

Valve Magazine - Index of Articles (2003-2010)

YEAR	ISSUE	PAGE	TYPE OF EDITORIAL	ARTICLE	AUTHOR/S	COMPANY	SUMMARY
2003	1-WIN	10	Feature	Intelligent Electric Valve Actuators: End User Benefits	Carl Johnson	Rotork	By fully utilizing the capabilities of today's intelligent valve actuators, users can improve the efficiency of their valve maintenance program, significantly increase the productivity of facility personnel, and enhance valve-related safety and security.
2003	1-WIN	18	Feature	Purchasing Duplex Stainless Steel Castings: Beyond Specifications	Dr. R.D. Warda, PhD.	Highland Foundry	Duplex and superduplex stainless steels offer the corrosion resistant alloy industry a unique, added-value combination of corrosion resistance, excellent mechanical properties, and cost reduction.
2003	1-WIN	24	Feature	Gas Transmission Valves, How Do You Choose?	Barrett Niehus	CCI	By understanding and defining the optimal performance characteristics of the valve early in the design process, the engineer can optimize his choice of vendors and minimize the time required to specify equipment.
2003	1-WIN	30	Feature	Control Valve Selection for Chemical Service	Dale Stepanek	DFT	The next time you are facing technical overload and buried in a sea of control valve catalogs, try the "size/cost" method using your favorite brand of universal platform.
2003	1-WIN	36	Feature	A Primer on Selecting & Sizing of Safety Valves	Stephen Gow	Spirax Sarco	An overview of the many different factors to be considered when choosing safety valves.
2003	2-SPR	10	Feature	Advanced Packing Technology Minimizes, Improves Performance of Knife Gate Valves	Al Libke	DeZURIK	The brute-force ruggedness and affordability of the knife gate design combined with the packing performance of much costlier valves can only mean broader horizons for this workhorse valve.
2003	2-SPR	20	Feature	The Future of the Offset Butterfly Valves	John Furness	Curtiss-Wright Flow Control	After years of development and testing, the butterfly valve of today is now a precision engineered product capable of being used effectively in a wide range of applications that were previously only considered suitable for gate, globe or ball valves—and at a fraction of their cost.
2003	2-SPR	28	Feature	Guidelines for Selecting the Proper Valve Characteristic	Michael C. Headley	Emerson-Fisher	Need to decide what valve characteristic to use? This article makes recommendations for the four basic process controlling variables: liquid level, pressure, flow, and temperature.
2003	3-SUM	10	Feature	Made in the USA?	Doug Clendenin	Crane	Determining the country of origin of a particular product can lead you on a long and convoluted path. Here, a global valve manufacturer talks about what's really important when it comes to determining a valve's origin.
2003	3-SUM	18	Feature	Preventive Maintenance on Automated Valves	Chris Warnett	Rotork	Like to take full advantage of the benefits and capabilities of today's actuators and software, but don't have the time or expertise to spend on maintaining these complex products? If so, consider having the equipment's manufacturer handle your maintenance program.
2003	3-SUM	26	Feature	The Enemy Within: Critical Operating Conditions in Control Valves	Ralph Herbrich, Ph. D.	Samson AG	To avoid problems with the control valve process, the best strategy is to tailor the valve to the specific application. If unexpected problems such as cavitation and flow limitation occur, consider installing special throttling elements in standard valve bodies.
2003	3-SUM	30	Feature	The Control Valve's Hidden Impact on the Bottom Line (Part 1)	Bill Fitzgerald and Charles Linden	Emerson-Fisher	Control valves can affect your bottom line in ways you may never have considered. In the first of a two-part article, the authors discuss control valve performance issues.
2003	4-FALL	12	Feature	Valves and the CPI: Helping Each Other Survive	Pamela N. Valenzuela	ASCENT Management LLC	In today's challenging economic environment, solid partnerships between valve makers and CPI users have never been more critical.
2003	4-FALL	18	Feature	The Control Valve's Hidden Impact on the Bottom Line (Part 2)	Bill Fitzgerald & Charles Linden	Emerson-Fisher	The authors describe recommended maintenance practices and present several case studies to demonstrate how control valves operating at less-than-optimum conditions could be costing your plant money.
2003	4-FALL	24	Feature	Finally...A True Electric Fail-Safe Spring Return Actuator	Gregg Alvarado	Bernard Controls	Thanks to advancements in technology and engineering design, today's electric fail-safe actuators are available for a wider range of critical applications.
2003	4-FALL	30	Feature	Inside the Box	Charles Marcum	TopWorx	To learn what makes a "smart" valve, take a look at the discrete valve controller, the device used to control and monitor automated valves.
2004	1-WIN	10	Feature	The Nuclear Power Market: A Whole New World	Steve Pauly	Curtiss Wright-Target Rock	A valve manufacturer provides insight into some of the critical issues affecting today's nuclear power industry.
2004	1-WIN	16	Feature	Intelligent Maintenance	Robert J. Miller	Flowserve	Asset management and maintenance outsourcing reduce MRO costs and increase ROA.
2004	1-WIN	20	Feature	Fluoropolymer Selection for Corrosive Applications	Dan Ellis	ITT	The correct decision on what fluoropolymer material to use for corrosive applications begins with understanding all the parameters.
2004	1-WIN	24	Feature	Choosing Valves for Isolation: The Case for Ball Valves	Alexander Lucitti	Spirax Sarco	The economical ball valve is an excellent choice for use with a variety of different media and applications.
2004	1-WIN	28	Feature	A Study of Steam Trap Technologies	Joe Carlone	Circor	Failing steam traps can damage equipment and potentially lead to more serious situations, so it is critical to know their technologies and applications.
2004	1-WIN	36	Feature	The Value of the Valve Industry Standards	Jim Barker	SPX	The effects of globalization and consolidation in the valve marketplace have made industry standards and related issues more important than ever before.
2004	2-SPR	10	Feature	A Clear Choice for Clean Water	Al Libke	DeZURIK	Whether buried, submerged, or in-plant, the rugged AWWA butterfly valve is hard to beat when it comes to the processing and distribution of fresh water.
2004	2-SPR	20	Feature	Perspectives on Safety	Brooke Stoddard	freelance	A look at the varied aspects of safety and security in the many worlds in which valves and actuators find themselves.
