

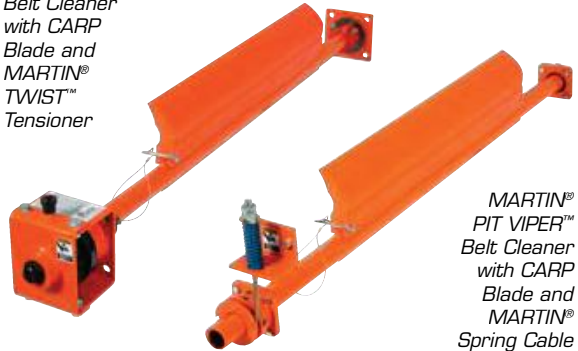


MARTIN® PIT VIPER™ Belt Cleaner

Engineered to simplify blade service and reduce costs, the **MARTIN® PIT VIPER™ Belt Cleaner** provides quick and easy “one-pin, no-tool” blade replacement.



MARTIN®
PIT VIPER™
Belt Cleaner
with CARP
Blade and
MARTIN®
TWIST™
Tensioner



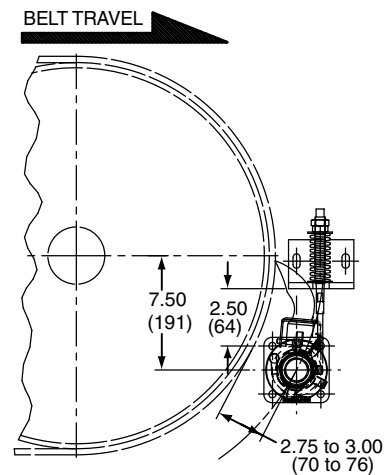
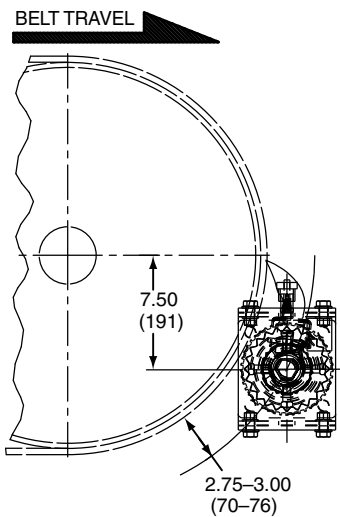
MARTIN®
PIT VIPER™
Belt Cleaner
with CARP
Blade and
MARTIN®
Spring Cable
Tensioner

BENEFITS

- **Effective-Yet-Economical Cleaning Performance**
Affordably-priced cleaner saves money on purchase of system and on price of replacement blades.
- **“No-Tool” Blade Change Simplifies Maintenance**
“One-pin” attachment means fast and easy maintenance, less downtime for blade service; no more fighting rusty bolts and no more lost fasteners.
- **Fast Turnaround on Orders**
In-stock assemblies are available for quick shipment to keep your system running clean.
- **Matches Your Requirements**
Full assemblies complete with tensioners. Match cleaning width to conveyor load profile.

SPECIFICATIONS

Maximum Belt Speed	500 fpm (2.54 m/s)
Max. Service Temperature	
constant:	150°F (66°C)
intermittent:	180°F (82°C)
Maximum Pulley Diameter	16 in (400 mm)
Mounting Distance	2.75-3 in (70-76 mm)



MARTIN® PIT VIPER™ Belt Cleaner

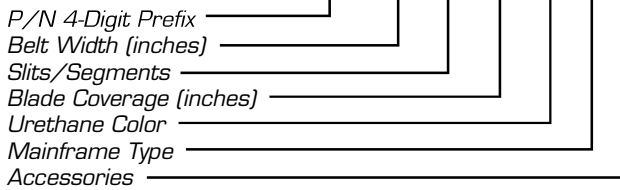


ORDER INFORMATION

Item	P/N
For belt widths 18–54 in. (400–1600) assembly includes: MARTIN® PIT VIPER™ Belt Cleaner with Blade on Mainframe and MARTIN® Spring Cable Tensioner	PV1S-XXXXXXXXXC
For belt widths 18–72 in. (400–2000) assembly includes: MARTIN® PIT VIPER™ Belt Cleaner with Blade on Mainframe and MARTIN® TWIST™ Tensioner	PV1S-XXXXXXXXXT

