

Dry Bulk

Dixon Dry Bulk products are designed for use with bulk trailers and truck blowers for the pneumatic transfer of dry bulk commodities such as powders, grains and plastic pellets. Other industrial applications are possible when pneumatic control of air or dry products is required.



Air and Vacuum Relief Valves



Hose Accessories



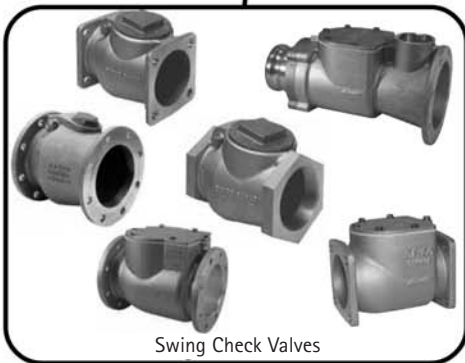
Pneuclean™
Filter Systems



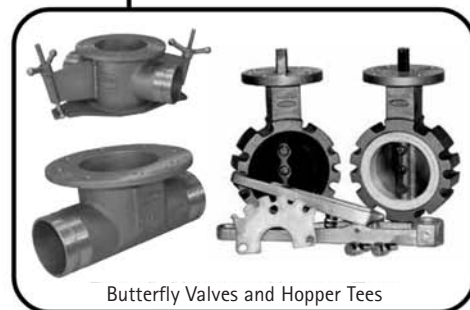
Fluidisers



Tube Doors



Swing Check Valves



Butterfly Valves and Hopper Tees

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Air Relief Valves

- Designed to relieve air pressure at a specific pressure setting (customer to advise when ordering - typical setting 15-25 psi)
- Air Relief Flow Rates:
 - A2180 up to 500 SCFM
 - A2182 up to 1400 SCFM
 - A3180 up to 1300 SCFM
- A choice of setting tolerances are provided. In addition to conventional field duty tolerances of +3/-0 psi, offers OEM tolerances of +1/-0 psi. The tighter tolerance air reliefs are designated with the prefix A, (A2180, A3180, A2182). Both conventional field duty and OEM tolerance products are of identical construction, however OEM models are identified with an A imprinted before the setting stamp
NOTE: Adjustable models, (A2180ADJ, A3108ADJ) are only available with OEM settings

Relief Valve Flow Rates vary depending on the preset relief pressure, for specific relief rates contact Dixon.

FEATURES:

- High Grade Diaphragms – White, food grade, and high temperature elastomers for all models
- Suitable for high temperature (to 200°C) and food grade service
- Tamper proof stainless steel cup seals
- Available in a female thread version
- Model 2182 has Silicon rubber poppet which reduces tendency to cake – cement, lime etc

Safety Note: Air/vacuum relief valves must be regularly inspected, cleaned and maintained. Product particles can prevent the valve from fully reseating which can lead to early opening/leakage from the valve or can prevent it from opening at all. For ease of removal and installation, to allow for inspections, cleaning and maintenance all 2180 and 2182 series air relief valves are available with either male cam and groove or victaulic grooved connections.

Designed for trailer service



CUP SEAL

| PART NO. | DESCRIPTION |
|----------|---------------|
| 2180/xx | 2" Female NPT |
| A2180/xx | 2" Female NPT |
| 3180/xx | 3" Female NPT |
| A3180/xx | 3" Female NPT |



| PART NO. | DESCRIPTION |
|----------|-------------|
| 2180B/15 | 2" Adapter |

Set at 15 psi



Shown with optional Safety Lanyard (CAL25) attached.



| PART NO. | DESCRIPTION |
|----------|----------------|
| 2180V/15 | 2" Grooved End |

Set at 15 psi



Shown with optional Safety Lanyard (CAL25) attached.



CUP SEALS

| PART NO. | DESCRIPTION |
|-------------|---------------|
| A2180/xxADJ | 2" Female NPT |
| A3180/xxADJ | 3" Female NPT |

Adjustable models allow an adjustment of + or - 3 psi from specified setting. Designed for trailer service.

