The Valve Experts

JINDEX

WELCOME



At Jindex We Try To Make Your Life Easier By Applying Our Unique Combination Of Process Knowledge And Valve Expertise

We can help answer

- Which valve type is technically the best for your process?
- Which valve types will definitely not work?
- Within a given valve type, what are the material and design detail choices?
- Which actuation type is best for your valve?
- Position control, isolation, failsafe?

Whether on the phone or on-site our team is committed to challenging tradition, not just copying tired industry norms.

Better technical valve selection, lower capital cost and reduced maintenance costs is our aim for all of your projects.

STEPHEN FOWLER, CEO

Manufactured, tough, smart valves



WHO IS JINDEX?

Established in 1995, Jindex is a highly qualified and experienced team who develop, patent and commercialise process flow control equipment.

Jindex is a recognised participant of the global valve industry with global representation agreements to supply our products locally and internationally.

We have extensive knowledge and experience in process flow control and the valve industry and we are accredited to ISO9001: 2015: Quality Management Requirements.

Jindex have patents on a range of valve technology and control equipment. Our head office and primary manufacturing facility is in Sydney, Australia.





JINDEX DIFFERENCE



- We offer process flow control knowledge, not sales techniques.
- We are valve designers and manufacturers with multiple valve patents.
- We work with you to ensure the right valve at the lowest cost in each process duty.
- We supply most valve types and control

systems, locally and internationally. From individual valves to complete project supply.

- We manufacture and source valves to meet short delivery requirements.
- In addition to standard valve types, our in-house team design to meet difficult applications and unusual conditions.







RESEARCH & DEVELOPMENT

- Jindex challenge valve industry traditions. We believe simple designs are the best.
- We thrive on researching and developing smarter, more effective and efficient flow control solutions across all elements of valve technology.
- Our Sydney facilities house state-of-the-art

assembly and test abilities to create and test our new designs.

 We offer fully functional testing above our Quality Management System Requirements.
Jindex test and analyse all designs prior to commencement of production.

OUR TEAM

Our team can assist with any valve or process flow control related question. We know what we are talking about.

We are a team of qualified Chemical, Mechanical and Mechatronic Engineers (and the odd Scientist!) who are able to provide input at the design and commissioning stage of your project.

Onsite troubleshooting, repair and maintenance services as well as complete valve application diagnostics and recommendations are part of our expertise and service to you.

The Jindex team are able to provide remote support anywhere in Australia and internationally.



ENGINEERS





INNOVATION

Jindex have been inventing process flow control equipment since the company started. Our first patented product was a pinch valve with simple means to change the wear sleeve without removing the valve from the pipeline. This innovation was designed to solve a particular process wear problem, and has firmly established the Jindex culture of innovation with a practical purpose.

Jindex currently have a number of areas of innovation for our manufactured products, with multiple patents in various stages of development. The Jindex approach has led to a number of new products and improvements to standard valve types.

These include: Ceramic extreme wear valves Dart valves Pinch valves Knife gate valves Butterfly valves Pneumatic actuators Pinch valve sleeves

We would like to hear about your particular process problems and challenges for which the valve industry currently does not have an answer.





Ceramic extreme wear valves - The Jindex Chunk valve







Pinch valve sleeves - wear life & flow control innovations

PRODUCTS

Valves

Pinch valves Pinch nozzle valves Dart valves Lime valves Check valves Ceramic chunk valves Hopper valves Knife gate valves Pressure air release valves Ball valves Butterfly valves Duckbill rubber check valves Gate valves Air release valves Slurry check valves Tailings valves







Pinch valve sleeve range

Extensive stock range Typical types of elastomer:

- Natural rubber
- Butyl
- Nitrile
- Neoprene
- Polyurethane
- ReoThane
- Hypalon

Full bore Reduced bore Cone sleeves Variable sleeve wall thickness Wear detector sleeve Vacuum duty sleeves