NOMENCLATURE

PV1S-XX XX XX XX X X



BLADE TYPE

- Ø: No Blade
- 11: Solid Blade
- 10: Segments Only
- 01: Slits Only
- 00: Slits and Segments

URETHANE COLOR

- Ø: No Blade
- OR: Orange
- BR: Brown
- CL: Tan
- NB: Navy Blue
- GR: Green

MAINFRAME TYPE

- Ø: No Mainframe
- P: Painted Mainframe

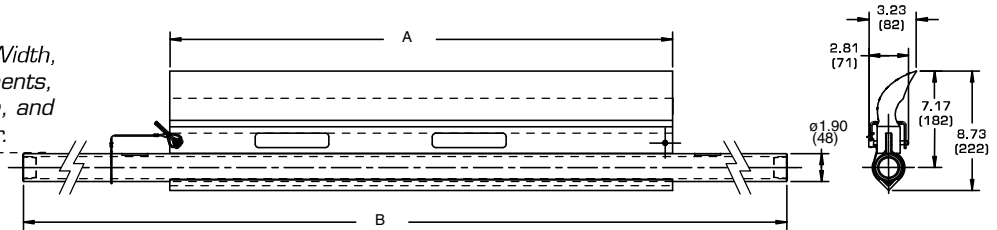
ACCESSORIES

- Ø: No Options
- C: MARTIN® Spring Cable Tensioner
- T: MARTIN® TWIST™ Tensioner

REPLACEMENT BLADES

PV-XXXXXXXX

Replace first two Xs with Belt Width, second two Xs with Slits/Segments, third two Xs with Belt Coverage, and last two Xs with Urethane Color.



PV1S-361134XXXX SHOWN

MARTIN® PIT VIPER™ CLEANER DIMENSIONS—IN. (MM)

P/N	Belt Width in. (mm)	A in. (mm)	B in. (mm)	Shipping Weight w/o Tensioner: lb (kg)
PV1S-18XX12XXXX	18 (400-500)	12 (305)	48 (1219)	22 (10)
PV1S-18XX16XXXX	18 (400-500)	16 (406)	48 (1219)	23 (10.5)
PV1S-24XX18XXXX	24 (500-650)	18 (457)	54 (1372)	27 (12)
PV1S-24XX22XXXX	24 (500-650)	22 (559)	54 (1372)	28 (13)
PV1S-30XX24XXXX	30 (650-800)	24 (610)	60 (1524)	32 (14.5)
PV1S-30XX28XXXX	30 (650-800)	28 (711)	60 (1524)	33 (15)
PV1S-36XX30XXXX	36 (800-1000)	30 (762)	66 (1676)	37 (17)
PV1S-36XX34XXXX	36 (800-1000)	34 (864)	66 (1676)	38 (17)
PV1S-42XX36XXXX	42 (1000-1200)	36 (914)	72 (1829)	42 (19)
PV1S-42XX40XXXX	42 (1000-1200)	40 (1016)	72 (1829)	43 (20)
PV1S-48XX42XXXX	48 (1200-1400)	42 (1067)	78 (1981)	47 (21)
PV1S-48XX46XXXX	48 (1200-1400)	46 (1168)	78 (1981)	48 (22)
PV1S-54XX48XXXX	54 (1400-1600)	48 (1219)	84 (2134)	52 (23.5)
PV1S-54XX52XXXX	54 (1400-1600)	52 (1321)	84 (2134)	53 (24)
*PV1S-60XX54XXXX	60 (1600-1800)	54 (1372)	90 (2286)	57 (25)
*PV1S-60XX58XXXX	60 (1600-1800)	58 (1473)	90 (2286)	58 (26)
*PV1S-72XX66XXXX	72 (1800-2000)	66 (1676)	102 (2591)	67 (30)
*PV1S-72XX70XXXX	72 (1800-2000)	70 (1778)	102 (2591)	68 (31)

