CUTTING TOOL ENGINEERING

BRAND REPORT

FOR THE 6 MONTH PERIOD ENDED JUNE 2018



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.

CTE Publications, Inc.
One Northfield Plaza, Suite 240
Northfield, IL 60093
Tel.: (847) 498-9100
Fax: (847) 559-4444
www.ctemag.com

CUTTING TOOL ENGINEERING is a B2B brand intended for individuals with broad-based interests in metal working industries. The brand content and editorial scope of the publication includes news and industry comment, in-depth technical articles, industry round-up and special features. The content of every issue is also available to subscribers globally via the online digital version.

FIELD SERVED

CUTTING TOOL ENGINEERING serves manufacturing plants in the metal working industries within the following North American Industrial Classification System: 331, 332, 333, 334, 335, 336, 337 and 339. Also served are other manufacturing and non-manufacturing businesses as reported in Paragraph 3a herein.

DEFINITION OF RECIPIENT OUALIFICATION

Qualified recipients are their Corporate Managers, Engineering Managers, Engineering Department Personnel, Production Managers, Production Department Personnel, Design/R&D Personnel, Purchasing Personnel, Quality Assurance/Control Personnel and Other Titles.

CHANNELS

CUTTING TOOL ENGINEERING MAGAZINE

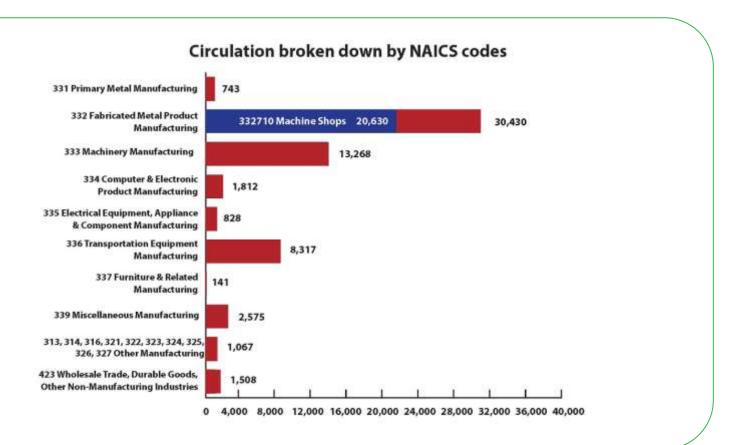


6 issues in the period 60,661 average circulation

EXECUTIVE SUMMARY

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

	Non-Paid	Paid	Average
CUTTING TOOL ENGINEERING MAGAZINE (6 issues in the period)	60,658	3	60,661
a. Print	59,494	3	59,497
b. Digital	1,164	-	1,164
1. Requested	1,164	-	1,164
2. Non-Requested	-	-	-



			Total	
Classification by Title	Print	Digital	Qualified	Percent
Corporate Manager (Owner, Chairman, President, VP, GM or other Corporate Manager)	36,117	664	36,781	60.6
Engineering Manager (Supervise Engineering Personnel)	4,379	108	4,487	7.4
Engineering Department Personnel (Non-Supervisory Position)	5,834	82	5,916	9.8
Production Manager (Supervise Production Personnel)	6,302	125	6,427	10.6
Production Department Personnel (Non-Supervisory Position)	3,250	44	3,294	5.4
Design, R&D Personnel	1,178	50	1,228	2.0
Purchasing Personnel	902	30	932	1.5
Quality Assurance, Control Personnel	930	11	941	1.6
Other Titled & Non-Titled Personnel	669	14	683	1.1
TOTAL QUALIFIED CIRCULATION	59,561	1,128	60,689	100.0

_	ζ	Qualified Withi	n				
Qualification Source	1 Year	2 Years	3 Years	Print	Digital	Total Qualified	Percent
I. Direct Request:	50,708	9,981	-	59,561	1,128	60,689	100.0
II. Request from recipient's company:	-	-	-	-	-	-	-
III. Membership Benefit:	-	-	-	-	-	-	-
IV. Communication from recipient or recipient's company (other than request):	-	-	-	-	-	-	-
V. TOTAL – Sources other than above (listed alphabetically):	-	-	-	-	-	-	-
Association rosters and directories	-	-	-	-	-	-	-
Business directories	-	-	-	-	-	-	-
Manufacturer's, distributor's, and wholesaler's lists	-	-	-	-	-	-	-
Other sources	-	-	-	-	-	-	-
VI. Single Copy Sales:	-	-	-	-	-	-	-
TOTAL QUALIFIED CIRCULATION	50,708	9,981	-	59,561	1,128	60,689	100.0
PERCENT	83.6	16.4	-	98.1	1.9	100.0	

3c. MAILING ADDRESS BREAKOUT OF QUALIFIED CIRCULA	ATTOM TOR IOOOL OF IMP	11 2020	Total	
Mailing Address	Print	Digital	Qualified	Percent
Individuals by name and title and/or function	59,480	1,088	60,568	99.8
Individuals by name only	81	40	121	0.2
Titles or functions only	-	-	-	·
Company names only	-	-	-	-
Multi-Copy Same Addressee copies	-	-	-	·
Single Copy Sales	-	-	-	-
TOTAL QUALIFIED CIRCULATION	59,561	1,128	60,689	100.0

