# DIXODRY BULK



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### **Table of Contents**

Dry Bulk Products	2-25
Air Relief Valve Theory of Operation	2
Air Relief Valve Periodic Inspection,	
Cleaning and Maintenance	2
Air Relief Testing Equipment	21
Blower Air Relief Valves (2182 Series)	3
Blower Mounted Swing Check Manifolds	
Pneuclean™ Pneumatic Filtration System	
Trailer/Tank Mounted Air Relief Valves	
Fixed Pressure Setting	4
Adjustable Pressure Setting	
PVC Coated Lanyards	
Trailer/Tank Mounted Vacuum Relief Valves	
Swing Check Valves	
Classic 3000 Series	
High Flow Series	
Grooved Pipe Connections	
Aluminum Bolt Clamps	
Aluminum Quick Connect Clamps	
Butterfly Valves	
One Piece Aluminum Body with Iron Disk and E Seals	
One Piece Aluminum Body with Stainless Disk	
Buna Seals	
Two Piece Aluminum Body with Stainless Disk	
Buna Seals	
Replacement Parts	

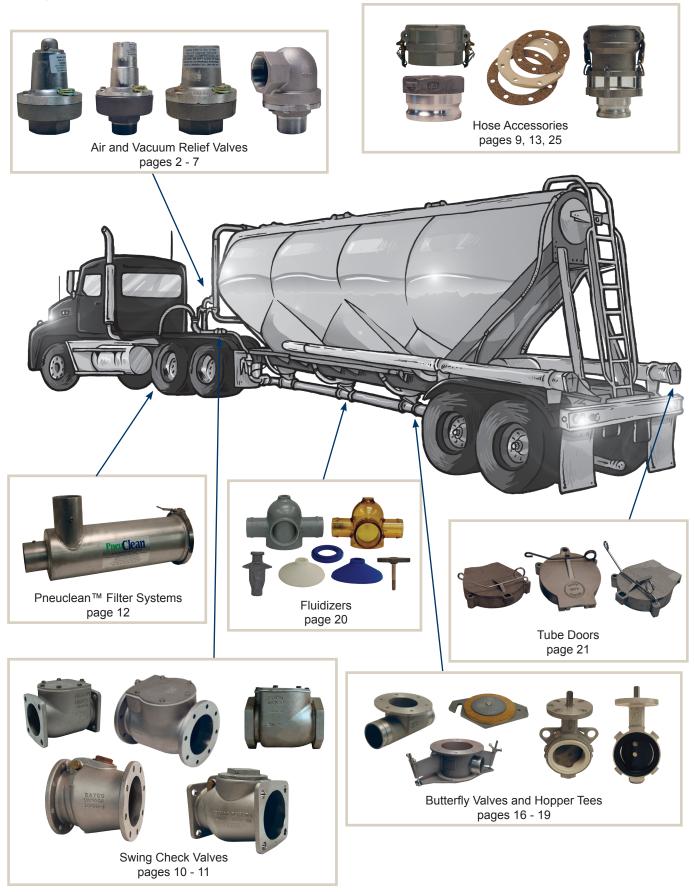
Hose Tube Doors	
Hopper Tees	
Fluidizers	
TTMA Flanges	9
Threaded Flanges	9
Weldable Flanges	22
Reducing Flanges	24
Flange Gaskets	9
Flange Dimensions	9
Flange x Cam & Groove	24
Cam & Groove	25
With Straight Thread	25
Replacement Parts	
Air Relief Valves	
Vacuum Relief Valves	,
Swing Check Valves	
Grooved Pipe Connections	
Clump Buster	
Index	37-40

#### We Commit

- To ensure that internal and external customer needs are identified and that our products and services meet these needs.
- To fully meet and exceed the requirements of the ISO 9001 Quality Program.
- To strive for quality in each and every phase of our business.
- To exceed competitor's quality.
- To provide systems and training for all Dixon employees.
- To create an environment that will allow each employee to do it right the first time, and accept the responsibility for quality in each and every task they perform.
- That no employee will ever be called on to do anything morally, legally or ethically wrong.

#### Dry Bulk Products

Bayco brand 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 where pneumatic control of air or dry products is required.



# **Air Pressure Relief Valves**

#### **Theory of Operation**

All Bayco air relief valves are spring-loaded system-pressure actuated devices consisting of a valve disc held in a closed position against a valve seat by means of a spring. The pressure in the system to be protected acts on the valve disc and tends to open the valve; however, the spring load is set to ensure that at normal operating pressures, the pressure in the system is insufficient to open the valve. However, when the system pressure builds to a level where the pressure load on the valve disc is equal or near to the load exerted by the spring, the valve will begin to open. If the pressure in the system were to be held at this level, the load due to system pressure and the spring load would remain in equilibrium and the valve would be neither opened nor closed. In such circumstances the valve will tend to flutter on the valve seat and may release a small amount of air but will not be relieving significant pressure from the system. This point is known as the warning pressure, cracking pressure or hissing pressure.

If the pressure in the system continues to rise, the load acting on the face of the valve will also rise and will begin to exceed the load exerted by the spring. When the load due to system pressure exceeds the spring load, the valve will open and will remain open as long as the system pressure remains sufficient. This point is known as the opening pressure or set pressure (also referred to as rated or popping pressure). The difference between the crack pressure and opening pressure varies between valves and is related to the system flow rate. However, the two should not be confused as there is a significant difference in pressure between the two points.

If the system pressure continues to rise, the valve will continue to open and will relieve more and more air until the valve is fully open. At this point the valve will be relieving close to its maximum airflow rate; further increase in system pressure will show only relatively minor increases in flow rate. If the system pressure decreases, the relieving airflow rate will reduce and the valve will start to close. However, the valve will not fully re-seat until the pressure is below the opening pressure. This pressure is known as the Reseating Pressure and the difference between the two pressures is known as "blowdown".

In practice the valve should be matched to the system to be protected such that the maximum airflow rate of the valve is never utilized, i.e. the valve should be capable of relieving a sufficient volume flow rate of air at the opening pressure to ensure that the system pressure drops significantly. If the valve is open and the system pressure continues to rise above the opening pressure then the valve is relieving less air than is being put into the system. This is a potentially dangerous situation that may lead to over pressurization. The relieving airflow rate of an air relief valve at the maximum allowable system pressure, and ideally at the opening pressure, should be well in excess of the system input flow rate at that same pressure.

# Periodic Inspection, Cleaning and Maintenance

Dixon Bayco air relief valves are designed and built to provide accurate and consistent operation; however periodic inspection, cleaning, and maintenance of these valves is required to ensure continued trouble free service.

Dixon Bayco air relief valves consist of a spring-loaded poppet valve that seals against a rigid annular valve seat. When the system pressure reaches the valve opening pressure, the poppet lifts and system air passes under the poppet and out to atmosphere. When a sufficient volume of air has been relieved, the system pressure will drop and the poppet will re-seat.

When these valves are used in applications that subject them to particulate laden air, there is potential for contamination of the valve. Larger particles such as grains, plastic pellets etc. can get trapped between the valve seating surfaces. Applications involving fine particles such as cement, fly ash, lime, flour etc. can result in a cementing of hardened product on the valve seat or poppet surface. These situations can prevent the valve from fully re-seating, prevent it from opening and can lead to early opening or leakage from the valve.

To prevent this from occurring we advise that air/vacuum relief valves be regularly inspected, cleaned and maintained. At a minimum the valve seat and poppet sealing surface should be inspected and cleaned, and the small air vent hole in the top casting checked for blockage. The inspection, cleaning, and maintenance should be carried out with the valve removed from the system, and in a clean environment.

All relief valves are available with threaded connections. In addition 2180, A2180 and A2182 series air relief valves are available with cam and groove adapter or grooved pipe connections. These types of connections make removal and installation of the valves much easier to allow for inspections, cleaning and maintenance.

Before servicing or removing any component from the pneumatic system, the blower must be turned off and all residual air released from the system.

# **Products for Blowers**

# **Blower Air Relief Valves**

Application:	Designed specifically for use on tractor mounted air blowers. The 2182 air relief valves have a temperature compensated pressure relief setting to accommodate the high temperatures and dynamic air produced by the blower. If a system blockage were to occur, the valves are designed to vent to atmosphere once the valve pressure setting is achieved.
Standards:	The 2182 valve will relieve at the ordered set pressure at a temperature of <b>400°F (204°C)</b> . At room temperature <b>73°F (22°C)</b> the 2182 valve will relieve approximately 4 PSI higher than the ordered set pressure. The product label shows the set relief pressure at the blower operating temperature, plus the relief pressure at <b>73°F (22°C)</b> (for testing purposes). Depending on the blower type, amount of vibration and operating temperature a difference of observable set pressure may occur. Example: 2182-18 is set to relieve at 18 PSI while at operating temperature. This same valve will test at 22 PSI while at room temperature on a test bench. Both set points are listed on the label. Available with 2" male or female NPT connections.
Materials:	Aluminum anodized hard coat body, white food grade silicone poppet and diaphragm
Features & Benefits:	<ul> <li>The popular pressure setting for truck mounted blowers is 20 PSI. Valves are available for other applications with temperature compensated pressure settings of between 3 PSI and 24 PSI. Customer should request set pressure at time of order.</li> <li>High relieving capacity varies between 800 SCFM and 1700 SCFM depending upon the chosen set pressure. For specific relief rates please refer to our website or contact Dixon<sup>®</sup>.</li> <li>Installed cup seal deters tampering</li> <li>Anodized aluminum body reduces thread galling</li> </ul>





2182F

Part #	Connection
2182F/xx	2" NPTF air relief valve with special factory setting, see note xx below
2182F/18	2" NPTF air relief valve 18 PSI setting
2182F/20	2" NPTF air relief valve 20 PSI setting
2182/xx	2" NPTM air relief valve with special factory setting, see note xx below
2182/18	2" NPTM air relief valve 18 PSI setting
2182/20	2" NPTM air relief valve 20 PSI setting

• xx refers to choice of pressure setting, request the required pressure setting when ordering.

• See page 23 for air relief testing equipment

#### **Fixed Pressure Setting Valves**

Application:	Designed specifically for use on trailer tanks containing dry bulk products. If a system blockage were to occur the valves are designed to vent to atmosphere once the valve pressure setting is achieved. Not intended for blower service (for blower service applications see the 2182 series air relief valves shown on page 3)
Standards:	<ul> <li>Available with 2 set pressure tolerances:</li> <li>1) 2180/3180 series have a +3/-0 set pressure tolerance (valve opens at set pressure plus 3 PSI)</li> <li>2) A2180/A3180 series have a +1/-0 set pressure tolerance (valve opens at set pressure plus 1 PSI)</li> <li>2180/A2180 are available with 2" male or female NPT, cam and groove adapter or grooved pipe connections.</li> <li>3180/A3180 are available only with 3" female NPT connections</li> </ul>
Materials:	Bayloy vent cowl with aluminum upper, bronze poppet with white food grade silicone diaphragm in the 2180/A2180, red silicone diaphragm in the 3180/A3180
Features & Benefits:	<ul> <li>Available with a variety of pressure settings, see chart below for model specific available pressure settings. Customer should request set pressure at time of order.</li> <li>Relieving capacity (SCFM) varies dependent upon model and pressure setting. See chart below, or for specific relief rates please refer to our website or contact Dixon<sup>®</sup>.</li> <li>Installed cup seal deters tampering</li> <li>Bayloy body eliminates thread galling</li> <li>PVC coated wire lanyard available for securing air relief valves (see page 5)</li> </ul>









2180

2180B/15

2180V/15

3180

Valve Series	Valve Connection	Available Factory Set Pressure Range (PSI) <sup>1</sup>	Set Pressure Tolerance (PSI)	Diaphragm Material	Relieving Capacity (SCFM) <sup>2</sup>
2180/xx	2" female NPT	2 to 25	+3/-0	white food grade silicone	500 to 950
2180/15	2" NPTF air relief valve	15	+3/-0	white food grade silicone	500 to 950
2180/18	2" NPTF air relief valve	18	+3/-0	white food grade silicone	500 to 950
A2180/xx	2" female NPT	2 to 27	+1/-0	white food grade silicone	500 to 950
2180B/15	2" cam and groove adapter	15	+3/-0	white food grade silicone	500 to 950
2180V/15	2" grooved	15	+3/-0	white food grade silicone	500 to 950
3180/xx	3" female NPT	4 to 30	+3/-0	red silicone	750 to 1500
A3180/xx	3" female NPT	6 to 32	+1/-0	red silicone	750 to 1500

<sup>1</sup> request the required pressure setting when ordering (xx refers to choice of pressure setting)

<sup>2</sup> relieving capacity (SCFM) varies with set pressure, for specific rates please refer to our website or contact Dixon®

