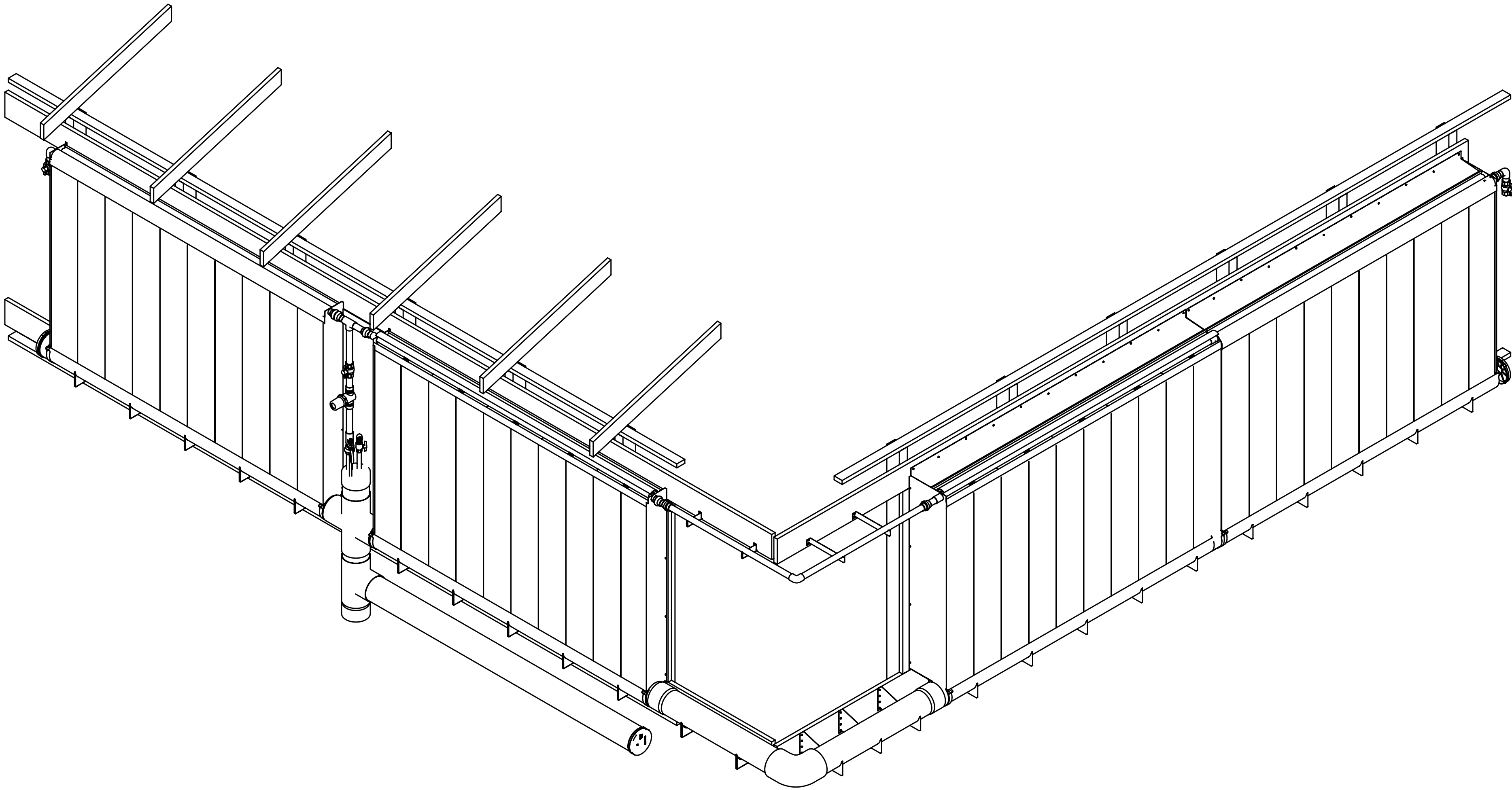


# EZ-COOL RECIRCULATING PAD SYSTEM: QUICKSHEET


(READ THROUGH ENTIRE QUICK SHEET BEFORE BEGINNING TO INSTALL)



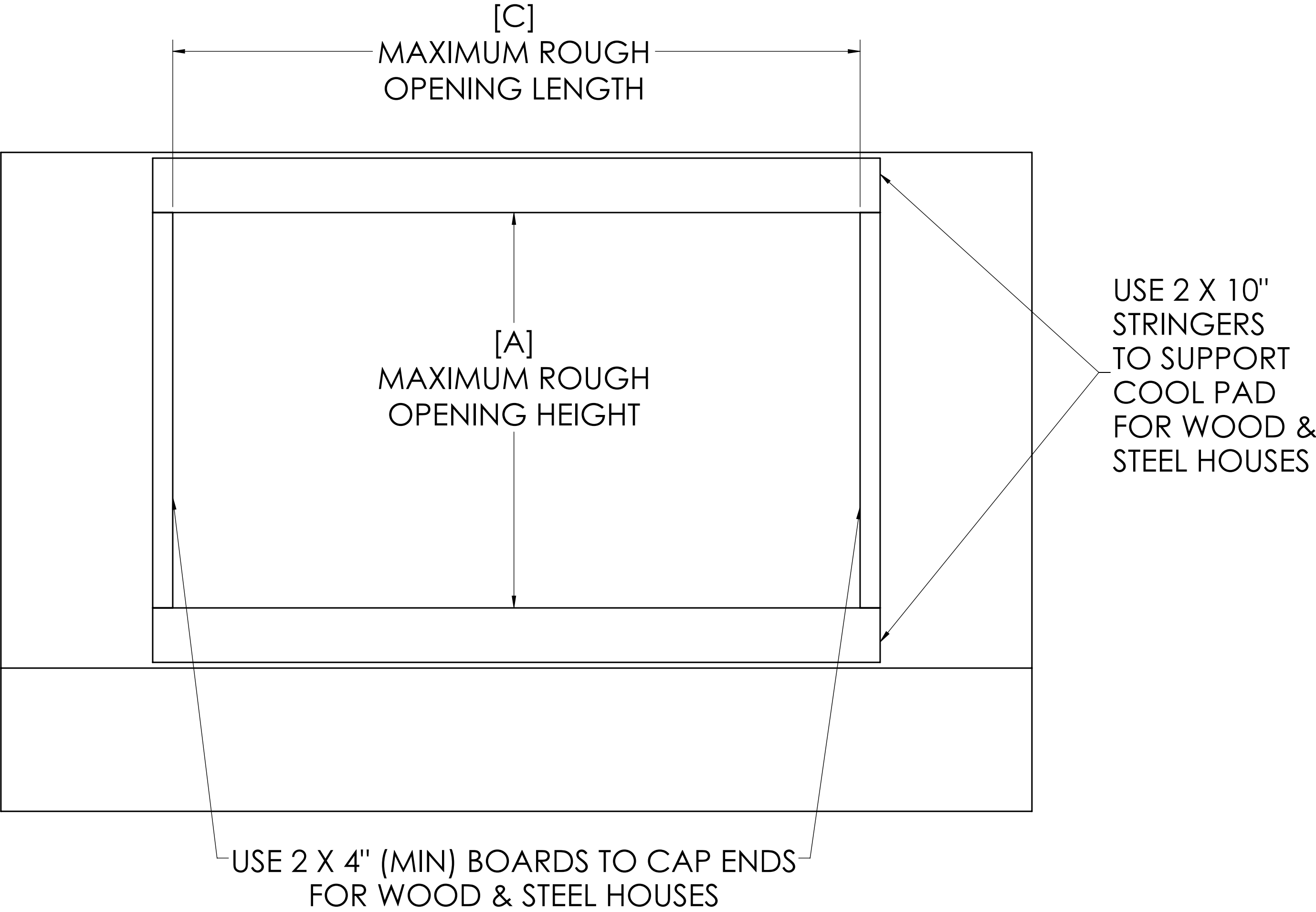
## 990131

TABLE OF CONTENTS.....	SHEET 1
GENERAL FRAMING REQUIREMENTS.....	SHEET 2, 3
FLUSH MOUNT BRACKET INSTALLATION.....	SHEET 4
EXTENDED MOUNT BRACKET INSTALLATION.....	SHEET 5
PAD INSTALLATION & COUPLING .....	SHEET 6
SUMP, PUMP, FLOAT ASSY (END FED).....	SHEET 7
SUMP, PUMP, FLOAT ASSY (CENTER FED).....	SHEET 8
HEADER KIT ASSEMBLY.....	SHEET 9
HEADER KIT INSTALLATION (END & CENTER FED) .....	SHEET 10, 11
OPTIONAL RESERVOIR ADD-ON KIT .....	SHEET 12
OPTIONAL WRAP AROUND(CORNER) KIT .....	SHEET 13
PREVENTATIVE MAINTENANCE .....	SHEET 14, 15
REPAIR PARTS .....	SHEET 16 - 20

REV	ECN#	DESCRIPTION	DATE	BY
A	14336	RECREATED DRAWINGS IN SOLIDWORKS AND ADDED MORE DETAILS FOR INSTALLATION AS WELL AS ADDING A PREVENTATIVE MAINTENANCE AND REPAIR PARTS SECTION.	10/22/2018	AP
B	14956	ADDED INFORMATION FOR 200 CM TALL COOL PAD. SPECIFIED PAA15 TO BE USED WITH 60HZ PUMPS AND PAA16 WITH 50HZ PUMPS.	3/10/2020	AP
C	15348	CHANGED NOTE IN CHART COLUMN [B] IN UPPER LEFT CORNER OF PAGE 4 TO "DISTANCE BETWEEN TOP FLANGE OF PAE500 TO TOP OF PAB250 (PAD HEIGHT + 4")"	4/16/2021	AP
D	15490	CORRECTED BOM NUMBERING ERRORS ON PAGES 16 & 17.	8/3/2021	TC

UNSPECIFIED TOLERANCES 2 PLACE ±.060 3 PLACE ±.030 4 PLACE ±.010 HOLE DIA ±.010 ANGULAR ±.1°	DIMENSIONS ARE IN INCHES DIMENSIONS IN ( ) ARE MILLIMETERS UNLESS OTHERWISE SPECIFIED DO NOT SCALE	 <b>VALCO INDUSTRIES, INC.</b> PO BOX 8 NEW HOLLAND, PA 17557
This drawing and any part thereof is the property of VALCO COMPANIES INC. and is subject to return or request by this company. The information herein is confidential and the recipient by accepting this drawing agrees not to use any information contained herein in any manner in which will be detrimental to VALCO COMPANIES INC.	DATE 7/27/2018 DRAWN AP CHECK - WEIGHT N/A SCALE 1:8	DESCRIPTION 1 INSTALLATION INSTR FOR EZ-COOL DESCRIPTION 2 RECIRCULATION PAD SYSTEM SHEET 1 OF 20 990131 REV. D

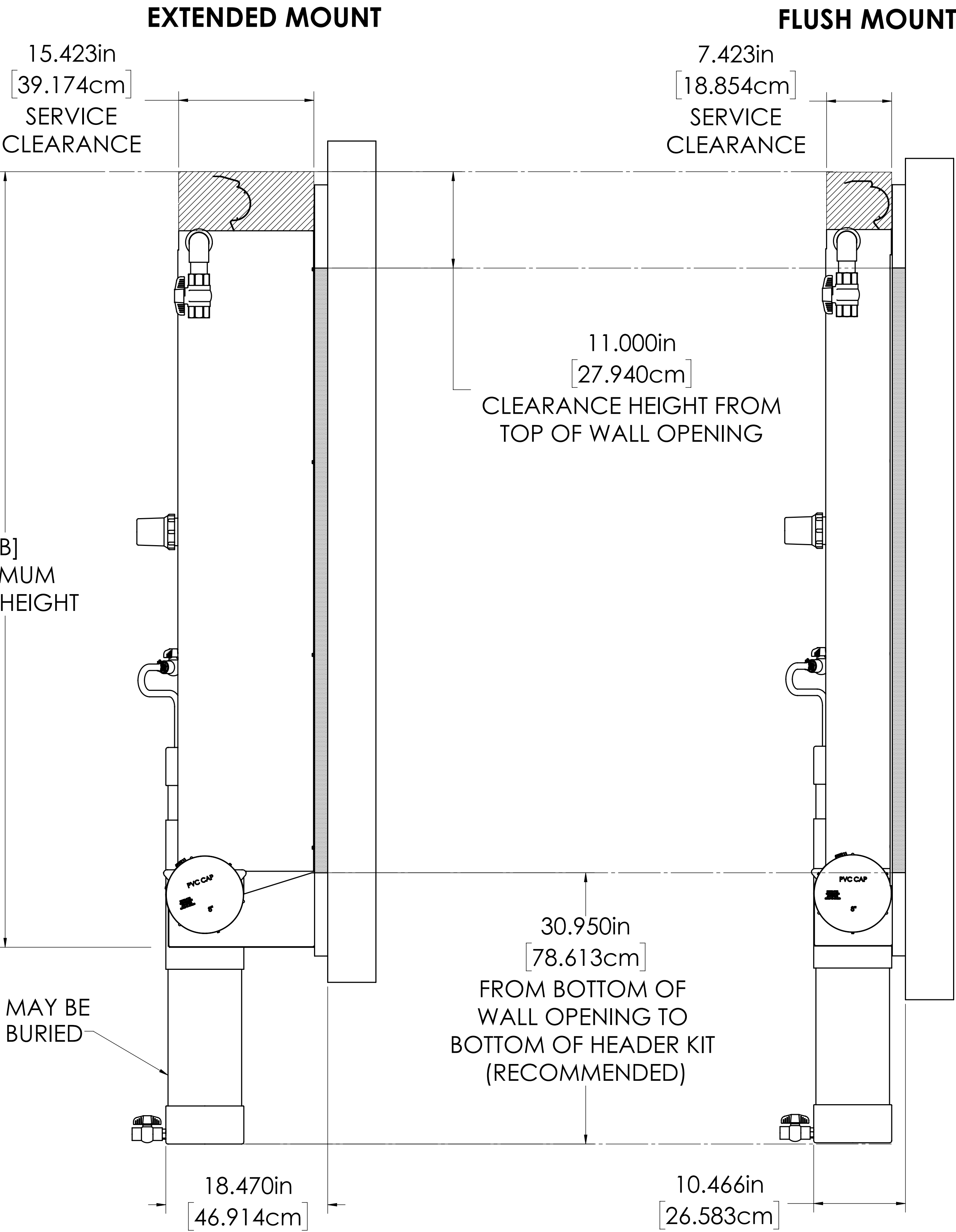
GENERAL FRAMING REQUIREMENTS



PAD HEIGHT	MAXIMUM ROUGH OPENING HEIGHT [A] (PAD HEIGHT - 3 IN)	MINIMUM WALL HEIGHT [B] (PAD HEIGHT + 18 IN)
36 IN [91.4 CM]	33 IN [83.8 CM]	54 IN [137.2 CM]
48 IN [121.9 CM]	45 IN [114.3 CM]	66 IN [167.6 CM]
60 IN [152.4 CM]	57 IN [144.8 CM]	78 IN [198.1 CM]
72 IN [182.9 CM]	69 IN [175.3 CM]	90 IN [228.6 CM]
78.7 IN [200.0 CM]	75.7 IN [192.3 CM]	96.7 IN [245.6 CM]

MAXIMUM ROUGH OPENING LENGTH [C] = SYSTEM LENGTH + 1/4 IN \* (NUMBER OF TROUGH COUPLERS)

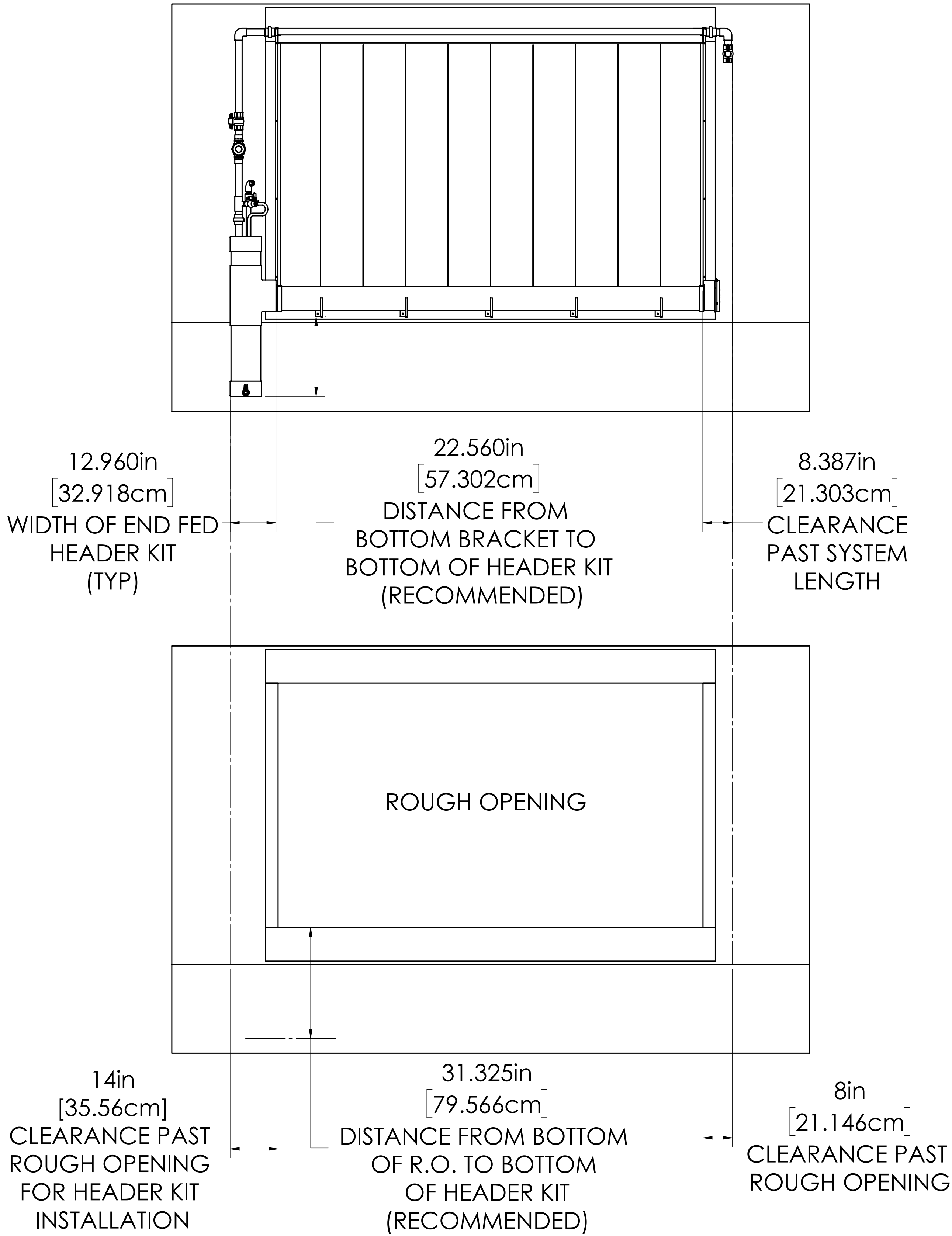
SYSTEM LENGTH	MAXIMUM ROUGH OPENING LENGTH [C]
20 FT [6M 9.6 CM]	20 FT 1/4 IN [6M 10.2 CM]
40 FT [12M 19.2 CM]	40 FT 3/4 IN [12M 21.1 CM]
60 FT [18M 28.8 CM]	60 FT 1-1/4 IN [18M 32.0 CM]
80 FT [24M 38.4 CM]	80 FT 1-3/4 IN [24M 42.8 CM]



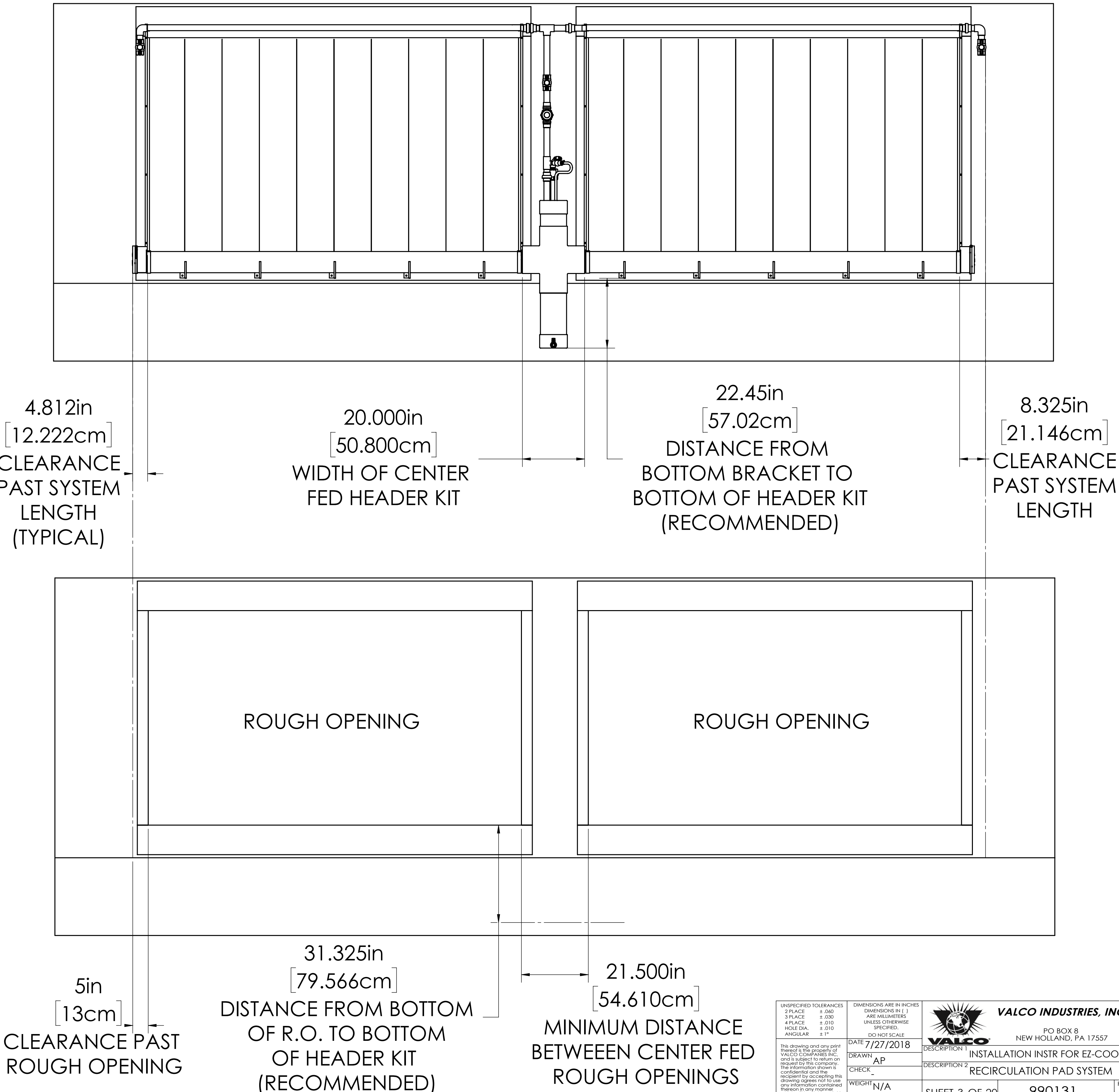


CLEARANCES & RELATIVE ROUGH OPENING PLACEMENT

END FED SYSTEM



CENTER FED SYSTEM



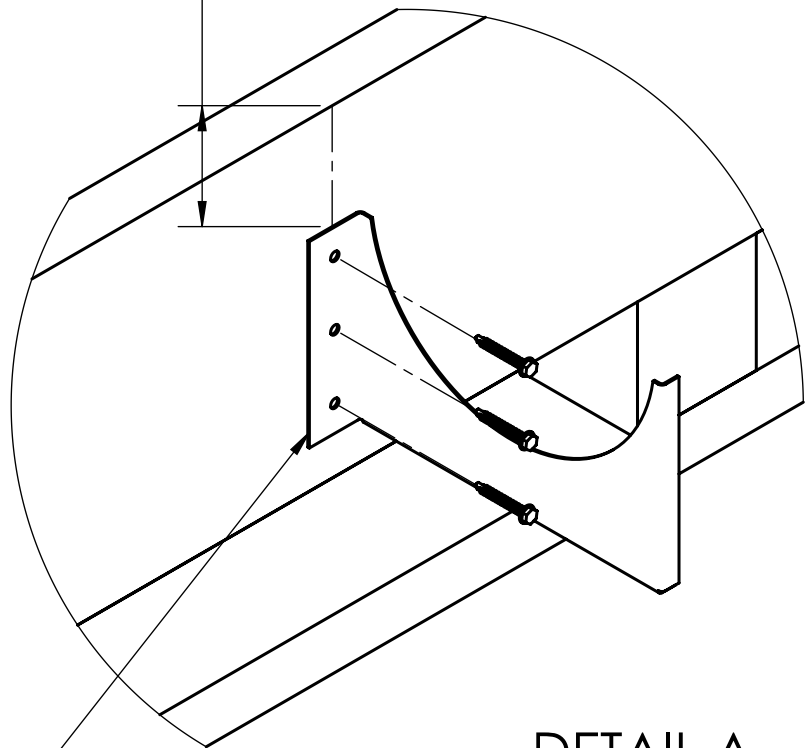
FLUSH MOUNT BRACKET INSTALLATION

INSTALL AT 2 FT  
[61 CM] INTERVALS  
(STARTING 1 FT [30.5 CM]  
IN FROM EXTRUSION)

HEIGHT OF PAD	[B] DISTANCE BETWEEN TOP FLANGE OF PAE500 TO TOP OF PAB250 (PAD HEIGHT + 4")
36 IN [91.4 CM]	40 IN [101.6 CM]
48 IN [121.9 CM]	52 IN [132.1 CM]
60 IN [152.4 CM]	64 IN [162.6 CM]
72 IN [182.9 CM]	76 IN [193.0 CM]
78.7 IN [200.0 CM]	82.7 IN [210.1 CM]

[B]  
FROM TOP FLANGE  
OF PAE500 TO TOP  
OF PAB250  
  
(6 FT PAD EXAMPLE)  
76in  
[193.0 CM]

