

CONTROL

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2010 Control Readers' Choice Awards

Control Readers Report Their Solution Provider Preferences in More than 100 Process Automation Technology Categories

The 2010 Control Readers' Choice Awards, our 18th annual survey of brand preference among suppliers of process automation technologies, represent the collective opinion of more than 1,000 process automation professionals. Those surveyed include the print magazine's U.S.-centric readership as well as subscribers to our increasingly international digital media outlets anchored at our website ControlGlobal.com.

And while the results certainly still reflect a North American bias (more than 90% of respondents hail from the 50 United States), the increased participa-

tion of industry professionals from outside the U.S. buoyed the standings for more than a few European and Asian players.

As we first reported last year, we've now broken out control platform awards by discipline. These "Best in Control" rankings (Table I) represent end-user sentiment in each of five essential process control disciplines—continuous regulatory control, batch process automation, continuous sheet/web monitoring and control, safety/emergency shutdown and sequential logic control. Further, the top solution providers in

each of 10 process industry verticals are identified in Table II.

In addition to these system capabilities awards, our usual rankings in a wide range of instrumentation, software, control and infrastructure products are presented on the pages that follow. Our collective hats are off to all the solution providers that made this year's list. To be mentioned at all, each supplier has successfully demonstrated to a significant, loyal contingent of users that they provide the very best technology in their respective domains. And that's something to crow about!

Continuous Regulatory Control	Batch Process Automation	Continuous Sheet/Web Monitoring & Control
<ul style="list-style-type: none"> ★ Emerson Process Management 2. Honeywell Process Solutions 3. Rockwell Automation 4. Siemens Industry 5. Yokogawa 6. Invensys Operations Management 7. ABB 8. Schneider Electric 	<ul style="list-style-type: none"> ★ Emerson Process Management 2. Rockwell Automation 3. Siemens Industry 4. Honeywell Process Solutions 5. Invensys Operations Management 6. ABB 7. Yokogawa 8. GE Intelligent Platforms 	<ul style="list-style-type: none"> ★ Honeywell Process Solutions 2. ABB 3. Rockwell Automation 4. Emerson Process Management 5. Siemens Industry 6. Invensys Operations Management 7. Yokogawa 8. Metso Automation
Safety/Emergency Shutdown	Sequential Logic Control	
<ul style="list-style-type: none"> ★ Invensys Process Systems (Triconex) 2. Rockwell Automation (ICS Triplex) 3. Emerson Process Management 4. Siemens Industry 5. Honeywell Process Solutions 6. HIMA 7. Yokogawa 8. Pilz International 	<ul style="list-style-type: none"> ★ Rockwell Automation 2. Siemens Industry 3. Emerson Process Management 4. Schneider Electric 5. GE Intelligent Platforms 6. Honeywell Process Solutions 7. ABB 8. Yokogawa 	

Table I. "Best in Control" Readers Choice Awards by Process Automation Discipline

	Chemicals Manufacturing	Electric Power Generation	Food & Beverage Manufacturing	Metals, Minerals & Mining	Oil & Gas Extraction
Continuous Regulatory Control	Emerson Process Management	Emerson Process Management	Rockwell Automation	Rockwell Automation	Emerson Process Management
Batch Process Automation	Emerson Process Management	Rockwell Automation	Rockwell Automation	Rockwell Automation	Rockwell Automation
Continuous Sheet/Web Monitoring & Control	Honeywell Process Solutions	-	-	Rockwell Automation	-
Safety/Emergency Shutdown	Invensys Operations Management	Rockwell Automation	Rockwell Automation	Rockwell Automation	Invensys Operations Management
Sequential Logic Control	Rockwell Automation	Rockwell Automation	Rockwell Automation	Rockwell Automation	Rockwell Automation

Table II. "Best in Control" Readers Choice Awards by Process Automation Discipline and Industry

The top technology providers in more than 100 categories



	Petroleum Refining	Pharmaceuticals & Life Sciences	Plastics & Rubber Manufacturing	Pulp & Paper Manufacturing	Water & Wastewater Processing
Continuous Regulatory Control	Honeywell Process Solutions	Emerson Process Management	Emerson Process Management	Emerson Process Management	Rockwell Automation
Batch Process Automation	Honeywell Process Solutions	Emerson Process Management	Emerson Process Management	Rockwell Automation	Rockwell Automation
Continuous Sheet/Web Monitoring & Control	-	-	Honeywell	ABB	-
Safety/Emergency Shutdown	Invensys Operations Management	Rockwell Automation	Rockwell Automation	Invensys Operations Management	Rockwell Automation
Sequential Logic Control	Rockwell Automation	Rockwell Automation	Rockwell Automation	Rockwell Automation	Rockwell Automation

Table II. "Best in Control" Readers Choice Awards by Process Automation Discipline and Industry

The 'Suite' Spot in Software

Closely complementing our Readers Choice Awards across the range of essential process automation disciplines are the Readers Choice Awards for specific software competencies.

