

1.0 GENERAL NOTES

- 1.1 ALL METRIC DIMENSIONS ARE IN BRACKETS [X. X]
- 1.2 FOR PATENT INFO: <https://www.adwpat.com>

2.0 DESIGN NOTES

- 2.1 ANY HAZARDS OR OBSTRUCTIONS TO THE CLIMBING FACILITY AND SAFETY CLIMB MUST BE IDENTIFIED PRIOR TO INSTALLING THE APPURTENANCE. ADDITIONAL PRODUCTS MAY BE REQUIRED TO MAINTAIN THE INTEGRITY OF THE SAFETY CLIMB. DURING INSTALLATION, TEMPORARY AND/OR PERMANENT PRECAUTIONARY MEASURES SHOULD BE TAKEN TO PRESERVE THE CLIMBING FACILITY AND/OR SAFETY CLIMB.
- 2.2 UP TO 5.7° TAPER AVAILABLE ON MODELS THAT SUPPORT ADJUSTMENT.

3.0 MANUFACTURING/SPECIAL REQUIREMENTS

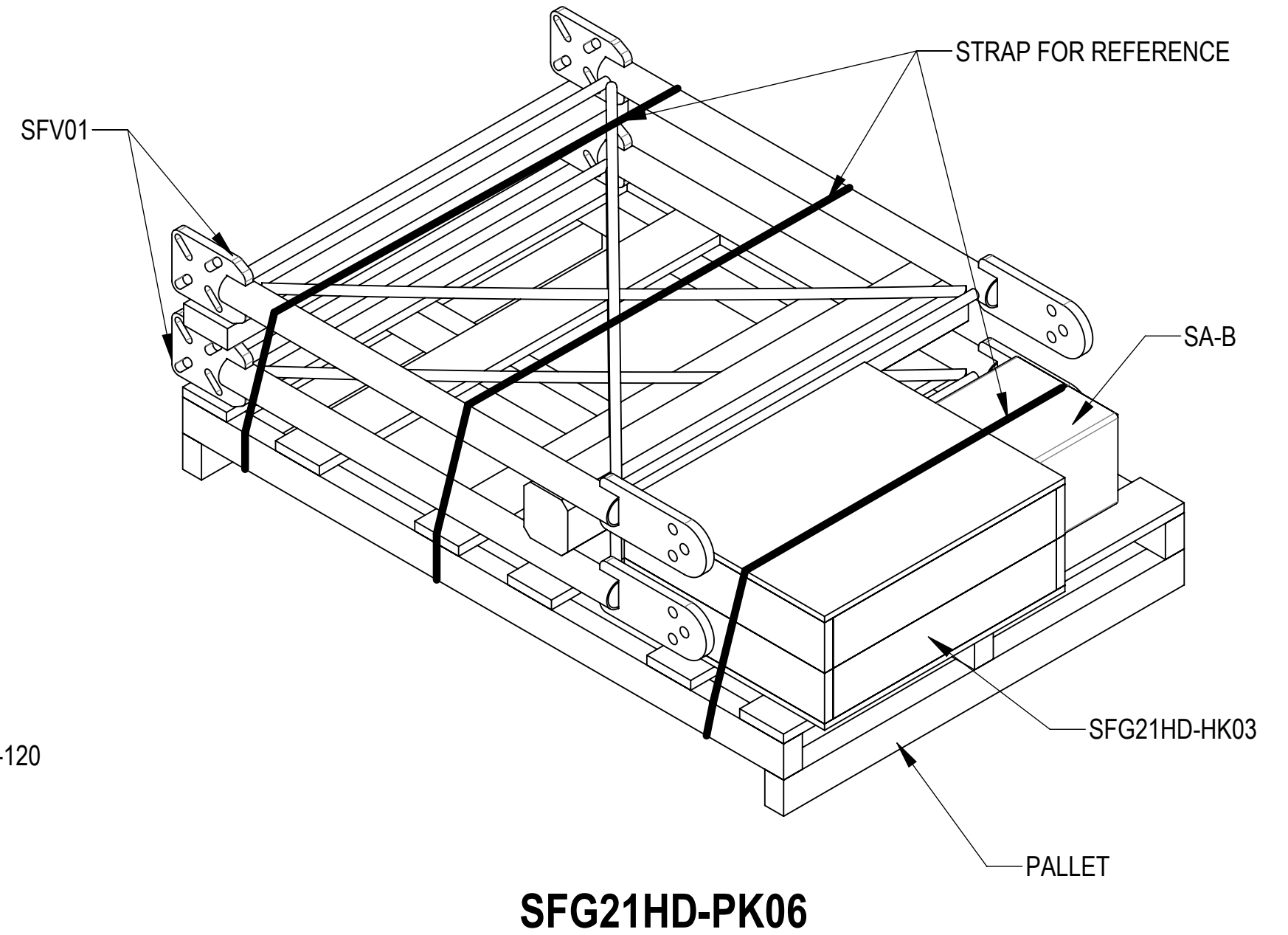
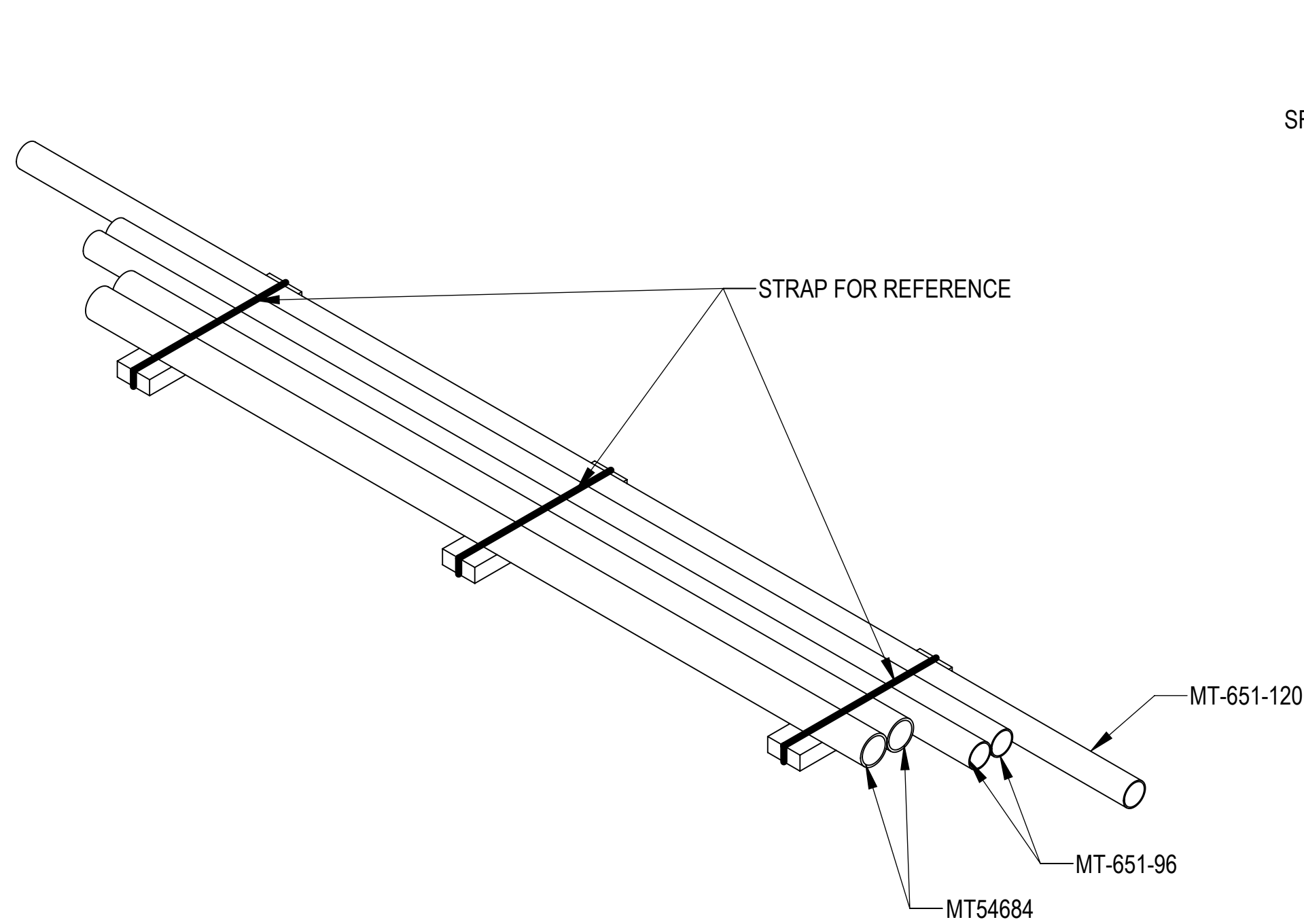
- 3.1 TIGHTEN ALL BOLTS SECURING FLAT PLATES BY THE TURN-OF-NUT METHOD. TIGHTEN ALL U-BOLTS USING TURN-OF-NUT METHOD WITH ATTENTION TO LEAVE EQUAL DISTANCE AND EQUAL FORCE ON EACH LEG OF THE U-BOLT.


