

BRAND REPORT

FOR THE 6 MONTH PERIOD ENDED DECEMBER 2017



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.

Gardner Business Media, Inc. 6915 Valley Avenue Cincinnati, OH 45244-3029 Tel.: (513) 527-8800 Fax: (513) 527-8801 www.mmsonline.com JBall@gardnerweb.com 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 97,891 average circulation

MODERN MACHINE SHOP E-NEWSLETTERS



2 E-Newsletters in the period 37 total issued in the period 58,386 average per occurrence 58,404 average per occurrence

MODERN MACHINE SHOP WEBSITE



113,605 average users

MODERN MACHINE SHOP SOCIAL MEDIA









8942 Twitter followers 8542 Facebook likes 1971 LinkedIn group members 208,330 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)	97,891	-	97,891
MODERN MACHINE SHOP E-NEWSLETTERS			
a. MMS Extra (12 issued in the period)	58,386	-	58,386
b. The Shop - Blog (25 issued in the period)	58,404	-	58,404
MODERN MACHINE SHOP WEBSITE (Monthly Users with 225,226 average Pageviews)	113,605	-	113,605
MODERN MACHINE SHOP SOCIAL MEDIA			
a. Twitter followers	*8,942	-	*8,942
b. Facebook likes	*8,542	-	*8,542
c. Linkedin group members	*1,971	-	*1,971
d. YouTube views	*208,330	=	*208,330

Official Publication of: None/Established: 1928/Issues Per Year: 12

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 85 Advertiser and Agency 5,101 Allocated for Trade Shows and Conventions 867 All Other 1,014 TOTAL 7,067

1. AVERAGE QUALIF	IED CIRC	ULATION	BREAKO	UT FOR P	ERIOD	`	
	To	tal	Qual		Qualified		
	Qual	ified	Non-	Paid	Pa	aid	
QUALIFIED							
CIRCULATION	Copies	Percent	Copies	Percent	Copies	Percent	
Individual	97,891	100.0	97,891	100.0	-	-	
Sponsored							
Individually	-	-	-	-	-	-	
Addressed							
Membership Benefit	-	-	-	-	-	-	
Multi-Copy Same							
Addressee							
Single Copy Sales	-	-	-	-	-	-	
TOTAL QUALIFIED	97.891	100.0	97.891	100.0	_		
CIRCULATION	31,031	100.0	31,031	100.0			

1	2. QUALIFIED CIRCULATION BY		`
	2017 Issue	Total Qualified	_
	July	97,876	
	August	98,267	
	September	99,705	
	October	99,081	
	November	96,208	
(December	96,209	

3a. BUSINESS/OCCUPATIONAL BREAKOUT OF QUALIFIED CIRCULATION FOR ISSUE OF NOVEMBER 2017 This issue is 2.1% or 2,020 copies below the average of the other 5 issues reported in Paragraph 2.

