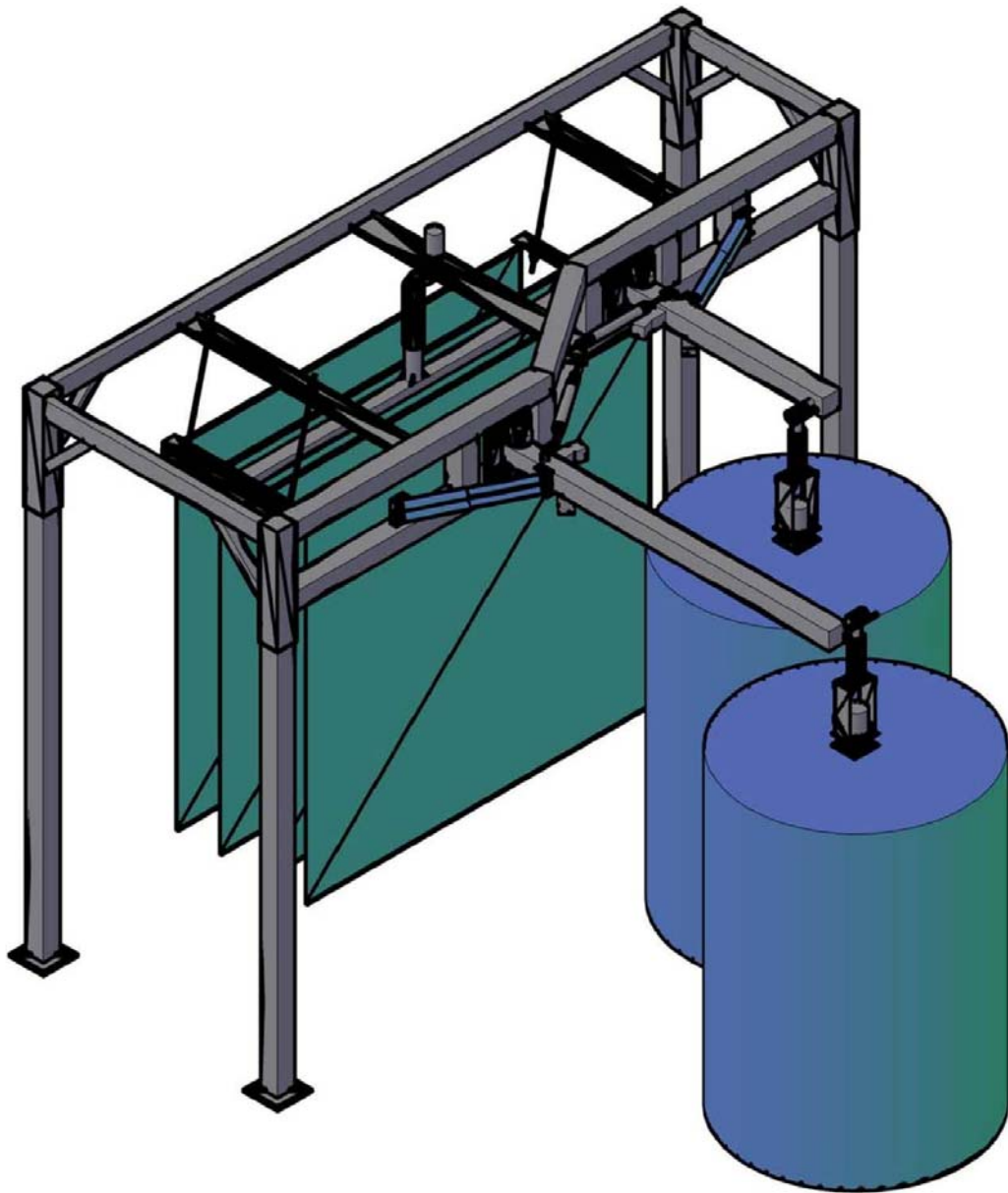


Z WRAP w/MINI MITTER COMBO, Model W1MM4



The AVW Wrap Mini Mitter Combo is the best Wrap Around and the best Mini Mitter combined in one unit. Ideal for space savings in short tunnels and clean appearance desired in longer tunnels.