* Available only with MARTIN® TWIST™ Tensioner. Dual Tensioners required on assemblies with MARTIN® TWIST™ Tensioner for belt widths 54 in. and above.

TENSIONER OPTIONS

Item	P/N
MARTIN® Spring Cable Tensioner	37944
MARTIN® TWIST™ Tensioner	31443

ACCESSORIES

Item	P/N
MARTIN® Inspection Door	CYA-0912XXXXX
Hanger Mount	27382

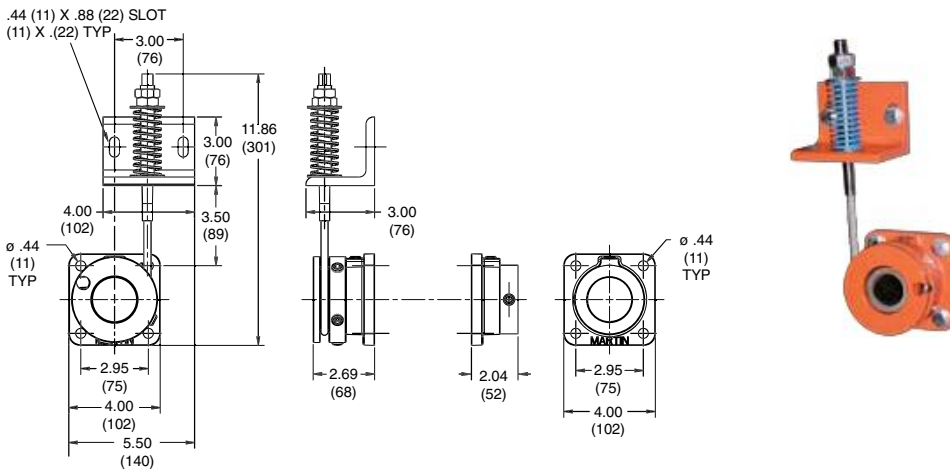
FREQUENTLY ASKED QUESTIONS

Can the MARTIN® PIT VIPER™ Blade be used on the MARTIN® QC™ #1 standard mainframe?
 Yes, verify mounting location is 2.75 to 3.00 inches.

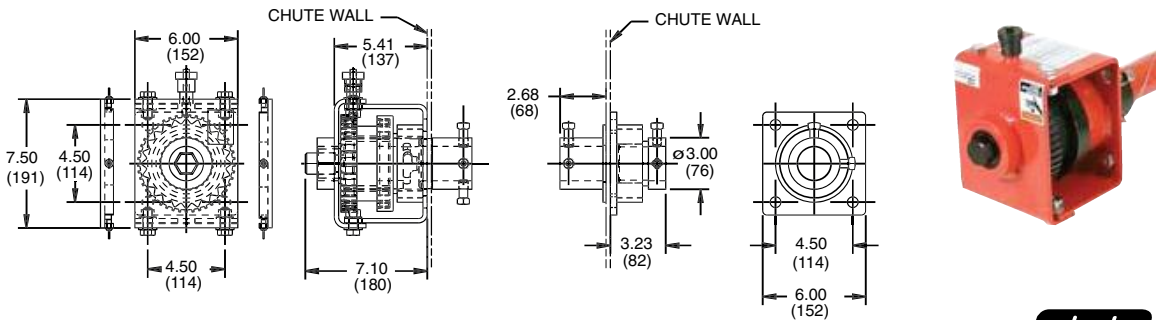
My Pre-Cleaner keeps flipping through. What is wrong?
 The mounting location may be too far away from the belt. Relocate to the proper dimension. Replace the mainframe or end weldments if they are bent.

