# **PT Smart<sup>™</sup> Belt Trainer**

# Installation, Operation and Maintenance Manual





www.flexco.com

| Serial Number:     |
|--------------------|
| Purchase Date:     |
| Purchased From:    |
| Installation Date: |

Serial number information can be found on the Serial Number Label included in the Information Packet found in the cleaner carton.

This information will be helpful for any future inquiries or questions about belt cleaner replacement parts, specifications or troubleshooting.

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#### **1.1 General Introduction**

We at Flexco are very pleased that you have selected a PT Smart<sup>™</sup> Belt Trainer for your conveyor system.

This manual will help you to understand the installation, operation and maintenance of this product and assist you in making it work up to its maximum efficiency 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. In addition, please follow all standard, approved safety guidelines when working on your conveyor.

If, however, you have any questions or problems that are not covered, please visit our web site or contact 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 and maintenance of this impact bed. While we have tried to make the installation and service tasks as easy and simple as possible, **this product does however require correct installation and regular inspection and maintenance to maintain top working condition.** 

#### 1.2 User Benefits

Belt mistracking is a common problem that produces various problems, ranging from belt and structure damage to product spillage and safety issues. By utilizing the PT Smart<sup>™</sup>, it is possible to correct a belt that is mistracking and causing these problems. Multiple units may be required depending on the length of the mistracking belt.

## **1.3 Proper Belt Trainer Selection**

| MODEL                             | APPLICATION RANGE  |
|-----------------------------------|--|
| Belt Positioner™                  | Return side only, 140 n/mm (800 PIW) max tension<br>on Small, Medium and Large; 210 n/mm (1200<br>PIW) max tension on Extra Large. Also works on<br>reversing belts. |
| PTEZ™                             | Medium-duty belts up to 280 n/mm (1600 PIW) max tension. Also works on reversing belts.  |
| PT Smart <sup>™</sup>             | Medium-duty belts up to 280 n/mm (1600 PIW)<br>max tension. Belt width + 75mm (3") idler. Belt<br>thickness 25mm (1") maximum.                                       |
| PT Smart™ Underground             | Medium-duty belts up to 280 n/mm (1600 PIW)<br>max tension. Belt width + 225mm (9") idler. Belt<br>thickness 25mm (1") maximum. Fits underground<br>structure.       |
| PT Max™ Adjustable                | Heavy-duty belts up to 525 n/mm (3000 PIW) max<br>Generally 19mm to 25mm thick (3/4" to 1")<br>Belt width 900 - 1500mm (36" - 60")                                   |
| HD PT Max <sup>™</sup> Adjustable | Heavy-duty belts up to 1050 n/mm (6000 PIW) max<br>tension. Belt width 1350 - 2100mm (54" - 84")   |

Belt Positioner<sup>™</sup> PTEZ™ PT Smart<sup>™</sup> Standard PT Smart<sup>™</sup> Underground Structure PT Max<sup>™</sup> Adjustable Top Side PT Max<sup>™</sup> Adjustable **Return Side** 

| PT Max™    |
|------------|
| Adjustable |
| V-Return   |

| Conveyor Criteria                               | Belt<br>Positioner <sup>™</sup> | PTEZ™                      | PT Smart <sup>™</sup>      | PT Max <sup>™</sup>        | Heavy<br>Duty PT<br>Max <sup>™</sup> | Super<br>Duty PT<br>Max <sup>™</sup> |
|---|---------------------------------|----------------------------|----------------------------|----------------------------|--------------------------------------|--------------------------------------|
| Top side mistracking                            | No                              | No                         | No                         | Yes                        | Yes                                  | Yes                                  |
| Return side mistracking                         | Yes                             | Yes                        | Yes                        | Yes                        | Yes                                  | Yes                                  |
| Reversing                                       | Yes                             | Yes                        | No                         | No                         | No                                   | No                                   |
| Belt mistracking to one side                    | Better                          | Better                     | Better                     | Better                     | Better                               | Better                               |
| Belt mistracking to both sides                  | Acceptable                      | Better                     | Best                       | Best                       | Best                                 | Best                                 |
| Inconsistent tracking problem                   | Good                            | Better                     | Best                       | Best                       | Best                                 | Best                                 |
| Belt is cupped (heavy)                          | Best‡                           | Better‡                    | Better                     | Better                     | Better                               | Better                               |
| Belt has edge damage                            | Best                            | Best                       | Good                       | Good                       | Good                                 | Good                                 |
| Ease of Installation                            | Best                            | Better                     | Good                       | Good                       | Good                                 | Good                                 |
| Belt has low running tension (26 - 53 n/mm)     | Good                            | Good                       | Good                       | Good                       | N/A                                  | N/A                                  |
| Belt has medium running tension (53 - 280 n/mm) | Better                          | Better                     | Better                     | Best                       | Best                                 | Best                                 |
| Belt has high running tension (280+ n/mm)       | N/A                             | N/A                        | N/A                        | Better                     | Best                                 | Best                                 |
| Approx. "upstream" effect*∆                     | 15 M (50')                      | 6 M (20')                  | 6 M (20')                  | 15 M (50')                 | 15 M (50')                           | 15 M (50')                           |
| Approx. "downstream" effect*∆                   | 15 M (50')                      | 30 – 36 M<br>(100' – 120') | 36 – 45 M<br>(120' – 150') | 45 – 61 M<br>(150' – 200') | 45 – 61 M<br>(150' – 200')           | 45 – 61 M<br>(150' – 200')           |

Installed on the clean side of the return belt
Typical results; actual results may vary
Δ Disc idlers have the potential to reduce these numbers



Before installing and operating the PT Smart<sup>™</sup> Belt Trainer, it is important to review and understand the following safety information.