The aggressive coverage of the mitter combined with the front to rear cleaning of the wrap around in a uniquely simple unit.

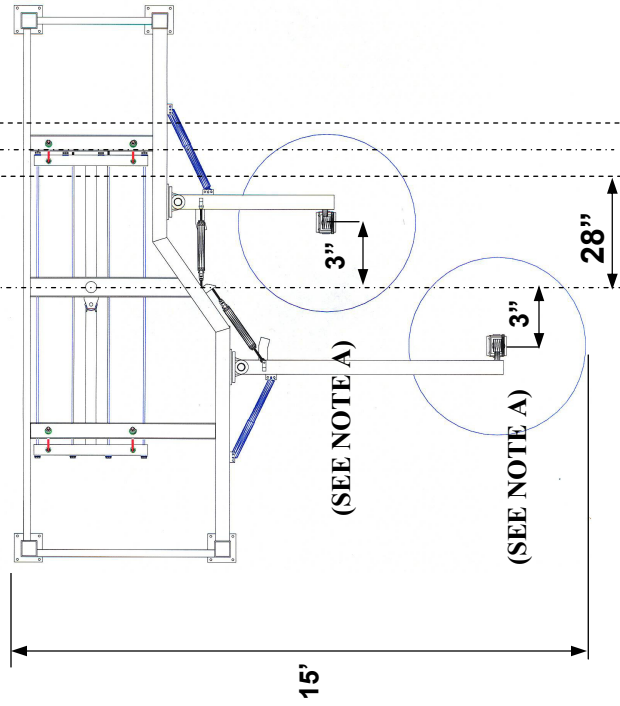




TUNNEL **CONVEYOR**



CONVEYOR



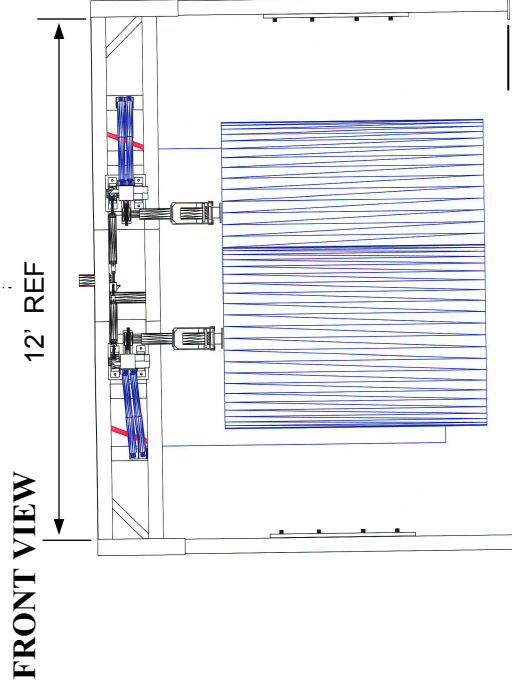
(SEE NOTE A)

(SEE NOTE A)