					MANUFACTURING						
					Produ	uction	Eng	ineering			
				Company Management Corporate Executives and	Production	Manu- facturing Engineering Management or	Ouality	Product Design Research and	EDU- CATIONAL or	SALES &	OTHER
NAICS	BUSINESS AND INDUSTRY	TOTAL QUALIFIED	PERCENT OF TOTAL	Purchasing (B,L)	Department (C,D,G,R,S)	Department (E,F,T,V)	Control (P,Q)	Development (H,I,J)	MENT (N)	MARKETING (X,Z)	NEC (A,U)
325	CHEMICAL MANUFACTURING	491	0.5	166	97	130	11	60	3	20	4
326	PLASTICS AND RUBBER PRODUCTS MANUFACTURING										
326 (Excl.	MARCI ACIONING										
326199)	Plastics and Rubber Products Manufacturing	663	0.7	178	191	206	15	58	-	14	1
326199	All Other Plastics Product Manufacturing	1,708	1.8	579	500	464	26	99	5	29	6
327	Subtotal NAICS 326 NONMETALLIC MINERAL PRODUCT	2,371	2.5	757	691	670	41	157	5	43	7
321	MANUFACTURING	286	0.3	81	71	90	2	26	1	14	1
331	PRIMARY METAL MANUFACTURING	200	0.0	02		00	-	20	_		-
3311	Iron and Steel Mills and Ferroalloy Manufacturing	352	0.4	160	109	55	7	11	-	9	1
3312	Steel Product Manufacturing from Purchased Steel	197	0.2	55	64	49	10	10	-	6	3
3313	Alumina and Aluminum Production and Processing	153	0.2	41	49	45	7	6	-	2	3
3314	Nonferrous Metal (except Aluminum) Production and Processing	178	0.2	48	49	50	5	19	_	7	_
3315	Foundries	729	0.8	170	248	237	18	37	2	15	2
	Sub-Total NAICS 331	1,609	1.8	474	519	436	47	83	2	39	9
332	FABRICATED METAL PRODUCT MANUFACTURING	4.456	4.6	100	200	050	20	40		40	44
33211 33221	Forging and Stamping Cutlery and Handtool Manufacturing	1,152 429	1.2 0.4	466 180	339 122	253 86	32 4	40 19	1	10 17	11 1
33221	Plate Work and Fabricated Structural Product	429	0.4	100	122	00	4	19	-	11	1
33231	Manufacturing	814	0.8	382	260	119	11	20	1	16	5
33232	Ornamental and Architectural Metal Products										
00044	Manufacturing	763	0.8	344	238	134	12	21		11	3
33241 33242	Power Boiler and Heat Exchanger Manufacturing (pt) Metal Tank (Heavy Gauge) Manufacturing	51 41	0.1	12 19	14 11	18 9	-	5 2	1	1	-
33242	Metal Can, Box, and Other Metal Container (Light Gauge)	41	-	19	11	9	-	2	-	-	-
00240	Manufacturing	42	-	16	14	9	1	1	-	-	1
33251	Hardware Manufacturing (pt)	273	0.3	98	91	59	6	12	1	6	-
33261	Spring and Wire Product Manufacturing	314	0.3	148	77	61	4	19	- 04	5	-
33271 33272	Machine Shops Turned Product and Screw, Nut and Bolt	20,673	21.5	13,138	4,362	1,975	474	294	21	320	89
33212	Manufacturing	2,452	2.5	1,138	675	445	98	36	2	47	11
33281	Coating, Engraving, Heat Treating, and Allied										
	Activities	685	0.7	303	196	123	16	19	-	27	1
33291	Metal Valve Manufacturing	926 241	1.0	162	406 53	258 117	23 7	55	1	17	4
332991 332992	Ball and Roller Bearing Manufacturing Small Arms Ammunition Manufacturing	43	0.3	42 12	12	117	2	14 3	-	7	1
332993	Ammunition (except Small Arms) Manufacturing	35	_	11	9	12	-	2	1	-	-
332994	Small Arms Ordnance, and Ordnance Accessories								_		
	Manufacturing	299	0.3	114	71	86	6	17	-	2	3
332996 332999	Fabricated Pipe and Pipe Fitting Manufacturing All Other Miscellaneous Fabricated Metal Product	238	0.2	79	79	54	8	9	-	8	1
332999	Manufacturing (pt)	2.135	2.2	1.343	385	252	26	61	_	58	10
	Sub-Total NAICS 332	31,606	32.6	18,007	7,414	4,084	730	649	29	552	141
333	MACHINERY MANUFACTURING										
333111	Farm Machinery and Equipment Manufacturing (pt)	552	0.6	206	147	140	11	40	-	7	1
333112	Lawn and Garden Tractor and Home Lawn and Garden Equipment Manufacturing	103	0.1	36	25	32	1	9		_	_
33312	Construction Machinery Manufacturing	454	0.1	122	129	145	14	34	1	7	2
333131	Mining Machinery and Equipment Manufacturing	170	0.2	56	64	39	2	6		3	-
333132	Oil and Gas Field Machinery and Equipment	400	٥.	101	470	20	^	40			^
333241	Manufacturing	488 292	0.5	191 129	170 79	93 66	6 2	18 13	1	8	2
333241	Food Product Machinery Manufacturing Semiconductor Machinery Manufacturing	43	0.3	129	79 9	15	2	13	Т.	1 1	1
333243	Sawmill, Woodworking, and Paper Machinery										
	Manufacturing	280	0.3	142	65	42	1	17	1	10	2
333244	Printing Machinery and Equipment Manufacturing	100	0.1	43	36	10		6	1	3	1
333249 333314	All Other Industrial Machinery Manufacturing Optical Instrument and Lens Manufacturing	1,279 192	1.3 0.2	672 51	257 48	225 59	14 9	61 17	2	42 6	6 2
333316	Photographic and Photocopying Equipment	192	0.2	21	40	29	9	11	-	0	2
	Manufacturing	75	0.1	22	23	28	-	2	-	-	-
333318	Other Commercial and Service Industry Machinery						_				
	Manufacturing (pt)	541	0.6	272	100	114	5	33	1	14	2