High rank in most of these categories goes to the integrated platform players such as Emerson, Invensys and Rockwell. Through a combination of in-house development and acquisition, each of these companies has developed a broad competency in the core process automation software categories.

But in the spirit of entrepreneurship so central to innova-

tion in the software space, a number of smaller, specialty software publishers also scored well, notably ExperTune and ControlSoft in the Loop-Tuning Software category, Matrikon and TiPS in Alarm Management Software and Mynah Technologies in Simulation Software.

New to the Readers Choice Awards this year is the category of OPC Connectivity Software. Matrikon took top honors in the category, followed by Kepware Technologies, Rockwell Automation and Software Toolbox.

Advanced Process Control Software

- ★ Emerson Process Management
- 2. Rockwell Automation (Pavilion)
- 3. Honeywell Process Solutions
- 4. Aspen Technologies
- 5. ABB
- 6. Yokogawa
- 7. Invensys Operations Management

Calibration Management Software

- ★ Emerson Process Management
- 2. Beamex
- 3. Honeywell Process Solutions
- 4. Fluke
- 5. Blue Mountain

Loop-Tuning Software

- ★ Emerson Process Management
- 2. ExperTune
- 3. ControlSoft
- 4. Honeywell Process Solutions
- 5. Rockwell Automation

PLC Programming Software

- ★ Rockwell Automation
- 2. Siemens
- 3. GE Fanuc
- 4. ABB
- 5. Schneider Electric
- 6. AutomationDirect.com

Alarm Management Software

- ★ Emerson Process Management
- 2. Honeywell Process Solutions
- 3. Matrikon
- 4. TiPS
- 5. ABB
- 6. Rockwell Automation
- 7. Invensys Operations Management

Design/Documentation Software

- ★ Autodesk
- 2. Intergraph
- 3. Rockwell Automation
- 4. Bentley

Neural Network Software

- ★ Emerson Process Management
- 2. Rockwell Automation (Pavilion)
- 3. Honeywell Process Solutions

SCADA Software

- ★ Invensys Operations Management
- 2. GE Intelligent Platforms
- 3. Rockwell Automation
- 4. Siemens Industry
- 5. Iconics
- 6. Schneider Electric (Citect)

Asset Management Software

- ★ Emerson Process Management
- 2. Rockwell Automation
- 3. Honeywell Process Solutions
- 4. SAP
- 5. Invensys Operations Management (Avantis)

Human-Machine Interface Software

- ★ Rockwell Automation
- 2. Invensys Operations Management
- 3. GE Intelligent Platforms
- 4. Siemens Industry
- 5. Emerson Process Management
- 6. Honeywell Process Solutions
- 7. ABB

OPC Connectivity

- ★ Matrikon
- 2. Kepware Technologies
- 3. Rockwell Automation
- 4. Software Toolbox

Simulation Software

- ★ Invensys Operations Management
- 2. Rockwell Automation
- 3. Mynah Technologies
- 4. Honeywell Process Solutions
- 5. Emerson Process Management
- 6. Aspen Technologies

Where Operator Meets Automation

Core competency in process control disciplines—and their software implementation—are well and good, but other control room technologies are needed to effectively communicate process conditions with human operators, and to ensure accurate data is acquired and that control is maintained. For this group of Readers Choice Awards winners, it's acknowledged expertise in hardware design and manufacturing that typically carries the day.

Ametek's Panalarm division specializes in Annuncia-

tors—all day long—and is once again recognized as the long-time leader in that alarm display technology niche. Top honors for most of the other major control room visualization components, including Panel Displays, Operator Interface Terminals and Industrial Computers, went to Rockwell Automation. But a broad range of other visualization specialists were also voted among the best. And in the panel instrumentation categories of Loop Controller and Recorder, Siemens and Yokogawa took top honors.

