# **Inspection Door**

# Installation, Operation and Maintenance Manual





Purchase Date:		
Purchased From:		
Installation Date:		

Section 1 - Important Information	2
1.1 General Introduction	2
1.2 User Benefits	2
1.3 Service Option	
Section 2 - Safety Considerations and Precautions	
2.1 Stationary Conveyors	
2.2 Operating Conveyors	
Section 3 - Pre-Installation Checks and Options	4
3.1 Checklist	
Section 4 - Installation Instructions	5
Section 5 - Pre-Operation Checklist and Testing	8
5.1 Pre-Op Checklist	
Section 6 - Maintenance	9
6.1 Routine Visual Inspection	9
6.2 Maintenance Log	
Section 7 - Troubleshooting	11
Section 8 - Specifications and CAD Drawing	12
8.1 Specs and Guidelines	
8.2 CAD Drawing	
Section 9 - Replacement Parts	14
9.1 Replacement Parts List	14
Section 10 - Other Flexco <sup>®</sup> Conveyor Products	

### **1.1 General Introduction**

We at Flexco<sup>®</sup> are very pleased that you have selected a Flexco Inspection Door for your conveyor system.

This manual will help you to understand the operation of this product and assist you in making it work properly over its lifetime of service.

It is essential for safe and efficient operation that the information and guidelines presented be properly understood and implemented. This manual will provide safety precautions, installation instructions, maintenance procedures and troubleshooting tips.

If, however, you have any questions or problems that are not covered in this manual, please contact your field representative or our Customer Service Department:

#### Customer Service: 49-7428-9406-0

#### Visit www.flexco.com for other Flexco locations and products.

Please read this manual thoroughly and pass it on to any others who will be directly responsible for installation, operation or maintenance of this product. While we have tried to make the installation and service tasks as easy and simple as possible, **it does however require correct installation and regular inspections and adjustments to maintain top working condition.** 

### 1.2 User Benefits

Flexco Inspection Doors can be used to visually inspect and/or service conveyor equipment. They may also serve as an access point for cleaning material buildup off conveyor belt cleaners or other equipment.

### **1.3 Service Option**

The Inspection Door is designed to be easily installed and serviced by your on-site personnel. However, if you would prefer complete turn-key factory service, please contact your local Flexco Field Representative.

Before installing the Flexco<sup>®</sup> Inspection Door, it is important to review and understand the following safety information.

There are set-up, maintenance and operational activities involving both stationary and operating conveyors. Each case has a safety protocol.

### 2.1 Stationary Conveyors

The following activities are performed on stationary conveyors:

• Installation

- Repairs
- Blade Replacement
- Cleaning

# **A** DANGER

It is imperative that OSHA/MSHA Lockout/Tagout (LOTO) regulations, 29 CFR 1910.147, be followed before undertaking the preceding activities. Failure to use LOTO exposes workers to hazards that may result in severe injury or death. Never install or service equipment with the power turned on.

Before working:

• Lockout/Tagout the conveyor power source

# A WARNING

#### Use Personal Protective Equipment (PPE):

- Safety eyewear
- Hardhats
- Safety footwear

Close quarters and heavy components create a worksite that could compromise a worker's eyes, feet and skull. PPE must be worn to control the foreseeable hazards associated with conveyor belt equipment inspections. Serious injuries can be avoided.

### 2.2 Operating Conveyors

There are two routine tasks that must be performed while the conveyor is running:

- Inspection of the conveyor belt equipment
- Dynamic troubleshooting

# **A** DANGER

Every belt cleaner and pulley is an in-running nip hazard. Never touch or prod equipment on an operating conveyor belt. Nip hazards cause instantaneous amputation and entrapment. If using the optional screen as a safety device, follow all site rules and regulations for access to hazards. Otherwise, mount the door no closer than 165mm (6.5") from a hazard (ANSI B11-Series Safety Standards for Machine Tools and ISO 1819 for Continuous Mechanical Handling Equipment).

# **A** WARNING

Conveyor chutes contain projectile hazards. Use safety eyewear and headgear. Missiles can inflict serious injury.

# **A** WARNING

Never adjust anything inside chute/enclosure on an operating conveyor belt. Unforseeable materials falling into the chute and flailing hardware can cause serious injury or death.