					Drade	MANUFAC		naaring			
				Company Management Corporate Executives	Manu- , facturing Production Management	Manu- facturing Engineering Management	Quality	Design	EDU- CATIONAL or		
NAICS	BUSINESS AND INDUSTRY	TOTAL OUALIFIED	PERCENT OF TOTAL	and Purchasing		or Department (E,F,T,V)	Control	Research and Development (H,I,J)		SALES & MARKETING	OTHE
333413	Industrial and Commercial Fan and Blower and Air			(B,L)	(C,D,G,R,S)	, , , , ,	(P,Q)	,	(IN)	(X,Z)	(A,U)
333414	Purification Equipment Manufacturing Heating Equipment except Warm Air Furnaces -	211	0.2	76	58	54	3	8	-	9	3
	Manufacturing (pt)	109	0.1	41	29	28	1	9	-	1	-
333415	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing	318	0.3	138	63	78	8	24	-	6	1
333511 333514	Industrial Mold Manufacturing Special Die and Tool, Die Set, Jig, and Fixture	2,667	2.8	1,278	789	354	31	120	1	79	15
	Manufacturing	1,901	2.0	1,004	520	234	19	58	-	56	10
333515	Cutting Tool and Machine Tool Accessory Manufacturing	1,716	1.8	748	352	283	25	76	7	203	22
333517	Machine Tool Manufacturing	2,106	2.2	941	428	427	19	73	4	204	10
333519	Rolling Mill and Other Metalworking Machinery Manufacturing	400	0.4	167	101	85	7	18	_	19	3
333611	Turbine and Turbine Generator Set Unit Manufacturing	208	0.2	42	54	92	5	11	-	4	-
333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing	285	0.3	95	98	65	9	10	_	7	1
333613	Mechanical Power Transmission Equipment									_	
333618	Manufacturing Other Engine Equipment Manufacturing (pt)	277 389	0.3 0.4	74 162	94 76	78 104	13 14	12 28	-	5 4	1
333912	Air and Gas Compressor Manufacturing	180	0.2	46	61	44	10	11	3	4	1
333914	Measuring, Dispensing, and Other Pumping Equipment Manufacturing	348	0.4	72	126	115	7	20	_	8	
333921	Elevator and Moving Stairway Manufacturing	27	-	15	3	6	-	3	-	-	-
333922	Conveyor and Conveying Equipment Manufacturing (pt)	272	0.3	87	96	53	2	18	_	15	1
33923	Overhead Traveling Crane, Hoist, and Monorail System Manufacturing (pt)	99	0.1	23	24	42	1	6		3	_
33924	Industrial Truck, Tractor, Trailer, and Stacker										
333991	Machinery Manufacturing Power-Driven Handtool Manufacturing	160 141	0.2 0.1	33 54	43 23	67 44	1 4	13 10	1	1 6	1
333992	Welding and Soldering Equipment Manufacturing	108	0.1	35	38	25	2	5	2	1	-
333993	Packaging Machinery Manufacturing	169	0.2	34	73	43	3	12	-	4	-
33994 33995	Industrial Process Furnace and Oven Manufacturing Fluid Power Cylinder and Actuator Manufacturing	127	0.1	42	32	38	-	13	-	2	-
333996	Fluid Power Cylinder and Actuator Manufacturing Fluid Power Pump and Motor Manufacturing	244 175	0.3 0.2	72 37	89 50	62 69	10 8	5 8	1	3	1
333997	Scale and Balance (except Laboratory) Manufacturing	27	-	6	4	12	-	3	-	2	
333999	All Other Miscellaneous General Purpose Machinery										