POSITION BRACKETS  
3 IN [7.6 CM] BELOW  
ROUGH OPENING

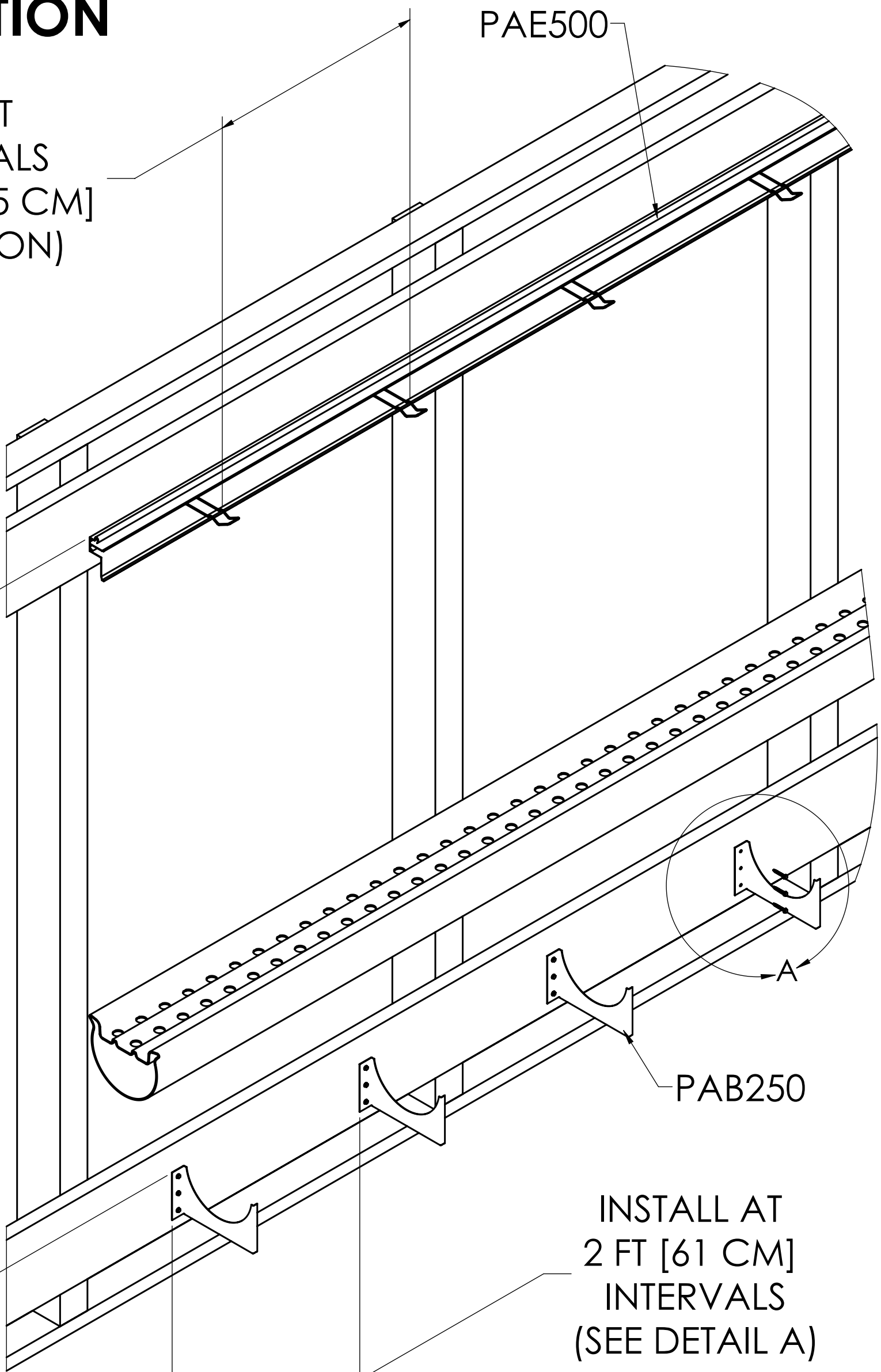


DETAIL A  
SCALE 1 : 4

INSTALL STAINLESS STEEL BRACKETS (PAB250)  
ALONG BOTTOM STRINGER USING (3) WOOD  
SCREWS (PAS250) PER BRACKET

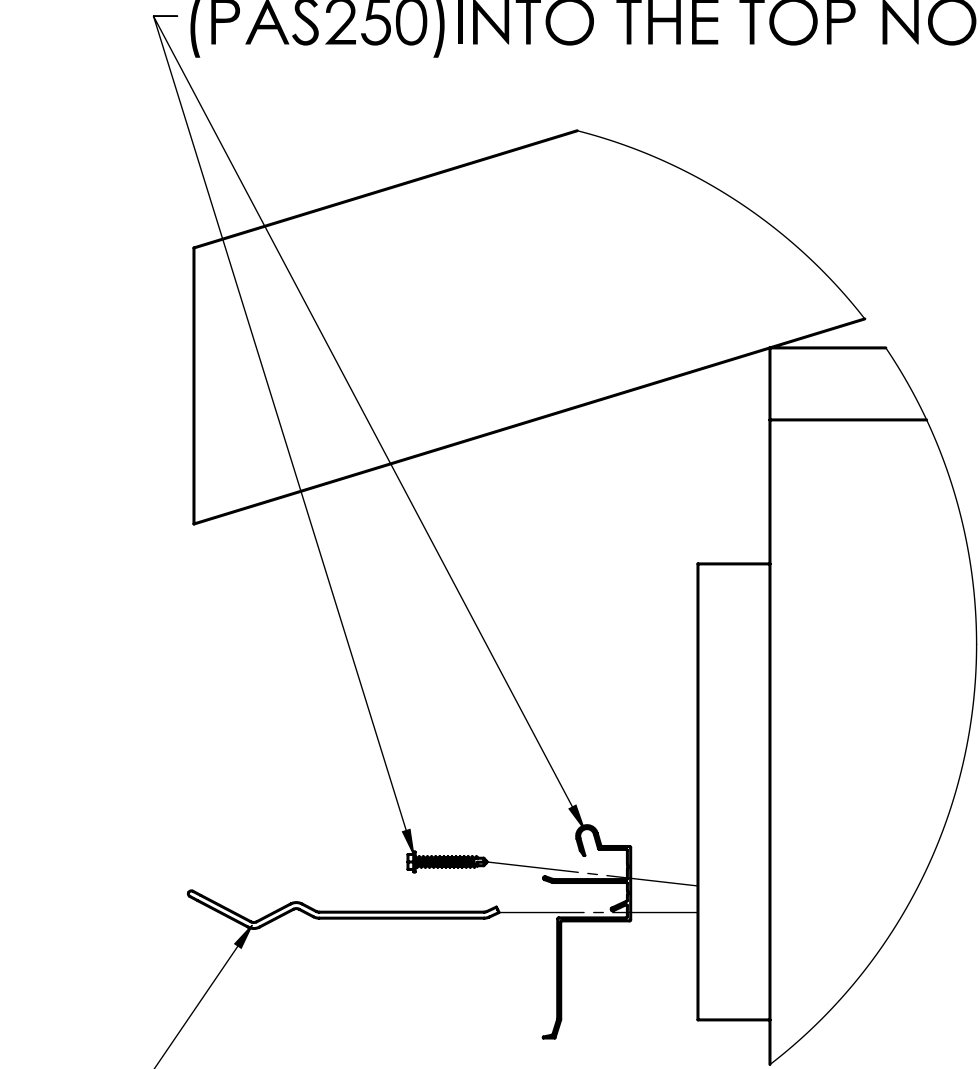
INSTALL PACROD  
BETWEEN TROUGH  
AND STRINGER TO  
SEAL OFF AIR GAPS

INSTALL TROUGH  
(PAP800WT) ONCE  
BRACKETS (PAB250)  
ARE MOUNTED



CLOSED TOP FLUSH MOUNT

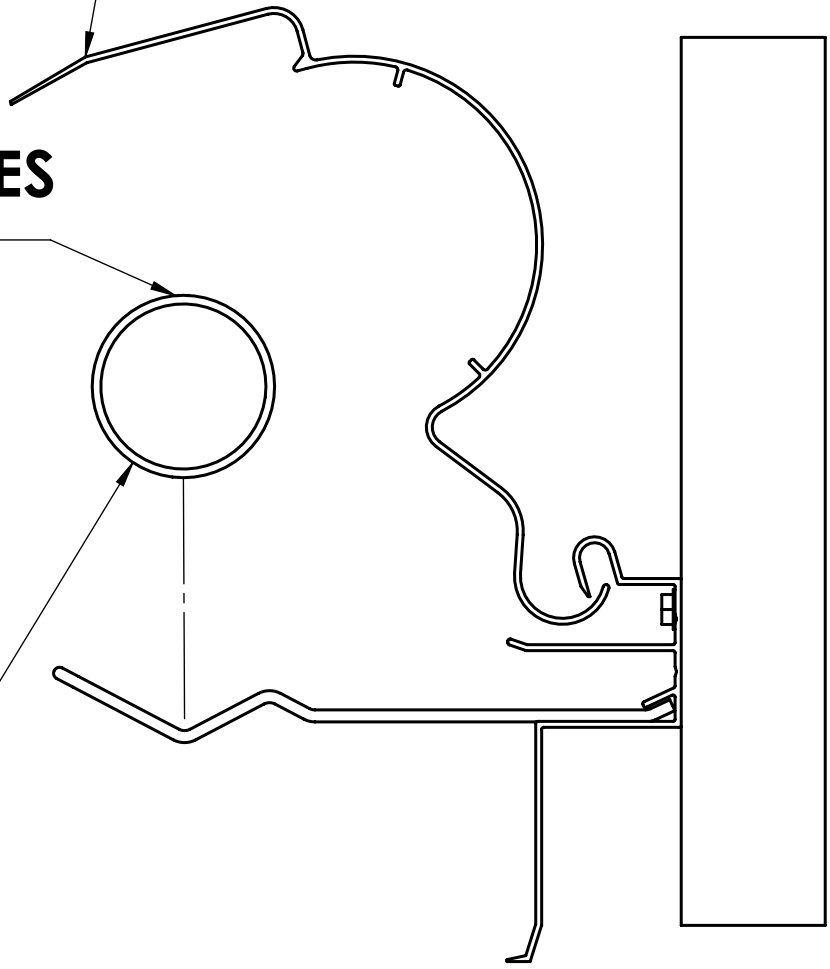
MOUNT ALUMINUM TOP EXTRUSION (PAE500)  
TO TOP STRINGER BY DRILLING WOOD SCREWS  
(PAS250) INTO THE TOP NOTCH AT 2FT (61 CM) INTERVALS



CLIP IN WIRE BRACKETS (PAB700) INTO  
TOP EXTRUSION (PAE500) AT 2 FT (61 CM) INTERVALS

INSTALL ALUMINUM  
COVER (813008)  
IN UPRIGHT POSITION

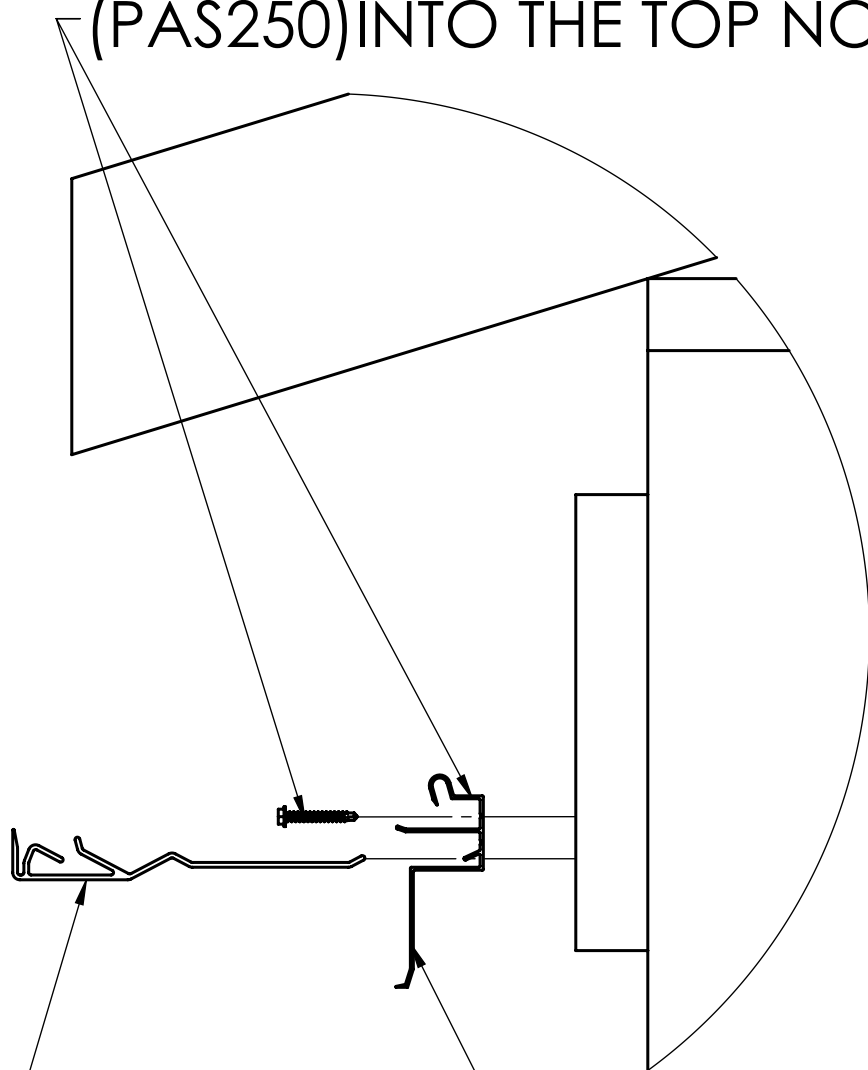
ORIENT HOLES  
UPWARDS



LOWER PVC DRILLED PIPE (PAP150DS)  
ONTO WIRE BRACKETS (PAB700)

OPEN TOP FLUSH MOUNT

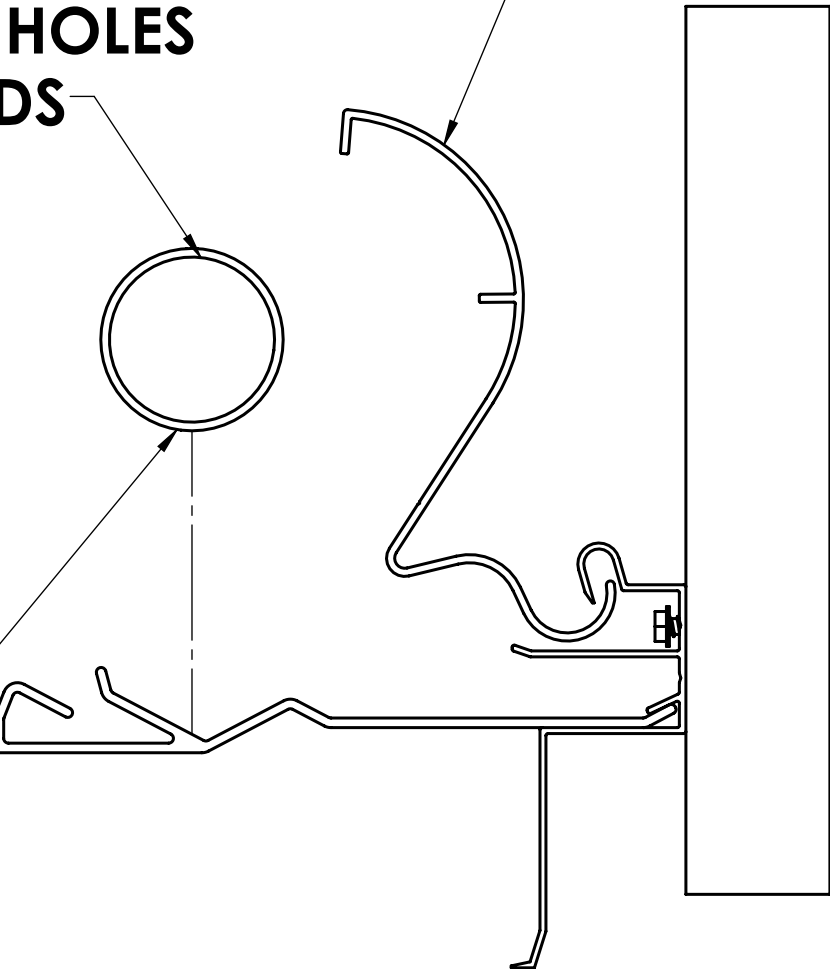
MOUNT ALUMINUM TOP EXTRUSION (PAE500)  
TO TOP STRINGER BY DRILLING WOOD SCREWS  
(PAS250) INTO THE TOP NOTCH AT 2FT INTERVALS



CLIP IN OPEN TOP BRACKET (PAC609) INTO  
TOP EXTRUSION (PAE500) AT 2 FT (61 CM) INTERVALS

INSTALL OPEN TOP ALUMINUM COVER  
(PAC607) IN UPRIGHT POSITION

ORIENT HOLES  
UPWARDS

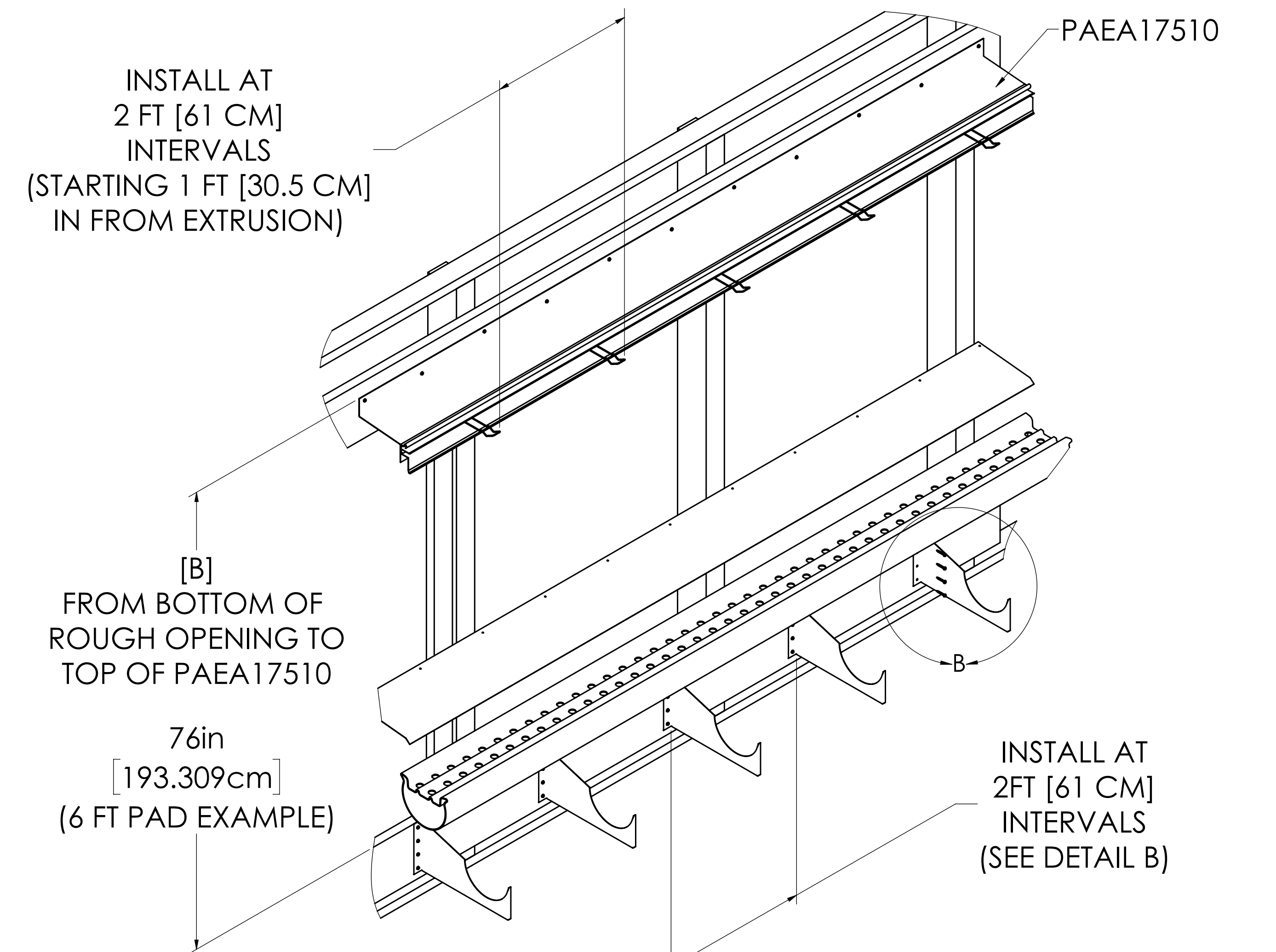


CLIP IN PAC608 TO  
HOLD PAD IN PLACE

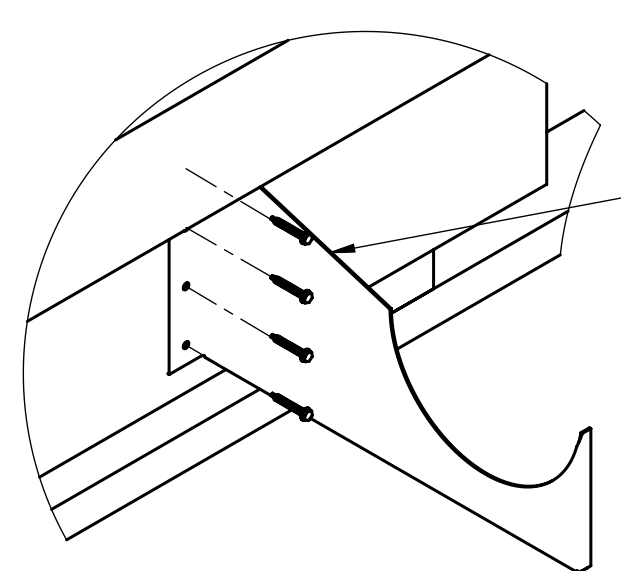
LOWER PVC DRILLED PIPE (PAP150DS)  
ONTO BRACKET OPEN TOP BRACKET



EXTENDED MOUNT BRACKET INSTALLTION



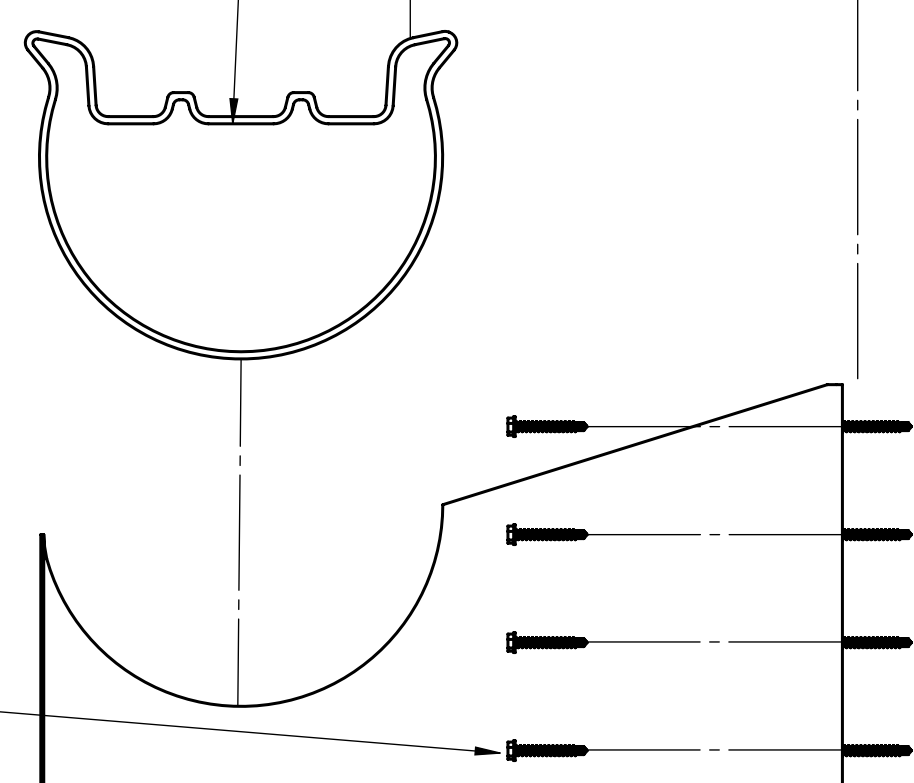
HEIGHT OF PAD	[B] DISTANCE FROM BOTTOM OF ROUGH OPENING TO TOP OF PAEA17510 (PAD HEIGHT + 4 IN [10.2 CM])
36 IN [91.44 CM]	41 IN [104.1 CM]
48 IN [121.9 CM]	53 IN [134.6 CM]
60 IN [152.4 CM]	65 IN [165.1 CM]
72 IN [182.8 CM]	76 IN [193.0 CM]
78.7 IN [200 CM]	82.7 IN [210.1 CM]



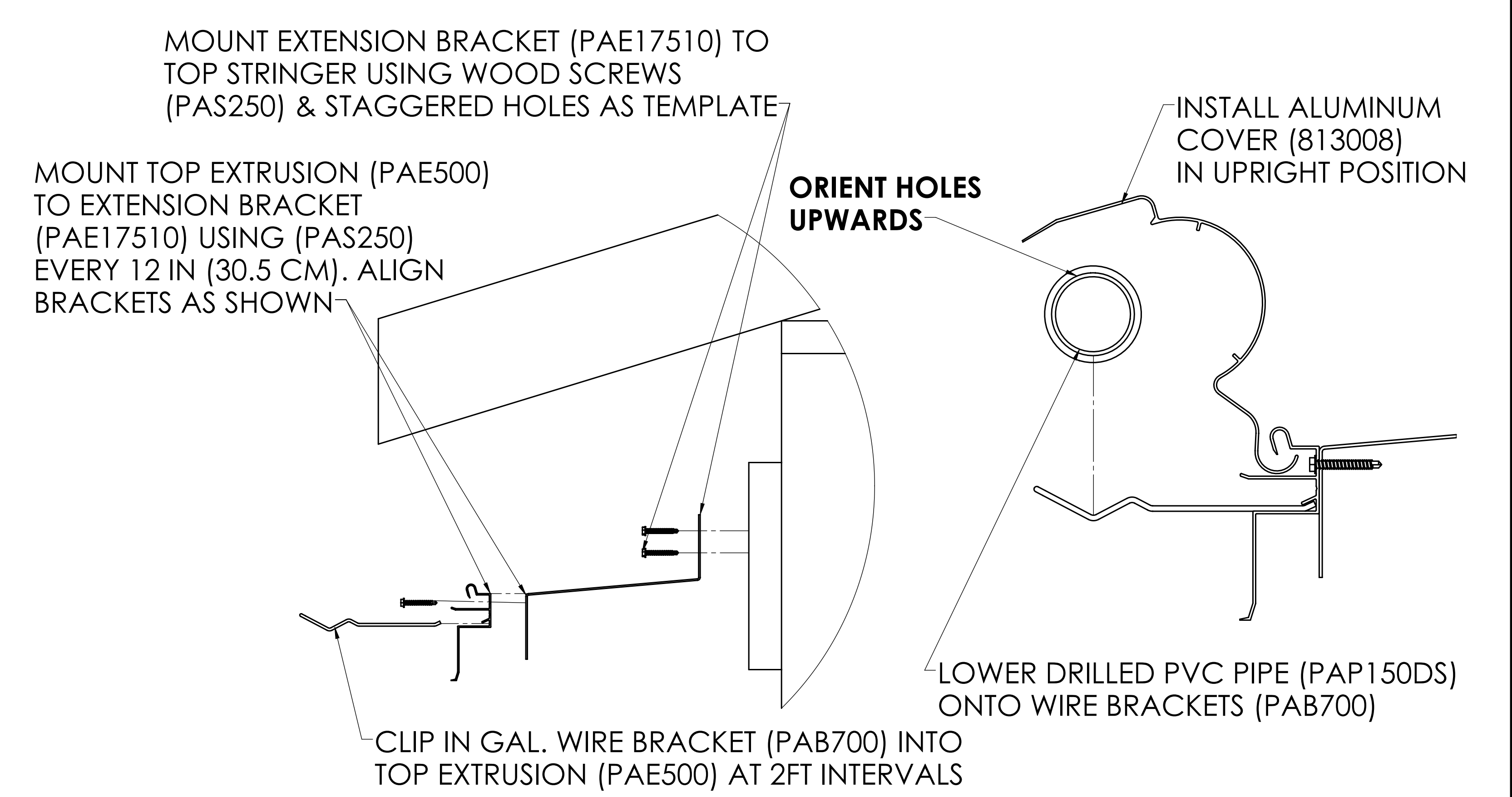
DETAIL B  
SCALE 1 : 6

INSTALL EXTENDED BRACKETS (PAB25010) WITH TOP OF BRACKET FLUSH WITH TOP OF BOTTOM STRINGER

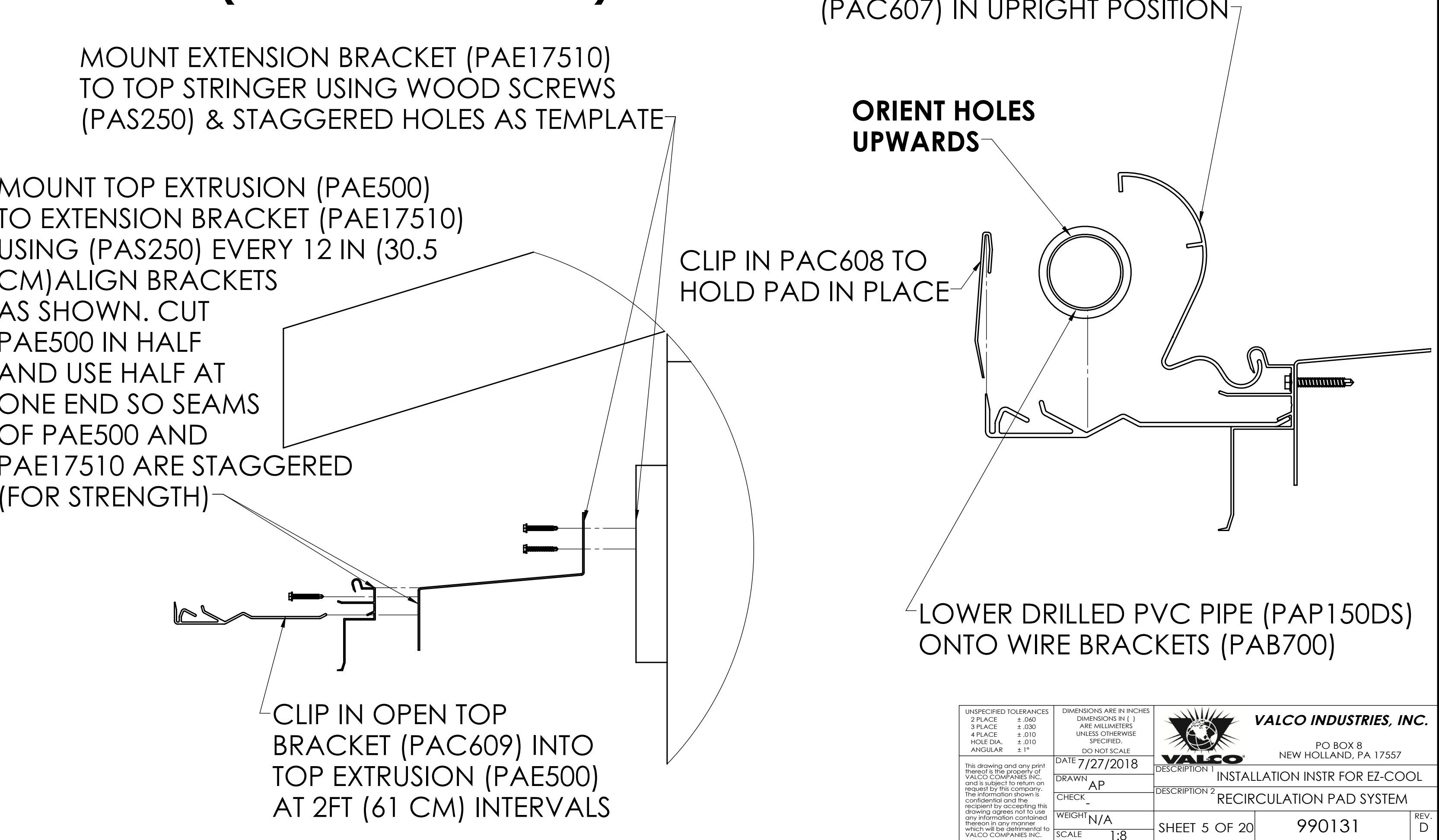
USE (4) WOOD SCREWS (PAS250) PER BRACKET