Annunciator

- ★ Ametek Panalarm
- 2. Rockwell Automation
- 3. Ronan Engineering
- 4. Siemens Industry
- 5. Honeywell Process Solutions

Industrial Computer

- ★ Rockwell Automation
- 2. Advantech
- 3. Siemens Industry
- 4. Beckhoff Automation
- 5. Panasonic
- 6. B&R

Operator Interface Terminal

- ★ Rockwell Automation
- 2. Siemens Industry
- 3. Red Lion Controls
- 4. Emerson Process Management
- 5. ABB
- 6. Pro-face
- 7. Honeywell Process Solutions
- 8. Maple Systems

Panel Display

- ★ Rockwell Automation
- 2. Red Lion Controls
- 3. Siemens Industry
- 4. Pro-face

Process Loop Controller

- ★ Siemens Industry
- 2. Honeywell Process Solutions
- 3. Invensys Operations Management
- 4. Yokogawa
- 5. Rockwell Automation
- 6. ABB
- 7. Emerson Process Management

Recorder

- ★ Yokogawa
- 2. Honeywell Process Solutions
- 3. ABB
- 4. Endress + Hauser
- 5. Invensys Operations Management

Tying it All Together

While field devices and controllers perform the essential actions of the process control loop, an extensive communications infrastructure is needed to ensure that process data is reliably and seamlessly communicated throughout the modern process control system. This next group of Readers Choice Awards recognizes those essential infrastructure players—from wire to wireless, and from terminal blocks to power supplies—who make sure measurement A gets to controller B and back to valve C.

Indeed, despite all the latest advances in wireless communication, the bulk of signal transmission in today's process plants still relies on good old-fashioned wire and cable to get messages from one place to another. And for the readers of *Control*, Belden rates as the Wire & Cable maker of choice. Anixter and Lapp also rate highly.

That wire, of course, needs to ultimately connect with the host control system, and Rockwell Automation this year

claims the preferred position among an otherwise predominantly European array of Terminal Block manufacturers, including Phoenix Contact, Weidmuller, Wago, ABB (including the former Entelec brand) and Schneider. In the burgeoning field of Wireless Infrastructure, three of the leading automation platforms providers—Emerson, Honeywell and Invensys—get the nod, as do wireless networking and communication specialists Cisco and Moxa.

The analog-to-digital conversion, conditioning, powering and intrinsic safety protection of instrumentation loops also are essential communication functions. For the purposes of our Readers Choice survey, these functions are characterized by the technology arenas of I/O Systems, Signal Conditioners, Power Supplies and Intrinsic Safety. The top spots in these categories went to Rockwell for I/O Systems, Moore Industries for Signal Conditioning, SolaHD for Power Supplies, and Pepperl+Fuchs for Intrinsic Safety.

Input/Output System

- ★ Rockwell Automation
- 2. ABB
- 3. Siemens Industry
- 4. Emerson Process Management
- 5. Opto 22
- 6. Yokogawa
- 7. Honeywell Process Solutions
- 8. GE Intelligent Platforms

Intrinsic Safety

- ★ Pepperl + Fuchs
- 2. MTL
- 3. R. Stahl
- 4. Rockwell Automation
- 5. Pilz
- 6. Phoenix Contact
- 7. Banner Engineering

Power Supply

- ★ SolaHD
- 2. Phoenix Contact
- 3. Acopian
- 4. Puls
- 5. Siemens Industry
- 6. Rockwell Automation
- 7. Schneider Electric
- 8. TDK-Lambda

Signal Conditioner

- ★ Moore Industries
- 2. Phoenix Contact
- 3. MTL
- 4. Invensys Operations Management
- 5. Acromag
- 6. Pepperl + Fuchs
- 7. ABB

Terminal Block

- ★ Rockwell Automation
- 2. Phoenix Contact
- 3. Weidmuller
- 4. Wago
- 5. ABB
- 6. Schneider Electric

Wire & Cable

- ★ Belden
- 2. Anixter
- 3. Lapp
- 4. General Cable
- 5. Kerpen
- 6. Okonite
- 7. AlphaWire

Wireless Infrastructure

- ★ Emerson Process Management
- 2. Honeywell Process Solutions
- 3. Cisco
- 4. Invensys Operations Management
- 5. Moxa

A Level Playing Field

Similar to the rich landscape of providers in the flow instrumentation field, the level measurement marketplace is home to a broad variety of technologies and suppliers. Here, Emerson Process Management once again assembles a critical mass of competence, faring well in most of the mainstream technologies, and winning outright in five out of 12 level instrumentation categories.

