

Quality

M A G A Z I N E

IMPROVING YOUR MANUFACTURING PROCESS

TOP QUALITY

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Check out the results of this year's *Quality Leadership* 100 survey. **BY MICHELLE BANGERT**

It's award season. Of course, for those in the movie business, there's the Oscars at the end of the month, but for those in the quality profession, you can still earn some recognition in the pages of this magazine. From the *Quality Leadership* 100 to our Plant and Professional of the Year awards, the next three months feature some top companies and people.

The *Quality Leadership* 100 recognizes dozens of top-performing plants for their dedication to quality. This year the top five companies were: DCX-CHOL Enterprises Teletronics division, Manitowoc, Top Tool Co., Dependable Stamping Company Inc., and C. Thorrez Industries. These companies were all committed to quality, whether they were a staff of 35, or a location with 400 people.

If you're wondering how the results are tabulated, the analysis varies slightly from year to year. This year companies were evaluated on continuous improvement and internal quality programs in place; contribution of quality to profitability and shareholder value; average number of hours monthly that employees receive quality training; scrap and rework as a percentage of sales; warranty costs as a percentage of sales; and registration to various standards such as ISO 9001.

The BNP Media Market Research Department conducted the survey for *Quality*.



**DCX-CHOL ENTERPRISES
TELETRONICS DIVISION**
Los Angeles, CA
www.dcxchol.com

DCX-CHOL products can be found everywhere, from sea to space. The company makes interconnect products for military and aerospace applications, as well as medical, commercial aviation, and mass transportation. And as you would expect from these industries, the company takes quality seri-

ously. The DCX-CHOL Teletronics division is certified to AS9100 Rev.C and ISO 9001:2008, as well as ITAR registered.

According to the company website, "DCX-CHOL Enterprises will provide products and services that meet all requirements. We will assure customer satisfaction through continuous performance improvement. Our vision: to achieve and maintain a reputation for being a leading manufacturer of electrical, electronic and electro-mechanical interconnect systems, test sets and equipment. Our values: to pursue our work with integrity, excellence and continuous improvement."



MANITOWOC
Manitowoc, WI
www.manitowoc.com

Manitowoc was founded in 1902 as a shipbuilding company. Today, the company manufactures cranes and foodservice equipment, and has over 100 facilities in 24 countries. A company doesn't reach its 113th birthday without focusing on customers and now this focus on customer satisfaction has intensified in the past five years. According to Jim MacIntyre, vice president of global quality systems at Manitowoc, the entire staff is working on this mission. As MacIntyre says, "The biggest factor for a focus on quality in a business is leadership. The quality role in the company is to make sure that what the customer perceives as quality is built into our product designs and our manufacturing processes. How do you make sure this has been built in?"

"It's easier to say than do," he continues. "It's understanding that you don't have a single cost-benefit ratio. Essentially you have a star, providing the best safety, quality and reliability, performance, ease of use, and the ability to serve our customers when they need help, quickly and with the right answers. This results in helping our customers achieve their return on investment."

To get this ROI for customers, the company has used Lean and Six Sigma in its newly launched Manitowoc Operating System. MacIntyre says, "The secret to success is predicting good quality and delivering it. This is what we are engaged in today. We still have much to learn, and our leadership is right there helping with hands-on effort and focused commitment."

This approach has worked out well for the company. In 2013, the company introduced 52 new products, and had net sales of \$4 billion, according to Manitowoc's 2013 annual report. In addition, the sales per employee totaled \$302,100 for that year, the second highest level in the company's history.



TOP TOOL
Blaine, MN
www.toptool.com



that have received praise from both operators and customers. In addition, the company was also named a finalist in the 2014 Manufacturing Awards by Minnesota Business magazine.

Sales Manager Duane Kari says success at the company is a group effort. For other companies looking to improve, he suggested, "Put a plan in place, report the metrics and keep trying to improve it." He also says learning from others who have already been there—such as consultants—can be helpful. In addition, Top Tool makes managing risk a priority and does training at all levels of the company.

"We're excited about a lot of new projects in the works that have the potential to double our company, so there's a lot going on," Kari says. "We're excited about what's going to take place here at Top Tool tomorrow and in the future."

If you are a longtime reader of Quality Magazine, you might recognize the name Top Tool. Top Tool Co. consistently manages to appear on our Quality Leadership 100 list, and in 2013, the company also was Quality's Plant of

the Year. Since then the company has continued to improve. In the last year, the company started an apprenticeship program and recently purchased some new capital equipment, including multiple new stamping press innovations



DEPENDABLE STAMPING COMPANY

Euclid, OH
www.dependablestamping.com

in aerospace parts, so he understands the need for tight tolerances. To achieve these tolerances, the quality program relies on in-process inspections, which saves time during final inspections. “I’m of the mindset that if you have the time to fix the part after it’s done, why not fix it in the beginning?” Gasser says.