2004	2-SPR	24	Feature	Zen and the Art of Valve Maintenance	Kirk A. Kleinschmidt	freelance	To gain insight into an alternative, profit-oriented approach to plant maintenance, we spoke with Steve Holmes of UPM's Blandin paper mill in Grand Rapids, MN.
2004	2-SPR	28	Feature	The Current State of Valve Testing	Dexter Reed	Calder Testers	Regular valve testing is critical in helping plants develop predictive maintenance programs, which lead to reduced mechanical downtime and costs.
2004	2-SPR	34	Feature	PWM Valves for Refrigeration	Charles Bald and Roy Nungesser	Parker Hannifin	Refrigeration applications—from food and beverage processing to laboratory equipment—require precise and reliable metering. Pulse-width modulation valves help achieve these goals.

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2004	2-SPR	40	Materials Q&A	Changes to NACE Standards	panel		Q: I've heard that there are some major changes in the 2003 revision of NACE MR0175. Why was the standard changed so dramatically and how will the changes affect valves?
2004	3-SUM	12	Feature	Valve Technologies to Cope with Changing Oil and Gas Markets	Scott Moreland and Jose Del Buey	Velan	While the oil and gas markets revolve around a product that hasn't changed significantly for more than a hundred years, recent market conditions are challenging this industry—and its suppliers—to develop innovative approaches to technology and commerce.
2004	3-SUM	20	Feature	A Control Valve Primer	Andrew D. Butcher	Spirax Sarco	The author presents some basic guidelines to introduce the industry newcomer to the complex workings and critical role of the control valve.
2004	3-SUM	28	Feature	Quarter-Turn Pneumatic Actuators: Torque 101	Ed Holtgraver	QTRCO	Learn why we cannot simply match an actuator's closing torque to the seating torque of a valve and be confident of satisfactory operation in service.
2004	3-SUM	34	Feature	Valve Repair: Changes, Challenges	Greg Johnson	United Valve	The valve service and repair industry has undergone enormous changes during the last few decades. In this article, we hear from valve repair shop owners, who discuss the latest maintenance philosophies and reveal how they will adapt—and survive—in the years to come.
2004	3-SUM	42	Feature	Selecting and Sizing Severe Service Control Valves	John Wilson	Emerson-Fisher	Methods to select and size control valves in severe service have varied from one manufacturer to the next. The author suggests following manufacturer-specific guidelines when selecting valve and trim.
2004	3-SUM	50	Materials Q&A	NACE Standard-MR0103	panel		Q: I've seen references to a new NACE standard, MR0103. What is it? How does it fit in with NACE MR0175?
2004	4-FALL	28	Feature	Diaphragm Valves and The Bioprocessing Industry	Paul McClune	ITT	Advances in valve design and manufacturing have played a vital role in helping drug manufacturers produce more for less.
2004	4-FALL	34	Feature	Smart Control Valve Diagnostics: Predictive Maintenance and Beyond	Neal Rinehart & David Ingram	Emerson-Fisher	Microprocessor-based valve instrumentation and sensor technology have changed how diagnostics are performed.
2004	4-FALL	42	Feature	The Actuator Choice: Traditional or High Tech?	Richard D. Oaks	AUMA	The right actuator system for your application may not necessarily be the most sophisticated one.
2004	4-FALL	54	Materials Q&A	Positive Material Identification	panel		Q: Why does the valve supplier refuse to accept my claim that its material is out of specification based on my PMI analysis?
2005	1-WIN	10	Feature	Cost Increases: A Painful Fact of Life	Brooke C. Stoddard	freelance	Steel, health care, energy...what do they all have in common? Rapidly rising costs, say valve and actuator manufacturers, who are struggling with how to soften the blow for their customers.
2005	1-WIN	15	Feature	Back to Basics: The Subject is Valves	Tom Christian	Curtiss Wright-Enertech	We kick off a new series designed to educate newcomers to the industry about the most common types of valves.
2005	1-WIN	20	Feature	Harnessing the Power of Web Technology and E-Business	Godard Abel	BigMachines, Inc.	Web technology and collaboration software helps streamline the specification, quoting, and ordering of valves and actuators.
2005	1-WIN	26	Feature	Selecting Stainless Steel for Valves	Ralph Vedder	Carpenter Technology	Here's a method to help you choose an appropriate stainless steel for your application.
2005	1-WIN	30	Feature	Variable Speed Pumping: A Guide to Successful Applications	n/a	Hydraulic Institute	In this excerpt from a recently published book by the Hydraulic Institute, variable speed drives are discussed as a way to lower life-cycle costs.
2005	1-WIN	42	Feature	An Integrated Diagnostics Strategy for Digital Positioners	Jorg Kiesbauer	Samson AG	A new kind of graded diagnostic strategy involves the data being collected online in the positioner where it is evaluated to create on-board status alarms.
2005	1-WIN	52	Materials Q&A	Duplex Stainless-Steel Castings	panel		Q: Our piping specification requires that duplex stainless-steel castings be supplied per ASTM A890. A valve company took exception, and indicated that duplex valve bodies and bonnets would be supplied per ASTM A995. What is the difference between these specifications?
2005	2-SPR	10	Feature	Pharmaceuticals: Valves are Part of the Cure	Brooke C. Stoddard	staff	The pharmaceutical industry is a demanding one, but valve manufacturers demonstrate they're up to the task.
2005	2-SPR	16	Feature	Pulp & Paper: What a Mill Manager Wants	David Lazar	Lazar Creative Group	Foreign competition and rising costs mean today's mill managers need all the help they can get.
2005	2-SPR	20	Feature	Back to Basics: The Ever-Popular Gate Valve	Greg Johnson	United Valve	It may be low-tech, but the gate valve still plays a major role in nearly every refinery, chemical plant, power plant, and industrial facility in the world.
2005	2-SPR	28	Feature	Digital Instrumentation in a Nuclear Power Plant	Bill Fitzgerald and Charles Linden	Emerson-Fisher	Aging plants have increasingly longer lives. Many believe it's time to update the instrumentation in these plants rather than just "replace in kind."
2005	2-SPR	36	Feature	Copycats & Thieves: Knock it Off!	Dan Velan	Velan	If you don't deal exclusively with reputable manufacturers, distributors, and repair facilities, you and your plant may be in for some very unpleasant surprises.