My Pre-Cleaner is wearing more in the center of the blade.
 The blade is too wide for this application. Replace with a shorter length blade.

MARTIN® SPRING CABLE TENSIONER



MARTIN® TWIST™ TENSIONER

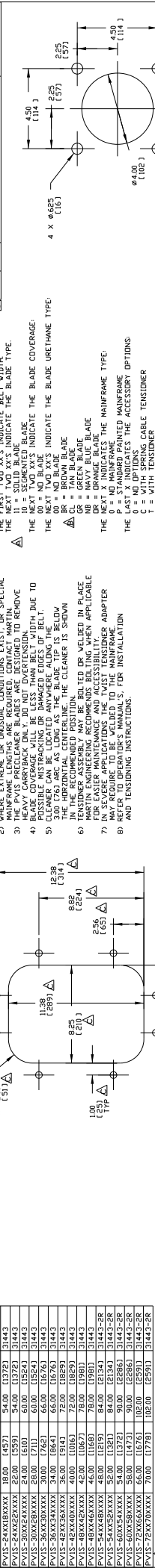


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QUALITY MANAGEMENT SYSTEM
 CERTIFIED BY DNV
ISO 9001:2000



PART NO.	DIM INCH	DIM FT	DIM INCH		P/N
			MIN	MAX	
PVIS-18X12XXXX	12.00 (305)	48.00 (1219)	48.00 (1219)	48.00 (1219)	31443
PVIS-24X16XXXX	16.00 (406)	48.00 (1219)	48.00 (1219)	48.00 (1219)	31443
PVIS-30X20XXXX	20.00 (508)	54.00 (1372)	54.00 (1372)	54.00 (1372)	31443
PVIS-36X24XXXX	24.00 (610)	60.00 (1524)	60.00 (1524)	60.00 (1524)	31443
PVIS-42X30XXXX	30.00 (762)	66.00 (1676)	66.00 (1676)	66.00 (1676)	31443
PVIS-48X36XXXX	36.00 (914)	72.00 (1829)	72.00 (1829)	72.00 (1829)	31443
PVIS-54X42XXXX	42.00 (1067)	78.00 (1981)	78.00 (1981)	78.00 (1981)	31443
PVIS-60X48XXXX	48.00 (1219)	84.00 (2134)	84.00 (2134)	84.00 (2134)	31443-ER
PVIS-66X54XXXX	54.00 (1372)	90.00 (2286)	90.00 (2286)	90.00 (2286)	31443-ER
PVIS-72X60XXXX	60.00 (1524)	96.00 (2439)	96.00 (2439)	96.00 (2439)	31443-ER
PVIS-78X66XXXX	66.00 (1676)	102.00 (2591)	102.00 (2591)	102.00 (2591)	31443-ER
PVIS-84X72XXXX	72.00 (1829)	108.00 (2744)	108.00 (2744)	108.00 (2744)	31443-ER



PVIS-36XX30XXX (SINGLE TENSIONER)

CHUTE WALL

MAXIMUM FRAME LENGTH

PVIS-60XX48XXX (DUAL TENSIONER)

CHUTE WALL

MAXIMUM FRAME LENGTH

REV	DATE	BY	ECN	DESCRIPTION
1	01/10/92			ISSUED FOR CONSTRUCTION
2	01/10/92			REVISED TO ADD NOTE 7
3	01/10/92			REVISED TO ADD NOTE 7
4	01/10/92			REVISED TO ADD NOTE 7

ITEM	QTY	DESCRIPTION	LEADER	ASM	PART NUMBER
1		MARTIN W/TWIST TENSIONER ASM			SEE CHART
2		MARTIN W/TWIST TENSIONER ASM			SEE CHART
3		MARTIN BLDW PROFILE STL RODDR 9/42			CYA-9312