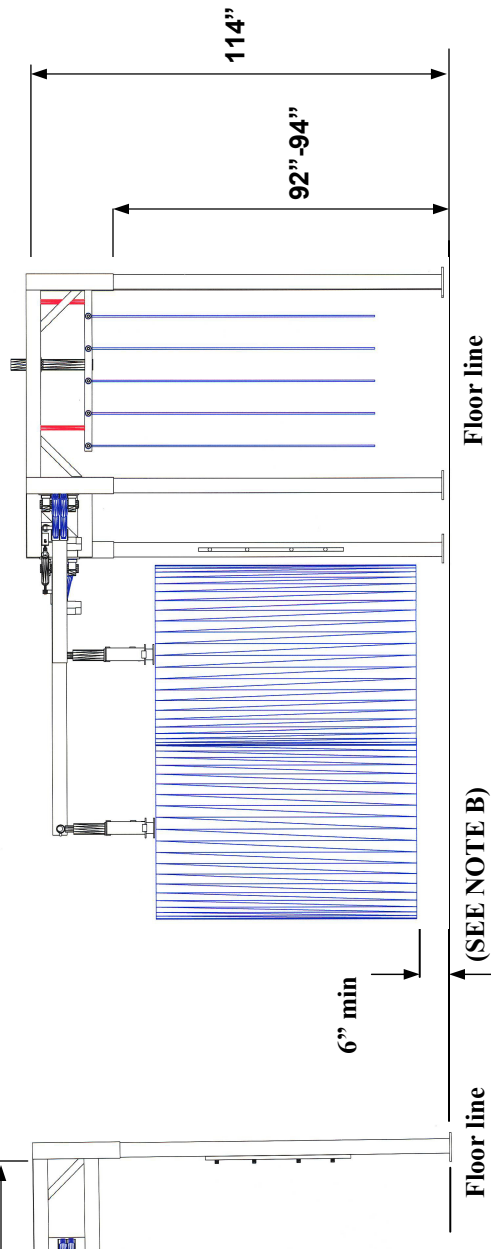
3"

3

28"



12' REF



↑ (SEE NOTE B)

Floor line

Floor line

114”

92"-94"

WRAP MINI MITTER COMBO

GENERAL INSTALLATION LAYOUT

GENERAL INSTALLATION LAYOUT

For REGULAR OFFSET

HYDRAULIC MOTORS:

FOR WRAP BRUSHES AND BASKET DRIVE:

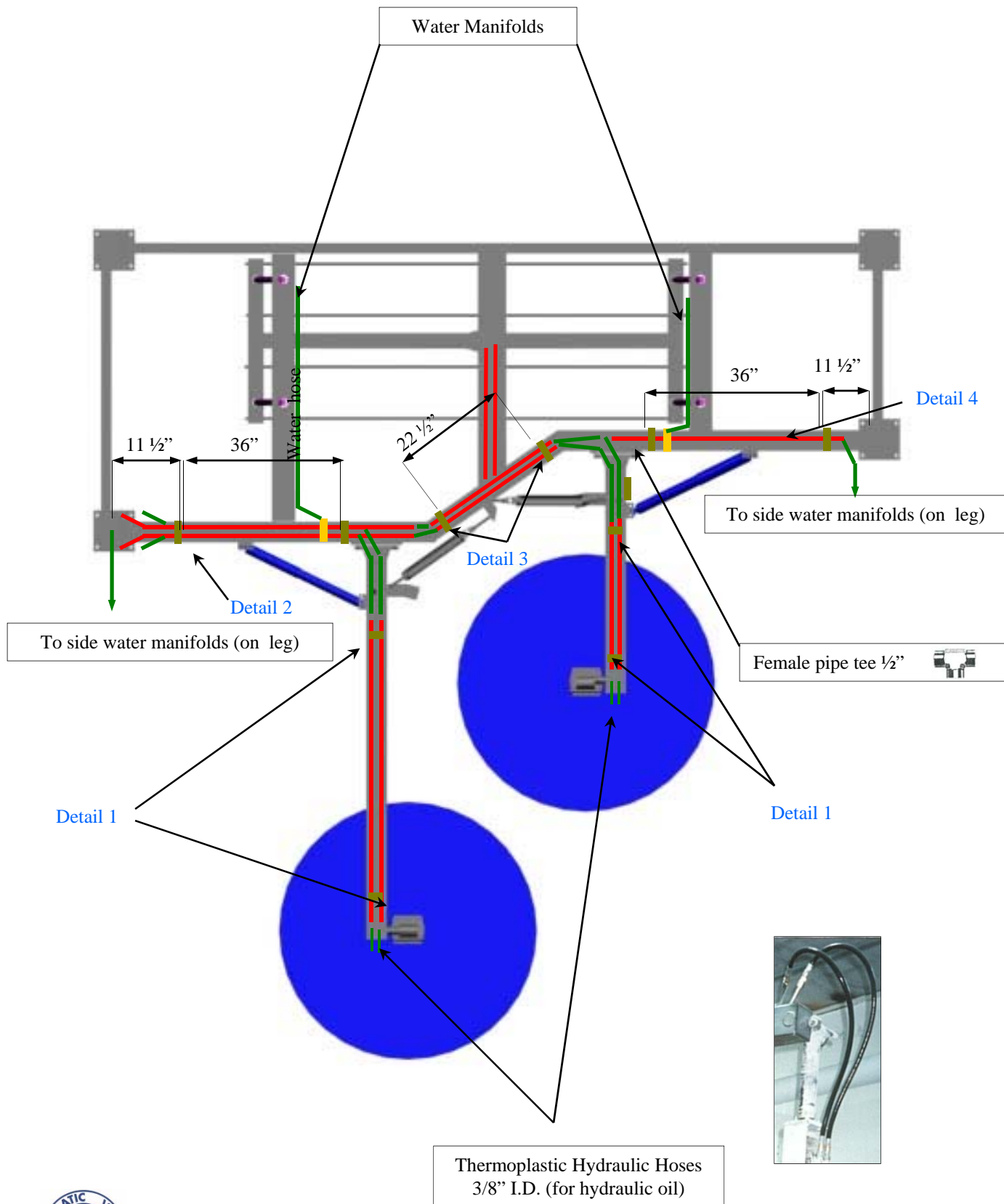
DISPLACEMENT 11.9 CU.IN./REV. (=3GPM at 60RPM)