/xx refers to the choice of pressure settings provided. Please request the required settings when ordering.

Designed for high capacity blower or trailer service



| PART NO. | Description |
|----------|----------------|
| 2182/xx | 2" Male NPT |
| A2182/xx | 2" Male NPT |
| 2182B/xx | 2" Adapter |
| 2182V/xx | 2" Grooved End |



| PART NO. | DESCRIPTION |
|----------|---------------|
| 2182F/xx | 2" Female NPT |

/xx refers to the choice of pressure settings provided. Please request the required settings when ordering.

Pneuclean™ Pneumatic Filtration System

The Pneuclean™ unit is designed to remove microscopic particles generated by blowers during pneumatic conveying of contaminant-sensitive dry bulk products. Contaminants such as Iron and Hydrocarbons are produced by blowers and can adversely affect dry products such as plastic pellets and food materials.

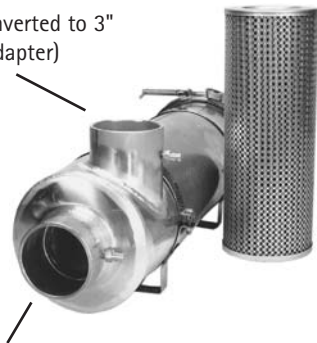
These filter units are typically used on dry bulk tanker trucks and placed after the blower and before the bulk storage tanker. This in-line pneumatic system is also suitable for industrial applications or wherever microscopic filtration (up to 4 microns) of impurities is required.

Standard units employ 4" inlets and outlets. However, 3" plumbing can be used with available weld-on 4" x 3" female NPT adapters.

Special cartridge-style filter elements have a typical life expectancy of approximately 12 months or 2000 hrs. of service.

4" AW and 4" DW Aluminium fittings may be butt-welded to filter inlet to allow quick coupler connection of hose.

4" inlet (can be converted to 3" by use of 4" x 3" adapter)



Stainless Steel cartridge with microporous, semi-permeable PTFE membrane filter element.

| PART NO. | DESCRIPTION |
|--------------------------|---|
| PC5000 | 4" Pneuclean complete housing with filter |
| Replacement Parts | |
| PC5001 | Filter |
| PC5003 | Mounting Bracket |
| PC5004 | V-clamp |
| PC5005 | Lid O-ring |
| PC5006 | Bottom Gasket |
| PC5007 | Lid w/Adjusting nut |

4" outlet (can be converted to 3" by use of 4" x 3" adapter)

In-Line High Pressure Air Filtration for 4" Air Lines

- FDA Medium with 99.99% maximum efficiency at 4 microns.
- Maximum air flow 1000 CFM's
- Back pressure only .05 psi
- Temperature range -45° to 230°C
- Average 12 month filter cartridge lifespan
- Quick release V-clamp for easy inspection
- Overall weight 26 lbs (11.8kg)

Swing Check Valves

- High flow body design
- Drop in flapper assembly
- High temperature white food grade seal
- Easy maintenance inspection lid
- Captive springs and shaft to prevent contamination
- Stainless Steel hardware



3030SQ



3090MA

SWING CHECK VALVES

| PART NO. | DESCRIPTION |
|----------|--|
| 3030SQ | 3" Square Flange Swing Check Valve |
| 3090M | 3" Swing Check Manifold |
| 3090MA | 3" Swing Check Manifold with 3" Adapter |
| 3090MB | 3" Swing Check Manifold with 4" Adapter |
| 3030SK | Security Kit For 3" Swing Check Manifold |
| 3090MS | 3" Swing Check Manifold with Security Kit installed |
| 3090MAS | 3" Swing Check Manifold with 3" Adapter and Security Kit installed |
| 3090MBS | 3" Swing Check Manifold with 4" Adapter and Security Kit installed |

3" AND 4" SWING CHECK VALVES

- Cast Aluminium bodies with Bronze inspection caps
- Safety flapper assembly - all flapper assemblies are drilled and pinned and will not come apart
- Choice of seals: metal-to-metal, Buna or Silicon Rubber seals
- Choice of models with or without spring loaded flapper
- Full flow design - flappers swing out of flow path for maximum flow and low resistance
- Designs with large caps allow flapper repair/rebuild on unit

Check valves allow one way directional flow only. They are used as a protective safety device to prevent flow reversal should back pressure result. These valves are designed specifically for service with pneumatic equipment which transfers dry bulk commodities.