Replacements for most brands

PRODUCTS

Other products

High wear spigots & spools Rubber mining hoses

Site services

Onsite commissioning/shutdowns Onsite trouble shooting Valve audit











Actuators

Double acting pneumatic Single acting pneumatic with spring Handwheel and gearbox Electromechanical Hydraulic

Jindex engineered designs

Dart diverter boxes Pneumatic control cabinets Fail safe systems Valve controls



INDUSTRIES

Mineral processing Power generation Desalination Waste water Cement Oil and gas Aluminium refining Sand and gravel Food Pulp and paper Oil sands Foundry and pneumatic conveying





JINDEX RESULTS SPEAK FOR THEMSELVES

The following are typical examples of our day to day customer support:

High wear rate application The Jindex chunk valve

Site challenge

Milling circuit flow with particle size up 10 mm including scats, 70% solids and flow velocity 15 m/s through a pinch valve. Pinch valve sleeves were being replaced every 3 weeks. This was far longer than traditional metal valves, however site needed maintenance to occur during programmed shutdowns every 12 weeks.

High cycle application The Jindex filter pinch valve

Site challenge

An engineering company specified slurry knife gate valves as the control valves on five concentrate filter presses each with a cycle time of 20 mins. A complete valve replacement was necessary every 3 – 4 months, caused by one sided line pressure bending the valve gate and seals being torn or pulled out due to concentrate build-up on the gate.

Solution

Jindex custom designed and built a ceramic chunk valve which could handle the extreme circuit flow. Maintenance now occurs every second planned shutdown: 24 weeks. The increased availability of the plant contributes significantly to plant tonnages and reported revenues.

Solution

A Jindex site valve audit revealed this less than ideal valve selection and a successful trial of our filter feed pinch valves followed. The original valves which have now been replaced with a Jindex filter feed pinch valve have a life of at least 2 years. Only the Jindex valve sleeves need replacing which occurs during planned downtime.

Increased plant operations (less maintenance downtime)

3 WEEKS

24 WEEKS

Jindex custom designed ceramic chunk valve contributes significantly to plant tonnages and reported revenues

Reduced replacement time



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Jindex filter feed pinch valve the perfect fit, with a longer life

Air application in flotation circuit Butterfly valves

Site challenge

An OEM customer had ordered a significant number of 100 mm pinch valves for air control duty. They were installed in full stainless steel 100 mm manifolds due to the plant's aggressive chemical environment. It was discovered that the air flow rates required had been miscalculated and were not achievable through the system. All manifolds and valves were proposed to be changed to 125 mm diameter by the customer, and pricing was requested for the valves from Jindex.

Solution

We had supplied standard design butterfly valves per this customer's usual specification. These valves have a single spindle which passes through the centre of the butterfly disc. Our engineer was aware of butterfly valve types with two small stub shafts either side producing a flatter disc. This reduces restriction of the valve bore, allowing greater flow. A quick check of valve Cv values and system requirements determined that this type of valve would eliminate the need to upgrade the manifold and valves to 125 mm. We simply replaced the 100 mm valve bodies, re-using all actuators and positioners. This was a much smaller order for Jindex, but saved over a hundred thousand dollars and significant embarrassment for our customer.

Customised solution increases flow and savings



Jindex butterfly valves, a customised solution

Pneumatic application at a nickel mine *A* Jindex pneumatic actuators

Site challenge

A nickel mine in Western Australia had control valves installed with pneumatic actuation and electro-pneumatic positioners. The positioners were mounted on the control valves. The location of the valves in the plant made access difficult to calibrate the positioners or do maintenance on them. Access required multiple procedures for working at heights and job safety procedures. This was costly and inconvenient for site maintenance personnel.

Solution

Jindex supplied our patented actuator which allows translation of the linear valve stroke to a quarter-turn sensor. This allowed the positioners to be re-located into a control panel nearby which resulted in ease of control and maintenance, and removed previous safety issues regarding access.

Ease of control and maintenance



DIFFICULT ACCESS

EASY ACCESS

Jindex pneumatic actuators for ease of maintenance and safety We look forward to applying our unique combination of process knowledge and valve expertise to make your life easier

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