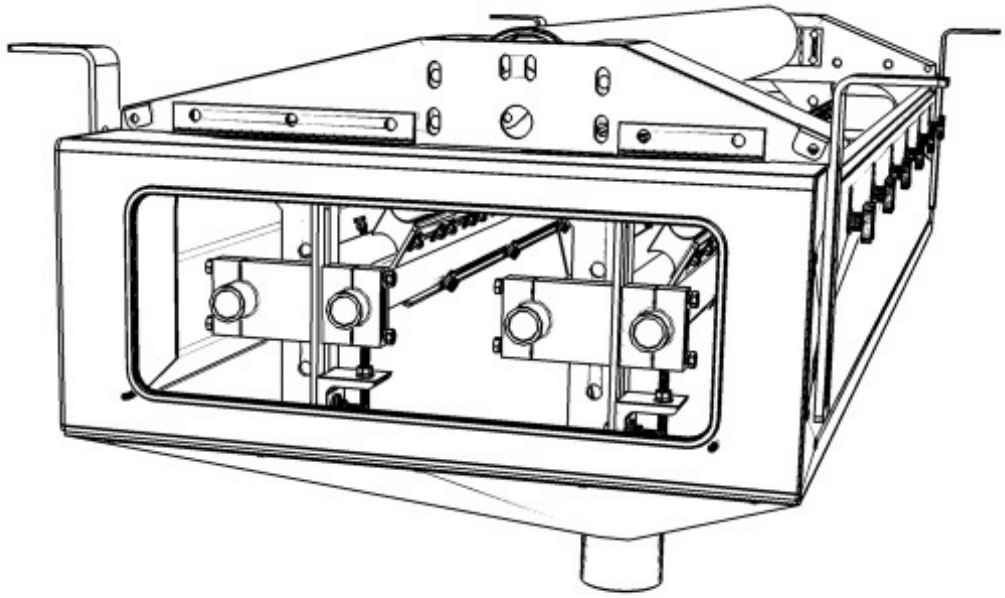
WASHBOX® SECONDARY BELT CLEANER SYSTEM

INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS



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IMPORTANT SAFETY NOTICE

Always observe the basic rules of safety when working with any conveyor system. To avoid injury and equipment damage, be sure that all controls to the conveyor are locked out and the power source is disconnected at all times during installation and maintenance.

Overview

If mounting structure is not available, additional steel structure may have to be added.

WashBox System

System Part Number: M-ASG-WB-XX-SYS-X

XX = Belt Width (Inches)

X = Finish

- SS – Stainless Steel
- PC – Powder coated
- G – Galvanized

Example: M-ASG-WB-36-SYS- SS

The example designates at WashBox for a 36in [900mm] belt width with a Stainless Steel finish components.

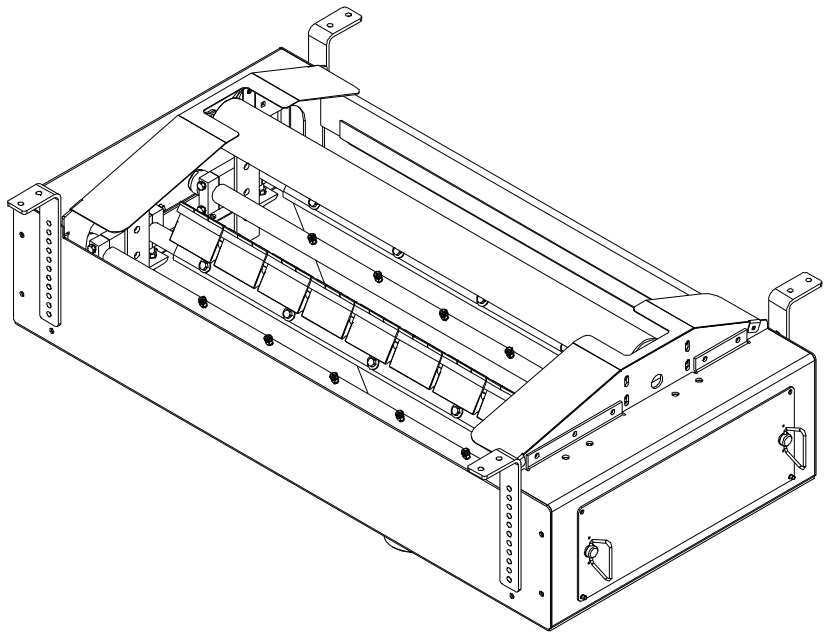

Figure 1. WashBox System Complete

WashBox Frame / Tank

Complete Frame / Tank include the Tank Weldment, Frame Components and Box Enclosure Components.