2005	2-SPR	46	Tips & Techniques	Don't Overlook Linear Actuators on Gate Valves	Cooper Etheridge	Automation Technology, Inc.	At a recent sales meeting in California, I was surprised to discover the lack of awareness regarding linear valve actuators. In fact, one veteran of the valve industry remarked, "I didn't know you could operate a gate valve using compressed air and a linear actuator."
2005	2-SPR	53	Materials Q&A	300-Series Stainless Steels	panel		Q: My 316 stainless-steel valve is rusty and attracts a magnet. Did I get the wrong alloy?
2005	3-SUM	10	Feature	PVF Distribution: The Laws of Supply and Demand	Mark Ward, Sr.	freelance	The "just-in-time" mindset, globalization, and an increasingly integrated supply chain are affecting North American PVF distributors—and they're not hesitant to share their views with <i>Valve Magazine</i> readers about how these trends are challenging the way they do business.
2005	3-SUM	20	Feature	Open-Flow Remote Monitoring of Offshore Shutdown Valves	Stan Hale, Gary Hill and Andrea Huels	Crane	Offshore safety has taken a major step forward in the North Sea through adoption of an online leakage monitoring system for riser shutdown valves.
2005	3-SUM	24	Feature	Technology of the Buckling Pin	Julian Taylor	Rupture Pin Technology	When used as a sensor and actuator, the buckling pin valve provides an alternative for relief valves, emergency shutdown valves, and quarter-turn valves.

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2005	3-SUM	32	Feature	Final Control Solutions for Safety Systems	Tom Jeansonne	Emerson	The development of new standards that identify risk tolerance and probability levels reveal the increasing importance of Safety Instrumented Systems.
2005	3-SUM	38	Feature	Back to Basics: How to Select an Electric Actuator	Howard Williams	Rotork	These handy guidelines will help you choose the right electric actuator for your application.
2005	3-SUM	46	Materials Q&A	Valves for Hydrogen Service	panel		Q: When specifying valves for hydrogen service, what are some of the material considerations I should keep in mind?
2005	4-FALL	22	Feature	BACK TO BASICS: Pressure Seal Valves	Donald A. Bowles, Jr.	Velan	Pressure seal gate, globe, and check valves provide a wide range of industries—including power, pulp and paper, and refining—with a safe, leak-free, pressure-containing boundary.
2005	4-FALL	30	Feature	Valve and Castings: Cycle of Concern	Mark Ward, Sr.	freelance	Will it take another Bhopal disaster to focus attention on the inconsistent integrity of valve castings? Industry observers hope not, but worry that history could repeat itself.
2005	4-FALL	40	Feature	The U.S. Cracks Down on Export Controls	Eric McClafferty	Coller Shannon	Many valve manufacturers, distributors, and users risk significant criminal and civil penalties by failing to comply with export controls on valves and other fluid handling products.
2005	4-FALL	44	Feature	Testing, Testing: The Product Development Process	Paul M. Gassman	Emerson-Fisher	Here's how one control valve manufacturer makes sure its newly developed products meet customer expectations for performance and reliability.
2005	4-FALL	54	Materials Q&A	NACE MR0175/ISO 15156	panel		Q: I see that there is a new version of NACE MR0175 called NACE MR0175/ISO 15156. Why did MR0175 become an ISO standard, and how do the requirements in the ISO version differ from those in the previous version?
2006	1-WIN	12	Feature	LNG: Getting to the Finish Line	Jacob Dweck and David Wochner	Sutherland Asbill & Brennan LLP	Liquefied natural gas developments in the United States have come a long way, but obstacles remain.
2006	1-WIN	18	Feature	Extreme Valves	Mark Ward, Sr.	freelance	<i>Valve Magazine</i> goes on a global quest to find some of the biggest, smallest, and most extreme service valves the world has to offer.
2006	1-WIN	26	Feature	Back to Basics: Butterfly Valves	Joanne Lunsford	Tyco	Over the decades, the butterfly valve has transformed from a lightweight to a highly respected contender.
2006	1-WIN	34	Feature	Why the Valve Qualification Programs?	Greg Johnson	United Valve	A changing global economy means users cannot necessarily count on past performance data to confirm current valve quality.
2006	1-WIN	38	Feature	Solenoid Pilot Valves for Valve Actuation	Bill Reeson	ASCO Valve	Knowing the ins and outs of pilot valves will help users select the correct construction for an application.
2006	1-WIN	42	Feature	OEM Versus Non-OEM Parts... You Make the Call	Ted Grabau	Emerson-Fisher	The purchase price of replacement valve parts from a replicator may be less than from an OEM, but the risk to plant performance and safety may be significantly greater.
2006	1-WIN	48	Tips & Techniques	Live Loading of Valve Packing	Fran Pugliese & George Davet, Sr.	Solon	The "live loading" of valve packing has been the topic of many articles and papers over the past few years.
2006	1-WIN	50	Materials Q&A	Preventing "Rouging"	panel		Q: I am handling high purity-water and keep getting a multi-colored stain on my valves and other equipment. What is this, and how can I prevent it?
2006	1-WIN	52	Maintenance & Repair	Grease for Motor Actuator Maintenance	Herb Wise	Paradigm Services	Maintaining the right amount of grease inside motor actuators that use grease for lubrication is a vital part of valve maintenance.
2006	2-SPR	12	Feature	The Critical Needs of SIP Processes	Dell Grunenberg	Jordan Valve	Sterilization-in-Place processes require that the associated valves and steam traps perform with high efficiency—and meet the stringent cleanliness requirements of the pharmaceutical and biotech industries.
2006	2-SPR	20	Feature	Back-to-Basics: The Always Reliable Plug Valve	Jim Barker	DeZURIK	For close to 80 years the dependable plug valve has done the job—and done it well—in a wide variety of services and applications.
2006	2-SPR	30	Feature	Perspectives on Distribution	Mark Ward, Sr.	freelance	A distributor, an end user, and a valve manufacturer give their points of view on today's evolving distribution industry.
2006	2-SPR	36	Feature	Getting the Most From Intelligent Electric Actuators	Greg Alvarado	Bernard Controls	These advanced actuators provide engineers and plant personnel with real-time information that can help with both predictive and preventive maintenance.