	Audited Data	Audited Data	Audited Data	Audited Data	Audited Data	Circulation Clain
6-Month Period Ended:	July - December 2015	January – June 2016	July – December 2016	January – June 2017	July – December 2017	January – June 2018*
otal Audit Average Qualified:	60,994	60,105	62,330	60,384	62,069	60,661
ualified Non-Paid:	60,990	60,100	62,325	60,380	62,066	60,658
Print:	59,114	58,401	60,856	59,168	60,877	59,494
Digital:	1,876	1,699	1,469	1,212	1,189	1,164
ualified Paid:	4	5	5	4	3	3
Print:	4	5	5	4	3	3
Digital:	-	-	-	-	-	-
ost Expire Copies included in otal Qualified Circulation:	**NC	**NC	**NC	**NC	**NC	**NC
verage Annual Order Price:	\$98.12	\$98.46	\$102.95	\$99.26	\$109.35	\$93.60

State	Print	Digital	Total Qualified	Percent	State	Print	Digital	Total Qualified	Percent
Maine	200	<u> </u>	200		Kentucky	770	-	770	
New Hampshire	370	-	370		Tennessee	1,164	-	1,164	
Vermont	124	-	124		Alabama	774	1	775	
Massachusetts	1,088	1	1,089		Mississippi	305	-	305	
Rhode Island	196	-	196		EAST SO. CENTRAL	3,013	1	3,014	5.0
Connecticut	953	1	954		Arkansas	445	1	446	
NEW ENGLAND	2,931	2	2,933	4.8	Louisiana	491	-	491	
New York	2,115	-	2,115		Oklahoma	797	-	797	
New Jersey	1,034	-	1,034		Texas	3,630	1	3,631	
Pennsylvania	2,955	2	2,957		WEST SO. CENTRAL	5,363	2	5,365	8.8
MIDDLE ATLANTIC	6,104	2	6,106	10.1	Montana	169	-	169	
Ohio	4,325	2	4,327		Idaho	272	-	272	
Indiana	2,858	-	2,858		Wyoming	91	-	91	
Illinois	4,694	4	4,698		Colorado	812	812 1	813	
Michigan	4,730	2	4,732		New Mexico	178	-	178	
Wisconsin	3,073	3	3,076		Arizona	777	1	778	
EAST NO. CENTRAL	19,680	11	19,691	32.4	Utah	519	1	520	
Minnesota	1,793	-	1,793		Nevada	205	-	205	
Iowa	871	-	871		MOUNTAIN	3,023	3	3,026	5.0
Missouri	1,294	-	1,294		Alaska	29	-	29	
North Dakota	120	-	120		Washington	1,077	1	1,078	
South Dakota	180	-	180		Oregon	687	-	687	
Nebraska	338	-	338		California	5,448	-	5,448	
Kansas	680	-	680		Hawaii	37	-	37	
WEST NO. CENTRAL	5,276	-	5,276	8.7	PACIFIC	7,278	1	7,279	12.0
Delaware	72	1	73		UNITED STATES	59,479	25	59,504	98.0
Maryland	460	-	460		U.S. Territories	21	1	22	
Washington, DC	9	-	9		Canada	60	910	970	
Virginia	746	2	748		Mexico	-	25	25	
West Virginia	223	-	223		Other International	1	167	168	
North Carolina	1,466	-	1,466		APO/FPO	-	-	-	
South Carolina	754	-	754		·				
Georgia	1,065	-	1,065		TOTAL QUALIFIED		4.400	00.005	400.5
Florida	2,016	-	2,016		CIRCULATION	59,561	1,128	60,689	100.0
SOUTH ATLANTIC	6.811	3	6.814	11.2					

ADDITIONAL DATA

METHOD OF DISTRIBUTION:

All qualified circulation conforms to the field served and definition of recipient qualification, as reported. Print copies are distributed via postal services or other carriers. Recipients of the digital version are notified via email when the version is available.

STATEMENT OF CONTENT PLATFORM:

Editorial Replica - If a print edition exists, editorial and design are unchanged from the original print edition. Each issue's content and design are identical to the original edition. Apart from minor updates, the content cannot change once the issue is made available.

PUBLISHER'S AFFIDAVIT

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

Dennis Spaeth, Publisher

Andrea Karges, 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

July 17, 2018 Illinois Cook

Received by BPA Worldwide Type

July 17, 2018 BD

ID Number

C164B0J8

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. house comfort by latest audit reports.

MAGAZINE CHANNEL

Membership Publication of: Society of Carbide & Tool Engineers Established: 1955/Issues Per Year: 12

AVERAGE NON-QUALIFIED	CIRCULATION
Non-Qualified Not Included Elsewhere	Copies
Other Paid Circulation	63
Advertiser and Agency	1,546
Allocated for Trade Shows and Conventions	-
All Other	13,334
TOTAL	14,943

	Total Q	ualified	Qualified	Non-Paid	Qualifi	ed Paid
Qualified Circulation	Copies	Percent	Copies	Percent	Copies	Percent
Individual	60,661	100.0	60,658	100.0	3	-
Sponsored Individually Addressed	-	-	-	-	-	-
Membership Benefit	-	-	-	-	-	-
Multi-Copy Same Addressee	-	-	-	-	-	-
Single Copy Sales	-	-	-	-	-	-
TOTAL QUALIFIED CIRCULATION	60,661	100.0	60,658	100.0	3	-

2. QUALIFIED CIRCULATION BY ISSUES FOR 2018 Issue	Print	Digital	Total Qualified
January	59,211	1,165	60,376
February	59,179	1,175	60,354
March	59,734	1,179	60,913
April	59,279	1,179	60,458
May	59,561	1,128	60,689
June	60,018	1,161	61,179

3a. BUSINESS/OCCUPATIONAL BREAKOUT OF QUALIFIED CIRCULATION FOR ISSUE OF MAY 2018
This issue is 0.1% or 33 copies above the average of the other 5 issues reported in Paragraph 2.
North American Industrial Classification System (NAICS) is a numerical coding system developed jointly by the Economic Classification Policy Committee of the Office of Management and Budget as well as Statistics Canada and Mexico. Copies of the NAICS Manual can be purchased from the Superintendent of Documents of the U.S. Government Printing Office, Washington, D.C. 20402 (Classification based on 2017 NAICS Manual).

