

# CONTROL

F O R T H E P R O C E S S I N D U S T R I E S

## LEADERS &

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## LAGGERS

Revenues for the North American process control market were mainly flat again in year 2000. But a flat line in this case doesn't mean the patient is dead, merely stable. Below the line, turmoil continues as suppliers consolidate. Indeed, the top four suppliers account for more than \$9 billion in combined revenues, or half of North America's estimated \$18.5 billion total.

Little revenue growth in the overall process controls market over the past several years has prompted individual companies to grow revenues by capturing market share from their competitors. In the past, this was achieved largely through merger and acquisition (M&A) activity initiated by the top tier suppliers. This past year, except for the failed GE-Honeywell merger, M&A activity seemed concentrated mainly among the second-tier suppliers as they vied for increased market share and

ultimate survival.

One notable example is Danaher Corp., which grew from \$128 million in control and instrumentation revenues in 1999 to more than \$1 billion in 2000. Through aggressive M&A activity, Danaher has structured a wide offering of instrumentation lines consisting primarily of measurement and analyzer units. The Danaher banner now encompasses such brands as Hach, Bruno, Lange, Anatel, Fluke, API, GEMS, Kistler-Morse, McCrometer, Kollmorgen, Pacific Scientific, and Warner Electric. While the company ranks sixth in terms of North American revenue, Danaher does not compete directly with core process control players such as Honeywell and Emerson.

Meanwhile, those core players continue to get bigger. This trend is being driven in no small part by consolidation among the process industry customer base, according to John Berra, executive vice president and business group leader for Emerson's Process Management unit.

"Only the largest players are likely to survive in markets where world-class

MAJOR VENDORS LINE UP FOR A PHOTO FINISH  
WHILE THE REST SHUFFLE RANKINGS IN THE RACE  
FOR THIS YEAR'S TOP 50



TABLE I.

## THE CONTROL TOP 50 SUPPLIERS OF PROCESS INSTRUMENTATION AND CONTROLS

Company <sup>1</sup>	2000 Process Control Revenue (\$ Millions)		Company <sup>1</sup>	2000 Process Control Revenue (\$ Millions)	
	North America <sup>2</sup>	Worldwide <sup>3</sup>		North America <sup>2</sup>	Worldwide <sup>3</sup>
1. Emerson Process Management	.2,591	.4,691	31. Berwind Industries	.36	.61
2. Invensys Manufacturing & Process Solutions	.2,277	.5,635	32. Magnetrol	.35	.55
3. Honeywell Industrial Automation & Control	.2,264	.4,000	33. Barton Instrument Systems	.30	.58
4. ABB	.2,202	.7,465	Opto 22	.30	.40
5. Siemens Energy & Automation	.1,054	.7,360	35. FMC	.28	.37
6. Danaher Corp.	.1,052	.1,546	Krohne America	.28	.325
7. Schneider Electric	.885	.3,565	Panametrics	.28	.87
8. Rockwell Automation	.655	.870	38. Thermo Electric	.27	.37
9. MKS Instruments	.380	.494	39. MTS	.26	.52
10. Spectris	.302	.635	40. Burkert	.25	.300
11. Dresser Industrial	.294	.553	Mettler-Toledo	.25	.60
12. ThermoElectron	.271	.371	Ohmart/Vega	.25	.114
13. Metso Automation	.232	.580	43. GLI Instruments	.24	.35
14. Omron	.218	.500	Schlumberger	.24	.50
15. National Instruments	.216	.410	45. OSI Software	.23	.34
16. Ametek	.176	.234	46. Fairchild Industrial Products	.22	.33
17. Flowserve	.152	.276	47. Ionics	.21	.29
18. Yokogawa Electric Corp.	.145	.2,900	Pepperl+Fuchs	.21	.151
19. Tyco	.140	.288	Richards Industries	.21	.24
20. Aspen Technology	.130	.226	50. Pyromation	.19	.20
21. Spirent	.112	.167			
22. Endress+Hauser	.95	.665			
23. Watlow Electric	.85	.101			
24. GE Fanuc Automation	.72	.109			
25. Bristol Babcock	.70	.105			
Roper Industries	.70	.164			
27. Transmation	.68	.74			
28. GSE Systems	.54	.60			
29. Pro-face America	.50	.70			
30. Crane Controls	.47	.55			

1. Although this ranking is based on 2000 revenues, to give the most accurate picture possible more recent acquisitions and divestitures are reflected in the company configurations and the parent company sales are adjusted accordingly.

2. Estimated revenues attributable to process control and instrumentation sales to end user companies within the process industries. Non-process-control and OEM revenues are excluded (see sidebar: "How the Rankings Were Determined").

3. Worldwide revenue figure reported is for the parent company.

### COMINGS & GOINGS

Each year, new companies arrive on the CONTROL Top 50 table while others slip off the list. Sometimes names change or familiar firms are acquired by others. Here are some notable changes from last year's Top 50:

- Fairey Group Plc, last year's No. 9 company, changed its name to Spectris Plc (No. 10) this past May. Spectris was the parent company of a group of instrumentation and control businesses acquired by Fairey last year, and the name had significant recognition in many global markets. The international instrumentation and electronic controls company, which includes Arcom Controls, Ircon, NDC Infrared Engineering, Red Lion Controls, and Servomex, remains headquartered in Surrey, England.
- Another British firm, Bowthorpe Plc (No. 31 last year) changed its name to Spirent Plc (No. 21) last year. It includes such familiar brand names as Kaye Instruments, Monitor Labs, and General Eastern.
- Xycom Automation (No. 30 last year) was acquired this past February by Pro-face America (No. 29), a Japanese firm that also recently bought Viewtronix, another Michigan-based industrial computer firm.

production efficiency is attainable only in huge plants with correspondingly huge capital costs," says Berra. "The impact of this consolidation fervor includes surplus capacity and downsized engineering staffs, sharply curtailed capital spending, squeezed MRO budgets, and shorter supplier lists with larger potential volumes leveraged to secure major price concessions."



