals	57,085	23,971	5,666	6,955	4,805	8,211	1,475	3,154	2,848
Medical/Dental									
OEMs, Components & Parts	4,733	1,751	480	477	472	835	172	427	119
Captive Shops, Contract Shops & Job Shops	30,584	12,210	3,197	4,586	2,379	4,301	826	1,526	1,559
Other Qualified: R&D, Consultants, Testing & Design, Q/A	2,996	1,359	135	156	191	320	22	179	634
Totals	38,313	15,320	3,812	5,219	3,042	5,456	1,020	2,132	2,312
Military/Defense									
OEMs, Components & Parts	1,001	272	86	129	133	246	25	88	22
Captive Shops, Contract Shops & Job Shops	40,180	14,649	4,321	5,929	3,536	6,412	1,263	2,215	1,855
Other Qualified: R&D, Consultants, Testing & Design, Q/A	3,057	1,267	164	190	217	381	23	183	632
Totals	44,238	16,188	4,571	6,248	3,886	7,039	1,311	2,486	2,509
Offroad/Construction/Agriculture									
OEMs, Components & Parts	1,464	461	179	176	143	310	31	133	31
Captive Shops, Contract Shops & Job Shops	40,555	16,214	4,252	5,727	3,292	6,029	1,129	2,104	1,808
Other Qualified: R&D, Consultants, Testing & Design, Q/A	3,027	1,411	158	169	184	337	15	153	600
Totals	45,046	18,086	4,589	6,072	3,619	6,676	1,175	2,390	2,439
Oil & Gas/Energy									
OEMs, Components & Parts	826	277	144	128	60	124	25	39	29
Captive Shops, Contract Shops & Job Shops	37,235	14,025	4,150	5,694	3,073	5,597	1,047	1,894	1,755
Other Qualified: R&D, Consultants, Testing & Design, Q/A	2,913	1,298	161	179	189	323	19	148	596
Totals	40,974	15,600	4,455	6,001	3,322	6,044	1,091	2,081	2,380

OEM, Components & Parts: Corresponding Industry NAICS

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

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

SUPPLEMENTARY DATA FOR ISSUE OF MAY 2017

This is an analysis of 32,440 recipients in the indicated NAICS classifications, of whom 27,015 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	18,015	9,367	1,863	2,741	930	1,505	521	461	627
Automotive/Transportation	19,678	10,366	2,060	2,831	1,053	1,676	493	548	651
Medical/Dental	14,851	7,590	1,548	2,289	801	1,285	408	389	541
Military/Defense	16,140	8,151	1,769	2,479	857	1,380	494	418	592
Offroad/Construction/Agriculture	17,023	9,032	1,742	2,530	862	1,409	457	420	571
Oil & Gas/Energy	15,893	8,170	1,756	2,480	794	1,295	448	363	587

3b. QUALIFICATION SOURCE BREAKOUT OF QUALIFIED CIRCULATION FOR ISSUE OF MAY 2017

QUALIFICATION SOURCE	Qualified Within			Total Qualified	Percent
	1 Year	2 Years	3 Years		
I. Direct Request:	63,330	23,269	-	86,599	88.2
II. Request from recipient's company:	11	-	-	11	-
III. Membership Benefit:	-	-	-	-	-
IV. Communication from recipient or recipient's company (other than request):	3,653	-	-	3,653	3.7
V. TOTAL - Sources other than above (listed alphabetically):	7,951	-	-	7,951	8.1
Association rosters and directories	-	-	-	-	-
*Business directories	7,203	-	-	7,203	7.3
Manufacturer's, distributor's, and wholesaler's lists	-	-	-	-	-
*Other sources	748	-	-	748	0.8
VI. Single Copy Sales:	-	-	-	-	-
TOTAL QUALIFIED CIRCULATION	74,945	23,269	-	98,214	100.0
PERCENT	76.3	23.7	-	100.0	

*See Additional Data

3c. MAILING ADDRESS BREAKOUT OF QUALIFIED CIRCULATION FOR ISSUE OF MAY 2017

MAILING ADDRESS	Total Qualified	Percent
Individuals by name and title and/or function	98,138	99.9
Individuals by name only	76	0.1
Titles or functions only	-	-
Company names only	-	-
Multi-Copy Same Addressee copies	-	-
Single Copy Sales	-	-
TOTAL QUALIFIED CIRCULATION	98,214	100.0

AVERAGE ANNUAL AUDITED QUALIFIED CIRCULATION AND CURRENT UNAUDITED CIRCULATION STATEMENTS

6-Month Period Ended:	Audited Data	Audited Data	Audited Data	Audited Data	Audited Data	Circulation Claim
	July - December 2014	January - June 2015	July - December 2015	January - June 2016	July - December 2016	January - June 2017*
Total Audit Average Qualified:	96,381	96,319	96,619	96,675	98,571	98,294
Qualified Non-Paid:	96,381	96,319	96,619	96,675	98,571	98,294
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 - June 2017 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 MAY 2017*