2006	2-SPR	40	Feature	Fluid Jet Energy Criterion for Control Valves	Herbert Miller, Laurence Stratton & Mark A. Hollerbach	Control Components, Inc.	Maintaining manageable energy levels in fluid jets eliminates many of the problems that lead to poor process control valve performance.
2006	2-SPR	48	Feature	Coupler Design for Quarter-Turn Valves	Ed Holtgraver	QTRCO	Here's what you need to know about the many kinds of couplers that connect quarter-turn valves and actuators.
2006	2-SPR	52	Tips & Techniques	Water Hammer- Check it Out	Bruce Fenwick	McJunkin	Have you ever been in an area of the plant that had just shut down a pump, only to hear an explosive sound a few seconds later?
2006	2-SPR	54	Materials Q&A	WCC and LCC Castings	panel		Q: Why do WCC and LCC castings have different maximum allowable temperatures in ASME B16.34?
2006	2-SPR	56	Maintenance & Repair	Effective Valve Field Service	David W. Douglas	Paradigm Services	The field service repair industry offers a number of on-site options for production plants needing regular or emergency maintenance.
2006	3-SUM	12	Feature	The Benefits of Diagnostic Software	Howard Williams	Rotork	Users are learning they can greatly improve their facilities productivity, efficiency, and effectiveness— and prevent problems before they occur—with valve diagnostic software.
2006	3-SUM	22	Feature	Wear and Corrosion-Resistant Alloys in the Oil and Gas Industry	James B.C. Wu and Matthew X. Yao	Deloro Stellite	The authors review alloys designed to stand up to the severe environments in oil and gas drilling and refineries, with an emphasis on cobalt-based alloys and a new nickel-based alloy.

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2006	3-SUM	28	Feature	Back to Basics: The Misunderstood Check Valve	Mike Johnson	DFT	The unappreciated check valve is often blamed for failures, but the real culprit may be the application and service conditions.
2006	3-SUM	36	Feature	Gasket Selection and Developments in Gasket Technology	John R. Hoyes	Flextallic	Don't select gaskets just for their price—consider the total cost of installation as well as what it would cost in lost production if a failure occurred.
2006	3-SUM	42	Feature	Who Will Run Tomorrow's Plants?	Patrick A. Toensmeier	SBC Global	The shortfall of experienced engineers and technicians continues to escalate. How will the industry respond to this growing crisis?
2006	3-SUM	46	Tips & Techniques	How to Select a Valve Controller	DeAnna Dessify	TopWorx	Process manufacturers are faced with multiple considerations when choosing a valve controller or switchbox that will best meet their application needs.
2006	3-SUM	48	Materials Q&A	Impact Testing for Austenitic Stainless Steels	panel		Q: Do austenitic stainless steels require impact testing when used in low-temperature applications?
2006	4-FALL	54	Tips & Techniques	Selecting Valves for Flue Gas Desulfurization	Dan Ellis	ITT	As new coal-fired power plants come on line to meet rising demand for electricity in the US and around the world, there is a growing need to scrub plant emissions to meet clean air regulations. Special valves help to efficiently run these scrubbers and handle the abrasive slurries used in the flue gas desulfurization process,
2006	4-FALL	56	Materials Q&A	Ferrite in Austenitic Stainless-Steel Castings	panel		I have seen several specifications recently requiring control of ferrite concentration in austenitic stainless-steel castings within certain limits. What is the basis for this requirement?
2006	4-FALL	48	Feature	Back to Basics: Fundamentals of Electric Actuator Control	Richard D. Oaks	AUMA	The flexible electric actuator control has become an increasingly popular way to automate all types of valves.
2006	4-FALL	34	Feature	BACK TO BASICS: How to Size and Select Relief Valves	Anthony Fabbo	Curtiss-Wright Flow Control	When it comes to choosing the proper relief valve for the application, the wrong selection and size can result in costly, even critical errors.
2006	4-FALL	44	Feature	Castings or Forgings?	Dick Warda / Lisa Kuehl	Highland Foundry / Steel Industries	The type of material used to create valves and other industrial products varies depending on the application and a variety of other factors. Experts from both the castings and forgings industries discuss the benefits of their respective processes.
2006	4-FALL	28	Feature	Desuperheating for Accurate Steam Temperature Control	Joel Kunkler	Emerson Process Management	The author provides guidelines to help operators better understand how to control the desuperheating process.
2006	4-FALL	22	Feature	The Evolving Valve Industry	Patrick Toensmeier	freelance	Industry veterans discuss how the valve industry has adapted during the past two decades to a changing world that has seen a huge increase in M & A activity and a turn to offshore sourcing.
2007	1-WIN	10	Feature	Unlocking the Truth About Alternative Energy Sources	Patrick A. Toensmeier	SBC Global	Are coal gasification and nuclear power the real keys to reducing reliance on fossil fuels?
2007	1-WIN	14	Feature	Back to Basics: The All-Encompassing Ball Valve	Brian Hood	Flowserve	Compact, simple to use, easy to repair and capable of performing in a wide range of applications, the ball valve is a dominant player in modern industrial applications.
2007	1-WIN	22	Feature	Valve Position Monitoring and Smart Discrete Controls	Jack DiFranco, Jr.	Tyco Flow Control	Digital position transmitters can handle virtually every control, monitoring and remote application in the plant. Here's how they evolved.
2007	1-WIN	30	Feature	Remanufactured Control Valves: Do They Still Meet Code?	Bob Baker	Emerson	Don't be fooled by a shiny new coat of paint. That remanufactured" valve may not have been re-certified to its original pressure class.
2007	1-WIN	36	Feature	Gearbox Selection for Manual Valve Actuation	Clay Hightower	Rotork	There is no "one-size-fits-all" formula when it comes to selecting the proper gearbox for a manual valve application.
2007	1-WIN	40	Feature	Analog Controllers for Motor-Operated Valves: Obsolete or Evolving?	C. Earl Daniel	Chalmers & Kubeck	New generation analog valve actuator controllers not only provide the functionality of legacy products— they also address past problems.
2007	1-WIN	45	Tips & Techniques	Cavitation 101	Ed Holtgraver	QTRCO	the cause, effect and prevention of cavitation as related to the process and the hardware
2007	1-WIN	48	Materials Q&A	Cobalt-base Alloy 6 Materials	panel		Q: I've heard that cobalt-base Alloy 6 materials should not be used in boiler feedwater service. Is this true?
