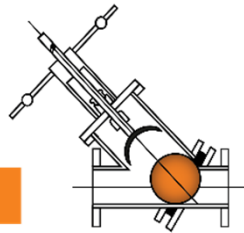


DUAL



ONE STOP SLURRY SOLUTION





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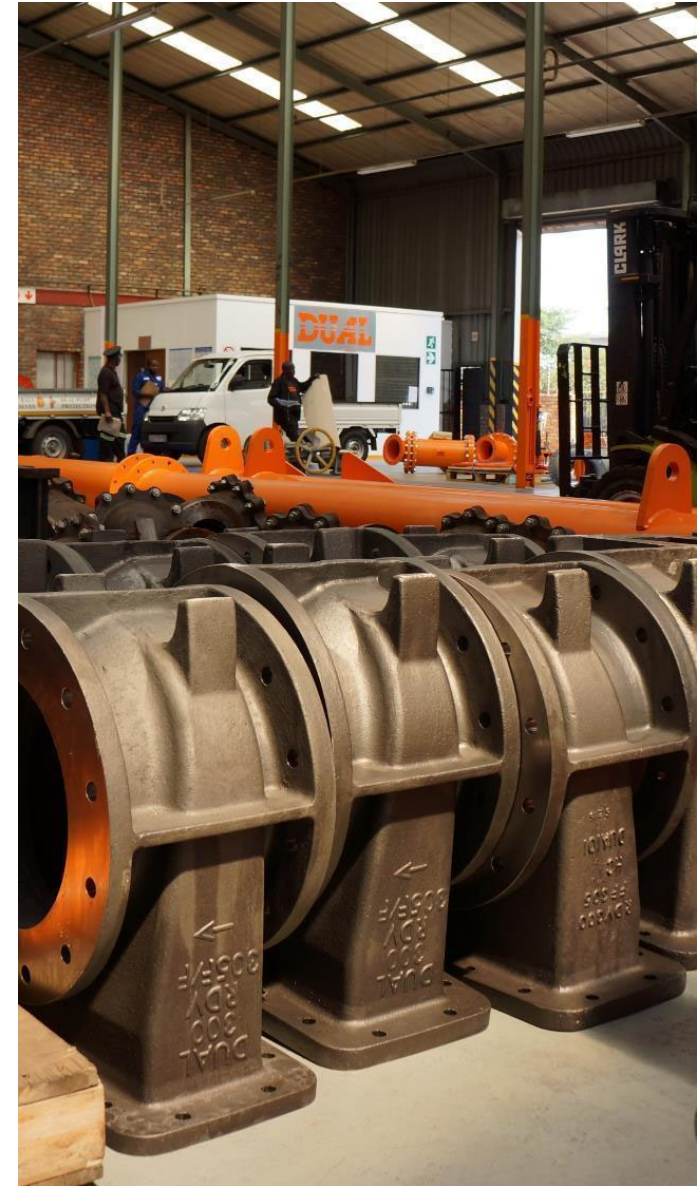
About Us

Dual Products international has been manufacturing slurry valves for over 40 years, and is one of the Worlds leading manufacturers of abrasion resistant valves. Our commitment to providing a total solution to our valued customers has led us to introduce new abrasion resistant products, including our Pinch valves and Patented Dual Pivot Gate Valves. The Dual Pivot Gate Valve is a new and unique pivoting gate valve designed specifically for heavy abrasive and corrosive slurries, water, etc.

The Pivot Gate valves Patented design allows it to cycle through heavy slurries without sticking. Three variants are available, Wafer, Flanged and High Pressure. Dual Products produces valves for mining,

sands, steel, power, chemical and paper industries world wide and has exported valves to more then 50 countries.

Dual has a total of 44 products, manufactured in house to our high standards of quality.