	Manufacturing (pt) Sub-Total NAICS 333	1,177 18,410	1.2 19.2	651 7,928	258 4,734	167 3,677	9 278	49 881	26	39 791	4 95
34	COMPUTER AND ELECTRONIC PRODUCT MANUFACTURING	10,410	19.2	1,920	4,734	3,011	216	901	20	191	95
3341	Computer and Peripheral Equipment Manufacturing	146	0.2	45	23	59	1	12	-	4	2
3342 3343	Communications Equipment Manufacturing Audio and Video Equipment Manufacturing	312	0.3	76	89	111	10	23 4	-	2	1
3344	Semiconductor and Other Electronic Component	36	-	6	10	16	-	4	-	-	-
2245	Manufacturing	987	1.0	241	259	333	24	111	-	16	3
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	2,748	2.9	1,270	526	644	48	185	3	60	12
3346	Manufacturing and Reproducing Magnetic and Optical Media	42		16	0	10		F		2	
	Sub-Total NAICS 334	43 4,272	4.4	16 1,654	9 916	10 1,173	83	5 340	3	3 85	18
335	ELECTRICAL EQUIPMENT, APPLIANCE, AND COMPONENT MANUFACTURING										
33511	Electric Lamp Bulb and Part Manufacturing	15	-	2	5	6	1	1	-	-	-
33512	Lighting Fixture Manufacturing	144	0.1	48	36	43	2	12	-	2	1
33521 33522	Small Electrical Appliance Manufacturing Major Household Appliance Manufacturing	39 54	0.1	6 7	13 16	14 21	2	4 8	-	-	-
33531	Electrical Equipment Manufacturing	865	0.1	188	214	347	19	77	1	16	3
33591	Battery Manufacturing	64	0.1	7	13	29	1	13	-	-	1
33592	Communication and Energy Wire and Cable Manufacturing	21	_	4	7	8	1	_	_	1	
33593	Wiring Device Manufacturing	235	0.2	40	90	79	4	19	-	3	-
33599	All Other Electrical Equipment and Component Manufacturing	260	0.4	110	00	102	1	20	1	01	
	Sub-Total NAICS 335	360 1,797	0.4 1.8	112 414	92 486	103 650	1 33	30 164	1 2	21 43	5
336	TRANSPORTATION EQUIPMENT MANUFACTURING	2,.0.	2.0		.00	000		20.	_		
36111	Automobile Manufacturing	926	1.0	543	112	189	26	43	2	7	4
36112 36120	Light Truck and Utility Vehicle Manufacturing Heavy Duty Truck Manufacturing	58 196	0.1	36 115	11	3	1	3	- 1	3 1	1
36211	Motor Vehicle Body Manufacturing (pt)	186 1,459	0.2 1.5	115 1,021	28 239	32 131	2 18	7 40	1 1	1 9	-
36212	Truck Trailer Manufacturing	1,301	1.4	967	207	85	11	15	-	15	1
36213	Motor Home Manufacturing	135	0.1	93	18	17	3	3	-	1	
36214	Travel Trailer and Camper Manufacturing (pt)	459	0.5	368	50	23	3	10	-	3	2
36310	Motor Vehicle Gasoline Engine and Engine Parts Manufacturing	637	0.7	364	100	124	15	23	1	8	2
336320	Motor Vehicle Electrical and Electronic Equipment Manufacturing	1,102	1.1	757	148	127	20	40		6	4
336330	Motor Vehicle Steering and Suspension Components								-		
336340	(except Spring) Manufacturing Motor Vehicle Brake System Manufacturing	70 98	0.1 0.1	37 56	10 17	18 17	3 2	1 5	-	1	1
336350	Motor Vehicle Transmission and Power Train Parts Manufacturing										
		354	0.4	183	64	73	16	12	1	3	2