There are setup, 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

- Roller replacement
- Repairs

• Service

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 uncontrolled behavior of the belt trainer caused by movement of the conveyor belt or belt trainer. Severe injury or death can result.

#### Before working:

- Lockout/Tagout the conveyor power source
- Clear the conveyor area where work is to take place

## A WARNING

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

- Safety eyewear
- Hardhats
- Safety footwear

Close quarters and heavy components create a worksite that compromises a worker's eyes, feet and skull. PPE must be worn to control the foreseeable hazards associated with conveyor belt components. 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 belt trainer performance
- Dynamic troubleshooting

# **A** DANGER

Every belt conveyor is an in-running nip hazard. Never touch or prod an operating belt trainer. Conveyor hazards cause instantaneous amputation and entrapment.

# A WARNING

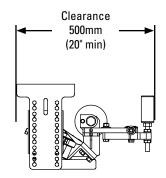
Conveyors contain moving hazards. Stay as far from the trainer as practical and use safety eyewear and headgear.

# A WARNING

Never adjust anything on an operating belt trainer. Flailing hardware can cause serious injury or death.

### 3.1 Checklist

- Check the model and size of the belt trainer. Is it the right one for your beltline?
- Check the PT Smart<sup>™</sup> to be sure all the parts are included in the shipment.
- Find the Information Packet in the shipment.
- Review the "Tools Needed" section on the front of the installation instructions.
- Prepare the conveyor site:
  - Identify the point(s) of mistracking, expecting 36 45M (120' 150') of downstream influence.
  - . Position the unit 6M (20') after the start of the mistracking.
  - . Identify an opening of at least 500mm (20") if possible to avoid interference with sensor rollers during installation.
  - . Remove old tracking devices.
  - . If the conveyor has disc idlers, replace one idler before and one idler after the location where the trainer will be installed with a standard idler.





#### **3.2 Optional Installation Accessories**

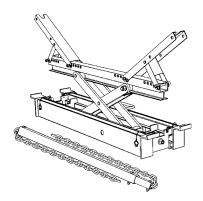
Optional tools can make the installation of the PT Smart<sup>™</sup> Belt Trainer easier and faster.

#### Flex-Lifter<sup>™</sup> Conveyor Belt Lifter

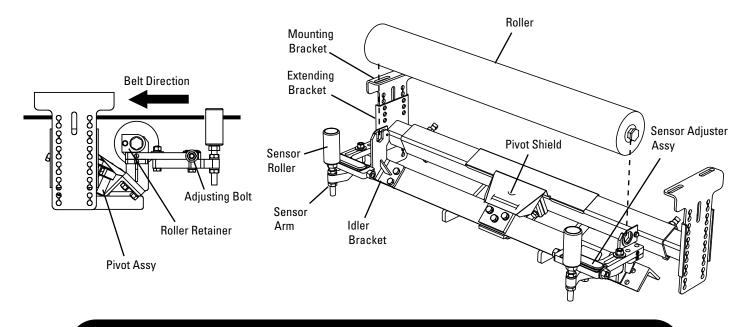
| Description                                 | Ordering<br>Number | ltem<br>Code |
|---|--------------------|--------------|
| Medium Flex-Lifter 900 - 1500mm (36" - 60") | FL-M               | 76469        |
| Large Flex-Lifter 1200 - 1800mm (48" - 72") | FL-L               | 76470        |
| XL Flex-Lifter 1800 - 2400mm (72" - 96")    | FL-XL              | 76983        |

#### Flex-Lifter<sup>™</sup> Conveyor Belt Lifter

The Flexco Flex-Lifter makes the job of lifting the conveyor belt easy and safe. Using two Flex-Lifters, the belt can be quickly lifted out of the way to install the PT Smart<sup>™</sup>. The Flex-Lifter has the highest safe lift rating available at 1810 kg (4000 lbs.). And it's versatile. It can also be used to lift topside or return side belt for splicing, roller replacement or other maintenance jobs. Available in three sizes: Medium for belt widths 900 - 1500mm (36" - 60"), Large for belt widths 1200 - 1800mm (48" - 72"), and XL for belt widths 1800 - 2400mm (72" - 96").



#### Section 4 - Installation Instructions - PT Smart<sup>™</sup>



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

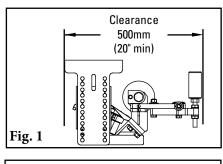
#### CAUTION: Components may be heavy. Use safety-approved lifting procedures.

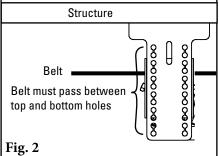
#### **Tools Needed:**

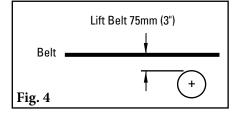
- Cutting torch Tape measure - Come-alongs (2) (3/4 ton min.) 19mm (3/4") wrench
  - Any necessary equipment for
- Medium or large moving and lifting heavy components adjustable wrench

#### Prepare the conveyor site: 1.

- Identify the point(s) of mistracking, expecting 36 45M (120' - 150') of downstream influence.
- Position the unit 6M (20') after the start of the mistracking.
- Identify an opening of at least 500mm (20") if possible to avoid • interference with sensor rollers during installation (Fig. 1).
- Remove old tracking devices. •
- 2. Position mounting brackets. May be mounted to existing idler bracket mounts OR to outside of structure, if structure width is belt width +450mm (18") or less. Be sure belt passes between top and bottom mounting holes (Fig 2).
- 3. Install mounting brackets. Measure from a fixed location on both sides to ensure alignment.
- 4. Lift the belt approximately 75mm (3") where the trainer will be installed (Fig. 4).
- 5. Remove existing idler (if there is one in the location). NOTE: If the conveyor has disc idlers, replace one idler before and one idler after the location where the trainer will be installed with a standard idler.