2007	2-SPR	12	Feature	Testing, Testing: Today's Valve Standards	Greg Johnson	United Valve	Myriad standards affect our industry. Here's a review of some of the most common testing standards in use.
2007	2-SPR	20	Feature	Back to Basics: Valve Specifying for Beginners	Patrick A. Toensmeier	SBC Global	To broaden their knowledge and gain valuable engineering expertise, novice specifiers can rely on valve manufacturers and distributors.
2007	2-SPR	30	Feature	PRV Management Tools Help Optimize Turnarounds	Bart Collins, Scott Smith & David Melcher	Precision & Dresser	A key component of the successful turnaround is learning how to maintain a plant's network of pressure relief valves.
2007	2-SPR	36	Feature	Actuation Under the Sea	Bill LeBlanc	Emerson	Learn what manufacturers do to ensure actuation is reliable in challenging—and ever deeper—subsea environments.
2007	2-SPR	44	Feature	Are You Happy with Your Bypass Control?	Geoffrey Hynes	Koso America	Improve the controllability of the hot reheat (HRH) bypass valve in a cascading bypass system to save hundreds of thousands of dollars annually, along with numerous other benefits.
2007	2-SPR	54	Feature	For O&M Solutions Think Digital	Eric Fillion	Metso	It seems like operating and maintenance costs are always being trimmed. New technology can help make up for reduced staff and budgets.
2007	2-SPR	58	Maintenance & Repair	Check Valves--Repair or Replace?	Ty L. Potter	Southeast Valve	In today's environment of shorter outage windows and shrinking maintenance budgets, the maintenance team should explore all available options when faced with a decision to repair or replace a valve.

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2007	2-SPR	60	Materials Q&A	Aluminum Nitride Embrittlement	panel		Q: A customer has asked whether we can supply carbon and alloy steel valve bodies meeting Supplemental Requirement S23 in ASTM A703. What is the purpose of this requirement?
2007	3-SUM	10	Feature	Back to Basics: The Industrious Control Valve	Jim Casey	Flowserve	Everything you ever wanted to know about the control valve, from its beginnings as a device used to control steam in engines to its various applications in today's industries.
2007	3-SUM	20	Feature	The Role of Valves in Niche Industries	Brooke C. Stoddard	freelance	Mining, pharmaceutical and marine applications are all addressed by valve makers serving these diverse—and challenging—markets.
2007	3-SUM	28	Feature	Challenges and Opportunities in the Water & Wastewater Market	Jim Barker	DeZURIK	Huge demand, dwindling supply, aging infrastructures, stricter regulations—they all mean a strong water/wastewater market for many years to come.
2007	3-SUM	34	Feature	A Primer on 'Pigs'	Pat Toensmeier	SBC Global	We take a look at pigging devices and how they help move oil, natural gas and refined petroleum products safely and efficiently through pipelines.
2007	3-SUM	38	Feature	How to Implement a Safety Life-Cycle	Riyaz Ali	Emerson-Fisher	A safer plant, decreased costs and increased uptime are all achievable when a safety life-cycle is properly executed.
2007	3-SUM	46	Beyond Valves	The Use and Application of Belleville Springs	George P. Davet	Solon	While this magazine's focus is on the world of industrial valves, these critical products don't function in a vacuum. Understanding how they work involves understanding the numerous products that are used in either their manufacture or in any flow control system where valves are used.
2007	3-SUM	50	Maintenance & Repair	Let's Keep it Clean	Greg Johnson	United Valve	Valve manufacturers and valve repair companies are often called out to the field to look at valves that have failed hydrotest or have rust or scratches on their flange sealing surfaces.
2007	3-SUM	52	Materials Q&A	Welding Filler Grades	panel		Q: What welding filler grades should be used to repair ASTM A217 Grade C5 and C12 castings?
2007	4-FALL	32	Feature	Back to Basics: The Dependable Diaphragm Valve	Dan Ellis	ITT	Both the diaphragm and pinch valves are positive displacement valves, yet each has its own characteristics and suitability for particular applications.
2007	4-FALL	38	Feature	The Rise, Fall and Renaissance of Nuclear Power	Don Hudson and Jim Leachman	Curtiss-Wright Flow Control - Nuclear	It's been a long and winding road, but the nuclear power industry is on the verge of regaining a major foothold in today's energy industry as the world searches for alternatives to fossil fuels.
2007	4-FALL	48	Feature	How to Achieve Optimal Control Performance	Shawn Anderson and Neal Rinehart	Emerson-Fisher	If you want to increase efficiency and profitability in your plant, address the performance of your control valves.
2007	4-FALL	56	Feature	CPI Safety Needs Drive Valve Design	Pat Toensmeier	SBC Global	North American valve makers have been hard at work making sure the products they produce meet the safety needs of CPI plants around the globe.
2007	4-FALL	62	Beyond Valves	Use of Hard Coatings for Valves	Dr. Yuri Zhuk	Hardide	What types of coatings are available for valves in severe service abrasion service? Valves operating in this type of service require enhanced durability and corrosion resistance.
2007	4-FALL	64	Materials Q&A	Magnetics Inspection	panel		Q: I've seen people checking metal materials with a magnet. Is this a useful method of sorting materials, and if so, how does it work?
2008	1-WIN	12	Feature	Process Control Goes Green	John Mangan	Emerson-Fisher	Reduce emissions—and increase revenue—by using energy responsible products such as low-bleed pneumatic pressure and level control devices.
2008	1-WIN	30	Feature	Get Ready for the Corn Rush!	Eric Fillion, Brian Bombard & Bob Mulchay	Metso Automation	Learn proper selection strategies for choosing valves for use in the rapidly growing ethanol processing and transportation industry.
2008	1-WIN	34	Feature	The Cold Facts About Cryogenics	Raphael Couturier	Velan	To help users better understand the world of cryogenic valves, we discuss their origins, where they are used, how they are tested and relevant design standards.
2008	1-WIN	40	Beyond Valves	Advances in Mechanical Seals	Joseph C. Parker	Flowserve	Manufacturers of mechanical seals today are constantly working to engineer longer-lasting, safer, easier-to-use and lower-emission seals for the benefit of seal users, the products they produce and the environment. Technology can be an enabling key to mechanical seal reliability, but it is not the only key.
