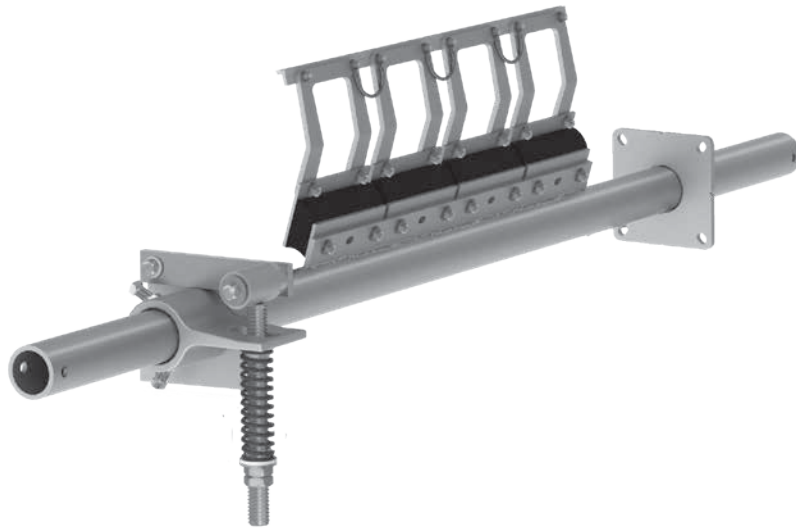


H-Type[®] ATEX Stainless Steel Precleaner with V-Tips

Installation, Operation and Maintenance Manual



H-Type® ATEX Stainless Steel Precleaner with V-Tips

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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Section 1 – Important Information

1.1 General Introduction

We at Flexco are very pleased that you have selected an H-Type® ATEX Precleaner with V-Tips for your conveyor system.

This manual will help you to understand the operation 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.

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: 91-44-6551-7771

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 cleaner. 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

Correct installation and regular maintenance will provide the following benefits for your operation:

- Reduced conveyor downtime
- Reduced man-hour labor
- Lower maintenance budget costs
- Increased service life for the belt cleaner and other conveyor components

1.3 Service Option

The H-Type ATEX Precleaner with V-Tips 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.

Section 2 – Safety Considerations and Precautions

Before installing and operating the H-Type® ATEX Precleaner with V-Tips, 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
- Blade replacement
- Repairs
- Tension adjustments
- Cleaning

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 cleaner caused by movement of the conveyor belt. Severe injury or death can result.

Before working:

- Lockout/Tagout the conveyor power source
- Disengage any takeups
- Clear the conveyor belt or clamp securely in place

WARNING

Use Personal Protective Equipment (PPE):

- Safety eyewear
- Hardhats
- Safety footwear

Close quarters, springs 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 cleaners. 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 cleaning performance
- Dynamic troubleshooting

DANGER

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

WARNING

Belt cleaners can become projectile hazards. Stay as far from the cleaner as practical and use safety eyewear and headgear. Missiles can inflict serious injury.

WARNING

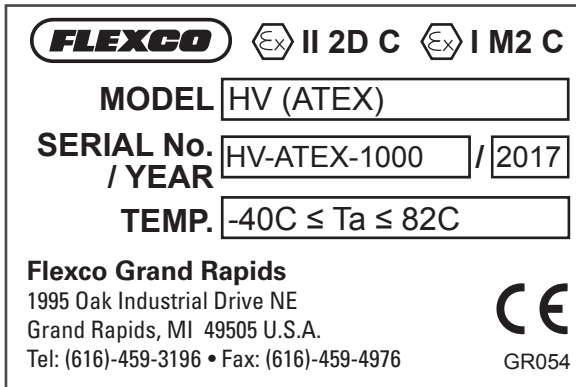
Never adjust anything on an operating cleaner. Unforseeable belt projections and tears can catch on cleaners and cause violent movements of the cleaner structure. Flailing hardware can cause serious injury or death.

Section 2 – Safety Considerations and Precautions

2.3 ATEX Safety Info

The ATEX version of the HV Stainless Steel Belt Cleaner has been designed to conform to the safety standards per Directive 94/9/EC.

Marking example:



Safety Considerations:

- Welding and grinding that takes place during the installation or maintenance of the HVSS should only be done when explosive atmospheres are not present. Follow mine/industrial site safety regulations when welding or grinding.
- Attach the HV Stainless Steel Cleaner to a grounded conveyor structure. The product itself is made of conductive materials. To ensure a connection, attach grounding wire between scraper tips and conveyor structure. Use the provided lock washers to mount cleaner to the structure or weld mounting plate to structure. Testing to ensure the grounded connection is advised in applications with potential for static buildup on the cleaner.

Section 3 – Pre-installation Checks and Options

3.1 Checklist

- Check that the cleaner size is correct for the beltline width
- Check the belt cleaner carton and make sure all the parts are included
- Review the “Tools Needed” list on the top of the installation instructions
- Check the conveyor site:
 - Will the cleaner be installed on a chute
 - Is the install on an open head pulley requiring mounting structure
 - Are there obstructions that may require cleaner location adjustments

Section 3 - Pre-Installation Checks and Options (cont.)

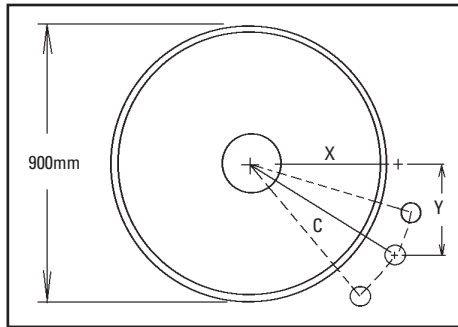
3.2 Cleaner Location Adjustments

In certain applications it is necessary to modify the location of the precleaner pole due to permanent obstacles that obstruct the desired location. Relocating the pole location can be done easily and does not hinder the performance of the cleaner as long as the “C” dimension is maintained.

NOTE: In the following example we will be lowering the pole location in the “Y” direction, but the same method could also be applied in the “X” direction.

Conveyor situation:

Pulley Diameter: 900mm
X = 301mm
Y = 478mm
C = 565mm



1. **Determine the given location dimensions and define the change needed.** After laying out the given X & Y dimensions, determine the distance of the modification required for adequate clearance of the pole and tensioning system. (In the example we decide to lower the pole 50mm to clear the support structure).
2. **Write down known dimensions.** We can now determine two of the three required dimension which will allow us to find the third. We know we cannot alter the “C” dimension, so this will remain the same. Also we are required to lower the unit in the “Y” dimension 50mm, so we add 50mm to the given “Y” dimension.

X = ?

Y = 478 + 50 = 528mm

C = 565mm

3. **Determine final dimension.** On a flat vertical surface, using a level, draw one horizontal line and one vertical line creating a right triangle (Fig 3a). Measure down from the intersection the determined “Y” dimension and mark (Fig 3b). With the tape measure starting at the modified “Y” mark, swing the tape across the “X” line and mark at the “C” dimension where it crosses the “X” line (Fig 3c). Measure from the intersection to the “C” intersection and this will be your new “X” dimension (Fig. 3d).

