

# Installation & Operating Instructions

For

**Dixon Bayco**

**2" Swing Check Valves**

**For Sales and Service Contact**

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To properly operate and maintain your Dixon Bayco swing check valve the following instructions are provided. Please read with care as improper handling or maintenance may cause a hazardous condition.



**Do not modify your Dixon Bayco swing check valve for any reason. It can result in a hazardous condition due to operating difficulties or operation malfunction. Disassembly or tampering will void the product warranty.**

Immediately remove from service any swing check valve that is not performing satisfactorily.

### Installation

Dixon Bayco swing check valves are properly adjusted and ready to use upon leaving the factory.

1. Ensure arrow is pointing downstream of product flow when installing.
2. Threaded models require anti-seize compound to prevent galling.
3. Apply appropriate gasket for square flanged model.

#### **For Flanged Models:**

Restricted space behind the two top inlet mounting holes does not permit standard anti-vibration nuts to be applied. Two ½"-13 Jam nuts are provided for use with ½" – 13 bolts for these two locations. Use appropriate length ½" bolts and nuts for other locations.

### Care and Handling

Dixon Bayco swing check valves are tested at the factory and are in proper working condition when shipped. Swing check valves are designed to be tough and to provide long service with reasonable care and handling.

### Food Grade Materials

Dixon Bayco 3020 series of swing check valves are manufactured with white food grade EPDM flapper seals.

### Temperature

Swing check valves are designed to operate to a maximum of 350°F (176°C) temperature.



**DO NOT OPEN INSPECTION CAP WHEN VALVE IS UNDER PRESSURE!**

### Inspection and Maintenance

Swing Check valves need routine inspections.

Swing check valves can fail to operate if not properly maintained. Frequently check for damage, loose or missing parts.

Swing check valves assure one-way airflow during the off loading or unloading of product. Swing check valves prevent back flow of product into the blower or piping system. These safety devices consist of a simple flapper valve that swings clear of the air stream during the normal off-loading operation, but will immediately close when there is an air stoppage or airline pressure reversal. Once installed, the valves are often ignored. However, they are a crucial element in the proper operation of the dry bulk air transfer systems and the protection of expensive blower equipment.

Swing check valve simplicity and historical durability are probably the reason for inspection complacency. But, swing checks are subject to temperature extremes and vibration fatigue that can affect wear and longevity. Wear in particular can result as flapper and hinge mechanisms vibrate constantly during road travel. Also remember that blowers raise intake air temperatures by as much as 200°F. That means if the outside is 100°F, then airline plumbing (including swing checks) can reach 300°F. High temperatures combined with pulsation stress from the blower and road travel vibration creates a hostile working environment that warrants performance inspections on a regular basis.

There are two basic ways to inspect swing checks: (a) visual/manual, on the tanker and (b) removed from tanker, on a test stand.



**Do not attempt to inspect the valve while in use; this may result in severe damage or injury.**

### How to Inspect

1. Our easy opening access door allows for quick viewing of the valve to ensure there is no blockage in the system.
2. Remove the inspection cap/cover and hand operate valve to ensure springs are in good working order and flapper seats properly without restriction.
3. Inspect springs and shaft for wear or broken springs.
4. Inspect valve seat for wear or gaps.
5. Inspect for product stuck in flapper assembly or valve seat causing the flapper to hang open.
6. During re-assembly when closing access cap ensure O-ring is properly seated and locking ring is fully engaged when closed, and install cap.

Should problems be encountered replace valve immediately.

### Inspection Frequency

Swing check valves should be routinely inspected as part of a preventative maintenance schedule for dry bulk tankers. The units should be given, at a minimum, a visual/manual inspection every 2-3 months.

### Dixon Bayco Warranty

For complete warranty information, please refer to the latest Dixon catalog.