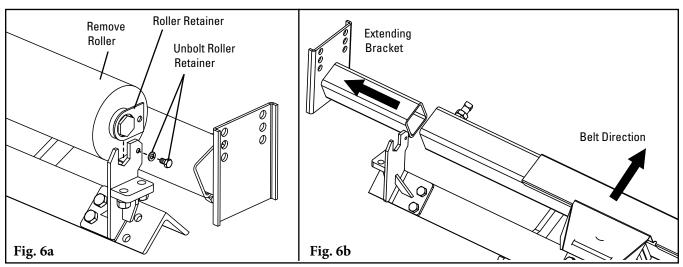




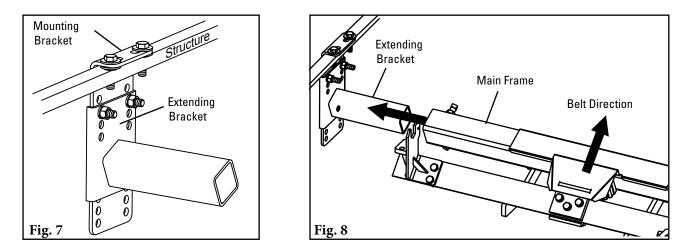




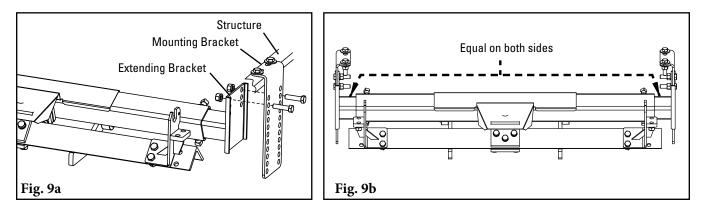
**6. Remove Roller** by unbolting Roller Retainer (Fig. 6a). Determine orientation of trainer and remove far side Extending Bracket (Fig. 6b).



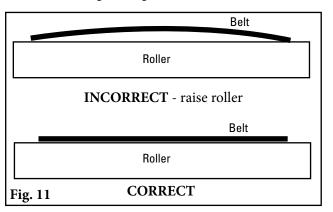
- **7.** Attach Extending Bracket to mounting bracket already installed on far side of conveyor (Fig. 7). Finger-tighten bolts for future adjustment. Top bolt holes should be even with the normal height of the belt.
- 8. Slide the far end of main frame onto the extending bracket assembled in Step 7 (Fig. 8).

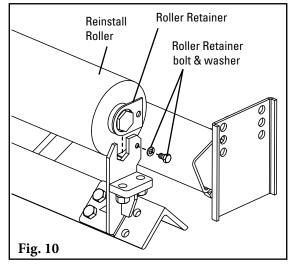


**9.** Lift near end of main frame and attach extending bracket to mounting bracket (Fig. 9a). Ensure main frame is centered on the Extending Brackets (equal length of extenders showing on both sides) (Fig. 9b).

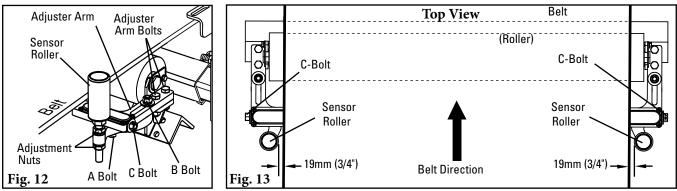


- 10. Reinstall roller and re-bolt roller retainer (Fig. 10).
- 11. Lower the belt. Ensure belt completely contacts roller. Raise extending brackets one hole if there is not good contact (Fig. 9). Tighten all bolts.

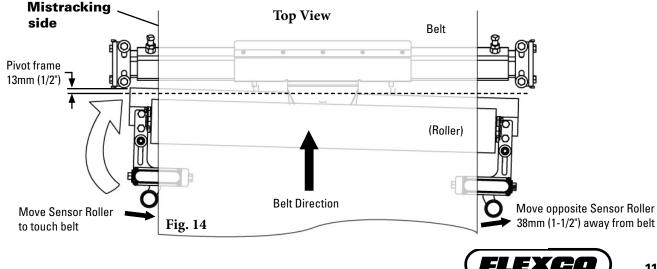




12. Install sensor adjuster assemblies using included bolts. Ensure left and right assemblies are installed on the correct sides. Adjust sensor rolls vertically using the adjustment nuts so the belt is centered on the roller.



- 13. Adjust sensor rollers so they are 19mm (3/4") from the belt on each side. Adjust by loosening "A" and "B" bolts (shown in Fig. 12), then turning the "C" bolts (Fig. 13).
- 14. Pivot the frame 13mm (1/2") to the side it is mistracking. Bring sensor roller in until it touches the belt. Move opposite sensor roller out to 38 mm (1-1/2'') from the belt (Fig 14).
- 15. Tighten all bolts and proceed to next page for pre-op checklist.

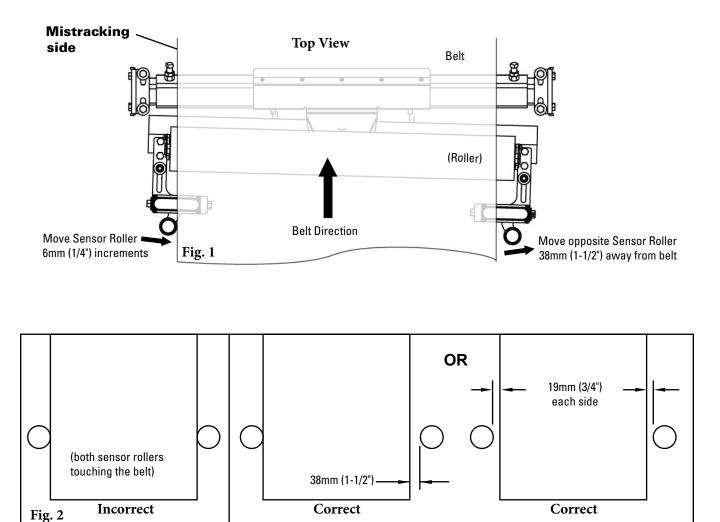


## 5.1 Pre-Op Checklist

- Recheck that all fasteners are tight
- Apply all supplied labels
- Be sure that all installation materials and tools have been removed from the belt and conveyor area