X = 201mm

Y = 528mm

C = 565mm

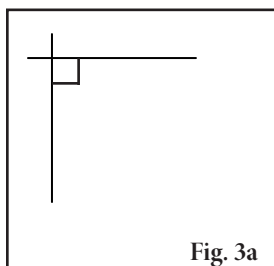


Fig. 3a

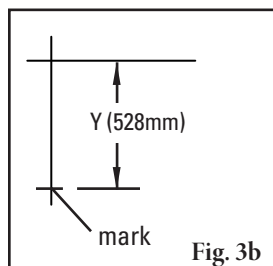


Fig. 3b

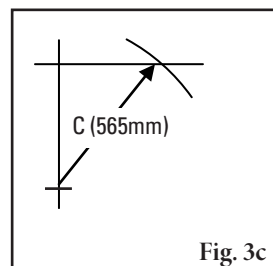


Fig. 3c

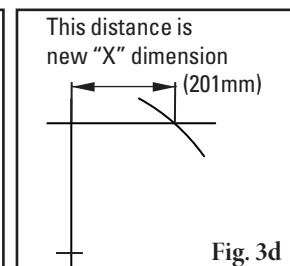
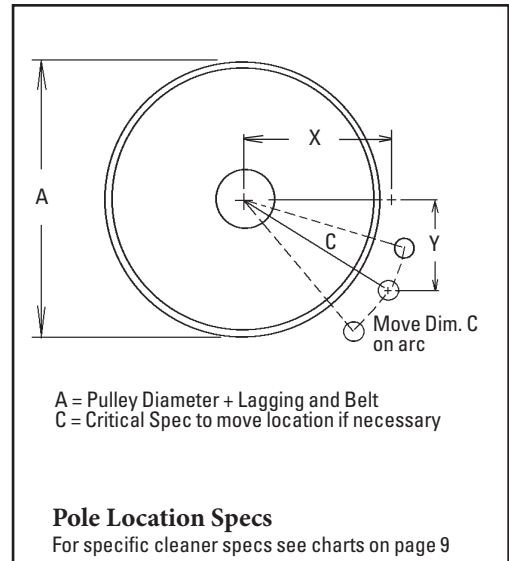
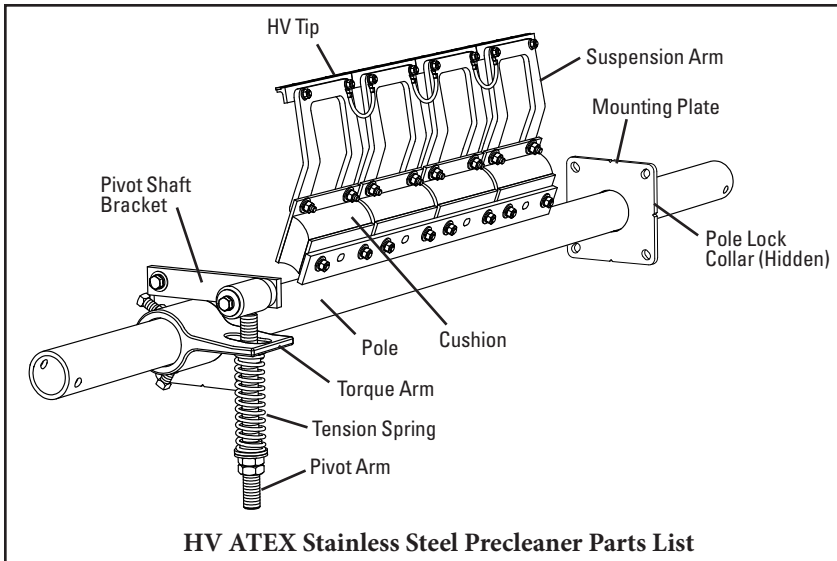


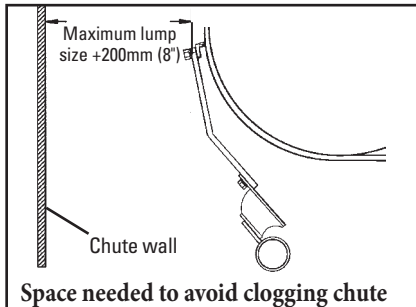
Fig. 3d

Section 4 – Installation Instructions

4.1 H-Type® ATEX Stainless Steel Precleaner with V-Tips



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



HV Suspension Arm Size	Pulley Diameter + Belt and Lagging
SS	250-475mm (10" - 19")
S	500-775mm (20" - 31")
M	800-975mm (32" - 39")
L	1000-1175mm (40" - 47")
LL	1200-1675mm (48" - 67")

Tools Needed:

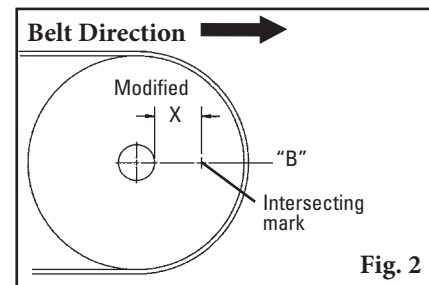
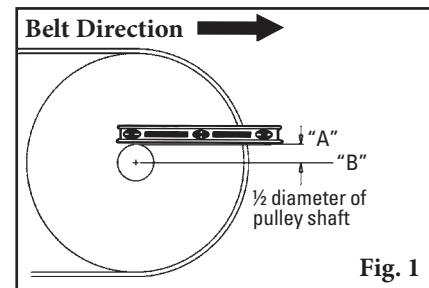
- Tape Measure
- Level
- Wrenches or Crescent Wrenches:
 - (1) 16mm (5/8")
 - (2) 19mm (3/4")
 - (1) 24mm (15/16")
 - (2) 38mm (1½")

- Find X, Y & C measurements.** Find the X and Y measurement specifications for the pulley diameter. See charts on page 8. The pulley diameter measurement should include lagging and belt.

Pulley Diameter _____; X=_____; Y=_____ C=_____

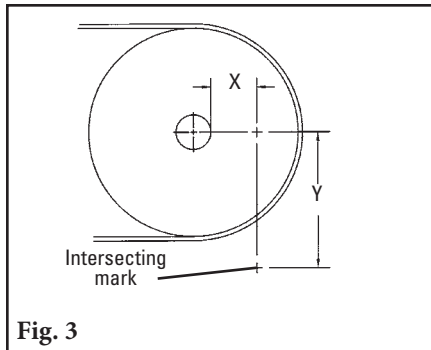
Using the correct X and Y coordinates will position the cleaner blades at 15° below the horizontal plane on the head pulley.

- Measure head pulley shaft.** Determine the diameter of the pulley shaft and divide by 2. _____
- Locate horizontal line from center of pulley shaft.** Put a level on top of the pulley shaft and draw a horizontal line A. Measure down from Line A half the diameter of the pulley shaft and draw Line B parallel from the pulley shaft (Fig. 1).
- Mark X dimension.** Subtract the above dimension (Step 2) from the selected X dimension to establish the modified X dimension. With this new X dimension measure horizontally from the front of the pulley shaft forward on Line B and mark on the chute (Fig. 2).

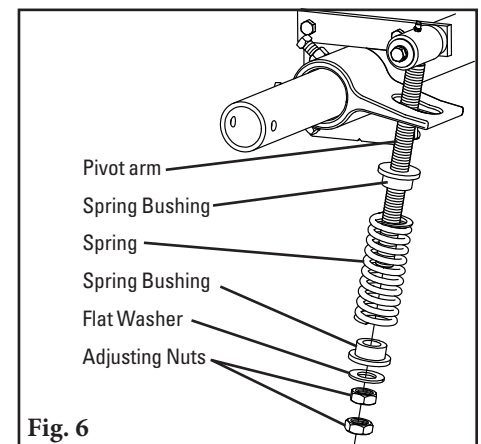
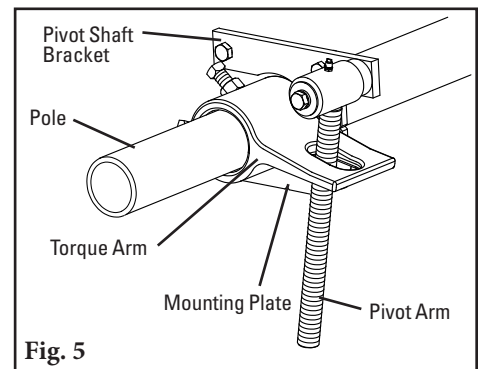
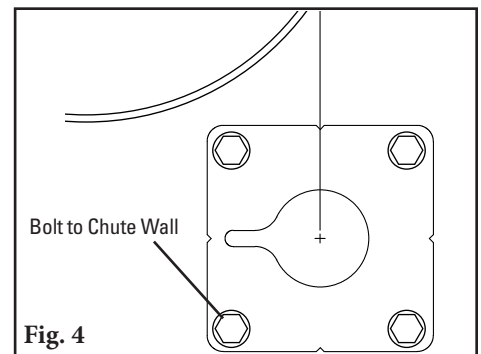


Section 4 – Installation Instructions

4.1 H-Type® ATEX Stainless Steel Precleaner with V-Tips (cont.)



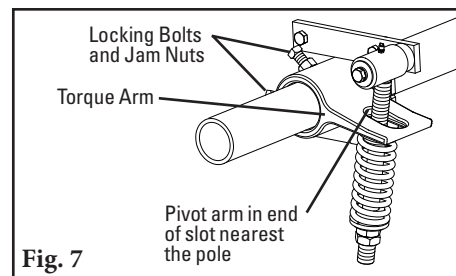
5. **Determine Y dimension.** From the X mark, draw a line vertically down to the selected Y dimension and make a mark (Fig. 3). This is the correct position for the center of the pole.
6. **Cut pole opening.** Using template provided, trace and cut the large opening and the mounting holes.
7. **Install the pole.** Slide the pole across the pulley and through the chute openings. Allow the tips to hang down.
8. **Install mounting plates.** On one side, slide mounting plate onto pole and with the key slot positioned horizontally and toward the pulley, bolt to the chute wall, center in slots and tighten (Fig. 4). On opposite side repeat the process, but do not tighten.
9. **Position the pole.** Rotate the pole upward until the tips touch the belt. Center the tips across the belt. While applying light pressure on the center tip, shift the loosened mounting plate until tips are contacting the belt evenly across the full width. Lock cleaner into this position by tightening mounting plate bolts.
10. **Center the cleaner on the belt and lock in place.** Center the tips on the belt and install a pole lock collar on one end of the pole. Slide the collar snugly up to the mounting plate and tighten.
11. **Install the QMT spring tensioner.** Remove the adjusting nuts, bushings and spring from the pivot arm. Insert the pivot arm through the slot in the torque arm. Slide the torque arm onto the pole end (be sure the rotation of the arm is correct to tension the blade) and rotate it until the pivot shaft bracket lines up with the desired bolt holes (Fig. 5). Remove bolts, nuts and washers from mounting plate and reinsert through the pivot shaft bracket and mounting plate.
12. **Reassemble the spring assembly.** Slide the spring, washer and bushings onto the pivot arm and turn the two adjusting nuts so about 6mm (1/4") of the pivot arm is exposed above the nuts (Fig. 6).