None of this is particularly bullish for process control suppliers. Fewer large customers and proportionately smaller capital and maintenance/repair/operations (MRO) budgets mean increased competition for larger jobs with smaller margins. Thus, process control supplier consolidation is also proceeding as a reflection of its dwindling customer base. This is likewise creating a shift away from the purchase of

products to the purchase of solutions packages, which combine products, software, and services that provide tailored customer benefits. This all speaks to wider supplier involvement in project definition, specification, and design engineering functions.

Berra thus believes that the future of the process control industry involves mega-customers dealing with mega-suppliers. Specialty companies, generally with a narrow application or technology focus, will continue to surface and flourish, he feels. However, mid-sized companies with a broad product line but lacking the financial and total solutions resources will continue to disappear through acquisition.



Overall, U.S. demand for industrial controls is projected to grow at a modest 6% through 2005, according to the Freedonia Group, a Cleveland

## HOW THE RANKINGS WERE DETERMINED

The CONTROL Top 50 for 2000 fiscals reflects extensive efforts to gather sales figures of instrumentation and control equipment and services to the process industries.

CONTROL columnist and industry market analyst Terrence McMahon was responsible for collecting and analyzing the data. Assisting in the study were Indrek Grabbi, international trade specialist, U.S. Dept. of Commerce, Washington, D.C.; Larry O'Brien, senior analyst, Automation Research Corp., Dedham, Mass.; Stephen Walton, founder of Walton Associates strategic consulting, Menlo Park, Calif.; Cynthia Esher, president, Measurement, Control and Automation Assn., Williamsburg, Va.; and Kenneth Lacy, partner, Acquest International L.P., Philadelphia. These individuals analyzed the revenues of many private and public companies to arrive at the final figures.

Because rankings are based on revenues, one variable that must be taken into account is that some firms sell almost exclusively to the process industries, while others do not. Some companies went to great effort to provide only the sales figures of process instrumentation and controls to the process industries, as requested by CONTROL. Other companies were not able to break out these figures.

Total North American revenues for the Top 50 totaled more than \$16.7 billion. The Top 50 worldwide figure is more than \$45 billion. The top six companies each had North American revenues of more than \$1 billion. Their totals were \$11.4 billion in North American revenues and \$30.2 billion worldwide. The balance of the Top 50 companies totaled \$5.3 billion for North America and

\$14.9 billion worldwide. Last year, in comparison, the total North American and worldwide figures were \$15 billion and \$39 billion, respectively, and \$16 billion and \$46 billion in 1998.

Clearly, inclusion of drive and services revenues inflates the total revenue picture somewhat. In addition, companies may be reporting a broader scope of their other business revenues. Based on the Top 50 totals, it is estimated that overall North American revenues are about \$18.5 billion, and the worldwide total is approximately \$53 billion. These numbers are believed to be internally consistent, as the North American market is normally about 35% of the worldwide total—exactly where it is.

The CONTROL Top 50 distinguishes between the process control end user and the original equipment manufacturer (OEM) markets. For purposes of this survey, process control products include sensors, transmitters, analyzers, displays, controllers, control systems, packaged software, actuators-positioners, throttling valves, and related items. Also note that as in the past several years, the revenues from drives (but not motors) and software and services are included in the totals.

CONTROL defines the process industries using the North American Industrial Classification System (NAICS) from the U.S. Census Bureau, primarily codes 221 (utilities—power generation, water, and wastewater treatment) and manufacturing codes 311 (food), 312 (beverages and tobacco), 313 (textile mills), 322 (paper and pulp), 324 (petroleum), 325 (chemicals), 326 (plastics and rubber), 327 (nonmetallic mineral products), and 331 (primary metals).

**"As the information processing and communication capabilities of industrial controls become more sophisticated, demand for system integration services and industrial control software will rise at above-average rates."**

market research group. Continuing technological innovation in solid-state control products and rising demand for associated software and system integration services are expected to fuel modest increases. In addition, pressure on end-use industries to improve operational efficiency will provide opportunities. However, these factors will be offset somewhat by a slowing pace in new capital spending over this period and growing use of personal computers for control applications that currently use dedicated industrial controls.

The industrial controls business has become increasingly international in scope in the past decade, and direct investment in offshore manufacturing capacity by leading global control vendors is expected to continue for the foreseeable future. The U.S. is expected to remain a net importer of industrial controls, while Japan, Germany, and other Western European nations continue as the largest suppliers to the U.S. market.

Advanced controls are expected to have better growth prospects than conventional control devices, due to their superior performance and productivity enhancement capabilities. As the information processing and communication capabilities of industrial controls become more sophisticated, demand for system integration services and

industrial control software will rise at above-average rates.

Service industries, chemicals, and utilities are expected to be the fastest growing markets through 2005. Service industry demand will rise, as this sector continues to grow at a faster pace than the overall economy. Increases in chemical industry control sales will be led by the specialty chemicals segment, which includes the fast-growing pharmaceutical and electronic chemical industries. Utility demand will climb as producers step up their efforts to modernize and boost the efficiency of their operations in response to growing competition from alternative power producers. The best opportunities for industrial control producers through 2005 seem to be in the MRO market, as price pressures and slowing growth in durable goods shipments impact the original equipment manufacturing market. 