NOTES A. POSITION BRUSH SHAFT CENTERS 3" FROM CENTER LINE
OF MACHINE TO SET BRUSH ARM STOPS

OF MACHINE TO SET BRUSH ARM STOPS

NOTES B. POSITION BRUSH SHAFT HEIGHT CLEAR CONVEYOR

Z WRAP w/MINI MITTER COMBO, Model W1MM4



FREE STANDING WRAP AROUND, Model WA1



Figure 2

In order to get a higher application pressure at either driver side or passenger side of the machine, move the bottom bearings towards the its center, or away from the center to achieve lower application pressure.

note: Application pressure is the pressure of the brush applied onto the car.

Fine tuning adjustment for getting better performance of AVW Wraps

- The RPM of the wrap hydraulic motor should be set at approximately 60 RPM to allow brush to flare out fully.
- Set hydraulic relief pressure so that brush can start to stall, when contacting the front end of the widest vehicle and then increase $\frac{1}{2}$ turn. The brush should never be able to stall on a front end of vehicle.
- Use a lot of soap and lubrication on the cloth.
- Do not use excessively worn cloth.
- Replace shock absorbers approximately every 6 months.
- Travel on back of car should not exceed $\frac{3}{4}$ of back end of vehicle.
- Keep initial adjustments light as wraps will tend to loosen up as they break in and cloth absorbs more soap and water.
- Start adjusting with bearings straight up and down, usually no more than $\frac{1}{4}$ " of bearing travel will be required
 - Set wraps for average conveyor speed, if conveyor speed increases or decreases more than 25 cars per hour up or down (50 cars per hour range) additional adjustment may be required.

Flex coupler fails or twists

Possible Causes & Troubleshooting:

- Torque settings on hydraulics is set too high.
- Flex coupler should be replaced approx. every 200,000 cars.