MARTIN ENGINEERING

MARTIN 111 W/PIR VIFER ASM
W/TWIST TENSIONER ASM
9 X 12 STEEL CYA00DR

SALES DRAWING
DATE: 01/10/92
SCALE: 1/4"



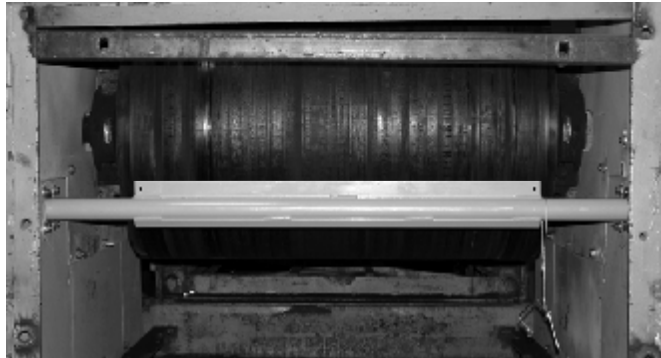
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*Installing
mainframe and
blade*

1

IMPORTANT

If mainframe is too long to fit inside chute for installation, cut one or both ends of mainframe.



2

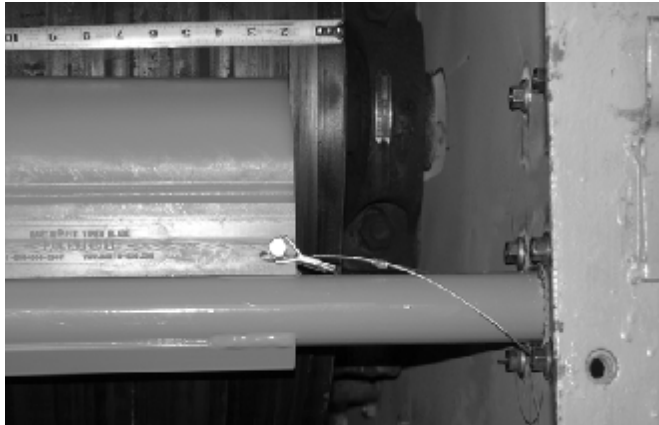


Installation

3



4 Center cleaner blade on pulley.



NOTE

Refer to applicable tensioner manual to complete installation and adjustment of tensioner.