• See page 28 for repair kits

See page 23 for air relief testing equipment

Product instruction sheets and technical data, can be viewed at dixonvalve.com

#### **Adjustable Pressure Setting Valves**

Application:	Designed specifically for use on trailer tanks containing dry bulk products. If a system blockage were to occur, the valves are designed to vent to atmosphere once the valve pressure setting is achieved. The advantage of the adjustable air relief valve is that the factory preset pressure can be tuned by -3/+3 PSI to meet tank/application specific pressure requirements (adjustments should be performed by either the tank builder or tank maintenance facility). Not intended for blower service (for blower service applications see the 2182 series air relief valves shown on page 3) Not Rated for ASME Coded Service Requirements
Standards:	Valves have a +1/-0 set pressure tolerance (valve opens at set pressure plus 1 PSI) and are adjustable by -3/+3 PSI. • A2180ADJ has a 2" female NPT and A3180ADJ has a 3" female NPT connection
Materials:	Bayloy vent cowl with aluminum upper, bronze poppet with white food grade silicone diaphragm in the 2180/A2180, red silicone diaphragm in the 3180/A3180
Features & Benefits:	<ul> <li>Available with a variety of pressure settings, see chart below for model specific available pressure settings. Customer should request set pressure at time of order.</li> <li>The factory preset pressure can be tuned by -3/+3 PSI to meet tank/application specific pressure requirements (adjustments should be performed by either the tank builder or tank maintenance facility).</li> <li>Relieving capacity (SCFM) varies dependent upon model and pressure setting. See chart below, or for specific relief rates please refer to our website or contact Dixon<sup>®</sup>.</li> <li>Installed cup seal deters tampering</li> <li>Bayloy body eliminates thread galling</li> </ul>





A2180-xxADJ

A3180-xxADJ

Valve Series	Valve Connection	Available Factory Set Pressure Range (PSI) <sup>1</sup>	Set Pressure Tolerance (PSI)	Diaphragm Material	Relieving Capacity (SCFM) <sup>2</sup>
A2180/xxADJ	2" female NPT	9 to 30	+1/-0	white food grade silicone	500 to 950
A3180/xxADJ	3" female NPT	9 to 30	+1/-0	red silicone	750 to 1500

<sup>1</sup> request the required pressure setting when ordering (xx refers to choice of pressure setting)

<sup>2</sup> relieving capacity (SCFM) varies with set pressure, for specific rates please refer to our website or contact Dixon®

• Relieving pressure is factory set at 71°F (21°C), high temperatures will affect the actual relieving pressure.

See page 23 for air relief testing equipment





Part #	Description
CAL15	15" long PVC coated carbon steel cable, with aluminum crimp sleeves. One end is factory crimped, other end is un-crimped for field inspection.
CAL25	25" long PVC coated carbon steel cable, with aluminum crimp sleeves. One end is factory crimped, other end is un-crimped for field inspection.

Product instruction sheets and technical data, can be viewed at dixonvalve.com

#### Vacuum Relief Valves

Application:	Designed specifically for use on trailer tanks containing dry bulk products. If a system blockage were to occur the valves are designed to open to atmosphere to help prevent the tank from imploding.
Standards:	<ul> <li>These valves come with a set vacuum tolerance of +/-0.5 HG, available in 3 body sizes:</li> <li>1½" male NPT outlet (tank connection) x 1½" female NPT inlet (atmosphere)</li> <li>2" male NPT outlet (atmosphere) x 2" female NPT inlet (tank connection)</li> <li>3" female NPT outlet (tank connection) x 3" female NPT inlet (atmosphere)</li> </ul>
Materials:	Bayloy body and bronze poppet
Features & Benefits:	<ul> <li>Available with a variety of vacuum settings, see chart below for model specific available pressure settings. Customer should request set pressure at time of order.</li> <li>Relieving capacity (SCFM) varies deponent upon model and pressure setting. See chart below, or for specific relief rates please refer to our website or contact Dixon<sup>®</sup>.</li> <li>Installed bolt seal deters tampering</li> <li>Bayloy body eliminates thread galling</li> </ul>





3120

Valve Series	Valve Outlet (Tank Connection)	Valve Inlet (Atmosphere)	Available Factory Set Vacuum Range (HG) <sup>1</sup>	Set Pressure Tolerance (PSI)	Relieving Capacity (SCFM) <sup>2</sup>
1120/xx	1 <sup>1</sup> / <sub>2</sub> " male NPT outlet (tank connection)	1 <sup>1</sup> / <sub>2</sub> " female NPT inlet (atmosphere)	6 to 24	+/- 0.5 HG	175 to 420
2120/xx	2" male NPT outlet (tank connection)	2" female NPT inlet (atmosphere)	5 to 24	+/- 0.5 HG	280 to 600
3120/xx	3" female NPT outlet (tank connection)	3" female NPT inlet (atmosphere)	11 to 25	+/- 0.5 HG	700 to 1350

<sup>1</sup> request the required pressure setting when ordering (xx refers to choice of pressure setting)

<sup>2</sup> relieving capacity (SCFM) varies with set pressure, for specific rates please refer to our website or contact Dixon®

# **Air Relief Valve Settings**

#### **Pressure Relief Valves Minimum and Maximum Settings**

Vacuum	Relief Valves
Minimum and	<b>Maximum Settings</b>

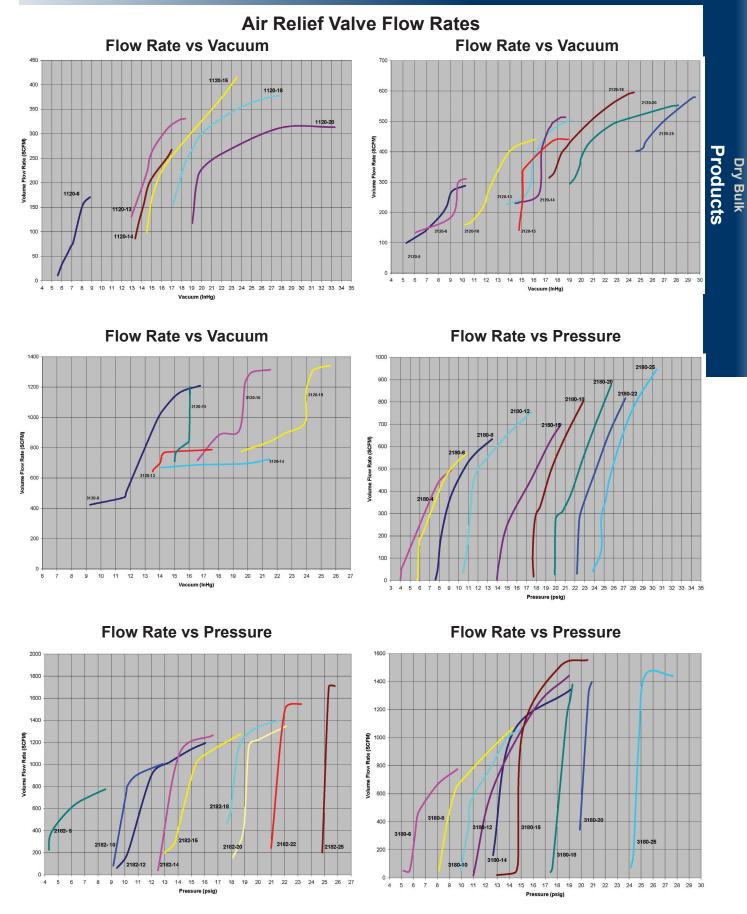
Valve Series	Factory Setting			
valve Selles	Min. Setting (PSI)	Max. Setting (PSI)		
2180	2	25		
A2180	2	27		
A2180ADJ <sup>3</sup>	9 <sup>3</sup>	30 <sup>3</sup>		
2182	3	24		
A2182	6	27		
<b>2215</b> <sup>3</sup>	12 <sup>3</sup>	30 <sup>3</sup>		
3180	4	30		
A3180	6	32		
<b>A3180ADJ</b> <sup>3</sup>	9 <sup>3</sup>	30 <sup>3</sup>		

Valve Series	Factory Setting		
valve Selles	Minimum Setting	Maximum Setting	
1120	6" Hg	24" Hg	
2120	5" Hg	24" Hg	
3120	11" Hg	25" Hg	

<sup>3</sup> Customer adjustable by a further +/- 3 PSI. Settings below 9 PSI are obtainable by turning the valve adjustment screw. Example for an 8 PSI setting the valve adjustment would be +4/-2, for 7 PSI +5/-1 and for 6 PSI +6/-0. Settings above 30 PSI are obtainable by turning the valve adjustment screw. Example for a 31 PSI setting the valve adjustment would be +2/-4, for 32 PSI +1/-5 and for 33 PSI +0/-6

#### Dry Bulk Products

# **Trailer/Tank Mounted Air Relief Valves**



# **Products for Blowers**

# Blower Mounted - Swing Check / Air Relief Manifold

Application:	Designed specifically for use on tractor mounted air blowers and to replace the multiple pipe connections typically used to connect the blower to a swing check and air relief valve.
Standards:	Manufactured with a 4" TTMA flange connection for fastening directly to the blower
Materials:	Aluminum body, silicone flapper and lid seal 400°F (204°C) stainless hardware
Features & Benefits:	<ul> <li>Compact unit includes high flow swing check, port for air relief valve and inlet / outlet ports</li> <li>Fastens directly to blower using available TTMA thread adapters</li> <li>2" NPT port for air relief valve</li> <li>Interchangeable inlet / outlet ports in 3" and 4" cam and groove and 4" female NPT</li> </ul>



#### 3090MA

Part #	Description	Manifold Outlet Connection	Overall Length	Weight
3090F	swing check manifold with white silicone spring loaded flapper	4" female NPT	11½"	8.7
3090M	swing check manifold with white silicone spring loaded flapper	not included	95⁄8"	6.2
3090MS	swing check manifold with white silicone spring loaded flapper and security seal	not included	95⁄8"	6.6
3090MA	swing check manifold with white silicone spring loaded flapper	3" cam and groove adapter	121⁄2"	7.5
3090MA-DC	swing check manifold with white silicone spring loaded flapper with dust cap and chain	3" cam and groove adapter	14½"	8.6
3090MAS	swing check manifold with white silicone spring loaded flapper and security kit installed	3" cam and groove adapter	121⁄2"	7.9
3090MB	swing check manifold with white silicone spring loaded flapper	4" cam and groove adapter	121⁄2"	7.6
3090MBS	swing check manifold with white silicone spring loaded flapper and security kit installed	4" cam and groove adapter	121⁄2"	8.1
3091MA	swing check manifold with metal spring loaded flapper	3" cam and groove adapter	121⁄2"	7.4
3091MB	swing check manifold with metal spring loaded flapper	4" cam and groove adapter	121⁄2"	7.5
3091MBS	swing check manifold with metal spring loaded flapper and security kit installed	4" cam and groove adapter	121⁄2"	7.6

#### Swing Check Manifold Inlets / Outlets and Options

-	•	
Part #	Description	
3030SK	anti-tamper security kit for swing check manifold lid, 2 security bolts and wire seal	
6000-16	3" cam and groove adapter manifold outlet, requires one 3090RK1 O-ring kit	
6000-17	4" cam and groove adapter manifold outlet, requires one 3090RK1 O-ring kit	
6000-20	4" female NPT manifold outlet, requires one 3090RK1 O-ring kit	
3090RK1	O-ring kit	
TTF4AL-3EMT	3" male NPT blower to manifold inlet adapter, requires 4" TTMA gasket	
TTF4AL-4EMT	4" male NPT blower to manifold inlet adapter, requires 4" TTMA gasket	

See page 27 for repair kits and replacement parts

Product instruction sheets and technical data, can be viewed at dixonvalve.com

# **TTMA Series Flange Adapters**

Application:	Provides a simple and easy way to convert threaded components to standard TTMA flange configurations. TTMA flange adapters have a round TTMA flange on one end with either a male or female NPT thread on the other.
Standards:	Flange connections are manufactured to connect with the TTMA (Tank Truck Manufacturers Association) flange pattern, see below for flange dimensions.
Materials:	Machined one-piece cast aluminum
Features & Benefits:	<ul> <li>Solid cast aluminum is more durable than welded fabrications</li> <li>Compact size reduces the overall space needed for installation</li> <li>3" or 4" round TTMA flange pattern with either 3" or 4" male or female NPT</li> </ul>







Dry Bulk Products

TTF4AL-4FT

I IF4AL-4	AT TIF4AL-3EMT	I I F4AL-4F I
Part #	Description	
TTF3AL-3MT	3" TTMA flange x 3" male NPT, 21/2" overall length	
TTF4AL-3MT	4" TTMA flange x 3" male NPT, 21/2" overall length	
TTF4ALHC-3MT	4" TTMA flange x 3" male NPT, 21/2" overall length, hardcoated	
TTF4AL-3EMT	4" TTMA flange x 3" male NPT, 51/2" overall length	
TTF4AL-3FT	4" TTMA flange x 3" female NPT, 21/2" overall length	
TTF4AL-4MT	4" TTMA flange x 4" male NPT, 2 <sup>1</sup> / <sub>2</sub> " overall length	
TTF4ALHC-4MT	4" TTMA flange x 4" male NPT, 21/2" overall length, hardcoated	
TTF4AL-4EMT	4" TTMA flange x 4" male NPT, 51/2" overall length	
TTF4AL-4FT	4" TTMA flange x 4" female NPT, 2 <sup>1</sup> / <sub>2</sub> " overall length	

