



# Quantum Leap

**Vortex® News &  
Events from around  
the globe.**



April-May 2010:

- Why Vortex?
- Spotlight on Lee Young
- The simple, but worthwhile Special Service Inlet
- Powtech and PTXi Preview
- Vortex Cares: Building a School Library in Africa
- Have a laugh on the Not-So-Serious Desk.

**The Global Leader in Valves for Dry Bulk Solids**

## Welcome to QL!

Welcome to the first edition of *Quantum Leap!* Well, it is not really the first edition, but it is the first edition in this new format. Many of our European readers are already familiar with this publication, which has been in circulation since 2007.



This edition is the first to be distributed worldwide to our clients and friends across the Americas, Europe, Africa, and the Asia Pacific. We hope to provide you insightful information, not only about Vortex, but the dry material handling industry around the globe.

In this QL you can read about Vortex's experience in designing valves for dry bulk materials, a technical file on the use of a special service inlet, a profile on our Chairman, two upcoming industry exhibitions, as well as, our efforts to build a Library in Moshi, Tanzania.

So sit back, relax, and enjoy Quantum Leap!

**Jeff Thompson, CEO & President**  
Salina Vortex Corporation



*Vortex's Corporate Headquarters in  
Salina, Kansas - USA*

## Why should Vortex be your partner in Process?

By Jon Naylor, Managing Director, Vortex Valves Europe

Choosing the right slide gates, diverters and iris valves for transporting and storing dry materials is never simple. If you've been handling dry bulk solids long enough, you'll know how often a valve turns out to be the main culprit behind nasty material handling challenges.



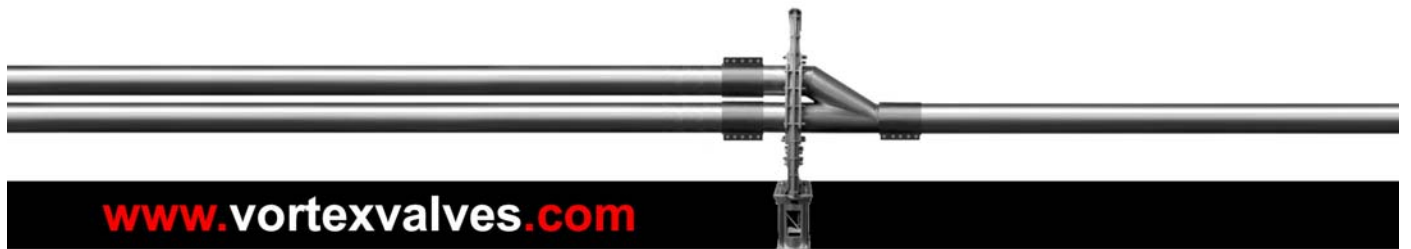
The problem lies with the endless variety of dry solids characteristics. There's bulk density, flow-ability, abrasion, corrosion, particle size, shape, stickiness, hygroscopic, degradation... and that's just for a start. No one slide gate or diverter design can handle *all* of these applications. You need the right valve for the job. Every time.

Get it wrong and you'll suffer from:

- Expensive downtime,
- Lost or wasted material,
- Inaccurate weighing,
- Conveying inefficiencies,
- Atmospheric leakage,
- Unnecessary parts inventory,
- Frequent maintenance cycles,
- Increased safety risks...
- the list goes on!

Choosing the right valve supplier is also a vital part of the valve specification process. Why? Because you need a supplier with the *widest* possible knowledge of the *broadest* range of material behaviors. Identify someone with the right solid handling systems experience and you've identified the key to application success.

Vortex has handled thousands of dry bulk materials for more than 10,000 clients worldwide since 1977. No matter how tricky your application we will evaluate and engineer the right valve for the job, designed to



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maximise efficiency, eliminate material leaks and dramatically increase your service life. With twenty-one standard product lines and 750,000,000 variations, Vortex is perfectly qualified to help you get the best performance out of every valve.

With technical service offices and agents in six continents, our global service network has a wide reach, helping provide our clients with the highest levels of localised response and support wherever they are in the world.