					Classification by Title										Classification by Employee Size					
Naics	Total	Percent			Corporate Manager (Owner, Chairman, President, VP, GM or other Corporate	Engineering Manager (Supervise Engineering	Engineering Department Personnel (Non- Supervisory	Production Manager (Supervise Production	Production Department Personnel (Non- Supervisory	Design, R&D	Purchasing	Quality Assurance,	Other Titles & Non-Titled							
Code Business and Industry	Qualified	of Total	Print	Digital	Manager)	Personnel)	Position)	Personnel)	Position)	Personnel		Control Personnel		1 to 49	50 to 99	100 to 249	250 to 499	500 and over	Undefined	
331 Primary Metal Manufacturing	<u> </u>			<u> </u>	<u> </u>		,	,	,											
331110 Iron and Steel Mills and Ferroalloy Manufacturing	57	0.1	53	4	23	3	8	9	8	2	2	1	1	26	3	7	5	16	-	
331210 Iron and Steel Pipe and Tube Manufacturing from Purchased Steel	31	0.1	30	1	11	_1	6	8	2		1	2	-	16	7	.4	1	3	-	
331221 Rolled Steel Shape Manufacturing 331222 Steel Wire Drawing	65	0.1	62 24	3	22	10	13	7	9	2	1	1		20	13	19	4	9		
331313 Alumina Refining and Primary Aluminum Production	24	-	24	-	1	1	8	2	3	2	-	1	-	8	3	1	1	10	1	
331314 Secondary Smelting and Alloying of Aluminum	3		3		2	1		1		-	-	-		1	2					
331315 Aluminum Sheet, Plate, and Foil Manufacturing	10	-	10	-	1	3	2	1	2	1	-	-	-	3	-	3	3	1		
331318 Other Aluminum Rolling, Drawing, and Extruding	69	0.1	69	-	26	7	21	7	4	1	-	3	-	18	3	16	22	9	1	
331410 Nonferrous Metal (except Aluminum) Smelting and Refining	9	-	9	-	1	-	4	-	1	3	-	-	-	2	2	1	2	2	-	
331420 Copper Rolling, Drawing, Extruding, and Alloying	21	-	21	-	1	4	12	3	-	-	-	1	-	2	1	10	2	5	1	
331491 Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing, and Extruding	31	0.1	31	-	4	3	6	7	4	3	3	· :	1	8	5	5	2	8	3	
331492 Secondary Smelting, Refining, and Alloying of Nonferrous Metal (except Copper and Aluminum) 331511 Iron Foundries	16 104	0.2	16 103	- 1	29	14	5 16	1 19	12	1	2	1 2	1	5 27	10	16	- 17	24	10	
331512 Steel Investment Foundries	20	0.2	20	1	29 4	3	5	19	3	9		1	1	21 Δ	10	70	11 A	24	10	
331513 Steel Foundries (except Investment)	38	0.1	37	1	8	3	5	7	14	1	-	-	-	11	4	9	6	7	1	
331523 Nonferrous Metal Die-Casting Foundries	111	0.2	108	3	28	17	42	11	7	2	1	2	1	21	12	26	25	24	3	
331524 Aluminum Foundries (except Die-Casting)	54	0.1	52	2	20	7	11	7	4	1	2	1	1	24	6	17	1	6	-	
331529 Other Nonferrous Metal Foundries (except Die-Casting)	74	0.1	70	4	30	8	13	17	4	-	-	1	1	29	13	20	5	6	1	
Sub-Total NAICS 331	743	1.2	724	19	226	86	179	111	78	28	12	17	6	228	86	163	101	144	21	
332 Fabricated Metal Product Manufacturing	400	0.0	440	А	F0	15	00	00	3	3	4	4		4.4	00	07	4.4	4.4	3	
332111 Iron and Steel Forging 332112 Nonferrous Forging	122 17	0.2	118 16	4	53	15	23	20	3	3	1	4	-	44	20	27	14	14	3	
332112 Notifierrous Forging 332114 Custom Roll Forming	5	-	5	1	2	1	5	2		-	-	-		3	1	2	1	-	1	
332117 Powder Metallurgy Part Manufacturing	11	-	11	-	1	6	2	2	-	-	-	-	-	2	-	4	5	-	-	
332119 Metal Crown, Closure, and Other Metal Stamping (except Automotive)	767	1.3	762	5	464	73	74	68	43	10	11	16	8	487	117	86	42	15	20	
332215 Metal Kitchen Cookware, Utensil, Cutlery, and Flatware (except Precious) Manufacturing	59	0.1	58	1	32	6	5	9	2	3	1	1	-	28	7	14	5	3	2	
332216 Saw Blade and Handtool Manufacturing	304	0.5	287	17	163	22	36	37	17	19	6	3	1	169	51	38	17	26	3	