#### **Flange Gaskets**

Application: Creates a leak-tight connection between two bolted together flange faces.			
Standards:	TTMA flange gaskets are manufactured to seal with flanges produced to the 3" or 4" TTMA (Tank Truck Manufacturers Association) flange pattern.		
Materials:	PTFE, Klingersil® or Cork/Buna		



Part #	Size	Description	OD	ID	Thickness	Bolt Circle
Round TTMA Flange Gaskets						
300GTTFCB	3"	TTMA - Cork/Buna 5-5/8" 3½"		1/8"	4-7/8"	
300GTTFTK	3"	PTFE envelope with Klingersil® filler	5-5/8"	31⁄2"	1/16"	4-7/8"
300GTTFK	3"	Klingersil <sup>®</sup> nylon	5-5/8"	31⁄2"	1/8"	4-7/8"
40321TF	3"	TTMA - PTFE with soft fiber core	5-29/32"	31⁄2"	3/32"	4-7/8"
400GTTFCB	4"	TTMA - Cork/Buna	6-5/8"	4-9/16"	1/8"	5-7/8"
400GTTFTK	4"	PTFE envelope with Klingersil® filler 6-5/8"		4-9/16"	1/16"	5-7/8"
400GTTFK	4"	4" Klingersil <sup>®</sup> nylon 6-5/8" 4-9/1		4-9/16"	1/8"	5-7/8"
40322TF	4"	TTMA - PTFE with soft fiber core 6-7/8" 4-5/8" 3/32"		5-7/8"		
Square TTMA Flange Gaskets						
300GDBSQCB	3"	Square TTMA - cork/Buna	41⁄2"	33⁄8"	1/8"	
300GDBSQK	3"	Square TTMA - Klingersil <sup>®</sup> nylon	41⁄2"	33⁄8"	1/16"	
300GDBSQE	3"	Square TTMA - white EPDM 4 <sup>1</sup> / <sub>2</sub> " 3 <sup>3</sup> / <sub>8</sub> " 1/8"				

#### **Round TTMA Flange Dimensions** 8 (1 1 Nominal Pipe Size Flange OD Aluminum Flange Thickness Diameter of Bolt Circle Number of Bolts Diameter of Bolt Holes Diameter of Bolts Used 5 3 3 3" 5-5/8" 3/8" 4-7/8" 7/16" 3/8" 6 8 9 7 4" 6-5/8" 3/8" 5-7/8" 8 7/16" 3/8" (5)(2 6" 8-7/8" 3/8" 8-1/8" 12 7/16" 3/8" 12 bolt 8 bolt

#### Dry Bulk Products

# **Swing Check Valves**

**Bayco High Flow Series** 

Application:	Often used on both the blower and trailer, designed to prevent product backflow if a product line should become plugged.
Standards:	Bayco High Flow series swing check valves have 2", 3" or 4" connection choices: female NPT, round TTMA flange or square TTMA flange.
Materials:	Aluminum body and inspection lid, stainless steel hardware, metal-to-metal, EPDM <b>250°F (121°C)</b> or silicone seals <b>400°F (204°C)</b> are available (seal availability is dependent upon the model, see chart below for more information)
Features & Benefits:	<ul> <li>Choice of seals, metal-to metal, Buna or silicone</li> <li>Choice of connections female NPT, round TTMA flange or square TTMA flange</li> <li>Flapper return springs are standard</li> <li>Huck bolted flapper assembly prevents loose parts from contaminating the product.</li> <li>Inspection lids can be removed to facilitate routine flapper assembly inspections (system must not be in service during inspections or repair).</li> <li>Complete repairs can easily be carried out on all high flow swing check valves without removing from the tank.</li> <li>When in use the flapper can swing completely out of the air path, resulting in increased air flow and subsequently increased product flow.</li> </ul>
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3030SQ	-SSP 30	031TE	3031VIC	4040RD
Part #	Connection Type	Seal Type	Flapper Return Springs ?	Overall Length
Female NPT	·		· · · · ·	
3020TE	2" female NPT both ends	white EPDM seal	Yes	5-1/8"
3030TE-SSP	3" female NPT both ends	white silicone seal	Yes	7-1/8"
3031TE	3" female NPT both ends	metal-to-metal seal	Yes	7-1/8"
4040TE	4" female NPT both ends	white EPDM seal	Yes	9"
4041TE	4" female NPT both ends	metal-to-metal seal	Yes	9"
4042TE	4" female NPT both ends	white silicone seal	Yes	9"
Square TTMA	Flange	'	· · · · ·	
3020SQ	2" square TTMA flange	white EPDM seal	Yes	5-1/8"
3030SQ-SSP	3" square TTMA flange	white silicone seal	Yes	6-7/8"
3031SQ	3" square TTMA flange	metal-to-metal seal	Yes	6-7/8"
Round TTMA	Flange		· · · · · ·	
3030RD-SSP	3" round TTMA flange	white silicone seal	Yes	6-7/8"
3031RD	3" round TTMA flange	metal-to-metal seal	Yes	6-7/8"
4040RD	4" round TTMA flange	white EPDM seal	Yes	9"
4041RD	4" round TTMA flange	metal-to-metal seal	Yes	9"
4042RD	4" round TTMA flange	white silicone seal	Yes	9"
Grooved Pipe				
3030VIC-SSP	3" grooved end both ends	white silicone seal	Yes	8"
3031VIC	3" grooved end both ends	metal-to-metal seal	Yes	8"
	· · · · · · · · · · · · · · · · · · ·			

· See pages 32, 33, 34 for repair kits and replacement parts

• See page 9 for TTMA flange gaskets

Product instruction sheets and technical data, can be viewed at dixonvalve.com

# Bayco Classic 3000 Series

Application:	The classic 3000 series of swing check valves are often used on both the blower and trailer.
Standards:	All Bayco 3000 series swing check valves have 3" connection choices: female NPT, round TTMA flange or square TTMA flange.
Materials:	Aluminum body, Bayloy inspection caps and flapper valve assembly. Buna <b>250°F (121°C)</b> or silicone seals <b>400°F (204°C)</b> are optional.
Features & Benefits:	<ul> <li>Choice of seals, metal-to metal, Buna or silicone</li> <li>Choice of connections female NPT, round TTMA flange or square TTMA flange</li> <li>Available with or without flapper return springs</li> <li>Huck bolted flapper assembly prevents loose parts from contaminating the product.</li> <li>Inspection lids can be removed to facilitate routine flapper assembly inspections (system must not be in service during inspections or repair).</li> <li>Limited repairs can be carried out on both threaded and square flanged units without removing from the tank. Round flange units must be removed from the tank to facilitate repairs. For swing check valves that can be completely repaired on the tank see the Bayco High Flow 3030 Series on page 10.</li> </ul>







Products Dry Bulk

3001SQ-N

	3000TE	3001SQ-N		3000-N
Part #	Connection Type	Seal Type	Flapper Return Springs ?	Overall Length
3000TE	3" female NPT both ends	metal-to-metal seal	No	7-1/8"
3000TE-SP	3" female NPT both ends	metal-to-metal seal	Yes	7-1/8"
3000TE-B	3" female NPT both ends	black Buna seal	No	7-1/8"
3000TE-BSP	3" female NPT both ends	black Buna seal	Yes	7-1/8"
3000TE-S	3" female NPT both ends	white silicone seal	No	7-1/8"
3000TE-SSP	3" female NPT both ends	white silicone seal	Yes	7-1/8"
3001SQ-N	3" square TTMA flange	metal-to-metal seal	No	6-7/8"
3001SQ-SP	3" square TTMA flange	metal-to-metal seal	Yes	6-7/8"
3001SQ-B	3" square TTMA flange	black Buna seal	No	6-7/8"
3001SQ-BSP	3" square TTMA flange	black Buna seal	Yes	6-7/8"
3001SQ-S	3" square TTMA flange	white silicone seal	No	6-7/8"
3001SQ-SSP	3" square TTMA flange	white silicone seal	Yes	6-7/8"
3000-N	3" round TTMA flange	metal-to-metal seal	No	5-5/8"
3000-SP	3" round TTMA flange	metal-to-metal seal	Yes	5-5/8"
3000-В	3" round TTMA flange	black Buna seal	No	5-5/8"
3000-BSP	3" round TTMA flange	black Buna seal	Yes	5-5/8"
3000-S	3" round TTMA flange	white silicone seal	No	5-5/8"
3000-SSP	3" round TTMA flange	white silicone seal	Yes	5-5/8"

· See pages 31, 32 for repair kits and replacement parts

• See page 9 for TTMA flange gaskets

# **Pneuclean™ Pneumatic Filtration System**

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 air blowers and can adversely affect dry products such as plastic pellets and food materials. These filter units are typically mounted on dry bulk tanker trailers, but can also be mounted on the tractor. Units are 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, choose from schedule 40 pipe, grooved pipe, TTMA flange or 4" cam and groove adapter connections (3" plumbing can be used with available weld-on 4" x 3" cam and groove adapters). FDA approved filter medium.
Aluminum canister and lid, stainless V clamp
<ul> <li>Variety of connection types (see chart below for details)</li> <li>Heavy duty aluminum canister</li> <li>Overall weight 26 lbs.</li> <li>Maximum air flow 1000 CFM</li> <li>Special cartridge-style filter element has a typical life expectancy of approximately 12 months or 2000 hours of service</li> <li>Noise reduction filter reduces noise by 13.8 db at 600 CFM</li> <li>FDA medium with 99.99% maximum efficiency at 4 microns</li> <li>Back pressure: 0.05 PSI</li> <li>Quick release V clamp for easy inspection and servicing</li> </ul>





PC5000TTTE

#### PC5000

Part #	Description
PC5000	complete Pneuclean <sup>™</sup> filtration system with 4" schedule 40 pipe inlet and outlet
PC5000-002	complete Pneuclean™ filtration system with 4" schedule 40 pipe inlet and outlet with Outer Perf Element
PC5000AA	complete Pneuclean <sup>™</sup> filtration system with 4" cam and groove adapter inlet and outlet
PC5000VV	complete Pneuclean <sup>™</sup> filtration system with 4" grooved pipe inlet and outlet
PC5000TTTE	complete Pneuclean™ filtration system with 4" TTMA flange inlet and 90° 4" male NPT outlet
PC5003	mounting bracket (sold separately, 2 required)

#### **Replacement Parts**



replacement Pneuclean™ filter element with 304 stainless steel screen, rated to 400°F (204°C)

Product instruction sheets and technical data, can be viewed at dixonvalve.com

12

# **Clump Buster**

Application:	Designed to be used in-line for Dry Bulk applications where dry material may tend to clump during off-loading.
Standards:	Manufactured with cam and groove end configurations
Materials:	Aluminum body, stainless steel screen and V-band clamp
Features & Benefits:	<ul> <li>4" cam and groove ends</li> <li>Two piece housing design with V-band clamp (DB1000)</li> <li>Stainless screen hole diameter is 7/16"</li> <li>Seals are Buna-N</li> <li>Bell shaped housing provides maximum flow (DB1000)</li> <li>DB1000-SFI comes with sight glass</li> </ul>



DB1000		DB1000-SFI
Part #		Description
DB1000	clump buster	
DB1000-SFI	clump buster with sight glass	

# **Cam & Groove In-Line Sight Glasses**

Application:	The cam and groove sight glasses are often connected to the dry bulk tanker's product outlet allowing the operator to visually confirm that product is flowing out of the tank.
Standards:	Interchanges with all product produced to commercial Item description A-A-59326B.
Materials:	Aluminum, acrylic sight glass, brass cam arms, Buna gaskets
Features & Benefits:	<ul> <li>Allows the operator to see product flow</li> <li>Precision machined to rigid tolerances</li> <li>Durable stainless steel cam arm pins will not rust or bind, providing strength and safety</li> <li>Recess holds gasket firmly in place - ensures proper placement</li> <li>Intended for dry goods only</li> </ul>

Part #	Description			
Coupler x Adapt	Coupler x Adapter			
3544CA	4" cam and groove coupler x 4" cam and groove adapter			
3543CA	4" cam and groove coupler x 3" cam and groove adapter			
3534CA	3" cam and groove coupler x 4" cam and groove adapter			
3533CA	3" cam and groove coupler x 3" cam and groove adapter			
Coupler x Coupler				
3544CC	4" cam and groove coupler x 4" cam and groove coupler			
3543CC	4" cam and groove coupler x 3" cam and groove coupler			
3533CC	3" cam and groove coupler x 3" cam and groove coupler			
Adapter x Adapter				
3544AA	4" cam and groove adapter x 4" cam and groove adapter			
3534AA	3" cam and groove adapter x 4" cam and groove adapter			
3533AA	3" cam and groove adapter x 3" cam and groove adapter			