Complete Frame / Tank Part Number: M-ASG-WB-XX-FRAME-X

XX = Belt Width (Inches)

X = Finish

- SS – Stainless Steel
- PC – Powder coated
- G – Galvanized

Example: M-ASG-WB-36-FRAME- SS

The example designates at Frame / Tank for a 36in [900mm] belt width with a Stainless Steel finish components.

Tank Weldment Part Number: M-ASG-WB-XX-TW-X

XX = Belt Width (Inches)

X = Finish

- SS – Stainless Steel
- PC – Powder coated
- G – Galvanized

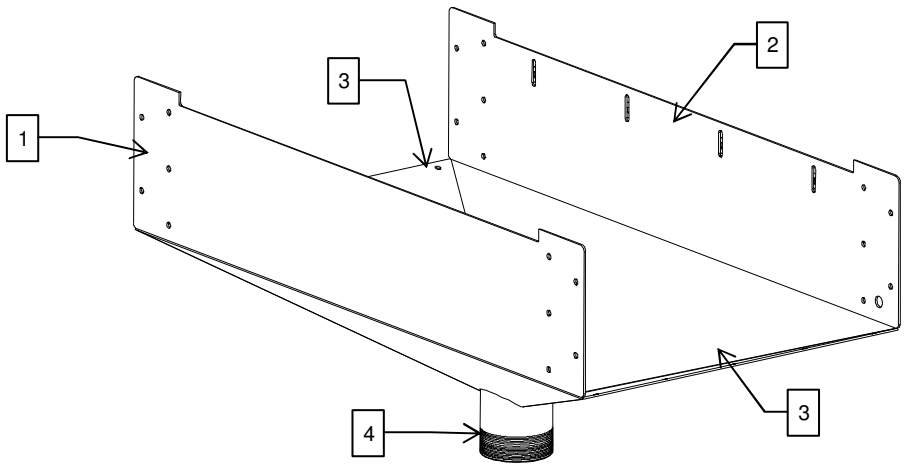

Figure 2. Tank Weldment

Table I. Tank Weldment Parts List

Item	Description	Part Number	Qty
1	Front Panel	ASG-WB-FP-XX	1
2	Back Panel	ASG-WB-BP-XX	1
3	Bottom Half	ASG-WB-BH-XX	2
4	Drain Pipe	ASG-WB-DP-XX	1