CLOSED TOP (EXTENDED MOUNT)



OPEN TOP (EXTENDED MOUNT)

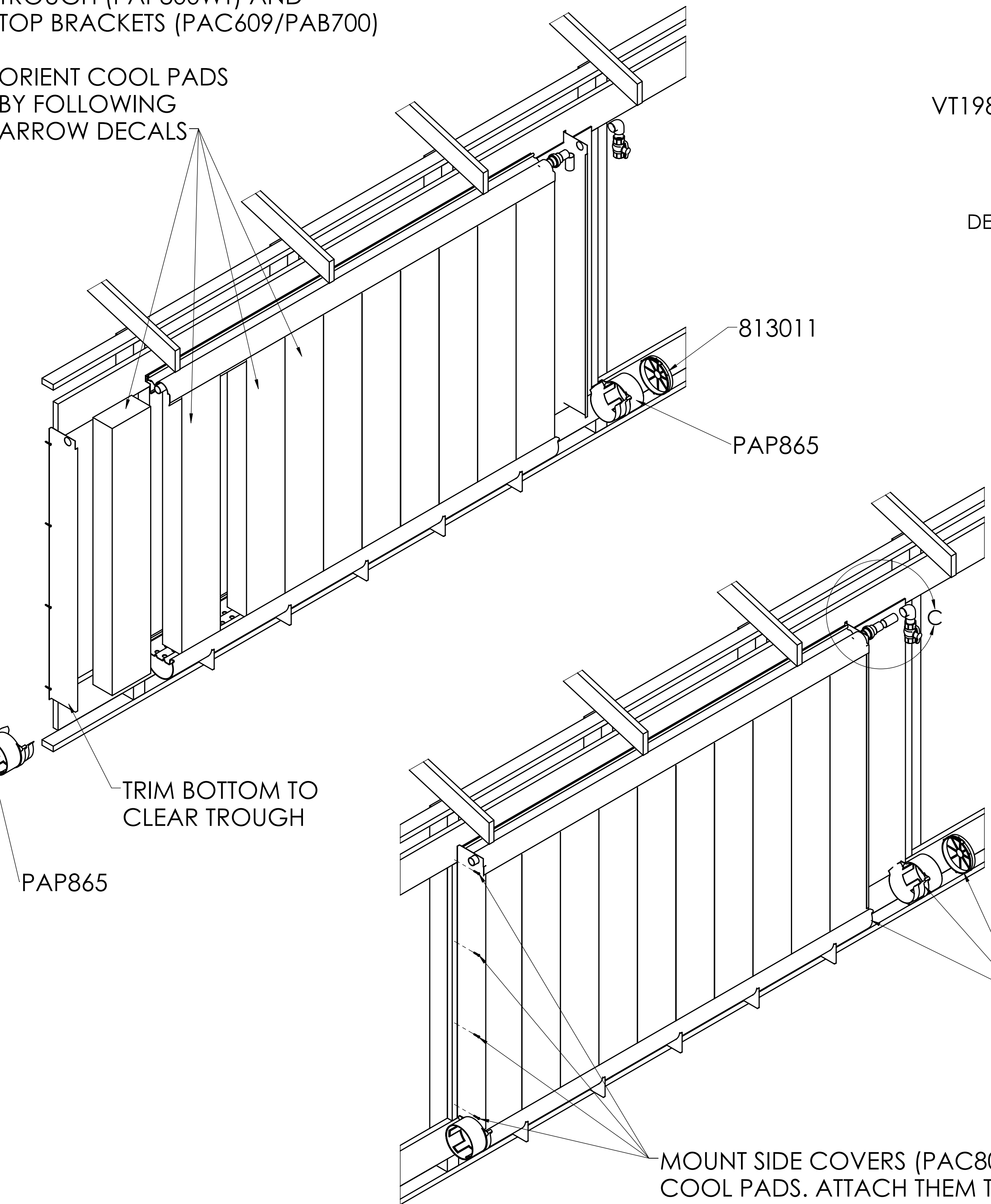




END FED HEADER KIT & COOL PADS (FLUSH MOUNT/EXTENDED MOUNT)

SLIDE COOLING PADS IN BETWEEN TROUGH (PAP800WT) AND TOP BRACKETS (PAC609/PAB700)

ORIENT COOL PADS BY FOLLOWING ARROW DECALS



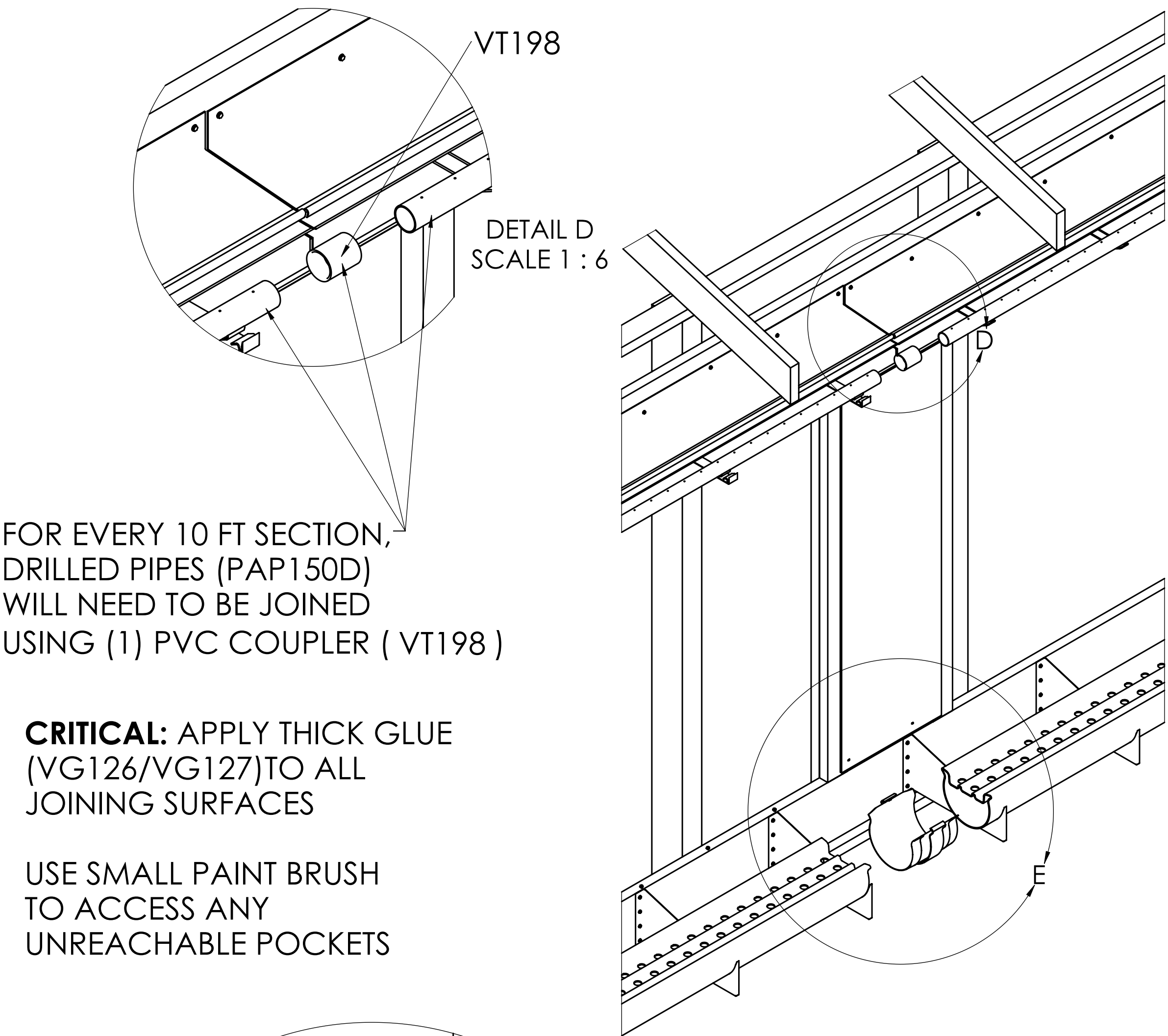
GLUE & SLIDE PIPE COUPLER (VT198) ONTO DRILLED PIPE (PAP150D) BEFORE INSTALLING SIDE COVERS (PAC800/PAC80010)

AFTER SIDE COVERS (PAC800/PAC80010/813026) ARE INSTALLED, USE 1 1/2" PIPE (VT194) TO CONNECT COUPLER (VT198) TO UNION (VX150), THEN UNION (VX150) TO ELBOW (VT200) & DRAIN VALVE( PABV15 ) TO ELBOW (VT200)

MOUNT SIDE COVERS (PAC800/PAC80010) FLUSH TO COOL PADS. ATTACH THEM TO THE WALL USING (4) WOOD SCREWS (PAS250) FOR EACH END

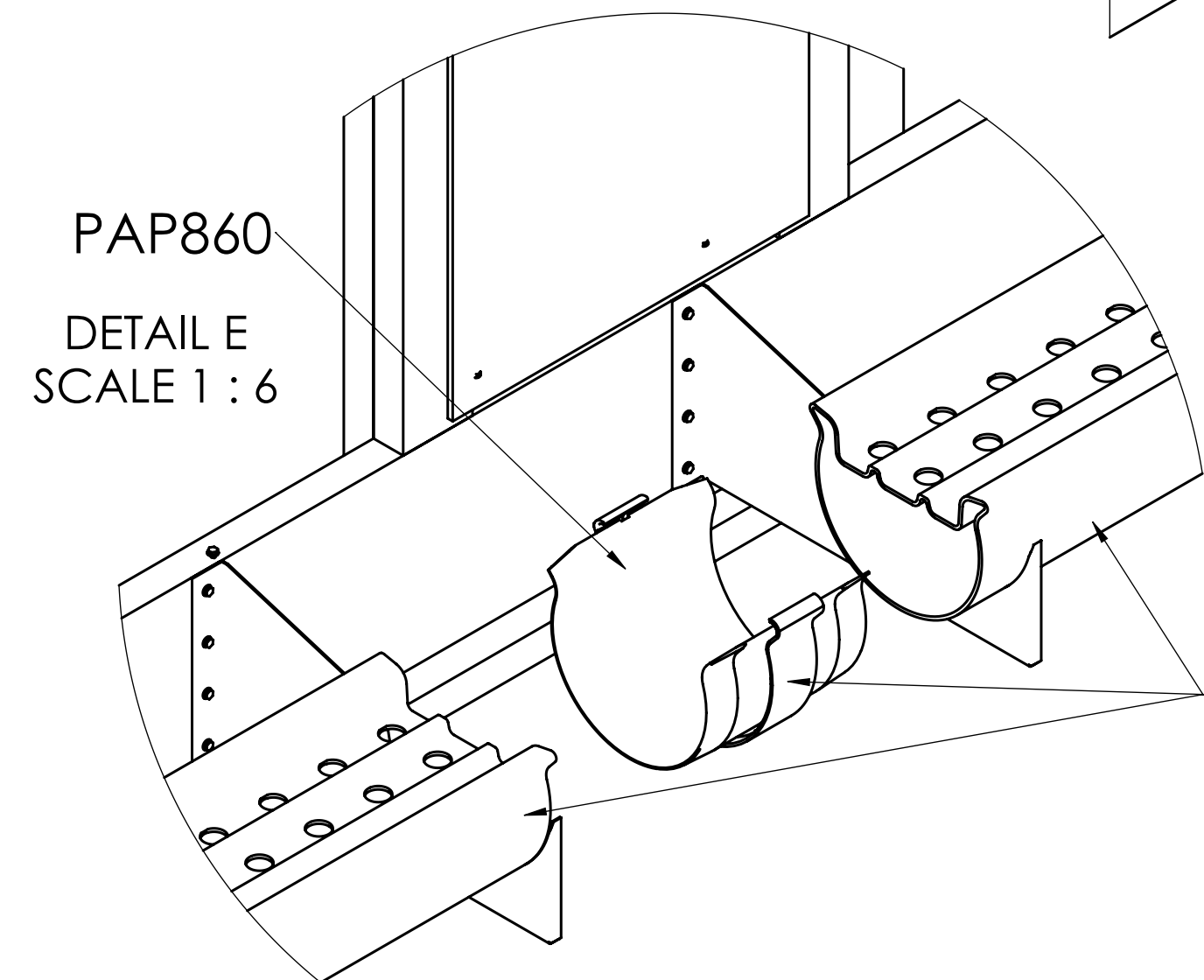
FIT END ADAPTER (PAP865) AND RUBBER CAP (813011) ONTO END OF THE SYSTEM

JOINING 10 FT SECTIONS



**CRITICAL:** APPLY THICK GLUE (VG126/VG127) TO ALL JOINING SURFACES

USE SMALL PAINT BRUSH TO ACCESS ANY UNREACHABLE POCKETS

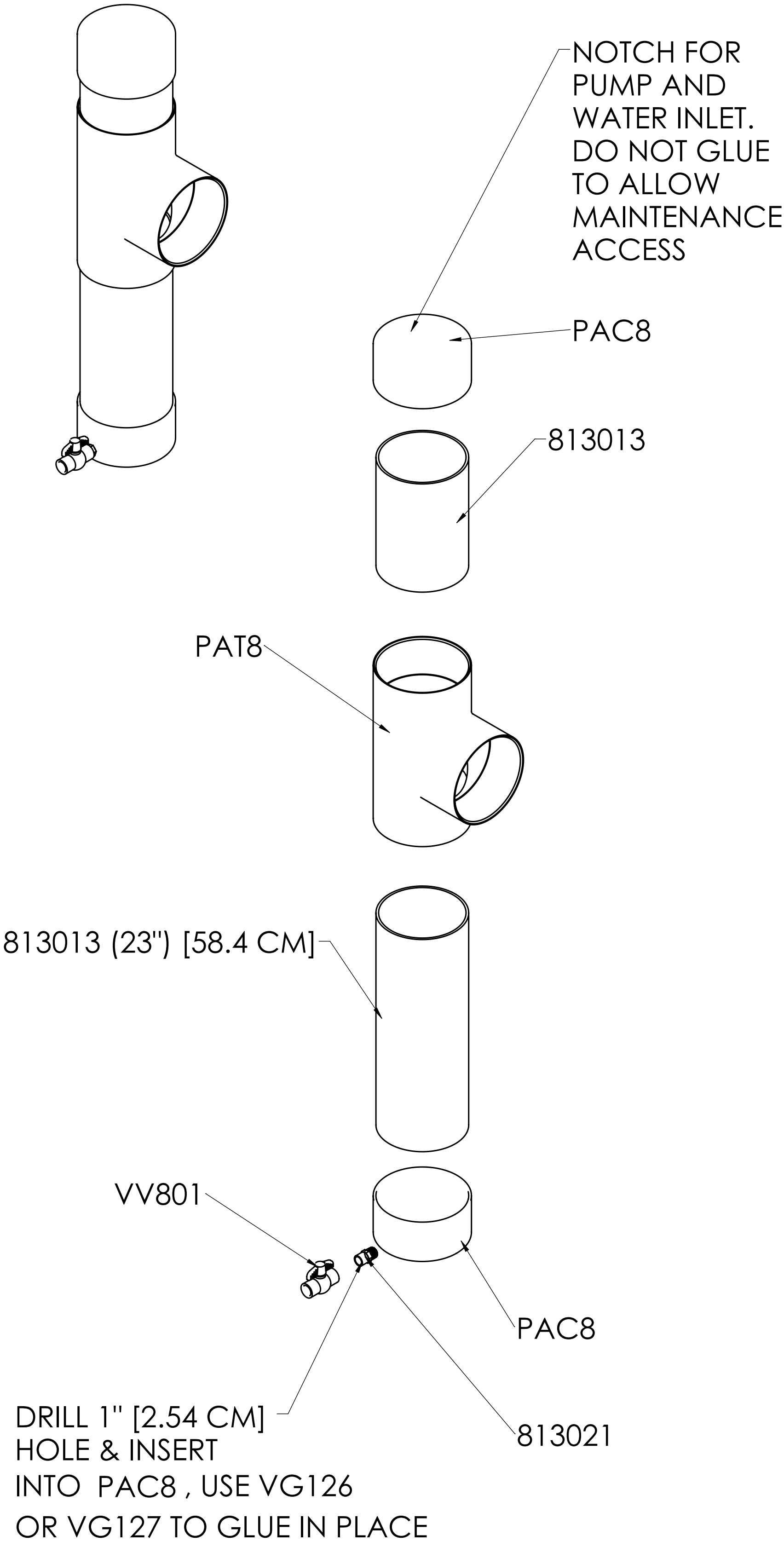


FOR EVERY 10 FT SECTION, TROUGHS (PAP800WT) WILL NEED TO BE JOINED TOGETHER USING (1) MOLDED COUPLER (PAP860)



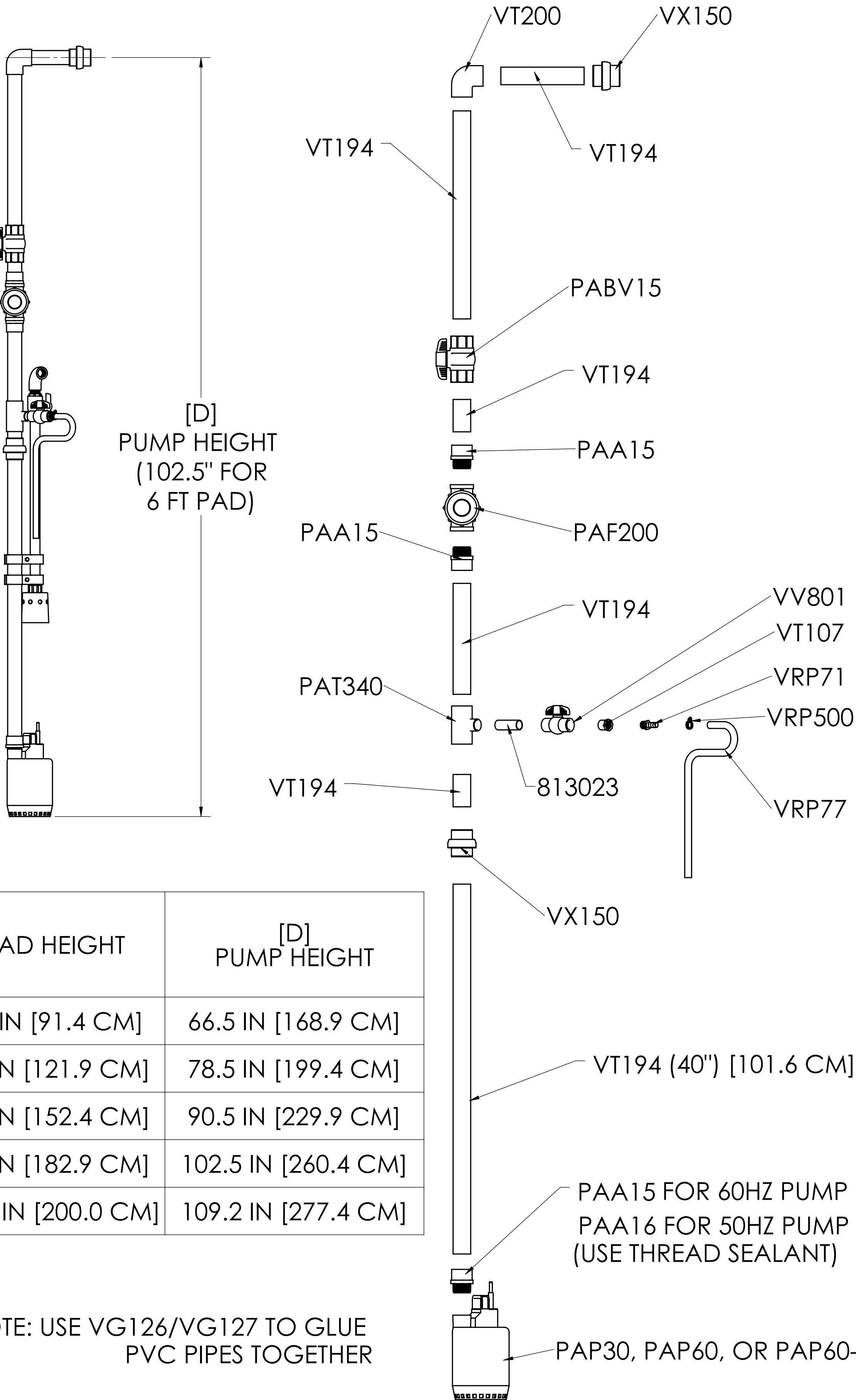
SUMP ASSEMBLY (END FED)

NOTE: USE VG126/VG127 TO GLUE  
PVC PIPES TOGETHER



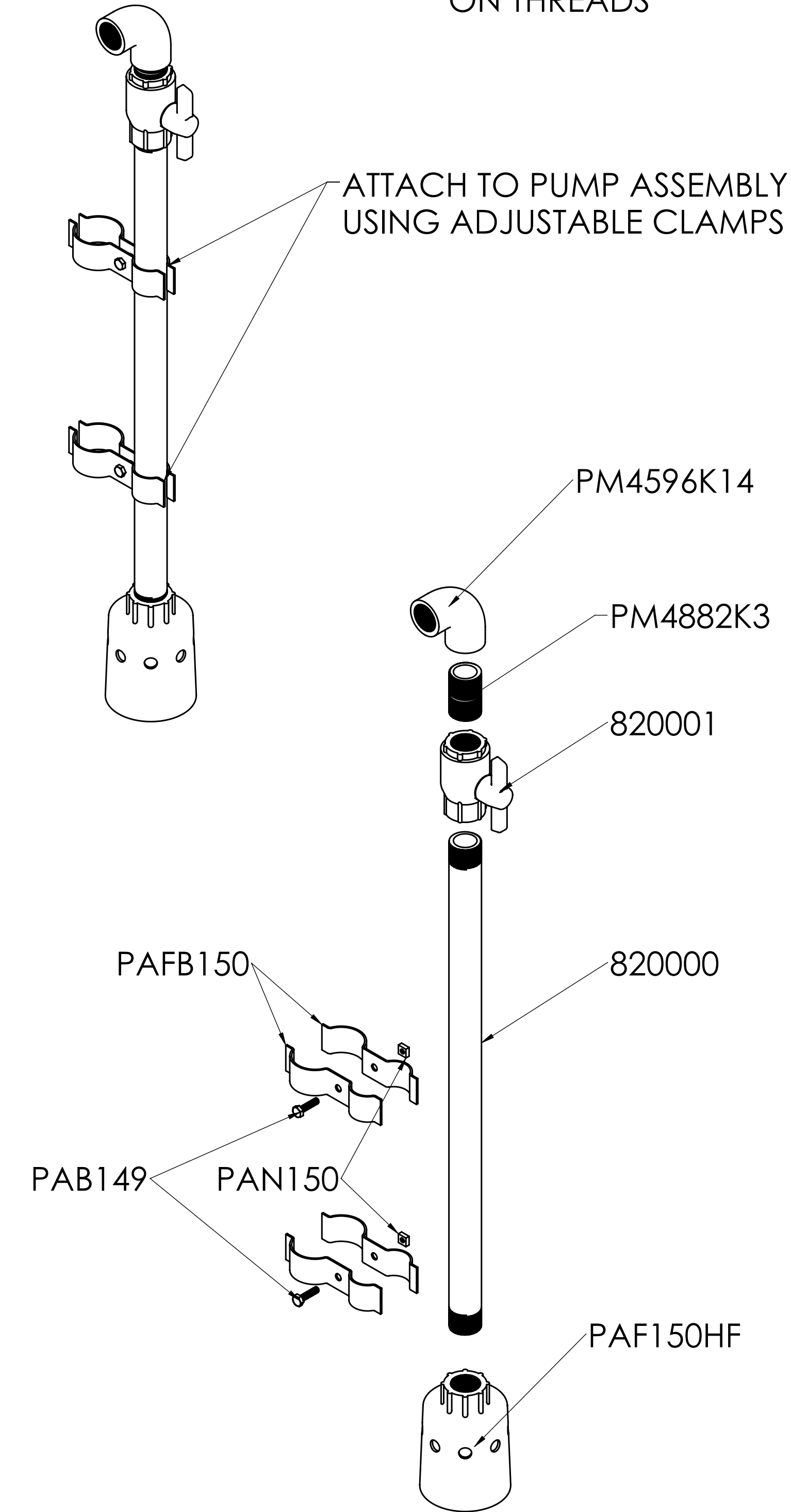
PUMP ASSEMBLY (END FED)

FOR 6 FT PAD SHOWN BELOW



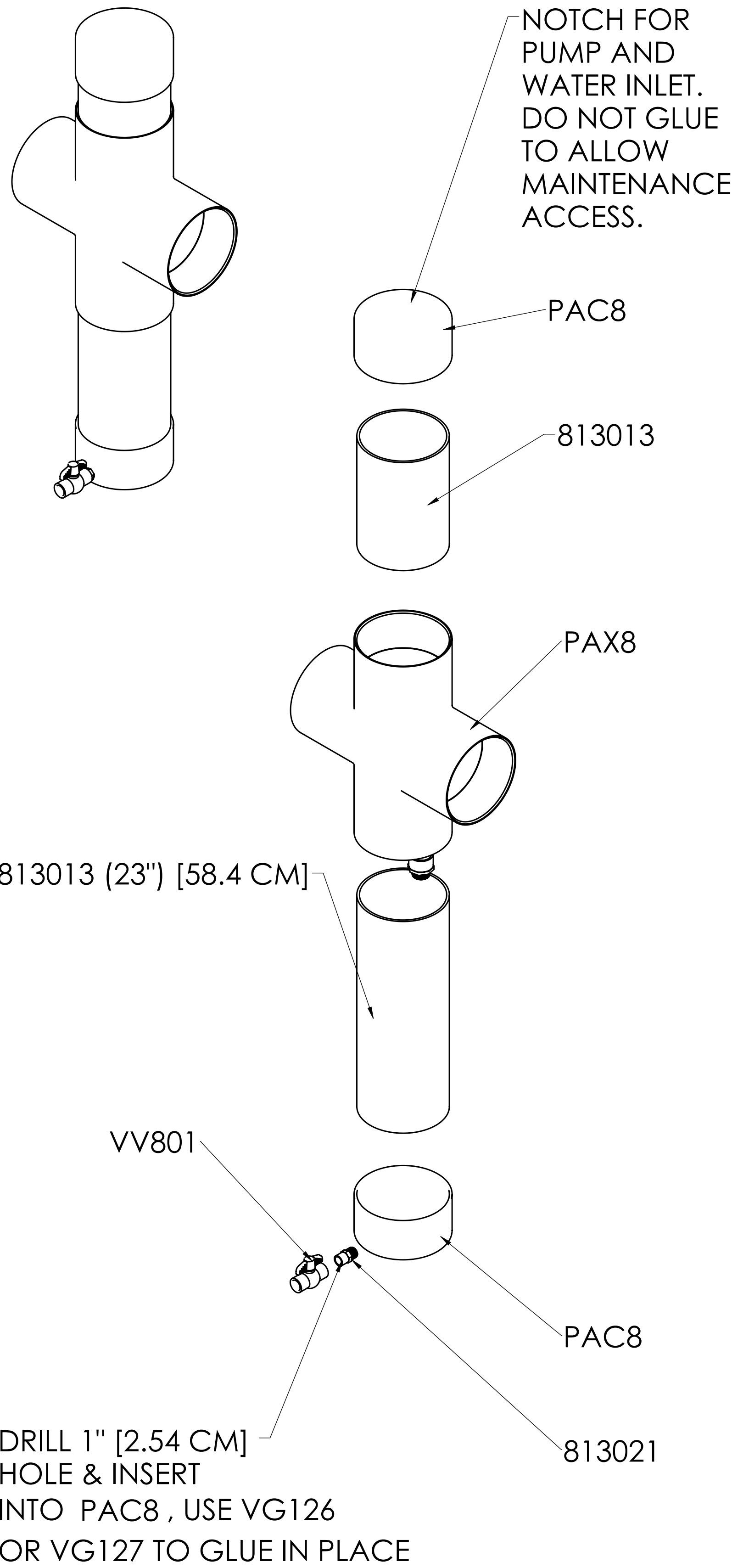
WATER INLET ASSEMBLY

NOTE: USE SEALANT  
ON THREADS



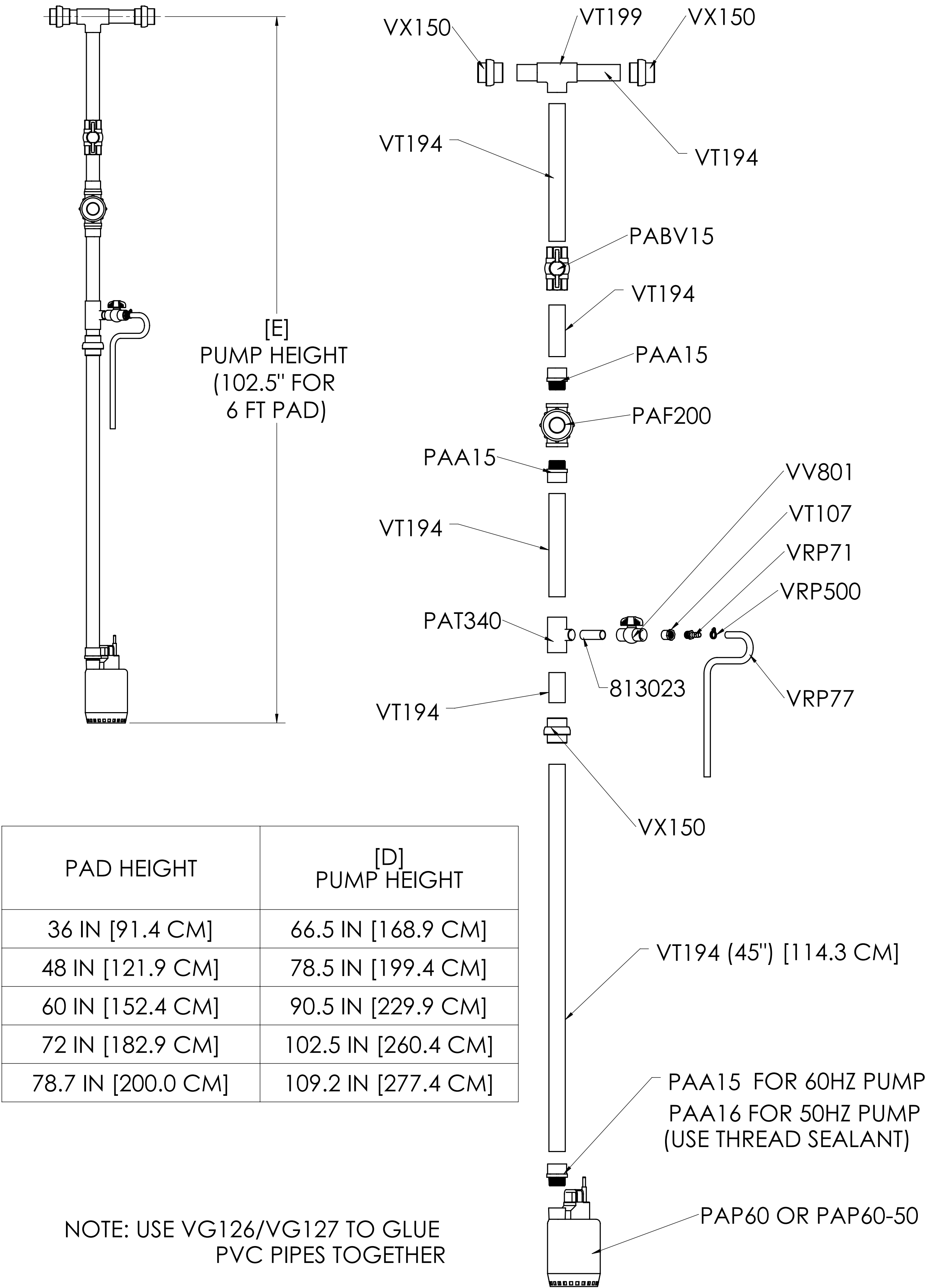
SUMP ASSEMBLY (CENTER FED)