3" ROUND FLANGED (TTMA)

| PART NO. | DESCRIPTION |
|----------|---|
| 3000N | Metal-to-metal seal |
| 3000SP | Metal-to-metal seal & spring loaded flapper |
| 3000B | Buna Rubber seal |
| 3000S | Silicon Rubber seal |
| 3000BSP | Buna seal & spring loaded flapper |
| 3000SSP | Silicon Rubber seal & spring loaded flapper |



3" SQUARE FLANGED (TTMA)

| PART NO. | DESCRIPTION |
|-----------|---|
| 3001SQN | Metal-to-metal seal |
| 3001SQSP | Metal-to-metal seal & spring loaded flapper |
| 3001SQB | Buna Rubber seal |
| 3001SQS | Silicon Rubber seal |
| 3001SQBSP | Buna seal & spring loaded flapper |
| 3001SQSSP | Silicon Rubber seal & spring loaded flapper |



3" THREADED ENDS (NPT)

| PART NO. | DESCRIPTION |
|-----------|---|
| 3000TE | Metal-to-metal seal |
| 3000TESP | Metal-to-metal seal & spring loaded flapper |
| 3000TEB | Buna Rubber seal |
| 3000TES | Silicon Rubber seal |
| 3000TEBSP | Buna seal & spring loaded flapper |
| 3000TESSP | Silicon Rubber seal & spring loaded flapper |

Gaskets should be purchased separately.



4040RD

4" ROUND FLANGED (TTMA)

| PART NO. | DESCRIPTION |
|----------|---|
| 4040RD | Metal-to-metal seal & spring loaded flapper |

4" THREADED ENDS (NPT)

| PART NO. | DESCRIPTION |
|----------|--------------------------------------|
| 4040TE | Silicone seal, spring loaded flapper |

2" SWING CHECK VALVES

- Aluminium cast, square flanged and threaded end models
- Self-aligning, moulded "white food grade EPDM" rubber flapper assembly (176°C / 350°F) with externally mounted springs, to prevent ingestion of parts
- Easy open (no tools required) inspection cap
- Full flow performance



3020SQ



a3020TE

2" SWING CHECKS

| PART NO. | DESCRIPTION |
|----------|------------------|
| 3020SQ | 2" Square Flange |
| 3020TE | 2" Female NPT |

Horizontal Swing Check Valves

- Swing Check Valves are designed to prevent backflow in plumbing and liquid piping systems, while offering full flow performance with a minimum of turbulence or pressure loss
- A positive seating disc allows flow only in one direction and a screw-in cap provides easy access for periodic cleaning
- For horizontal or vertical use
- Rated to 200 psi WOG
- Brass body & disc
- Temperature range (-4°C to 66°C / -20°F to 150°F)



FEMALE NPT x FEMALE NPT

| PART NO. | SIZE |
|----------|--------|
| SWCV50 | 1/2" |
| SWCV75 | 3/4" |
| SWCV100 | 1" |
| SWCV125 | 1 1/4" |
| SWCV150 | 1 1/2" |
| SWCV200 | 2" |
| SWCV300 | 3" |

In-line Sight Glass

- Designed for dry bulk transfer applications
- Available in combination of 3" and 4" coupler or adapter ends
- Includes: Aluminium bodies
Buna seals
Acrylic sight glasses
Stainless Steel hardware
Bronze cam Arms (where applicable)