Dry Bulk Products

Product instruction sheets and technical data, can be viewed at dixonvalve.com

# **Grooved Pipe Connections**

Dry Bulk roducts

GROOVED

KET PIPE or FITTING	Application:	Designed to join two pieces of pipe together. The two pipes are butted to one another each pipe has a groove that runs the circumference of the pipe exterior. The grooved clamp has ridges that lock into the two pipe grooves and a gasket is compressed to the pipes to create a leak-tight seal.Grooved clamps are often used on pipe connections on dry bulk tankers in place of welding offering the ability to adjust, change or replace pipe sections without the need for a permanent joint such as a weld.
	Standards:	Manufactured to fit new and existing grooved pipe connections
	Materials:	Aluminum or coated ductile iron bodies with steel bolts/nuts, Buna or FKM seals
	Features & Benefits:	<ul> <li>Rugged cast aluminum or iron construction</li> <li>Maintenance is easy to perform</li> </ul>

# **Aluminum Bolt Clamps**

#### Features:



**DBV-WB400** 

- Lightweight yet rugged. Unlike steel groove clamps that secure the pipe ends with high clamping force against the tubing/piping walls, the Dixon<sup>®</sup> aluminum bolted clamp takes the full bolt force and locks into the groove of the tube/pipe, preventing distortion of the tube/pipe diameter.
- · Precision casting and machined dimensions provide an exact fit and great appearance
- Lock nuts prevent loosening in applications with vibration
  - White Buna seal available for food applications

Size	Seal	Part #	Maximum PSI	Approximate Weight (lbs)	Bolt Torque (ft lbs)
2"	Buna	DBV-BN200	400	0.8	50
2"	FKM-B	DBV-VB200	400	0.8	50
2"	Baylast™	DBV-BL200	400	0.8	50
3"	Buna	DBV-BN300	170	1.1	50
3"	FKM-B	DBV-VB300	170	1.1	50
3"	Baylast™	DBV-BL300	170	1.1	50
4"	Buna	DBV-BN400	120	1.5	50
4"	FKM-B	DBV-VB400	120	1.5	50
4"	White Buna	DBV-WB400	120	1.5	50
4"	Baylast™	DBV-BL400	120	1.5	50

#### **Replacement Clamp Gaskets**



G400T Clamp Part # Seal **Buna Fuel Compatibility** Size 2" G200T Gasoline and Diesel, up to E100 and B20 Biofuels Buna (orange stripe) 3" G300T Gasoline and Diesel, up to E100 and B20 Biofuels Buna (orange stripe) 4" G400T Buna (orange stripe) Gasoline and Diesel, up to E100 and B20 Biofuels 2" G200VB FKM-B (red stripe) Gasoline and Diesel, up to E100 and B100 Biofuels 3" G300VB FKM-B (red stripe) Gasoline and Diesel, up to E100 and B100 Biofuels 4" G400VB FKM-B (red stripe) Gasoline and Diesel, up to E100 and B100 Biofuels 2" G200BL Baylast<sup>™</sup> (blue stripe) Gasoline and Diesel, up to E100 and B100 Biofuels 3" G300BL Baylast<sup>™</sup> (blue stripe) Gasoline and Diesel, up to E100 and B100 Biofuels 4" G400BL Baylast<sup>™</sup> (blue stripe) Gasoline and Diesel, up to E100 and B100 Biofuels

**Biofuel Compatible** 

# **Grooved Pipe Connections**

#### **Aluminum Quick Connect Clamps**

Application:	Quick line clamp designed to couple groove to groove connections in dry bulk applications.
Materials:	<ul> <li>Split gasket: white Buna-N</li> <li>Handle: heavy duty composite</li> <li>Body: forged aluminum</li> <li>Locking mechanism: stainless steel</li> </ul>
Features & Benefits:	<ul> <li>4" dry bulk line clamp</li> <li>Adjustable locking mechanism</li> <li>Safety locking clip included</li> </ul>



DBCG400

Part #	Description	
DBCG400	4" aluminum groove x groove quick clamp	
DBCG400-P	4" aluminum pipe x pipe quick clamp	

# Painted Iron Groove x Groove Bolt Clamps

#### Features:

- Ensures a leak-tight connection
- · Compatible with Ethanol, ULSD, bio-diesel and gasoline



Size	Description	Part #
2"	painted iron groove x groove clamp with Baylast™ seal	L02BL
3"	painted iron groove x groove clamp with Baylast™ seal	L03BL
4"	painted iron groove x groove clamp with Baylast™ seal	L04BL

#### **Replacement Gaskets**

Size	Description	Part #
2"	Baylast™ grooved coupling replacement gasket	G200BL
3"	Baylast™ grooved coupling replacement gasket	G300BL
4"	Baylast™ grooved coupling replacement gasket	G400BL

Product instruction sheets and technical data, can be viewed at dixonvalve.com

Dry Bulk Products

# **Butterfly Valves**

Application:	Butterfly valves are commonly used on dry bulk tankers to control the flow of product; designed to be placed between 2 ASME/ANSI 125 or 150 lb. flanges.
Materials:	Aluminum bodies with iron or stainless steel disc, polymer bushings, Buna-N (Nitrile) seals and seats, spring, stem and locking lever pin are stainless steel, aluminum handle and throttling plate.
Features & Benefits:	<ul> <li>Rugged cast aluminum</li> <li>Flange gaskets are not required; the valves elastomer seat also doubles as the flange gasket.</li> <li>Handles are high strength 713 aluminum, with a retrogressive re-aging process which creates as stronger handle than the cast iron handle which are commonly used in the industry.</li> <li>Iron or stainless discs are standard for superior wear resistance</li> </ul>

Dry Bulk Products

One-Piece A	luminum Body	with Iron Disc and	I Black Buna-N Seals

FDA approved black or white Buna-N seals, -20°F to 275°F (-29°C to 135°C)



•







3-480-1500		4-480-150	00	4A-480-1500		10-400-1500
Valve Size	Flanges Required	Complete Valve Part # <sup>1</sup>	Aluminum Handle Kit Part #	Iron Handle Kit Part #	Replacement Iron Disc Part #	Replacement Black Buna Seat Disc Part #
2"	125/150# flange	2-400-1500	206-23-5	237-23-10	2-400-422237F	2-400-422500
3"	125/150# flange	3-480-1500	206-23-5	237-23-10	3-400-422237F	3-400-422500
4"	125/150# flange	4-480-1500	206-46-5	237-46-10	4-400-422237U	4-400-422500
4"	TTMA	4A-480-1500	206-46-5	237-46-10	4A-400-422237U	4A-400-422500
5"	125/150# flange	5-480-1500	206-46-5	237-46-10	5-400-422237U	5-400-422500
6"	125/150# flange	6-480-1500	206-46-5	237-46-10	6-400-422237U	6-400-422500
8"	125/150# flange	8-400-1500	206-810		8-400-4222370	8-400-422500
10"	125/150# flange	10-400-1500	206-1010		10-400-4222370	10-400-422500

<sup>1</sup> Handle kits are sold separately, choose aluminum or iron (2" thru 6" aluminum handles have 5 open positions, 8" and 10" aluminum and all iron handles have 10 open positions)

#### One-Piece Aluminum Body with Stainless Steel Disc and White Buna-N Seals

	3-480-3501		4-480-350	1	4A-48	0-3501
Valve Size	Flanges Required	Complete Valve Part # <sup>1</sup>	Aluminum Handle Kit Part #	Iron Handle Kit Part #	Replacement Stainless Disc Part #	Replacement White Buna Disc Part #
3"	125/150# flange	3-480-3501	206-23-5	237-23-10	3-400-422209F	3-400-422501
4"	125/150# flange	4-480-3501	206-23-5	237-23-10	4-400-422209U	4-400-422501
4"	TTMA	4A-480-3501	206-46-5	237-46-10	4A-400-422209U	4A-400-422501
5"	125/150# flange	5-480-3501	206-46-5	237-46-10	5-400-422209U	5-400-422501
6"	125/150# flange	6-480-3501	206-46-5	237-46-10	6-400-422209U	6-400-422501

<sup>1</sup> Handle kits are sold separately, choose aluminum or iron (aluminum handles have 5 open positions; iron handles have 10 open positions)

Product instruction sheets and technical data, can be viewed at dixonvalve.com

# **Butterfly Valves**

#### Two-Piece Aluminum Body with Stainless Steel Disc and White Buna N Seal



#### 3-380-828501

#### Features:

- · Designed specifically for pneumatic conveying and abrasive applications
- · The seat ID matches the ID of Schedule 40 pipe, resulting in smoother product flow
- · Two-piece split body design simplifies field maintenance by eliminating the need for special tools

Valve Size	Flanges Required	Complete Valve Part # <sup>1</sup>	Aluminum Handle Kit Part #	Iron Handle Kit Part #	Replacement Stainless Disc Part #	Replacement White Buna Seat Part #
3"	125/150# flange	3-380-828501	206-23-5	237-23-10	3-390-209F	3-400-422501
4"	125/150# flange	4-380-828U501	206-46-5	237-46-10	4-390-209U	4-400-422501
5"	125/150# flange	5-380-828U501	206-46-5	237-46-10	5-390-209U	5-400-422501
6"	125/150# flange	6-380-828U501	400-206-65	400-237-610	6-390-209U	6-390-393501

<sup>1</sup> Handle kits are sold separately, choose aluminum or iron (aluminum handles have 5 open positions; iron handles have 10 open positions)

## **Butterfly Valve Replacement Parts**

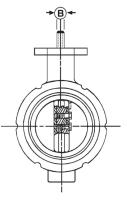
Part #	Description
2-400-422240	replacement stainless steel valve stem for 2" valve
3-400-422240	replacement stainless steel valve stem for 3" valve
4-400-422240	replacement stainless steel valve stem for 4" valve
5-400-422240	replacement stainless steel valve stem for 5" valve
6-400-422240	replacement stainless steel valve stem for 6" valve
2-3-400-99-BPKIT	bushing and packing kit for 2" and 3" valves
4-6-400-99-BPKIT	bushing and packing kit for 4", 5" and 6" valves (not for 6" 2-piece valve 6-390-828U501)
6-99-400BPKIT	bushing and packing kit for 6" (6-390-828U501)
2-3-213	stainless screw sets for 2" and 3" valves
4-5-6-213	stainless screw sets for 4", 5" and 6" valves

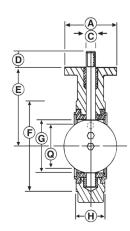
#### **Butterfly Valve Dimensions**

Size	А	В	С	D	Е	F	G	Н	Q	lbs.
2"	4.000	0.375	0.563	1.250	3.938	4.125	2.125	1.625	1.688	3
3"	4.000	0.375	0.563	1.250	4.875	5.375	3.125	1.750	2.875	5
4"	4.000	0.438	0.625	1.250	6.000	6.875	4.125	2.000	3.875	8
5"	4.000	0.438	0.625	1.250	6.000	7.625	5.188	2.125	5.000	9
6"	4.000	0.438	0.625	1.250	6.625	8.750	6.125	2.125	6.000	9
8"	6.000	0.500	0.750	1.250	8.313	11.000	8.125	2.500	8.000	
10"	6.000	0.625	0.875	1.250	9.125	13.375	10.125	2.500	10.000	