NOTE: USE VG126/VG127 TO GLUE  
PVC PIPES TOGETHER



PUMP ASSEMBLY (CENTER FED)

FOR 6 FT PAD SHOWN BELOW

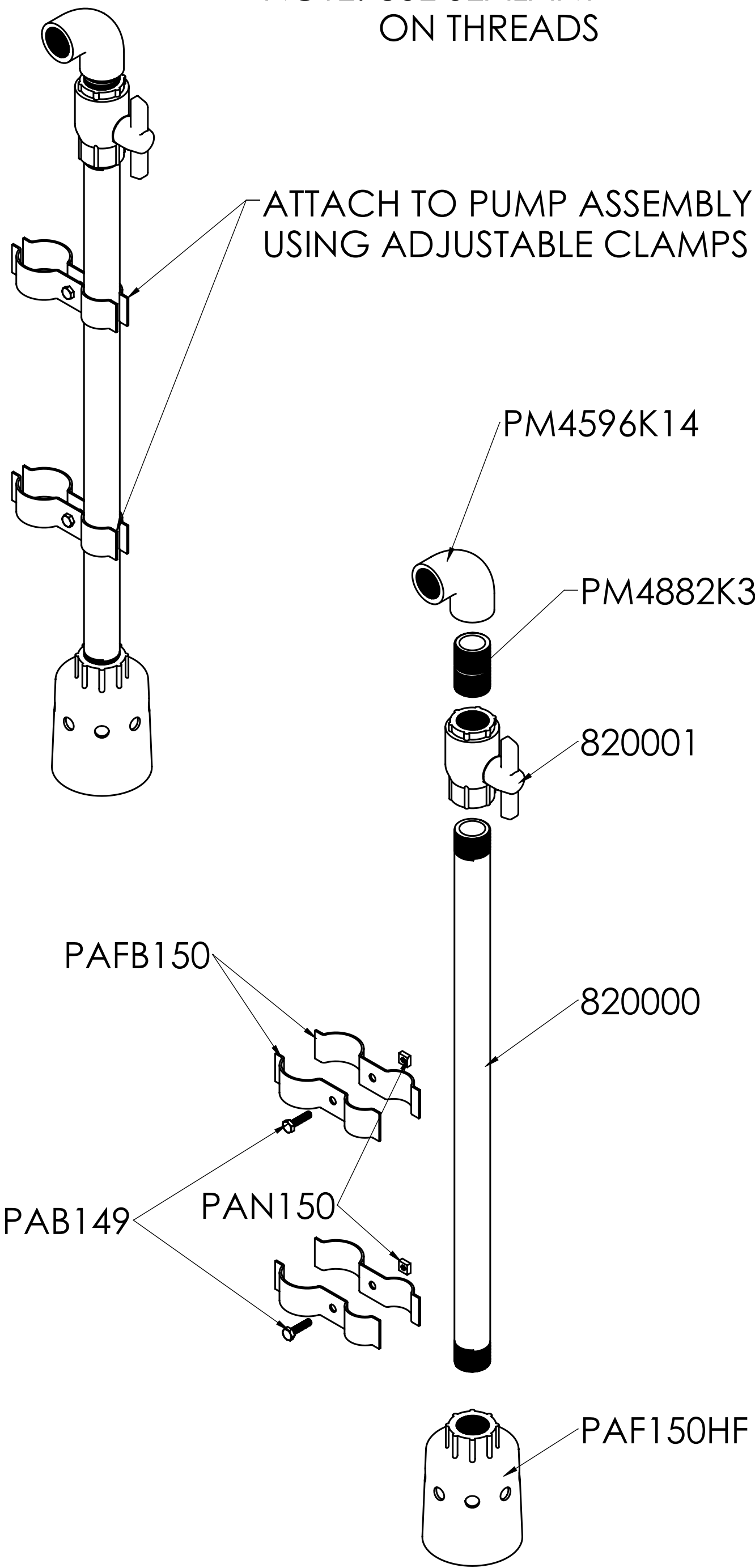


PAD HEIGHT	[D] PUMP HEIGHT
36 IN [91.4 CM]	66.5 IN [168.9 CM]
48 IN [121.9 CM]	78.5 IN [199.4 CM]
60 IN [152.4 CM]	90.5 IN [229.9 CM]
72 IN [182.9 CM]	102.5 IN [260.4 CM]
78.7 IN [200.0 CM]	109.2 IN [277.4 CM]

NOTE: USE VG126/VG127 TO GLUE  
PVC PIPES TOGETHER

WATER INLET ASSEMBLY

NOTE: USE SEALANT  
ON THREADS



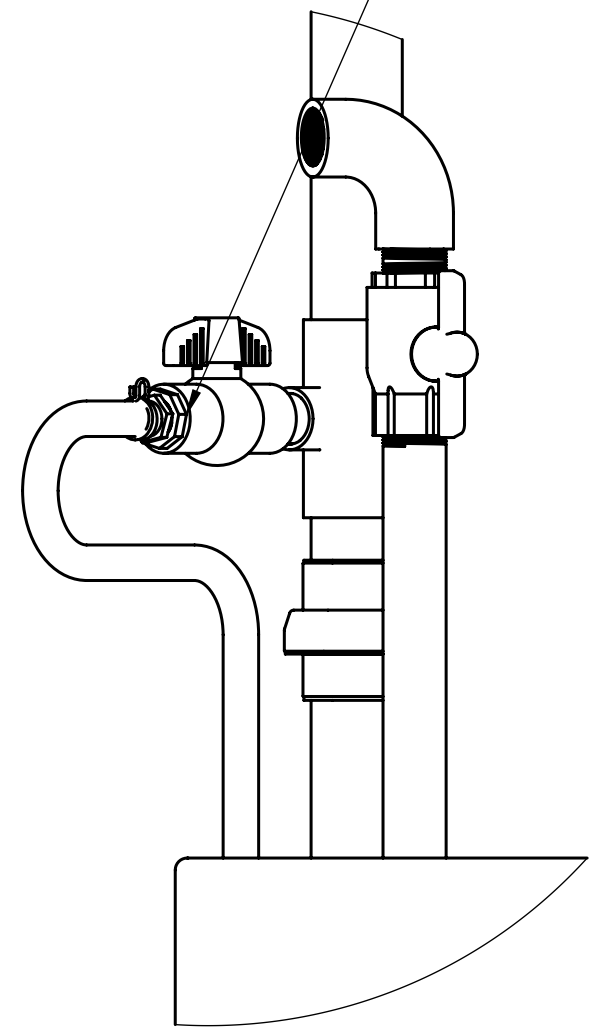


HEADER KIT ASSEMBLY (END FED & CENTER FED)

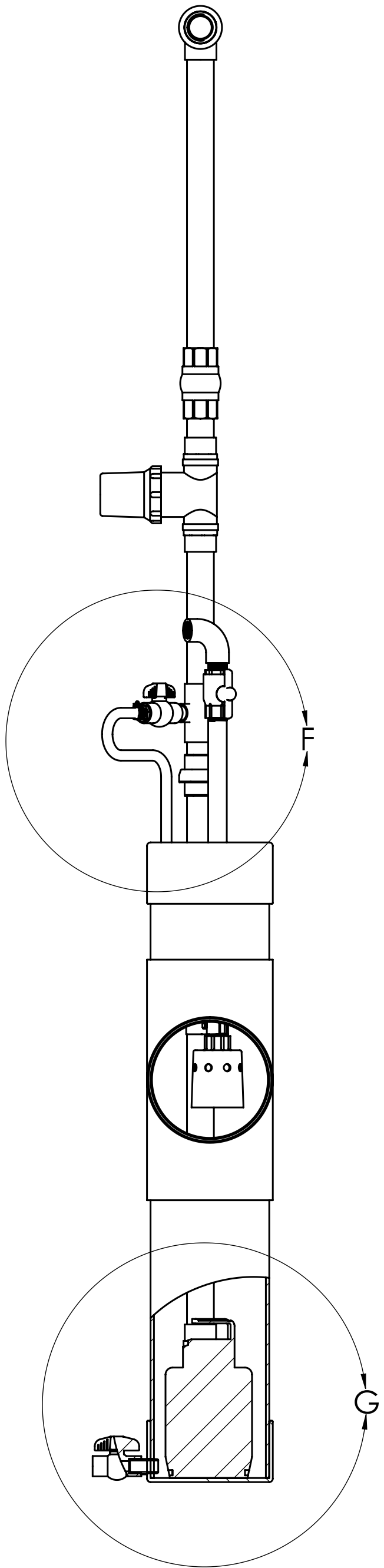
CREATE BYPASS SYSTEM BY RUNNING YELLOW HOSE BACK INTO SUMP ASSEMBLY.  
OPEN VALVE IF PUMP IS PROVIDING TOO MUCH WATER.

BY PULLING YELLOW HOSE OUT AND SHUTTING OFF TOP VALVE ( PABV15 ) AND WATER INLET,  
THE SYSTEM CAN BE DRAINED OF WATER WHILE PUMP IS RUNNING.

(NOTE: BOTTOM VALVE CAN ALSO BE USED TO DRAIN SYSTEM WITHOUT THE USE OF PUMP)

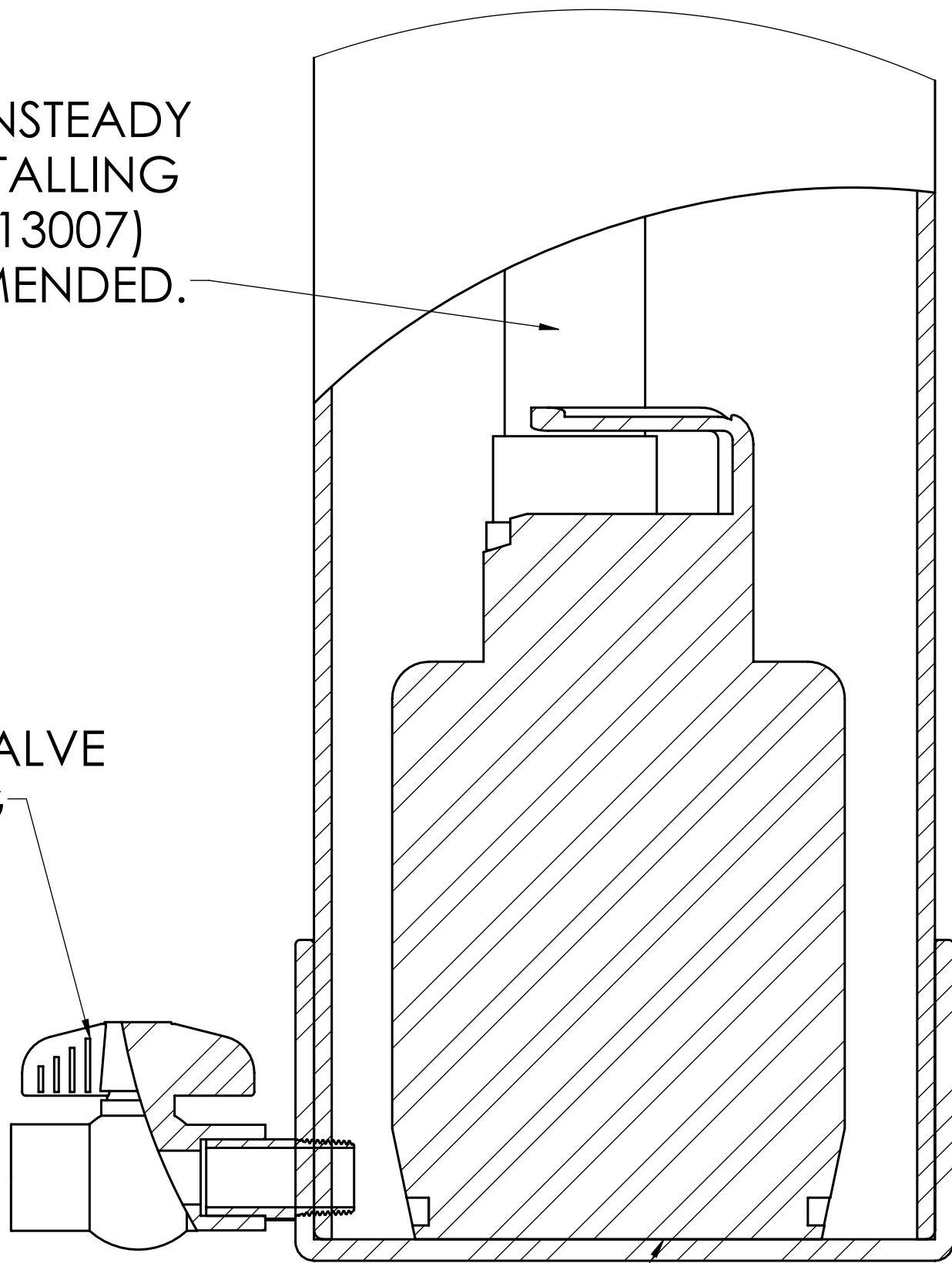


DETAIL F  
SCALE 1 : 4



FOR AREAS WITH UNSTEADY  
WATER SUPPLY, INSTALLING  
A FLOAT SWITCH (813007)  
IS HIGHLY RECOMMENDED.

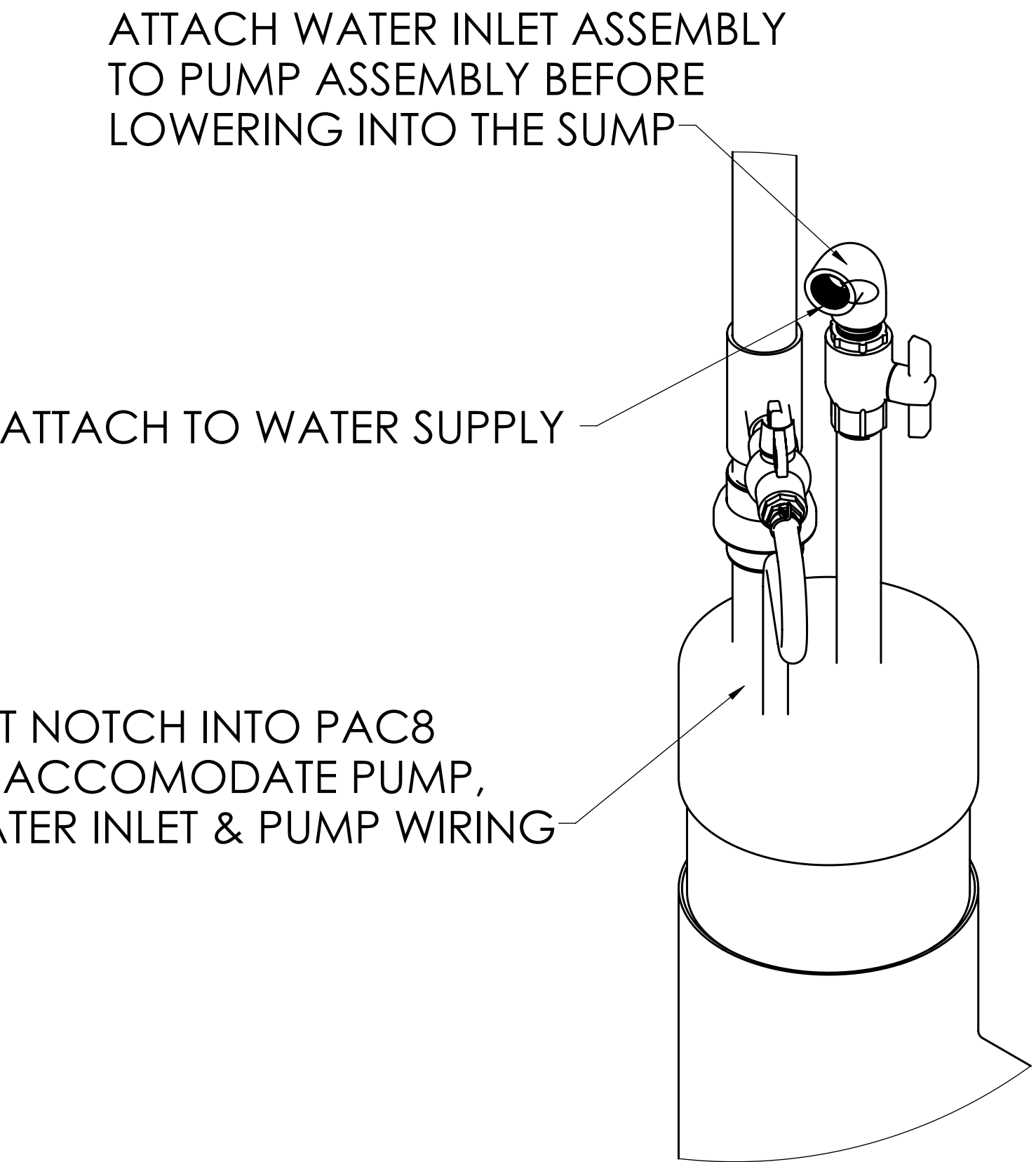
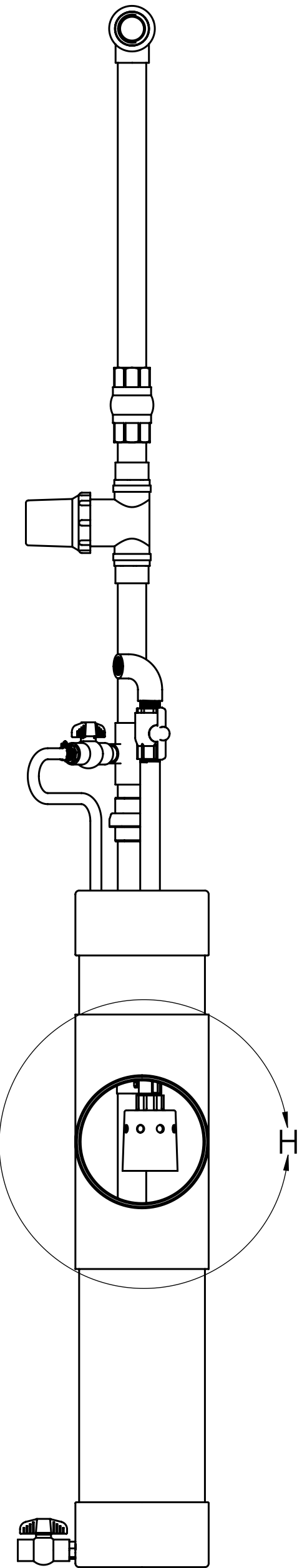
INSTALL DRAIN VALVE  
FOR WINTERIZING



DETAIL G  
SCALE 1 : 2

INSERT PUMP ASSEMBLY INTO SUMP CONTAINER

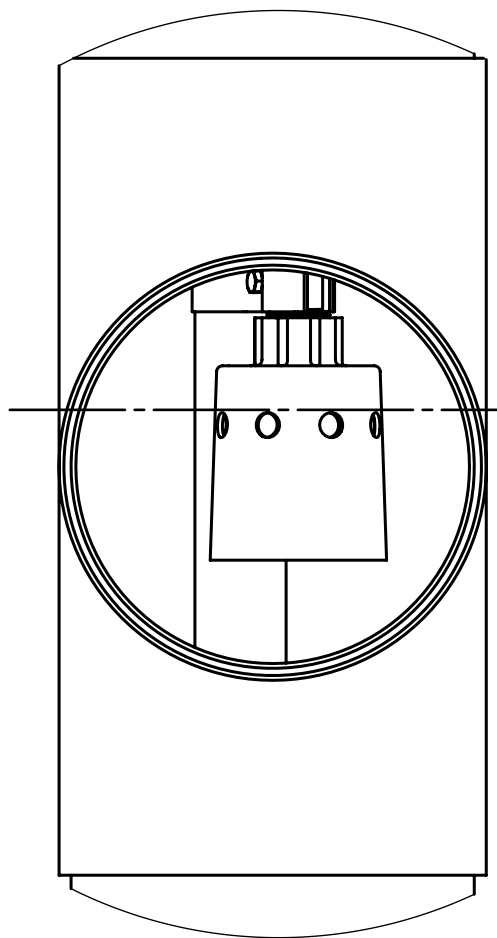
PUMP SHOULD BE SITTING ON THE FLOOR OF THE  
SUMP (PAC8) TO COLLECT ALL AVAILABLE WATER



ATTACH WATER INLET ASSEMBLY  
TO PUMP ASSEMBLY BEFORE  
LOWERING INTO THE SUMP

ATTACH TO WATER SUPPLY

CUT NOTCH INTO PAC8  
TO ACCOMODATE PUMP,  
WATER INLET & PUMP WIRING



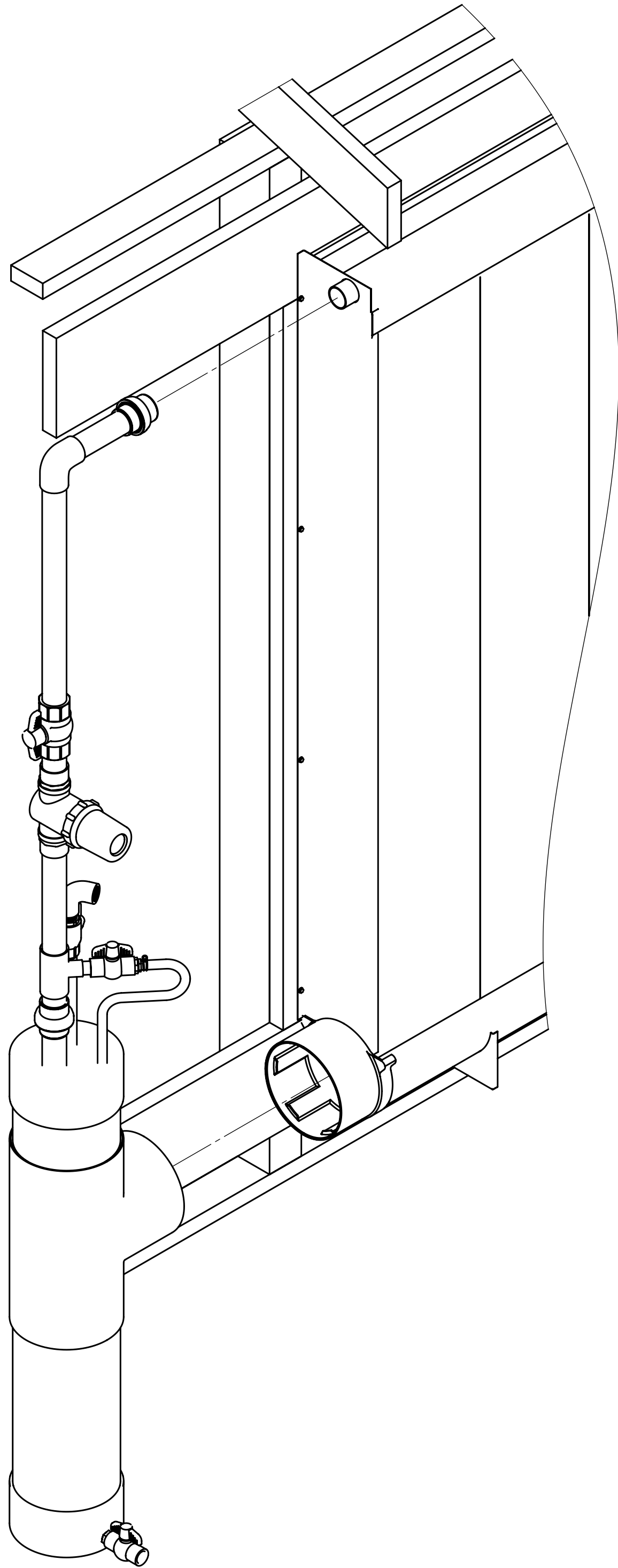
SITUATE FLOAT VALVE ORIFICES  
BELOW WHERE COOLING PAD  
SITS ON THE TROUGH

THIS WILL PREVENT WATER RESERVE  
FROM WATERLOGGING  
THE COOL PADS

DETAIL H  
SCALE 1 : 4

END FED HEADER KIT INSTALLATION

PROCESS IDENTICAL FOR  
(FLUSH MOUNT / EXTENDED MOUNT)