FREE STANDING WRAP AROUND - Model WA1

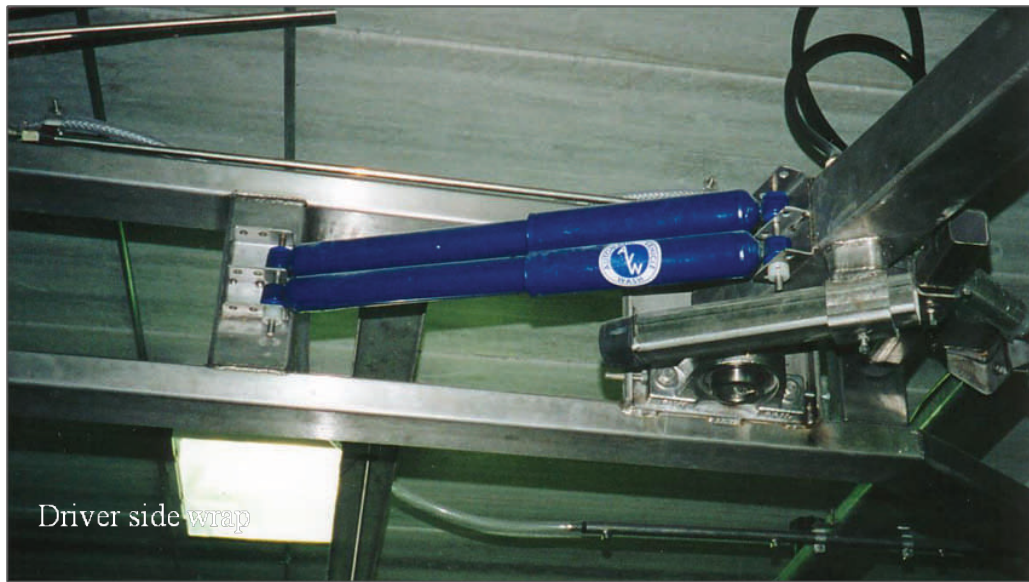


Figure 2

Brush climb up on back ends of the car

Possible Causes & Troubleshooting:

- The car is rolling ahead because of uneven floor and stopping with wrap on rear of car.
- Torque (Pressure) is set too high and brush will not stall as it climbs.
- Brush speed may be too fast. set at 60 RPM
- Brush may be set to travel more than 3/4 of backend of car / more swing after break- in period.
- Keep pivot point low as possible try not to mount over tire brushes or where high clearance is needed off the floor.
- Car may be stopping or rolling because of a treadle on floor or pocket in floor
- If the friction is too high-apply more soap or lubrication.
- The faster the brush RPM, the more travel on the back of the vehicle-adjust RPM.