### 5.2 Test Run the Conveyor

- Run the conveyor for at least 15 minutes and confirm the belt is tracking properly.
- If belt is still mistracking too far to one side, bring that sensor roller in toward the center. Make adjustments of 6mm (1/4") at a time (Fig. 1). Do not pinch the belt between the rollers rollers overall should be 38mm (1-1/2") wider than the belt (Fig. 2).
- NOTE: If the conveyor has disc idlers, the belt may not get the full downstream tracking effect.





Flexco belt trainers are designed to operate with minimum maintenance. However, to maintain superior performance some service is required. When the trainer is installed a regular maintenance program should be set up. This program will ensure that the trainer operates at optimal efficiency, and problems can be identified and fixed before any damage is done to the belt, the trainer, other conveyor components, or structure.

All safety procedures for inspection of equipment (stationary or operating) must be observed. The PT Smart is in direct contact with the moving belt. Only visual observations can be made while the belt is running. Service tasks can be done only with the conveyor stopped and by observing the correct lockout/tagout procedures.

#### 6.1 New Installation Inspection

After the PT Smart<sup>™</sup> has run for 15 minutes a visual inspection should be made to ensure the trainer is performing properly. Make adjustments as needed.

#### 6.2 Routine Visual Inspection (every 2-4 weeks)

A visual inspection of the PT Smart can determine:

- If the belt is tracking as required
- If the trainer is moving freely
- If the main frame is free of material and rolling properly
- If there is damage to the main frame or other components
- If the sensor rollers are turning freely and without damage

If any of the above conditions exist, a determination should be made on when the conveyor can be stopped for trainer maintenance.

#### 6.3 Routine Physical Inspection (every 6-8 weeks)

When the conveyor is not in operation and properly locked and tagged out, a physical inspection of the trainer to perform the following tasks:

- Clean material buildup off the trainer and components.
- Closely inspect both sensor rollers for free movement and wear. Replace if needed.
- Closely inspect main roller for free movement and wear. Replace if needed.
- Pivot unit to ensure full and easy movement.
- Closely inspect complete unit for damage.
- Inspect all fasteners for tightness and wear. Tighten or replace if needed.
- When maintenance tasks are completed, test run the conveyor to ensure the trainer is performing properly.



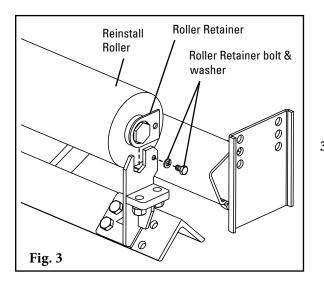
#### Section 6 - Maintenance

### 6.4 Roller Replacement Instructions

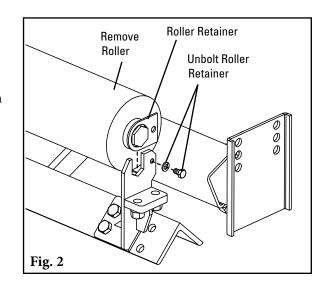
Physically lock out and tag the conveyor at the power source before you begin cleaner installation.

# CAUTION: Components may be heavy. Use safety-approved lifting procedures.

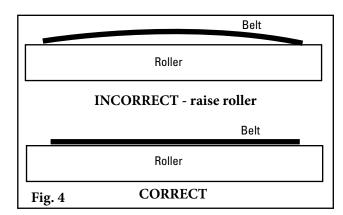
- Remove tension from belt. Use a Flex-Lifter or other appropriate lifting equipment to lift the belt approx. 75mm (3") off the trainer.
- 2. Remove roller by unbolting Roller Retainers (Fig. 2).

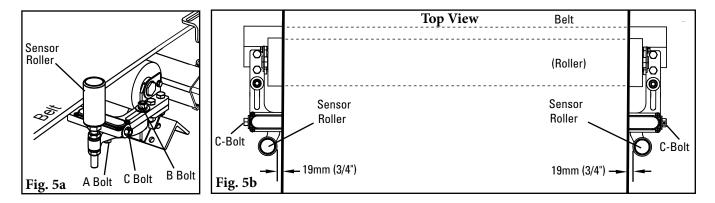


- **4.** Lower the belt. Ensure belt completely contacts roller. Raise brackets if there is not good contact (Fig. 4). Tighten all bolts.
- 5. Adjust sensor rollers so they are 19mm (3/4") from the belt on each side. Adjust by loosening the "A" and "B" bolts, then turning the "C" bolts (Fig. 5a & b).

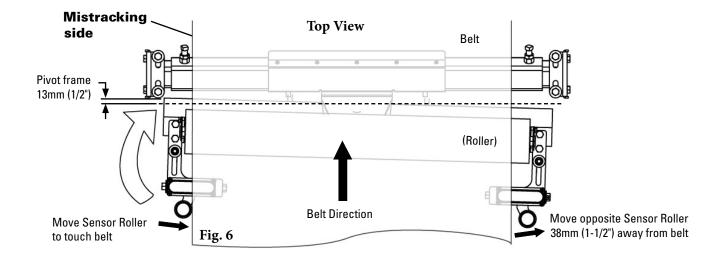


**3. Install new roller** and re-bolt roller retainer (Fig. 3). Confirm roller turns smoothly.





6. Pivot the frame 13mm (1/2") to the side it is mistracking. Bring sensor roller in until it touches the belt. Move opposite sensor roller out to 38mm (1-1/2") from the belt (Fig 6).