2008	1-WIN	42	Maintenance & Repair	The Case for OEM Certified Valve Repair	Patrick Leask	Dresser-Masoneilan	In today's competitive business environment, myriad challenges face the owner/operator of an industrial process plant. With economic pressures to get more out of invested assets, a steady progression toward truly global supply chains and end-user markets, and more stringent regulatory constraints, the industrial world is increasingly complex.
2008	1-WIN	44	Materials Q&A	Stainless Steels: 200 vs. 300 Series	Thomas Spence	Flowserve	Q: High metal prices, especially for nickel and molybdenum, have our procurement people looking at less expensive stainless steels like the 200 series. Are these as good as 304 and 316 stainless steels?
2008	2-SPR	12	Feature	Back to Basics: Control Systems	Jim Casey	Flowserve	The author first wrote about control valves in a Back to Basics article last summer. Now he expands on that topic by discussing other elements of the "cruising" control system.
2008	2-SPR	22	Feature	Specialized Designs for Pipeline Valve Actuation	Mark Clark	Rotork Controls	The expansion of oil and gas production into increasingly remote and inhospitable areas challenges actuator manufacturers to produce rugged, reliable and often specialized products.
2008	2-SPR	34	Feature	Building an Acceptable Manufacturers List	Patrick A. Toensmeier	SBC Global	What's involved in developing an Acceptable Manufacturers Lists (AML)? And why is having an AML so critical when sourcing valves from China?
2008	2-SPR	40	Feature	Automated Valve Packages	Jack DiFranco	Westlock Controls	Advanced controllers have revolutionized automated valve packages by offering greater intelligence and diagnostic data than conventional methods.

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2008	2-SPR	54	Beyond Valves	Putting the 'P' in PVF	Greg Johnson	United Valve	Of course, the "P" in PVF stands for pipe, those long round things with a hole down the middle! Learning a little bit more about the pipes that connect to your valves will help you as a valve professional.
2008	2-SPR	56	Maintenance & Repair	PSV Inspections	Bart Collins	Precision Services	In today's ever-changing fast-paced world, uptime is at a premium, while remaining in compliance with governmental and plant regulations is a requirement.
2008	2-SPR	60	Materials Q&A	Evaluating Portable Hardness Testers	Don Bush	Emerson-Fisher	Q: Are portable hardness testers adequate for verifying the hardness of parts for compliance to industry standards such as the NACE sour service standards?
2008	3-SUM	14	Feature	Back to Basics: The Ubiquitous Fire Hydrant	Robert Abbott	Mueller	Find out how the hydrant evolved, the different types available, and how today's hydrants are being built or retrofitted for maximum security.
2008	3-SUM	22	Feature	The Reliability and Security of Wireless Monitors on Valves	Kurtis Jensen	Emerson	Wireless technology offers lower construction costs while greatly expanding the ability to monitor and communicate with equipment in remote and hard to access areas.
2008	3-SUM	28	Feature	Emergency Shutdown Valves: Options for Partial Stroke Testing	Ed Holtgraver	QTRCO	Partial stroke testing devices add to plant safety while helping to keep process- and revenue flowing.
2008	3-SUM	34	Feature	A Market That's Worth its Salt: Water Desalination	Mark Ward, Sr.	freelance	Improving technology and decreasing costs are boosting the economic viability and attractiveness of water desalination.
2008	3-SUM	42	Beyond Valves	Position Sensor Fundamentals	Greg Merrifield	TopWorx	The success of automated industrial processes depends on many individual components working together flawlessly to provide a high-quality end product. This article focuses on a small but important component in the world of industrial automation.
2008	3-SUM	44	Materials Q&A	Hardness Conversion Scales	Don Bush	Emerson-Fisher	Q: Are there any issues regarding conversion of hardness from one method or scale to another?
2008	3-SUM	48	Education & Training	Valve Education-It's Our Job!	Greg Johnson	United Valve	Would you want to be driving down a busy interstate highway knowing that many of the newer drivers around you have had no drivers' training? Many manufacturers have excellent training programs that cover products they produce, but newer industry professionals often lack the overall basic valve knowledge.
2008	4-FALL	38	Feature	Back to Basics: The 'A' to 'Z' of Valve Materials	Greg Johnson	United Valve	Valve materials run the gamut from aluminum to zirconium, with new alloys and compounds filling in the letters of the alphabet all the time. Although some of these more obscure materials are on the valve designer's plate, it will be hard to ever eliminate the three most popular "flavors"- steel, bronze and iron.
2008	4-FALL	46	Feature	How to Avoid PRV Problems	David Melcher & William Travis	Dresser	Improper design, installation and maintenance of safety valves within pressure relief systems can lead to system malfunctions and hazardous conditions that put equipment, facilities and personnel risk.
2008	4-FALL	52	Feature	Reaching Out to Tomorrow's Workforce	Patrick Toensmeier	SBC Global	How will we prepare the next generation of workers to staff and manage the plants and facilities that use and make valves? It won't be easy but some innovative programs are underway.
2008	4-FALL	56	Beyond Valves	Understanding Differential Pressure Flow Transmitters	David W. Spitzer	Spitzer Boyes, LLC	A differential pressure flow measurement system consists of a differential pressure primary flow element and a differential pressure flow transmitter.
2008	4-FALL	58	Materials Q&A	Indices that Measure Water Scaling	Thomas Spence	Flowserve	Q: Why do my carbon steel valves and piping corrode when the Langlier index says they shouldn't?
2008	4-FALL	60	Maintenance & Repair	Three Golden Rules for Severe Service Valves	Danilo Garcia and Gary Ostrowski	Dresser	If you'd just bought a new high-performance sports car, you'd likely protect your investment by following the manufacturer's instructions for breaking in the engine. You'd also probably leave the spare in the trunk so that a flat wouldn't leave you stranded on the side of the road.
2009	1-WIN	16	Feature	10 Tips for Tightening Expenses	Peter Cleaveland	freelance	Everyone's doing it - tightening belts, that is. Here are some suggestions from valve manufacturers on how you can get the most from your valves, actuators and controls.