Figure 3



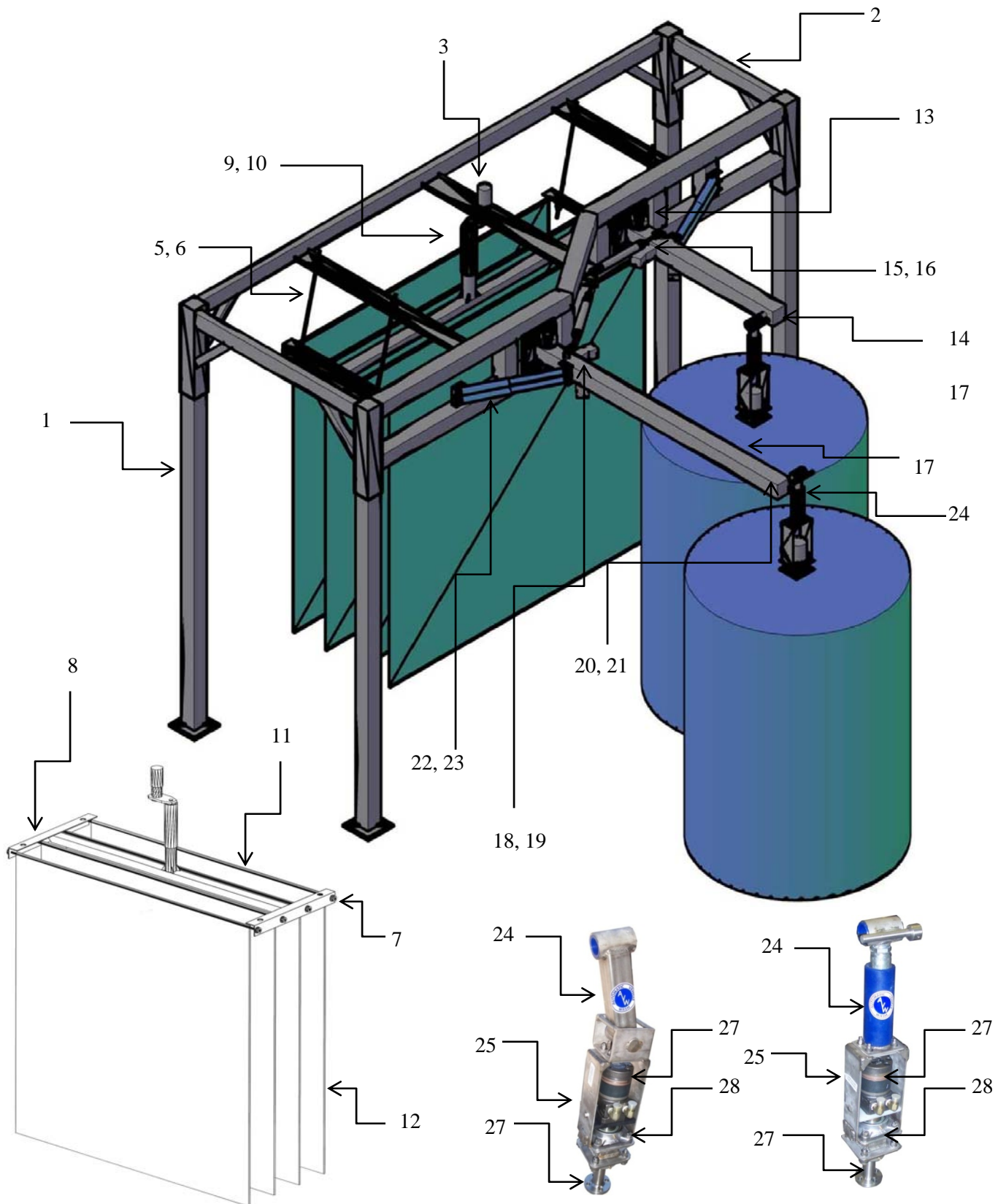
Mirror is damaged or broken

Possible Causes & Troubleshooting:

- Lower portion of the brush is set to high coming into contact with mirror-stay below 33" from the top of the lower fuller section of the brush.
- Arm is restricted not to swing out far enough to clear the vehicle-adjust the bumper so that brush can clear the vehicle.
- Too much tilt on the bearing causing excessive side pressure –adjust the tilt on the bearing to reduce the pressure.
- Weak shocks absorbers-replace shock absorbers.
- Brush speed incorrect-set the speed.



Z WRAP w/MINI MITTER COMBO, Model W1MM4



A.V.W. Equipment Co. Inc.
Maywood, Illinois

Motor Mount Assembly, Flex and Universal

Z-WRAP w/MINI MITTER COMBO Model W1MM4

Item	PART NAME	PART No.	Qty.
1	LEG	MC1A	4
-	FRAME ASSEMBLY:	W1MM4B	1
2	Frame	W1MM4BA	1
-	Square head screw ½”-13x1¼”lg. (for sleeves)	SQHS1213125	16
-	Hex head cap screw 3/8”-16x2”lg. (fully threaded, for pillow block adjustment)	HHCS3816200F	8
-	Basket drive assembly:	MC2BB-1104	1
3	Hydraulic motor, displacement 11.9 [cu.in./rev.]	WA1KM	1
-	Fitting straight ½” NPTM x ½”JIC	SAE070102-8-8	2
4	Cam arm w/welded weld-on hub	MC2BBA-P1-1 0106	1
-	Split Taper bushing P1 1”	P1 1”	1
-	Hex head cap screw 3/8”-16x ¾”LG. (motor’s fastener)	HHCS3816075	4
-	BASKET SUPPORT ROD ASSEMBLY:	MC1C	4
5	Basket support rod ½” x 27”LG.	MC1C1	4
-	Basket support disk UHMW	MC1C2	8
-	Basket support halfball	MC1C3	8
-	Flat washer ½” I.D.x1¼”O.D.	FW12125	8
6	Nylon lock nut ½”-13	NLN1213	8
-	BASKET ASSEMBLY:	MM5D-7	1
8	Basket frame 7’	MM4DA-7	1
-	Sleeve assembly:	MC1DB	1
9	Sleeve	MC1DB1	1
-	UHMW bushing 1”I.D.	MC1DB2	1
10	Square head screw 3/8”-16x3/4”lg.	SQHS3816075	3
-	Hex nut 3/8”-16	HN3816	3
-	Curtain rod assembly:	MC2DC	4
11	Curtain rod 7’4”lg.	MC2DCA	4
-	Plastic spacer 3/4”I.D.x2”O.D.x3/16”width	MC1DC2-3/4x2x3/16	8
12	Plastic hex nut 3/4”-10	PLHN3410	16
12	CURTAIN (CLOTH)	MC1E	28