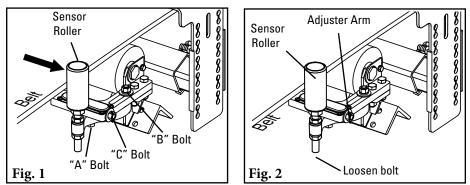
7. Tighten all bolts and refer to pre-op checklist (page 10) before running the conveyor. If belt is still mistracking, refer to Section 5.2 on page 10.



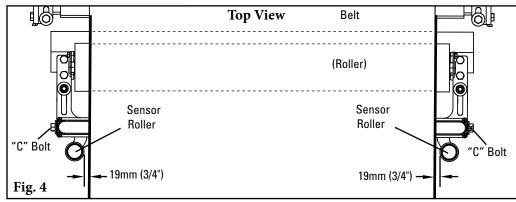
#### Section 6 - Maintenance (cont.)

## 6.5 Sensor Roller Replacement Instructions

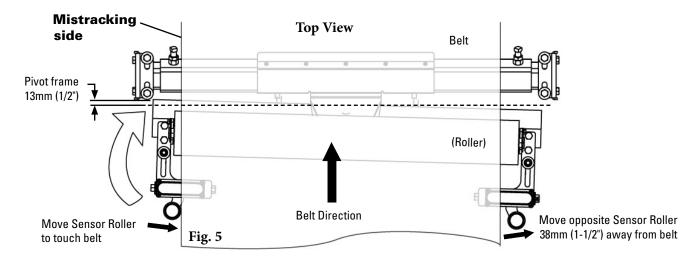
- 1. Loosen "A" and "B" bolts, turn "C" bolts to move sensor rollers away from the belt (Fig. 1).
- 2. Loosen nut at base of sensor roller and remove from adjuster arm (Fig. 2).



- 3. Install new sensor roller, reinstall nut, and adjust the sensor roll vertically using the adjustment nuts so the belt aligns with the center of the roller.
- **4.** Adjust sensor rollers so they are 19mm (3/4") from the belt on each side. Adjust by turning the "C" bolts (Fig. 4).



5. Pivot the frame 13mm (1/2") to the side it is mistracking. Bring sensor roller in until it touches the belt. Move opposite sensor roller out to 38mm (1-1/2") from the belt (Fig 5).



6. Tighten all bolts and refer to pre-op checklist (page 10) before running the conveyor. If belt is still mistracking, refer to Section 5.2 on page 10.

# Section 6 - Maintenance (cont.)

# 6.6 Maintenance Log

| Conveyor Name/No. |               |                  |
|-------------------|---------------|------------------|
| Date:             | Work done by: | Service Quote #: |
| Activity:         |               |                  |
|                   |               |                  |
|                   |               |                  |
|                   | Work done by: |                  |
| Activity:         |               |                  |
|                   |               |                  |
| Date:             | Work done by: | Service Quote #: |
| Activity:         |               |                  |
|                   |               |                  |
| Date:             | Work done by: | Service Quote #: |
|                   |               |                  |
|                   |               |                  |
|                   |               |                  |
| Date:             | Work done by: | Service Quote #: |
| Activity:         |               |                  |
|                   |               |                  |
| Date:             | Work done by: | Service Quote #: |
| Activity:         |               |                  |
|                   |               |                  |
| Date              | Work done by: | Service Quote #· |
|                   |               |                  |
|                   |               |                  |
|                   |               |                  |
| Date:             | Work done by: | Service Quote #: |
| Activity:         |               |                  |
|                   |               |                  |



# Section 6 - Maintenance

# 6.7 Belt Trainer Maintenance Checklist

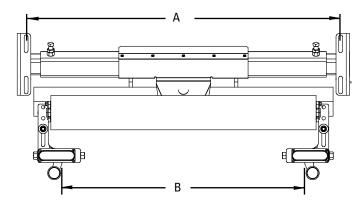
| PT Smart:   |                  |                    |                  |                  | S(                | erial Numbe       | er:               |                                  |  |
|---|------------------|--------------------|------------------|------------------|-------------------|-------------------|-------------------|----------------------------------|--|
| Beltline Infor  |                  |                    |                  |                  |                   |                   |                   |                                  |  |
| Beltline Numl   | oer:             |                    | Belt             | Condition:       |                   |                   |                   |                                  |  |
| Belt Width:   | □ 450mn<br>(18") | n □ 600mm<br>(24") | □ 750mm<br>(30") | □ 900mm<br>(36") | □ 1050mm<br>(42") | □ 1200mm<br>(48") | □ 1350mm<br>(54") | □ 1500mm □ 1800mm<br>(60") (72") |  |
| Belt Speed: _   |                  |                    | Belt Th          | ickness:         |                   |                   |                   |                                  |  |
| ldler Roller L  |                  |                    |                  |                  |                   |                   |                   |                                  |  |
| Date Roller In  | stalled:         |                    |                  | Date Roller      | Inspected:        |                   |                   | Estimated Roller Life:           |  |
| Roller Conditi  | on:              |                    |                  |                  |                   |                   |                   |                                  |  |
| <b>Sensor Roller</b><br>Date Roller In<br>Roller Conditi  | stalled:         |                    |                  |                  | Inspected:        |                   |                   | Estimated Roller Life:           |  |
| I <b>Sensor Rolle</b><br>Date Roller In<br>Roller Conditi | stalled:         |                    |                  |                  | Inspected:        |                   |                   | Estimated Roller Life:           |  |
| PT Smart Fra  | me Condit        | ion:               | □ Good           | 🗆 Ber            | nt 🗆 R            | usted             |                   |                                  |  |
| Overall PT Sn   | nart Perfo       | rmance:            | ( Rate           | the followi      | ng 1 - 5,  1=ve   | ry poor - 5=      | very good )       |                                  |  |
| Appearance:   |                  | Comments:          |                  |                  |                   |                   |                   |                                  |  |
| Location:   |                  | Comments:          |                  |                  |                   |                   |                   |                                  |  |
| Maintenance   | : 🗆              | Comments:          |                  |                  |                   |                   |                   |                                  |  |
| Performance   |                  | Comments:          |                  |                  |                   |                   |                   |                                  |  |
| Other Comme   | ents:            |                    |                  |                  |                   |                   |                   |                                  |  |
|   |                  |                    |                  |                  |                   |                   |                   |                                  |  |
|   |                  |                    |                  |                  |                   |                   |                   |                                  |  |
|   |                  |                    |                  |                  |                   |                   |                   |                                  |  |
|   |                  |                    |                  |                  |                   |                   |                   |                                  |  |
|   |                  |                    |                  |                  |                   |                   |                   |                                  |  |
|   |                  |                    |                  |                  |                   |                   |                   |                                  |  |