2009	1-WIN	20	Feature	Back to Basics: The Noble Globe Valves	Greg Johnson	United Valve	Whether it's controlling bath water in a faucet, oil in a refinery or steam in a power plant, globe valves "solider on" 24 hours a day.
2009	1-WIN	26	Feature	How Do You Answer the Casting Quality Question?	Les Pelkey		Problems with castings do not always occur because of where the casting is made. The author discusses types of casting defects and explains why problems can occur.
2009	1-WIN	30	Feature	Take it Easy with Steam, The Energy Fluid	Stephen R. Gow	Spirax Sarco	Steam is one of the most widely used commodities for conveying heat energy, and its use is popular throughout industry for a broad of tasks from mechanical power production to space heating and process applications.
2009	1-WIN	36	Feature	Quantifying Valve Leakage Rates with Ultrasonic Emissions Testing	Michael Flaherty, Tony Glembocki and Marc Hain	Valvtechnologies	With increasing pressure to drive efficiency improvement, many plants and facilities are taking a closer look at ultrasonic emissions testing.
2009	1-WIN	40	Beyond Valves	The Well-Functioning Steam Trap	Bruce Gorelick and Alan Bandes	Enercheck and UE Systems	Steam traps are the most important link between the steam and condensate system. Malfunctioning steam traps can waste tremendous amounts of money.
2009	1-WIN	44	Materials Q&A	NACE MR0103 and Duplex Stainless Steels	Don Bush	Emerson-Fisher	Q: Why are some suppliers reluctant to produce duplex stainless-steel valves that are complaint with NACE MR0103?
2009	1-WIN	46	Industry Insights	Green Stands for \$\$	Peter Cleaveland	freelance	Some states- California, in particular- are imposing ever-more-severe restrictions on emissions of everything from carbon dioxide to diesel particulates, and the costs to industry promise to be high.
2009	2-SPR	12	Feature	Playing the Valve Standards Game	Greg Johnson	United Valve	Although efforts have been made to coordinate the U.S. standards with those of foreign standard-making bodies, few standards have crossed borders intact.
2009	2-SPR	20	Feature	The Sorry State of the U.S. Water Infrastructure	Peter Cleaveland	freelance	Huge amounts of money will be required to put the U.S. water and wastewater infrastructure into proper condition, and still more is needed to prepare it for the future.

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2009	2-SPR	30	Feature	Valves Make the Difference: Delayed Coking	David Anderson	Curtiss Wright-Delta Valve	Coke drum unheading valves are a good example of how innovative design allows valves to be used in processes today where they have been used before.
2009	2-SPR	38	Feature	Severe Service Control Valves for Offshore Platforms: A Debris-Tolerant Solution	Stephen James	Dresser Masoneilan	Consider specifying control valves that will not only address high-pressure liquid or gas letdown, but also alleviate the problem of debris in the pipe.
2009	2-SPR	42	Beyond Valves	Regulator Selection	Tony George	Richards Industries	In any control system, the option potentially exists to select either a control valve or a regulator, so it is useful to compare the respective performance and economics of these approaches to arrive at some general selection guidelines.
2009	2-SPR	44	Maintenance & Repair	Safety Relief Valves FAQs	Jim Knox	Allied Valve	Q: What is the proper way to install a safety or safety-relief valve? How often should I test/inspect my valve?
2009	2-SPR	46	Materials Q&A	Choosing Fasteners	Thomas Spence	Flowserve	Q: What do I need to know to choose the right fasteners for my valves?
2009	3-SUM	12	Feature	Suspicious and Counterfeit Valves: An Avoidable Danger	Peter Cleaveland	freelance	Counterfeiting is more prevalent today than ever. We bring readers up to date on the situation and offer tips about what can be done, including starting with quality suppliers.
2009	3-SUM	20	Feature	Increasing Plant Performance Through Instrumentation	Harry Burns	Emerson-Fisher	How do we know when it's best to increase a plants' performance by using the technologies already there and when to find newer technologies? We start by asking what those technologies are currently doing that provide value.
2009	3-SUM	26	Feature	Understanding Plastics	Patrick Neel	Solvay Advanced Polymers	High-performing thermoplastics have made inroads into the valve market because of their high strength, light weight and corrosion resistance.
2009	3-SUM	30	Feature	Controlling Cavitation	Jeff Parish	Flowserve	Cavitation, a common problem in most industrial processes, can be expensive and hazardous. Understanding its causes and what control are available for what conditions help to eliminate the problems.
2009	3-SUM	40	Materials Q&A	Qualifying Welding Procedures	Don Bush	Emerson-Fisher	Q: I need to qualify a welding procedure specification per Section IX of the ASME Boiler and Pressure Vessel Code. What are some of the basics I need to understand?
2009	3-SUM	42	Maintenance & Repair	Protecting Our Valves	Greg Johnson	United Valve	Everyone in the valve industry should be in the protection racket. Protecting valves after they leave the plant for shipment to the customer or while they are in storage waiting to be used.
2009	3-SUM	44	Education & Training	A "Valve Ed" Preview: PRVs	William Travis	Dresser	This portion of the Valves 101 program deals with a special type of valve; one that does more than turn the flow of media on and off, or regulate its flow through a line.
2009	4-FALL	26	Feature	Graphitic Valve Stem Packings Can Reduce Fugitive Emissions	Jim Drago, P.E.	Garlock Sealing Technologies	How can your plant reduce harmful fugitive emissions? By taking a proactive approach to emissions control, including use of graphitic valve stem packings.
2009	4-FALL	33	Feature	Where Valves are Used: Nuclear Power	Steven Pauly	Curtiss Wright-Target Rock	One of the more promising markets for the valve industry is nuclear power, which has proven to be a safe and reliable industry with a reputation as a sustainable method of providing energy.
2009	4-FALL	37	Feature	State of the U.S. Metalcasting Industry	Alfred Spada	American Foundry Society	More than 90% of manufacturing has some type of metalcasting. Because of this, the forecast for this industry includes growth.
2009	4-FALL	42	Beyond Valves	Coatings	Peter Cleaveland	freelance	Like anything made of metal, valves are subject to corrosion and other natural forces that comprise their performance. However, the right coating can protect those valves not just against corrosion, but erosion and wear.