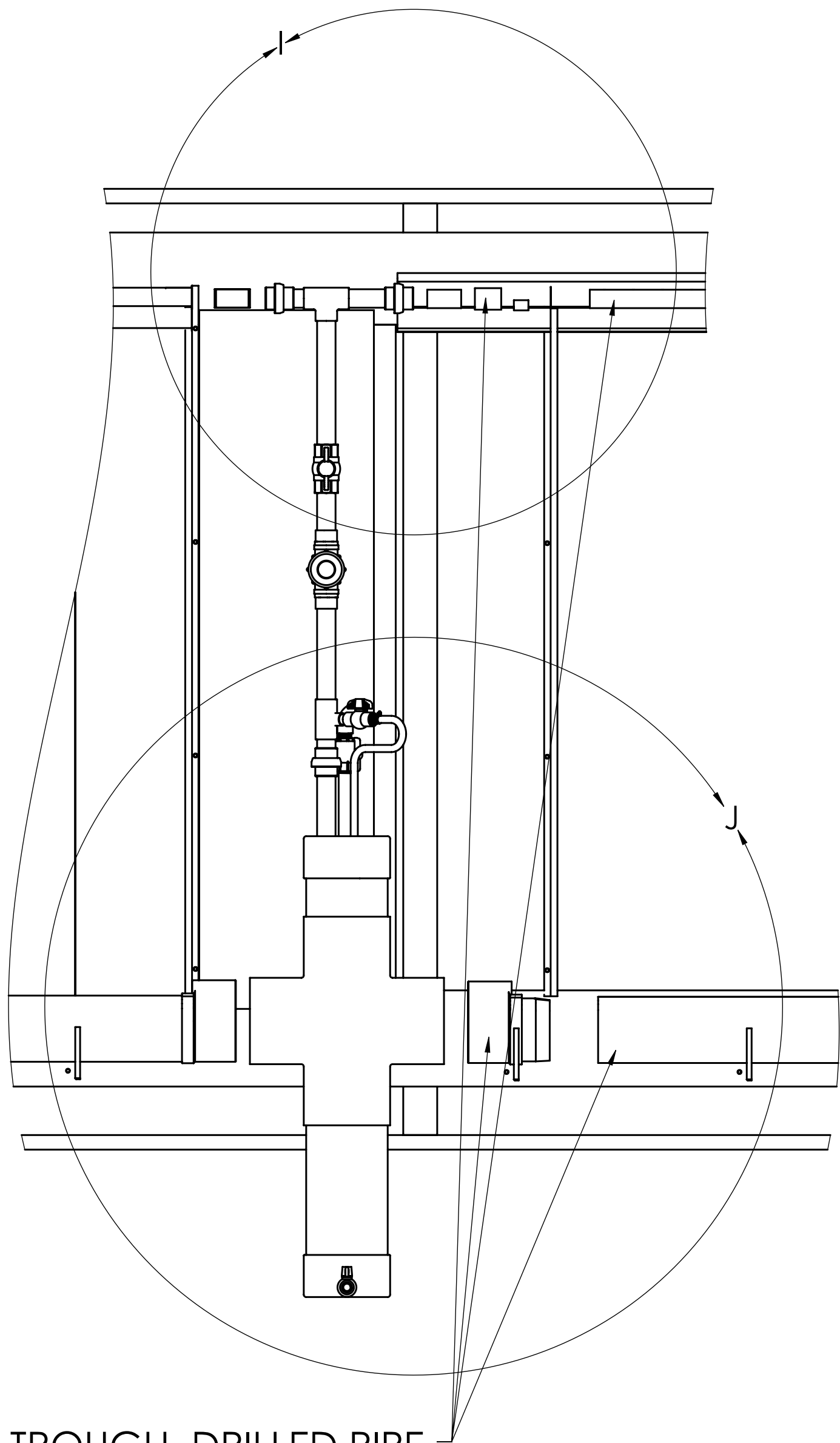


ONCE SIDE COVERS (PAC800/PAC80010/813026)  
ARE INSTALLED, SLIDE END FED HEADER KIT  
OVER TROUGH END ADAPTER (PAP865)  
AND INTO DRILLED PIPE (PAP150DS)

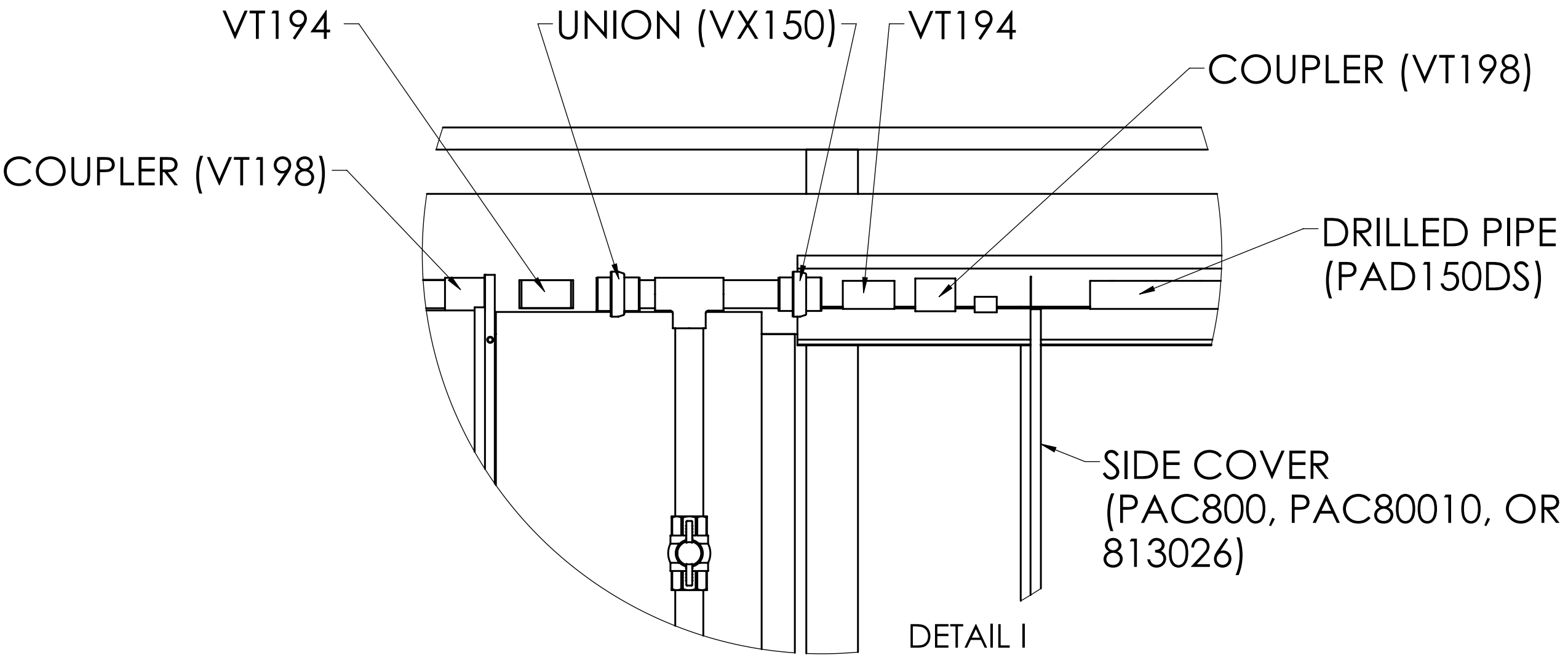
CENTER FED HEADER KIT INSTALLATION

PROCESS IDENTICAL FOR  
(FLUSH MOUNT / EXTENDED MOUNT)

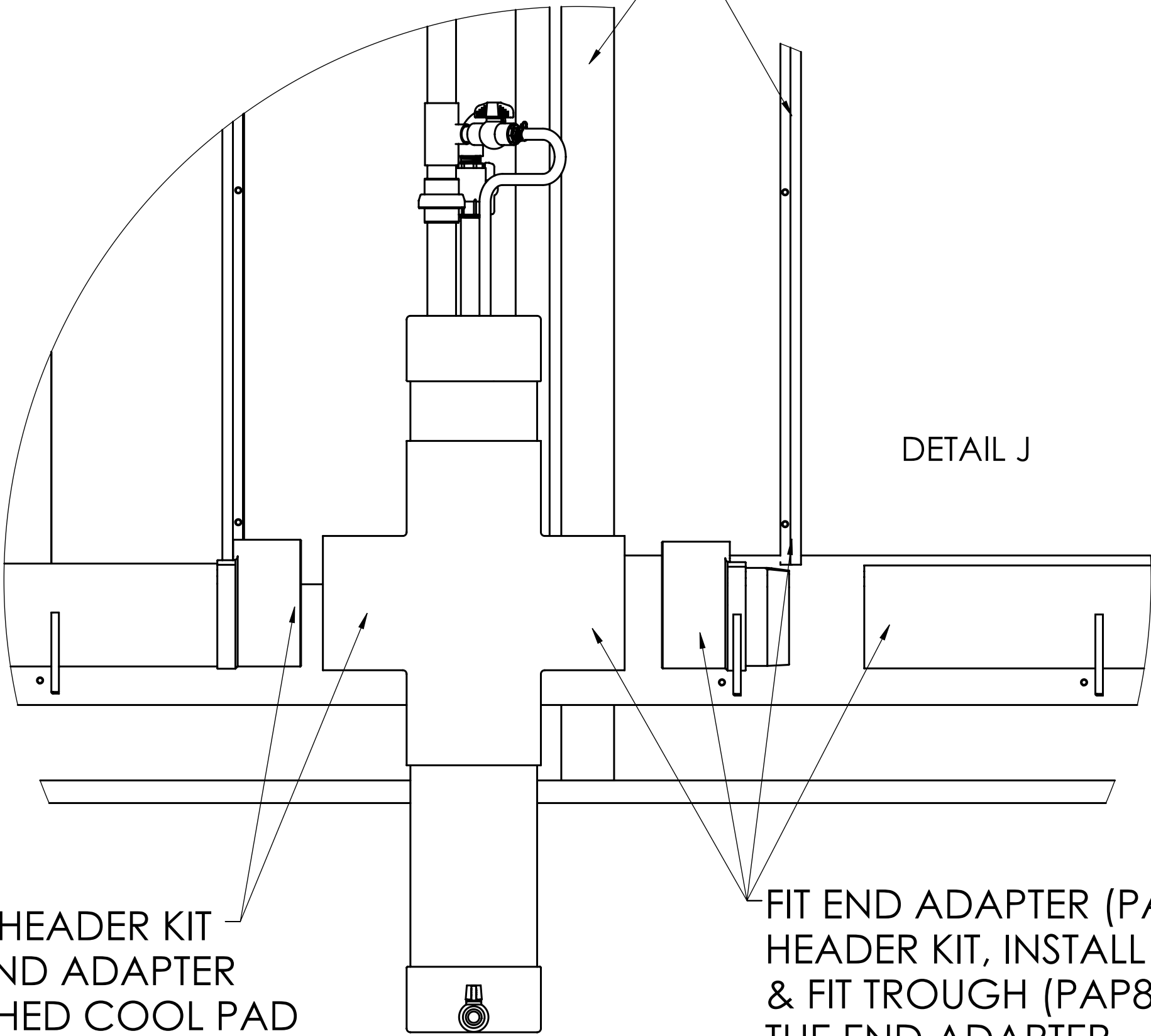
NOTE: WHEN INSTALLING A CENTER FED  
SYSTEM, FINISH ASSEMBLING ONE SIDE OF  
THE COOLING PAD ARRAY AND LEAVE THE  
OTHER SIDE EQUIPPED WITH BRACKETS.  
TROUGHS AND DRILLED PIPES ONLY.  
(AS ILLUSTRATED IN PAGE 2 & 3)



SLIDE TROUGH, DRILLED PIPE  
AND COUPLERS AWAY FROM  
FINISHED COOL PAD ARRAY  
TO MAKE ROOM FOR  
CENTER FED HEADER KIT



MOUNT SIDE COVER (PAC800/PAC80010/813026)  
ONTO WALL ADJACENT TO HEADER KIT.



MOUNT HEADER KIT  
ONTO END ADAPTER  
OF FINISHED COOL PAD

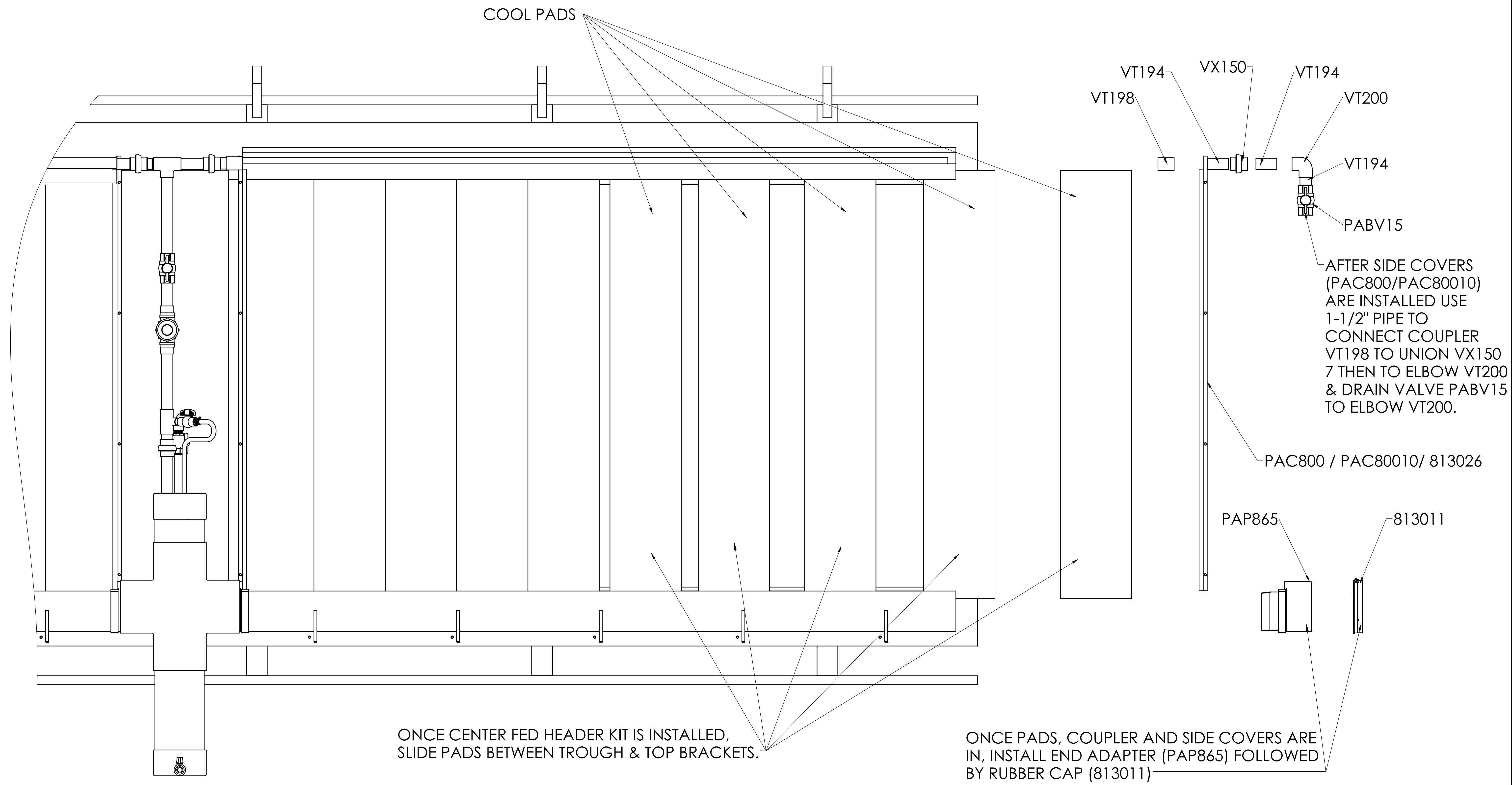
FIT END ADAPTER (PAP865) INTO  
HEADER KIT, INSTALL SIDE COVER  
& FIT TROUGH (PAP800WT) OVER  
THE END ADAPTER

NOTE: USE THICK GLUE (VG126 OR VG127)  
WHEN JOINING PVC PIPES

UNSPECIFIED TOLERANCES		DIMENSIONS ARE IN INCHES		VALCO INDUSTRIES, INC.	
2 PLACE	±.060	2 PLACE	±.060	PO BOX 8	NEW HOLLAND, PA 17557
3 PLACE	±.030	3 PLACE	±.030	DESCRIPTION 1	INSTALLATION INSTR FOR EZ-COOL
4 PLACE	±.010	4 PLACE	±.010	CHECK	RECIRCULATION PAD SYSTEM
HOLE DIA	±.010	HOLE DIA	±.010	WEIGHT	N/A
ANGULAR	±1°	ANGULAR	±1°	SCALE	1:8
This drawing and any part thereof is the property of VALCO COMPANIES INC. and is subject to return or request by this company. The information herein is confidential and the recipient by accepting this drawing agrees not to use any information contained herein in any manner which will be detrimental to VALCO COMPANIES INC.		DATE 7/27/2018		DRAWN AP	
		CHECK -		SHEET 10 OF 20	
				990131	
				REV. D	

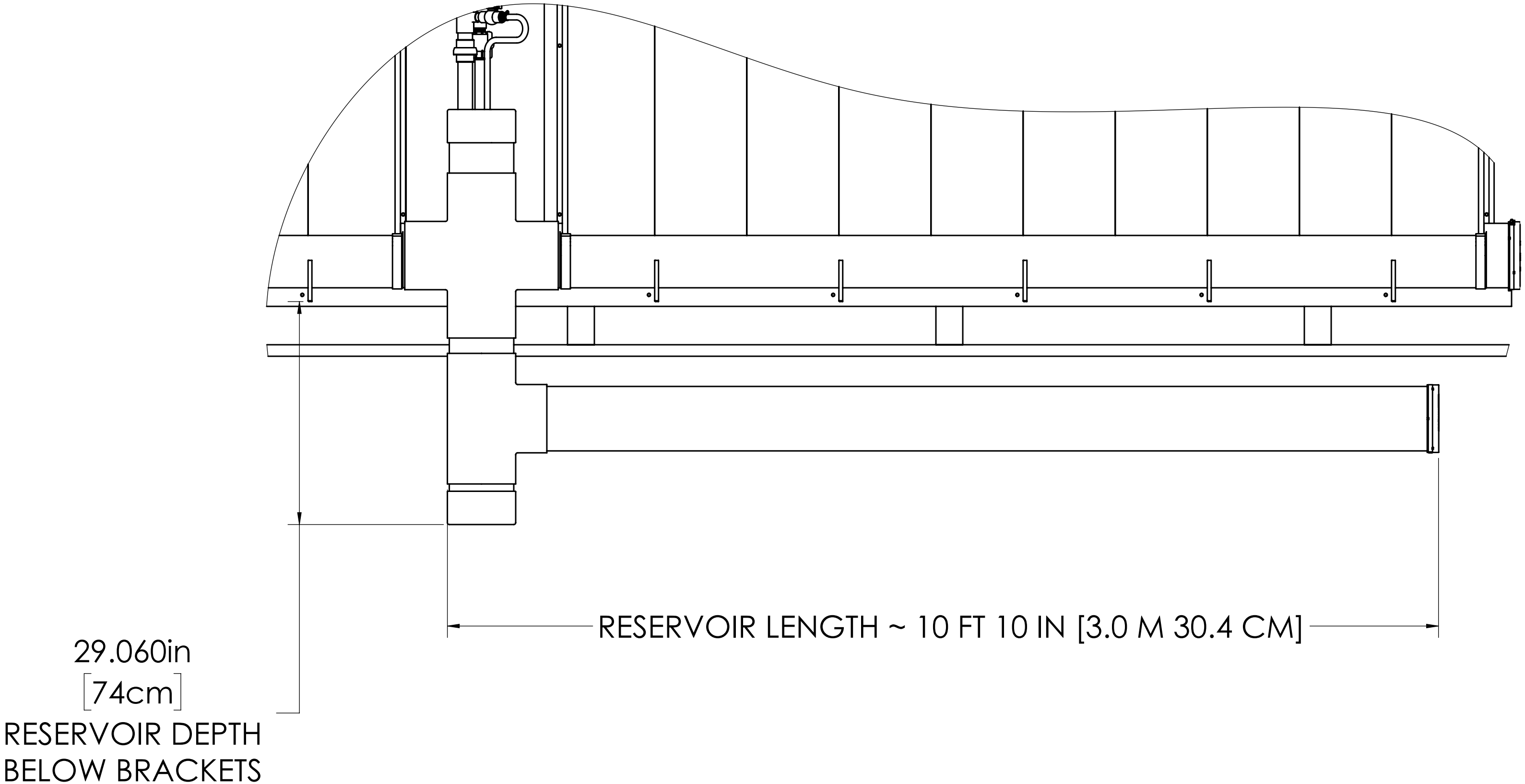
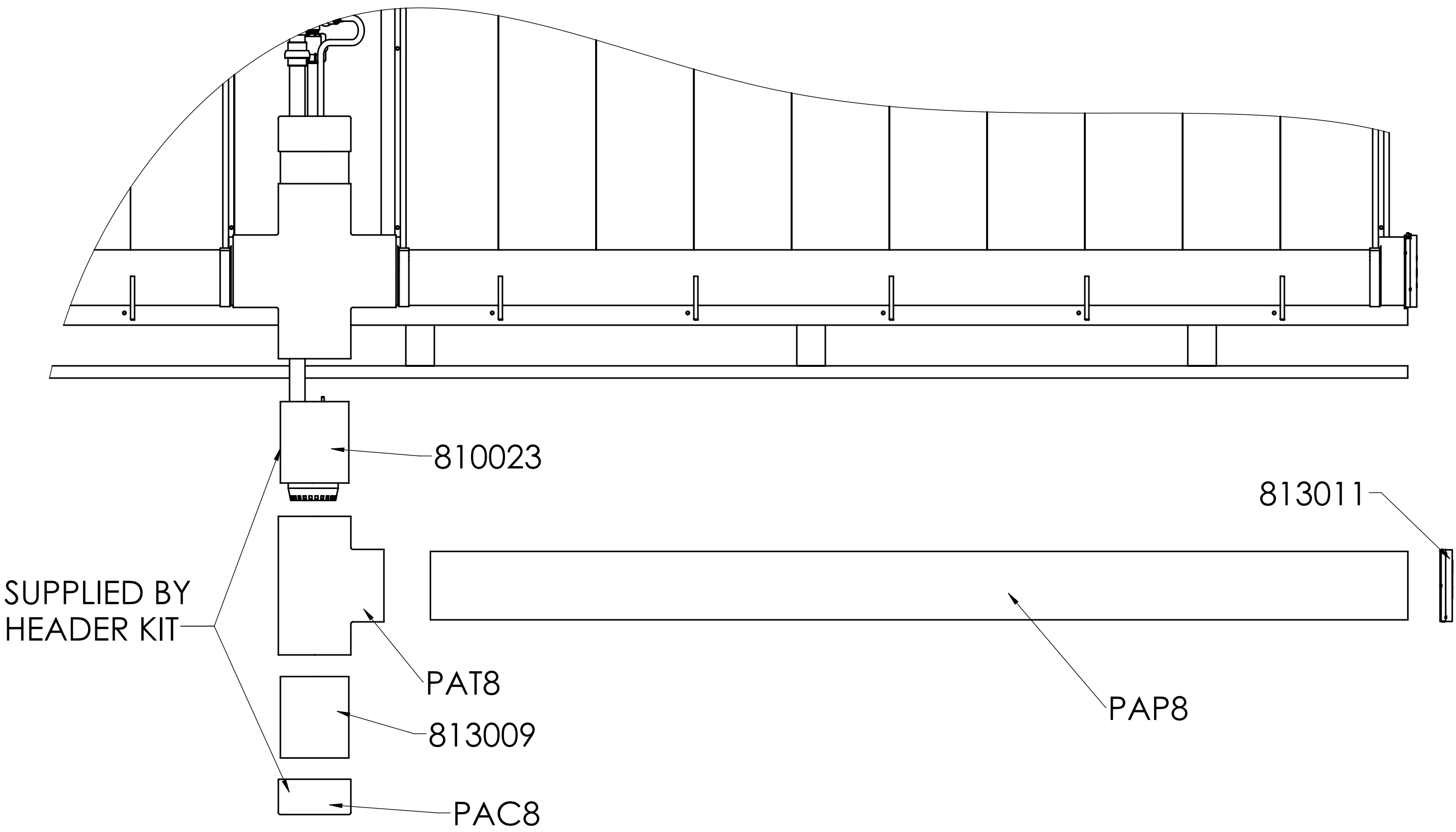


CENTER FED PAD & SIDE COVER INSTALLATION (FLUSH MOUNT / EXTENDED MOUNT)



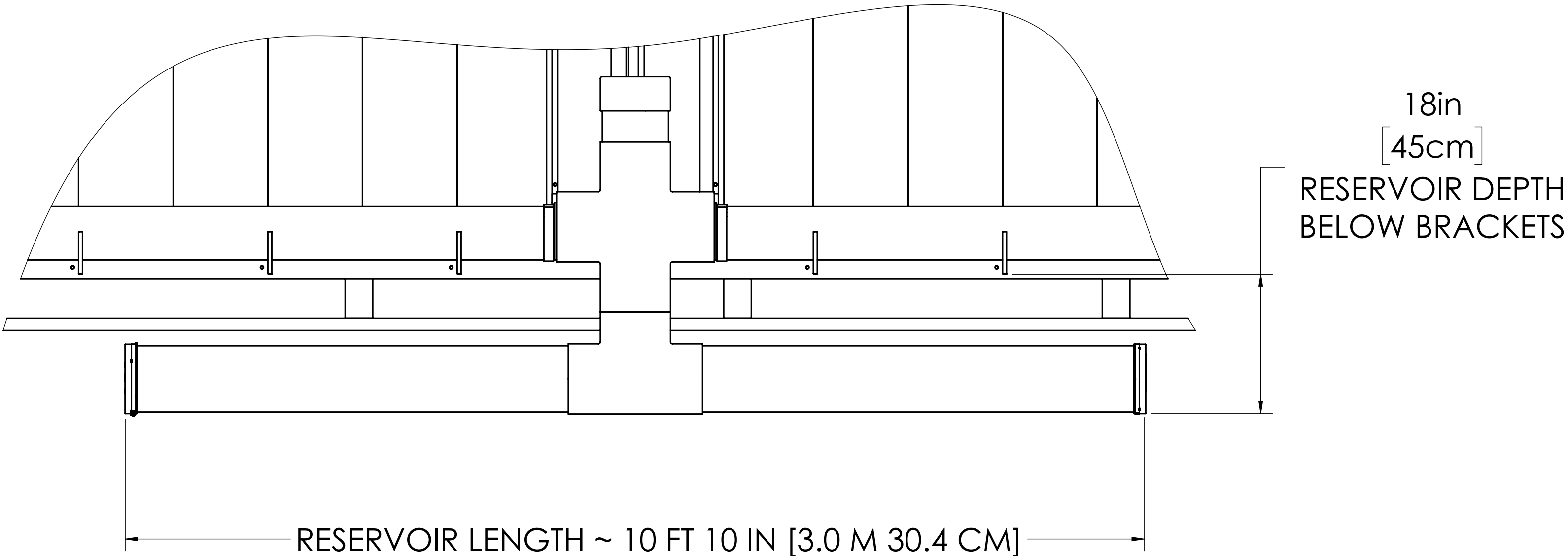
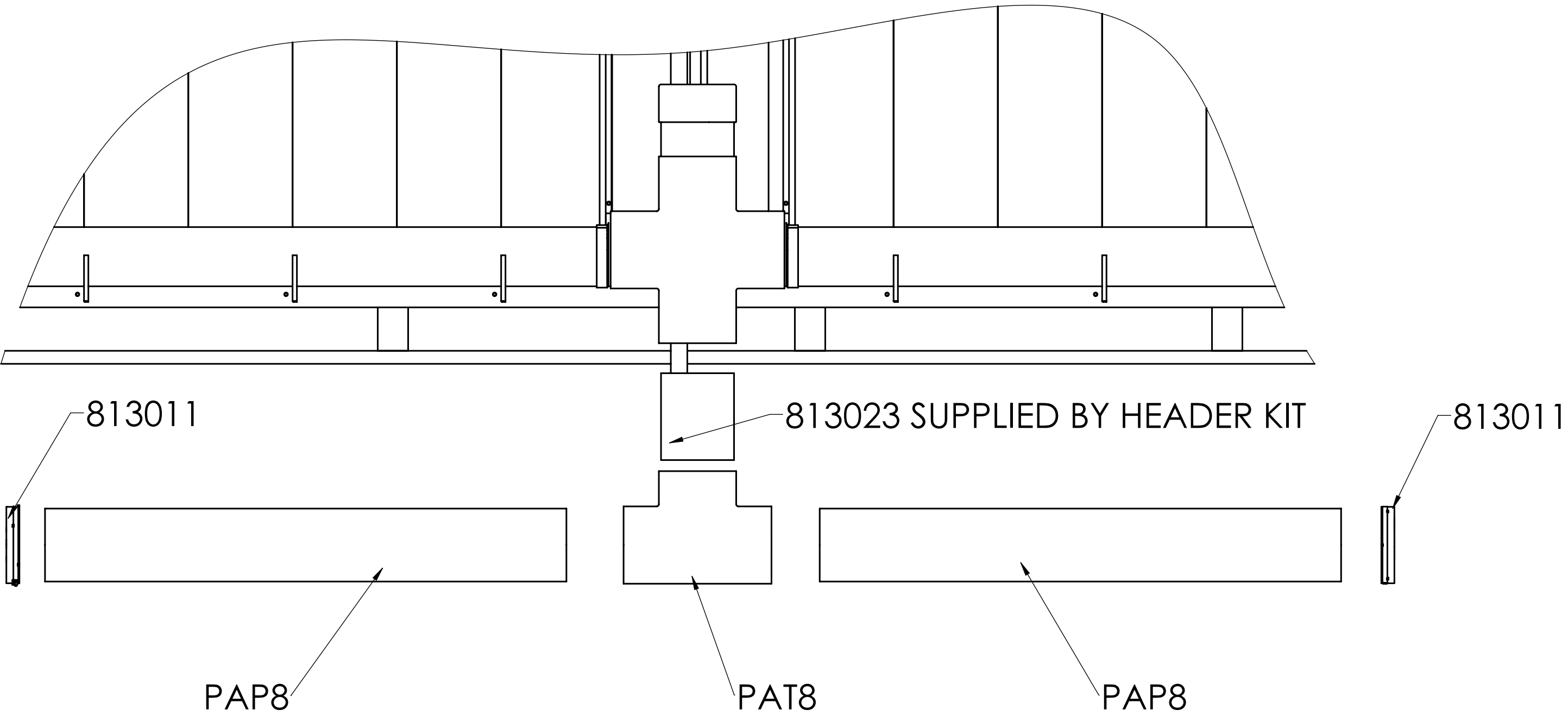
OPTIONAL ADD-ON KIT (PAHT) OPTION 1