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					Prod	uction	Engi	neering			
NAICS	BUSINESS AND INDUSTRY	TOTAL QUALIFIED	PERCENT OF TOTAL	Company Management, Corporate Executives and Purchasing (B,L)	Production Management or	Manu- facturing Engineering Management or Department (E,F,T,V)	Quality Assurance Control (P,Q)	Product Design Research and Development (H,I,J)	EDU- CATIONAL or GOVERN- MENT (N)	SALES & MARKETING (X,Z)	OTHER NEC (A,U)
336360	Motor Vehicle Seating and Interior Trim Manufacturing	199	0.2	98	39	44	6	11	-	-	1
336370	Motor Vehicle Metal Stamping	640	0.7	330	154	107	21	24	-	2	2
336390	Other Motor Vehicle Parts Manufacturing	4,795	5.0	2,170	822	1,326	153	244	9	44	27
336411	Aircraft Manufacturing	1,290	1.3	588	170	413	34	73	3	4	5
336412	Aircraft Engine and Engine Parts Manufacturing (pt)	866	0.9	326	141	318	26	44	2	8	1
336413	Other Aircraft Parts and Auxiliary Equipment Manufacturing	3,528	3.7	1,540	789	847	146	140	3	48	15
336414	Guided Missile and Space Vehicle Manufacturing	184	0.2	63	38	57	7	16	1	-	2
336415	Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing	131	0.1	43	29	44	6	7	_	-	2
336419	Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing	132	0.1	50	30	43		7	1	-	1
3365	Railroad Rolling Stock Manufacturing	194	0.2	84	39	52	3	13		3	-
3366	Ship and Boat Building	604	0.6	399	94	67	11	24	1	6	2
3369	Other Transportation Equipment Manufacturing	580	0.6	376	74	100	2	24	-	4	-
	Sub-Total NAICS 336	19,928	20.8	10,607	3,423	4,257	535	829	26	176	75
337	FURNITURE AND RELATED PRODUCT MANUFACTURING										
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	218	0.2	110	50	43	2	12	-	1	-
3372	Office Furniture (including Fixtures) Manufacturing	83	0.1	24	21	25	2	11	-	-	-
3379	Other Furniture Related Product Manufacturing	10	-	2	2	3	1	2	-	-	-
	Sub-Total NAICS 337	311	0.3	136	73	71	5	25	-	1	-
339	MISCELLANEOUS MANUFACTURING										
339112	Surgical and Medical Instrument Manufacturing	1,897	2.0	590	475	548	72	176	2	22	12
339113	Surgical Appliance and Supplies Manufacturing	1,193	1.2	540	230	289	31	75	-	14	14
339114	Dental Equipment and Supplies Manufacturing	751	0.8	574	71	63	12	27	-	3	1
339115	Ophthalmic Goods Manufacturing	119	0.1	59	21	28	1	6	-	2	2
339116	Dental Laboratories	567	0.6	529	9	19	-	6	-	2	2
33991	Jewelry and Silverware Manufacturing	262	0.3	210	30	18	_	2	-	1	1
33992	Sporting and Athletic Goods Manufacturing	454	0.5	296	72	46	7	25	-	6	2
33993	Doll, Toy, and Game Manufacturing	124	0.1	101	14	4	1	2	-	2	-
33994	Office Supplies (except Paper) Manufacturing	131	0.1	87	28	6	1	3	-	6	-
33995	Sign Manufacturing	793	0.8	709	52	17	-	13	-	-	2
33999	All Other Miscellaneous Manufacturing	1,128	1.2	681	188	177	9	43	-	23	7
044.004	Sub-Total NAICS 339	7,419	7.7	4,376	1,190	1,215	134	378	2	81	43
311-324	OTHER MISCELLANEOUS MANUFACTURING	567	0.6	278	137	94	3	31	-	21	3
42 541	WHOLESALE TRADE	2,839	3.0 2.0	1,474 941	346 221	390 510	17	82 200	8 11	505	17 12
541 611	Professional, Scientific, and Technical Services	1,960		941 152		510 71	14 1			51 2	12 4
OTT	Educational Services	640 1,702	0.7 1.8	152 889	90 338	283	10	35 96	285 11	59	
	OTHER QUALIFIED NAICS, N.E.C.	1,702	1.8	009	აა ბ	∠03	10	90	TT	59	16