*For more information about Vortex, please contact one of our global offices:*

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## Who's Who at Vortex

### Lee Young, Chairman of the Board

Lee couldn't visualize the future of Vortex when he and his father-in-law, Neil Peterson, walked into an empty 500 square metre building with only a concept of a product in mind for handling dry bulk materials. After over a year of research and development that product they decided to market a gate valve they had designed for handling dry materials. They called it an Orifice Gate. The design was later patented and became the design concept for many more products. After selling and building the first 50 valves Lee had to leave the company for financial reasons promising to come back. Ten years later, in 1989, Lee returned to the business as General Manager.

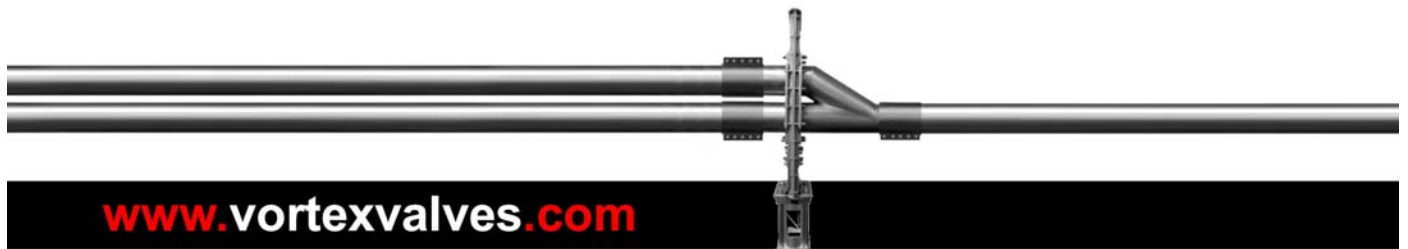


In the 1990's Salina Vortex established itself as the "standard of the industry" for gate valves and diverters for handling dry bulk materials. Products handled range from plastics, minerals, chemicals, fibers and foodstuffs. Rapid growth has required multiple expansions over the years culminating in a new 11,500 square metre manufacturing facility in the United States, as well as, technical service offices in the United Kingdom, Switzerland, and China.

In 1999 Lee received *Ernst and Young's Entrepreneur of the Year* award in manufacturing. Officially "retired" as CEO in 2006, Lee still sets the direction for the company as its chairman and assists in product development and application engineering.



Outside of his duties at Vortex, Lee enjoys travelling, photography, mountaineering, and skiing. Many of Lee's photographs can be seen in Vortex's offices throughout the world.  
*Photo: Lee on the third day of trekking the Inca Trail, Peru.*



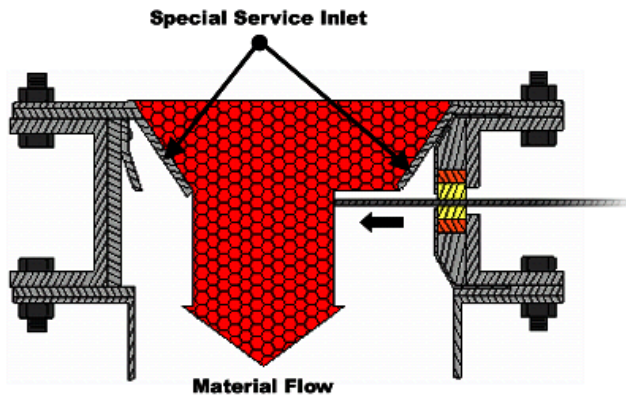
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## In the correct application, a Special Service Inlet can improve valve performance.

By Cory Downing, Vice President Engineering

The Vortex® Special Service Inlet is a stainless steel material deflector installed on the inlet of the gate. It directs the flow of material toward the center of the valve opening, substantially preventing material from being sheared or packed upon the blade's closure. Material that is at the leading edge of the blade is allowed to fall away as the blade passes under the special service inlet. The special service inlet greatly decreases material contact with the gate seals as material flows through the valve. The relatively inexpensive cost of a Special Service Inlet pays for itself many times over in improved material handling capabilities and in seal replacement.