Section 4 – Installation Instructions

4.1 H-Type® ATEX Stainless Steel Precleaner with V-Tips (cont.)

13. Tension the blades to the belt. Rotate the blades until they contact the belt. While holding the spring bushing flat on the torque arm, rotate the torque arm until the pivot arm is against the end of the slot nearest the pole. Tighten the locking bolts and jam nuts on the torque arm (Fig. 7). **NOTE:** The torque arm should be up against the mounting plate.



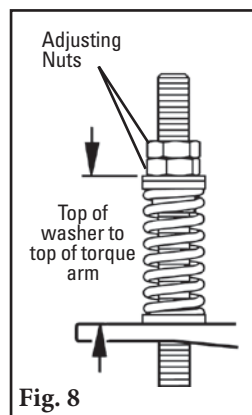
14. Set the correct blade tension. Refer to the chart on the pivot shaft bracket (also shown below) for the spring length required for the belt width. Lightly pull the pivot arm toward the end of the torque arm slot nearest the pole and turn the adjusting nuts until the required spring length is achieved (Fig. 8). Lock the top adjusting nut.

HV ATEX Spring Length Chart

(for optimal blade tensioning)

Belt Width			Spring Length									
			SS		S		M		L		LL	
mm	in.	Tips	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.
400	16	2	133	5 1/4	127	5	120	4 3/4	N/A	N/A	N/A	N/A
600	24	3	117	4 5/8	107	4 1/4	98	3 7/8	N/A	N/A	N/A	N/A
800	32	4	101	4	88	3 1/2	76	3	N/A	N/A	N/A	N/A
1000	40	5	85	3 3/8	136	5 3/8	133	5 1/4	130	5 1/8	N/A	N/A
1200	48	6	136	5 3/8	130	5 1/8	127	5	123	4 7/8	N/A	N/A
1400	56	7	N/A	N/A	123	4 7/8	120	4 3/4	117	4 5/8	104	4 1/8
1600	64	8	N/A	N/A	N/A	N/A	114	4 1/2	111	4 3/8	95	3 3/4
1800	72	9	N/A	N/A	N/A	N/A	136	5 3/8	133	5 1/4	127	5
2000	80	10	N/A	N/A	N/A	N/A	133	5 1/4	130	5 1/8	120	4 3/4
2100	84	11	N/A	N/A	N/A	N/A	130	5 1/8	127	5	117	4 5/8
2400	96	12	N/A	N/A	N/A	N/A	127	5	123	4 7/8	114	4 1/2
2600	104	14	N/A	N/A	N/A	N/A	120	4 3/4	117	4 5/8	104	4 1/8
3000	120	16	N/A	N/A	N/A	N/A	117	4 5/8	114	4 1/2	101	4

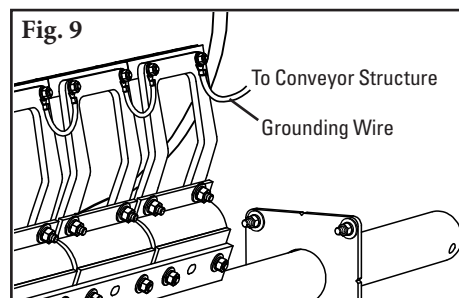
Purple Spring White Spring



15. Verify your “C” dimension to insure the pole is in the correct position.

16. Attach grounding wire to end tip and to conveyor structure (Fig. 9).

Test run the cleaner. Run the conveyor for at least 15 minutes and inspect the cleaning performance. Check the spring length for proper tensioning. Make adjustments as necessary.



Section 4 – Installation Instructions

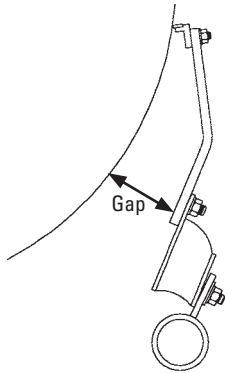
4.2 Pole Location Charts

Extra Small (SS) V-Tips
for Head Pulley Diameters
Up to 499mm

Diameter (Over Belt)	X	Y	C	Gap*
250	28	292	294	56
275	40	295	298	51
300	52	299	303	46
325	64	302	309	43
350	76	305	315	39
375	88	308	321	36
400	100	312	327	33
425	113	315	334	30
450	125	318	342	28
475	137	321	349	25
500	149	325	357	23
525	161	328	365	22
550	173	331	373	20
575	185	334	382	18

☐ Recommended range for tip size
☒ Optional extended range

* See figure below for location of gap



Small (S) V-Tips
for Head Pulley Diameters
500 to 799mm

Diameter (Over Belt)	X	Y	C	Gap*
350	50	361	365	78
375	62	365	370	73
400	74	368	375	68
425	86	371	381	64
450	98	374	387	60
475	110	377	393	56
500	122	381	400	52
525	134	384	407	49
550	146	387	414	46
575	158	390	421	43
600	171	394	429	40
625	183	397	437	38
650	195	400	445	36
675	207	403	453	33
700	219	407	462	31
725	231	410	470	29
750	243	413	479	27
775	255	416	488	26
800	267	420	497	24
825	279	423	507	23
850	291	426	516	21
875	303	429	526	20
900	315	432	535	18

Medium (M) V-Tips
for Head Pulley Diameters
800 to 999mm

Diameter (Over Belt)	X	Y	C	Gap*
650	180	445	480	63
675	192	449	488	60
700	204	452	496	57
725	216	455	504	54
750	228	458	512	54
775	240	462	520	50
800	252	465	529	47
825	264	468	538	45
850	277	471	546	43
875	289	475	555	41
900	301	478	565	39
925	313	481	574	37
950	325	484	583	36
975	337	487	593	34
1000	349	491	602	32
1025	361	494	612	31
1050	373	497	622	29
1075	385	500	632	28
1100	397	504	641	27
1125	409	507	652	26

Large (L) V-Tips
for Head Pulley Diameters
1000 to 1199mm

Diameter (Over Belt)	X	Y	C	Gap*
850	253	494	556	46
875	265	498	564	43
900	278	501	573	41
925	290	504	581	39
950	302	507	590	37
975	314	511	599	35
1000	326	514	608	33
1025	338	517	618	31
1050	350	520	627	29
1075	362	524	637	27
1100	374	527	646	26
1125	386	530	656	24
1150	398	533	666	22
1175	410	537	675	21
1200	422	540	685	20

Extra Large (LL) V-Tips
for Head Pulley Diameters
1200 to 1700mm

Diameter (Over Belt)	X	Y	Z	Gap*
1200	414	650	771	79
1225	426	653	780	76
1250	438	657	789	74
1275	450	660	799	72
1300	462	663	808	70
1325	474	666	818	68
1350	486	670	827	66
1375	498	673	837	64
1400	510	676	847	62
1425	522	679	857	60
1450	534	683	867	59
1475	546	686	877	57
1500	558	689	887	55
1525	570	692	897	54
1550	583	695	907	52
1575	595	699	917	51
1600	607	702	928	49
1625	619	705	938	48
1650	631	708	949	47
1675	643	712	959	45