• All dimensions are given in inches

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





Product instruction sheets and technical data, can be viewed at dixonvalve.com

Products Dry Bulk Dry Bulk Products

		Hopper Tees			
	Application:	Straight and bottom drop tees are used at the base of dry bulk dry bulk product is unloaded utilizing a blower generated pneu and air pressure on top of the hopper. The bottom drop tee ca by using pneumatic conveyance or can be used for gravity dro the drop door on the base of the tee.	umatic flow the	rough the sti ust like the s	aight tee
	Standards:	Dimensionally interchangeable with industry standard offering two 4" grooved pipe ends	s. Flanged to	the tank hop	oper and
	Materials:	Cast aluminum construction, urethane lined is an option			
Dry Bulk Products	Features & Bene	fits:       • Rugged cast aluminum         • Straight tees are cast as one-piece         • High unloading rates and reduced flow turbulence         • Bottom drop tees have easy to use swing out bottom drop of	loor		
Pro	DB500TA	DB500LTA DB600TA		DB600L	TA
	DB605LTA	4x4BD TEE DB510TI-VXP DB57	IOTI-PXC		station of the second s
	Part #	Connection Type	Urethane Lined	Overall Height	Overall Length
	Straight Tees		Lineu	rieigitt	Lengin
	4X4-S-TEE	4" hopper flange and 2 - 4" grooved connections	No	6.000"	13.875"
	DB500TA	5" hopper flange and 2 - 4" grooved connections	No	6.438"	13.875"
	DB500LTA	5" hopper flange and 2 - 4" grooved connections - low profile	No	6.187"	13.875"
	DB500TI	5" x 4" straight tee - pipe x pipe	No	6.5625	13.875
	DB500TI-PXV	5" x 4" straight tee - pipe x groove	No	6.5625	13.875
	DB500TI-VXV	5" x 4" straight tee - groove x groove	No	6.5625	13.875
	5X4-VRST-TEE-K	5" hopper flange and 2 - 4" grooved connections - low profile with retention flange	No	5.375"	13.750"
	DB600TA	6" hopper flange and 2 - 4" grooved connections	No	7.000"	13.875"
	4X4-S-TEE-E	4" hopper flange and 2 - 4" grooved connections	Yes	6.000"	13.875"
	5X4-S-TEE-E	5" hopper flange and 2 - 4" grooved connections	Yes	6.438"	13.875"
	5X4-VRST-TEE-E	5" hopper flange and 2 - 4" grooved connections - low profile	Yes	6.187"	13.875"
	6X4-S-TEE-E	6" hopper flange and 2 - 4" grooved connections	Yes	7.000"	13.875"
	DB600LTA	6" hopper flange and 2 - 4" grooved connections - low profile	No	5.063"	13.875"
	DB605LTA	6" hopper flange and 2 - 5" grooved connections - low profile	No	6.094"	13.875"
	Bottom Drop Tees	E" v 4" drop too, groove v store ve	Vac	7.005	10.075
	DB510TA	5" x 4" drop tee - groove x groove	Yes	7.625	13.875
	DB510TI DB510TI-PXP	5" x 4" drop tee - groove x groove	Yes	7.639	13.875
	DB510TI-PXP DB510TI-PXV	5" x 4" drop tee - pipe x pipe 5" x 4" drop tee - pipe x groove	Yes Yes	7.639 7.639	13.875 13.875
	DB510TI-VXP	5" x 4" drop tee - groove x pipe	Yes	7.639	13.875
	DB510TI-VXC	5" x 4" drop tee - groove x cam and groove coupler	Yes	7.623	15.593
	DB510TI-PXC	5" x 4" drop tee - pipe x cam and groove coupler	Yes	7.623	15.593
	4X4-BD-TEE	4" hopper flange and 2 - 4" grooved connections	No	8.250"	13.875"
	5X4-BD-TEE	5" hopper flange and 2 - 4" grooved connections	No	7.500"	13.875"
	5X4-VRBD-TEE	5" hopper flange and 2 - 4" grooved connections - low profile	No	7.250"	13.875"
	5X4-VRBD-TEE-K	5" hopper flange and 2 - 4" grooved connections - low profile with retention flange	No	6.200"	13.750"
	6X4-BD-TEE	6" hopper flange and 2 - 4" grooved connections	No	7.250"	13.875"
	4X4-BD-TEE-E	4" hopper flange and 2 - 4" grooved connections	Yes	8.250"	13.875"
	5X4-BD-TEE-E	5" hopper flange and 2 - 4" grooved connections	Yes	7.500"	13.875"
	5X4-VRBD-TEE-E	5" hopper flange and 2 - 4" grooved connections - low profile	Yes	7.250"	13.875"
	6X4-BD-TEE-E	6" hopper flange and 2 - 4" grooved connections	Yes	7.250"	13.875"
		Product instruction sheets and technical data can be viewed at dixon			

18

#### Dry Bulk Products

# **Hopper Tees**

# **Bottom Tee Replacement Parts**



#### 4x4-BDDOORASM

Part #	Description			
4X4BD DOOR	4" bottom drop door only			
5/6BD DOOR	5" and 6" bottom drop door only			
8X4BD DOOR	8" bottom drop door only			
4X4-BD GASKET	4" bottom drop door gasket only			
5X4-BD GASKET	5" bottom drop door gasket only			
6X4-BD GASKET	6" bottom drop door gasket only			
8X4-BD GASKET	8" bottom drop door gasket only			
4X4BD DOORASBLY	4" bottom drop door assembly with gasket			
5X4BD DOORASBLY	5" bottom drop door assembly with gasket			
6X4BD DOORASBLY	6" bottom drop door assembly with gasket			
8X4BD DOORASBLY	8" bottom drop door assembly with gasket			
5X4 WING	5" weld on replacement ring			
6X4 WING	6" weld on replacement ring			
8X4 WING	8" weld on replacement ring			
3/8 T-BOLT	4" bottom drop door T-bolt			
3/8 INSERT	4" bottom drop door threaded insert for T-bolt			
BD BOLTS	5", 6" and 8" bottom drop door bolt			
BD WINGNUT	5", 6" and 8" bottom drop door wing nut			
GASKET RETAINER	gasket retainer - all sizes			
3/8 RETAINERBOLT	3/8" gasket retainer bolt and lock nut - all sizes			
5-RF	retention flange for low profile tees			

Dry Bulk Products

# **Disk Fluidizer**

Application:	Designed to provide the optimum amount of air volume needed for efficient pneumatic unloading of bulk trailers, allowing more airflow, less back pressure and higher unloading rates.
Features & Benefits:	<ul> <li>Seals completely to hopper or wear plate to stop the back flow of product into the aeration lines, even when flood loading.</li> <li>Durable, food grade silicone resists hardening, cracking or tearing</li> <li>Robust design does not have snap retention legs that can break off or flimsy disks that crack and wear prematurely.</li> <li>Fluidizer component parts can withstand operating temperatures up to 350°F (177°C)</li> </ul>

#### **Commonly Used Fluidizer Kits**

Description Part # Typical kits for aluminum trailers. If used to haul abrasive products like sand or cement use hopper savers to protect from wear on the aluminum hopper.

111111	1-port assembly, includes blue silicone disk, grey stem hopper saver, blue silicone manifold gasket, 1-port grey manifold, tee handle
111131	3-port assembly, includes blue silicone disk, grey stem hopper saver, blue silicone manifold gasket, 3-port grey manifold, tee handle
These a	are typical kits used in steel trailers. (Do not include hopper savers)
113111	1-port assembly, includes blue silicone disk, grey stem, blue silicone manifold gasket, 1-port grey manifold, tee handle
113131	3-port assembly, includes blue silicone disk, grey stem, blue silicone manifold gasket, 3-port grey manifold, tee handle
These a	are standard kits used in Heil trailers
111141	1-port assembly, includes blue silicone disk, grey stem hopper saver, blue silicone manifold gasket, 1-port clear manifold, tee handle
	2 nort accomply, includes blue cilicone disk, arey storn henner acyar, blue cilicone manifold acaket 2 nort clear

3-port assembly, includes blue silicone disk, grey stem hopper saver, blue silicone manifold gasket, 3-port clear 111161 manifold, tee handle



4126B



4122

CC.		
	4127	





Fluidizer Components		
-	Part #	Description
	4124	blue silicone fluidizer disk (food grade)
	4134	white silicone fluidizer disk (food grade)
	4125	grey stem with brass insert
	4135	natural stem with stainless steel insert
4125	4155	aluminum stem
120	4157	carbon steel stem
	4126B	11/2" stain. steel hopper saver, white silicone backing
	4127	blue silicone manifold gasket (food grade)
	4137	white silicone manifold gasket (food grade)
	5050	20" stainless steel, 3 disk fluidizer plate (16" ID)
1407	5052	20" carbon steel, 3 disk fluidizer plate (16" ID)
4127	5012	20" neoprene gasket
	4121	manifold, 1 port grey
	4122	manifold, 2 port grey
	4123	manifold, 3 port grey
	4621	manifold, 1 port clear
	4622	manifold, 2 port clear
4623	4623	manifold, 3 port clear
1020	4129	tee handle assembly - stainless steel
No. of Concession, Name	4130	raised tee handle assembly
	4139	hex bolt assembly - stainless steel
	4149	internal hex bolt assembly - stainless steel
	4159	bolt assembly T.I.R. stainless steel
4120	4111	1 <sup>3</sup> / <sub>8</sub> " hopper plug with gasket
4129	4167	1½" hopper plug with gasket

Product instruction sheets and technical data, can be viewed at dixonvalve.com

<sup>2</sup>roducts **Dry Bulk** 

20

# **Tube Doors**

#### **Hose Tube Doors**

Application:	When not in use fuel delivery hoses are often stored in tubes that run the length of the tanker. A welded cap on one end and a hinged tube door welded on the other end keep the hoses in the storage tubes.
Standards:	Manufactured to weld to 6", 7" or 8" hose tubes
Materials:	Aluminum body, Buna seals, stainless steel door closure spring and hardware, nylon bushings
Features & Benefits:	<ul> <li>Pad-lockable</li> <li>Keeps fuel delivery hoses neatly and safely stored in the designated storage tubes</li> <li>Protects expensive delivery hoses and fittings from road dirt, salt and other environmental factors</li> </ul>





TDF7



Dry Bulk Products

TDF8

Part #	Description
TDF6	6" hose tube door
TDF7	7" hose tube door
TDF8	8" hose tube door

# **TTMA Reducing Flange Adapters**

Application:	Used in applications where 3" and 4" TTMA flanges need to be connected.
Standards:	Flange connections are manufactured to connect with the TTMA (Tank Truck Manufacturers Association) flange pattern, see page 9 flange dimensions.
Materials:	Aluminum
Features & Benefits:	<ul> <li>Both sides machined to create smooth gasket sealing surfaces</li> <li>3/4" thick</li> <li>4" TTMA hole pattern sized for (8) 3/8" socket head cap screws</li> <li>3" TTMA hole pattern is blind threaded with 3/8"-16 thread to a depth of 9/16", supplied with (8) 3/8-16 x 1" socket head cap screws.</li> <li>Easily connects with any item that has a 3" or 4" TTMA flange</li> </ul>



Part #	Description
4443	4" TTMA x 3" TTMA reducer flange

See page 9 for TTMA flange gaskets.

Dry Bulk roducts

#### **TTMA Weldable Flanges**

Application:	Used in applications where a device such as a valve or sight flow with a TTMA flange needs to be connected to a pipe; the TTMA weldable flange is welded to the pipe and the desired device is bolted on.
Standards:	Flange connections are manufactured to connect with the TTMA (Tank Truck Manufacturers Association) flange pattern, see page 9 for flange dimensions.
Materials:	Aluminum
Features & Benefits:	<ul> <li>Butt weld version: the ID on side A is beveled to aid with butt welding. The flange face of side B is machined to create an even surface for the gasket seal.</li> <li>Socket weld version: the ID on side A has a machined socket to allow the pipe to slide in to be socket welded. The flange face of side B is machined to create an even surface for the gasket seal.</li> <li>Flanges are <sup>3</sup>/<sub>8</sub>" thick</li> <li>Easily connect with any item that has a 3" or 4" TTMA flange</li> </ul>





TTF3AL

Part #	Description
TTF3AL	3" TTMA buttweld on flange
TTF4AL	4" TTMA buttweld on flange
TTF400SP	4" TTMA socket weld on flange

See page 9 for TTMA flange gaskets.

Product instruction sheets and technical data, can be viewed at dixonvalve.com

22

# **Air Relief Valve Testing Equipment**

Application:	In order to properly test air relief valves, enough air volume (SCFM) needs to be available directly to the air relief valve, or early blow offs will be falsely observed. The air relief starts to open slightly before the set pressure, and if there is not enough air volume to fully open the valve the tester may mistakenly take this to be an early blow off. Dixon <sup>®</sup> developed two pieces of equipment designed to provide enough air volume to properly test the valves: • DB9000 - with its own 20 gallon air tank which can be charged from most air compressors • DB9001 - mounted directly to a blower
Standards:	ASME approved pressure vessel (DB9000)
Materials:	Mainly steel construction
Features & Benefits:	Allows fleets to properly and safely test air relief valves

### **Stationary Air Relief Tester**

- · Use shop air supply to test Dixon Bayco air relief valves
- · ASME approved 20 gallon tank with safety pop off
- High flow pressure regulator
- Provided with a test platform to safely hold the air relief valve in the test stand allowing for the safe disassembly and reassembly of valves for internal inspection, cleaning and repair.

Part #	
DB9000	



Product instruction sheets and technical data, can be viewed at dixonvalve.com

# **Cam & Groove Couplings x TTMA Flange**

Application:	Used to connect dry bulk product hoses; the TTMA flange x cam and groove allows product hoses to be connected directly to the dry bulk tanker piping system.
Standards:	Interchanges with all product produced to commercial item description A-A-59326B. Flange connections are manufactured to connect with the TTMA (Tank Truck Manufacturers Association) flange pattern, see page 9 for flange dimensions.
Materials:	Aluminum, Buna cam and groove gaskets
Features & Benefits:	<ul> <li>Precision machined to rigid tolerances</li> <li>Durable stainless steel cam arm pins will not rust or bind, for greater strength and safety</li> <li>Recess holds gasket firmly in place - ensures proper placement</li> </ul>



300-ALT-AL



40022ALTAL



300-DLT-AL



40022DLTAL

Part #	Description
300-ALT-AL 1	3" cam and groove adapter (straight) x 3" TTMA flange
3040ALTAL	4" cam and groove adapter (straight) x 3" TTMA flange
400-ALT-AL <sup>1</sup>	4" cam and groove adapter (straight) x 4" TTMA flange
40022ALTAL	4" cam and groove adapter (221/2°) x 4" TTMA flange
600-ALT-AL	6" cam and groove adapter (straight) x 6" TTMA flange
300-DLT-AL	3" cam and groove coupler (straight) x 3" TTMA flange
3040DLTAL	4" cam and groove coupler (straight) x 3" TTMA flange
400-DLT-AL	4" cam and groove coupler (straight) x 4" TTMA flange
40022DLTAL	4" cam and groove coupler (221/2°) x 4" TTMA flange
600-DLT-AL	6" cam and groove coupler (straight) x 6" TTMA flange

<sup>1</sup> 300-ALT-AL and 400-ALT-AL are also available in 316 stainless steel

• See page 9 for TTMA flange gaskets.