Industries

Open Cast Mining



Gold Mining



Coal Mining



Power Generation



Mineral Mining / Processing





Footprint



Product Range

Ball Check Valves



Gate Valves



Pivot Gate Valves



Actuation



Pinch Valves



Accessories



Dual Flow Valve (DFV)

The DUAL valve operates on the discharge side of the pump. As the flow through the pipeline starts or stops, the ball automatically rises or falls, opening or closing the valve. The handwheel is there to lock the ball in position. The handwheel can be used to isolate, but with back pressure. The Dual valve can work in the horizontal and vertical position.

- Rotating and floating ball which self-adjusts to flow.
- Self-cleaning, due to the freely rotating ball.
- Long ball life, due to ball rotation.
- Replaces two valves: check valve and either a gate, knife gate, pinch or diaphragm valve.
- Full port opening – no obstruction to the flow.
- Virtually no pressure drop which eliminates water hammer.
- Long seat life – seats are out of the flow and can be rotated in-line to increase seat life fourfold.
- Easy maintenance – seat and ball can be inspected or replaced without removing the Dual Valve from the pipeline.
- Indicator to show valve in open or closed position.
- Virtually maintenance free because of the simple design.
- Simple manual operation – manual handwheel is standard and automatic actuators are not required (but can be fitted).





Dual Free Flow Valve (DFFV)

Dual's Free Flow Valve operates on the discharge side of the pump as the flow through the pipeline starts or stops, the ball automatically rises or falls, opening and closing the valve. This occurs without noticeable shock or hammer, regardless of the line pressure or the speed of closure.

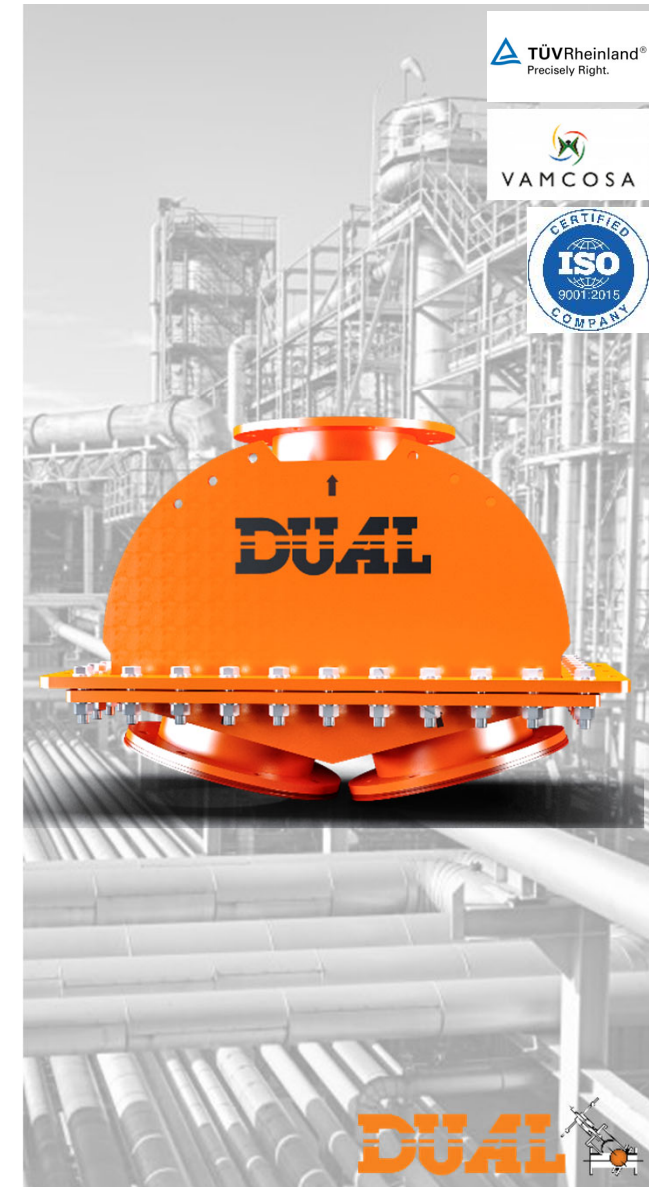
- Rotating and floating ball – self adjusts to flow. simple design.
- Self cleaning due to the freely rotating ball.
- Long ball life due to ball rotation.
- Full port opening. No obstruction to the flow.
- Virtually no pressure drop. Eliminates pipe hammer. Long seat life. Seats are out of the flow and can be rotated in line to increase seat life fourfold.
- Easy maintenance. Seat and ball can be inspected or replaced without removing the free flow from the pipeline.
- Virtually maintenance free because of the