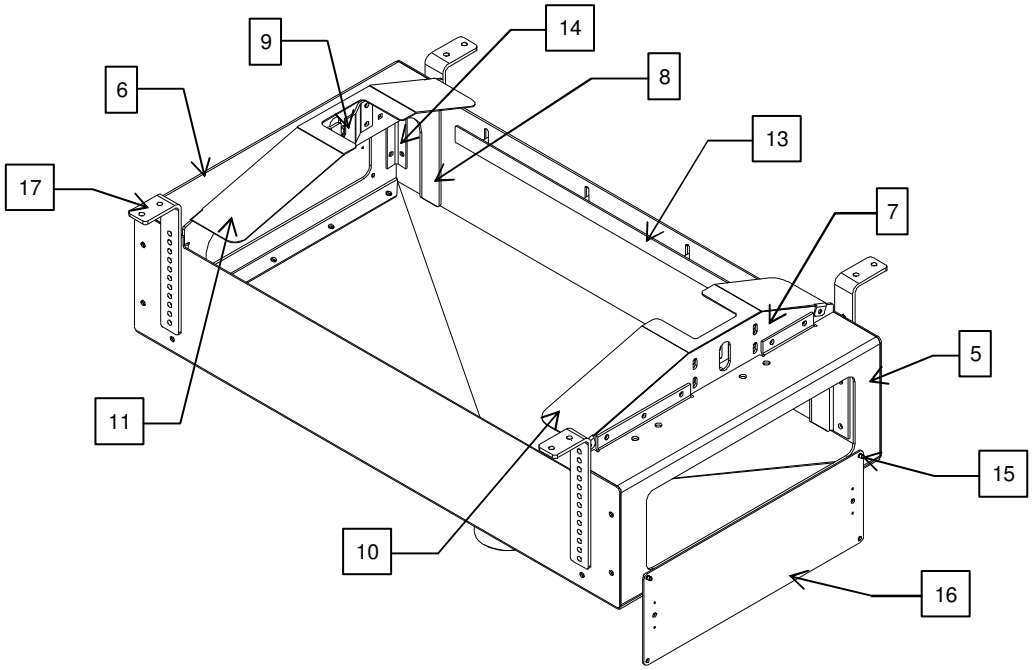

Figure 3. Frame Components & Enclosure

Table II. Frame Components & Enclosure Parts List

Item	Description	Part Number	Qty
5	Outside Plate, Right	ASG-WB-OPR	1
6	Outside Plate, Left	ASG-WB-OPL	1
7	Inside Plate, Right	ASG-WB-IPR	1
8	Inside Plate, Left	ASG-WB-IPL	1
9	Idler Support Bracket	ASG-WB-ISB	2
10	Over Spray Cover, Right	ASG-WB-OSCR	1
11	Over Spray Cover, Left	ASG-WB-OSCL	1
12 (NS)	Idler Clip	ASG-WB-IC	2
13	Wiper Holder	ASG-WB-WH-XX	1
14	Angle Support	ASG-WB-AS	4
15	Door Stud	ASG-WB-DS	4
16	Access Door	ASG-WB-AD	2
17	Hanger	ASG-WB-HANG	4

NS = Not Shown
XX = Belt Width (inches)

Hold Down Roll

Part Number: ASG-**-RET-XX
** = CEMA Rating and Roll Diameter (inches) Example: C6
XX = Belt With (inches)

Hold Down Roll

Part Number: ASG-5560-1x4-H-XX

XX = Belt With (inches)