332311 Prefabricated Metal Building and Component Manufacturing	62	0.1	56	6	53	2	2	3	1	1	-	-		46	8	5	2		1	
332312 Fabricated Structural Metal Manufacturing 332313 Plate Work Manufacturing	1,751 176	2.9 0.3	1,722 172	29	1,394 121	62 11	41 15	155 19	47	8	27	12	5	1,403 116	170 18	108 21	25 15	17	28 1	
332321 Metal Window and Door Manufacturing	144	0.3	139	5	111	8	8	19 A	5	6	1	2	1	107	7	13	72	9	1	
332322 Sheet Metal Work Manufacturing	1,199	2.0	1,183	16	967	41	32	97	24	5	17	9	7	982	117	61	8	10	21	
332323 Ornamental and Architectural Metal Work Manufacturing	374	0.6	367	7	326	9	8	15	4	3	7	1	1	336	10	13	3	6	6	
332410 Power Boiler and Heat Exchanger Manufacturing	66	0.1	62	4	32	6	8	13	4	2	-	1	-	37	9	9	5	6	-	
332420 Metal Tank (Heavy Gauge) Manufacturing	80	0.1	76	4	55	3	6	7	1	2	3	2	1	51	12	11	3	3		
332431 Metal Can Manufacturing	16	-	14	2	7	3	1	1	2	2		-	-	6	1	4	3	1	1	
332439 Other Metal Container Manufacturing 332510 Hardware Manufacturing	29 206	0.1 0.1	29 206	-	20 108	19	1 27	28	3 15	-	1	-	-	21 116	4 32	21	23	- 11	1	
332613 Spring Manufacturing	87	0.1	85	2	49	14	9	20	3		1	1	2	43	20	9	6	4	5	
332618 Other Fabricated Wire Product Manufacturing	183	0.3	179	4	127	10	13	14	8	5	4	-	2	122	26	23	7	4	1	
332710 Machine Shops	20,630	34.0	20,372	258	14,839	930	851	2,024	1,072	178	309	315	112	17,866	1,481	833	132	87	231	
332721 Precision Turned Product Manufacturing	775	1.3	768	7	450	57	79	96	54	7	10	20	2	527	96	112	25	4	11	
332722 Bolt, Nut, Screw, Rivet, and Washer Manufacturing	281	0.5	274	7	151	15	30	41	21	8	6	6	3	159	37	45	21	16	3	
332811 Metal Heat Treating	116	0.2	114	2	77	9	3	17	2	1	1	3	3	82	17	10	4	2	1	
 332812 Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers 332813 Electroplating, Plating, Polishing, Anodizing, and Coloring 	481 470	0.8 0.8	475 465	6	390 400	10 11	16	37 34	7	3	5	/	6	422 419	32 13	20 28	1	3	3	
332813 Electroplating, Plating, Polishing, Anodizing, and Coloring 332911 Industrial Valve Manufacturing	219	0.8	213	6	81	22	43	42	20	2 3	4	3	1	93	15	20 52	29	28	2	
332912 Fluid Power Valve and Hose Fitting Manufacturing	147	0.2	145	2	48	16	27	33	9	5	2	5	2	43	25	32	21	22	4	
332913 Plumbing Fixture Fitting and Trim Manufacturing	61	0.1	59	2	23	4	14	10	4	2	1	2	1	20	2	8	12	18	1	
332919 Other Metal Valve and Pipe Fitting Manufacturing	287	0.5	285	2	97	28	63	51	34	7	3	3	1	96	34	63	32	48	14	
332991 Ball and Roller Bearing Manufacturing	202	0.3	198	4	38	39	68	25	12	10	4	1	5	46	30	51	36	37	2	
332992 Small Arms Ammunition Manufacturing	21	-	21	-	14	-	5	1	1	-	-	-	-	16	1	-	-	4	-	
332993 Ammunition (except Small Arms) Manufacturing	21 302	0.5	21 302	-	7 167	4 16	5 40	2 36	2 23	- 11	-	-	1	9 210	3 30	2 19	3	4	-	
332994 Small Arms, Ordnance, and Ordnance Accessories Manufacturing 332996 Fabricated Pipe and Pipe Fitting Manufacturing	173	0.5	302 171	2	122	11	40 8	19	23 4	2	2	2	1	112	27	19	0 7	7	2	
332999 All Other Miscellaneous Fabricated Metal Product Manufacturing	586	1.0	571	15	393	25	61	47	23	12	7	11	7	421	64	53	13	30	5	
Sub-Total-NAICS-332		50.1	30,001	429	21,391	1,512	1,632	3,019	1,480	325	444	445	182	24,667	2,537	1,818	540	484	384	
Sub-total-traics-532	30, .50	00.2	00,001	0	22,002	2,022	1,002	0,010	2, .00	020			102	2.,00.	2,00.	2,020	0.0		J	