Dual Double Non-Return Valve (DDNRV)

Dual's Double Non-Return valve operates on the discharge side of two pumps in parallel. Both pumps can run simultaneously or independently. When one pump is switched off, the ball will automatically drop back stopping the back flow to the other pump.

- Flush ports.
- As the elastomer covered ball moves, it rotates with the flow.
- This ensures that the valve self cleans and permits it to open and close reliably even under severe conditions of slurry build up.
- Minimal pressure drop.
- Replaceable ball and seats.



Dual Slurry Air Release Valve (DSARV)

Dual's Air Vacuum Release and Vacuum breaker's function is to automatically exhaust large volumes of air from the system when it is being filled and also to allow air to re-enter the pipe lines when being emptied. The orifice size is generally the same size as the valve inlet and outlet.

- No blocking or leakage.
- No sticking due to rotating ball.
- Natural rubber secondary seal for positive seal.
- Fabricated and can be repaired in lined.
- Self cleaning ball action.
- Cast or Fabricated body.





Dual De-Water In-Line Ball Check Valve (DDWV)

Dual 's Flo-Stop Valve has a reinforced stainless steel ball. The unique design of the valve allows free movement of the ball. The ball lifts out of the liquid without any interference. As the pump stops, the ball falls back and positively locates in the stainless steel seat due to its own weight and back pressure of the liquid. The higher the pressure the better the secondary rubber seal will seal.

- Perfect sealing.
- Low head losses.
- Non clogging, self cleaning ball.
- Minimum back pressure for tightness: 0.3 to 0.5 bar.
- Secondary seat rubber.
- Maintenance free.
- Full bore.
- Silent, non-slam, reduces pipe hammer.
- Fabricated valves face-to-face can be altered to suit different types of valve face-to-face dimensions.
- Simple construction – one moving part.



Dual Pivot Flanged Gate Valve (DPFGV)

DUAL's Pivot Flanged Gate Valve is built with a steel body and features a heavy-duty stainless steel gate. Removable sleeves on either side of the gate provide a bi-directional bubble tight seal, with no metal parts in contact with the slurry. The Dual Pivot gate valve provides faster operation and occupies less vertical space within the process pipeline .

- 360 PSI / 25 Bar (higher pressures on request).
- Double Seat design for heavy duty slurry service.
- Ease of replacement of sleeves
- When open, the gate is fully pivoted out of the slurry flow.
- Gate guard.
- Bubble tight shutoff, zero downstream leakage.
- No clogged bonnet to impede.
- External epoxy coated.
- Easily adapted to suit most actuators
- Low maintenance requirements
- Suitable for wet or dry service
- Bi-directional flow.
- Packingless design
- Rotary style movement of the gate
- Flush Ports
- Light weight for easy handling
- No seat cavity where solids can collect and prevent full gate closure

RSA RegD. Design No. F2017/01372
RSA RegD. Design No. A2017/01371
Patent No. 2017/05831



Dual Pivot Wafer Gate Valve (DPWGV)

DUAL's Pivot Wafer Gate Valve is built with a steel body and features a heavy-duty stainless steel gate. Removable sleeves on either side of the gate provides a bi-directional bubble tight seal, with no metal parts in contact with the flowing slurry, when open. When the Dual Pivot Wafer Gate Valve closes, the gate valve moves through the Dual Ring Sleeves from the side, eliminating the damage caused to the sleeves, pushing from the top.