TOTAL QUALIFIED CIRCULATION 96,208 100.0 48,334 20,746 17,801 1,944 4,036 414 2,483 (B,L) COMPANY MANAGEMENT, CORPORATE EXECUTIVE, PURCHASING titles include Chairman, General Manager, Owner, Partner, President, Vice President, Buyer, Purchasing Manager and Procurement

(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.

Designer and systems Engineer.

(E,V) 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,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, RESEARCH and 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.

(N) EDUCATIONAL or GOVERNMENT titles include Professor, Instructor and other Educational titles.

(X,Z) SALES & MARKETING titles include Regional Sales Director, National Accounts Manager, Marketing Director, PR Director and other sales/marketing titles.

(A,U) OTHER QUALIFIED TITLES, N.E.C.

SUPPLEMENTARY DATA FOR ISSUE OF NOVEMBER 2017

This is an analysis of 86,184 or 89.6% recipients who manufacture for the following industries. 64,921 are classified based on their response to the question 'Which of the following markets do you manufacture for?' and 21,263 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 or Department (C,D,G,R,S)	Manufacturing Engineering Management or Department (E,F,T,V)	Quality Assurance, Quality Control (P,Q)	Product Design, Research & Development (H,I,J)	CATIONAL	SALES & MARKETING (X,Z)	OTHER NEC
Aerospace/Aviation									
OEMs, Components & Parts	6,638	2,800	1,302	1,884	230	320	11	64	27
Captive Shops, Contract Shops & Job Shops	39,489	17,105	10,318	7,718	1,008	1,690	47	1,384	219
Other Qualified: R&D, Consultants, Testing &									
Design, Q/A	4,335	2,062	578	775	26	218	116	529	31
Totals	50,462	21,967	12,198	10,377	1,264	2,228	174	1,977	277
Automotive/Transportation									
OEMs, Components & Parts	12,408	7,134	2,018	2,311	299	481	15	103	47
Captive Shops, Contract Shops & Job Shops	42,030	18,398	10,822	8,362	935	1,870	53	1,376	214
Other Qualified: R&D, Consultants, Testing &									
Design, Q/A	4,722	2,413	575	793	21	231	143	517	29
Totals	59,160	27,945	13,415	11,466	1,255	2,582	211	1,996	290
Medical/Dental									
OEMs, Components & Parts	4,710	2,351	839	1,003	122	312	2	50	31
Captive Shops, Contract Shops & Job Shops	30,983	13,066	8,231	6,185	745	1,386	40	1,162	168
Other Qualified: R&D, Consultants, Testing &									
Design, Q/A	3,549	1,690	440	591	21	206	108	464	29
Totals	39,242	17,107	9,510	7,779	888	1,904	150	1,676	228
Military/Defense									
OEMs, Components & Parts	898	322	199	286	21	56	3	3	8
Captive Shops, Contract Shops & Job Shops	39,905	15,801	10,719	8,828	1,116	1,857	56	1,330	198
Other Qualified: R&D, Consultants, Testing &									
Design, Q/A	3,614	1,634	498	674	21	205	82	477	23
Totals	44,417	17,757	11,416	9,788	1,158	2,118	141	1,810	229
Offroad/Construction/Agriculture									
OEMs, Components & Parts	1,109	364	301	317	26	83	1	14	3
Captive Shops, Contract Shops & Job Shops	44,272	19,449	11,194	9,006	1,108	1,888	51	1,347	229
Other Qualified: R&D, Consultants, Testing &									
Design, Q/A	3,809	1,902	507	611	16	183	106	456	28
Totals	49,190	21,715	12,002	9,934	1,150	2,154	158	1,817	260
Oil & Gas/Energy									
OEMs, Components & Parts	658	248	234	131	8	24	-	11	2
Captive Shops, Contract Shops & Job Shops	36,925	14,961	10,154	7,771	938	1,589	49	1,270	193
Other Qualified: R&D, Consultants, Testing &									
Design, Q/A	3,457	1,642	470	586	21	167	80	467	24
Totals	41,040	16,851	10,858	8,488	967	1,780	129	1,748	219
DEM, Components & Parts: Corresponding Industry NAICS Captive Shops, Contract Shops & Job Shops: Respondent Other Qualified: R&D, Consultants, Testing & Design, Q/J	s in Mfg NA								