Classification by Title

Classification by Employee Size

Cutting Tool Engineering / June 2018 2 www.bpaww.com www.bpaww.com Cutting Tool Engineering / June 2018 3

										Classification by	Title						Classification b	y Employee Size		
						Corporate Manager (Owner,	Engineering	Engineering	Production	Production										
Notes		T	B			Chairman, President, VP, GM	Manager (Supervise	Department Personnel (Non-	Manager (Supervise	Department Personnel (Non-	Decision DOD	D. otherston	Quality	Other Titles &						
Naics Code	Business and Industry	Total Qualified	Percent of Total	Print	Digital	or other Corporate Manager)	Engineering Personnel)	Supervisory Position)	Production Personnel)	Supervisory Position)	Design, R&D Personnel	Purchasing Personnel	Assurance, Control Personnel	Non-Titled Personnel	1 to 49	50 to 99	100 to 249	250 to 499	500 and over	Undefined
	Machinery Manufacturing L Farm Machinery and Equipment Manufacturing	624	1.0	606	18	406	44	45	73	19	18	10	5	4	450	49	41	22	53	9
	Lawn and Garden Tractor and Home Lawn and Garden Equipment Manufacturing Construction Machinery Manufacturing	56 549	0.1 0.9	56 535	- 14	32 284	4 50	9 83	1 49	5 32	3 16	- 16	2 11	- 8	17 302	13 57	7 51	5 26	13 103	1 10
33313	Mining Machinery and Equipment Manufacturing Oil and Gas Field Machinery and Equipment Manufacturing	170 538	0.3 0.9	163 515	7 23	85 278	16 40	24 51	29 89	12 41	12	3 11	- 11	1	103 316	17 55	25 46	9	14	2 15
33324	Food Product Machinery Manufacturing	185	0.3	179	6	96	18	19	25	14	8	4	1	-	104	23	21	24	9	4
	3 Sawmill, Woodworking, and Paper Machinery Manufacturing	160	0.1 0.3	36 153	7	14 93	15	11	25	8	3	1	3	1	19 104	27	14	10	4	1
	Printing Machinery and Equipment Manufacturing Other Industrial Machinery Manufacturing	144 484	0.2 0.8	143 477	7	84 283	11 37	13 47	21 55	10 28	2 10	2 12	1 2	10	98 327	18 59	7 56	12 22	8 11	9
	Optical Instrument and Lens Manufacturing Photographic and Photocopying Equipment Manufacturing	149 51	0.3 0.1	145 51	4	89 35	12 5	11 2	15 2	10 3	5	-	3	4 1	89 37	16 4	17 3	8	11 3	8
33331	Other Commercial and Service Industry Machinery Manufacturing Industrial and Commercial Fan and Blower and Air Purification Equipment Manufacturing	357 147	0.6 0.3	352 142	5	227 89	27 10	22	45 18	16	4	9	1	6	247 91	43 14	42 16	9	9	7
33341	Heating Equipment (except Warm Air Furnaces) Manufacturing	40	0.1	39	1	24	5	19 5	4	1	-	-	1	-	21	5	9	2	-	3
	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing	176	0.3	171	5	87	18	31	19	4	10	2	3	2	82	11	25	17	39	2
	L Industrial Mold Manufacturing Special Die and Tool, Die Set, Jig, and Fixture Manufacturing	629 2,024	1.0 3.3	613 1,966	16 58	353 1,262	47 124	43 121	81 241	74 178	15 39	7 28	3 15	6 16	482 1,617	88 182	37 145	10 34	5 29	7 17
33351	Cutting Tool and Machine Tool Accessory Manufacturing Machine Tool Manufacturing	1,771 1,320	2.9 2.2	1,694 1,290	77 30	992 740	188 112	180 133	174 146	54 86	52 29	36 20	20	75 32	1,189 898	176 126	202 126	85 82	104	15 20
33351	Rolling Mill and Other Metalworking Machinery Manufacturing	203	0.3	200	3	112	18	20	21	15	9	3	3	2	126 48	26	26	12	8	5
33361	Turbine and Turbine Generator Set Units Manufacturing Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing	135 257	0.2 0.4	134 247	10	43 113	20 20	33 45	18 31	32	6	3	5	2	48 137	13 47	13 40	16 18	11	4
	Mechanical Power Transmission Equipment Manufacturing Other Engine Equipment Manufacturing	209 225	0.3 0.4	199 221	10 4	80 59	18 23	49 77	30 17	21 17	3 16	2	2 15	4 1	86 61	41 9	47 11	21 23	9 119	5 2
33391	Air and Gas Compressor Manufacturing Measuring, Dispensing, and Other Pumping Equipment Manufacturing	145 299	0.2 0.5	142 296	3	55 133	17 26	33 37	20 50	10 31	1	3	3	3	55 161	12 37	22 36	27 34	28 27	1
33392	L Elevator and Moving Stairway Manufacturing	56	0.1	54	2	31	5	2	8	2	4	-	1	3	36	7	8	1	2	2
33392	Conveyor and Conveying Equipment Manufacturing Overhead Traveling Crane, Hoist, and Monorail System Manufacturing	237 142	0.4 0.2	232 139	3	153 82	13 13	23 13	31 21	10 7	2	2		2	148 88	36 16	31 9	10 7	15	7
33392 33399	Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing Power-Driven Handtool Manufacturing	153 121	0.3 0.2	150 119	3 2	84 40	8 20	36 27	11 13	6 8	5 7	1 3	1 3	1 -	69 40	11 19	25 14	4 7	42 40	2
33399	Welding and Soldering Equipment Manufacturing Packaging Machinery Manufacturing	104 231	0.2 0.4	100 221	4 10	57 126	9 23	6 22	13 37	12 16	3	2	1	1	54 135	16 29	7 40	4	18 15	5 3
33399	Industrial Process Furnace and Oven Manufacturing	81	0.1	80	1	51	8	7	10	2	1	-	1	1	53	14	7	3	2	2