- 360 PSI / 25 Bar
- Double Seat design for heavy duty slurry service.
- Ease of replacement of seat liners.
- When open, the gate is fully pivoted out of the slurry flow.
- No metal parts in contact with the flowing slurry
- Bubble tight shutoff.
- No clogged bonnet to impede flow.
- External epoxy coated.
- Easily adapted to suit most actuators
- Low maintenance requirements
- Suitable for wet or dry service
- Bi-directional flow.
- Gate Guard.
- Rotary style movement of the gate
- No gland to maintain
- Wide range of elastomers
- Light weight for easy handling
- No seat cavity where solids can collect and prevent full gate closure
- Suitable for wet or dry service
- Flush ports
- Dual Sleeve isolation
- Face to face MSS-SP-81

RSA RegD. Design No. F2017/01372
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Patent No. 2017/05831



Dual High Pressure Pivot Gate Valve (DHPGV)

DUAL's Pivot High Pressure Gate Value is built with a steel body and features a heavy-duty stainless steel gate. Removable sleeve on either side of the gate provide a bi-directional bubble tight seal, with no metal parts in contact with the flowing slurry in open position. As the Dual Pivot High Pressure Gate Value rotates on the pivot point and the gate moves through the Dual Ring Sleeves from the side eliminating the damage caused to the sleeves.

- 740 PSI / 50 Bar (higher pressures on request).
- Double Seat design for heavy duty slurry service.
- Ease open, the gate is fully pivoted out of the slurry flow.
- Gate guard.
- Bubble tight shutoff, zero downstream leakage.
- No clogged bonnet to impede.
- Easily adapted to suit most actuators
- Low maintenance requirements
- Suitable for wet or dry service
- Bi-directional flow.
- Packingless design
- Long lasting lubrication
- Flush Ports
- Light weight for easy handling
- No seat cavity where solids can collect and prevent full gate closure
- No gland to maintain
- Wide range of elastomers available
- Dual sleeve isolation

RSA RegD. Design No. F2017/01372
RSA RegD. Design No. A2017/01371
Patent No. 2017/05831



Dual O-Port Gate Valve (DOPGV)

DUAL's O-Port gate valve has a stainless steel gate machined with a round orifice port, in line with the seat ID when the valve is on the open position. When the valve is closed the ported gate will move downwards sealing the port. Due to the seal constantly being engaged against the gate, stroking the valve closed forces the gate between two matching sleeve ends until it reaches fully closed position. Effectively sealing the valve closed.

- 300 PSI / 25 Bar
- Double seat design for heavy duty slurry service.
- Easy of replacement of seat ring sleeves.
- Quick installation.
- Self cleaning.
- Bubble tight shutoff.
- No clogging bonnet to impede flow.
- External epoxy coated.
- Easily adapted to suit most actuators.
- Low maintenance requirements.
- Suitable for wet or dry service.
- Bi-directional flow.
- Open/Closed indicator sleeve.
- Wide range of elastomers available.
- Light weight for easy handling.
- No seat cavity where solids can collect.
- Lock out feature.



Dual Rotary Disc Sleeve Valve (DRDSV)

Dual's Rotary Disc Sleeve Valve is a unique rotating gate valve designed specifically for heavy abrasive and corrosive slurries. The Patented design allows the valve to cycle in heavy slurries without jamming and has a ring seat sleeve that can be replaced when worn. The valve can be used to control and throttle the flow. Zero discharge to atmosphere

- No pressure drop.
 - No blockage or leakage,
 - Disc can be replaced in situ.
 - Low torque due to no gate guides,
 - Long wear life (due to rotating disc).
 - Self cleaning gate action,
 - Seals in both directions.
 - Wedge for position seal,
 - Cutaway to clean seating area.
 - Fabricated valves can be repaired in line.
 - Sleeve out of flow when in open position.
- pressure.
 - Replaceable ring sleeve seat.
 - Light weight.
 - Spindle dust cover.
 - Flush port.
 - Zero Discharge to atmosphere



Dual Rotary Disc Wedge Gate Valve (DRDWGV)

Dual's Rotary Disc Wafer Sleeve Valve is a unique rotating disc valve designed specifically for heavy abrasive and corrosive slurries. The Patented design allows the valve to cycle in heavy slurries without jamming and has a ring seat sleeve that can be replaced when worn. The valve can be used to control and throttle the flow. Zero discharge to atmosphere.