3544CA

| PART NO. | DESCRIPTION |
|----------|-------------------------|
| 3544CA | 4" Coupler x 4" Adapter |
| 3533CA | 3" Coupler x 3" Adapter |
| 3543CA | 4" Coupler x 3" Adapter |
| 3534CA | 3" Coupler x 4" Adapter |
| 3533AA | 3" Adapter x 3" Adapter |
| 3544AA | 4" Adapter x 4" Adapter |
| 3534AA | 3" Adapter x 4" Adapter |
| 3544CC | 4" Coupler x 4" Coupler |
| 3533CC | 3" Coupler x 3" Coupler |
| 3543CC | 4" Coupler x 3" Coupler |

Butterfly Valves

- Housing:** Aluminium
- Discs:** Type 316 Stainless or Nodular Iron
- Stem Packing:** Buna-N
- Stem Bushings:** Thermal plastic polymer, top and bottom
- Resilient Seat:** Nitrile
- Handle:** High strength 713 Alloy Aluminium with retrogressive re-aging process - stronger than industry standard Cast Iron handles. Stainless Steel spring and locking lever pin
- Throttling Plate:** Five position, high strength Aluminium Allo
With the exception of 4" valves, will fit 1501 bar TTMA flanges

Features:

- Aluminium Body
- Nodular Iron Disc
- 17-4 SS Stem
- Nitrile, FDA approved Black Seat



| NODULAR IRON | | | | | |
|---------------------------------------|---------|--------------------------------|------|---------------------------------|------|
| COMPLETE VALVE WITH NODULAR IRON DISC | | NODULAR IRON REPLACEMENT DISCS | | BLACK REPLACEMENT NITRILE SEATS | |
| PART NO. | SIZE | PART NO. | SIZE | PART NO. | SIZE |
| 2-400-1500 | 2" | 2-400-422237F | 2" | 2-400-422500 | 2" |
| 3-400-1500 | 3" | 3-400-422237F | 3" | 3-400-422500 | 3" |
| 4-400-1500 | 4" | 4-400-422237U | 4" | 4-400-422500 | 4" |
| 4A-400-1500 | 4" TTMA | 5-400-422237U | 5" | 4A-400-422500 | 4" |
| 5-400-1500 | 5" | 6-400-422237U | 6" | 5-400-422500 | 5" |
| 6-400-1500 | 6" | | | 6-400-422500 | 6" |

Handles should be ordered separately.

Features:

- Aluminium Body
- 316 SS Disc
- 17-4 SS Stem
- Nitrile, FDA approved White Seat



| STAINLESS STEEL | | | | | |
|--|------|---------------------------------------|------|---------------------------------|------|
| COMPLETE VALVE WITH 316 STAINLESS STEEL DISC | | 316 STAINLESS STEEL REPLACEMENT DISCS | | WHITE REPLACEMENT NITRILE SEATS | |
| PART NO. | SIZE | PART NO. | SIZE | PART NO. | SIZE |
| 3-400-3501 | 3" | 2-400-422209F | 2" | 2-400-422501 | 2" |
| 4-400-3501 | 4" | 3-400-422209F | 3" | 3-400-422501 | 3" |
| 5-400-3501 | 5" | 4-400-422209U | 4" | 4-400-422501 | 4" |
| 6-400-3501 | 6" | 5-400-422209U | 5" | 4A-400-422501 | 4" |
| | | 6-400-422209U | 6" | 5-400-422501 | 5" |
| | | | | 6-400-422501 | 6" |

Handles should be ordered separately.