33399	Fluid Power Cylinder and Actuator Manufacturing Fluid Power Pump and Motor Manufacturing	197 173	0.3 0.3	185 168	5	98 54	21 16	22 45	32 23	23	1	4	6	1	117 55	22 17	33	21	44	3
33399 33399	7 Scale and Balance (except Laboratory) Manufacturing 9 All Other Miscellaneous General Purpose Machinery Manufacturing	23 667	1.1	23 653	14	15 409	1 62	1 47	2 75	2 30	1 16	- 12	- 5	1 11	16 493	1 75	- 50	2 16	3 15	1 18
334	Sub-Total NAICS 333 Computer and Electronic Product Manufacturing	13,268	21.9	12,889	379	7,348	1,131	1,419	1,579	870	335	212	161	213	8,571	1,436	1,344	683	1,018	216
	L Electronic Computer Manufacturing Computer Storage Device Manufacturing	21 10	-	21 9	1	15 2	2	1 2	1	- 1	1	1	-	-	17 6	-	1	- 1	3	-
	Computer Terminal and Other Computer Peripheral Equipment Manufacturing	55 13	0.1	53 13	2	22	5	11	4	3	8	1	1	-	32	1	3	5	13	1
33422	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing	80	0.1	80	:	29	12	13	7	7	8	-	1	3	24	9	9	5	25	8
33431	O Other Communications Equipment Manufacturing Audio and Video Equipment Manufacturing	39 35	0.1 0.1	38	2	25 18	4	4	2	2	5	1	-	-	26	3	5	-	6	1
	2 Bare Printed Circuit Board Manufacturing 3 Semiconductor and Related Device Manufacturing	14 109	0.2	11 108	3 1	9 49	3 15	- 17	2 9	2	9	- 1	- 5	2	11 44	2 7	- 8	19	1 28	3
	Capacitor, Resistor, Coil, Transformer, and Other Inductor Manufacturing Electronic Connector Manufacturing	30 64	0.1 0.1	28 64	2	11 14	5 11	1 15	5 12	3	1 5	-	1	3	16 13	4	8 16	1	1 19	4
33441	Printed Circuit Assembly (Electronic Assembly) Manufacturing	35	0.1	34	1	16	5	5 34	5	1 7	1	1	1	-	12	3	6	4	9	1
	Other Electronic Component Manufacturing Electromedical and Electrotherapeutic Apparatus Manufacturing	186 90	0.3 0.1	183 90	-	88 55	22 6	8	23 9	5	5	-	1	1	99 48	25 9	14	2	11	6
33451	Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing	178	0.3	178	-	68	24	39	24	11	7	3	-	2	58	21	17	12	57	13
33451		90	0.1	89	1	55	10	11	4	3	1	3	1	2	55	9	8	6	6	6
	Industrial Process Variables Totalizing Fluid Meter and Counting Device Manufacturing	209 44	0.3 0.1	207 44	2	115 19	13 4	36 9	29 7	6	2	3	3	2	98 18	27 4	37	14	25	8
33451	5 Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals	93	0.2	89	4	46	14	10	7	4 7	6	1	4	1	62	11	10	3	4	3
33451	Analytical Laboratory Instrument Manufacturing Irradiation Apparatus Manufacturing	136 34	0.2 0.1	132 32	2	63 16	2	18 5	19 2	3	11 4	2	-	2	68 14	20	3	15	20 7	7
	Other Measuring and Controlling Device Manufacturing Blank Magnetic and Optical Recording Media Manufacturing	237 5	0.4	229 5	8	124 5	19	33	27	16	5	4	5	4	155 4	25	28	15	10 1	4
	Software and Other Prerecorded Compact Disc, Tape, and Record Reproducing Sub-Total NAICS 334	5 1,812	3.0	5 1,775	- 37	3 875	1 194	- 275	1 208	- 88	- 88	- 25	34	- 25	5 913	- 193	224	131	- 276	- 75
335	Electrical Equipment, Appliance, and Component Manufacturing		3.0	1,775	31	0/3	134	213	200	00	00	25	34	25	913	195	224	131	210	15
33512	D Electric Lamp Bulb and Part Manufacturing L Residential Electric Lighting Fixture Manufacturing	12 10	-	11 10	1	9	1	1	2	-	-	-	-	-	10 9	1	-	-	1	-
	Commercial, Industrial, and Institutional Electric Lighting Fixture Manufacturing Other Lighting Equipment Manufacturing	16 29	0.1	14 27	2	9 19	1 5	2	2	-	1	1	-	1	8 20	2	1 4	5 1	- -	1
33521	O Small Electrical Appliance Manufacturing O Major Household Appliance Manufacturing	41 21	0.1	38 20	3	15 7	7	9 5	4	1	4	1	-		16 5	2	3	- 1	18 13	2
33531	L Power, Distribution, and Specialty Transformer Manufacturing	24 137	0.1	23	1	9	8 15	3 34	1	1 10	1	-	-	1	5	5	6	5	1	2
33531	Motor and Generator Manufacturing Switchgear and Switchboard Apparatus Manufacturing	74	0.2 0.1	131 71	3	55 27	8	16	13 9	10	1	2	3	2	59 32	16 7	26 9	21 12	14 12	2
33591	Relay and Industrial Control Manufacturing Storage Battery Manufacturing	172 9	0.3	165 9	7	80 4	26 1	36 2	12 1	5	8	1	1 1	3	98 4	8 1	17 2	10	30 2	9
33591	Primary Battery Manufacturing Fiber Optic Cable Manufacturing	10 9	-	9	1	3	1	3	2	-	3	1	-	-	2		2	1	5 1	-
33592	Other Communication and Energy Wire Manufacturing	11 56	- 0.1	11	-	5	2	1 10	2	-	-	-	1	-	9	-	2	-	-	-
33593	Current-Carrying Wiring Device Manufacturing Noncurrent-Carrying Wiring Device Manufacturing	30	0.1 0.1	56 29	1	20 14	6	3	3	2	1		1	-	19	10 5	15 7	4	1	4 1
	Carbon and Graphite Product Manufacturing All Other Miscellaneous Electrical Equipment and Component Manufacturing	50 117	0.1 0.2	49 115	1 2	11 82	7	13 13	12 6	2	1 2	3	1	1 1	16 76	6 18	24 9	7	3	4
- (Sub-Total NAICS 335	828	1.4	797	31	380	110	154	79	36	37	11	12	9	403	85	131	77	106	26