IDENTICAL FOR END/CENTER FED & FLUSH/EXTENDED MOUNT



OPTIONAL ADD-ON KIT (PAHT) OPTION 2

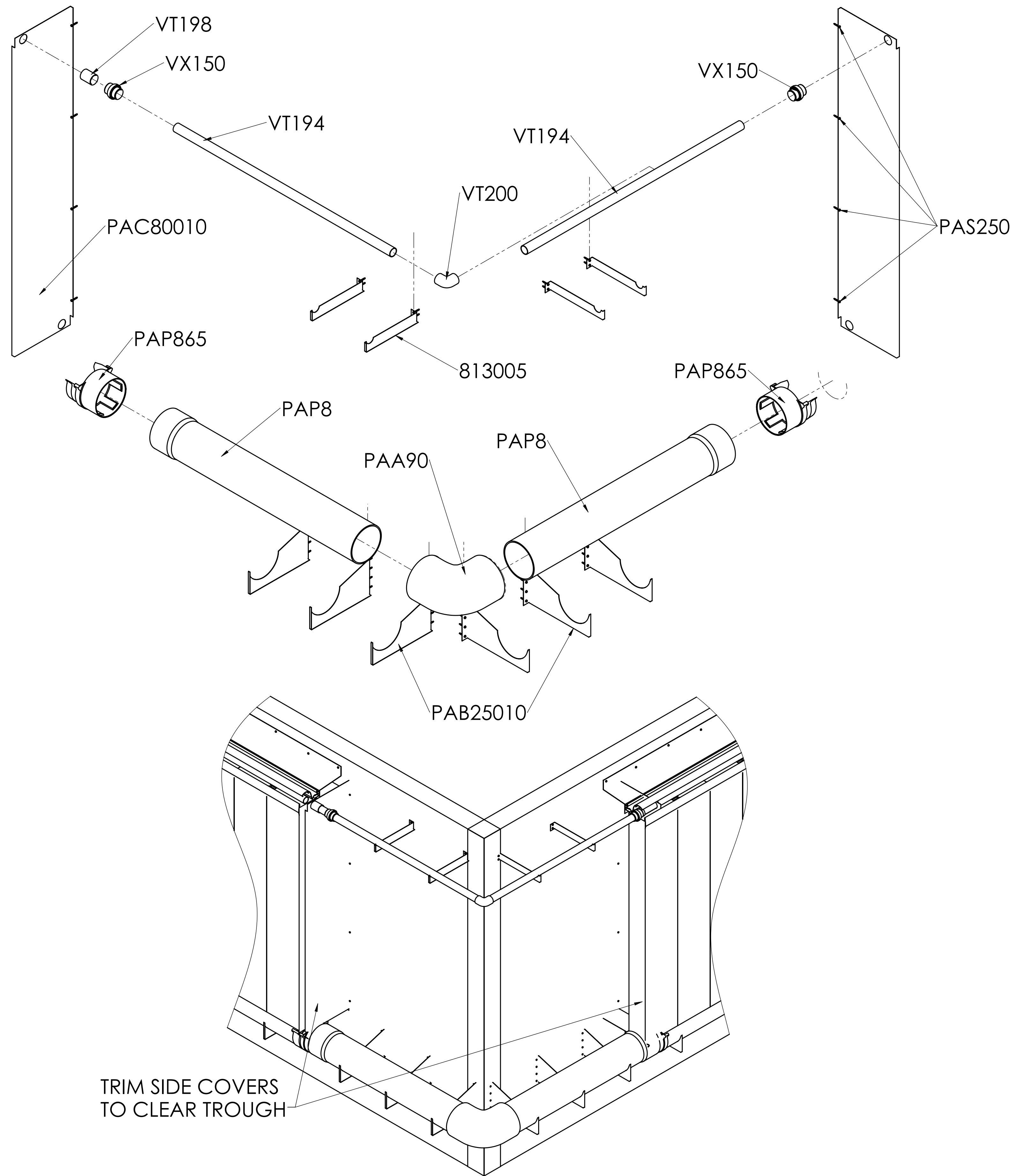
IDENTICAL FOR END/CENTER FED & FLUSH/EXTENDED MOUNT





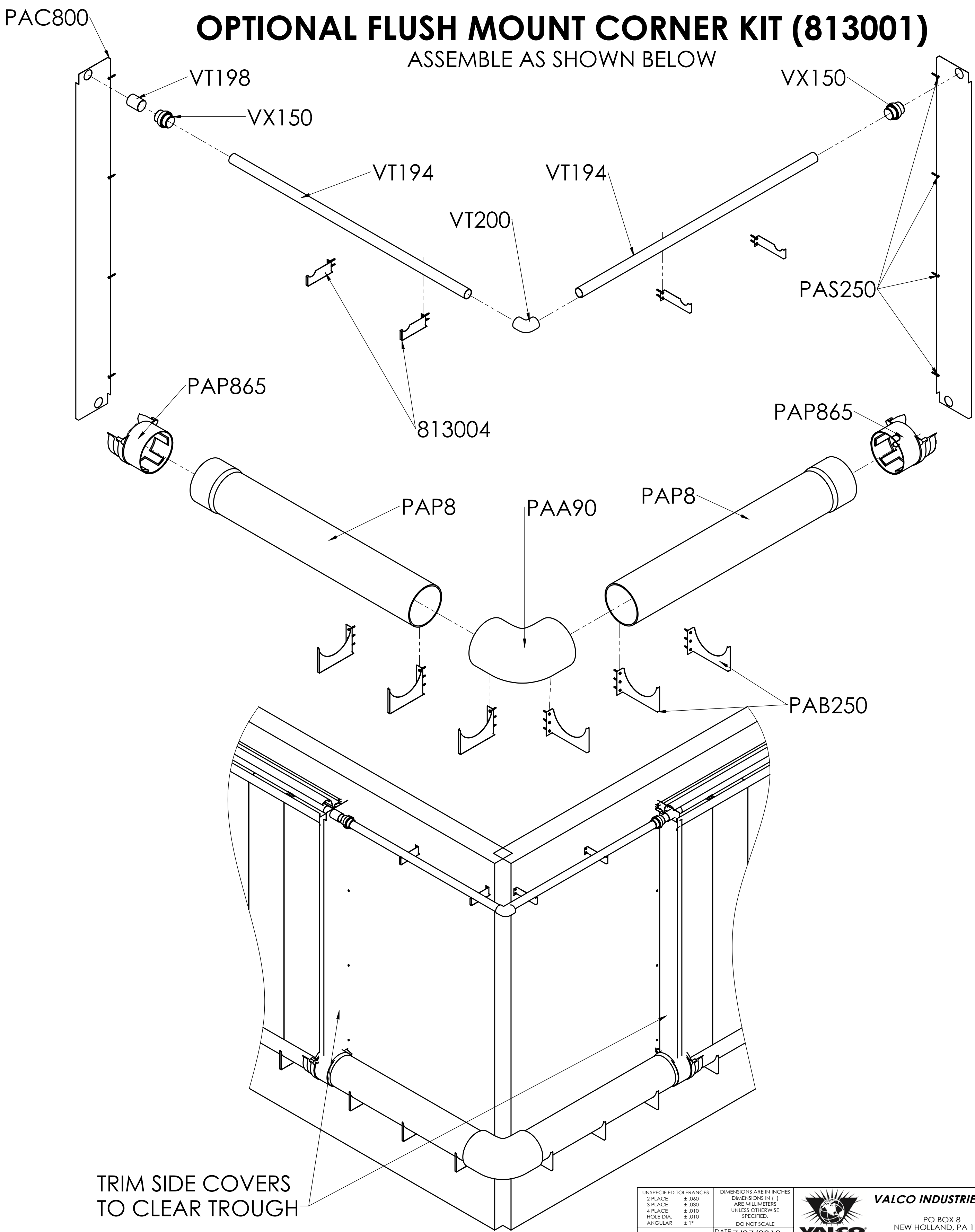
**OPTIONAL EXTENDED MOUNT CORNER KIT (813002)**

ASSEMBLE AS SHOWN BELOW



**OPTIONAL FLUSH MOUNT CORNER KIT (813001)**

ASSEMBLE AS SHOWN BELOW



SYSTEM OPERATION & MAINTENANCE

**INITIAL STARTUP:**  
(NEW PADS NEED MORE TIME TO SATURATE DUE TO SLEEK SURFACES)

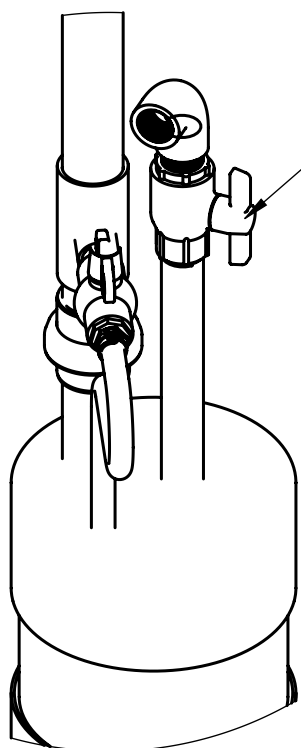
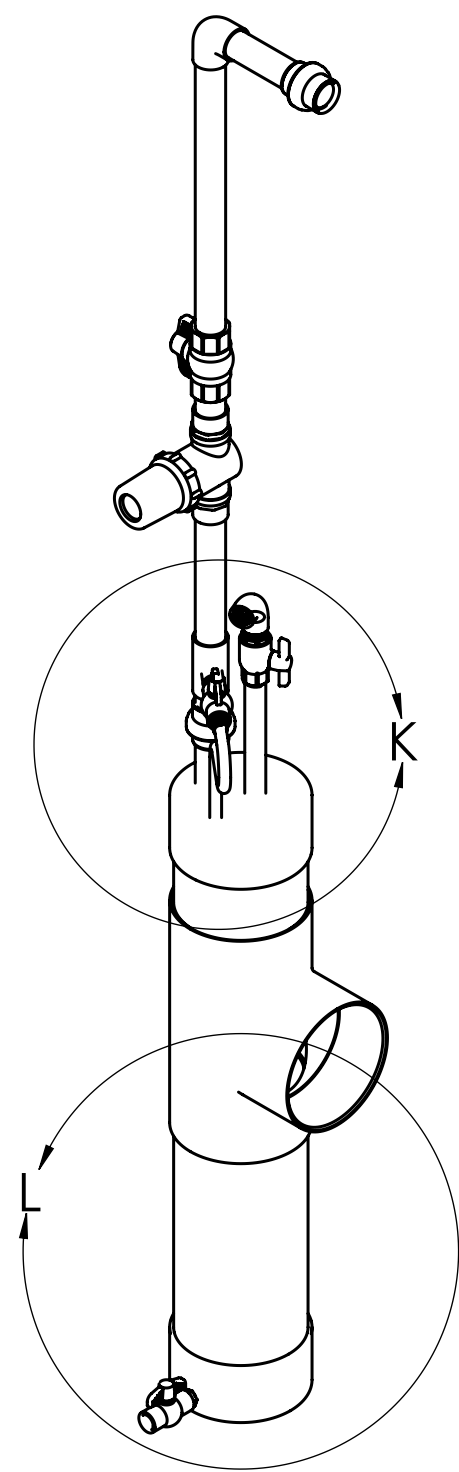
- 1. TURN ON WATER SUPPLY UNTIL STOPPED BY FLOAT VALVE.
- 2. TURN ON PUMP TO RUN WATER OVER THE TOP OF COOL PADS.
- 3. LEAVE SYSTEM RUNNING FOR 48 HRS TO BREAK IN NEW PADS.

IF AFTER THE 48 HR PERIOD DRY STREAKS ARE FOUND ON PAD SURFACE, MAKE SURE WATER IS EVENLY DISTRIBUTED THROUGH DRILLED HEADER PIPE BY UNCLOGGING DRILLED HOLES WITH A 1/8" DRILL BIT.

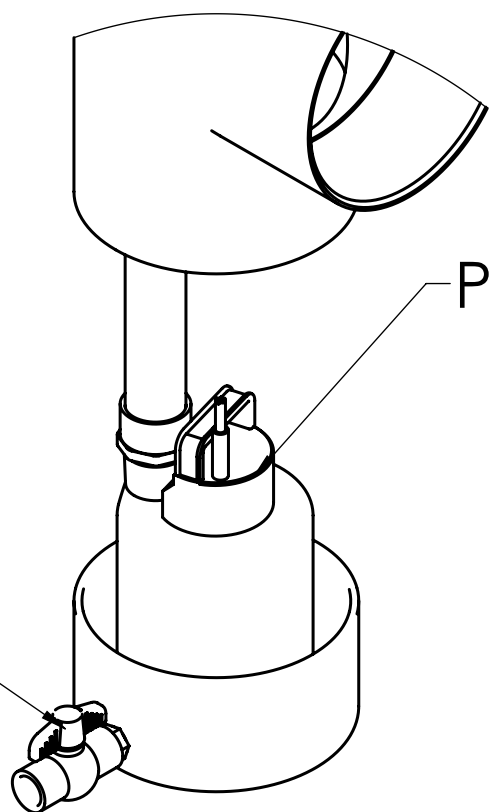
NOTE: IF THE WATER LEVEL IN THE RESERVOIR IS TOO HIGH, THE BOTTOM OF THE PAD WILL BE WATERLOGGED AND WILL BREAK DOWN PREMATURELY. (SEE SHEET 9 FOR ADJUSTING WATER LEVEL)

**WATER BLEED-OFF:**  
TO LIMIT ACCUMULATION OF MINERAL BUILD UP IN THE SYSTEM AS WATER IS BEING RECIRCULATED, IT IS IMPORTANT TO REPLACE THE WATER IN THE RESERVOIR AT REGULAR INTERVALS.

OPTION 1: REPLACE ALL THE WATER IN THE SYSTEM ONCE A WEEK (SEE SHEET 15 - WINTERIZING FOR DETAILS)  
OPTION 2: DRAIN WATER DURING NORMAL OPERATIONS AT .25 GPM/100 SQUARE FOOTAGE OF COOLPAD DEPENDING ON THE AMOUNT OF BUILD UP. PULL OUT BYPASS HOSE AND TURN THE BYPASS VALVE SLIGHTLY OR OPEN THE VALUE AT THE END OF THE SYSTEM SLIGHTLY.



DETAIL K  
SCALE 1 : 6

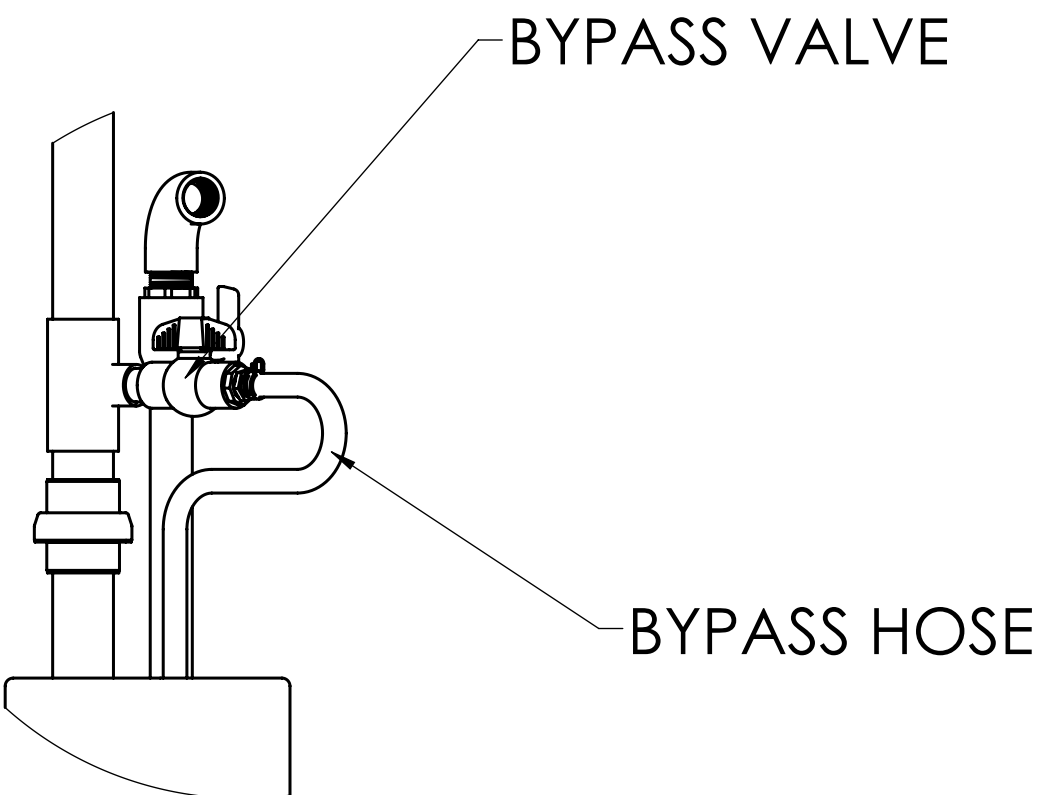


DETAIL L  
SCALE 1 : 6

DRAIN VALVE

**NORMAL OPERATION:**

- 1. FOLLOW INITIAL STARTUP PROCEDURE.
- 2. TO CONTROL THE VOLUME OF WATER BEING PUMPED OVER THE COOL PADS, PLACE BYPASS HOSE INTO HEADER TANK AND ADJUST THE BYPASS VALVE.  
  
\*IF WATER IS SPRAYING INTO BUILDING, EITHER ADJUST BYPASS VALVE OR ROTATE DRILLED HEADER PIPE (PAP150DS) SLIGHTLY INTO AIRFLOW.
- 3. ALLOW THE PADS TO DRY OUT COMPLETELY ONCE EVERY 24 HRS TO ENTEND THEIR LIFE.
- 4. MAINTAIN WATER PH LEVEL BETWEEN 6 AND 8.
- 5. EVAPORATION RATE = (AREA OF PAD IN SQ. FT. \* AVG. AIR SPEED THROUGH THE PAD IN FT/MIN \* AVG. TEMP. DROP ACROSS THE PAD IN °F) / 500,000



UNSPECIFIED TOLERANCES 2 PLACE ±.000 3 PLACE ±.000 4 PLACE ±.010 HOLE DIA ±.010 ANGULAR ±1°	DIMENSIONS ARE IN INCHES DIMENSIONS IN ( ) ARE MILLIMETERS UNLESS OTHERWISE SPECIFIED DO NOT SCALE	 <b>VALCO INDUSTRIES, INC.</b> PO BOX 8 NEW HOLLAND, PA 17557
This drawing and any part thereof is the property of VALCO COMPANIES INC. and is subject to return or request by this company. The information herein is confidential and the recipient by accepting this drawing agrees not to use any information contained herein in any manner which will be detrimental to VALCO COMPANIES INC.	DATE 7/27/2018	DESCRIPTION 1
	DRAWN AP	INSTALLATION INSTR FOR EZ-COOL
	CHECK -	DESCRIPTION 2
	WEIGHT N/A	RECIRCULATION PAD SYSTEM
	SCALE 1:8	SHEET 14 OF 20
		990131
		REV. D



SYSTEM OPERATION & MAINTENANCE (CONT.)

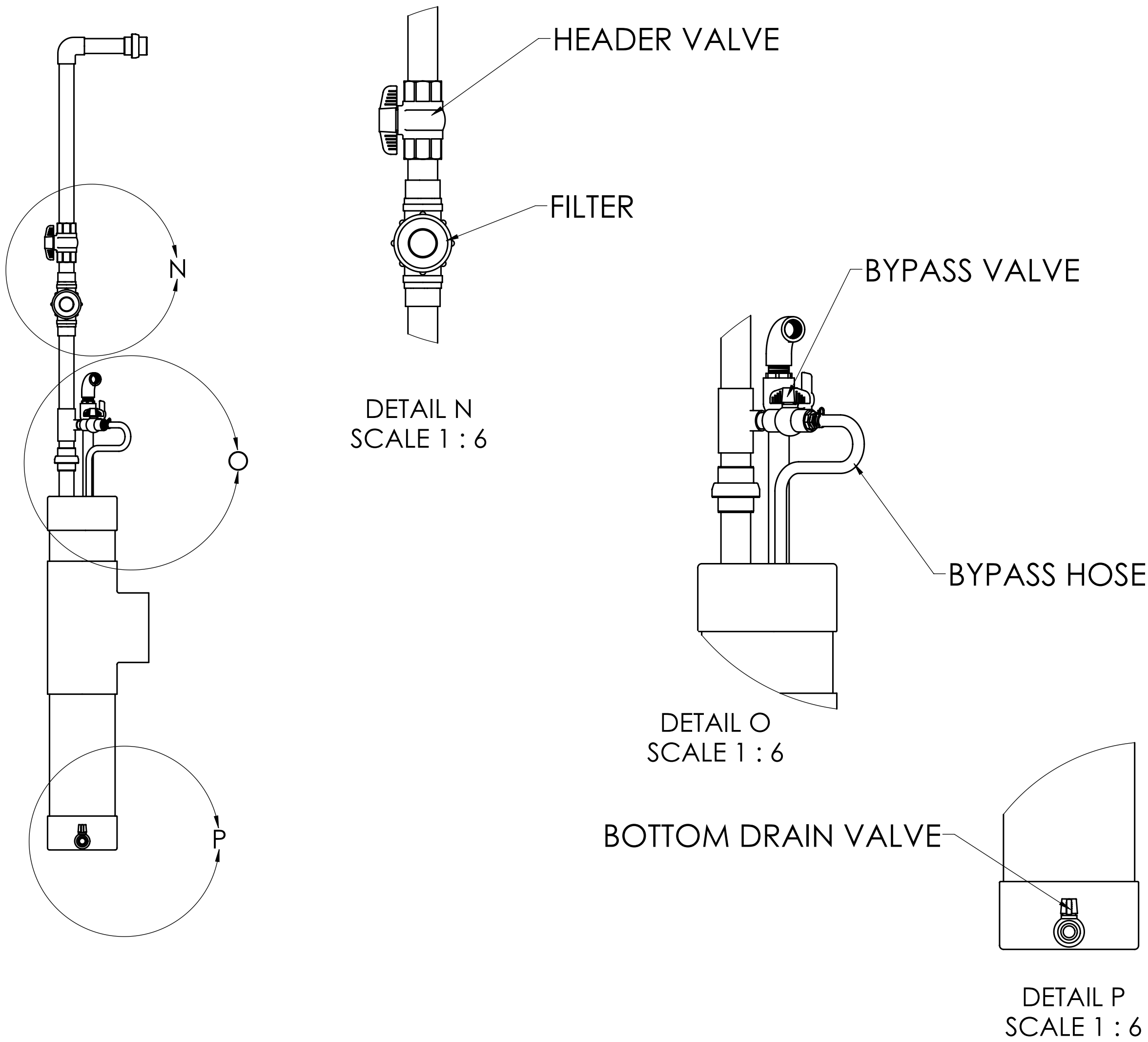
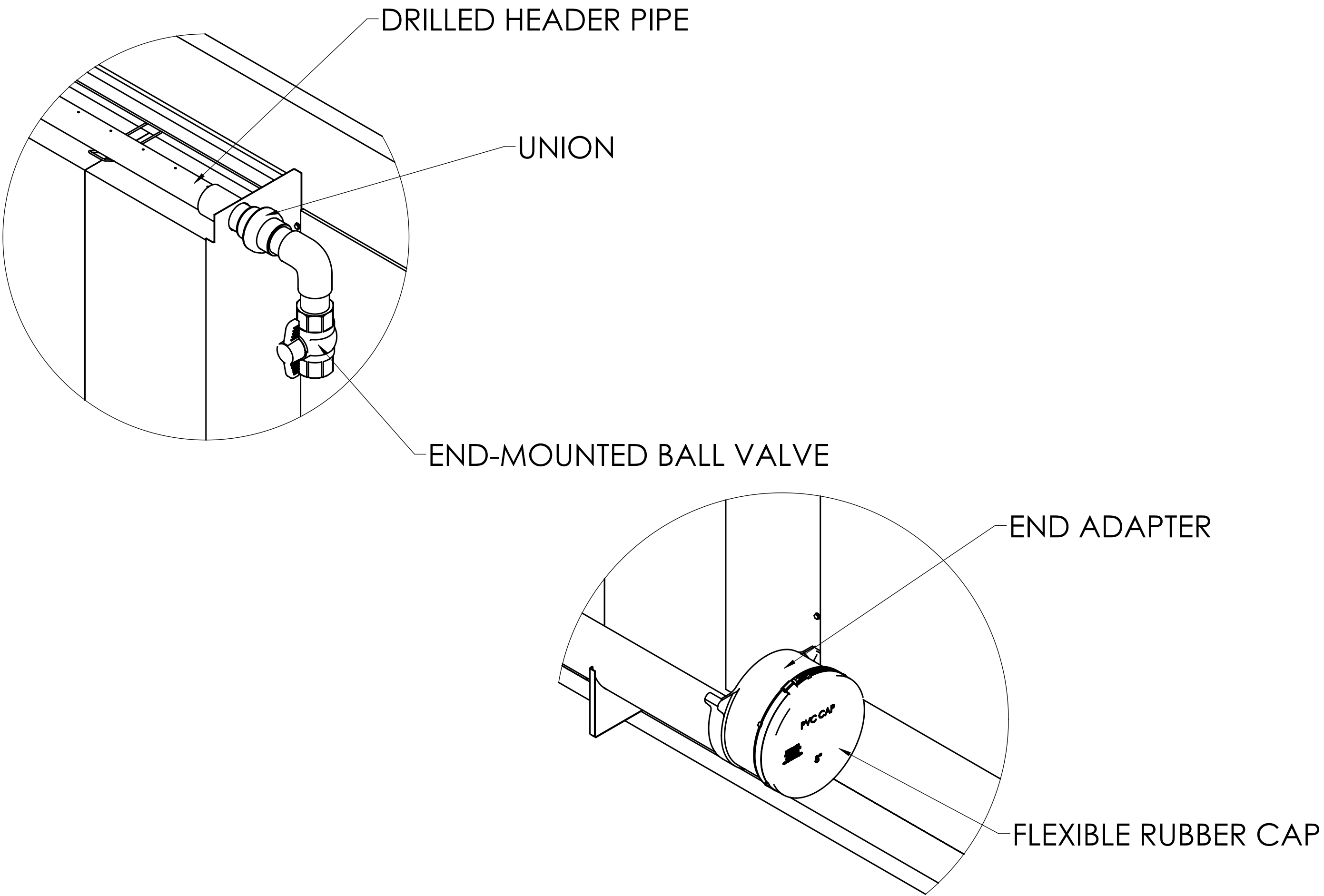
WINTERIZING:  
(PREPARING COOL PAD SYSTEM FOR WINTER)

FOR BURIED PUMPS:

- 1. SHUT OFF PUMP AND WATER SUPPLY. LET WATER DRAIN INTO TROUGH AND SUMP.
- 2. OPEN END-MOUNTED BALL VALVES TO DRAIN LEFTOVER WATER IN HEADER PIPE.
- 3. CLOSE BALL VALVE ABOVE WATER FILTER, OPEN BYPASS VALVE, PULL BYPASS HOSE OUT OF SUMP AND TURN ON PUMP. (THIS WILL PUMP ALL THE WATER OUT OF THE SYSTEM)
- 4. LEAVE ALL FITTINGS OPEN TO PREVENT THEM FROM BURSTING IN FREEZING TEMPERATURES.
- 5. STORE PUMP IN AREA THAT WILL NOT FREEZE.

FOR ABOVE-GROUND PUMPS:

- 1. SHUT OFF PUMP AND LET WATER DRAIN INTO TROUGH AND SUMP.
- 2. OPEN END-MOUNTED BALL VALVES TO DRAIN LEFTOVER WATER IN HEADER PIPE.
- 3. OPEN BOTTOM DRAIN VALVE TO DRAIN ALL WATER FROM SYSTEM.
- 4. LEAVE ALL FITTINGS OPEN TO PREVENT THEM FROM BURSTING IN COLD WEATHER.
- 5. STORE PUMP IN AREA THAT WILL NOT FREEZE.