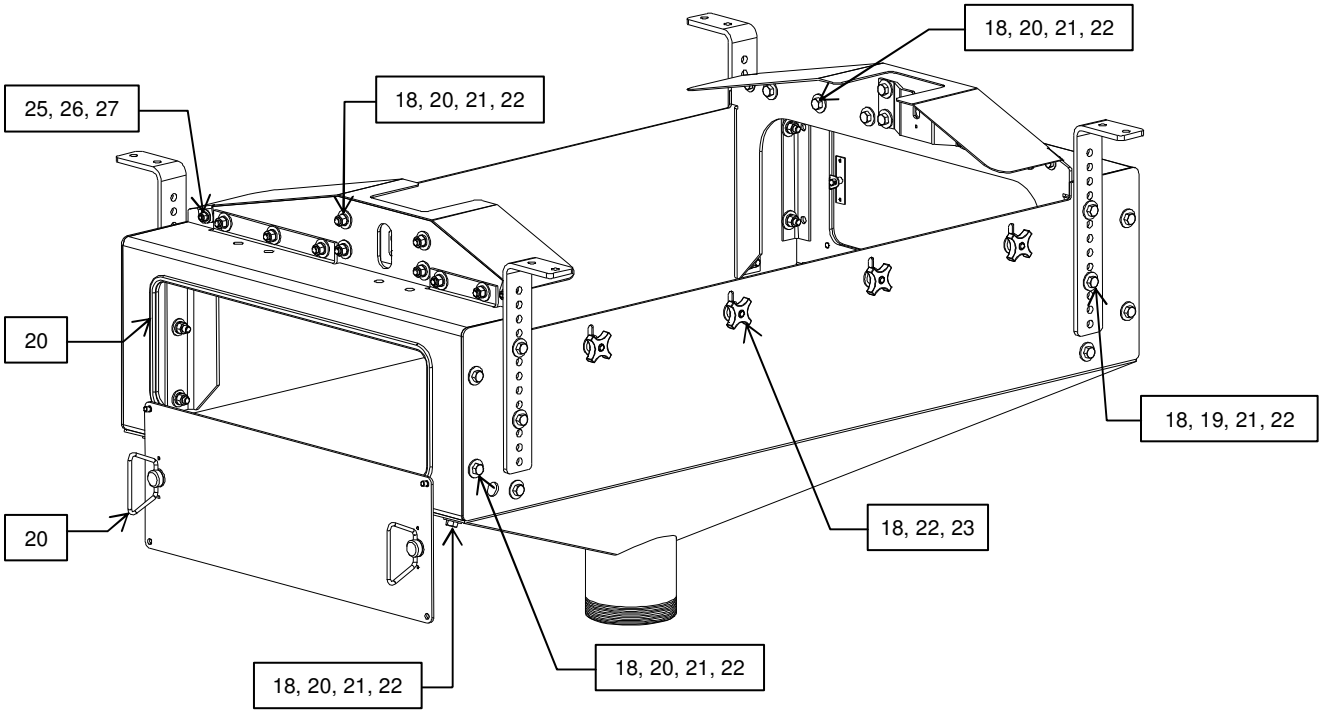

Figure 4. Frame / Tank Hardware

Table III. Frame / Tank Hardware Parts List

Item	Description	Part Number	Qty
18	Flat Washer, 1/2 ZP	ASG-FW-1/2	Table IV
19	Hex Head Bolt, 1/2-13NC x 2-1/4 ZP	ASG-BOLT-C08x40G5	12
20	Hex Head Bolt,1/2-13NC x 1-1/2 ZP	AS-HHBOLT-C08x36G5	36
21	Hex Nut, 1/2-13NC ZP	ASG-NUT-1/2G5	48
22	Spring Lock Washer, 1/2 ZP	ASG-LW-1/2	Table IV
23	Four Arm Knob, Thru-Hole, 1/2-13NC	ASG-4KNOB-1/2	Table V
24 (NS)	Hex Head Bolt, 1/4-20NC x 3/8 ZP	ASG-HHBOLT-.25-20x.375	2
25	Hex Head Bolt, 3/8-16NC x 1 ZP	ASG-HHBOLT-C06x016	4
26	Flat Washer, 3/8 ZP	ASG-FW-3/8	8
27	Hex Nut, 3/8-16NC ZP	ASG-NUT-3/8G5	4
28	Spring Lock Washer, 3/8 ZP	ASG-LW-3/8	4
29	Compression Spring Latch	ASG-WB-LATCH	4
30	Door Gasket, Rubber	ASG-WB-GASKET	2

NS = Not Shown

Table IV. Flat Washers per Belt Width

Belt Width	Qty
24 [600]	98
30 [750]	99
36 [900]	99
42 [1050]	100
48 [1200]	100
54 [1350]	101
60 [1500]	101
66 [1650]	102
72 [1800]	102
78 [2000]	103
84 [2100]	103
90 [2300]	104
96 [2400]	104

Note: Belt Width in Inches [Millimeters]

Table V. Spring Lock Washers per Belt Width

Belt Width	Qty
24 [600]	50
30 [750]	51
36 [900]	51
42 [1050]	52
48 [1200]	52
54 [1350]	53
60 [1500]	53
66 [1650]	54
72 [1800]	54
78 [2000]	55
84 [2100]	55
90 [2300]	56
96 [2400]	56

Note: Belt Width in Inches [Millimeters]

Table VI. Four Arm Knobs per Belt Width

Belt Width	Qty
24 [600]	2
30 [750]	3
36 [900]	3
42 [1050]	4
48 [1200]	4
54 [1350]	5
60 [1500]	5
66 [1650]	6
72 [1800]	6
78 [2000]	7
84 [2100]	7
90 [2300]	8
96 [2400]	8

Note: Belt Width in Inches [Millimeters]