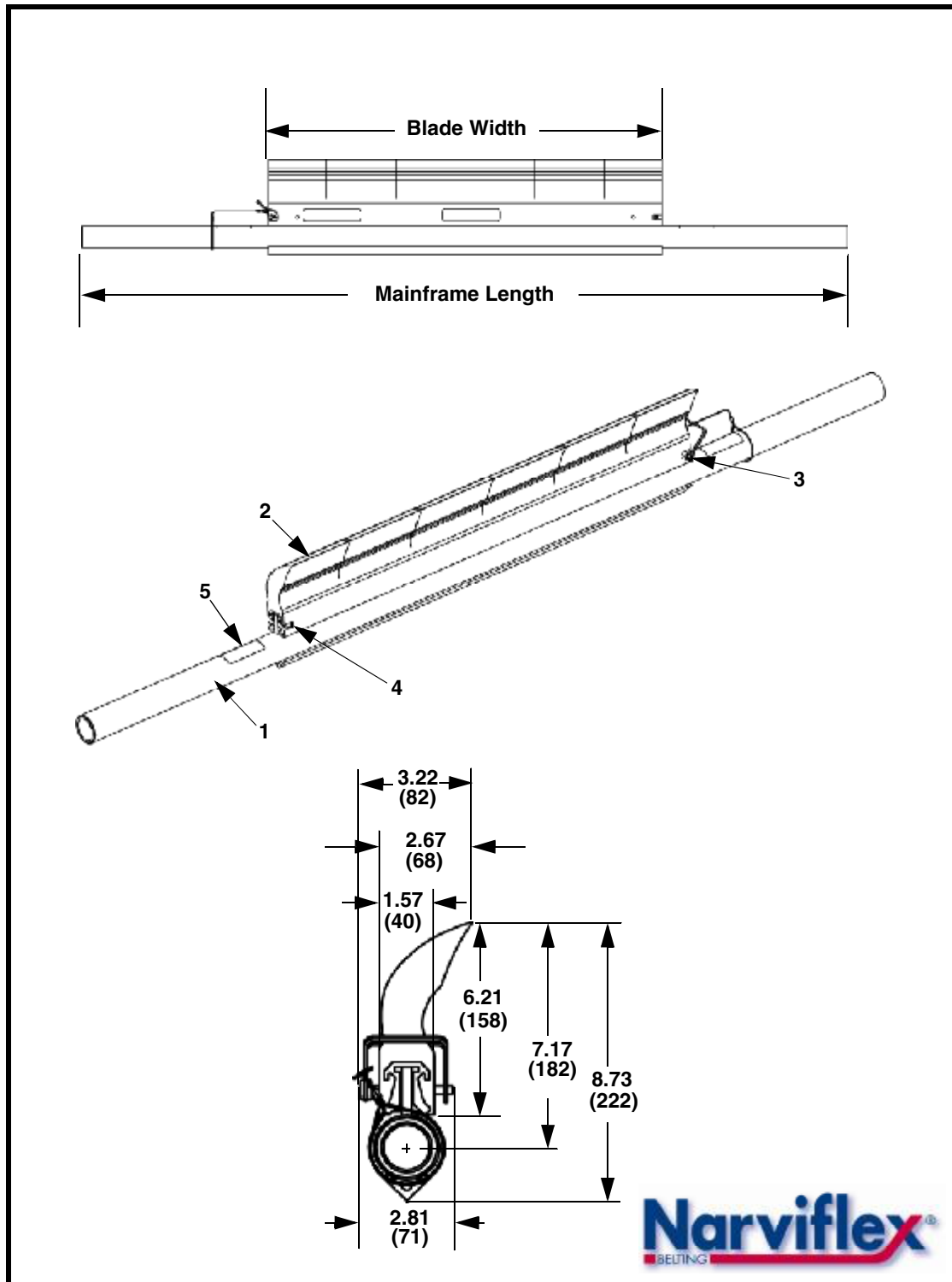


Figure 1. MARTIN® PIT VIPER™ Belt Cleaner Assembly, P/N PV1S-XXXXXXXXXX*

Martin® Twist Tensioner



Keep the pressure on with this rugged yet simple belt cleaner tensioning device from Martin Engineering.

The **Martin® Twist Tensioner** supplies consistent pressure to keep blades against the belt for effective cleaning, regardless of the state of blade wear.

The Martin® Twist Tensioner uses the force stored in a twisted rubber sleeve to provide the steady pressure that allows even, effective cleaning.

This tensioner can be used on either a pre-cleaner or secondary cleaner from Martin Engineering's Martin® DH, Martin® DT, or Martin® QC™ Belt Cleaner families.

BENEFITS

• **Self-Relieving**

If cleaner blades are "pulled through," the tensioner's internal self-relieving coupling rolls over. This releases the pressure on the rubber tensioning sleeve, without exposing personnel or equipment to the risk of injury from a rotating external hub.

• **Easy To Tension**

Simply turn the tensioning gear until you feel the resistance of the blades against the belt. Then turn the gear the additional number of notches indicated on the label (as determined by the width of the conveyor belt).

• **Absorbs Splice Shock**

Rubber bushings cushion splice impact and minimize damage to belt, splice, and cleaning edge.