Section 4 – Installation Instructions

4.3 Shimming Instructions

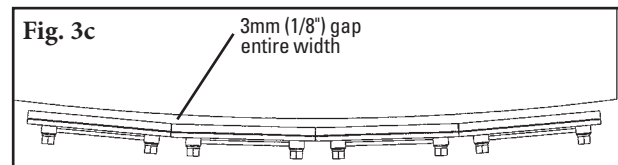
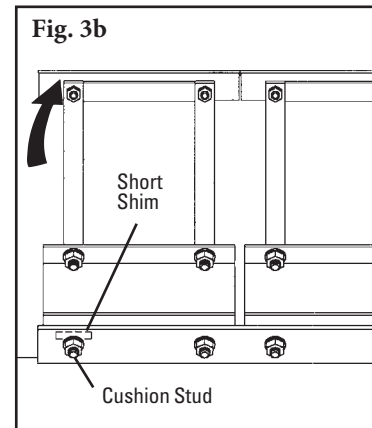
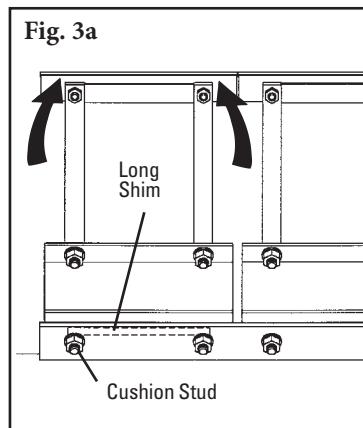
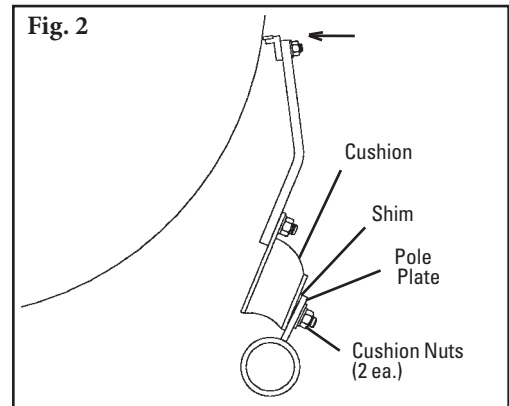
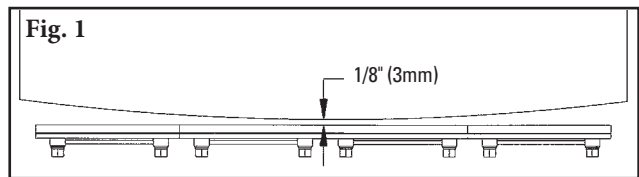
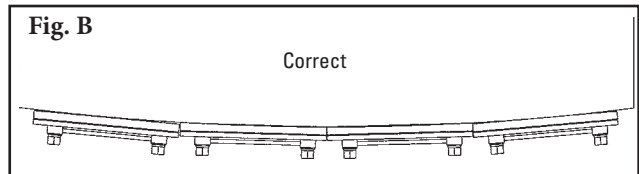
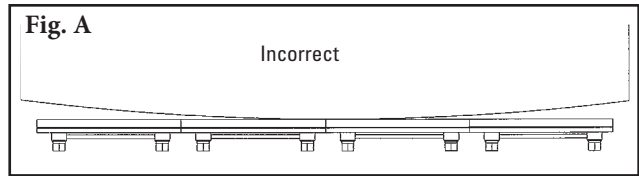
Tools Needed:

- (1) 17mm (11/16") wrench or crescent wrenches
- (1) 38mm (1½") wrenches or crescent wrenches
- Shim Kit (provided)

NOTE: If all cleaner tips do not make even contact across the width of the belt, the tips will require shimming (Fig. A and Fig. B).

All shimming is done between the cushion and the pole plate (Fig. 2).

1. **Remove tension.** Turn adjusting bolt down until a 3mm (1/8") gap is gained at the tightest point between the tip and the belt (Fig. 1).
2. **Loosen both cushion nuts on tip to be shimmed.** Push the tip against the head pulley to move the cushion away from the pole plate (Fig. 2).
3. **Determine where to place the shim** (use plastic shims provided).
 - a. To move tip in equally at both ends, place long shim above the cushion studs, centered on the cushion (Fig. 3a).
 - b. To move tip in at one end only, place a short shim above the cushion stud on the side that must be pulled in (Fig. 3b).
 - c. Shim tips until 3mm (1/8") gap is obtained across the entire cleaner width (Fig. 3c).
4. **Reset tip tension.**



Section 5 – Pre-Operation Checklist and Testing

5.1 Pre-Op Checklist

- Recheck that all fasteners are tightened properly
- Add pole caps
- Apply all supplied labels to the cleaner
- Check the blade location on the belt
- Be sure that all installation materials and tools have been removed from the belt and the conveyor area

5.2 Test Run the Conveyor

- Run the conveyor for at least 15 minutes and inspect the cleaning performance
- Check the tensioner spring for recommended length (proper tensioning)
- Make adjustments as necessary

NOTE: Observing the cleaner when it is running and performing properly will help to detect problems or when adjustments are needed later.

Section 6 – Maintenance

Flexco belt cleaners are designed to operate with minimum maintenance. However, to maintain superior performance some service is required. When the cleaner is installed a regular maintenance program should be set up. This program will ensure that the cleaner operates at optimal efficiency and problems can be identified and fixed before the cleaner stops working.

All safety procedures for inspection of equipment (stationary or operating) must be observed. The H-Type® ATEX Precleaner operates at the discharge end of the conveyor and 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 new cleaner has run for a few days a visual inspection should be made to ensure the cleaner is performing properly. Make adjustments as needed.

6.2 Routine Visual Inspection (every 2-4 weeks)

A visual inspection of the cleaner and belt can determine:

- If grounding wires are attached properly and in good condition.
- If the spring length is the correct length for optimal tensioning.
- If the belt looks clean or if there are areas that are dirty.
- If the blade is worn out and needs to be replaced.
- If there is damage to the blade or other cleaner components.
- If fugitive material is built up on the cleaner or in the transfer area.
- If there is cover damage to the belt.
- If there is vibration or bouncing of the cleaner on the belt.
- If a snub pulley is used, a check should be made for material buildup on the pulley.

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

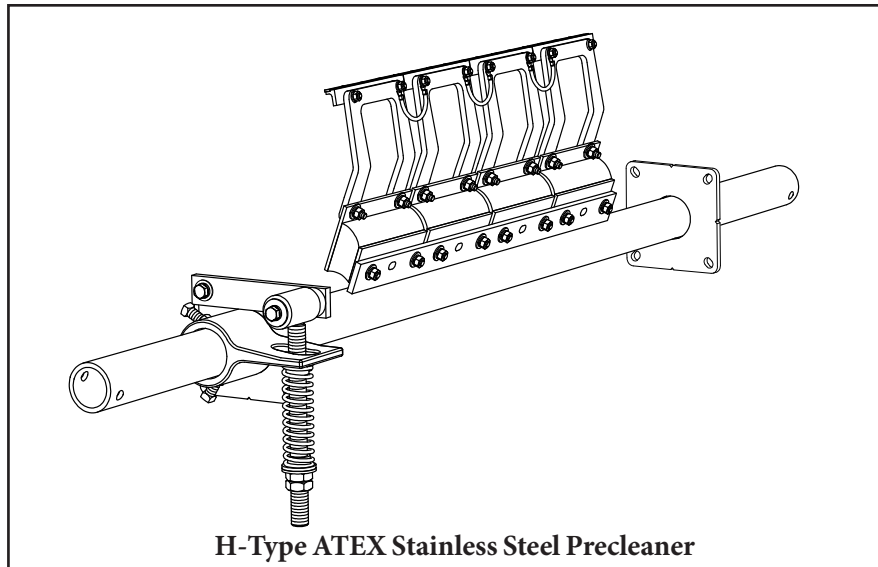
6.3 Routine Physical Inspection (every 6-8 weeks)

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

- Clean material buildup off of the cleaner blade and pole.
- Closely inspect the blade for wear and any damage. Replace if needed.
- Check both blade pins for proper installation and condition. Replace if needed.
- Ensure full blade to belt contact.
- Inspect the cleaner pole for damage.
- Inspect all fasteners for tightness and wear. Tighten or replace as needed.
- Replace any worn or damaged components.
- Check the tension of the cleaner blade to the belt. Adjust the tension if necessary using the chart on the cleaner or the one on page 10.
- When maintenance tasks are completed, test run the conveyor to ensure the cleaner is performing properly.

Section 6 – Maintenance

6.4 V-Tip Replacement Instructions

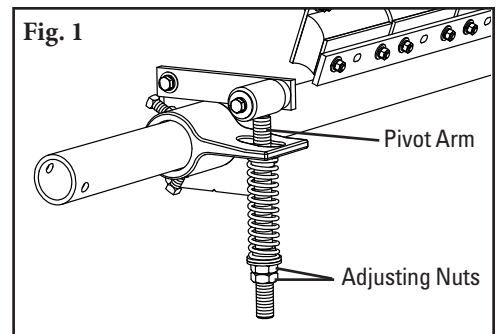


Physically lock out and tag the conveyor at the power source before you begin cleaner installation.