In addition, the company became ISO 9001:2008 certified in July, and has landed several new accounts because of that. “If you follow the ISO standards it’s definitely going to bring your quality way up,” Gasser says. He also tries to incorporate lean manufacturing into the company’s processes. Some of their work involves using tooling from customers that is up to 70 years old—older than the company itself—and this ability to do things that other companies can’t has helped them gain customers. But of course, the processes all depend on people, and to that end, Dependable Stamping has tried to keep employees motivated with reward programs and attendance bonuses. As he says, “I truly believe that somebody who feels good about what they’re doing does it 10 times better than somebody who doesn’t.”

Dependable Stamping Company, a family-owned business, has been around since 1946. Today the company manufactures parts for industries from aerospace to appliances, trucking to telecommunications. Curt Gasser, the quality manager, came to the company several years ago with almost twenty years of experience



C. THORREZ INDUSTRIES

Jackson, MI
www.thorrez.com

C. Thorrez Industries produces precision machined parts, and exports more than a third of what they produce to companies in Asia. Though the company had been exporting for five years on a consistent basis, President Mick Thorrez says the volume has grown substantially in the last two years, and sales basically doubled in that two year period. He attributes this to customers recognizing the quality of parts and the volumes available.

The company, which is registered to ISO/TS 16949 and ISO 14001, has been around since 1919. Thorrez is a third generation, and the company has fourth generation involved too. “We’re there six, seven days a week,” Thorrez says. “We’re all heading in the same direction. It takes a lot of hard work.”

Besides the hard work, another reason for their success has been the feedback given. The company shares the goals, profits from the day before, and sales



objectives. They have end of the month goals, as well as on a per-day basis. They will also give employees feedback on the activities of the day before. And the company then shares its success with employees, with bonuses and higher wages.

Today the company primarily serves the transportation industry, including both automotive and heavy-duty truck. But in the past, they have worked with

office furniture, appliances, and recreational camping products. During his grandfather’s reign, the company made bullets for World War II.

“It’s just an evolution,” Thorrez says. “You have to be flexible in finding new customers and solving the needs they have out there. I can’t wait to find our next new customers. There are new customers every time you look.”

Michelle Bangert is the managing editor of Quality. To see past Quality 100 rankings, visit www.qualitymag.com.

RANK	COMPANY	LOCATION	WEBSITE
1	DCX-CHOL Enterprizes, Teletronics	Los Angeles, CA	www.dcx-chol.com
2	Manitowoc	Cleveland, OH	www.manitowoc.com
3	Top Tool Co.	Blaine, MN	www.toptool.com
4	Dependable Stamping Company, Inc.	Euclid, OH	www.dependablestamping.com
5	C. Thorrez Industries	Jackson, MI	www.thorrez.com
6	Selco Products	Reno, NV	www.selcoproducts.com
7	Sea Air Space Machining & Molding	Solon, OH	www.seaairspace.com
8	Winona PVD	Warsaw, IN	www.winonapvd.com
9	Littlestown Foundry, Inc.	Littlestown, PA	www.littlestownfoundry.com
10	iCONN Systems	Lombard, IL	www.iconnsystems.com
11	Gooch and Housego	Highland Heights, OH	www.goochandhousego.com
12	Industrial Tool Die & Engineering	Tucson, AZ	www.itde.com
13	Abbott Laboratories	Abbott Park, IL	www.abbott.com
14	Metal Technologies, Inc.	Ravenna, MI	www.metalttechnologies.com
15	Plexus Corporation	Neenau, WI	www.plexus.com
16	Clinkenbeard, an M2M Group Company	Rockford, IL	www.clinkenbeard.com
17	Wireless Technology, Inc.	Ventura, CA	www.gotowti.com
18	Honeywell Aerospace	Tempe, AZ	www.honeywell.com
19	Ford Motor Company	Livonia, MI	www.fordmotorcompany.com
20	Alcon	Houston, TX	www.alcon.com
21	NASA AFRC	Edwards AFB, CA	
22	Philips PLS-NA	Fall River, MA	www.usa.lighting.philips.com
23	Twin City Fan Industies	Minneapolis, MN	www.tcf.com
24	Elixir Industries	Douglas, GA	www.elixirind.com
25	Applus RTD	Manchester, CT	www.applusrtd.com
26	Proven Process Medical Devices	Mansfield, MA	www.provenprocess.com
27	Columbia Precision Machine Corp.	Burnsville, MN	www.columbiapmc.com
28	Kreis Tool	Elgin, IL	www.kreis.com
29	Bosch Tool Corporation	Chicago, IL	www.boschtools.com
30	Med-Logics, Inc.	Athens, TX	www.mlogics.com
31	Capsonic Group, LLC	Elgin, IL	www.capsonic.com
32	Plas-Pak Industries, Inc.	Norwich, CT	www.plaspakinc.com
33	Machine Service, Inc.	Green Bay, WI	www.machineservice.com
34	Radoil, Inc.	Houston, TX	www.radoil.com
35	Hans Rudolph, Inc.	Shawnee, KS	www.rudolphkc.com
36	Tecnova Electronics, Inc.	Waukegan, IL	www.tecnova.com
37	Rockport Roll Shop, LLC	Rockport, IN	
38	Modern-Tec Manufacturing, Inc.	Buffalo, NY	www.moderncnc.com
39	Wenthe-Davidson Engineering Co.	Milwaukee, WI	www.wenthe-davidson.com
40	Amiad Water Systems	Mooreville, NC	www.amiad.com
41	Enzymatics, Inc.	Beverly, MA	www.enzymatics.com