SUPPLEMENTARY DATA FOR ISSUE OF NOVEMBER 2017

This is an analysis of 31,263 recipients in the indicated NAICS classifications, of whom 28,117 manufacture for the following industries based on their response to the question "Which of the following markets do you manufacture for?"

		Company							
		Management	, Manufacturing				EDU-		
		Corporate	Production	Engineering	Quality	Product Design	, CATIONAL		
Contract Shops & Job Shops (NAICS 326199,		Executives,	Management or	Management or	Assurance,	Research &	or	SALES &	OTHER
33271, 33272, 33281, 333511, 333514,		Purchasing	Department	Department	Quality Control	Development	GOVERNM	MARKETING	NEC
333999)	Totals	(B,L)	(C,D,G,R,S)	(E,F,T,V)	(P,Q)	(H,I,J)	ENT (N)	(X,Z)	(A,U)
Aerospace/Aviation	19,251	10,182	5,064	2,470	527	438	14	460	96
Automotive/Transportation	20,538	10,967	5,297	2,698	485	507	17	474	93
Medical/Dental	15,436	7,923	4,154	2,092	408	375	14	395	75
Military/Defense	17,163	8,724	4,691	2,329	491	401	15	437	75
Offroad/Construction/Agriculture	19,193	10,486	4,869	2,405	482	417	13	432	89
Oil & Gas/Energy	16,388	8,524	4,433	2,115	441	351	16	431	77

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

		Qualified Within			
QUALIFICATION SOURCE	1 Year	2 Years	3 Years	Total Qualified	Percent
I. Direct Request:	65,549	18,924	-	84,473	87.8
II. Request from recipient's company:	4	-	-	4	-
III. Membership Benefit:	-	-	-	-	-
IV. Communication from recipient or recipient's company (other than request):	1,125	-	-	1,125	1.2
V. TOTAL - Sources other than above (listed alphabetically):	10,606	-	-	10,606	11.0
Association rosters and directories	-	-	-	-	-
*Business directories	10,589	-	-	10,589	11.0
Manufacturer's, distributor's, and wholesaler's lists	-	-	-	-	-
*Other sources	17	-	-	17	-
VI. Single Copy Sales:	-	-	-	-	-
TOTAL QUALIFIED CIRCULATION	77,284	18,924	-	96,208	100.0
PERCENT	80.3	19.7		100.0	

AVERAGE ANNUAL AUDITED QUALIFIED CIRCULATION AND CURRENT UNAUDITED CIRCULATION STATEMENTS Audited Data **Audited Data Audited Data Audited Data** Circulation Claim Circulation Claim January - June 2016 January – June 2017* January - June 2015 July - December 2015 July - December 2016 July - December 2017* 6-Month Period Ended: Total Audit Average Qualified: 96,319 96,619 96,675 98,571 98,294 97,891 Qualified Non-Paid: 96,319 98,571 98,294 97,891 96,619 96,675 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