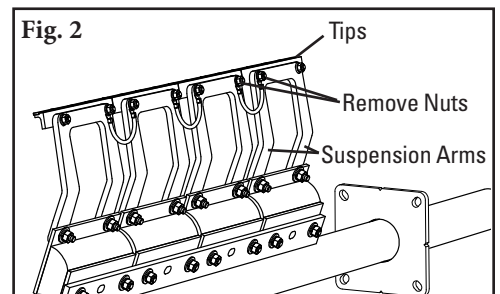
Tools Needed:

- Tape measure
- (2) 38mm (1½") wrenches or crescent wrenches
- (1) 17mm (11/16") wrench or crescent wrench
- Wire brush (for cleaning pole)
- Small putty knife (for cleaning pole)

1. **Remove the tension.** Loosen the adjusting nuts on both sides and then turn them out until they are flush with the ends of the pivot arms (Fig. 1). This releases the tension of the blade on the belt.



2. **Remove the worn tips.** Remove the nuts on each tip and remove the tips and grounding wires from the suspension arm (Fig. 2). Clean all fugitive material from the pole.

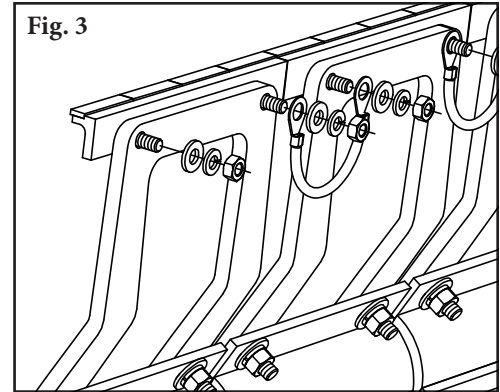


NOTE: If tips are hard to remove use a screwdriver or hammer to loosen and then remove.

Section 6 – Maintenance

6.4 Blade Replacement Instructions (cont.)

3. **Install the new tips.** Locate each tip onto each suspension arm, replace the grounding wires on the tip studs, then reinstall the hardware to fasten the tips to the suspension arms (Fig. 3).
4. **Reset the correct blade tension.** Refer to the chart for the spring length required for the belt width. Lightly pull the pivot arm toward the end of the torque arm slot nearest the pole and turn the adjusting nuts until the required spring length is achieved (Fig. 4). Tighten jam nut.



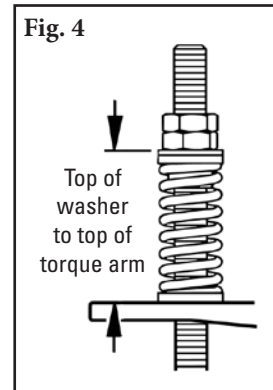
HV ATEX Spring Length Chart
(for optimal blade tensioning)

Belt Width			Spring Length									
			SS		S		M		L		LL	
mm	in.	Tips	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.
400	16	2	133	5 1/4	127	5	120	4 3/4	N/A	N/A	N/A	N/A
600	24	3	117	4 5/8	107	4 1/4	98	3 7/8	N/A	N/A	N/A	N/A
800	32	4	101	4	88	3 1/2	76	3	N/A	N/A	N/A	N/A
1000	40	5	85	3 3/8	136	5 3/8	133	5 1/4	130	5 1/8	N/A	N/A
1200	48	6	136	5 3/8	130	5 1/8	127	5	123	4 7/8	N/A	N/A
1400	56	7	N/A	N/A	123	4 7/8	120	4 3/4	117	4 5/8	104	4 1/8
1600	64	8	N/A	N/A	N/A	N/A	114	4 1/2	111	4 3/8	95	3 3/4
1800	72	9	N/A	N/A	N/A	N/A	136	5 3/8	133	5 1/4	127	5
2000	80	10	N/A	N/A	N/A	N/A	133	5 1/4	130	5 1/8	120	4 3/4
2100	84	11	N/A	N/A	N/A	N/A	130	5 1/8	127	5	117	4 5/8
2400	96	12	N/A	N/A	N/A	N/A	127	5	123	4 7/8	114	4 1/2
2600	104	14	N/A	N/A	N/A	N/A	120	4 3/4	117	4 5/8	104	4 1/8
3000	120	16	N/A	N/A	N/A	N/A	117	4 5/8	114	4 1/2	101	4

Purple Spring White Spring

NOTE: The chart is also on the cleaner's pivot shaft for future reference for retensioning maintenance.

Test run the cleaner. Run the conveyor for at least 15 minutes and inspect the cleaning performance. Check the spring length for proper tensioning. Make adjustments as necessary.



Section 6 – Maintenance

6.5 Maintenance Log

Conveyor Name/No. _____

Date: _____ Work done by: _____ Service Quote #: _____

Activity: _____

Date: _____ Work done by: _____ Service Quote #: _____

Activity: _____

Date: _____ Work done by: _____ Service Quote #: _____

Activity: _____

Date: _____ Work done by: _____ Service Quote #: _____

Activity: _____

Date: _____ Work done by: _____ Service Quote #: _____

Activity: _____

Date: _____ – _____ Work done by: _____ Service Quote #: _____

Activity: _____

Date: _____ – _____ Work done by: _____ Service Quote #: _____

Activity: _____

Section 6 – Maintenance

6.6 Cleaner Maintenance Checklist

Site: _____ Inspected by: _____ Date: _____

Belt Cleaner: Serial Number: _____

Beltline Information:

Beltline Number: _____ Belt Condition: _____

Belt width: ☐ 400mm ☐ 600mm ☐ 800mm ☐ 1000mm ☐ 1200mm ☐ 1400mm ☐ 1600mm ☐ 1800mm ☐ 2000mm ☐ 2100mm ☐ 2400mm ☐ 2600mm ☐ 3000mm

Head Pulley Diameter (Belt & Lagging): _____ Belt Speed: _____ fpm Belt Thickness: _____

Belt Splice: _____ Condition of Splice: _____ Number of Splices: _____ ☐ Skived ☐ Unskived

Material conveyed: _____

Days per week run: _____ Hours per day run: _____

Blade Life:

Date blade installed: _____ Date blade inspected: _____ Estimated blade life: _____

Is blade making complete contact with belt? ☐ Yes ☐ No

Blade wear: Left _____ Middle _____ Right _____

Blade condition: ☐ Good ☐ Grooved ☐ Smiled ☐ Not contacting belt ☐ Damaged

Measurement of spring: Required _____ Currently _____

Was Cleaner Adjusted: ☐ Yes ☐ No

Pole Condition: ☐ Good ☐ Bent ☐ Worn

Lagging: ☐ Side Lag ☐ Ceramic ☐ Rubber ☐ Other ☐ None

Condition of lagging: ☐ Good ☐ Bad ☐ Other _____

Cleaner's Overall Performance: (Rate the following 1 - 5, 1= very poor - 5 = very good)

Appearance: ☐ Comments: _____

Location: ☐ Comments: _____

Maintenance: ☐ Comments: _____

Performance: ☐ Comments: _____

Other comments: _____

Section 7 – Troubleshooting

Problem	Possible Cause	Possible Solutions
Poor cleaning performance	Cleaner under-tensioned	Adjust to correct tension – see spring length chart
	Cleaner over-tensioned	Adjust to correct tension – see spring length chart
	Cleaner installed in wrong location	Verify "C" dimension, relocate to correct dimension
	Cleaner blade worn or damaged	Replace cleaner blade
Rapid Blade Wear	Tension on cleaner too high/low	Adjust to correct tension – see spring length chart
	Cleaner not located correctly	Check cleaner location for correct dimensions
	Blade attack angle incorrect	Check cleaner location for correct dimensions
	Material too abrasive for blade	Option: switch to alternate cleaner with metal blades
	Mechanical splice damaging blade	Repair, skive or replace splice
Center wear on blade (smile effect)	Blade wider than material path	Replace blade with width to match material path
	Tension on cleaner too high/low	Adjust to correct tension – see spring length chart
Unusual wear or damage to blade	Mechanical splice damaging blade	Repair, skive or replace splice
	Belt damaged or ripped	Repair or replace belt
	Cleaner not correctly located	Verify "C" dimension, relocate to correct dimension
	Damage to pulley or pulley lagging	Repair or replace pulley
Vibration or noise	Cleaner not located correctly	Verify "C" dimension, relocate to correct dimension
	Blade attack angle incorrect	Verify "C" dimension, relocate to correct dimension
	Cleaner running on empty belt	Use a spray pole when the belt is empty
	Cleaner tension too high/low	Adjust to correct tension or slight adjust to diminish
	Cleaner locking bolts not secure	Check and tighten all bolts and nuts
	Cleaner not square to head pulley	Verify "C" dimension, relocate to correct dimension
	Material buildup in chute	Clean up build-up on cleaner and in chute
Cleaner being pushed away from pulley	Cleaner tension not set correctly	Ensure correct tension/increase tension slightly
	Sticky material is overburdening cleaner	Increase tension; replace with cleaner with metal tips; replace with larger size cleaner
	Cleaner not set up correctly	Confirm location dimensions are equal on both sides