# Cam & Groove with Straight Thread (NPSM)

Application:	Used to connect dry bulk product hoses. Standard threaded cam and groove fittings have a tapered thread, which when threaded to another tapered thread, leaves exposed thread within the product flow path. The cavity left by the exposed thread not only causes product turbulence, but it also is a place where product can build up. When the Dixon <sup>®</sup> cam and groove with female straight threads is threaded onto a male tapered thread (NPT), the male tapered thread threads all the way to the bottom of the thread cavity, creating a smooth product path. This reduces product turbulence and build-up.
Standards:	Interchanges with all product produced to commercial Item description A-A-59326B. Threads are machined to the NPSM standard.
Materials:	Aluminum, cork/Buna adapter gasket, Buna coupler gasket
Features & Benefits:	<ul> <li>No exposed threads within the product flow, reduces product turbulence and product build up.</li> <li>Precision machined to rigid tolerances</li> <li>Durable stainless steel cam arm pins will not rust or bind, for greater strength and safety</li> <li>Recess holds coupler gasket firmly in place - ensures proper placement</li> </ul>



Part #	Description
400-AS-AL	4" cam and groove adapter with female NPSM (straight thread)
400GAGFI	replacement cork/Buna thread gasket for 400-AS-AL
ADS400	4" cam and groove coupler with female NPSM (straight thread)
400-G-BU 1	replacement Buna coupler gasket for ADS400

<sup>1</sup> Other material coupler gaskets are available, please contact Dixon<sup>®</sup>.

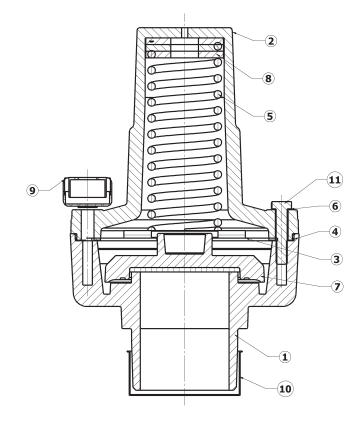
• Please contact Dixon® for other materials and configurations.

Dry Bulk Products

Product instruction sheets and technical data, can be viewed at dixonvalve.com

# **Products for Blowers**

# 2182 Blower 2" Air Relief Valves



#### **Bill of Materials**

Item #	Description	Qty
1	vent cowl	1
2	top body	1
3	valve seat	1
4	diaphragm	1
5	spring	1
6	lock washer	4
7	valve plate	1
8	spacer	
9	cup seal	1
10	сар	1
11	body bolt	4

Repair kits are not available; 2182 blower relief valves must be returned to Dixon<sup>®</sup> for rebuilding.



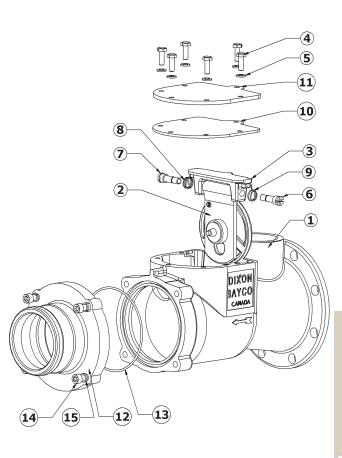
Disassembly, tampering or modifications will void the product warranty and could result in personal injury or death and extensive property damage.

# **Products for Blowers**

# High Flow Blower Swing Check Manifold Valves 3090 Series TTMA Flange x Adapter

#### **Bill of Materials**

Item #	Description	Part #	Qty
1	swing check manifold body		1
2A	valve flapper assembly silicone (3090M, 3090MA, 3090MB and 3090F)	use kit <b>3090RK2</b>	1
2B	valve flapper assembly metal seal (3091MA)	use kit <b>3091RK2</b>	1
3	flapper valve yoke	341595	1
4	bolt	use kit 3030HK	6
5	lock washer	use kit 3030HK	6
6	left hand shaft	390799	1
7	right hand shaft	390798	1
8	right hand spring	use kit <b>3030RK3</b>	1
9	left hand spring	use kit <b>3030RK3</b>	1
10	cover gasket silicone	112257	1
11	cover	341611	1
12A	3" adapter outlet (for 3090MA, 3090MAS and 3091MA, includes items 14 and15)	6000-16	1
12B	4" adapter outlet (for 3090MB, and 3090MBS, includes items 14 and15)	6000-17	1
12C	4" FNPT outlet (for 3090F)	6000-20	1
13	adapter outlet O-ring	3090RK1	1
14	adapter outlet hex bolt	use kit 6000NPHK	4
15	adapter outlet lock washer	use kit 6000NPHK	4

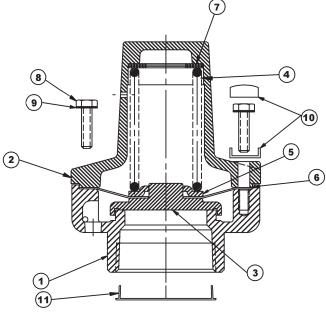


Part #	Description	Includes Item #
3090RK1	adapter outlet O-ring	13
3091RK2	replacement metal seal flapper kit, flapper assembly, yoke, springs, shafts, cover gasket (for 3091MA)	2B, 3, 6, 7, 8, 9, 10
3090RK2	complete rebuild kit, silicone flapper assembly, yoke, springs, shafts, cover gasket, bolts and lock washers (for 3090M, 3090MA, 3090MB and 3090F)	2A, 3, 4, 5, 6, 7, 8, 9, 10
3091RK1	complete rebuild kit, metal seat flapper assembly, yoke, springs, shafts, cover gasket, bolts and lock washers (for 3091MA)	2B, 3, 4, 5, 6, 7, 8, 9, 10
3030HK	replacement cover bolts and lock washers	4, 5
3030RK3	replacement left and right springs	8, 9
3030SK	optional anti-tamper security kit for swing check lid, 2 security bolts and wire seal	not illustrated
6000NPHK	outlet bolts and lock washers	14, 15

#### Dry Bulk Products

# **Products for Blowers**

#### 2180 Series 2" Air Relief Valves models 2180 and A2180



#### **Bill of Materials**

Item #	Description	Qty
1	vent cowl	1
2	top body	1
3	valve	1
4	spring	1
5	valve seat	1
6	diaphragm	1
7	spacers	
8	body bolt	4
9	body bolt washer	4
10	cup seal	1
11	plug	1

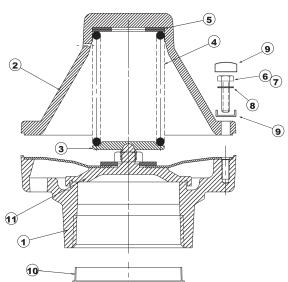
 Only 15 PSI and 18 PSI repair kits are available (below), all valves of other pressure settings must be returned to Dixon<sup>®</sup> for rebuilding.

The detailed instructions enclosed with each repair kit must be followed. Failure to comply with these instructions including disassembly, tampering or modifications using processes and parts not described in these instructions or supplied with this rebuild kit will void the product warranty and could result in personal injury or death and extensive property damage.

#### **Repair Kits**

Part #	Description	Includes Item #
2180RK-15	2180/15 repair kit, 15 PSI spring (+2/-0 PSI tolerance), spring seat, diaphragm, valve plate, bolts, lockwashers, tamper proof seal and valve label	3, 4, 5, 6, 8, 9, 10
2180RK-15A	A2180/15 repair kit, 15 PSI spring (+1/-1 PSI tolerance), spring seat, diaphragm, valve plate, bolts, lockwashers, tamper proof seal and valve label	3, 4, 5, 6, 8, 9, 10
2180RK-18	2180/18 repair kit, 18 PSI spring (+2/-0 PSI tolerance), spring seat, diaphragm, valve plate, bolts, lockwashers, tamper proof seal and valve label	3, 4, 5, 6, 8, 9, 10
2180RK-18A	A2180/18 repair kit, 18 PSI spring (+1/-1 PSI tolerance), spring seat, diaphragm, valve plate, bolts, lockwashers, tamper proof seal and valve label	3, 4, 5, 6, 8, 9, 10

Repair kits fit the 2180 series (non adjustable) relief valves with female NPT, grooved and cam and groove adapter ends (not for use in the adjustable 2180 series).



#### 3180 Series 3" Air Relief Valves

#### Bill of Materials

Item #	Description	Qty
1	bottom cowl	1
2	cover	1
3	spring seat	1
4	spring	1
5	set washer	1
6	hex screw	2
7	drilled screw	2
8	lock washer	4
9	cup seal	1
10	plug	1
11	valve sub-assembly	1

 Repair kits are not available. All 3180 and A3180 relief valves must be returned to Dixon<sup>®</sup> for rebuilding.

 Disassembly, tampering or modifications will void the product warranty and could result in personal injury or death and extensive property damage.



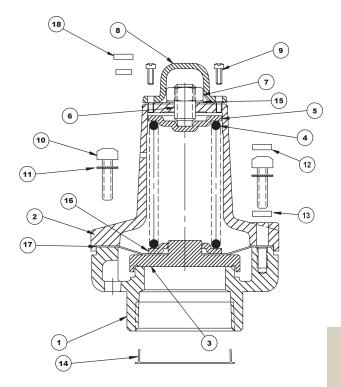
# **Products for Blowers**

#### 2" and 3" Adjustable Air Relief Valves models A2180ADJ and A3180ADJ

#### **Bill of Materials**

Item #	Description	Qty
1	vent cowl	1
2	top body	1
3	valve	1
4	spring	1
5	spring plate	1
6	adjustable screw	1
7	lock nut	1
8	adjustment cap	1
9	cap screw	2
10	body screw	4
11	body screw lock washer	4
12	cup seal top	1
13	cup seal bottom	1
14	plug	1
15	lock washer	1
16	spring seat	1
17	diaphragm	1
18	cap screw cup seal	1

- Repair kits are not available. All adjustable relief valves must be returned to Dixon<sup>®</sup> for rebuilding.
- Disassembly, tampering or modifications will void the product warranty and could result in personal injury or death and extensive property damage.

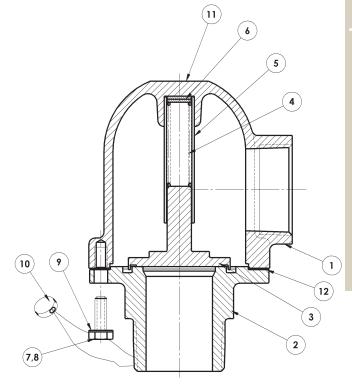


# 1120 Series 1<sup>1</sup>/<sub>2</sub>" Vacuum Relief Valves

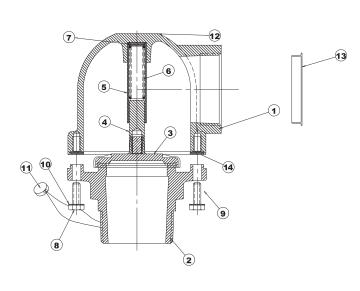
#### **Bill of Materials**

Item #	Description	Qty
1	cover	1
2	bottom	1
3	valve	1
4	spring	1
5	stem guide	1
6	spacer	2
7	drilled screw	2
8	screw	2
9	lock washer	4
10	cup seal	1
11	label	1
12	gasket	1

- Repair kits are not available. All 1120 relief valves must be returned to Dixon<sup>®</sup> for rebuilding.
- Disassembly, tampering or modifications will void the product warranty and could result in personal injury or death and extensive property damage.



#### 2120 Series 2" Vacuum Relief Valves



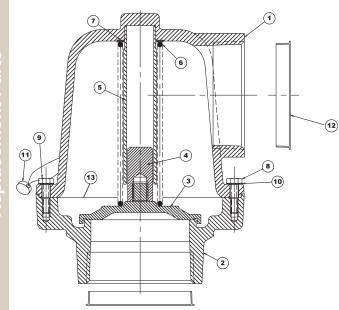
#### **Bill of Materials**

Item #	Description	Qty
1	cover	1
2	bottom	1
3	valve	1
4	valve stem	1
5	valve guide	1
6	spring	1
7	set washer	2
8	drilled screw	2
9	screw	2
10	lock washer	4
11	cup seal	1
12	label	1
13	thread plug	1
14	gasket	1

- Repair kits are not available. All 2120 relief valves must be returned to Dixon<sup>®</sup> for rebuilding.
- Disassembly, tampering or modifications will void the product warranty and could result in personal injury or death and extensive property damage.

#### 3120 Series 3" Vacuum Relief Valves

800.355.1991



#### **Bill of Materials**

Item #	Description	Qty
1	top cover	1
2	bottom body	1
3	valve	1
4	valve stem	1
5	stem guide	1
6	spring	1
7	set washer	3
8	screw	4
9	drilled screw	2
10	lock washer	6
11	cup seal	1
12	thread plug	2
13	gasket	1

- Repair kits are not available. All 3120 relief valves must be returned to Dixon<sup>®</sup> for rebuilding.
- Disassembly, tampering or modifications will void the product warranty and could result in personal injury or death and extensive property damage.