GEOGRAPHICAL BREAKOUT OF QUALIFIED CIRCULATION FOR ISSUE OF NOVEMBER 2017*

State	Total Qualified	Percent	State	Total Qualified	Percent
Maine	401		Kentucky	1,148	
New Hampshire	679		Tennessee	1,611	
Vermont	253		Alabama	1,055	
Massachusetts	2,140		Mississippi	384	
Rhode Island	319		EAST SO. CENTRAL	4,198	4.4
Connecticut	1,804		Arkansas	554	
NEW ENGLAND	5,596	5.8	Louisiana	736	
New York	3,617		Oklahoma	1,016	
New Jersey	1,668		Texas	4,866	
Pennsylvania	4,645		WEST SO. CENTRAL	7,172	7.5
MIDDLE ATLANTIC	9,930	10.3	Montana	255	
Ohio	7,270		Idaho	376	
Indiana	3,940		Wyoming	142	
Illinois	6,765		Colorado	924	
Michigan	6,860		New Mexico	330	
Wisconsin	4,334		Arizona	1,245	
EAST NO. CENTRAL	29,169	30.3	Utah	754	
Minnesota	2,825		Nevada	303	
lowa	1,480		MOUNTAIN	4,329	4.5
Missouri	1,950		Alaska	112	
North Dakota	234		Washington	1,801	
South Dakota	389		Oregon	1,064	
Nebraska	660		California	8,610	
Kansas	1,135		Hawaii	78	
WEST NO. CENTRAL	8,673	9.0	PACIFIC	11,665	12.1
Delaware	131		UNITED STATES	91,041	94.6
Maryland	856		U.S. Territories	89	
Washington, DC	42		Canada	4,984	
Virginia	1,253		Mexico	94	
West Virginia	288		Other International	-	
North Carolina	2,112		APO/FPO	-	
South Carolina	1,141				
Georgia	1,584		TOTAL QUALIFIED CIRCULATION	96,208	100.0
Florida	2,902		IOTAL QUALIFIED CIRCULATION	90,200	100.0
SOUTH ATLANTIC	10,309	10.7			

^{*}See Additional Data

^{*}NOTE: January – December 2017 data is unaudited. With each successive period, new data will be added until six 6-month periods are displayed.

^{**}NC = None Claimed.

E-NEWSLETTER CHANNEL

-
59,246
59,159
-
59,028
58,793
-
58,620
58,509
· -
58,486
59,453
59,194
· -
59,180
59,067
· -
58,776
58,761
-
58,520
58,435
· -
58,316
58,197
-
57,972
57,836
-
57,664
58,465
58,328
-
56,808
56,799
, <u>-</u>
56,479

MMS Extra (12 issued in the period) The Shop - Blog (25 issued in the period)

WEBSITE CHANNEL

WWW.MMSONLINE.COM

2017	PAGEVIEWS	SESSIONS	USERS	AVERAGE SESSION DURATION
July	214,782	139,909	108,720	1:33
August	246,424	155,772	121,856	1:30
September	230,315	148,652	115,338	1:31
October	242,269	155,705	120,235	1:28
November	227,861	150,654	117,044	1:24
December	195,707	128,364	98,437	1:27
AVERAGE:	226,226	146,509	113,605	1:29

July - December 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 cookied 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 Cookied 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			
	Twitter followers	Facebook likes	LinkedIn group members	You Tube YouTube views
2017	http://twitter.com/mmsonline	http://www.facebook.com/mmsonline	http://www.linkedin.com/grp/home	https://www.youtube.com/user/ mmsonlinevideos
Beginning Balance:	7,968	7,649	1,967	161,447
July	8,120	7,841	1,971	167,971
August	8,310	8,106	1,970	175,182
September	8,461	8,313	1,970	181,616
October	8,617	8,368	1,972	188,368
November	8,790	8,453	1,971	196,545
December	8,942	8,542	1,971	208,330
ote 1: YouTube Monthly Vi	ews data is an aggregate figure			

ADDITIONAL DATA

MAGAZINE:

PARAGRAPH 3b:

Business directories include 2 sources of circulation for quantities of 5,244 copies or 5.4% and 5,345 copies or 5.6% Other sources include 1 source of circulation for quantities of 17 copies or -%.

GEOGRAPHIC DISTRIBUTION:

Geographic data for E-Newsletters, Website and Social Media are 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 January 16, 2018 State Ohio County Hamilton Received by BPA Worldwide

January 16, 2018

Туре ID Number M102B0D7

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.