But level measurement excellence also belongs to a num-

ber of independent specialists. Notable among them in this year's Readers Choice Awards are Endress+Hauser, which took top honors in Ultrasonic gauges as well as Switches based on Electrical Property and Vibration principles. Other winners of note include K-TEK for Magnetostrictive and Laser-based level instrumentation and Ohmart/VEGA for Nuclear. Magnetrol's Magnetic Level Indicators also were judged best in class.

Level Gauge, Electrical Property-Based

- ★ Emerson Process Management
- 2. Endress + Hauser
- 3. Ametek Drexelbrook
- 4. Siemens Industry
- 5. Magnetrol
- 6. ABB

Level Gauge, Float/Displacer

- ★ Emerson Process Management
- 2. Magnetrol
- 3. Omega Engineering
- 4. K-TEK
- 5. MTS

Level Gauge, Contacting Radar

- ★ Emerson Process Management
- 2. Endress + Hauser
- 3. Magnetrol
- 4. Ohmart/VEGA
- 5. Krohne
- 6. K-TEK

Level Gauge, Non-Contacting Radar

- ★ Emerson Process Management
- 2. Ohmart/Vega
- 3. Endress + Hauser
- 4. Krohne
- 5. Magnetrol
- 6. Honeywell Enraf
- 7. Siemens Industry

Level Gauge, Inventory Grade

- ★ Emerson Process Management
- 2. Honeywell Enraf
- 3. Endress + Hauser

Level Gauge, Laser

- ★ K-TEK
- 2. Keyence
- 3. ifm Efector

Level Gauge, Magnetostrictive

- ★ K-TEK
- 2. Magnetrol
- 3. ISE-MagTech
- 4. MTS

Level Gauge, Nuclear

- ★ Ohmart Vega
- 2. Thermo Scientific
- 3. Berthold Technologies
- 4. Endress + Hauser
- 5. Ronan Engineering

Level Gauge, Ultrasonic

- ★ Endress + Hauser
- 2. Siemens Industry
- 3. Emerson Process Management
- 4. Magnetrol
- 5. Ohmart/VEGA

Level Switch, Electrical Property-Based

- ★ Endress + Hauser
- 2. Emerson Process Management
- 3. Magnetrol
- 4. Ametek Drexelbrook
- 5. Ohmart/VEGA
- 6. K-TEK

Level Switch, Vibration

- ★ Endress + Hauser
- 2. Emerson Process Management
- 3. Ohmart/VEGA
- 4. Krohne
- 5. Magnetrol

Magnetic Level Indicator

- ★ Magnetrol
- 2. K-TEK
- 3. ISE-Magtech

Poise Under Pressure (and Temperature, too)

Back to the days of the original Rosemount 1151, the pressure transmitter is in many ways the foundation from which Emerson Process Management built or assembled market leadership position in a broad range of field instrument technologies. Temperature sensors and transmitters are no exception, and only the arena of Infrared Sensors has re-

mained beyond its scope. Independent temperature sensor specialists Omega Engineering, Pyromation and Thermo Electric also made the honor roll.

In the infrared arena, Raytek (part of Fluke, which in turn is part of Danaher) takes the top spot in Infrared Sensors and multi-dimensional Infrared Imaging/Thermography.

Pressure Transmitter

- ★ Emerson Process Management
- 2. Yokogawa
- 3. Honeywell Process Solutions
- 4. Endress + Hauser
- 5. Siemens Industry
- 6. Invensys Operations Management
- 7. ABB

Resistance Temperature Detector

- ★ Emerson Process Management
- 2. Omega Engineering
- 3. Pyromation
- 4. Thermo Electric

Thermocouple

- ★ Emerson Process Management
- 2. Omega Engineering
- 3. Pyromation
- 4. Thermo Electric

Temperature Transmitter

- ★ Emerson Process Management
- 2. Yokogawa
- 3. Honeywell Process Solutions
- 4. Endress + Hauser
- 5. ABB
- 6. Invensys Operations Management
- 7. Siemens Industry

Infrared Temperature Sensor

- ★ Raytek/Ircon

Infrared Imaging/Thermography

- ★ Raytek/Ircon
- 2. FLIR Systems

The Laboratory Brought Online

Typically a step in complexity beyond the measurement of primary physical variables, such as temperature, pressure, flow or level, is the realm of process analysis.