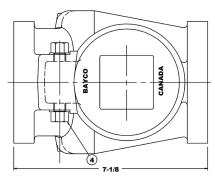
# Cam & Groove In-Line Sight Glass

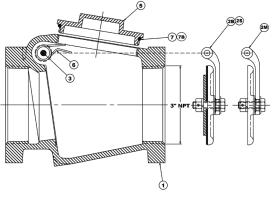
Repla	acement	Parts
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		-AA	CA3C	A BA	in di	A			C CAA	AA .34	A 33
Part #	Description	റ്റാ	റ്റാ	റ്റ്	റ്റാ	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	3 <sup>55</sup>	റ്റാ	റ്റാ	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	ഷ്
6000-24	3" adapter end	N/A	1	N/A	1	N/A	N/A	N/A	N/A	N/A	1
341351	3" adapter end with threaded bolt holes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	1
6000-18	4" adapter end	1	N/A	1	N/A	N/A	N/A	N/A	2	1	N/A
6000-23	3" coupler end	N/A	N/A	1	1	N/A	1	2	N/A	N/A	N/A
6000-19	4" coupler end	1	1	N/A	N/A	2	1	N/A	N/A	N/A	N/A
6400SGK	replacement sight glass kit (2 Buna O-rings and acrylic sight glass)	1	1	1	1	1	1	1	1	1	1
6544CA-1	sight glass spacers	4	4	4	4	4	4	4	4	4	4
AS156	Buna O-ring for sight glass	2	2	2	2	2	2	2	2	2	2
SC5-16-18X2.5P	bolts 5/16" x 2.50"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4	4	4
SC5-16-18X2.75P	bolts 5/16" x 2.75"	4	4	4	4	4	4	4	N/A	N/A	N/A
110978	hex nut 5/16"	4	4	4	4	4	4	4	N/A	N/A	N/A
111430	helicoil nut 5/16"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4	N/A	N/A
110977	lock washer (for nut end of bolt)	4	4	4	4	4	4	4	N/A	N/A	N/A

# **Swing Check Valves**





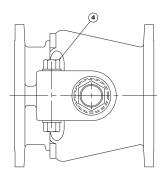


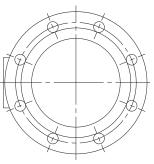
#### **Bill of Materials**

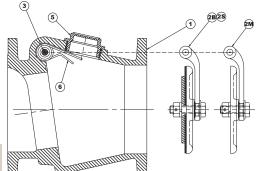
Item #	Description	Part #	Qty
1	swing check body		1
2M	valve flapper assembly with metal seal	use kit <b>300-SPK</b>	1
2B	valve flapper assembly with Buna seal	use kit 300-BSPK	1
2S	valve flapper assembly with silicone seal	use kit 300-SSPK	1
3	shaft	3000-4	1
4	shaft nut	3000-5	2
5	clean out cap	363000-10	1
6	spring (for units with spring return flapper)	SPRG/L4603	1
7	clean out cap O-ring seal	O-RINGAS238	1
7B	clean out cap O-ring silicone	112254	1

Part #	Description	Includes Item #
300-SSPK	silicone seal flapper assembly, shaft, nuts, flapper spring and clean out cap O-ring seal	2S, 3, 4, 6, 7B
300-SK	silicone seal flapper assembly, shaft, nuts and clean out cap O-ring seal	2S, 3, 4, 7B
300-BSPK	Buna seal flapper assembly, shaft, nuts, flapper spring and clean out cap O-ring seal	2B, 3, 4, 6, 7B
300-BK	Buna seal flapper assembly, shaft, nuts and clean out cap O-ring seal	2B, 3, 4, 7B
300-SPK	metal seal flapper assembly, shaft, nuts, flapper spring and clean out cap O-ring seal	2M, 3, 4, 6, 7B
300-К	metal seal flapper assembly, shaft, nuts and clean out cap O-ring seal	2M, 3, 4, 7B

#### Bayco Classic 3000 Series 3" Swing Check Valves 3000 Round Flange Units







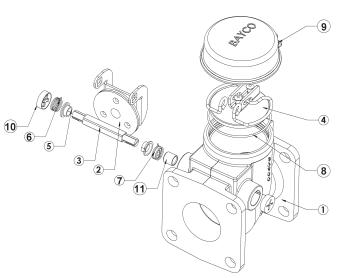
#### **Bill of Materials**

Item #	Description	Part #	Qty
1	swing check body		1
2M	valve flapper assembly with metal seal	use kit <b>300-SPK</b>	1
2B	valve flapper assembly with Buna seal	use kit 300-BSPK	1
2S	valve flapper assembly with silicone seal	use kit 300-SSPK	1
3	shaft	3000-4	1
4	shaft nut	3000-5	2
5	clean out cap	3000CAP	1
6	spring (for units with spring return flapper)	SPRG/L4603	1

#### **Repair Kits**

Part #	Description	Includes Item #
300-SSPK	silicone seal flapper assembly, shaft, nuts, flapper spring	2S, 3, 4, 6
300-SK	silicone seal flapper assembly, shaft, nuts	2S, 3, 4
300-BSPK	Buna seal flapper assembly, shaft, nuts, flapper spring	2B, 3, 4, 6
300-BK	Buna seal flapper assembly, shaft, nuts	2B, 3, 4
300-SPK	metal seal flapper assembly, shaft, nuts, flapper spring	2M, 3, 4, 6
300-K	metal seal flapper assembly, shaft, nuts	2M, 3, 4

# Bayco High Flow 3020 Series 2" Swing ChecK Valves



#### **Bill of Materials**

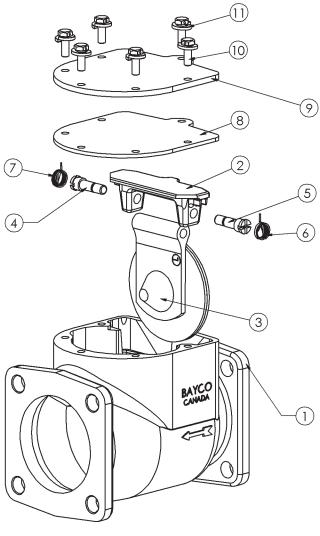
Item #	Description	Part #	Qty
1	swing check body		1
2	valve flapper assembly, white EPDM	use kit <b>3020FA</b>	1
3	shaft	390777	1
4	cover plate & retaining ring	use kit 3020CS	1
5	shaft bearing	111321	2
6	right spring	111324	1
7	left spring	111325	1
8	cover O-ring	111326	1
9	сар	3020C	1
10	threaded shaft plug	111443	2
11	shaft bushing	390784	2
**	flange close clearance nuts (2 provided with 3020SQ, due to close clearance between flange and body)	111485	2

#### \*\* not illustrated

Part #	Description	Includes Item #
3020CS	top cover plate kit, cover plate, spring clip assembly and O-ring seal	4, 8
3020FA	replacement white EPDM flapper kit, flapper assembly, shaft, shaft bearings, springs and shaft plugs	2, 3, 5, 6, 7, 10

#### Bayco High Flow 3030 Series 3" Swing Check Valves Round Flange, Square Flange, Threaded and Grooved Ends

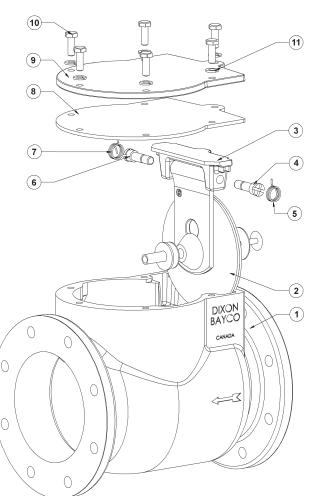
	Materials	Deat #	Ot
Item #	Description	Part #	Qty
1	swing check body		1
2	flapper valve yoke	341595	1
3	valve flapper assembly with metal seal	use kit <b>3091RK1</b>	1
4	right hand shaft	390798	1
5	left hand shaft	390799	1
6	left hand spring	use kit 3030RK3	1
7	right hand spring	use kit 3030RK3	1
8	cover gasket silicone	112257	1
9	cover	341611	1
10	bolt	use kit 3030HK	6
11	lock washer	use kit 3030HK	6



Part #	Description	Includes Item #
3090RK2	complete rebuild kit, silicone flapper assembly, yoke, springs, shafts, cover gasket, bolts and lock washers (for 3030RD-SSP, 3030SQ-SSP, 3030TE-SSP and 3030VIC-SSP)	2, 3A, 4, 5, 6, 7, 8, 10, 11
3091RK1	complete rebuild kit, metal seal flapper assembly, yoke, springs, shafts, cover gasket, bolts and lockwashers (for 3031RD, 3031SQ, 3031TE and 3031VIC)	2, 3B, 4, 5, 6, 7, 8, 10, 11
3030HK	replacement bolts and lockwashers	10, 11
3030RK3	replacement left and right springs	6, 7
3030SK	optional: anti-tamper security kit for swing check lid, 2 security bolts and wire seal	not illustrated

#### Bayco High Flow 4040 Series 4" Swing Check Valves Round Flange and Threaded Units

**Bill of Materials** 



Item #	Description	Part #	Qty
1	swing check body		1
2A	valve flapper assembly white EPDM (4040RD and 4040TE)	use kit <b>4040RK1</b>	1
3	flapper valve yoke	341595	1
4A	left hand shaft (4040RD and 4040TE)	390799	1
4B	left hand shaft (4041RD, 4042RD, 4041TE, 4042TE)	390846	1
5A	left hand spring (4040RD and 4040TE)	use kit <b>3030RK3</b>	1
5B	left hand spring (4041RD, 4042RD, 4041TE and 4042TE)	use kit <b>4041RK3</b>	1
6A	right hand shaft (4040RD and 4040TE)	390798	1
6B	right hand shaft (4041RD, 4042RD,4041TE and 4042TE)	390847	1
7A	right hand spring (4040RD and 4040TE)	use kit <b>3030RK3</b>	1
7B	right hand spring (4041RD, 4042RD, 4041TE and 4042TE)	use kit <b>4041RK3</b>	1
8	cover gasket	111215	1
9	cover	340039	1
10	bolt	use kit <b>3030HK</b>	6
11	lock washer	use kit 3030HK	6

# Dry Bulk

#### **Repair Kits**

•		
Part #	Description	Includes Item #
4040RK1	replacement white EPDM flapper kit, flapper assembly, yoke, springs, shafts, cover gasket (for 4040RD and 4040TE)	2A, 3, 4A, 5A, 6A, 7A, 8
4041RK1 <sup>1</sup>	complete rebuild kit, metal seat flapper assembly, yoke, springs, shafts, cover gasket, bolts and lock washers (for 4041RD and 4041TE)	2B, 3, 4B, 5B, 6B, 7B, 8, 10, 11
4042RK1 1	complete rebuild kit, red silicone flapper assembly, yoke, springs, shafts, cover gasket, bolts and lock washers (for 4042RD and 4042TE)	2C, 3, 4A, 5A, 6A, 7A, 8, 10, 11
3030HK	replacement bolts and lock washers	10, 11
3030RK3	replacement left and right springs (for 4040RD and 4040TE)	5A, 7A
4041RK3	replacement left and right springs (for 4041RD, 4041TE, 4042RD and 4042TE)	5B, 7B
3030SK	optional: anti-tamper security kit for swing check lid, 2 security bolts and wire seal	not illustrated

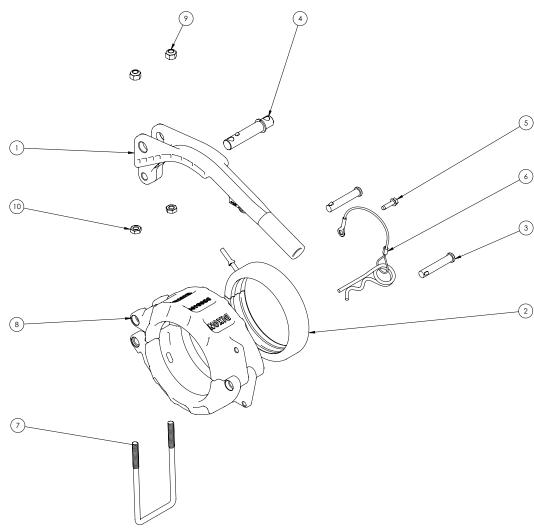
<sup>1</sup> Kits 4041RK1, and 4042RK1 contain 2 sets of shafts and springs. Swing check valves manufactured after March 2007 should use the larger axial shafts and larger torsion springs. Swing check valves manufactured prior to March 2007 will require the use of the shorter axial shafts and the smaller torsion springs.

The smaller torsion springs will not return the flappers contained in the 4041RK1and 4042RK1 kits to a fully closed position if the valve is mounted vertically or upside down. Ensure that these mounting positions are avoided if the smaller springs are used with the 4041RK1, and 4042RK1 kits.