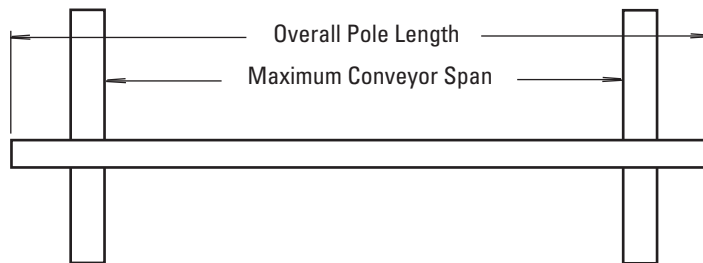
Section 8 – Specs and CAD Drawings

8.1 Specifications and Guidelines

Pole Length Specifications*

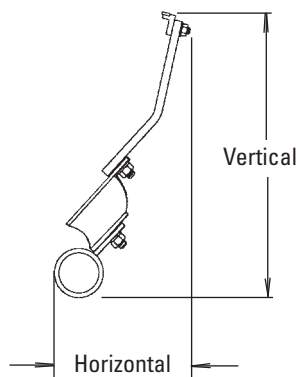
Cleaner Size		Pole Length		Maximum Conveyor Span	
mm	in.	mm	in.	mm	in.
400	16	1676	66	1422	56
600	24	1829	72	1575	62
800	32	2134	84	1880	74
1000	40	2438	96	2184	86
1200	48	2591	102	2337	92
1400	56	2743	108	2489	98
1600	64	3048	120	2794	110
1800	72	3200	126	2946	116
2000	80	3505	138	3251	128
2100	84	3810	150	3556	140
2400	96	3810	150	3556	140
2600	104	3912	154	3658	144
3000	120	4420	174	4166	164

*For special extra long pole length requirements a Pole Extender Kit (#76024) is available that provides 750mm (30") of extended pole length.
Pole Diameter - 73mm (2-7/8")



Clearance Guidelines for Installation

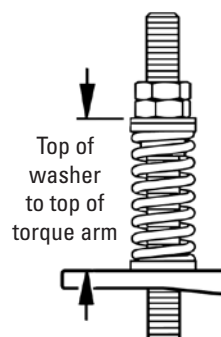
Suspension Arm Size	Horizontal Clearance Required		Vertical Clearance Required	
	mm	in.	mm	in.
SS	175	7	325	13
S	175	7	375	15
M	175	7	413	16 1/2
L	175	7	463	18 1/2
LL	175	7	550	22



HV ATEX Spring Length Chart (for optimal blade tensioning)

Belt Width			Spring Length									
			SS		S		M		L		LL	
mm	in.	Tips	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.
400	16	2	133	5 1/4	127	5	120	4 3/4	N/A	N/A	N/A	N/A
600	24	3	117	4 5/8	107	4 1/4	98	3 7/8	N/A	N/A	N/A	N/A
800	32	4	101	4	88	3 1/2	76	3	N/A	N/A	N/A	N/A
1000	40	5	85	3 3/8	136	5 3/8	133	5 1/4	130	5 1/8	N/A	N/A
1200	48	6	136	5 3/8	130	5 1/8	127	5	123	4 7/8	N/A	N/A
1400	56	7	N/A	N/A	123	4 7/8	120	4 3/4	117	4 5/8	104	4 1/8
1600	64	8	N/A	N/A	N/A	N/A	114	4 1/2	111	4 3/8	95	3 3/4
1800	72	9	N/A	N/A	N/A	N/A	136	5 3/8	133	5 1/4	127	5
2000	80	10	N/A	N/A	N/A	N/A	133	5 1/4	130	5 1/8	120	4 3/4
2100	84	11	N/A	N/A	N/A	N/A	130	5 1/8	127	5	117	4 5/8
2400	96	12	N/A	N/A	N/A	N/A	127	5	123	4 7/8	114	4 1/2
2600	104	14	N/A	N/A	N/A	N/A	120	4 3/4	117	4 5/8	104	4 1/8
3000	120	16	N/A	N/A	N/A	N/A	117	4 5/8	114	4 1/2	101	4

Purple Spring White Spring

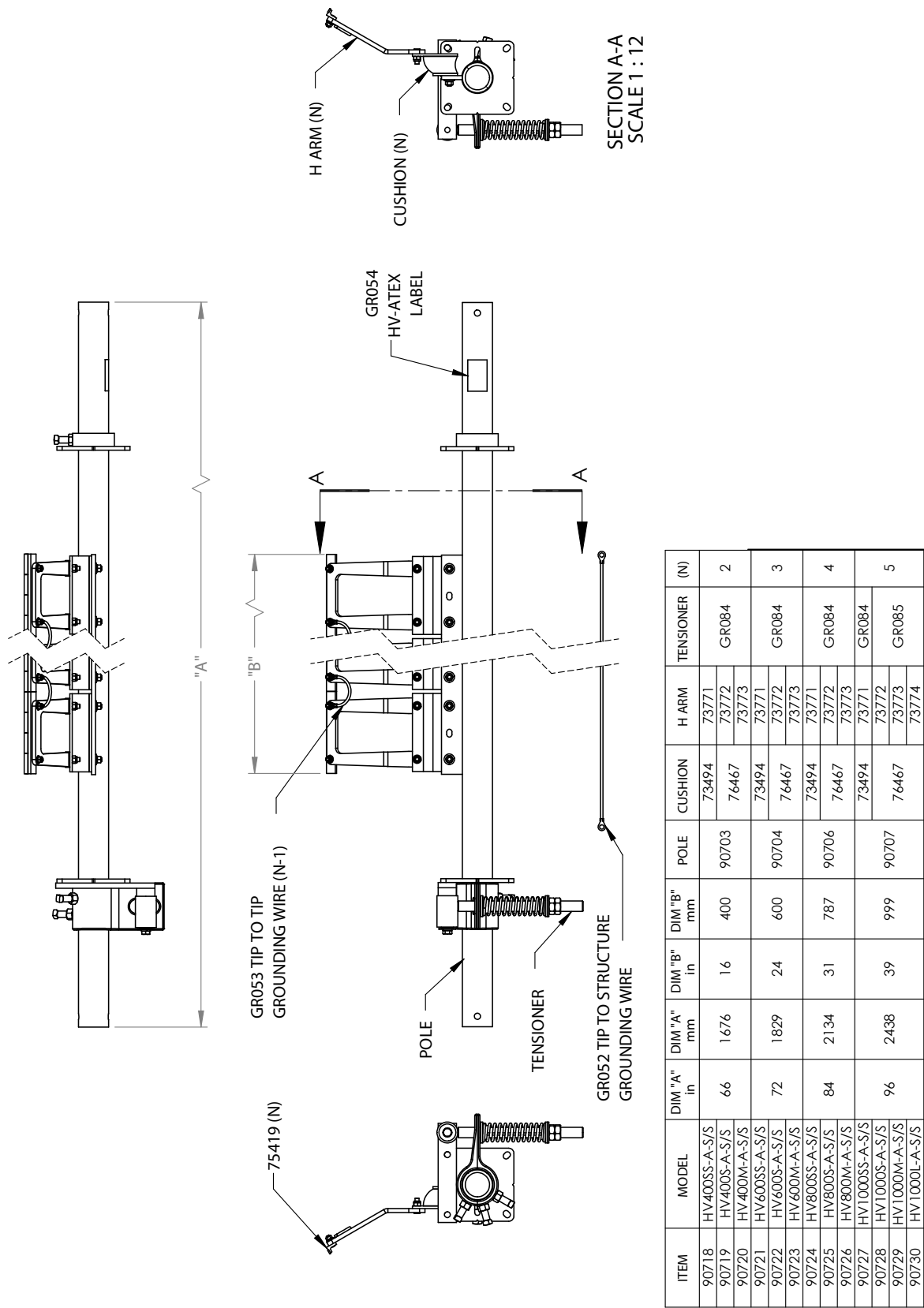


Specifications:

- Maximum Belt Speed5 m/s (1000 FPM)
- Temperature Rating-35°C to 82°C (-30°F to 180°F)
- Usable Blade Wear Length.....9mm (3/8")
- Blade MaterialLong Life Tungsten Carbide (for vulcanized belts only)
- Available for Belt Widths400mm to 3000mm (16" to 120")
Other sizes available upon request.