• **Low Maintenance**

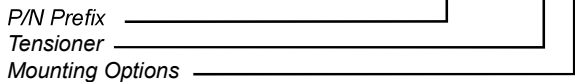
The tensioner maintains consistent blade-to-belt pressure. The set-resistance 60 A Durometer natural rubber sleeve overcomes the need for periodic retensioning necessary to compensate for pressure loss or worn blades.

• **Guaranteed**

Like all Martin® Products, the Martin® Twist Tensioner is covered by Martin Engineering's *Absolutely, Positively, No Excuses*, Guarantee.

NOMENCLATURE

38850 - X X



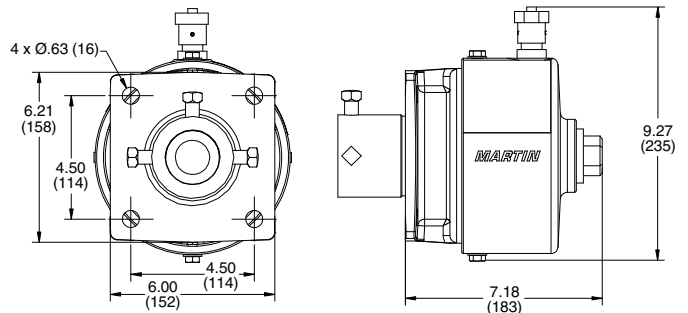
TENSIONER

- Ø: Single Tensioner
- 2: Dual Tensioner

MOUNTING OPTIONS

- A: Weldable Adapter Plate Kit
- L: "L" Bracket Mounting Hardware
- M: Metric Mounting Hardware