RANK	COMPANY	LOCATION	WEBSITE
42	Wisconsin Metal Products	Racine, WI	www.wmpco.com
43	TEAM Industries	Cambridge, MN	www.team-ind.com
44	Applied Test Systems	Butler, PA	www.atspa.com
45	Giga-tronics Incorporated	San Ramon, CA	www.gigatronics.com
46	Securaplane Technologies	Oro Valley, AZ	www.securaplane.com
47	Herndon Products, Inc	O'Fallon, MO	www.herndonproducts.com
48	Attwood	Lowell, MI	www.attwoodmarine.com
49	Industries for the Blind, Inc.	West Allis, WI	www.ibmilw.com
50	dBMEDx	Bellevue, CO	www.dbmedx.com
51	Northrop Grumman	Ogden, UT	www.northropgrumman.com
52	Thibiant International	Chatsworth, CA	
53	CoorsTek	Worcester, MA	www.coorstek.com
54	Baker Hughes	Shafter, CA	www.bakerhughes.com
55	Alpha Products, Inc.	Chicago, IL	www.alphaproductsinc.com
56	Donnelly Custom Manufacturing	Alexandria, MN	www.donnmfg.com
57	Aero-K	El Monte, CA	www.aero-k.com
58	ENEngineering	Warrenville, IL	www.enengineering.com
59	Pratt & Whitney Canada	Wichita Falls, TX	www.pwc.ca
60	Triton Industries	Newport News, VA	www.triton.us.com
61	Linkbelt Construction Equipment Co.	Lexington, KY	www.linkbelt.com
62	USA ARDEC	Picatinny, NJ	www.pica.army.mil
63	Kaba	Winston Salem, NC	www.kaba.com
64	GMA Manufacturing	Tempe, AZ	
65	ALCOA	Cleveland, OH	www.alcoa.com
66	TD Williamson	Tulsa, OK	www.tdwilliamson.com
67	Parker Hannifin	Kings Mountain, NC	www.parker.com
68	Afco Products, Inc.	Des Plaines, IL	www.afco-products.com
69	Anoplate Corporation	Syracuse, NY	www.anoplate.com
70	ComDel Innovation	Wahpeton, ND	www.comdelinnovation.com
71	SigmaTron International, Inc.	Elk Grove Village, IL	www.sigmatronintl.com
72	TE Connectivity	Winston Salem, NC	www.te.com
73	Harper Corporation of America	Charlotte, NC	www.harperimage.com
74	Penn Union	Edinboro, PA	www.penn-union.com
75	Thule Group	Seymour, CT	www.thule.com
76	Klein Steel Service	Rochester, NY	www.kleinsteel.com
77	Piper Plastics, Inc.	Chandler, AZ	www.piperplastics.com
78	Cartel Industries, LLC	Irvine, CA	
79	Aerojet Rocketdyne	Sacramento, CA	www.rocket.com
80	Melet Plastics Corpotation	Fargo, ND	www.meletplastics.com
81	Kato Cable, LLC	Mankato, MN	www.katocable.com
82	MTD Products	Valley City, CA	www.mtdproducts.com

83	Viega, LLC	McPherson, KS	www.viega.com
84	Lockheed Martin Aeronautics	Fort Worth, TX	
85	HI TECMETAL Group	Cleveland, OH	www.htg.cc
86	Honeywell International	Minneapolis, MN	www.honeywell.com
87	National Machine Company	Stow, OH	www.nationalmachinecompany.com
88	Rolls-Royce	Indianapolis, IN	www.rolls-royce.com
89	Ward Manufacturing, LLC	Blossburg, PA	www.wardmfg.com
90	Markel Corporation	Plymouth Meeting, PA	www.markelcorporation.com
91	AxleTech International	Oshkosh, WI	www.axletech.com
92	PTR Tool & Plastics, LLC	Meadville, PA	www.ptrtoolandplastics.com
93	Greenfield Industries, Inc.	Seneca, SC	www.gfii.com
94	Dutek, Inc	Vista, CA	www.dutek.com
95	valspar	Chicago, IL	www.valspar.com
96	Harbor Steel and Supply Corporation	Muskegon, MI	www.harborsteel.com
97	Honeywell	Muncie, IN	www.honeywell.com
98	Rockwell Collins	Cedar Rapids, IA	www.rockwellcollins.com
99	GTE	Orlando, FL	www.gtefficiency.com
100	Fiat Chrysler Automotive	Auburn Hills, MI	www.chrysler.com

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