*Illustration of a Special Service Inlet on a square or rectangular slide gate.*

When to use a Special Service Inlet:

1. When closing on a moving or static column of material.
2. When the gate is handling any sticky or mildly abrasive materials.

When not to use a Special Service Inlet:

1. When material flow restriction is a concern (you may want to upsize the gate one size)
2. When the gate is placed in any orientation other than Horizontal (in some applications this may be advantageous, consult Vortex for details).
3. When the valve is mounted below a mixer.

Modifications can be made to the Special Service Inlet allowing even better performance in specific applications.

**Precision fit:** This modification is recommended when the gate will be required to close on certain materials (examples: sticky, hard, abrasive). The length of the special service inlet is extended to just above the gate blade. Materials larger than the clearance between the blade and the special service inlet are sheared and/or cleared off of the blade surface. Fine materials are cleared from the blade surface, minimizing material contact with seals.

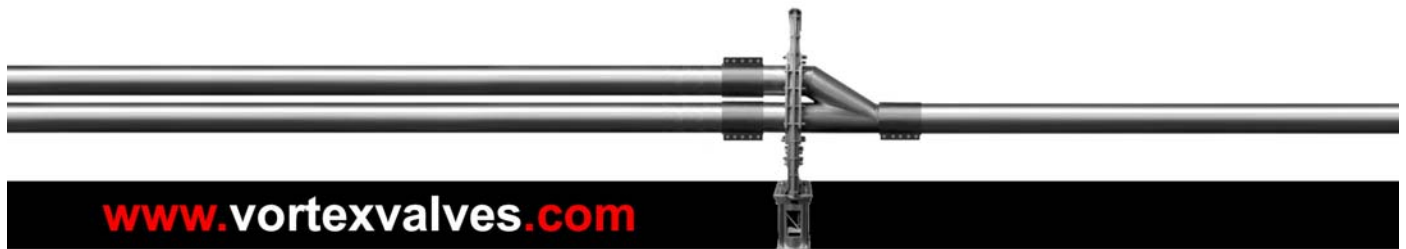


*Round Special Service Inlet for an Orifice Gate*

**Dead Pocket:** This modification is recommended when the gate will be handling abrasive materials that tend to wear down the special service inlet prematurely (examples: coal, silica, quartz, feldspar). A "V" formation is fabricated on the leading edge of the special service inlet. This pocket traps a small amount of material. As material flows through the valve it impacts on itself, reducing inlet wear.

**Elliptical Style:** The shape of this modification allows improved material flow through the smaller size Orifice Gates™. There are many ways to configure an Elliptical Special Service Inlet for a variety of application requirements.

A Special Service Inlet can be used on the following Vortex® Valves: Quantum™ Series Orifice Gate™, Orifice Gate™, Roller Gate™, Clear Action Gate™, HDP® Slide Gate, Maintenance Gate™, Aggregate Gate™, Aggregate Diverters™, Coal Gates™, and Coal Diverters™.



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# QL

## **POWTECH 2010**

### Preview of the Powtech 2010 Exhibition in Nuremburg Germany

POWTECH 2010 from 27–29 April again offers the around 15,000 expected trade visitors the opportunity for three days of intensive exchange of views with well-known manufacturers, developers and production experts. This year, almost 700 exhibitors present pioneering products, the latest technologies and future trends at the leading exhibition for powder, granule and bulk solids technologies. The extensive supporting programme offers a variety of ideas for everyday work at events ranging from explosion protection and nanotechnology live to free presentations in the halls.

Vortex will be exhibiting in Hall 9 at Stand Number 123. We will be showcasing the 4-Way Wye Line Diverter, along with many innovative Vortex Valve products.



All QL readers are welcome to join us for drinks and canapés at our booth on April 28<sup>th</sup> from 16:30 to 18:30.