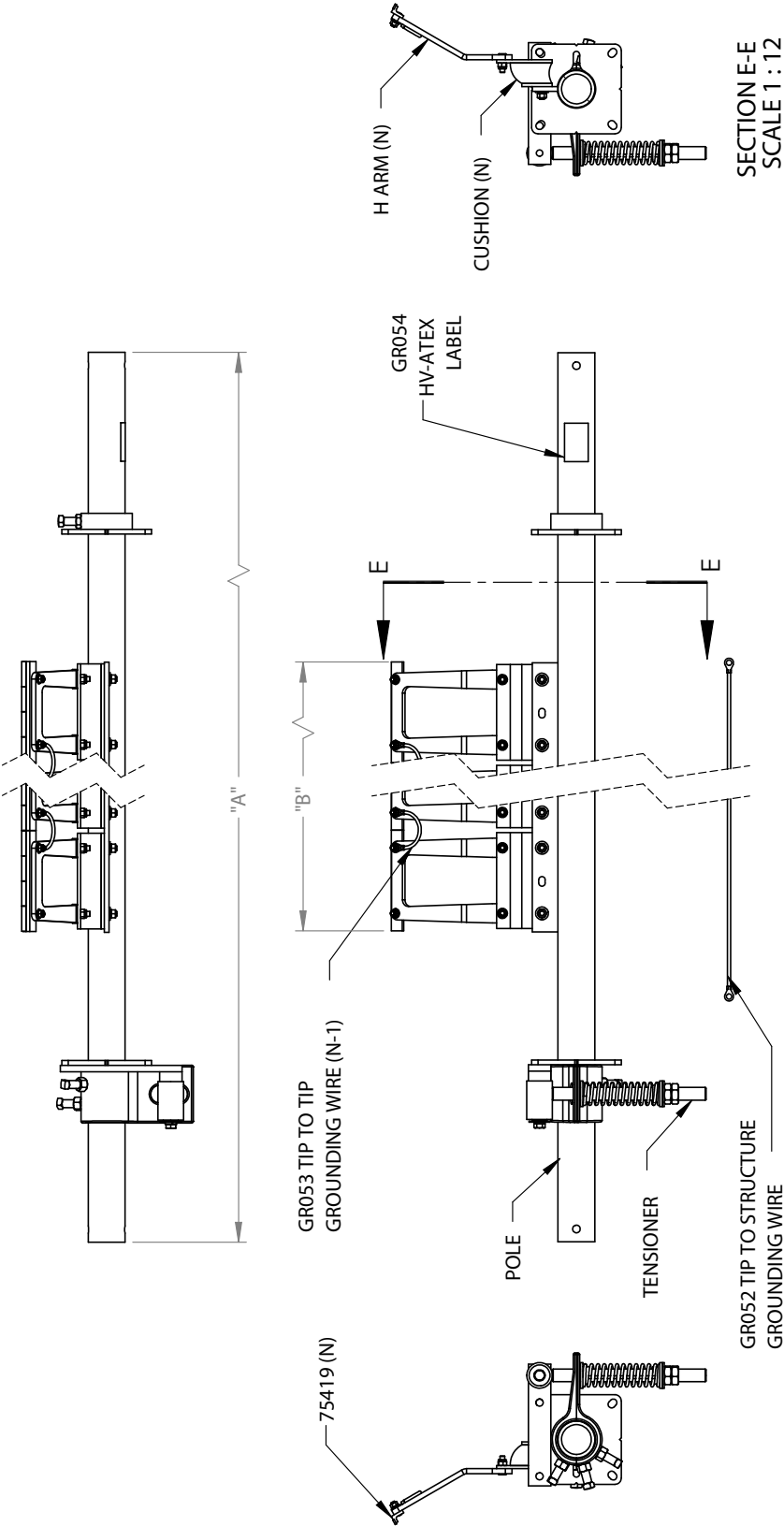
Section 8 – Specs and CAD Drawings

8.2 CAD Drawings - H-Type ATEX SS Precleaner with V-Tips (400mm-1000mm)



Section 8 – Specs and CAD Drawings

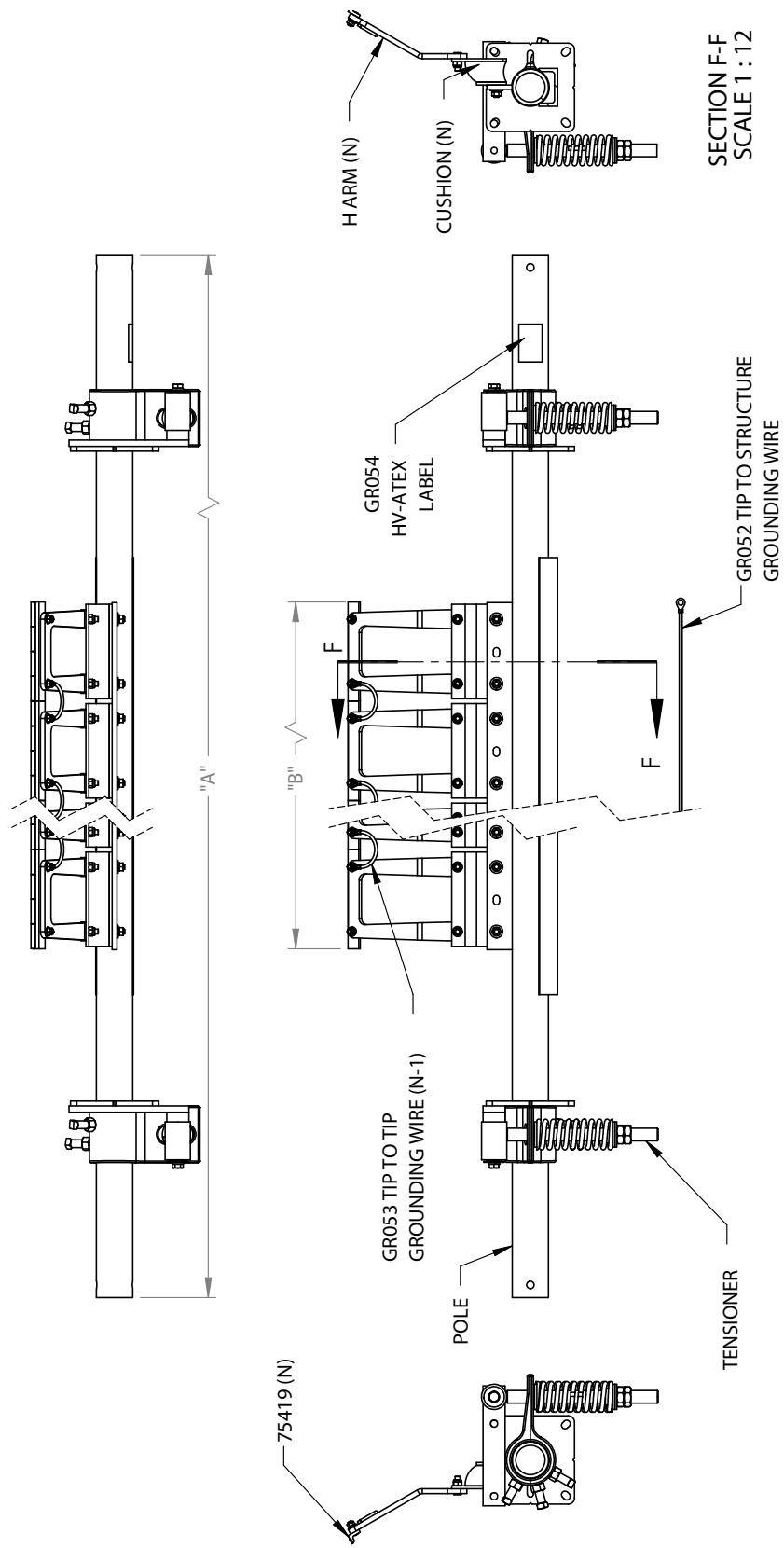
8.2 CAD Drawings - H-Type ATEX SS Precleaner with V-Tips
(1200mm-1800mm)