CLEANING THE SYSTEM:

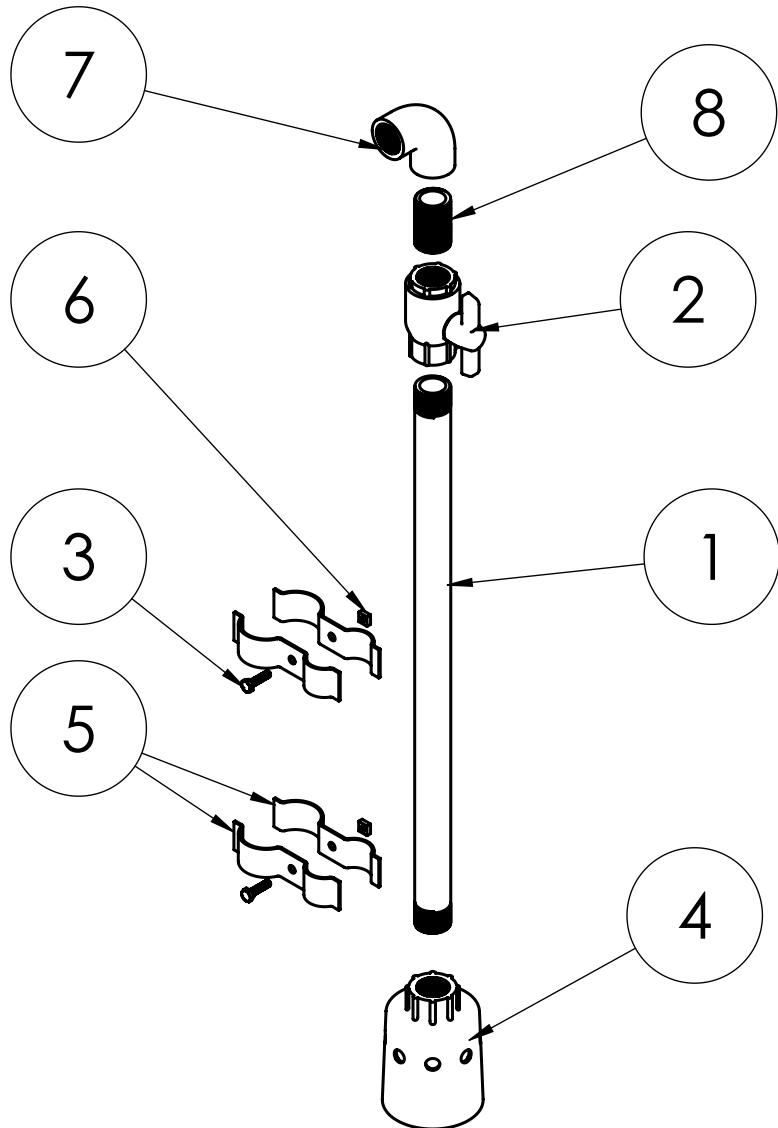
- 1. DRAIN THE ENTIRE SYSTEM (FOLLOW WINTERIZING PROCESS)
- 2. OPEN FILTER COVER AND CLEAN/REPLACE FILTER.
- 3. GENTLY HOSE AND BRUSH ALGAE AND DEPOSITED MINERALS OFF PAD. (IF EXCESSIVE ALGAE, CONSIDER WATER TREATMENT OPTIONS)
- 4. REMOVE UNION MOUNTED TO DRILLED HEADER PIPES. CLEAN INSIDE OF HEADER PIPE USING A LONG BRUSH AND RINSE WITH HOSE. MOUNT UNION BACK ONTO DRILLED HEADER PIPES.
- 5. REMOVE FLEXIBLE RUBBER CAPS INSTALLED ON THE END ADAPTERS. CLEAN TROUGH USING A LONG BRUSH AND RINSE OUT WITH HOSE. REINSTALL FLEXIBLE RUBBER CAPS AND RESUME NORMAL OPERATION.

BILL OF MATERIALS (END-FED HEADER KIT)			
ITEM #	PART #	QTY	DESCRIPTION
1	PAC8	2	8" PVC CAP
2	PAT8	1	8" PVC TEE
3	PAA15	2	1 1/2" PVC MALE ADAPTER
4	VX150	2	1 1/2" PVC UNION
5	VT200	3	1 1/2" 90 DEGREE PVC ELL
6	PAT340	1	1 1/2" X 1 1/2" X 3/4" SXSXS
7	PAF200	1	LINE FILTER FOR RECIRCULATING 6" PAD SYSTEM
8	PABV15	1	1-1/2" PVC BALL VALVE
9	VV801	2	3/4" BALL VALVE SCHEDULE 80
10	VT107	1	3/4" MALE SLIP X 1/2" FPT PVC
11	813023	1	3/4" PLAIN PVC PIPE (3" LG)
12	VRP71	1	1/2" THREADED MALE HOSE CONNECTOR (1/2" BARB)
13	VRP77	6	1/2" ID YELLOW PVC DROP HOSE
14	VRP500	1	1/2" HOSE CLAMP (USE W/ VRP77)
15	813021	1	3/4" PVC PIPE ADAPTER
16	SEE CHART	1	REDUCING MALE ADAPTER
17	813013	1	PVC PIPE, 8" SDR-35, 39.5" LG
18	SEE CHART	1	SUBMERSIBLE PUMP
19	VT194	1	1 1/2" PLAIN PVC PIPE (10 FT.)

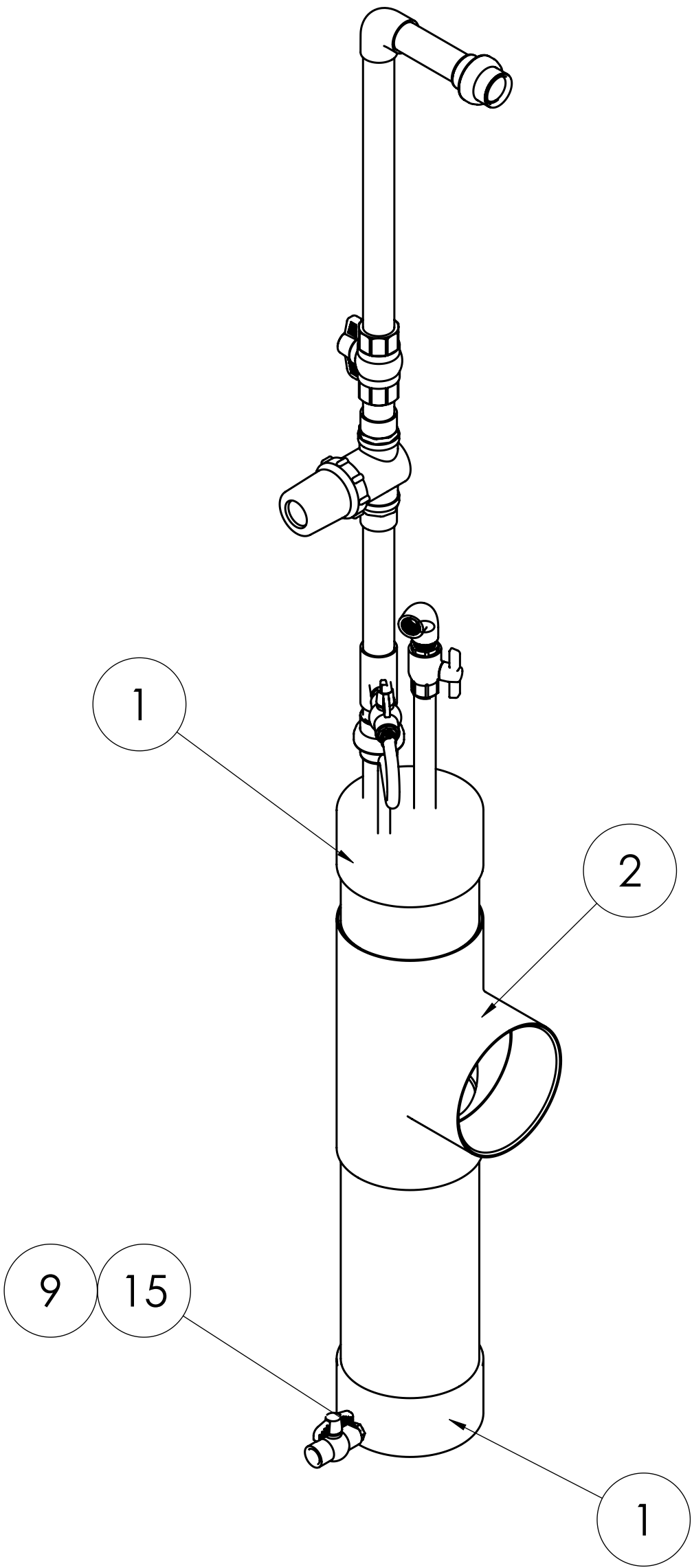
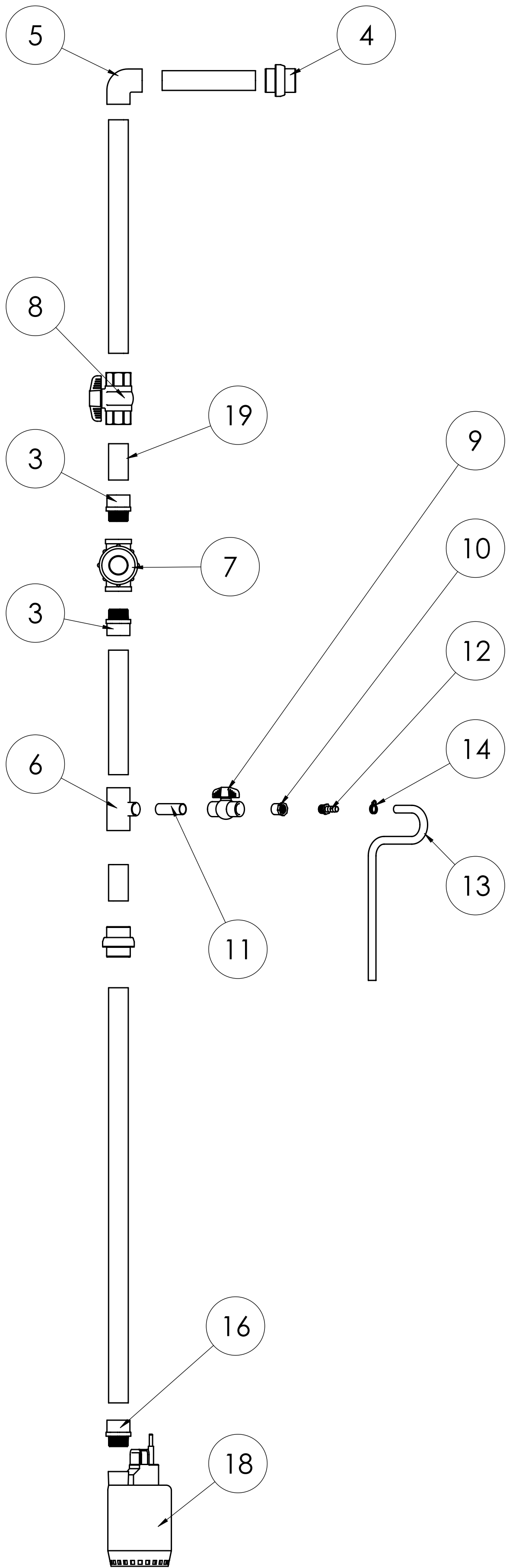
ITEM #	ASSEMBLY PART NUMBER		
	PAHD30	PAHD60	PAHD60-50
16	PAA15	PAA15	PAA16
18	PAP30	PAP60	PAP60-50

BILL OF MATERIALS (PAF150K) FLOAT KIT, WATER INLET			
ITEM #	PART #	QTY	DESCRIPTION
1	820000	1	NIPPLE, 1" X 24" LONG MNPT
2	820001	1	BALL VALVE, 1" FNPT
3	PAB149	2	1/4"-20 x 1" SS BOLT
4	PAF150HF	1	FLOAT VALVE, 1" FNPT
5	PAFB150	4	BRACKET FOR FLOAT VALVE
6	PAN150	2	1/4"-20 STAINLESS STEEL NUT
7	PM4596K14	1	SCH 80 PVC 1" 90 THREADED
8	PM4882K3	1	SCH 80 1" NIPPLE X 2" LONG PVC

REPAIR PARTS: FLOAT KIT



REPAIR PARTS: END-FED HEADER KIT



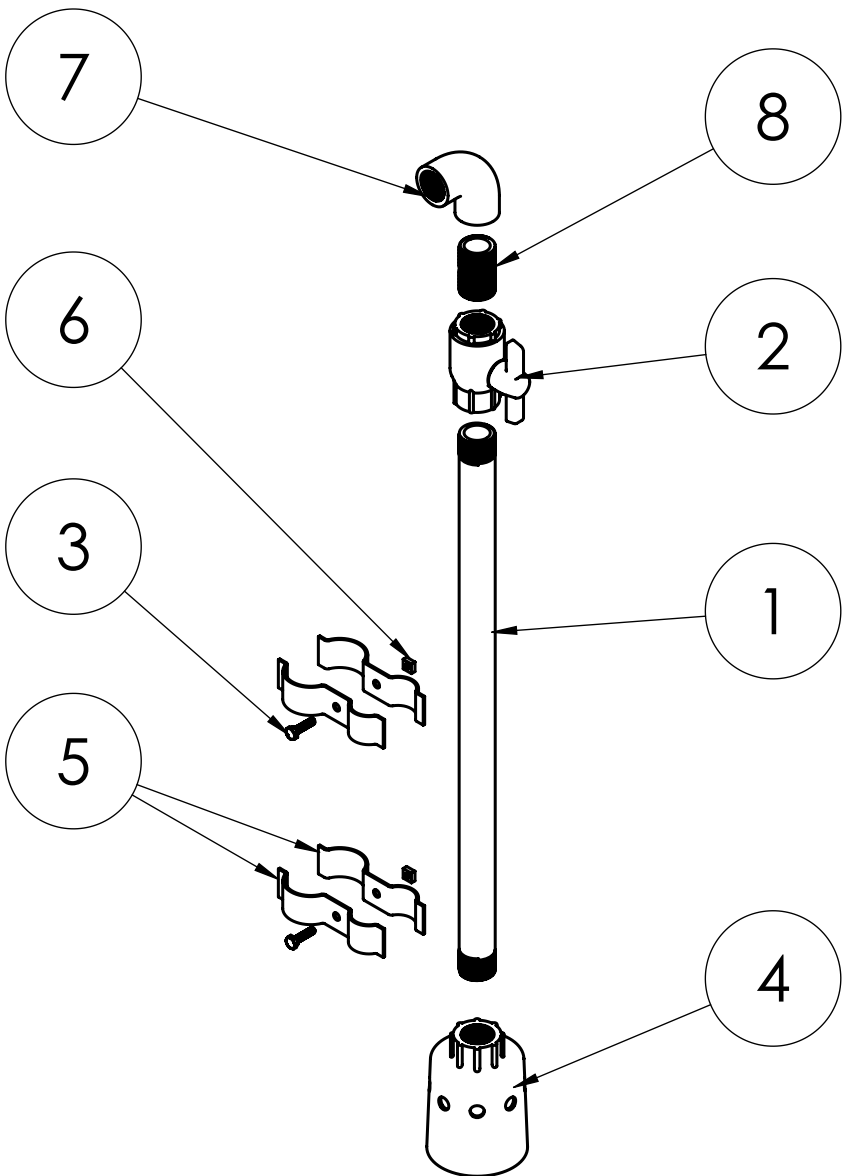


BILL OF MATERIALS (CENTER-FED HEADER KIT)

ITEM #	PART #	QTY	DESCRIPTION
1	813013	1	PVC PIPE, 8" SDR-35, 39.5" LG
2	813014	1	CARTON, CENTER FED HEADER KIT
3	PAX8	1	8" PVC CROSS, SDR 35
4	PAC8	2	8" PVC CAP
5	PAA15	2	1 1/2" PVC MALE ADAPTER
6	VX150	3	1 1/2" PVC UNION
7	PAT340	1	1 1/2" X 1 1/2" X 3/4" SXSXS
8	PAF200	1	LINE FILTER FOR RECIRCULATING 6" PAD SYSTEM
9	PABV15	1	1-1/2" PVC BALL VALVE
10	VV801	2	3/4" BALL VALVE SCHEDULE 80
11	VT107	1	3/4" MALE SLIP X 1/2" FPT PVC
12	813023	1	3/4" PLAIN PVC PIPE (3" LG)
13	VRP71	1	1/2" THREADED MALE HOSE CONNECTOR (1/2" BARB)
14	VRP77	6	1/2" ID YELLOW PVC DROP HOSE
15	VRP500	1	1/2" HOSE CLAMP (USE W/ VRP77)
16	813021	1	3/4" PVC PIPE ADAPTER
17	VT199	1	1 1/2" PVC TEE
18	SEE CHART	1	REDUCING MALE ADAPTER
19	SEE CHART	1	SUBMERSIBLE PUMP
20	VT194	1	1 1/2" PLAIN PVC PIPE (10 FT.)

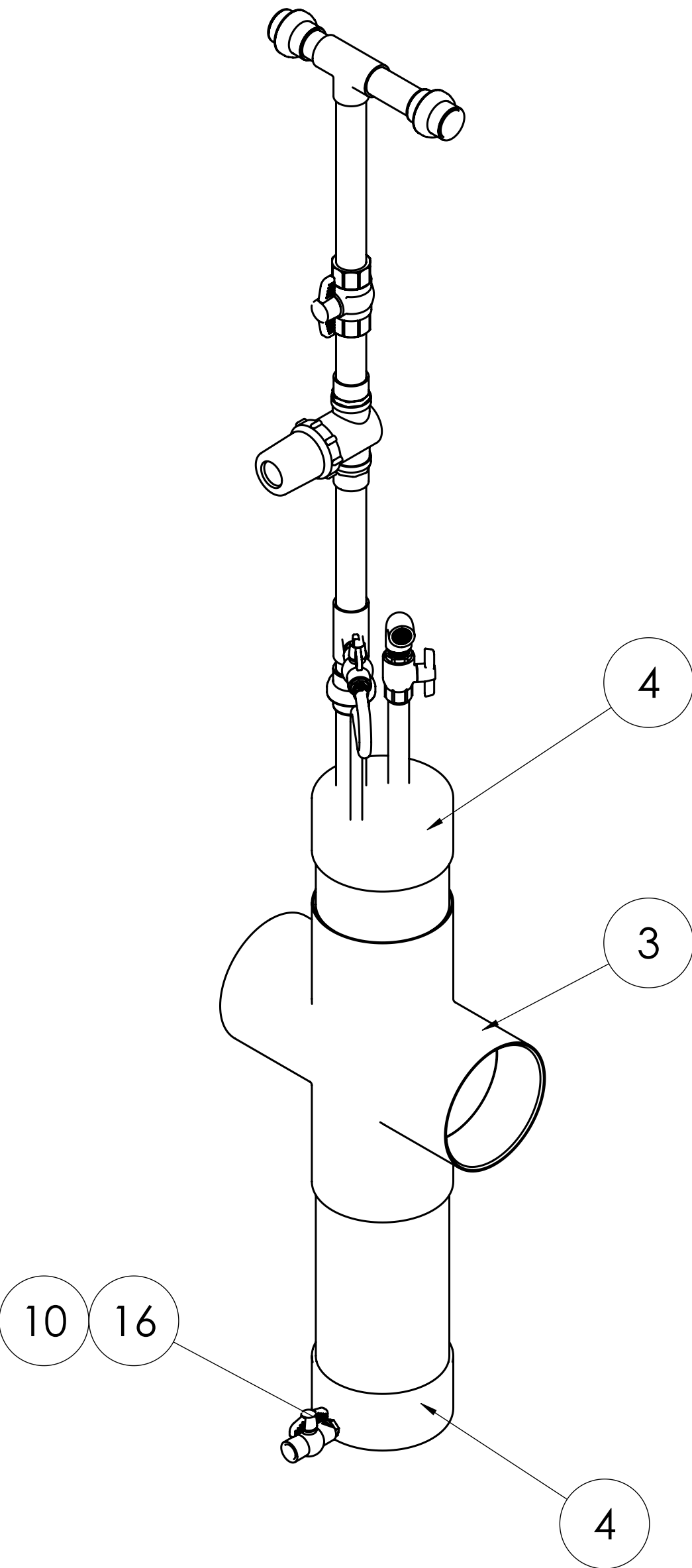
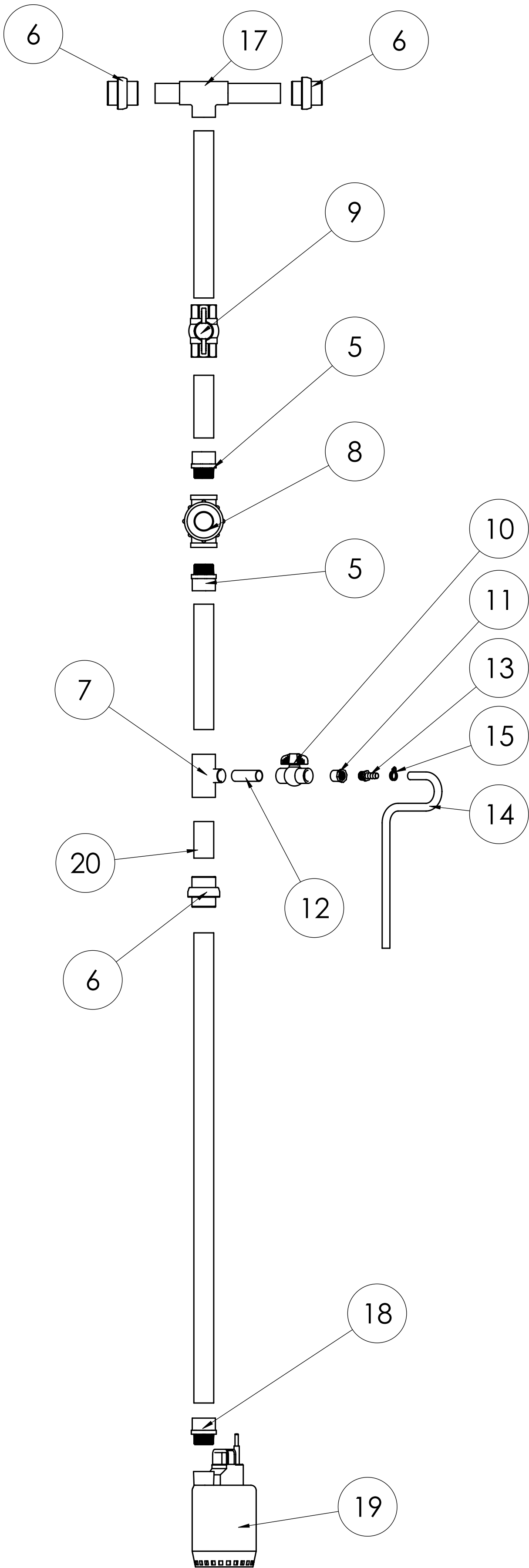
ITEM #	ASSEMBLY PART NUMBERS	
	813016	813018
18	PAA15	PAA16
19	PAP60	PAP60-50

REPAIR PARTS: FLOAT KIT

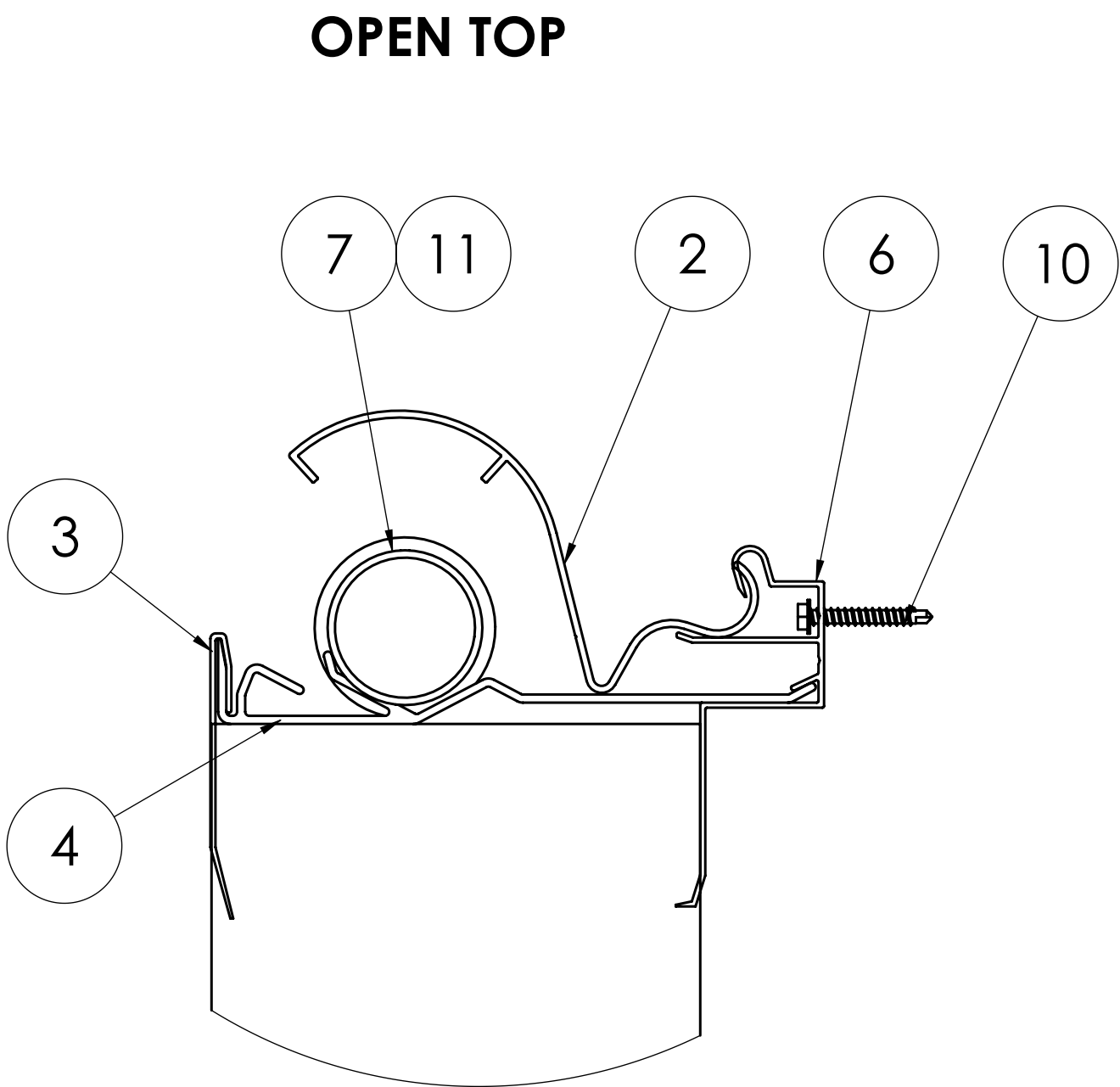
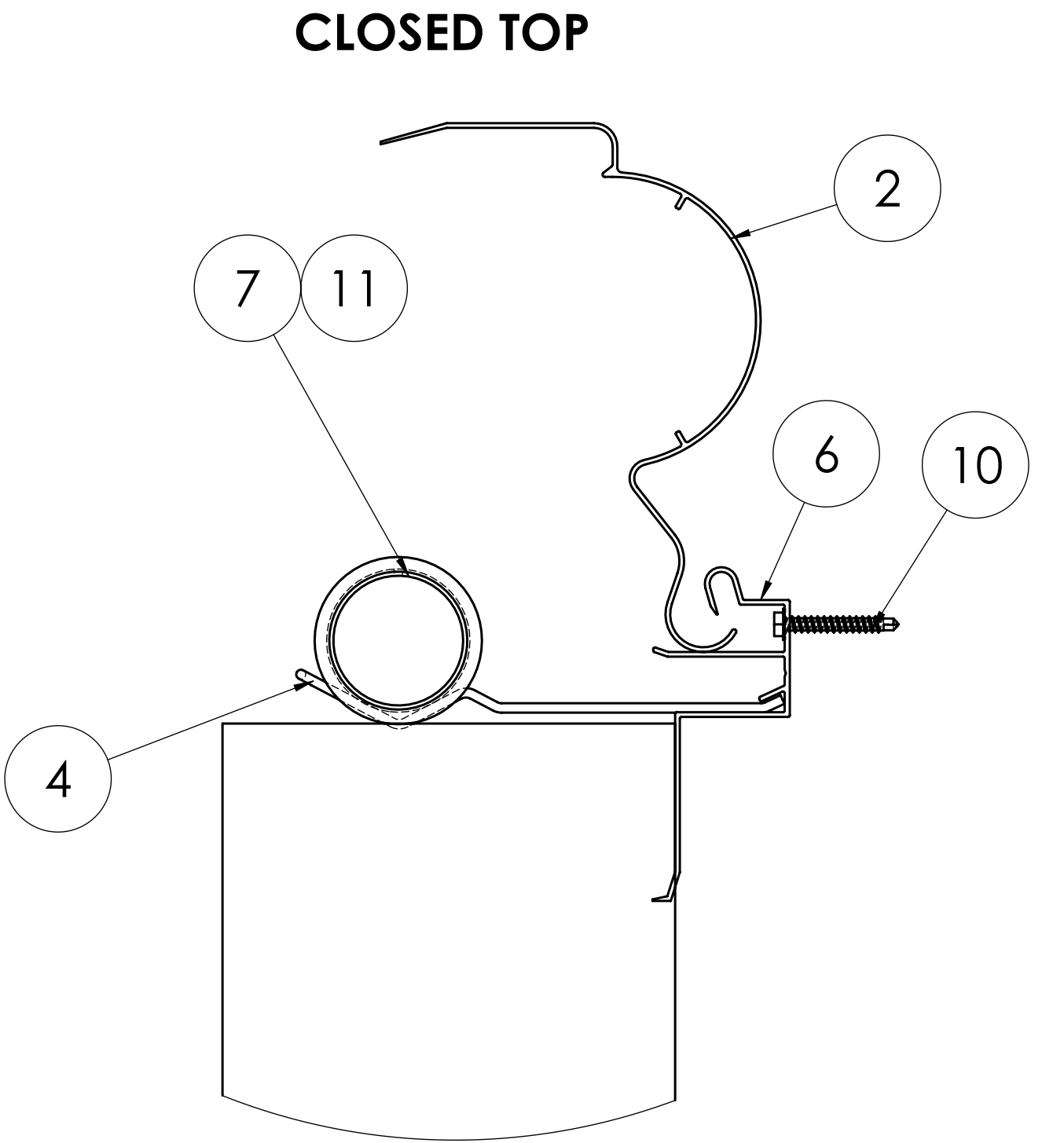
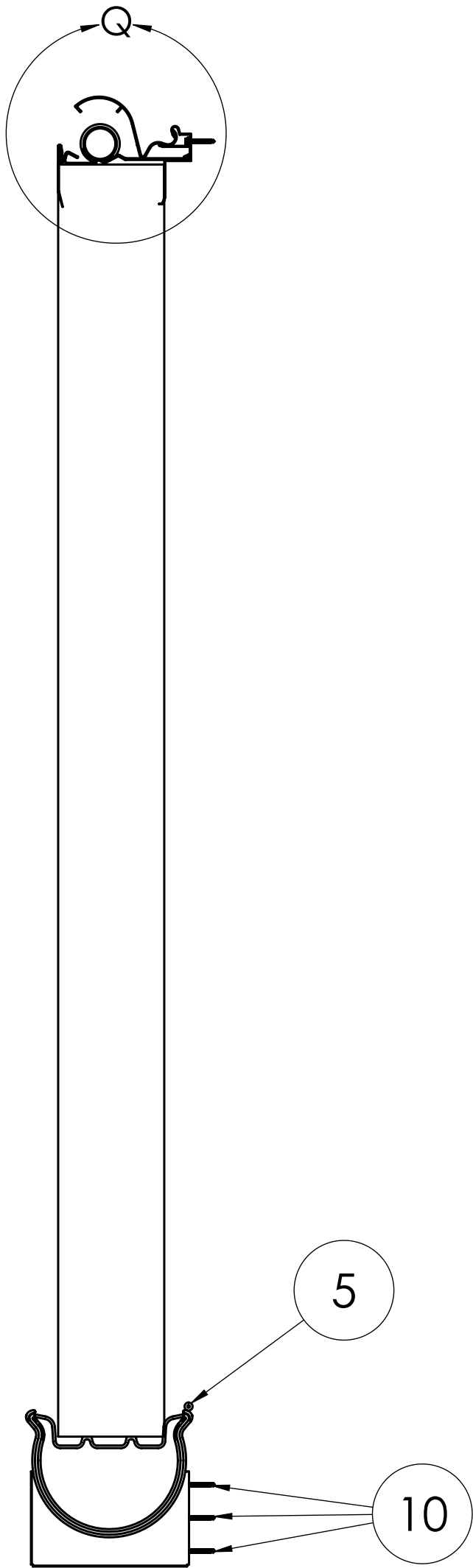
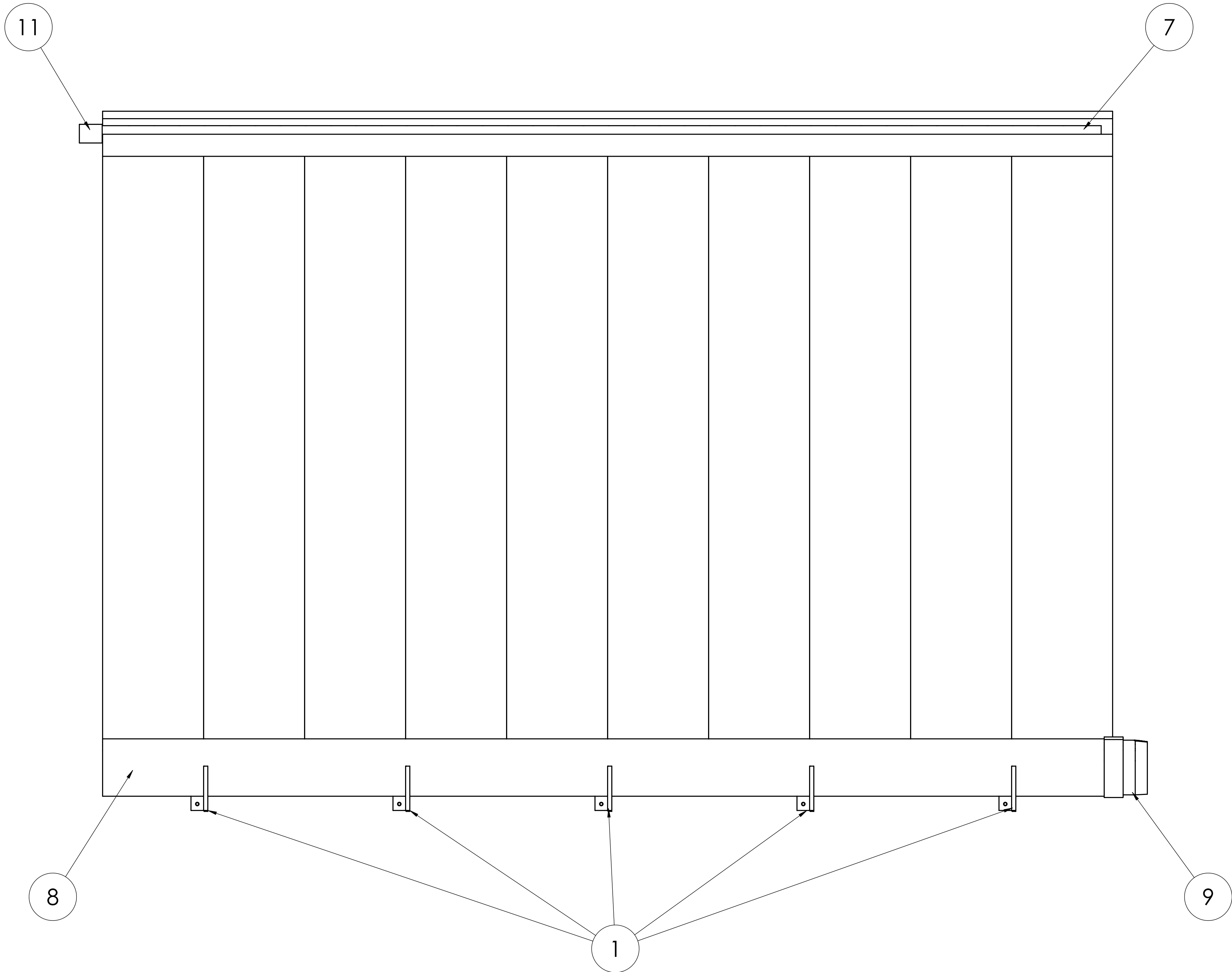