Here, as in other field instrument categories, Emerson Process Management has established a leadership position in key analytical instrumentation technologies, including Concentration/Density measurement, pH/ORP/Conductivity analysis, Process Spectrometry, and Stack Gas/Emissions analysis. The other leading automation platform providers are well represented in process analysis, including Siemens

(which carried the day in Process Chromatography), ABB, Invensys and Yokogawa. Other more specialized analytical players ranking well in this year's Readers Choice Awards include Ametek, Endress+Hauser and Thermo Scientific.

In the yet-more specialized category of Humidity and Moisture analysis, GE Sensing was voted number one by our readers on the strength of its Panametrics brand. Finally, another important technology category closely aligned with process analysis is for those devices used to detect toxic or combustible gas in ambient air. Here, MSA won top honors.

Ambient Gas Analyzer

- ★ MSA
- 2. Dräger

Density/Concentration Analyzer

- ★ Emerson Process Management
- 2. Endress + Hauser
- 3. Yokogawa
- 4. Thermo Scientific
- 4. Anton Paar

Humidity/Moisture Analyzer

- ★ GE Sensing (Panametrics)
- 2. Vaisala
- 3. Omega Engineering
- 4. Ametek

pH/ORP/Conductivity Analyzer

- ★ Emerson Process Management
- 2. Endress + Hauser
- 3. Yokogawa
- 4. Hach
- 5. Invensys Operations Management
- 6. ABB
- 7. Mettler Toledo

Process Chromatograph

- ★ Siemens Industry
- 2. ABB
- 3. Emerson Process Management
- 4. Yokogawa

Process Spectrometer

- ★ Emerson Process Management
- 2. ABB
- 3. Thermo Scientific

Stack Gas/Emissions Analyzer

- ★ Emerson Process Management
- 2. Yokogawa
- 3. Siemens Industry
- 4. ABB
- 5. Thermo Scientific
- 6. Sick
- 7. Ametek Thermox
- 8. Servomex

The Flow Measurement Honor Roll

Accurately measuring process flows is difficult—and perhaps that's why so many flow measurement companies have sprung up over the years, each exploiting a new physical phenomena to tame this historically problematic process measurement. Indeed, many novel flow measurement technologies have been co-opted (or their creators acquired) by the major instrumentation companies, although a few notable niche players remain independent.

Emerson Process Management strengthens its already dominant flow measurement position in our Readers' Choice Awards this year, complementing its win in Pressure

Transmitters (used with orifice plates and other primary elements to measure flow) with top awards in the key categories of Coriolis, Magnetic, Positive Displacement, Open Channel, Turbine, Ultrasonic and Vortex flowmeter technology.

Process measurement specialists Endress+Hauser and Krohne also fare well across a broad range of flow measurement technologies, as do the other automation platform providers including Yokogawa, ABB, Siemens and Invensys (on the strength of its Foxboro brand). Niche specialist FCI (Fluid Components International) garners the top spot for both its Thermal Flowmeters and Flow Switches.

Coriolis Flowmeter

- ★ Emerson Process Management
- 2. Endress + Hauser
- 3. Krohne
- 4. Yokogawa
- 5. Invensys Operations Management
- 6. Siemens Industry
- 7. ABB
- 8. Honeywell Process Solutions

Magnetic Flowmeter

- ★ Emerson Process Management
- 2. Yokogawa
- 3. Endress + Hauser
- 4. Krohne
- 5. Invensys Operations Management
- 6. ABB
- 7. Siemens Industry
- 8. Honeywell Process Solutions

Open Channel Flowmeter

- ★ Emerson Process Management
- 2. Siemens Industry (Milltronics)
- 3. Endress + Hauser
- 4. Hach Flow
- 5. Ametek Drexelbrook

Positive Displacement Flowmeter

- ★ Brooks Instrument
- 2. Emerson Process Management
- 3. A.O. Smith
- 4. Badger Meter
- 5. Itron

Thermal Mass Flowmeter

- ★ FCI
- 2. Brooks Instrument
- 3. Sierra Instrument
- 4. Kurz Instruments
- 5. Endress + Hauser
- 6. Bronkhorst

Turbine Flowmeter

- ★ Emerson Process Management
- 2. Hoffer Flow Controls
- 3. Brooks Instrument
- 4. Elster-Instromet