ITEM	MODEL	DIM "A" in	DIM "A" mm	DIM "B" in	DIM "B" mm	POLE	CUSHION	H ARM	TENSIONER	(N)
90731	HV1200SS-A-S/S						73494	73771	GR085	6
90732	HV1200S-A-S/S							73772		
90733	HV1200M-A-S/S						76467	73773		
90734	HV1200L-A-S/S							73774		
90735	HV1400S-A-S/S							73772	GR085	7
90736	HV1400M-A-S/S							73773		
90737	HV1400L-A-S/S							73774		
90738	HV1400LL-A-S/S							73775		
90739	HV1600M-A-S/S							73773	GR085	8
90740	HV1600L-A-S/S							73774		
90741	HV1600LL-A-S/S							73775		
90742	HV1800M-A-S/S							73773		
90743	HV1800L-A-S/S							73774	GR086	9
90744	HV1800LL-A-S/S							73775		

Section 8 – Specs and CAD Drawings

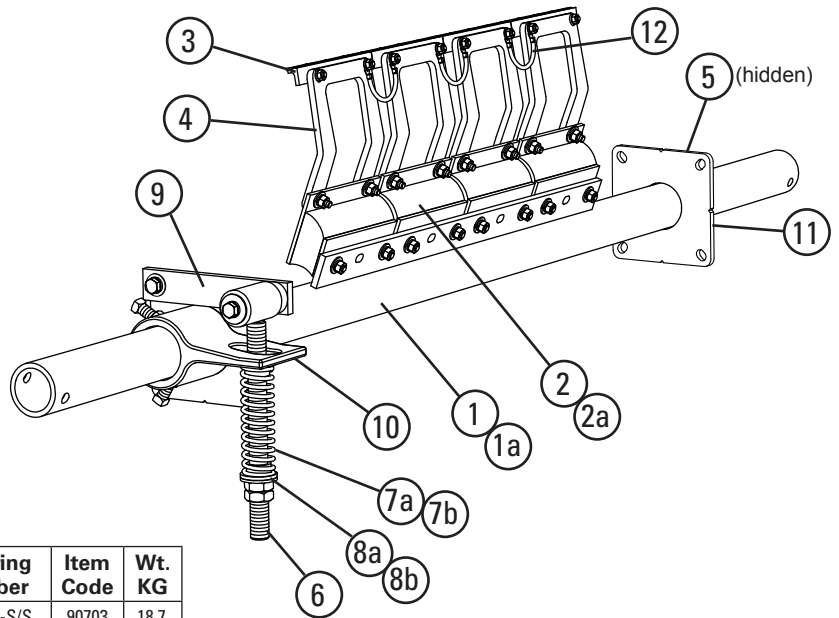
8.2 CAD Drawings - H-Type ATEX SS Precleaner with V-Tips
(2000mm-3000mm)



ITEM	MODEL	DIM "A" in	DIM "A" mm	DIM "B" in	DIM "B" mm	POLE	CUSHION	H ARM	TENSIONER	(N)
90745	HV2000M-A-S/S	138	3505	79	2007	90713	76467	73773	GR086	10
90746	HV2000L-A-S/S							73774		
90747	HV2000LL-A-S/S							73775		
90748	HV2100M-A-S/S	150	3810	87	2200	90714	76467	73773	GR086	11
90749	HV2100L-A-S/S							73774		
90750	HV2100LL-A-S/S							73775		
90751	HV2400M-A-S/S	150	3810	94	2400	90715	76467	73773	GR086	12
90752	HV2400L-A-S/S							73774		
90753	HV2400LL-A-S/S							73775		
90754	HV2600M-A-S/S	154	3912	102	2600	90716	76467	73773	GR086	14
90755	HV2600L-A-S/S							73774		
90756	HV2600LL-A-S/S							73775		
90757	HV3000M-A-S/S	174	4420	118	3000	90717	76467	73773	GR086	15
90758	HV3000L-A-S/S							73774		
90759	HV3000LL-A-S/S							73775		

Section 9 – Replacement Parts List

9.1 H-Type ATEX SS Precleaner with V-Tips



Replacement Parts

Ref	Description	Belt Width	Pole Length	Ordering Number	Item Code	Wt. KG
1a	400mm Pole	400	1676	HVP400-S/S	90703	18.7
	600mm Pole	600	1829	HVP600-S/S	90704	21.0
	800mm Pole	800	2134	HVP800-S/S	90706	22.8
	1000mm Pole	1000	2438	HVP1000-S/S	90707	25.3
	1200mm Pole	1200	2591	HVP1200-S/S	90709	29.4
	1400mm Pole	1400	2743	HVP1400-S/S	90710	31.9
	1600mm Pole	1600	3048	HVP1600-S/S	90711	45.3
1b	1800mm Pole, Braced and Gusseted	1800	3200	HVP1800-S/S	90712	58.0
	2000mm Pole, Braced and Gusseted	2000	3505	HVP2000-S/S	90713	64.0
	2100mm Pole, Braced and Gusseted	2200	3810	HVP2100-S/S	90714	70.0
	2400mm Pole, Braced and Gusseted	2400	3810	HVP2400-S/S	90715	70.0
	2600mm Pole, Braced and Gusseted	2600	3912	HVP2600-S/S	90716	75.0
	3000mm Pole, Braced and Gusseted	3000	4420	HVP3000-S/S	90717	84.0
2a	Cushion			HVC-S/S	73494	1.8
2b	Heavy-Duty Cushion			HSHD-S/S	76467	1.8
3	H V-Tip* (1 ea.)			HVT8-S/S	75419	0.5
4	H SS Suspension Arm*			HSA8SS-S/S	73771	0.2
	H S Suspension Arm*			HSA8S-S/S	73772	0.5
	H M Suspension Arm*			HSA8M-S/S	73773	0.7
	H L Suspension Arm*			HSA8L-S/S	73774	0.9
	H LL Suspension Arm*			HSA8LL-S/S	74033	1.1
5	Pole Lock Collar* (1 ea.)			MSPPL-S/S	77524	0.9
6	Pivot Arm Kit* (1 ea.)			QMTPAK-S/S	77587	2.0
7a	Tension Spring - Purple (1 ea.)**			QMTS-P-S/S	77450	0.3
7b	Tension Spring - White (1 ea.)**			QMTS-W-S/S	77451	0.8
8a	Bushing Kit - Purple (2 ea.) (for Item 7a)			QMTBK-P	76097	0.1
8b	Bushing Kit - White (2 ea.) (for Items 7b & 7c)			QMTBK-W	76098	0.1
9	Pivot Shaft Bracket Kit* (1 ea.)			QMTSPBK-S/S	77588	2.0
10	Torque Arm Kit* (1 ea.)			PSTA-S/S	77442	5.2
11	Mounting Plate Kit* (2 ea.)			MSPMPK-S/S	77582	3.8
12	Tip-to-Tip Grounding Wire			TT-GWK	90788	0.1
13	Tip-to-Structure Grounding Wire			TS-GWK	90789	0.1
-	QMT Spring Tensioner* - Purple (incl. 1 ea. Items 5, 6, 7a, 8a, 9, 10, 11)			QMT-P-S/S	77584	9.3
-	QMT Spring Tensioner* - White (incl. 1 ea. Items 5, 6, 7b, 8b, 9, 10, 11)			QMT-W-S/S	77585	9.9

*Hardware included

Note: All poles and tensioners are heavy-duty style (73mm dia).

Lead time: 1 working day

Spring Tensioner Selection Chart

Cleaner Type and Size	77584 QMT-P-S/S	77585 QMT-W-S/S
400-800mm SS, S, M; 1000mm SS	X	
1000mm S, M, L; 1200mm SS, S, M, L; 1400mm S, M, L, LL; 1600-3000mm M, L, LL		X

Section 10 – Other Flexco Conveyor Products

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™ blade renews its cleaning edge as it wears
- Visual Tension Check™ for optimal blade tensioning and simple retensioning
- Quick and easy one-pin blade replacement Material Path Option™ for optimal cleaning and reduced maintenance

DRX Impact Beds



- Exclusive Velocity Reduction Technology™ to better protect the belt
- Slide-Out Service™ 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

EZS2 Secondary Cleaner



- Long-wearing tungsten carbide blades for superior cleaning efficiency
- Patented FormFlex™ cushions independently tension each blade to the belt for consistent, constant cleaning power
- Easy to install, simple to service
- Works with Flexco mechanical belt splices

PT Max™ 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 freeze or seize up
- Available for topside and return side belts

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

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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