2009	4-FALL	46	Materials Q&A	Ni-Cr-Mo Alloys	Thomas Spence	Flowserve	Q: How do I know what the best type of Ni-Cr-Mo alloy will be for a particular application?
2009	4-FALL	48	Maintenance & Repair	Nuts and Bolts	Greg Johnson	United Valve	Repairing a valve usually means discarding old fasteners and replacing them with new ones. But it takes more than just matching thread diameter and pitch to make the correct fastener selection.
2010	1-WIN	12	Feature	A Bright Future for Wireless Technology	Kurtis Jensen	Emerson	Wireless technology provides an opportunity to save costs while expanding the amount of information available to help industry run its processes more productively and reliably. We review what's available and the latest developments.
2010	1-WIN	16	Feature	Renewable Energy Sources Rising: Beyond Fossil Fuels	Peter Cleaveland	freelance	As the nation looks for energy sources beyond the traditional oil and gas industries, valves and actuators stand by to play a role in alternative applications such as solar, wind and geothermal.
2010	1-WIN	24	Feature	Exploring the Evolution of Non-Destructive Examination	Ron Merrick	Fluor	A look back at how NDE came to be and how it has progressed shows how such testing came to be increasingly important. The trend of more and more testing will continue into the future.
2010	1-WIN	28	Feature	How to Increase Revenue in Gas-Lift Applications	Brent T. Steward & Bradford Haines	Flowserve	In the gas lift process, using an integrated flow control system can increase productivity and lower costs. Here's how that works.
2010	1-WIN	32	Feature	Are You Ready for the Unexpected? Valve Triage and Repair	Peter Cleaveland	freelance	Recovering from disasters such as fire and floods requires knowing when and how to repair and replace valves and actuators. A look at what happens in both small and major disasters provides insight on what can be done.
2010	1-WIN	35	Materials Q&A	ASTM-A105	Don Bush	Emerson-Fisher	Q: I have a material certification for bar material that indicates compliance with ASTM A105. Is this forged bar? Can I use it make hubbed-flanged items?
2010	1-WIN	36	Actuators & Controls	Choosing Actuators	Ed Holtgraver	QTRCO	For those of us who have been around for a number of years, this article on valve actuators will be too simplistic-but it's meant to be. The seasoned professional has had ample experience-and knows what works and what is required.
2010	1-WIN	39	Maintenance & Repair	A Guide to Cleaning	Greg Johnson	United Valve	Most of the time we only require that valves be free of basic dirt and debris before they are put in service. However, occasionally service requirements dictate that all traces of oil, dust and grease be removed. A prime example is valves to be used with oxygen.
2010	2-SPR	21	Feature	In the Ocean's Depths, Valves Face Unique Challenges	Luigi Cannistraci	Cameron	The deeper depths of today's oil and gas exploration require valves that can produce under new pressure, temperature and durability requirements. We look at what is occurring today and the new types of valve treatments, material and technologies that go into the valves of the oceans.

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2010	2-SPR	25	Feature	Vital Valves Keep Water Systems Flowing	John Pensec	Mueller Water Products	We take for granted that we have access to safe, clean drinking water here in the United States. But much goes into the process, and valves play a role both in getting the water clean and transmitting into and out of water treatment plants.
2010	2-SPR	34	Feature	Selecting Valves for Safety in Chemical Plants & Refineries	William C. Hayes	Crane	Safety has always been a top priority in chemical plants and refineries. In recent years, that focus has grown even more intense. We report on current guidelines and regulations as well as proposed new rules.
2010	2-SPR	40	Feature	The Role of Rack and Pinion Actuators in Off-Off and Modulating Control	Jim Casey	Flowserve	The double-opposed piston rack and pinion actuator can be used both for on-off and control applications. The author discusses how these actuators evolved, how they work and their feature benefits.
2010	2-SPR	47	Beyond Valves	When Accessories Become Necessities	David Fink	Pepperl + Fuchs	Specification sheets for selecting automated valves list requirements for the valve and actuator but often lump all other devices together as related instrumentation or accessories.
2010	2-SPR	50	Materials Q&A	More on Forged Bar and Flanges	Don Bush	Emerson-Fisher	Q: In the last Materials Q&A column, you discussed using forged bar to make hubbed-flange components such as bonnets. I noticed that ASTM A182 specifically states that forged bar cannot be used for flanges. Was your original statement in error?
2010	2-SPR	52	Maintenance & Repair	Read the Instructions	Greg Johnson	United Valve	Valuable reference standards are available that can closely guide valve repair operations or at least give some general guidance.
2010	2-SPR	54	Education & Training	Different Learning Styles	Judy Tibbs	VMA	Whether you're an individual seeking to expand your horizons or the executive who makes decisions about training and development expenditures, we offer this suggestion: Find out what type of training will work best for you and your employees and make the investment in industry education.
2010	3-SUM	16	Feature	Where Valves are Used: On the Sea and Under the Ground	Greg Johnson / Craig Bekins	United Valve / Velan	VM takes a look at how and where valves and actuators are used in two unique industry segments--marine and mining
2010	3-SUM	22	Feature	Severe Service Valves Respond to New Pressures	Peter Cleaveland	freelance	Valves are getting bigger, more complicated and tougher as a response to ever more demanding applications.
2010	3-SUM	34	Feature	Valve Engineering Challenges for Flow Control of Reclaimed Water	Rolf Strutzenberg	Storm Mfg Group	Water that is recycled from earlier uses is a tremendous resource in irrigation these days, and valves play a vital role in the process. However, the practice has brought both new opportunities and new challenges
2010	3-SUM	38	Feature	The True Meaning of Double Block and Bleed	Peter Cleaveland	freelance	Many people refer to these valves when what they are really referencing are double positive isolation valves. But there's a difference, says Exxon Mobil Development's Rudy Garza, and it's an important one.
2010	3-SUM	48	Actuators & Controls	Rotary Electric Actuators	Paul Souza	AUMA	Linear actuators come in a variety of types, which are typically broken down by power source (hydraulic, pneumatic and electric). This article will address two differently ways to achieve linear motion using electric rotary actuators.
2010	3-SUM	52	Materials Q&A	Cast or Forged?	Thomas Spence	Flowserve	The good news is that both castings and forgings should be able to provide you with acceptable performance, although a perception exists that forged valves are superior to cast valves.