Ultrasonic Flowmeter

- ★ Emerson Process Management
- 2. Endress + Hauser
- 3. Siemens Industry
- 4. GE Sensing
- 5. Krohne

Variable Area Flowmeter

- ★ Brooks Instrument
- 2. Krohne
- 3. ABB
- 4. Yokogawa

Vortex Flowmeter

- ★ Emerson Process Management
- 2. Yokogawa
- 3. Endress + Hauser
- 4. Invensys Operations Management
- 5. ABB

Flow Switch

- ★ FCI
- 2. Emerson Process Management
- 3. Endress + Hauser
- 4. Magnetrol
- 5. Ohmart/VEGA
- 6. Sierra Instruments

2010 Control Readers' Choice Awards

Of Valves and VSDs

The crucial last link in any automated process control loop is of course the final control element. Measurements can be taken and control decisions made—but all unravels if those decisions are not effectively and reliably translated into final action. Primary among the process industries means of affecting process control are the position of a valve or the direction and speed of an electric motor.

For the Control Valve itself, top spot in this year's Readers' Choice Awards goes to Emerson Process Management, primarily on the strength of its Fisher brand.

Runners up Flowserve, Dresser Masonellan, Samson Controls and Metso Automation were often mentioned as well. In the category of Pneumatic Actuator, Emerson also carries the day, but cedes Electric Actuator to Rotork Controls.

In the category of Variable-Speed Motor Drive, Rockwell Automation was ranked most highly in this year's Readers Choice Awards polling, with global players ABB, Siemens, Yaskawa, GE, Danfoss and Schneider rounding out the top spots.

Control Valve

- ★ Emerson Process Management
- 2. Flowserve
- 3. Dresser Masonellan
- 4. Samson Controls
- 5. Metso Automation

Electric Valve Actuator

- ★ Rotork Controls
- 2. Emerson Process Management
- 3. Beck
- 4. Limitorque
- 5. Auma
- 6. Metso Automation

Pneumatic Valve Actuator

- ★ Emerson Process Management
- 2. Flowserve
- 3. Dresser Masonellan

On/Off Valve

- ★ Emerson Process Management
- 2. Metso Automation
- 3. Tyco Flow Control

Variable-Speed Motor Drive

- ★ Rockwell Automation
- 2. ABB
- 3. Siemens Industry
- 4. Yaskawa
- 5. GE
- 6. Danfoss
- 7. Schneider Electric

2010 Control Readers' Choice Awards

Outstanding in Their Field

Last but certainly not least, this final group of Readers' Choice Awards includes a supporting cast of essential field instrumentation technologies that play a critical role in process automation but don't belong to another logical group discussed thus far.

First off, the words "Data Acquisition" may mean many things to many different people, but in this year's poll the

DAQ System award once again goes to National Instruments. The Enclosure award goes to perennial favorite Hoffman Engineering, with preferred enclosure Purge System award to Pepperl+Fuchs by virtue of its Bebeco acquisition. And the preferred choice of what to put inside those boxes? The nod for Remote Terminal Unit goes to Rockwell Automation.

Data Acquisition System

- ★ National Instruments
- 2. Emerson Process Management
- 3. Rockwell Automation
- 4. OSIsoft
- 5. Invensys Operations Management
- 6. ABB
- 7. Yokogawa
- 8. GE Intelligent Platforms

Enclosure

- ★ Hoffman Engineering
- 2. Rittal
- 3. Saginaw Control & Engineering
- 4. Hammond Manufacturing

Purge System

- ★ Pepperl+Fuchs Bebeco

Portable Calibrator

- ★ Fluke
- 2. Emerson Process Management
- 3. GE Sensing (Druck)
- 4. Beamex
- 5. Altek
- 6. Martel/Beta
- 7. Meriam Process Technologies

Remote Terminal Unit

- ★ Rockwell Automation
- 2. Emerson Process Management
- 3. Control Microsystems
- 4. ABB

Instrument Fittings

- ★ Swagelok
- 2. Parker-Hannifin
- 3. Hoke

Vibration Instrumentation

- ★ GE Energy
- 2. Emerson Process Management

Weighing System/Load Cell

- ★ Mettler Toledo
- 2. Vishay BLH
- 3. Hardy Instruments
- 4. Rice Lake Weighing Systems
- 5. K Tron Process Group
- 6. Thermo Scientific (Ramsey)