A.V.W. Equipment Co .Inc. 105 South 9th Avenue, Maywood, IL 60153























Z-WRAP w/MINI MITTER COMBO Model W1MM4

Item	PART NAME	PART No.	Qty.
13	PILLOW BLOCK 2"	WA1WB	4
-	Screw fastener set 1/2" (for pillow block):	-	8
-	Hex head cap screw 1/2"-13 x 2 1/4" lg.	HHCS1213225	8
-	Flat washer 1/2" I.D. x 1 1/4" O.D.	FW12125	16
-	Split lock washer 1/2"	SLW1/2	8
-	Hex nut 1/2"-13	HN1213	8
-	DRIVER SIDE ARM ASSEMBLY:	WA1D	1
14	Driver side arm 46"lg.	WA1DA	1
-	Rubber stop arm assembly:	WA1DB	2
15	Stop arm	WA1DBA	2
16	Rubber bumper	WA1DBB	2
-	Screw fastener set 3/8" (for bumper):	-	2
-	Hex head cap screw 3/8"-16x1 1/4"lg.	HHCS3816125	2
-	Flat washer 3/8" I.D. x 7/8" O.D.	FW38087	2
-	Hex nut 3/8"-16	HN3816	2
-	Square head screw 3/8"-16x 3/4"lg. (for stop adjustment)	SQHS3816075	4
-	PASSENGER SIDE ARM ASSEMBLY:	WA1E	1
17	Passenger side arm 76"lg.	WA1EA	1
-	Rubber stop arm assembly:	WA1DB	2
18	Stop arm	WA1DBA	2
19	Rubber bumper	WA1DBB	2
-	Screw fastener set 3/8" (for bumper):	-	2
-	Hex head cap screw 3/8"-16x1 1/4"lg.	HHCS3816125	2
-	Flat washer 3/8" I.D. x 7/8" O.D.	FW38087	2
-	Hex nut 3/8"-16	HN3816	2
-	Square head screw 3/8"-16x 3/4"lg. (for stop adjustment)	SQHS3816075	4
20	PLASTIC SPACER	WA1I	2
21	2-PIECE COLLAR 1 1/2"	WA2J-2P	2
22	SHOCK ABSORBER ASSEMBLY:	WA1FA	2
-	Shock absorber	WA1FAA	4
-	UHMW bushing 3/8" I.D.	WA1FA1	8
23	PIN Ø3/8"x6"lg.	WA1FB	4
-	COLLAR 3/8"	WA1FC	4
-	RETRACT KIT (see retract kit drawing)	WA1G	1 set
24	FLEX COUPLING ASSEMBLY (drawing enclosed):	WA1H	2
-	Welded flex coupling	WA1HA	2
-	Wrap cam 3/4" I.D.	WA1HB	2
-	UHMW sleeve	WA1H1	2
-	UHMW bushing 1 1/2" I.D.	WA1H2	2
24	UNIVERSAL COUPLING (OPTIONAL)	WA2H	2
-	Welded coupling	WA2HA	2
-	UHMW bushing 1 1/2" I.D.	WA1H2	2
-	Mounting channel with collars 1 1/2" I.D. x 2 1/2" O.D. x 7/8" width	WA2HC	2
-	Shaft 1 1/2" x 6 1/4" LG	WA2HD	2
-	SCREW FASTENER SET 3/8" (connection of the flex coupling with the motor mount):	-	8
-	Hex head cap screw 3/8"-16 x 3/4" lg.	HHCS3816075	8
-	Flat washer 3/8" I.D. x 7/8" O.D.	FW38087	8
-	Hex nut 3/8"-16	HN3816	8