If you are interested in attending, please RSVP, by sending an email to:

[vortex.eu@vortexvalves.com](mailto:vortex.eu@vortexvalves.com)



### Preview of International Powder & Bulk Solids 2010 – Chicago, USA

International Powder & Bulk Solids 2010, from May 4<sup>th</sup> to 6<sup>th</sup>, celebrates 35 years of being the resource for process manufacturers to find the latest solutions to help increase production efficiencies, cut cost, eliminate waste and ensure product consistency.

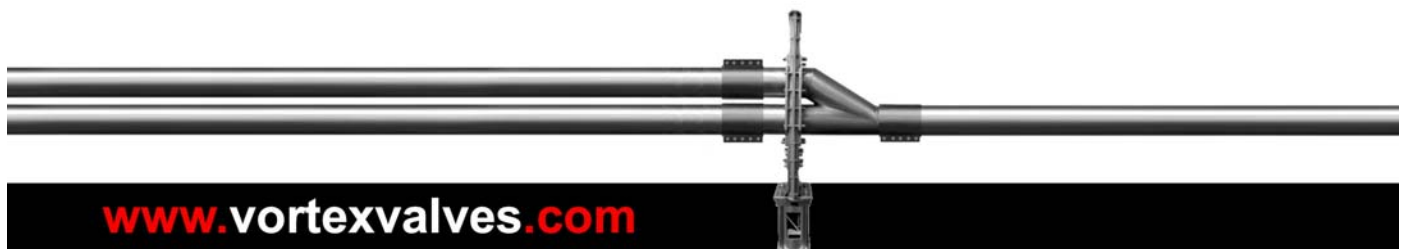
Discover innovative products and ideas to make your process faster, more efficient, and less costly. See the latest cost-saving processing technologies affecting your industry and compare suppliers to secure the best options and pricing.

Find Suppliers that understand your industry and are ready to discuss your product specifications and processing challenges.

PTXi | International Powder & Bulk Solids suppliers include all major industry sectors: Chemical, Pharmaceutical, Food, Beverage, Cosmetics, Plastics, Fabricated Primary Metals, Cement, Paints and Pigments, Grain, Mining, Pulp and Paper, Stone, Clay and Glass, Rubber, Petroleum, Household Products, Tobacco, and much more.

The 2010 Conference brings you face-to-face with experts from across the processing industries. Access their knowledge to enhance your process and increase your efficiencies and quality.

Vortex will be at booth number 3645, please stop by and visit us!



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Vortex Valves North America - Vortex Valves Latin America - Vortex Valves Europe - Vortex Valves Asia Pacific



## Vortex Cares: Giving back to our global community

By Travis Young, Vice President of Marketing & Global Business Development

Vortex takes immense pride in the wide range of charitable causes we've contributed to over the years. It is our people and culture that drives this sense of obligation to our global society. This spirit of giving is even addressed in our Corporate Mission Statement, which includes "Improve our world community" as one of our key purposes as a company.



At Vortex giving is not just about money, it is about contributing time and effort to improve the lives of people we share this world with. Many of our employees donate their spare time as teachers, fire fighters, medics, as well as, volunteer for organisations like the *United Way* and *Big Brothers and Big Sisters*.

Vortex is very excited to take on a very special charitable project this year. We believe education is the key to solving many societal problems and improving the overall standard of living of a community. This is why Vortex has decided to help develop a school library for the Korongoni Primary School, which lies in the Eastern sector of Kilimanjaro Province in Tanzania, East Africa.

The school is dedicated to providing an environment that motivates the local children to seek a better life for themselves and their families through education. Learning English is an important element in the school's curriculum, however, the funding is poor and the teaching aids are very limited. English is taught with a piece of chalk and a blackboard, with virtually no books to assist in the development of literacy and speech skills.

In the autumn of 2009, Vortex employees and friends began collecting used children's books for the Korongoni Primary School in Moshi, Tanzania. Since

that time we've collected over 6,000 books and raised over £2150 towards logistics and construction!

The books are currently being organised for shipment in Vortex's UK-based warehouse and will be sent to the school in June of this year. We are collaborating with a local charity called Watu, which helps build schools throughout the region.