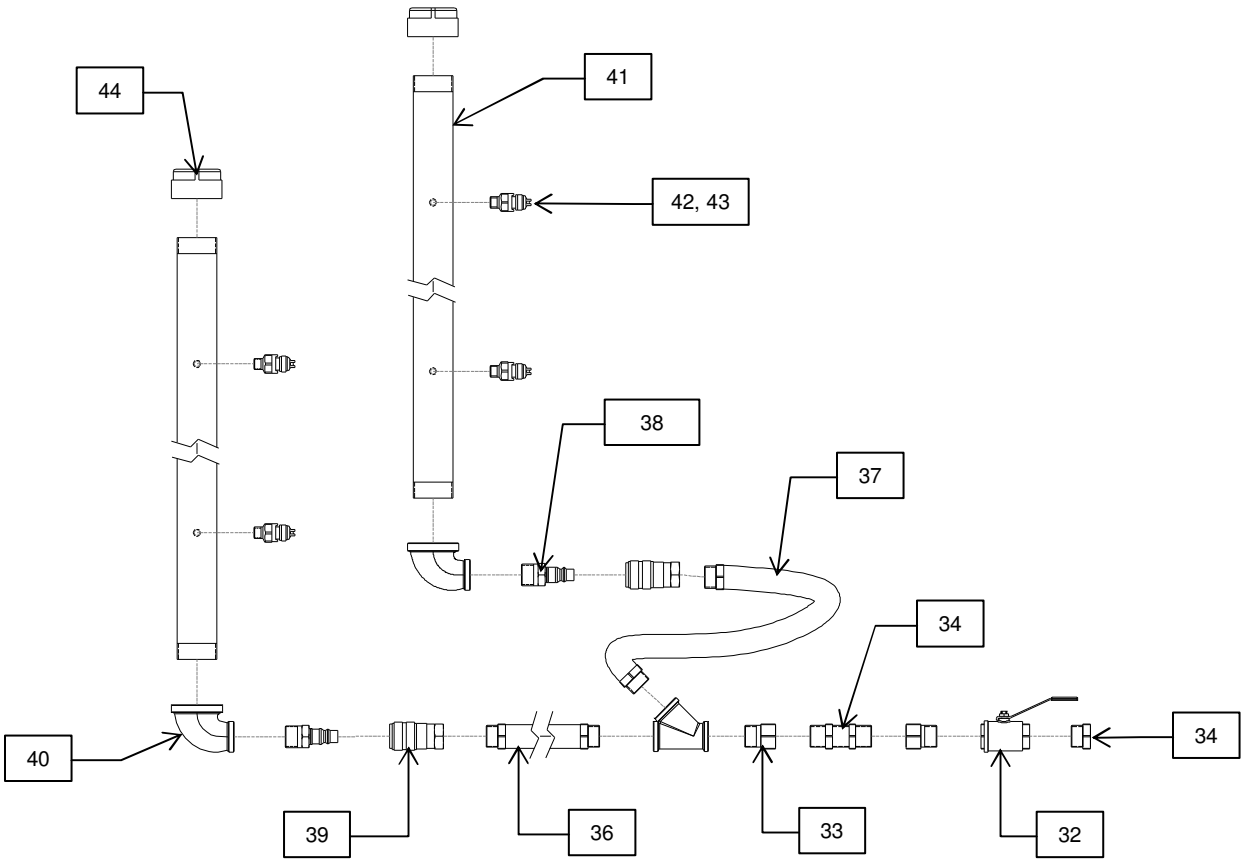

Figure 5. SparyBar Plumbing Example

Table VII. SprayBar Plumbing Parts List

Item	Description	Part Number	Qty
31	Plug, 3/4, B	ASG-WB-3/4-PLUG	1
32	Brass Ball Valve, 3/4, B	ASG-WB-VALVE	1
33	F 3/4 BSP to M 3/4 NPT Adapter	ASG-WB-3/4-ADP	2
34	Bulkhead Fitting, M 3/4 BSP	ASG-WB-3/4-BH	1
35	Wye, 3/4 NPT, B	ASG-WB-3/4-Y	1
36	Hose, M-M, 3/4, 2 Foot	ASG-WB-HOSE-2	1
37	Hose, M-M, 3/4, 3 Foot	ASG-WB-HOSE-3	1
38	Quick Disconnect Coupling, Plug, B	ASG-3/4-QDC-P	2
39	Quick Disconnect Coupling, Socket, B	ASG-3/4-QDC-S	2
40	Reducing Elbow, 90deg, 3/4, G	ASG-WB-90-ELBOW	2
41	WashBox Spray Bar, G, Belt Width (XX)	ASG-SPRAYBAR-XX	2
42	Spray Nozzle, Jet and Body, B, 10	Y-1/4QJJA	Table VIII
43	Spray Nozzle, Strainer, B	Y-12686-50	Table VIII
44	End Cap, SprayBar, 1-1/2, G	ASG-SB-EC	2

XX = Belt Width (inches)

Table VIII. Spray Nozzle / Strainer Quantity per Belt Width

Belt Width	Qty
24 [600]	2
30 [750]	3
36 [900]	3
42 [1050]	4
48 [1200]	4
54 [1350]	5
60 [1500]	5
66 [1650]	6
72 [1800]	6
78 [2000]	7
84 [2100]	7
90 [2300]	8
96 [2400]	8

Note: Belt Width in Inches [Millimeters]