Butterfly Valves

- Housing:** Aluminium
- Discs:** Type 316 Stainles
- Body Screws:** Cadmium Plated Steel
- Stem Packing:** Buna
- Stem Bushings:** Thermal plastic polymer, top and bottom
- Resilient Seat:** Nitrile
- Handle:** High strength 713 Alloy Aluminium with retrogressive re-aging process - stronger than industry standard Cast Iron handles. Stainless Steel spring and locking lever pin
- Throttling Plate:** Five position, high strength Aluminium Alloy. With the exception of 4" valves, with will fit 1501 bar TTMA flanges

Features:

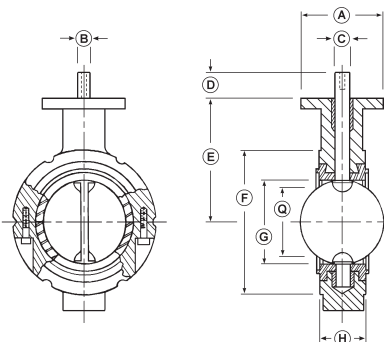
- 2 Piece Aluminium Body
- One piece 316 SS Disc and Stem
- Nitrile, FDA approved White Seat



| STAINLESS STEEL | | | | | |
|---------------------------------|------|---------------------------------------|------|---------------------------------|------|
| COMPLETE VALVE WITH 316 SS DISC | | 316 STAINLESS STEEL REPLACEMENT DISCS | | WHITE REPLACEMENT NITRILE SEATS | |
| PART NO. | SIZE | PART NO. | SIZE | PART NO. | SIZE |
| 3-390-828501 | 3" | 3-390-209F | 3" | 3-400-422501 | 3" |
| 4-390-828U501 | 4" | 4-390-209U | 4" | 4-400-422501 | 4" |
| 5-390-828U501 | 5" | 5-390-209U | 5" | 5-400-422501 | 5" |
| 6-390-828U501 | 6" | 6-390-209U | 6" | 6-390-363501 | 6" |

Handles should be ordered separately.

For 6" 390 series valve, use special handle 400-206-65.



| DIMENSIONS & WEIGHTS | | | | | | | | | | |
|----------------------|------------|------|------|-------|-------|-------|-------|-------|-------|----------------|
| SIZE | DIMENSIONS | | | | | | | | | WEIGHT IN LBS. |
| | A | B | C | D | E | F | G | H | Q | |
| 2" | 4.000 | .375 | .563 | 1.250 | 3.938 | 4.125 | 2.125 | 1.625 | 1.688 | 3 |
| 3" | 4.000 | .375 | .563 | 1.250 | 4.875 | 5.375 | 3.125 | 1.750 | 2.875 | 4 |
| 4" | 4.000 | .438 | .625 | 1.250 | 6.000 | 6.875 | 4.125 | 2.000 | 3.875 | 7 |
| 5" | 4.000 | .438 | .625 | 1.250 | 6.000 | 7.625 | 5.188 | 2.125 | 5.000 | 9 |
| 6" | 4.000 | .438 | .625 | 1.250 | 6.500 | 8.750 | 6.125 | 2.125 | 6.000 | 9 |

NOTES:

- Q dimension is the minimum allowable inside diameter of the pipe or mating flange.

Butterfly Valves Accessories



| ALUMINIUM HANDLE KIT | | BUSHING & PACKING KITS | | 316 STAINLESS SCREW SETS | | 17-4 STAINLESS STEMS | |
|----------------------|------------|------------------------|------------|--------------------------|------------|----------------------|------|
| PART NO. | SIZE | PART NO. | SIZE | PART NO. | SIZE | PART NO. | SIZE |
| 206-23-5 | 2" and 3" | 2-3-400-99-BPKIT | 2" and 3" | 2-3-213 | 2" and 3" | 2-400-422240 | 2" |
| 206-46-5 | 4" thru 6" | 4-6-400-99-BPKIT | 4" thru 6" | 4-5-6-213 | 4" thru 6" | 3-400-422240 | 3" |
| 400-206-65* | 6" - 390 | 6-99-400BPKIT* | 6" | | | 4-400-422240 | 4" |
| | | | | | | 5-400-422240 | 5" |
| | | | | | | 6-400-422240 | 6" |

- Includes handle plate kit and handle/lever assembly.
- *Use on 6" 390 series valves