## 3.1 Checklist

- Make sure door is the correct model and size
- Review the "Tools Needed" list on the top of the installation instructions
- Verify that desired door location is an appropriate distance from hazard per site safety regulations.
- Identify and remove any obstructions

### 4.1 Inspection Door



Physically lock out and tag the conveyor at the power source before you begin inspection door installation.

#### **Before You Begin:**

- Identify mounting location. Verify that the desired door location is an appropriate distance from hazard per site safety regulations.
- Be aware of flying debris when selecting door location and do not mount door in material path. This could damage the door and cause personal injury when opened.
- Identify the orientation needed for the door (which way to open).
- Verify swing clearance ensure door can be opened as needed in the desired location.
- Read and follow all appropriate safety precautions.

#### **Tools Needed:**

- Tape measure
- 19mm (3/4") wrench
- Medium or Large Adjustable Wrench
- Drill with 16mm (5/8") bit
- Cutting equipment
- Marker
- Tape (for mounting template)



1. Select a suitable location for the Inspection Door. See Fig. 1 for space and swing clearance requirements. **NOTE:** Verify that the desired door location is an appropriate distance from hazard per site safety regulations.



- **4.** When the mounting surface has cooled, apply silicone (supplied) to the mounting plate (Fig. 2).
- 5. Bolt the door firmly to the chute.

6. Adjust the nuts on the U-bolt up or down (equally, both ends) to change latch tightness (Fig. 3). This will also change the force required to close the handle. Verify that U-bolt is contacting both latch tabs.

7. If a screen was included with the Inspection Door, ensure it is bolted to hinge and latch tabs (Fig. 4).

8. If needed, the door can be locked by placing a padlock (not included) through the holes in the handle and door (Fig. 5).







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# 5.1 Pre-Op Checklist

- Recheck that all fasteners are tight
- Check latch/screen operation. Make sure door opens and closes properly
- Be sure that all installation materials and tools have been removed from the belt and the conveyor area

# 6.1 Routine Visual Inspection

- Periodically check Inspection Door for damage.
- Make sure fasteners are tight and the warning label is clearly visible.
- If material is escaping through the door or around the frame, ensure the door is firmly fastened to the chute, the door seal is not damaged, and the latch is tight.
- If screen is included, periodically check for damage and replace if needed.



# Section 6 - Maintenance

# 6.2 Maintenance Log

Conveyor Name/No		
Date:	Work done by:	Service Quote #:
Activity:		
Date:	Work done by:	Service Quote #:
	Work done by:	Service Quote #:
Activity:		
Date:	Work done by:	Service Quote #:
Activity:		
		Service Quote #:
Activity		
Date:	Work done by:	Service Quote #:
Activity:		
Date:	Work done by:	Service Quote #:
Activity:		

Problem	Possible Cause	Possible Solutions
Screen (optional component) is damaged	Material damaging the screen	Replace the screen, reconsider door location
Excessive dust escaping	Seal worn or damaged	Replace seal
through door	Door not latched tightly enough	Adjust nuts on U-bolt up or down to change latch tightness.
Door latch too tight, difficult to close latch handle	Nuts on U-bolt have been tightened/ overtightened	Adjust nuts on U-bolt up or down to change latch tightness.
Door not latching correctly	Hinge damaged	Replace hinge
or at all	Latch damaged	Replace latch



## 8.1 Specifications and Guidelines

Inspection Door Specifications							
Door (Opening) Size (Width, Length)		Outer I (Widt	Height				
mm	in.	mm in.		mm	in.		
311 W x 311 L	12-1/4 W x 12-1/4 L	419 W x 419 L	16-1/2 W x 16-1/2 L	87	3-7/16		
311 W x 464 L	12-1/4 W x 18-1/4 L	419 W x 572 L	16-1/2 W x 22-1/2 L	87	3-7/16		
464 W x 616 L	18-1/4 W x 24-1/4 L	572 W x 724 L	22-1/2 W x 28-1/2 L	87	3-7/16		
616 W x 616 L	24-1/4 W x 2-1/44 L	724 W x 724 L	28-1/2 W x 28-1/2 L	87	3-7/16		





Screen (Optional)

Screen serves as a guard that helps keep hands and tools from being placed into the chute/enclosure, but still allows visual access. Screen is hinged on the same side as the door and bolted in place on the other side so it does not require full removal for accessing the chute/enclosure. A wrench is required to remove the bolt that holds the screen in place as a safety feature. (Holes are sized per ANSI B11 and ISO 1819.)