Razor-Back with Bolt-Up Tensioner and Spray Bar Kit

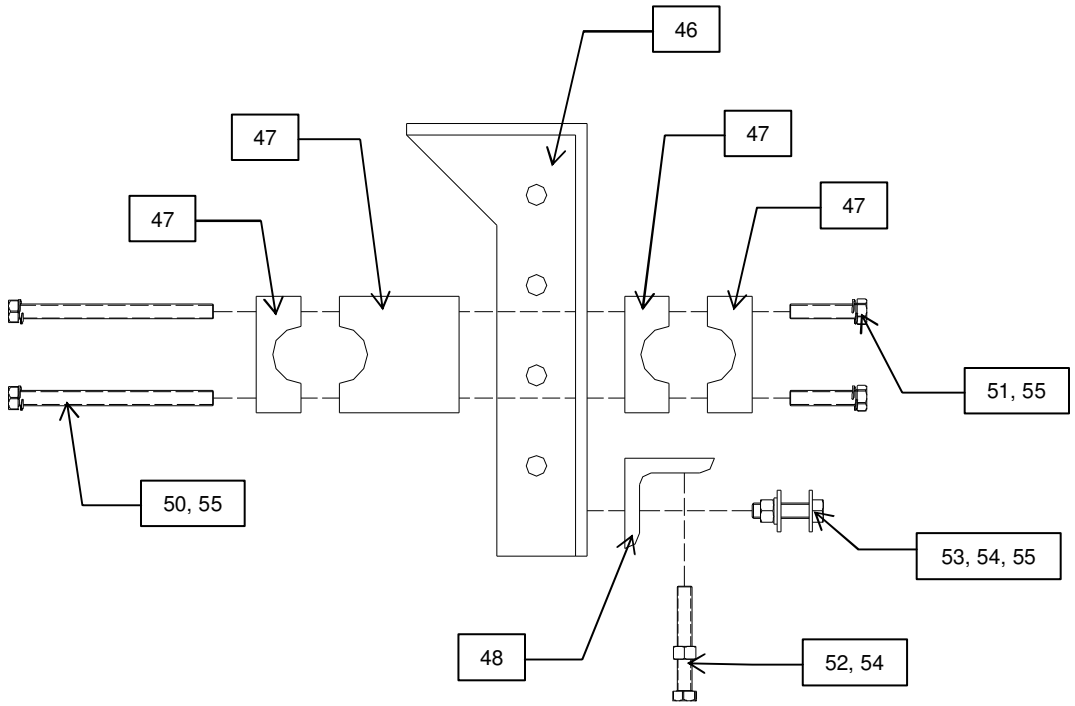

Figure 6. Bolt-Up Tensioner with Spray Bar Kit – Exploded View

Table IX. Bolt-Up Tensioner with Spray Bar Kit

Item	Description	Part Number	Qty
45 (NS)	Mounting Bracket, Left Hand	ASG-NW3-BU-LHMB	1
46	Mounting Bracket, Right Hand	ASG-NW3-BU-RHMB	1
47	Spray Bar Block Kit	ASG-NW3-BU-ADJ-BLK-SP	2
48	Height Adjustment Angle	ASG-NW3-BU-HT-ADJ	2
49 (NS)	Mounting Hardware Kit	ASG-SKMT-AC	2
50	Hex Head Bolt, 1/2-20NF x 6-1/2 ZP	ASG-BOLT-1/2-20X6.5	4
51	Hex Head Bolt, 1/2-20NF x 2-1/4 ZP	ASG-BOLT-1/2-20X2.25	4
52	Hex Head Bolt, 1/2-13NC x 3-1/2 ZP	ASG-BOLT-1/2-13X3.5	2
53	Hex Head Bolt, 1/2-13NC x 1-3/4 ZP	ASG-BOLT-1/2-13X1.75	2
54	Hex Nut, 1/2-13NC ZP	ASG-NUT-1/2G5	4
55	Spring Lock Washer, 1/2 ZP	ASG-LW-1/2	10