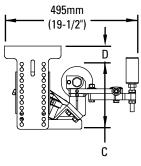
| Problem                                 | Possible Cause                    | Possible Solutions  |
|---|-----------------------------------|---|
|   | Unit installed in wrong location  | Relocate unit 6M (20') after start of problem area of belt                          |
| Little to no effect on trouble          | Incorrect tension on unit         | Increase height of unit to provide 13-25mm (1/2" - 1") lift on belt                 |
| area of belt                            | Unit mis-adjusted                 | Adjust sensor roller to provide more activation of unit                             |
|   | Buildup on main roller            | Clean unit  |
|   | Unit mis-adjusted                 | Adjust sensor roll to provide more activation of unit                               |
| Belt not correcting enough              | Disc idlers on conveyor           | Replace one disc idler before and one after the trainer with a standard idler       |
| Belt moving over too much               | Unit mis-adjusted                 | Adjust sensor roll to provide less activation of unit                               |
| Belt is jumping sensor roll             | Unit located too low in structure | Increase height of unit to provide 13-25mm (1/2" - 1") lift on belt                 |
| Belt contacting both side sensors       | Unit mis-adjusted                 | Adjust sensors to provide the 25mm (1") clearance so both sensors do not touch belt |
| Unit does not pivot Buildup of material |                                   | Clean unit  |
| National la section de la complete      | Buildup on main roller            | Clean unit  |
| Main roller not turning                 | Main roller bearing bad           | Replace main roller   |



# **Section 8 - Specs and CAD Drawings**

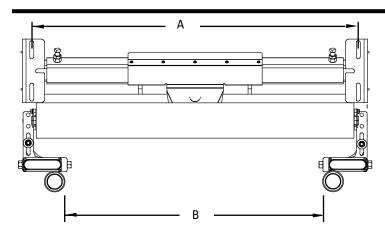
# 8.1 Specs and Guidelines

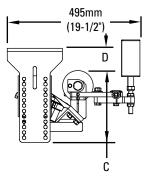




PT Smart Standard

| Belt V | Belt Width |       | •                    | В                    | С              | D                        |
|--------|------------|-------|----------------------|----------------------|----------------|--------------------------|
| mm     | in.        | Code  | Α                    | Б                    | C              | (vertical<br>adjustment) |
| 450    | 18         | 77664 | 575-875mm (23-35")   | 250-575mm (10-23")   |                |                          |
| 600    | 24         | 77665 | 725-1025mm (29-41")  | 400-725mm (16-29")   |                |                          |
| 750    | 30         | 77666 | 875-1175mm (35-47")  | 550-875mm (22-35")   | ]              |                          |
| 900    | 36         | 77667 | 1025-1325mm (41-53") | 700-1025mm (28-41")  | 050            | 0.050                    |
| 1050   | 42         | 77668 | 1175-1475mm (47-59") | 825-1175mm (33-47")  | 250mm<br>(10") | 0-250mm<br>(0"-10")      |
| 1200   | 48         | 77669 | 1325-1625mm (53-65") | 1000-1325mm (40-53") | (10)           | (0-10)                   |
| 1350   | 54         | 77670 | 1475-1775mm (59-71") | 1150-1475mm (46-59") |                |                          |
| 1500   | 60         | 77671 | 1625-1925mm (65-77") | 1300-1625mm (52-65") |                |                          |
| 1800   | 72         | 77672 | 1925-2225mm (77-89") | 1600-1925mm (64-77") |                |                          |