- No pressure drop.
- No blockage or leakage,
- Disc can be replaced in situ.
- Low torque.
- Long we life (due to rotating gate/disc).
- Self cleaning gate action.
- Seals in both directions.
- Wedge for position seal.
- Cutaway to clean seating area.
- Fabricated valves can be repaired in line.
- Sleeve out of flow when in open position.
- Deflection cone





Dual Diverter Gate Valve (DDGV)

Dual's Diverter gate valve has a stainless steel gate machined with a round orifice port, in line with the seat ID when the valve is on the open position. When the valve is closed the ported gate will move sideways sealing the port. Due to the seal constantly being engaged against the gate, stroking the valve closed forces the gate between two matching sleeve ends until it reaches fully closed position. Effectively sealing the valve closed.

- No clogging bonnet to impede flow.
- External epoxy coat.
- Low maintenance requirements.
- As the valve strokes, the seats will clean the gate of material.
- Compact design and light weight.
- Bi-Directional flow.
- Packingless design.
- The gate can be coated to eliminate scale build up.
- No seat cavity where solid can collect and prevent full gate closure.
- Open/Closed indicator.
- Lifting lugs & lock-out feature.



Dual Pneumatic Pinch Valve (DDPV-L)

DUAL's Pneumatic Valve consists of a tough, but flexible full bore sleeve in an enclosed body. Actuated by means of air or Hydraulic Fluid, the valve body acts as an Actuator. When the media is introduced, the sleeve is compressed forming a complete and effective seal.

- Valve can be installed in any position.
- Housing acts as a built-in actuator.
- Long operating life.
- Full bore, low friction loss.
- 100% drip tight closure even with solids in the medium.
- Light weight.
- Seals in both directions.
- High flexibility sleeve design reducing closing forces, improves recovery to full open position.
- Enclosed body protects the sleeve from the environment and contaminants in the event of sleeve failure.
- Fast and easy sleeve change.
- Single wearing part.
- Face to face compatible with diaphragm valves.
- No glands which require regular adjustment.
- Pneumatic or hydraulic medium can be used to operate the valve.
- Ideal for remote operations.



Dual Pinch Valve Open Body type (DPVO)

Dual's Pinch Valve consists of a tough, but flexible full bore sleeve, which forms part of the pipeline. The valve is closed mechanically via movement of the pinch Bars located on opposite sides of the sleeve. The core of the Dual Pinch Valve is the sleeve – this sleeve is reinforced with high-strength fabric. The valves are well suited for on/off and throttling control applications where scale build up is a problem.

- Thrust bearing for ease of opening and closing(handwheel type)
- Long operating life
- Full bore, low friction loss
- 100% drip tight closure even with solids in the medium
- Rising spindle
- Seals in both directions
- High flexibility sleeve design reduces closing forces, improves recovery to full open position
- Fast and easy sleeve change
- Single wearing part
- Positive opening tags
- Unobstructed flow reduces pumping costs
- No glands which require regular adjustment
- Available in open or enclosed body style



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- Long operating life
- Full bore, low friction loss
- 100% drip tight closure even with solids in the medium
- Rising spindle
- Seals in both directions
- High flexibility sleeve design reduces closing forces, improves recovery to full open position
- Enclosed body protects the sleeve
- Fast and easy sleeve change
- Single wearing part
- Positive opening tags
- Unobstructed flow reduces pumping costs
- No glands which require regular adjustment
- Available in open or enclosed body styles



Dual Straight Through Pinch Valve (DSTPV)

Dual's Straight -Through Pinch Valve consists of a tough, but flexible full bore sleeve, which forms part of the pipeline. The valve is closed mechanically via movement of a pinch gate located above the sleeve. The core of the Dual Straight-Through Pinch Valve is the sleeve. The valves are well suited for on/off and throttling control applications involving slurries, powders, liquids, granulated materials and applications where scale build is a problem

- Thrust bearing for ease of opening and closing (handwheel type).
- Long operating life.
- Full bore, low friction loss.
- 100% drip tight closure even with solids in the
- Light weight.
- Seals in both directions



Dual Single Pinch Valve (DSPV)

Dual's Single pinch Valve consists of a tough, but flexible full bore sleeve, which forms part Of the pipeline The valve is closed mechanically via movement of a pinch gate located above the sleeve. The core of the Dual Single Pinch Valve is the sleeve. The valves are well suited for on/off and throttling control applications involving slurries, powders, liquids, granulated materials and applications where scale build is a problem.