NS = Not Shown

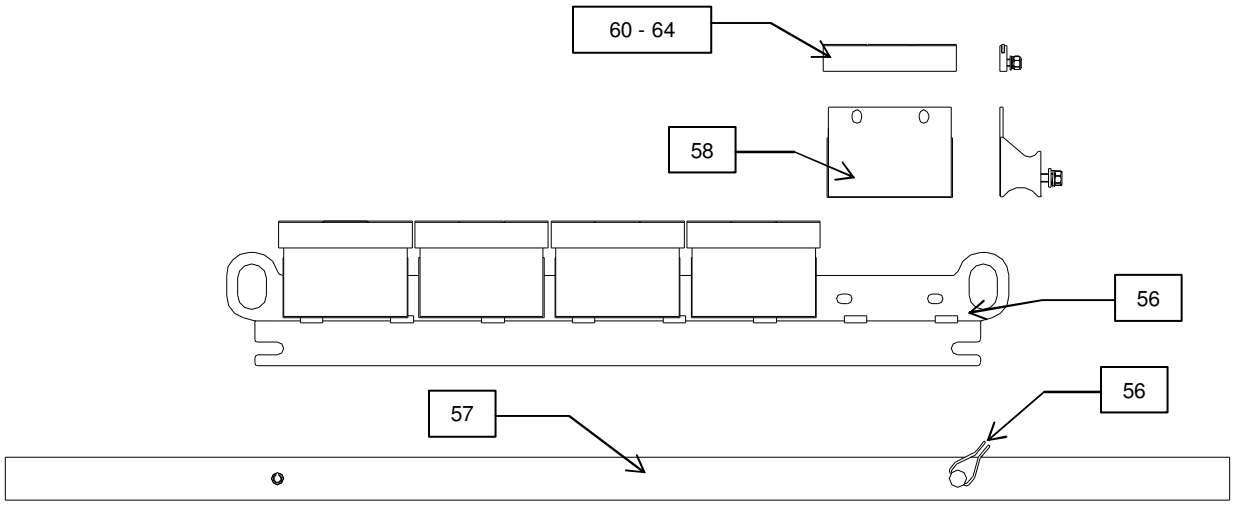

Figure 7. Razor-Back Secondary Belt Cleaner for WashBox System

Table X. Razor-Back Secondary Belt Cleaner for WashBox System

Item	Description	Part Number	Qty
56	Razor-Back, Blade Holder	ASG-RBBH-XX	2
57	Razor-Back, Mounting Tube	ASG-RBMT-XX-SP-WB	2
58	Razor-Back, Blade Cushion, 6"	ASG-CUS-RZ-6C	Table XI
59	Blade Holder, Locking Pin	ASG-SSKMT-CL	2
60	F-Tip Blade, 6", AR400	ASG-BLD-RZ-6-AR	Table XI
61	C-Tip Blade, 6", TC	ASG-BLD-NW3-6-TC-C	Table XI
62	V-Tip Blade, 6", TC	ASG-BLD-RZ-6-TC	Table XI
63	MDX C-Tip Blade, 6", TC	ASG-BLD-NW3-6-TC-C-MDX	Table XI
64	MDX V-Tip Blade, 6", TC	ASG-MDX-BLD-RZ-6-TC	Table XI

XX = Belt Width (inches)

Table XI. Razor-Back Cushion / Blade Quantity Per Belt Width

Belt Width	Qty
24 [600]	4
30 [750]	5
36 [900]	6
42 [1050]	7
48 [1200]	8
54 [1350]	9
60 [1500]	10
66 [1650]	11
72 [1800]	12
78 [2000]	13
84 [2100]	14
90 [2300]	15
96 [2400]	16

Note: Belt Width in Inches [Millimeters]

Install WashBox System

The WashBox System is a secondary belt cleaning device and as such should be located on the return side of the belt after the belt leaves contact with the head pulley. Preferably it should be located before and after a set of return idlers to help steady the belt, in order to dampen system vibration. This will ensure smooth and direct belt contact on the Razor-Back Blade Tips. Direction of belt travel shown below, See *Figure 8.*

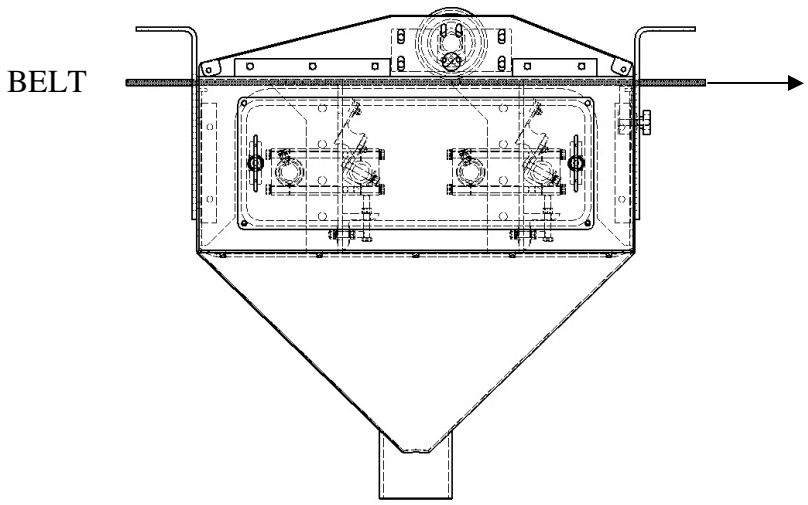

Figure 8. Belt Travel Through WashBox

The Hangers (17) of the WashBox mount to the frame / structure of the conveyor system. The Hangers have multiple height adjustment holes. The top inside edge of the WashBox should be 0 – 1" from bottom of the belt. See *Figure 9.* In most applications it will be necessary to remove the Hold Down Roller for installation of the WashBox. Once the WashBox has been installed in the correct location, the Hold Down Roller can be reinstalled.