In future editions of QL, we will be bringing you more information on the progress of this fantastic programme.

For more information on how you or your company can contribute to the cause, please contact:

Travis Young  
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*Korongoni Primary School Students in Moshi, Tanzania*



## Industry Affiliations & Events:



**THE WOLFSON CENTRE**  
for Bulk Solids Handling Technology  
at The University of Greenwich



## Powder and Bulk Engineering



## EuroBulkSystems

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## From the Not-So-Serious Desk

The famous American writer Mark Twain once said:

“Humor is the great thing, the saving thing. The minute it crops up, all our irritation and resentments slip away, and a sunny spirit takes their place.”

At Vortex, we could not agree more! This why we dedicated the last two pages of each QL to making (or trying to make) you laugh. If you do manage to get back here, we hope you have a chuckle or two to brighten your day.

We also appreciate your opinion and feedback, not only about The Not-So-Serious Desk, but about QL as a whole!



*Quantum Leap's Editor-in-Chief is awaiting your feedback.*

## Rejected Vortex Ad of the Month!

Vortex scoured the Earth to assemble a crack team of advertising experts and challenged them to develop the most innovative and clever Vortex advertisements...ever. We then locked them in a room for several months, with only coffee and Spam for nourishment.

After endless days of brainstorming the results were, quite frankly, disappointing. The ads turned out to be childish, in bad taste, and downright absurd. In fact, the end products were so bad; we had to banish these so-called “advertising experts” back to their respective homelands. This has left us with hundreds of ads lying around on the cutting room floor.

To celebrate this failed experiment, QL will run one of these silly ads per month for your enjoyment or abhorrence (*note to reader, “abhorrence” is typically too big of a word for the QL Staff, so we had to use the Thesaurus to find another word for “not liking it too much”*).

This month's ad features a rather thin couple, probably from Italy, enjoying a holiday in the sun. Unfortunately the relationship is a little rocky, as Fabio's wandering eye has fallen upon the stunning 2-Way Wye Line Diverter.

***Vortex Disclaimer: This advertisement does not reflect real-life events. If you are an Italian named Fabio or Gianna AND having relationship problems because of Vortex's 2-Way Wye Line Diverter, we do apologise, as it must be coincidence.***

**GIANNA ALWAYS CAME IN  
SECOND TO FABIO'S  
EFFICIENT AND COST  
EFFECTIVE VORTEX.  
2-WAY WYE LINE  
DIVERTER.™**

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**www.vortexvalveseurope.com**



## The Not-So-Serious Desk's Ten Completely Useless Facts

1. A rat can last longer without water than a camel.
2. Your stomach has to produce a new layer of mucus every two weeks, otherwise it will digest itself.
3. The dot over the letter 'i' is called a tittle.
4. A raisin dropped in a fresh glass of soda will bounce up and down continually from the bottom of the glass to the top.
5. A female ferret will die if it goes into heat and cannot find a mate.
6. 40% of McDonald's profits come from the sales of Happy Meals.
7. Every person has a unique tongue print. (Say "aaah")
8. The 'spot' on 7UP comes from its inventor who had red eyes. He was an albino.
9. Dentists have recommended that a toothbrush be kept at least 6 feet away from a toilet to avoid airborne particles resulting from the flush.
10. No piece of paper can be folded in half consecutively more than 7 times (doubling factor... you end up folding  $2^7 = 128$  sheets of paper).

## The Not-So-Serious Desk's "Write Your Own Caption"

We all love the Internet. Unfortunately, many of us are not allowed to "surf" during work hours. Evidently some productivity specialists got together and declared this practice not very productive.

This is exactly why the QL Staff created this section of the newsletter. It gives us an excuse to look around the web for funny photos.... during work hours!

To make it all interesting and interactive for our readers, we'd like for you to send in your own caption for the photo to the right.

Send your caption ideas to:

[quantumleap@vortexvalves.com](mailto:quantumleap@vortexvalves.com).

We will choose our favourites and publish them in the next edition of QL!



*Enter your caption here.*