www.bpaww.com Cutting Tool Engineering / June 2018 4 www.bpaww.com Cutting Tool Engineering / June 2018 5

/						Corporate				Classification by	Title						Classification b	y Employee Size		
						Manager (Owner,	Engineering	Engineering	Production	Production										
						Chairman, President, VP, GM	Manager (Supervise	Department Personnel (Non-	Manager (Supervise	Department Personnel (Non-			Quality	Other Titles &						
Naics		Total	Percent			or other Corporate	Engineering	Supervisory	Production	Supervisory	Design, R&D	Purchasing	Assurance,	Non-Titled	4 . 40	=0.00				
336	Business and Industry Transportation Equipment Manufacturing	Qualified	of Total	Print	Digital	Manager)	Personnel)	Position)	Personnel)	Position)	Personnel	Personnel	Control Personne	I Personnel	1 to 49	50 to 99	100 to 249	250 to 499	500 and over	Undefined
336111	Automobile Manufacturing	234	0.4	231	3	99	22	52	21	12	13	8	3	4	101	9	11	16	90	7
	Light Truck and Utility Vehicle Manufacturing Heavy Duty Truck Manufacturing	17 64	0.1	17 62	- 2	5 28	2 10	3	4	1 3	2	- 1	- 1	- 1	9 28	-	2	1	23	1 3
336211	Motor Vehicle Body Manufacturing	283	0.5	279	4	192	17	25	25	8	4	7	3	2	174	38	31	12	20	8
336212	Truck Trailer Manufacturing Motor Home Manufacturing	185 26	0.3	184 25	1	122 16	13	11	23	4	1	3	5	3	113 15	16	29	5	11	11 1
336214	Travel Trailer and Camper Manufacturing	241	0.4	241	-	183	14	6	26	2	1	7	1	1	162	23	18	11	10	17
336310 336320		678 252	1.1 0.4	662 251	16	381	57 16	95 42	67 25	31 15	12	17	12	6	491 143	37	36 16	26 13	79 64	9
336330		93	0.1	91	2	131 24	18	32	11	3	3	1	1	-	23	3	12	18	37	11
336340	Motor Vehicle Brake System Manufacturing	149	0.2	146	3	46	24	47	13	10	1	2	5	1	36	17	32	13	44	7
336360	Motor Vehicle Transmission and Power Train Parts Manufacturing Motor Vehicle Seating and Interior Trim Manufacturing	497 41	0.8 0.1	486 41	- 11	184 14	68 5	146 9	41 7	2	3	10	- 15	5	190 15	3	48	36 7	189 12	12 2
336370	Motor Vehicle Metal Stamping	200	0.3	196	4	102	26	30	28	7	2	2	2	1	77	28	38	30	20	7
336390 336411		1,833 335	3.0 0.6	1,780 330	53 5	804 103	236 38	371 85	196 31	79 37	52 24	34 6	39 8	22 3	772 88	135 24	280 26	237 18	341 170	68 9
336412	Aircraft Engine and Engine Parts Manufacturing	497	0.8	485	12	126	97	160	35	32	19	6	15	7	110	38	91	66	185	7
336413 336414	Other Aircraft Parts and Auxiliary Equipment Manufacturing Guided Missile and Space Vehicle Manufacturing	1,492 81	2.5 0.1	1,460 81	32	547 20	186 11	303 23	219 12	117 6	35 4	30	40 4	15 1	592 19	206 3	327 1	129 3	203 46	35 9
336415	Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing	32	0.1	32	-	7	3	12	5	3	2	-	-	-	7	1	-	5	18	1
336419 336510	Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing Railroad Rolling Stock Manufacturing	27 160	0.3	27 159	- 1	5 60	4	4 31	7 28	5 13	1	- 2	- A	1	9 70	2 15	5 28	1 15	10 31	- 1
336611	Ship Building and Repairing	169	0.3	167	2	73	16	23	31	9	7	3	4	3	61	21	17	11	54	5
336612 336991	Boat Building Motorcycle, Bicycle, and Parts Manufacturing	375 283	0.6 0.5	370 275	5	276 174	25 20	19 34	29 26	12 13	5	5	3	1	253 206	26 13	38 12	15	16 30	27 15
336992	Military Armored Vehicle, Tank, and Tank Component Manufacturing	∠63 36	0.5	35	1	7	12	5	6	2	1	1	2	-	10	5	4	8	6	3
336999	All Other Transportation Equipment Manufacturing	37	0.1	37	-	25	4	3	3	1	-	1	-	-	26	2	-	-	8	1
337	Sub-Total NAICS 336 Furniture and Related Product Manufacturing	8,317	13.7	8,150	167	3,754	966	1,580	931	447	224	155	176	84	3,800	701	1,108	704	1,727	277
337110	Wood Kitchen Cabinet and Countertop Manufacturing	11	-	11	-	6	1	3	1	-	-	-	-	-	5	1	1	-	4	-