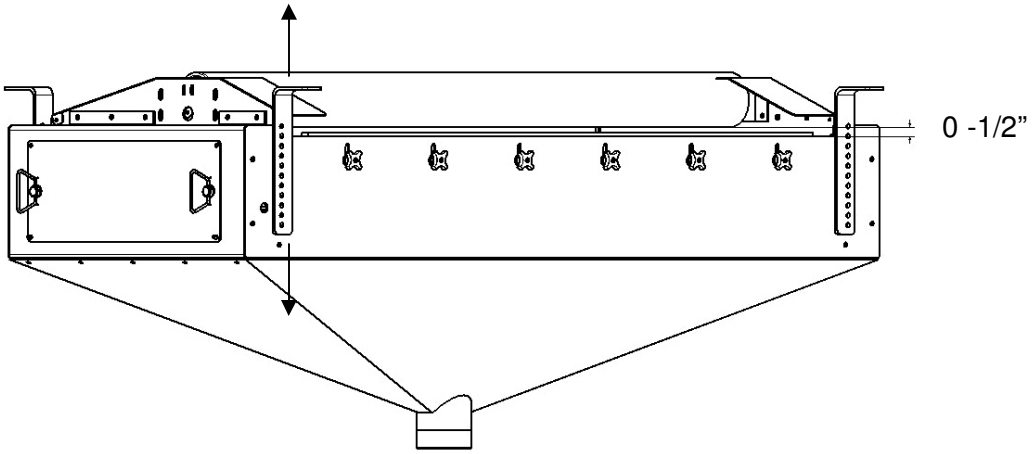

Figure 9. WashBox Install Height

INTERAL CLEANER ADJUSTMENTS

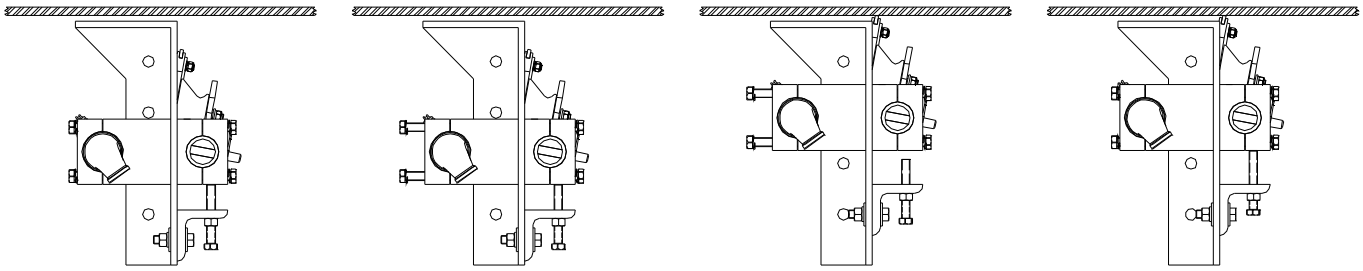

Figure 10. Razor-Back with Spray Bar Adjustment

Razor-Back with Spray Bar:

Loosen Hex Head Bolt (50) on both tensioners, this will allow for height adjustment of Razor-Back.

Adjust height by tightening the Height Adjustment Bolt (52). It may be necessary to move the Height Adjustment Angle (48).

Once belt contact has been made, turn the Adjustment Bolt (52) until the blade tip has moved up a maximum of 1/8".

Make sure Spray Tube is angled 5-10 degrees into the belt travel. Tighten the tube clamp lock bolts (50, 51).

Now test run the conveyor. If chatter occurs, loosen the tube clamp bolts and rotate the blade tip about 5 degrees in the direction of the belt travel (Razorback only).

If cleaning performance is unsatisfactory, slightly increase the force against the belt and test it again. If the cleaner has about 1/8" or more of material to remove, a primary cleaner may be needed.

Hold Down Roll:

Lower or raise the Hold Down Roll so as there is 0 – ½" clearance between the bottom of the roll and the top of the conveyor belt. Adjustment of the Razor-Back will take up the gap.

Rubber Wipe:

Raise the Rubber Wipe by loosening the 4-Arm Knobs (23) and raising the Wipe Holder (13). Then tighten the 4-Arm Knobs to lock the Rubber Wipe in place.

MAINTENANCE

After one day of operation:

- Inspect the cleaner for proper belt cleaning and operation.

Weekly:

- Frequent inspection is the key to proper belt cleaning and easy secondary servicing. Weekly inspections are recommended, but actual service frequency may vary widely depending on various plant operating conditions.

- Wash the entire cleaner regularly to prevent excessive build up. If material tends to accumulate on the secondary assembly then possible scraper relocation may be in order.

- Carefully inspect the wear tips of the cleaner blades. Make sure blades are not chipped or worn out.

- Inspect the belt surfaces and edges for cracks, splits, tears, holes or any other worn or damaged condition occurring on the surfaces or edges of the belt itself. If belt is worn or damaged, make necessary repairs.

TROUBLE SHOOTING

PROBLEM	SOLUTION
Excess vibration of scraper.	Make certain all bolts are tight. If belt is non-reversing, rotate the blade 5 degrees in the direction of belt movement.
Excess Carryback	Check for proper Scraper contact. Put additional force on cleaner. Check for wear on cleaning tips. Check thickness of carryback. If the cleaner must remove more than 1/8 inch of material, then an additional cleaner maybe needed.
Excess belt movement, cupping.	Install a hold down roller to stabilize the belt surface.
Unable to tension scraper properly, belt moves away from blades.	Install a hold down roller to reduce sag of the belt when tensioning.
Frozen material on scraper.	Place heaters near scraper to melt frozen material. (Use Caution not to burn belt or cleaner)
Poor Pressure from Spray Nozzles	Check to see if Nozzles are plugged. Check to see if Nozzle filters need to be replaced.