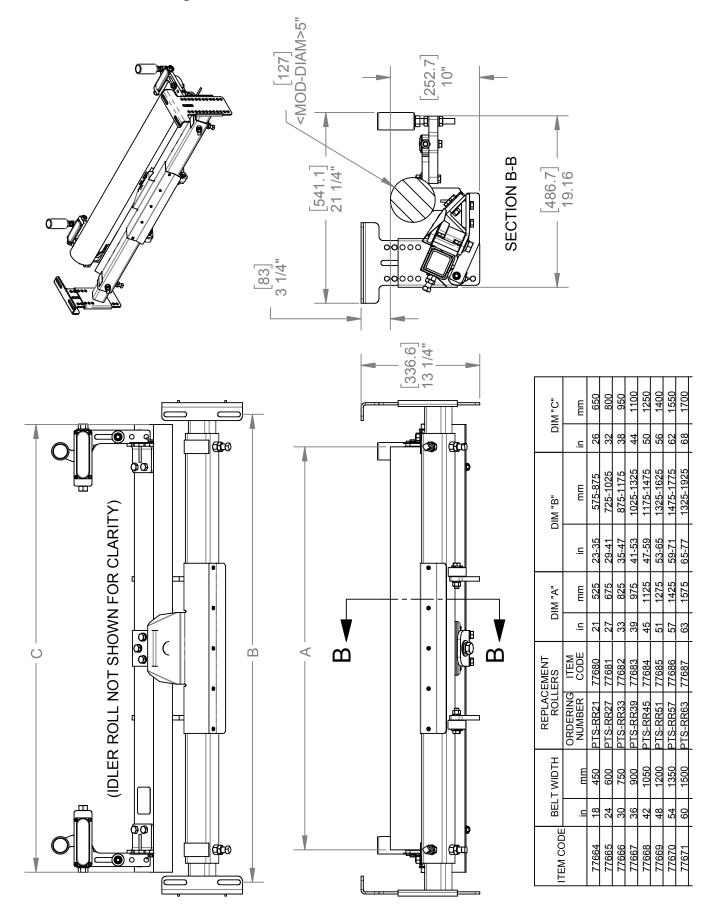




#### PT Smart Underground Structure

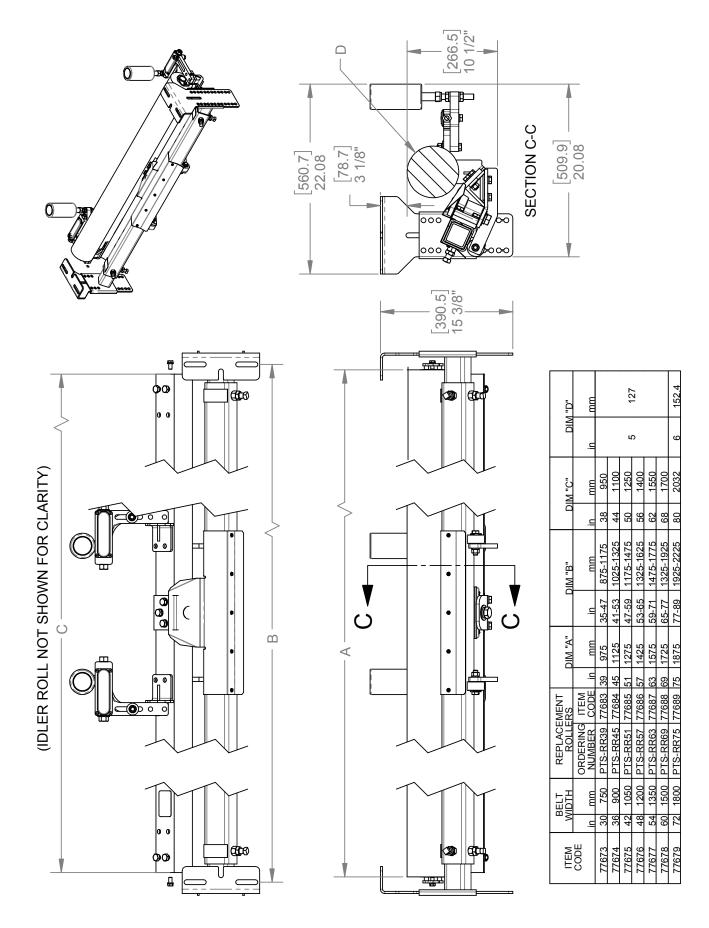
| Belt V | Vidth | Item  | A B                  |                      | с                  | D  |
|--------|-------|-------|----------------------|----------------------|--------------------|--|
| mm     | in.   | Code  | A                    | Б                    | C                  | U  |
| 750    | 30    | 77673 | 875-1175mm (35-47")  | 675-1000mm (27-40")  |                    |  |
| 900    | 36    | 77674 | 1025-1325mm (41-53") | 825-1150mm (33-46")  |                    | 69mm to                                    |
| 1050   | 42    | 77675 | 1175-1475mm (47-59") | 975-1300mm (39-52")  | 250mm<br>(10")     | 331mm                                      |
| 1200   | 48    | 77676 | 1325-1625mm (53-65") | 1125-1450mm (45-58") |                    | (2-3/4" to                                 |
| 1350   | 54    | 77677 | 1475-1775mm (59-71") | 1275-1600mm (51-64") |                    | 13-1/4")                                   |
| 1500   | 60    | 77678 | 1625-1925mm (65-77") | 1425-1750mm (57-70") |                    |  |
| 1800   | 72    | 77679 | 1925-2225mm (77-89") | 1725-2050mm (69-82") | 262mm<br>(10-1/2") | 56mm to<br>319mm<br>(2-1/4" to<br>12-3/4") |

# 8.2 CAD Drawing - PT Smart Standard

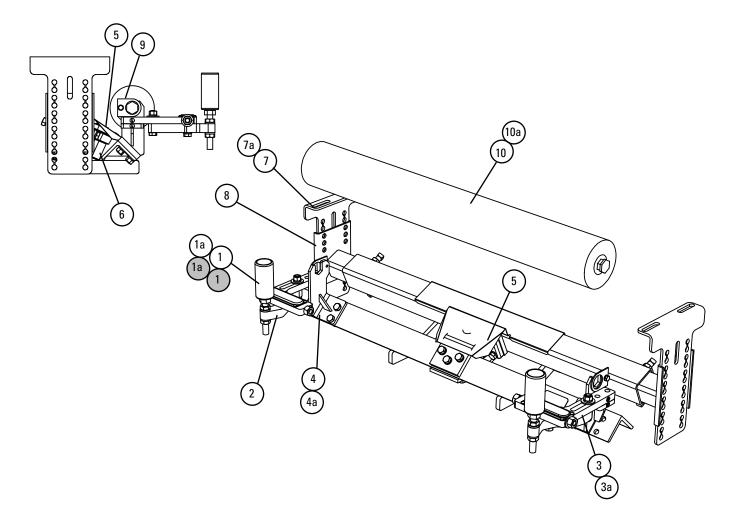


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## 8.3 CAD Drawing - PT Smart Underground Structure