- Thrust bearing for ease of opening and closing (handwheel type).
- Long operating life.
- Full bore, low friction loss.
- 100% drip tight closure even with solids in the
- Light weight.
- Seals in both directions





Dual Double Acting Pneumatic Actuator (DDAPA)

DUAL's Double Acting Pneumatic Actuators are manufactured with lightweight composite tubing, which is fibreglass-reinforced epoxy. It has an impact strength of 40120D ft-lbs, which makes the actuator much more dent-resistant than aluminium or brass. The composite tubing is protected by a stainless steel cover to add extra protection against abuse in the plant. Both the piston rod and seal are protected by a wiper ring which cleans the piston rod before it is passed through the lip seal contributing to extended actuator life. The actuator is self-lubricating and this feature greatly increases the life of the O-ring.

- Simple design
- Urethane rod wiper
- Corrosion proof and robust construction
- Manufactured to fit all types of valves
- Stroke adjustment feature
- Smooth operation
- Easily maintained
- Double O-ring seal on the piston
- Self lubricating (increased O-ring life)
- Barrel protection weather cover
- Stainless steel piston rod
- Various strokes to suit valve requirements





Dual Accessories

Dual accessories are valve part extras that we ensure to keep stock of. We try and cater for the emergency situations when a valve fails or needs a replacement part on site in a hurry.

- Spare nuts and Bolts
- Spare Pinch Valve sleeves
- Spare Urethane coated balls.
- Spare handwheels.
- Spare Linatex and Rubber seats.
- Spare Ring Sleeves.
- Spare machine parts.
- Spare Gaskets.

Dual has a total of 44 products, manufactured in house to our high standards of quality.

Please visit: www.dualvalves.com to see the full range.





Technical Track Record

Dual's team has over 40 years experience and over 30 000 successful installations in over 50 countries, we have the leading product range when it comes to slurry and abrasive resistant valves.

Our engineering team are continuously innovating our valves to create an ease of operation on site as well as focusing on ease of installation and most importantly, increasing wear life of valves.

Our valves are designed and engineered to withstand the harsh conditions in the mineral mining process. Being fabricated in house we have the unique opportunity to find new ways to decrease wear and increase functionality.





Company Overview

Turnover – ZAR 45 000 000 with > 50% being export orders (orders outside South Africa)

Expected growth – Dual through recently agreements in North and South American are now on a monthly basis quoting in the region of ZAR 100 000 000 which will in the near future generate company sales that will far exceed present capabilities and capex funding requirements.

Territories and countries currently working with either directly or through Distributors -

- Southern Africa (Namibia, Zimbabwe, Botswana, Zambia, Tanzania, DRC, Ghana, Mozambique, Madagascar)
- Northern Africa (Morocco, Tunisia)
- Europe (Spain, Portugal, Sweden, Poland, Bulgaria, Germany)
- South America – (Chile, Argentina, Peru, Ecuador, Mexico, Brazil)
- North America – USA and Canada
- Middle East – UAE
- CIS countries – (Russia, Ukraine)
- Australasia – (Australia and New Zealand)

Employees – 45

Products – Dual current has in excess of 30 products that are mainly for the slurry market. New products are being introduced as and when the opportunity arises. Dual's ability to engineer and design new products is one the company's strong points with up to date software and access to customers who are willing to test our valves in aggressive slurry conditions!

Facilities include –

- Assembly and testing
- In house pattern making
- Fabrication
- Design and Engineering





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