Z-WRAP w/MINI MITTER COMBO Model W1MM4

Item	PART NAME	STOCK No.	Qty.
-	WRAP AROUND SHAFT ASSEMBLY (drawing enclosed):	WA5K	2
25	Motor mount 	WA5KA	2
-	Motor retaining screw:	-	4
-	Hex head cap screw 3/8"-16x 3/4" lg.	HHCS3816075	4
-	Nylon lock nut 3/8"-16	NLN3816	4
26	Hydraulic motor, displacement 11.9 [cu.in./rev.] 	WA1KM	2
-	Fitting 90° elbow 1/2"NPTM x 1/2"JIC 	SAE070202-8-8	4
-	Torque plate 	WA1K1	2
-	Hex head cap screw 3/8"-16x 3/4"lg. (motor's fastener)	HHCS3816075	8
27	Brush shaft Ø1 1/2"x10 1/2"lg. 	WA5KB	2
28	4-bolt bearing 1 1/2" 	WA1KCB	4
-	Screw fastener set (for bearing):	-	16
-	Hex head cap screw 1/2"-13x1 3/4"lg.	HHCS1213175	16
-	Flat washer 1/2" I.D. x 1" O.D.	FW12100	16
-	Split lock washer 1/2"	SLW1/2	16
-	Hex nut 1/2"-13	HN1213	16
29	BRUSH ASSEMBLY (design: 5" core, 72"lg.) 	WA1M-5/10X72	1 set
-	HYDRAULIC & WATER INSTALLATION:	WC3L	-
-	Side water manifold assembly (on exit legs):	WAILA	2
-	Manifold	WAILAA	2
-	Hollow hex plug 1/2"NPTM 	SAE140109P-8	2
-	Barb 1/2"x 1/2" NPTM 	BRB1/2x1/2	2
-	Nozzle 1/4"NPTM 	NZ1/4	8
-	Water hose 1/2"I.D. (braid reinforced polyethane tubing)	-	-
-	Female pipe tee 1/2" NPTF 	SAE140438-8-8	2
-	Barb 1/2"x 1/2" NPTM 	BRB1/2x1/2	6
-	Pipe clamp 3/4", for water hose and side water manifolds (w/screw fasteners 1/4") 	PPP3/4	10
-	Top water manifold assembly:	MC1BC-S	2
-	Top water manifold (tubing 1"O.D. x 34"lg. w/4 water outlets, 10" apart one from another) 	MC1BCA-S	2
-	Hollow hex plug 1/2" NPTM 	SAE140409P-8	2
-	Barb 1/2" x 1/2" NPTM 	BRB1/2X1/2	2
-	Nozzle 1/4" NPTM	NZ1/4	8
-	Pipe clamp 3/4", for Top Water Manifold (with screw fasteners 1/4"-20) 	PPP3/4	4
-	Hydraulic tube assemblies:	-	-
-	Hydraulic tubes 1/2" O.D.xW.035"  inless steel TP304/TP304L ASTM A269	SAE070115-8	-
-	Tube support sleeves 1/2" JIC	SAE070110-8	-
-	Nuts 1/2" JIC 	WA1LB	8
-	Hydraulic hose assembly:	SAE100R7-06x34	8
-	Hydraulic hose 3/8"I.D.x34"lg., thermoplastic	FC5810-0806	4
-	Crimp fitting SAE 37° JIC swivel (female)	FC5807-0806	12
-	Crimp fitting SAE 37° JIC male flare 	DMP1/2	11
-	Damping clamp 1/2", for hydraulic tubes (w/screw fasteners 1/4") 