## 9.1 Replacement Parts List



#### **Replacement Parts**

| Ref | Description                             | Ordering<br>Number | ltem<br>Code |
|-----|---|--------------------|--------------|
| 1   | PTS STD Sensor Roller (2")              | PTS-ASR            | 93089        |
| 1a  | PTS HD Sensor Roller (3")               | PTS-AHDSR          | 93090        |
| 2   | PTS Sensor Arm Kit (incl. 1 ea.)        | PTS-SAK            | 77694        |
| 3   | PTS RH Sensor Adjuster Assy             | PTS-RHSAA          | 77755        |
| 3a  | PTS LH Sensor Adjuster Assy             | PTS-LHSAA          | 77756        |
| 4   | PTS Idler Bracket Kit (incl. L & R)     | PTS-IBK            | 77696        |
| 4a  | PTS HD Idler Bracket Kit (incl. L & R)  | PTS-HIBK           | 77697        |
| 5   | PTS Pivot Shield                        | PTS-PS             | 77698        |
| 6   | PTS Pivot Assy (Axle and housing)       | PTS-PA             | 77699        |
| 7   | PTS Mounting Bracket Kit                | PTS-MBK            | 77700        |
| 7a  | PTS Mounting Bracket Kit U/G            | PTS-MBKUG          | 77701        |
| 8   | PTS Extending Bracket Kit (incl. L & R) | PTS-EBK            | 77702        |
| 9   | Roller Retainer Kit                     | RBPRET             | 73163        |

\*Hardware included

Lead time: 1 working day

#### Legacy Replacement Sensor Rollers - For PT Smart Units Shipped Prior to Feb. 24, 2021

| Ref | Description                | Ordering<br>Number | ltem<br>Code |
|-----|----------------------------|--------------------|--------------|
| L1  | PTS STD Sensor Roller (2") | PTS-SR             | 77691        |
| L1a | PTS HD Sensor Roller (3")  | PTS-HDSR           | 77692        |

#### **Replacement Rollers**

| Ref   | <b>Belt Width</b> |     | Description                   | Ordering | Item  |  |  |  |
|---|-------------------|-----|-------------------------------|----------|-------|--|--|--|
|   | mm                | in. | Description                   | Number   | Code  |  |  |  |
| FOR PT SMART <sup>™</sup>                       |                   |     | STANDARD STRUCTURE            |          |       |  |  |  |
| 10  | 450               | 18  | PTS Repl Roller 525 mm (21")  | PTS-RR21 | 77680 |  |  |  |
|   | 600               | 24  | PTS Repl Roller 675 mm (27")  | PTS-RR27 | 77681 |  |  |  |
|   | 750               | 30  | PTS Repl Roller 825 mm (33")  | PTS-RR33 | 77682 |  |  |  |
|   | 900               | 36  | PTS Repl Roller 975 mm (39")  | PTS-RR39 | 77683 |  |  |  |
|   | 1050              | 42  | PTS Repl Roller 1125 mm (45") | PTS-RR45 | 77684 |  |  |  |
|   | 1200              | 48  | PTS Repl Roller 1275 mm (51") | PTS-RR51 | 77685 |  |  |  |
|   | 1350              | 54  | PTS Repl Roller 1425 mm (57") | PTS-RR57 | 77686 |  |  |  |
|   | 1500              | 60  | PTS Repl Roller 1575 mm (63") | PTS-RR63 | 77687 |  |  |  |
|   | 1800              | 72  | PTS Repl Roller 1875 mm (75") | PTS-RR75 | 77689 |  |  |  |
| FOR PT SMART <sup>™</sup> UNDERGROUND STRUCTURE |                   |     |                               |          |       |  |  |  |
| 10a   | 750               | 30  | PTS Repl Roller 975 mm (39")  | PTS-RR39 | 77683 |  |  |  |
|   | 900               | 36  | PTS Repl Roller 1125 mm (45") | PTS-RR45 | 77684 |  |  |  |
|   | 1050              | 42  | PTS Repl Roller 1275 mm (51") | PTS-RR51 | 77685 |  |  |  |
|   | 1200              | 48  | PTS Repl Roller 1425 mm (57") | PTS-RR57 | 77686 |  |  |  |
|   | 1350              | 54  | PTS Repl Roller 1575 mm (63") | PTS-RR63 | 77687 |  |  |  |
|   | 1500              | 60  | PTS Repl Roller 1725 mm (69") | PTS-RR69 | 77688 |  |  |  |
|   | 1800              | 72  | PTS Repl Roller 2025 mm (81") | PTS-RR81 | 77690 |  |  |  |

Lead time: 1 working day



Flexco 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:

#### **EZP1** Precleaner



- Patented ConShear<sup>™</sup> blade renews its cleaning edge as it wears
- Visual Tension Check  $\ensuremath{^{\scriptscriptstyle \mbox{\tiny M}}}$  for optimal blade tensioning and simple retensioning
- Quick and easy one-pin blade replacement
- Material Path Option<sup>™</sup> for optimal cleaning and reduced maintenance

#### Flex-Lok<sup>™</sup> Skirt Clamps



- Eliminates transfer zone spillage
- Interlocking design for easy installation and one-person maintenance
- Unique wedge pin holds rubber securely in place and is easy to adjust
- Available in various models and in stainless steel

#### MMP Precleaner



- Extra cleaning power for tough applications
- 10" TuffShear<sup>™</sup> blade provides increased blade-to-belt tension
- A 3-piece telescoping pole is lighter to lift and easier to install
- Dual Quick-Mount Tensioners ensure optimal tension throughout the life of the blade

#### 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 mechanical splices

#### 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 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

#### **The Flexco Vision**

To become the leader in maximising belt conveyor productivity for our customers worldwide through superior service and innovation.

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