# **Grooved Pipe Connections**

# **Aluminum Quick Connect Clamps**



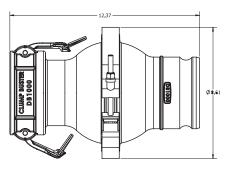
#### **Bill of Materials - DBCG400**

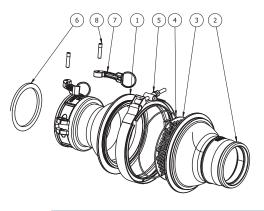
Item #	Description	Part #	Material	Qty
1	4 inch pipe coupler handle	40396NY	nylon	1
2	4 inch pipe coupler split gasket	40398BN	Buna-N / EPDM	1
3	small quick assembly pin	40431SS	SST	2
4	large quick assembly pin	40430SS	SST	1
5	screw	10765SS	SST	1
6	lanyard and cotter pin assembly	40432		1
7	coupler, bail latch	40429SS	SST	1
8	4 inch pipe coupler half	40397AL	aluminum	2
9	5/16-18 nut, nylon insert	40427SS	SST	2
10	5/15-18 jam nut	40428SS	SST	2

Dry Bulk Replacement Parts

# **Clump Buster**

# Clump Buster - DB1000

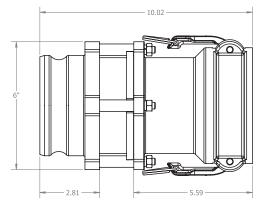


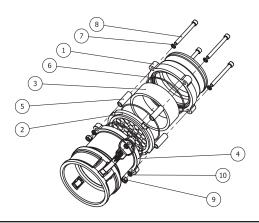


#### **Bill of Materials - DB1000**

Item #	Description	Part #	Qty
1	coupler - machining	341841	1
2	adapter - machining	341842	1
3	screen	391862	1
4	O-ring 2-166	112293	1
5	clamp	112291	1
6	gasket 4"	400-G-BU	1
7	cam arm with ring	300-HR-BR	2
8	pin	325-P	2

# Clump Buster With Sight Glass - DB1000-SFI





#### Bill of Materials - DB1000SFI

Item #	Description	Part #	Qty
1	4" adapter for SG (AL)	341228	1
2	clump buster screen	112295	1
3	sight glass	6000-10 (390114)	1
4	coupler assembly 4"	6000-19	1
5	spacer	390911 spacer	4
6	O-ring 3.750X.093 Buna-n	AS156 (110177)	3
7	lock washer	111723	4
8	screw_socket head .3125-18NCx3in	112296	4
9	nut	110978	4
10	lock washer	110977	4

Dry Bulk accement F

Part # Page #
1120
11206
2120
2120
2180
2180
2182
2182
2215
2215
3120
3120
3180
3180
4111 20
4111
4121
4121
4122
4122
4123
4123
4124
4124
4125
4125
4127
4127
4129
4129
4130
4130
4134
4134
4135
4135
4137
4139
4139
4149
4149
4155
4155
4157
4157
4159
4159
4167
4167
4443
4621
4621
4622

Part #	Page #
4622	20
4623	20
4623	20
5012	
5012	
5050	
5050	
5052	
5052	
40432	
110977	
110978	
111111	
111131	
111141	
111161	20
111215	
111321	
111324	
111325	
111326	
111430	
111443	
111485	
111723	
112254	
112257	
112257	
112291	
112293	
112295	
112296	
113111	20
113131	20
340039	
341228	
341351	
3415952	
341595	
341611	
341611	
341841	,
341842	
390777	
390784	
3907982	
390798	
3907992	
390799	27, 33
390846	
390847	
391862	
10-400-1500	
800 355 1001	

Part #	Page	#
10765SS	3	35
1120/5		6
1120/6		6
1120/7		6
1120/8		6
1120/9		6
1120/10		6
1120/11		6
1120/12		6
1120/13		6
1120/14		
1120/15		
1120/16		
1120/17		
1120/18		
1120/19		6
1120/20		6
1120/21		
1120/22		
1120/23		
1120/24		
1120/25		
2120/5		
2120/6		
2120/7		
2120/8		
2120/9		
2120/10		
2120/11		
2120/12		
2120/13		
2120/14		6
2120/15		6
2120/16		6
2120/17		6
2120/18		
2120/19		6
2120/20		
2120/21		
2120/22		6
2120/23		6
2120/24		6
2120/25		6
2180/4		4
2180/5		4
2180/6		4
2180/7		4
2180/8		
2180/9		
2180/10		4
2180/11		
2180/12		
2180/13		4

Dixon Bayco 2017

37

Part #	Page #	Part #	Page #	Part #	Page #
2180/14	4	2182F/19			
2180/15	4	2182F/20		3020CS	
2180/16	4	2182F/21		3020CS	
2180/17	4	2182F/22		3020FA	
2180/18	4	2182F/23		3020FA	
2180/19	4	2182F/24		3020SQ	
2180/20	4	2182F/25		3020TE	
2180/21	4	2-3-213	17	3030HK	
2180/22	4	2-3-400-99-BPKIT	17	3030HK	
2180/23	4	2-400-1500	16	3030RD-SSP	
2180/24	4	2-400-422240	17	3030RK3	
2180/25	4	3/8 INSERT	19	3030RK3	
2180B/15	4	3/8 RETAINERBOLT	19	3030SK	
2180RK-15		3/8 T-BOLT			
2180RK-15A		3000-4			
2180RK-18		3000-5	,		
2180RK-18A		3000-B	,		
2180V/15	-	3000-BSP			
2182/5		3000CAP			
2182/6		3000-N			
2182/7		3000-S			
2182/8		3000-SP			
2182/9	-	3000-SSP			
2182/10		3000TE			
2182/11	-	3000TE-B			
2182/12		3000TE-BSP			8
2182/12	-	3000TE-S			8
2182/13		3000TE-SP			
2182/14	-	3000TE-SP			
2182/16		3001SQ-B			
2182/17	-	3001SQ-BSP			8
2182/18	-	3001SQ-N			
2182/19		3001SQ-S			
2182/20		3001SQ-SP		3090RK1	
2182/21	-	3001SQ-SSP			
2182/22		300-ALT-AL			
2182/23		300-BK			
2182/24	-	300-BSPK	,		8
2182/25		300-BSPK			8
2182F/5		300-DLT-AL			8
2182F/6		300GDBSQCB			
2182F/7		300GDBSQE			
2182F/8	3	300GDBSQK		3091RK2	27
2182F/9	3	300GTTFCB	9	3091RK2	27
2182F/10	3	300GTTFK	9	3120/5	6
2182F/11	3	300GTTFTK	9	3120/6	6
2182F/12		300-HR-BR	36	3120/7	6
2182F/13		300-K		3120/8	6
2182F/14		300-SK	,	3120/9	6
2182F/15		300-SPK			6
2182F/16		300-SPK			6
2182F/17		300-SSPK			6
2182F/18		300-SSPK			6

800.355.1991

Dixon Bayco 2017

38

Part #	Page #
3120/14	6
3120/15	6
3120/17	
3180/10	4
3180/11	
3180/12	4
3180/13	4
3180/14	
3180/15	4
3180/16	4
3180/17	
3180/18	4
3180/19	4
3180/20	4
3180/21	4
3180/22	4
3180/23	
	13
	13
390911 spacer.	
40022ALTAL	
40022DLTAL	

Part #	Page #
400-ALT-AL	24
400-AS-AL	25
400-DLT-AL	
400GAGFI	
400-G-BU	
400GTTFCB	
400GTTFK	
400GTTFTK	
40321TF	
40322TF	
40396NY	
40397AL	
40398BN	
4040RD	
4040RK1	
4040RK1	
4040TE	
4041RD	-
4041RK1	
4041RK3	
4041RK3	
4041TE	
40427SS	
40428SS	
40429SS	
4042RD	
4042RK1	
4042TE	
40430SS	
40431SS	
4126B	
4126B	
4-380-828U501	
4-480-1500	
4-480-3501	
4-5-6-213 4-6-400-99-BPKIT	
4A-480-1500 4A-480-3501	
4x4BD DOOR 4x4BD DOORASBLY	
4x4BD DOORASBLY	
4X4-BD-TEE 4X4-BD-TEE-E	
4X4-BD-TEE-E 4X4-S-TEE	
4X4-S-TEE 4X4-S-TEE-E	
4X4-S-TEE-E 5/6BD DOOR	
5-380-828U501	
5-380-8280501	
5-400-422240	
5-480-3501	
5-RF	
V-INI	

Part #	Page #
5x4 WING	19
5x4BD DOORASBLY	
5x4-BD GASKET	
5X4-BD-TEE	18
5X4-BD-TEE-E	
5X4-S-TEE-E	
5X4-VRBD-TEE	18
5X4-VRBD-TEE-E	
5X4-VRBD-TEE-K	-
5X4-VRST-TEE-E	
5X4-VRST-TEE-K	18
6000-10	
6000-16	
6000-16	
6000-16	
6000-17	
6000-17	,
6000-17	
6000-18	
6000-19	
6000-20	
6000-20	
6000-20	
6000-23	
6000-23	
6000-24 6000NPHK	
6000NPHK	
600-ALT-AL	
600-DLT-AL	
6-380-828U501	
6-400-422240	
6400SGK	
6-480-1500	
6-480-3501	
6544CA-1	
6-99-400BPKIT	
6x4 WING	19
6x4BD DOORASBLY	
6x4-BD GASKET	
6X4-BD-TEE	
6X4-BD-TEE-E	
6X4-S-TEE-E	
8-400-1500	
8x4 WING	
8x4BD DOOR	
8x4BD DOORASBLY	
8x4-BD GASKET	
A2180	
A2180	
A2180/10	
A2180/11	
A2180/12	
A2180/13	4

Dixon Bayco 2017

Part #	Page #	Part #	Page #	Part #	Page #
A2180/14	4	A3180/15ADJ	5	GASKET RETAINER	19
A2180/15	4	A3180/16ADJ	5	L02BL	15
A2180/16	4	A3180/17ADJ	5	L03BL	15
A2180/17	4	A3180/18ADJ	5	L04BL	15
A2180/18	4	A3180/19ADJ	5	O-RINGAS238	31
A2180/19		A3180/20ADJ	5	PC5000	12
A2180/20	4	A3180/21ADJ	5	PC5000-002	12
A2180/21		A3180/22ADJ		PC5000AA	
A2180/22		A3180/23ADJ	-	PC5000TTTE	
A2180/23		A3180/25ADJ	-	PC5000VV	
A2180/24		A3180/5ADJ	-	PC5001	
A2180/25		A3180/6ADJ		PC5003	
A2180/27		A3180/7ADJ		PC5004	
A2180/28		A3180/8ADJ		PC5005	
A2180/4		A3180/9ADJ		PC5006	
A2180/5		A3180/xxADJ	-	PC5007	
A2180/6		A3180ADJ		SC5-16-18X2.5P	
		A3180ADJ			
A2180/7			-	SC5-16-18X2.75P	
A2180/8		ADS400		SPRG/L4603	,
A2180/9		AS156	,	TDF6	
A2180/10ADJ		BD BOLTS	-	TDF7	
A2180/11ADJ		BD WINGNUT		TDF8	
A2180/12ADJ		CAL15		TTF3AL	
A2180/13ADJ		CAL25	-	TTF3AL-3MT	
A2180/14ADJ		DB1000		TTF400SP	
A2180/15ADJ		DB1000-SFI		TTF4AL	
A2180/16ADJ		DB500LTA		TTF4AL-3EMT	,
A2180/17ADJ		DB500TA		TTF4AL-3FT	
A2180/18ADJ		DB600LTA		TTF4AL-3MT	
A2180/19ADJ	5	DB600TA		TTF4AL-4EMT	= ) =
A2180/20ADJ	5	DB605LTA		TTF4AL-4FT	9
A2180/21ADJ	5	DB9000		TTF4AL-4MT	
A2180/22ADJ	5	DBCG400		TTF4ALHC-3MT	9
A2180/23ADJ	5	DBCG400-P		TTF4ALHC-4MT	9
A2180/24ADJ	5	DBV-BL200			
A2180/25ADJ	5	DBV-BL300			
A2180/30ADJ	5	DBV-BL400			
A2180/5ADJ	5	DBV-BN200			
A2180/6ADJ	5	DBV-BN300			
A2180/7ADJ		DBV-BN400			
A2180/8ADJ		DBV-VB200			
A2180/9ADJ		DBV-VB300			
A2180ADJ		DBV-VB400			
A2180ADJ		DBV-WB400			
_A2182	-	G200BL			
A2182		G200BL	,		
A2182		G200VB			
A3180		G200VB G300BL			
A3180/10ADJ		G300BL G300T	,		
A3180/11ADJ		G300VB			
A3180/12ADJ		G400BL	,		
A3180/13ADJ		G400T			
A3180/14ADJ	5	G400VB			

40

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Index

**Dry Bulk** 

**Products** 

pages 2 - 25

**Dry Bulk** 

Replacement

Parts

pages 26 - 36

pages 37 - 40

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