337121 337122	Upholstered Household Furniture Manufacturing Nonupholstered Wood Household Furniture Manufacturing	10 11	-	8 9	2	4 8	1	5 -	1	1	-	-	-	-	9	1	-	-	1 -	2
337124	Metal Household Furniture Manufacturing	6	-	5	1	5	1	-	-	-	-	-	-	-	4	-	1	-	-	1
337125 337127		8 36	0.1	8 34	- 2	23	3	3	- 3	1 3	1	- 2	- 1	-	1 17	- 3	1 11	1	5 1	- 1
337211	Wood Office Furniture Manufacturing	5	-	4	1	-	3	1	-	1	-	-	-	-	2	1	-	-	2	-
	Custom Architectural Woodwork and Millwork Manufacturing Office Furniture (except Wood) Manufacturing	4	-	4 14	- 1	1	2	- 2	1 2		- 1	- 1	- 1	-	- 3	4	- 1	-	- 7	1
337215	Showcase, Partition, Shelving, and Locker Manufacturing	25	0.1	22	3	16	3	3	-	2	-	-	-	1	11	5	1	3	3	2
337910	Mattress Manufacturing	2	-	2	-	1	-	1	- 1	-	-	-	-	-	- 2	- 4	1	-	1	-
337920	Blind and Shade Manufacturing Sub-Total NAICS 337	141	0.2	128	13	71	17	22	10	12	3	3	2	1	62	19	17	9	27	7
339	Miscellaneous Manufacturing				0	424	444	404	4.42	00	F0	40	25	45	440	400	470	404	470	40
339112	Surgical and Medical Instrument Manufacturing Surgical Appliance and Supplies Manufacturing	1,074 783	1.8 1.3	1,072 778	5	431 398	114 76	184 137	143 72	82 34	30	18	35 17	15 9	446 374	136 69	170 85	104 46	176 162	42 47
	Dental Equipment and Supplies Manufacturing	157	0.3	154	3	78	13	24	18	10	7	3	3	1	76	17	29	10	18	7
	Ophthalmic Goods Manufacturing Dental Laboratories	105 30	0.2	105 30	-	63 24	12	9	11 4	3	1	1	2	3	68 27	6	6	2	14 1	9
339910	Jewelry and Silverware Manufacturing	61	0.1	60	1	32	5	3	9	6	4	1	1	-	36	12	3	3	7	-
339920 339930	Sporting and Athletic Goods Manufacturing Doll, Toy, and Game Manufacturing	73 24	0.1	72 23	1	44 17	6	5	7	4	6	1	-	-	48 17	6	4	9	4	2
339940	Office Supplies (except Paper) Manufacturing	44	0.1	42	2	29	2	2	8	2	1	-	-	-	38	3	3	-	-	-
339950 339991		51 82	0.1 0.1	48 82	3	35 28	4	2 23	6	2	- 1	1 2	1 2	- 1	44 23	14	1	- 15	3 10	3
339992	Musical Instrument Manufacturing	25	-	24	1	13	4	3	3	2	-	-	-	-	18	1	2	-	1	3
339993 339994		11 10	-	11 10	-	9	1	- 1	-	1 2	-	-	-	-	7	1 3	- 2	2	1 2	-
339995		1	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-
339999	All Other Miscellaneous Manufacturing Sub-Total NAICS 339	44 2,575	0.1 4.2	44 2,556	- 10	29 1,237	3 258	3 398	5 296	2 154	1 103	1	- 61	30	35 1,260	2 275	4 327	193	2 402	1 118
	Other Manufacturing NAICS 313, 314, 316, 321, 322, 323, 324, 325, 326, 327	1,067	1.8	1,059	19	466	121	157	135	92	42	13	19	22	479	144	166	133	116	29
	Sub-Total Other Manufacturing	1,067	1.8	1,059	1 100	466	121	157	135	92	42	13	19	22	479	144	166	133	116	29
423	Sub-Total Manufacturing Wholesale Trade, Durable Goods	59,181	97.5	58,079 -	1,102	35,748	4,395	5,816	6,368	3,257	1,185	913	927	572 -	40,383	5,476	5,298	2,571	4,300	1,153
423830	Industrial Machinery and Equipment Wholesalers	210	0.3	203	7	126	7	14	-	5		3	1	54	145	12	19	17	17	-
423840	Industrial Supplies Wholesalers All Other Miscellaneous Durable Goods Merchant Wholesalers	110	0.2	110		57 -	1	9	-	1	1	-	1	33	87	-	11	1	4	-
	Sub-Total NAICS 423	320	0.5	313	.7	183	8	23		6	.1	10	2	87	232	19	30	18	21	
	Other Non-Manufacturing Industries Sub-Total Other Non-Manufacturing	1,188 1,188	2.0 2.0	1,169 1,169	19 19	850 850	84 84	77 77	59 59	31 31	42 42	9	12 12	24 24	1,046 1,046	42 42	34 34	19 19	42 42	5 5
	Sub-Total Non-Manufacturing	1,508	2.5	1,482	26	1,033	92	100	59	37	43	19	14	111	1,278	61	64	37	63	5
_	TOTAL QUALIFIED CIRCULATION	60,689	100.0	59,561	1,128	36,781	4,487	5,916	6,427	3,294	1,228	932	941	683	41,661	5,537	5,362	2,608	4,363	1,158

www.bpaww.com Cutting Tool Engineering / June 2018 6 www.bpaww.com Cutting Tool Engineering / June 2018 7