DIMENSIONS



**COMPANY WITH
QUALITY SYSTEM
CERTIFIED BY DNV
= ISO 9001:2008 =**

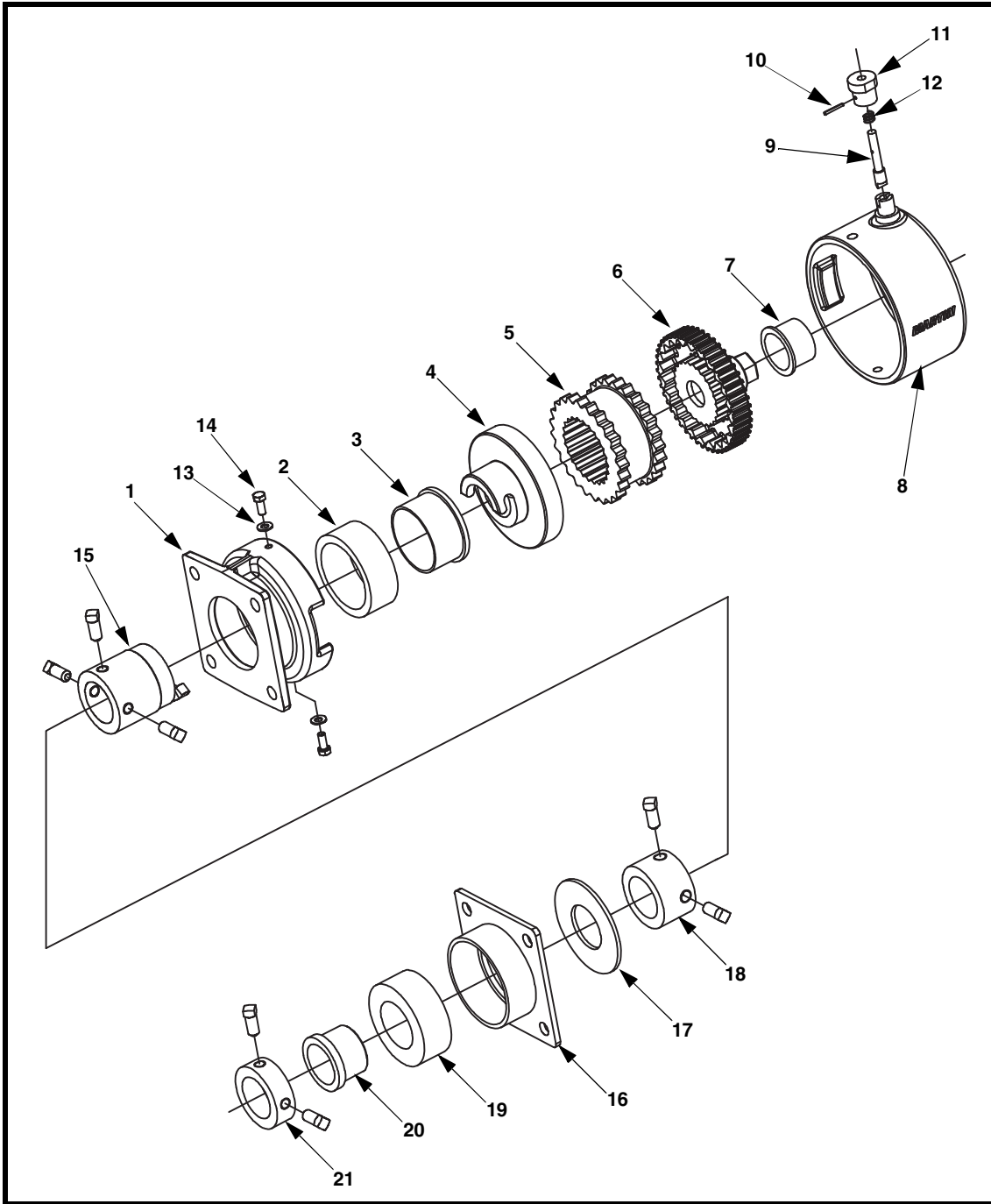


Figure 6. Martin® Twist Tensioner Assembly, P/N 38850-X* (Sheet 1 of 2)

*X indicates with weldable adapter plate kit (A), with "L" bracket mounting kit (L), or with metric mounting hardware (M).

Item	Description	Part No.	Qty
1	Machined Base	38711	1
2	Shock Ring	33681	1
3	Nylon Bushing 3.50 O.D.	33675	1
4	Locking Gear	33673	1
5	Sleeve	31398	1
6	Tensioning Gear Aluminum	33672	1
7	Nylon Bushing with Taper	33674	1
8	Machined Cover	38712	1
9	Plunger	33572	1
10	Pin Spring 1/8 x 1 ZP	33574	1
11	Ratchet Adjusting Knob	33570-TT	1
12	Spring Compression 1.00	33573	1
13	Washer Compression 5/16	11452	2
14	Screw HHC 5/16-18NC x 3/4 ZP	12250	2
15	Coupling Self-Relieving	Table II	1
16	Flange Plate Weldment	32496	1
17	Washer Flat 2.00 Plain	34802	1
18	Mounting Hub	34693	1
19	Shock Ring	32501	1
20	Nylon Bushing	33335	1
21	Mounting Hub	16845	1
22 (NS)	Mounting Hardware Kit	Table II	1
Fig. 9	Label Pinch Point Warning	30528	1
Fig. 10	Label Tension	33383	1
Fig. 8	Label Conveyor Products Warning	23395	2
26 (NS)	Operator's Manual	M3837	1
27 (NS)	Adapter Plate Kit	38843-A	Tbl II
28 (NS)	"L" Bracket Kit	38844	Tbl II

Figure 6. Martin® Twist Tensioner Assembly, P/N 38850-X (Sheet 2 of 2)

NS = Not Shown

Table II. Martin® Twist Tensioner Assembly Part Numbers and Quantities

Assembly P/N	Item 15 P/N	Item 22 P/N	Item 27 Qty	Item 28 Qty
38850	33671	35284	—	—
38850-A	33671	35284	1	—
38850-L	33671-01	35284-01	—	1
38850-M	33671	35284-M	—	—