State	Total Qualified	Percent	State	Total Qualified	Percent
Maine	415		Kentucky	1,200	
New Hampshire	699		Tennessee	1,674	
Vermont	234		Alabama	1,024	
Massachusetts	2,276		Mississippi	382	
Rhode Island	341		EAST SO. CENTRAL	4,280	4.4
Connecticut	1,900		Arkansas	509	
NEW ENGLAND	5,865	6.0	Louisiana	693	
New York	3,679		Oklahoma	973	
New Jersey	1,658		Texas	4,911	
Pennsylvania	4,719		WEST SO. CENTRAL	7,086	7.2
MIDDLE ATLANTIC	10,056	10.2	Montana	225	
Ohio	7,128		Idaho	345	
Indiana	4,083		Wyoming	130	
Illinois	7,111		Colorado	918	
Michigan	7,511		New Mexico	298	
Wisconsin	4,516		Arizona	1,234	
EAST NO. CENTRAL	30,349	30.9	Utah	771	
Minnesota	2,990		Nevada	276	
Iowa	1,538		MOUNTAIN	4,197	4.3
Missouri	1,920		Alaska	87	
North Dakota	230		Washington	1,812	
South Dakota	372		Oregon	976	
Nebraska	632		California	8,770	
Kansas	1,166		Hawaii	58	
WEST NO. CENTRAL	8,848	9.0	PACIFIC	11,703	11.9
Delaware	123		UNITED STATES	92,433	94.1
Maryland	821		U.S. Territories	76	
Washington, DC	40		Canada	5,660	
Virginia	1,228		Mexico	45	
West Virginia	286		Other International	-	
North Carolina	2,157		APO/FPO	-	
South Carolina	1,177				
Georgia	1,524				
Florida	2,693				
SOUTH ATLANTIC	10,049	10.2			
			TOTAL QUALIFIED CIRCULATION	98,214	100.0

*See Additional Data

E-NEWSLETTER CHANNEL

2017	MMS Extra	The Shop - Blog
JANUARY		
January 4	61,545	-
January 6	-	61,261
January 13	-	61,163
January 18	60,903	-
January 20	-	60,424
January 27	-	60,288
FEBRUARY		
February 1	60,090	-
February 3	-	59,926
February 10	-	59,823
February 15	60,589	-
February 17	-	59,790
February 24	-	60,205
MARCH		
March 1	60,210	-
March 3	-	59,957
March 10	-	59,888
March 15	59,725	-
March 17	-	59,670
March 24	-	58,668
March 31	-	58,599
APRIL		
April 5	58,445	-
April 7	-	58,414
April 14	-	58,286
April 19	58,192	-
April 21	-	58,141
April 28	-	58,019
MAY		
May 3	57,860	-
May 5	-	57,674
May 12	-	60,627
May 17	60,128	-
May 19	-	60,450
May 26	-	60,274
JUNE		
June 2	-	60,189
June 8	59,919	-
June 9	-	60,764
June 16	-	59,842
June 21	59,786	-
June 23	-	59,688
June 30	-	59,506
AVERAGE:	59,783	59,674

MMS Extra (12 issued in the period)
 The Shop - Blog (26 issued in the period)

WEBSITE CHANNEL

WWW.MMSONLINE.COM

2017	PAGEVIEWS	SESSIONS	USERS	AVERAGE SESSION DURATION
January	293,537	176,774	140,555	01:29
February	224,866	146,054	118,144	01:17
March	254,018	163,646	131,136	01:16
April	232,476	152,153	121,454	01:18
May	243,550	159,221	126,272	01:24
June	227,891	147,520	114,726	01:32
AVERAGE:	246,056	157,561	125,381	01:23

January – June 2017 data was provided by Google Analytics. All website activity is audited by BPA Worldwide.

WEBSITE GLOSSARY

Pageviews: A Pageview 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.

Sessions: A single continuous set of activity attributable to a cookie 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.

Users: An identified and unduplicated Cookie Browser that accesses Internet content or advertising during a measurement period.

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

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

SOCIAL MEDIA CHANNEL

Modern Machine Shop Social Media

2017	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 (Note 1) https://www.youtube.com/user/mmsonlinevideos
Beginning Balance:	7,333	6,725	1,948	129,150
January	7,455	6,909	1,956	133,777
February	7,552	7,024	1,958	139,473
March	7,614	7,167	1,957	145,300
April	7,707	7,282	1,959	149,966
May	7,838	7,473	1,965	155,963
June	7,968	7,649	1,967	161,447

Note 1: YouTube Monthly Views data is an aggregate figure

ADDITIONAL DATA

MAGAZINE:

PARAGRAPH 3b:

Business directories include 1 source of circulation for a quantity of 7,203 copies or 7.3%
Other sources include 1 source of circulation for a quantity of 748 copies or 0.8%.

GEOGRAPHIC DISTRIBUTION:

Geographic data for E-Newsletters, 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, Audience Development 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	July 28, 2017
State	Ohio
County	Hamilton
Received by BPA Worldwide	July 28, 2017
Type	BD
ID Number	M102B0J7

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.