#### **Specifications:**

• Temperature Rating...... -55°C to 175°C (-70°F to 350°F)

### 8.2 CAD Drawing





Door Size		00mm x 12)		50mm x 18)		00mm « 24)		00mm x 24)
Without Screen	79:	303	3 79304		79305		79306	
With Screen	79:	307 79308		308	79309		79310	
DIM A	419	16.50	419	16.50	572	22.50	724	28.50
DIM B	419	16.50	572	22.50	724	28.50	724	28.50
DIM C	381	15.00	381	15.00	533	21.00	686	27.00
DIM D	381	15.00	533	21.00	686	27.00	686	27.00
DIM E	311	12.25	311	12.25	464	18.25	616	24.25
DIM F	311	12.25	464	18.25	616	24.25	616	24.25
DIM G	64	2.50	64	2.50	140	5.50	216	8.50
DIM H	64	2.50	140	5.50	216	8.50	216	8.50



# **Section 9 - Replacement Parts**

## 9.1 Replacement Parts List - Inspection Door





#### **Replacement Parts- Inspection Doors**

REF	DESCRIPTION	ORDERING NUMBER	ITEM CODE	WT. KG.
1a	Inspection Door Screen 300x300mm (12 x 12)*	IDSC-1212	79311	0.8
1b	Inspection Door Screen 300x450mm (12 x 18)*	IDSC-1218	79312	1.1
1c	Inspection Door Screen 450x600mm (18 x 24)*	IDSC-1824	79313	2.0
1d	Inspection Door Screen 600x600mm (24 x 24)*	IDSC-2424	79314	2.4
2	Replacement Seal - 1.5M (5')**	IDSEAL	79315	0.05
3	Replacement Hinge	IDHINGE	79316	0.1
4	Replacement Latch (incl. bolt, bushings & nut)	IDLATCH	79317	1.1

\*Hardware included

\*\*One 1.5M (5') length of seal is needed for 300x300mm (12x12") and 300x450mm (12x18") doors or screens, and two 1.5M (5') lengths are needed for 450x600mm (18x24") and 600x600 (24x24") doors or screens. Double if replacing seal on both door and screen.

Flexco<sup>\*</sup> provides many conveyor products that help your conveyors to run more efficiently and safely. These components solve typical conveyor problems and improve productivity. Here is a quick overview on just a few of them:

#### **MMP** Precleaner



- Extra cleaning power right on the head pulley
- A 250mm (10") TuffShear<sup>™</sup> blade provides increased blade tension on the belt to peel off abrasive materials
- The unique Visual Tension Check<sup>™</sup> ensures optimal blade tensioning and quick, accurate retensioning
- Easy to install and simple to service

#### MHS Secondary Cleaner with Service Advantage Cartridge



- An easy slide-out cartridge for service
- Cartridge design to speed up blade-change maintenance
- Patented PowerFlex<sup>™</sup> Cushions for superior cleaning performance
- Compatible with Flexco<sup>®</sup> mechanical splices

#### **Flexco Specialty Belt Cleaners**



- "Limited space" cleaners for tight conveyor applications
- High Temp cleaners for severe, high heat applications
- A rubber fingered cleaner for chevron and raised rib belts
- Multiple cleaner styles in stainless steel for corrosive applications

#### DRX<sup>™</sup> Impact Beds



- Exclusive Velocity Reduction Technology<sup>™</sup> to better protect the belt
- Slide-Out Service<sup>™</sup> gives direct access to all impact bars for change-out
- Impact bar supports for longer bar life
- 4 models to custom fit to the application

#### PT Max<sup>™</sup> Belt Trainer



- Patented "pivot & tilt" design for superior training action
- Dual sensor rollers on each side to minimize belt damage
- Pivot point guaranteed not to seize or freeze up
- Available for topside and return side belts

#### **Belt Plows**



- A belt cleaner for the tail pulley
- Exclusive blade design quickly spirals debris off the belt
- Economical and easy to service
- Available in vee or diagonal models



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