BILL OF MATERIALS (PAF150K) FLOAT KIT, WATER INLET			
ITEM #	PART #	QTY	DESCRIPTION
1	820000	1	NIPPLE, 1" X 24" LONG MNPT
2	820001	1	BALL VALVE, 1" FNPT
3	PAB149	2	1/4"-20 x 1" SS BOLT
4	PAF150HF	1	FLOAT VALVE, 1" FNPT
5	PAFB150	4	BRACKET FOR FLOAT VALVE
6	PAN150	2	1/4"-20 STAINLESS STEEL NUT
7	PM4596K14	1	SCH 80 PVC 1" 90 THREADED
8	PM4882K3	1	SCH 80 1" NIPPLE X 2" LONG PVC

REPAIR PARTS: CENTER-FED HEADER KIT



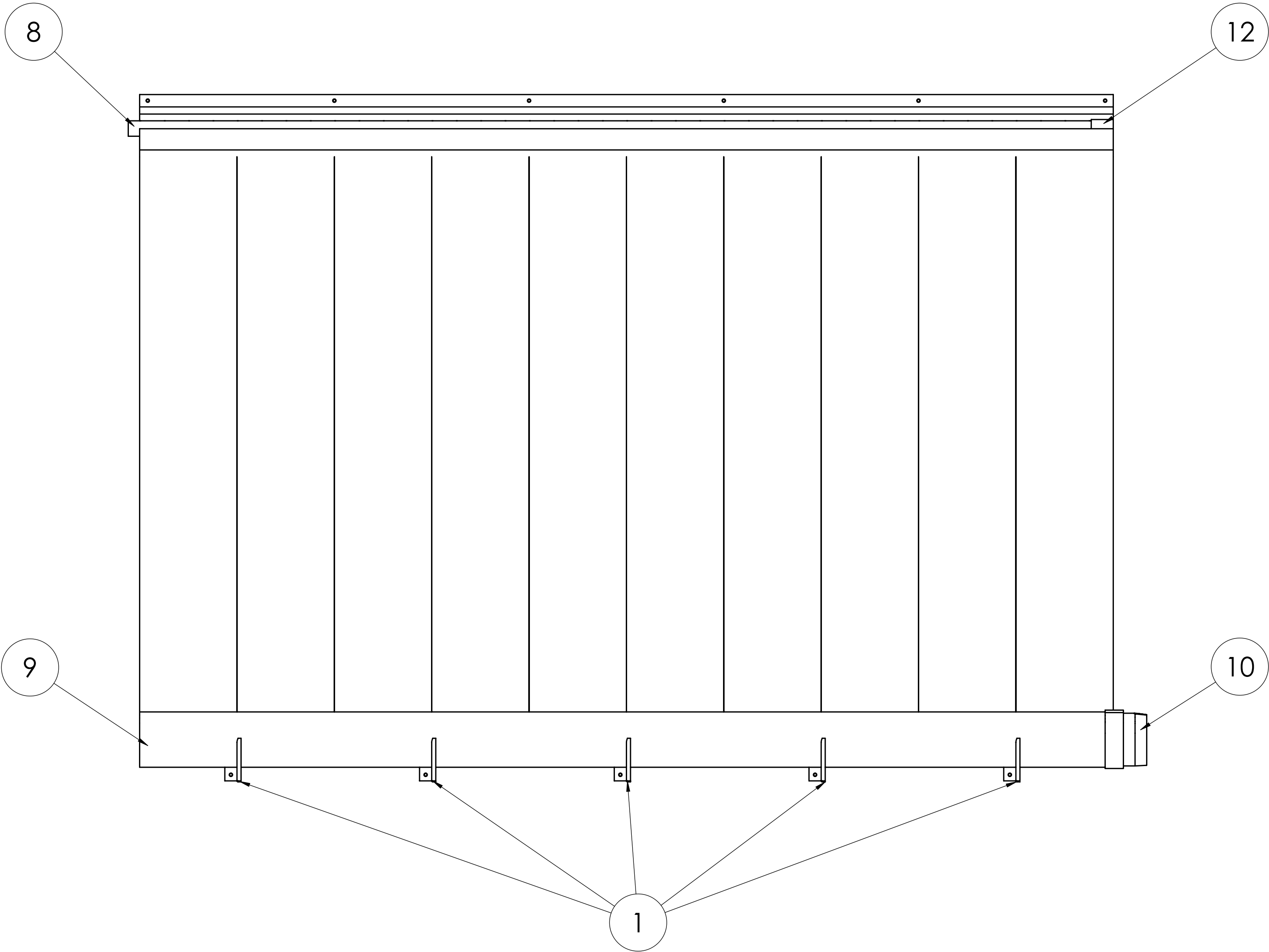
BILL OF MATERIALS (OPEN TOP PAK610EZO / CLOSED TOP PAK610EZ)				
ITEM #	OPEN TOP PT #	CLOSED TOP PT #	QTY	DESCRIPTION
1	PAB250	PAB250	5	PIPE BRACKET FOR 6" RECIRCULATING SYSTEM - 8" PIPE
2	PAC607	813008	1	TOP ALUMINUM PAD COVER
3	PAC608	-	1	OPEN TOP PAD RETAINER 120" LONG
4	PAC609	PAB700	5	TOP PIPE BRACKET 1-1/2" LONG
5	PACROD	PACROD	1	SEAL BETWEEN TROUGH AND WALL (10 FT)
6	PAE500	PAE500	1	ALUM TOP EXTRUSION FOR
7	PAP150DS	PAP150DS	1	1 1/2" PVC (10') W/ 7/64" HOLE
8	PAP800WT	PAP800WT	1	8" PLAIN PVC PIPE 10FT WITH TROUGH
9	PAP860	PAP860	1	COUPLER FOR PAP800WT
10	PAS250	PAS250	20	#12 x 1 1/2" SELF-DRILLING
11	VT198	VT198	1	1 1/2" PVC COUPLER



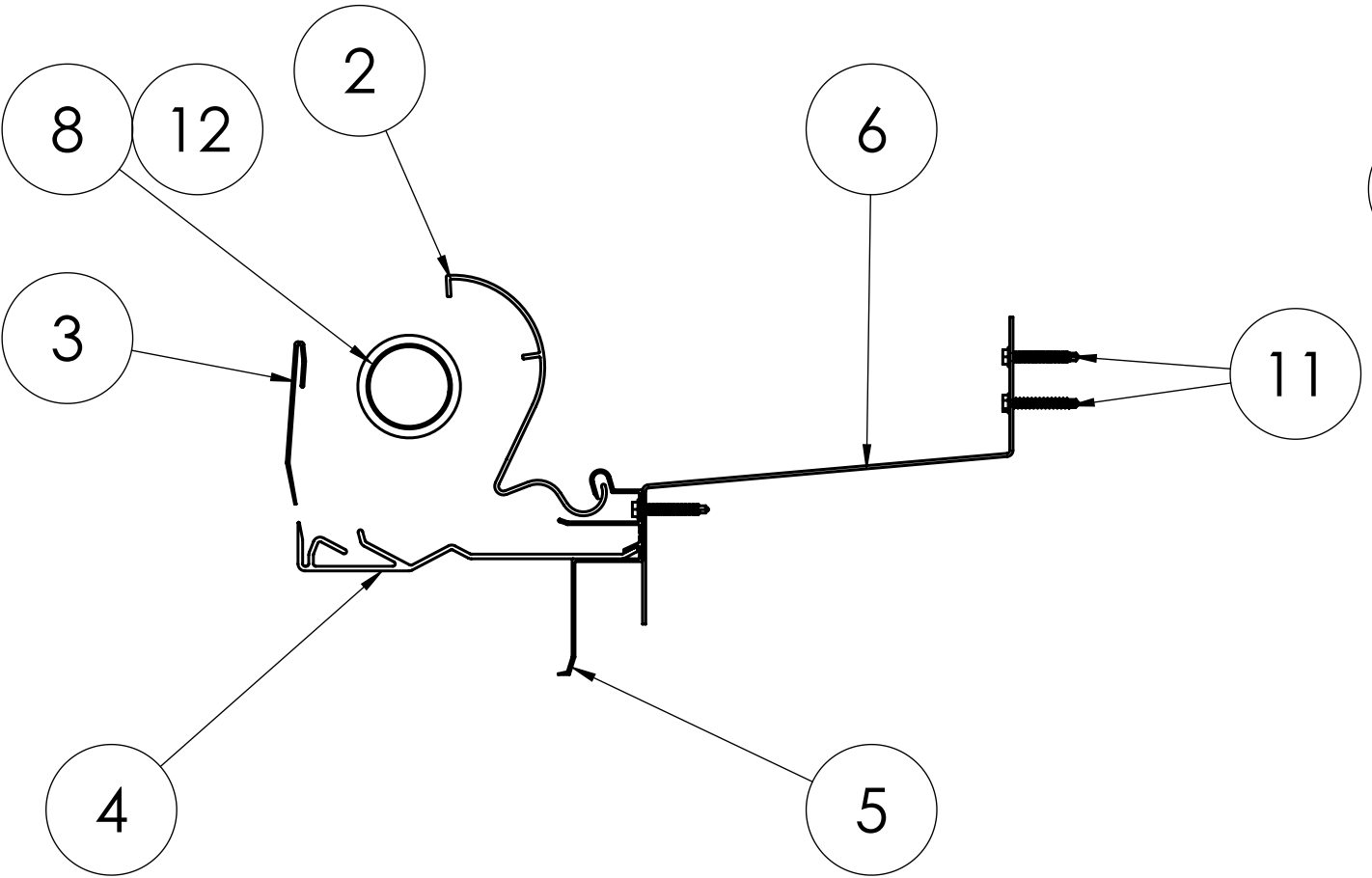
DETAIL Q  
SCALE 1 : 2



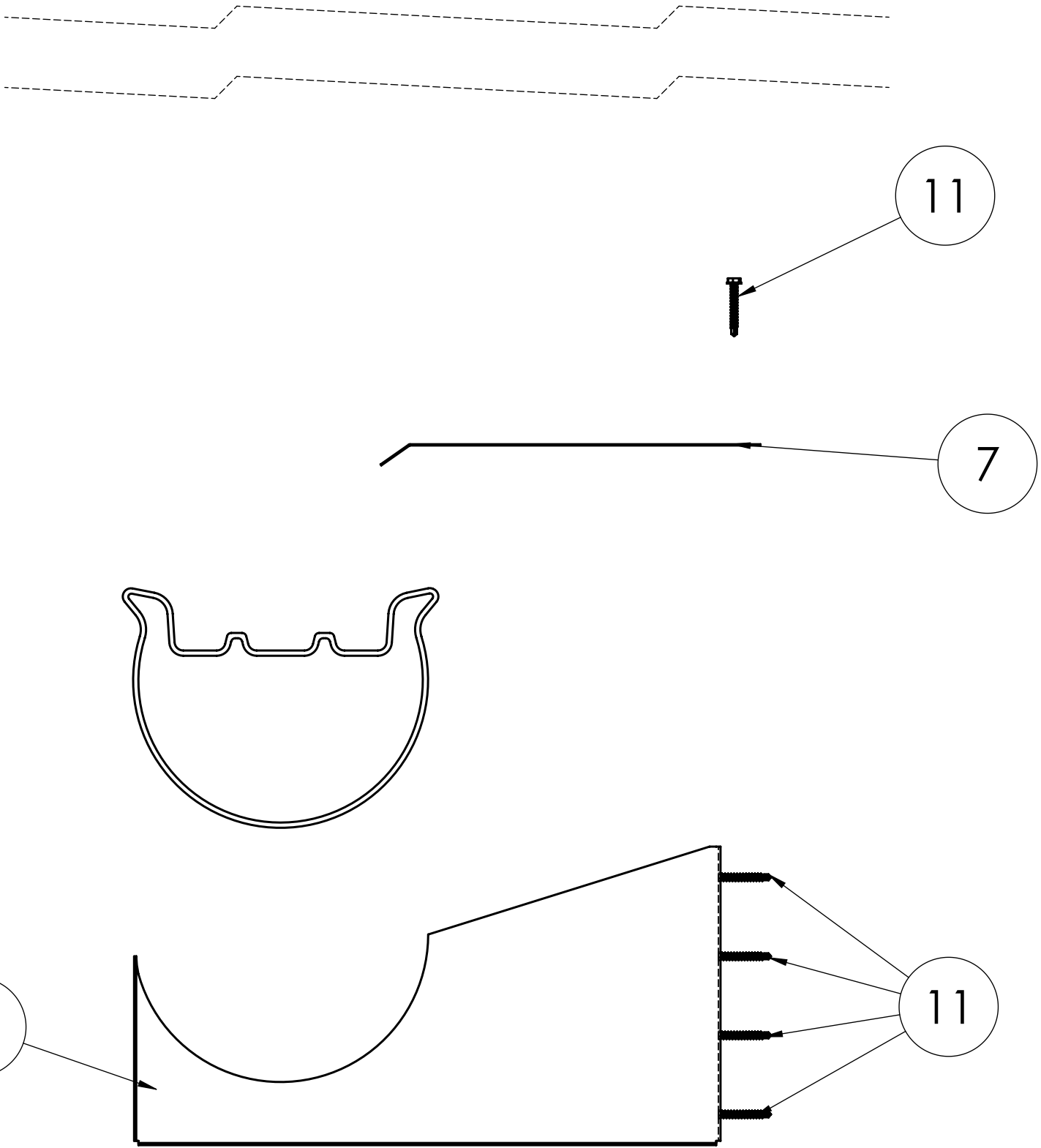
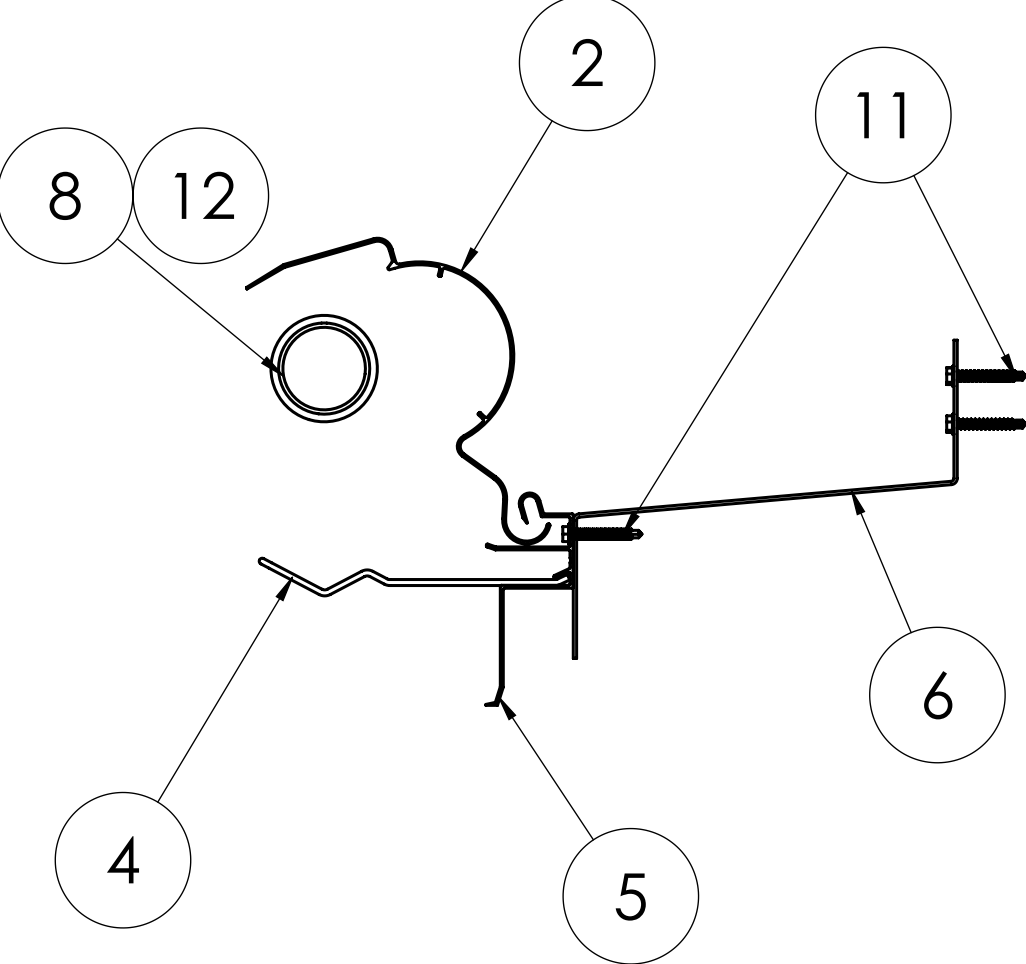
BILL OF MATERIALS (OPEN TOP PAK610EZO-E / CLOSED TOP PAK610EZ-E)				
ITEM #	OPEN TOP PART #	CLOSED TOP PART #	QTY	DESCRIPTION
1	PAB25010	PAB25010	5	PIPE BRACKET FOR EXTENDED 6"
2	PAC607	813008	1	OPEN TOP ALUMINUM PAD COVER
3	PAC608	-	1	OPEN TOP PAD RETAINER 120" LONG
4	PAC609	PAB700	5	OPEN TOP PIPE BRACKET 1-1/2" LONG
5	PAE500	PAE500	1	ALUM TOP EXTRUSION FOR
6	PAEA17510	PAEA17510	1	8" EXTENDED TOP ADAPTER PLATE
7	PAEZEXT	PAEZEXT	1	EXTENDER PLATE FOR EZ TROUGH
8	PAP150DS	PAP150DS	1	1 1/2" PVC(10')W/ 7/64" HOLE
9	PAP800WT	PAP800WT	1	8" PLAIN PVC PIPE 10FT WITH TROUGH
10	PAP860	PAP860	1	COUPLER FOR PAP800WT
11	PAS250	PAS250	53	#12 x 1 1/2" SELF-DRILLING
12	VT198	VT198	1	1 1/2" PVC COUPLER



OPEN TOP

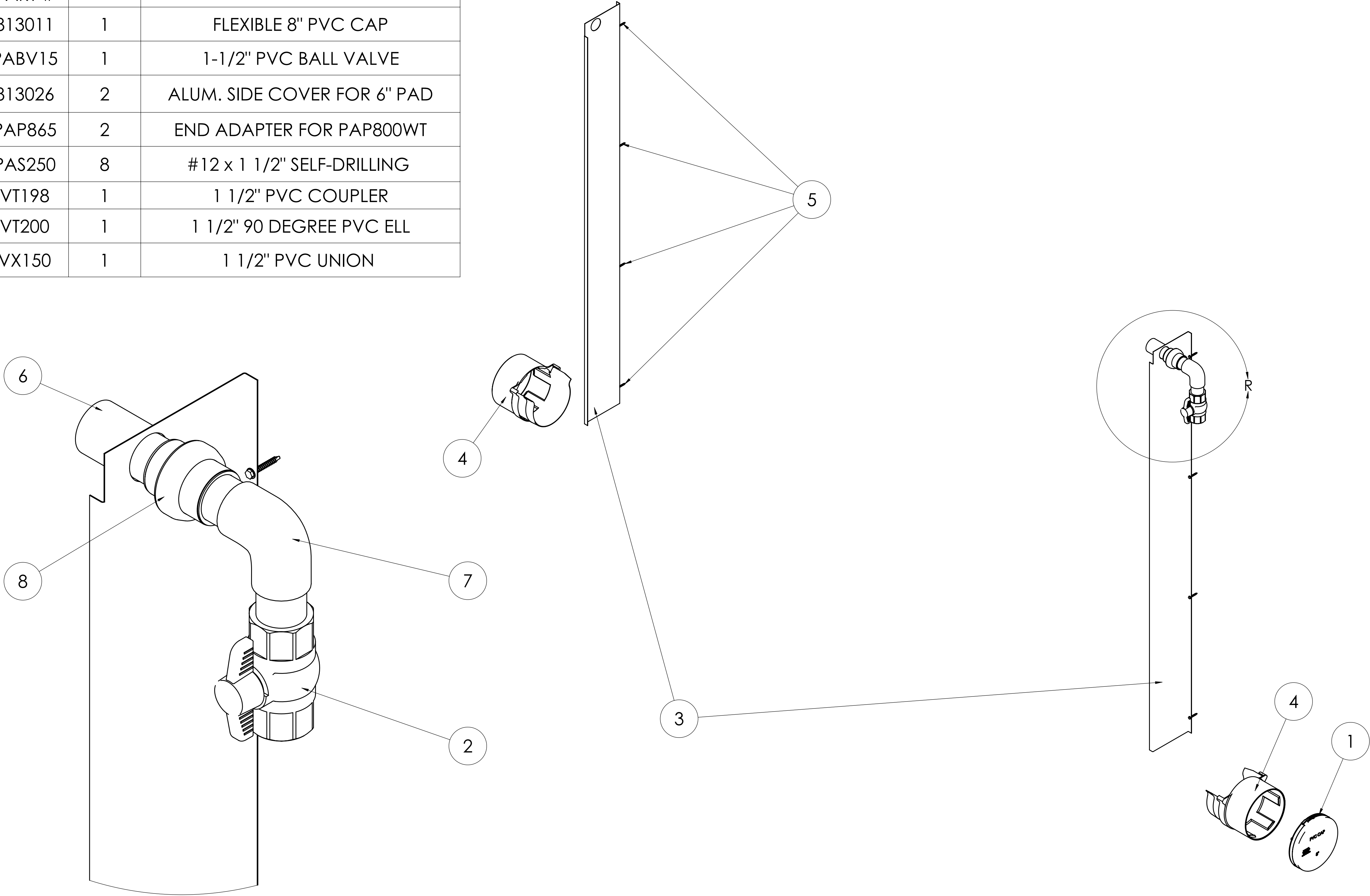


CLOSED TOP



EXPLODED SIDE VIEW

BILL OF MATERIALS (PAEC6/PAEC6-E/813025))					
ITEM #	FLUSH MOUNT PART #	EXTENDED MOUNT PART #	FLUSH MOUNT (2 M TALL) PART #	QTY	DESCRIPTION
1	813011	813011	813011	1	FLEXIBLE 8" PVC CAP
2	PABV15	PABV15	PABV15	1	1-1/2" PVC BALL VALVE
3	PAC800	PAC80010	813026	2	ALUM. SIDE COVER FOR 6" PAD
4	PAP865	PAP865	PAP865	2	END ADAPTER FOR PAP800WT
5	PAS250	PAS250	PAS250	8	#12 x 1 1/2" SELF-DRILLING
6	VT198	VT198	VT198	1	1 1/2" PVC COUPLER
7	VT200	VT200	VT200	1	1 1/2" 90 DEGREE PVC ELL
8	VX150	VX150	VX150	1	1 1/2" PVC UNION



DETAIL R  
SCALE 1 : 2