4.0 TEST

5.0 PACKAGING

- 5.1 PACKAGING SHALL MEET ANDREW REQUIREMENTS PER DOCUMENT IS-PL-3005.
- 5.2 PRINTED DOCUMENT TO BE PLACED INSIDE POLYBAG AND THEN IN SHIPPING CONTAINER.
- 5.3 EXTRA HARDWARE MAY BE SUPPLIED, BAGGED AND SHIPPED.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	JL1183 21FEB24	CB1094 40189463CMO
B	UPDATED EPA TABLE	YMENG 12DEC24	CB1094 40210882CMO





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TOLERANCES		SAP MATERIAL MASTER	
0 PLACE	X[X] ± 0.25[6.3]	2 PLACE	.XX[X] ± 0.06[1.5]
1 PLACE	X[X] ± 0.12[3.0]	ANGLES	± 2°
FINISH		MATERIAL	
		SFG21HD-7-2-96	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES INTERPRET PER ANSI Y 14.5M-1994	NAME	DATE	TITLE
	CE JL1183	21FEB24	SF,7FT-FACE,(2) 2-3/8"X96"ANT-PIPES
	RW YX1027	06/05/2025	
	AD YMENG	06/05/2025	
	RE YMENG	06/05/2025	
ECN 40210882CMO			
SCALE	DOCUMENT NO.		
1:8	SFG21HD-7-2-96		
SIZE	Auth Group	INSL	MODEL
C			VERSION STATUS REVISION
			VERSION STATUS REVISION
			01 RE B
			SHEET 1 OF 8

DENSITY		lbs/in³
MASS	357.15	lbs
VOLUME	1261.18	in³
SURFACE AREA	13130.25	in²
HEIGHT	96"	
LENGTH	120"	
WIDTH	84"	

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PART NUMBERS, WEIGHTS, & EPA

TABLE 1: CONFIGURATIONS


PART NUMBER	DESCRIPTION	WEIGHT (LBS)	MOUNT EPA W/NO ICE (FT²)			MOUNT EPA W/ 1/2" ICE (FT²)			INCLUDED PARTS				
			FRONT (EPA)N	SIDE (EPA)T	3-SECTORS (EPA)A	FRONT (EPA)N	SIDE (EPA)T	3-SECTORS (EPA)A	SFG21HD-PK06	SFG2152	MT-651-120	MT-651-96	MT54684
SFG21HD-7-2-96	SF,7FT-FACE,(2) 2-3/8"X96"ANT-PIPES	357.2	5.24	3.48	10.47	8.08	6.40	17.37	1	1	1	2	2

- NOTES:
1. NO MOUNT PIPES CONSIDERED. IF DESIRED, ADD ANTENNA PIPE PER TABLE 2
 2. MOUNT CONNECTION MEMBERS TO TOWER CONSIDERED.
 3. 3-SECTOR EPA INCLUDES KA FACTORS.

TABLE 2: EPA OF EACH ANTENNA PIPE

ANTENNA PIPE	MOUNT EPA W/NO ICE (FT²)			MOUNT EPA W/ 1/2" ICE (FT²)		
	FRONT (EPA)N	SIDE (EPA)T	3-SECTORS (EPA)A	FRONT (EPA)N	SIDE (EPA)T	3-SECTORS (EPA)A
2-3/8" X 96"	1.71	1.71	1.52	2.43	2.43	2.16

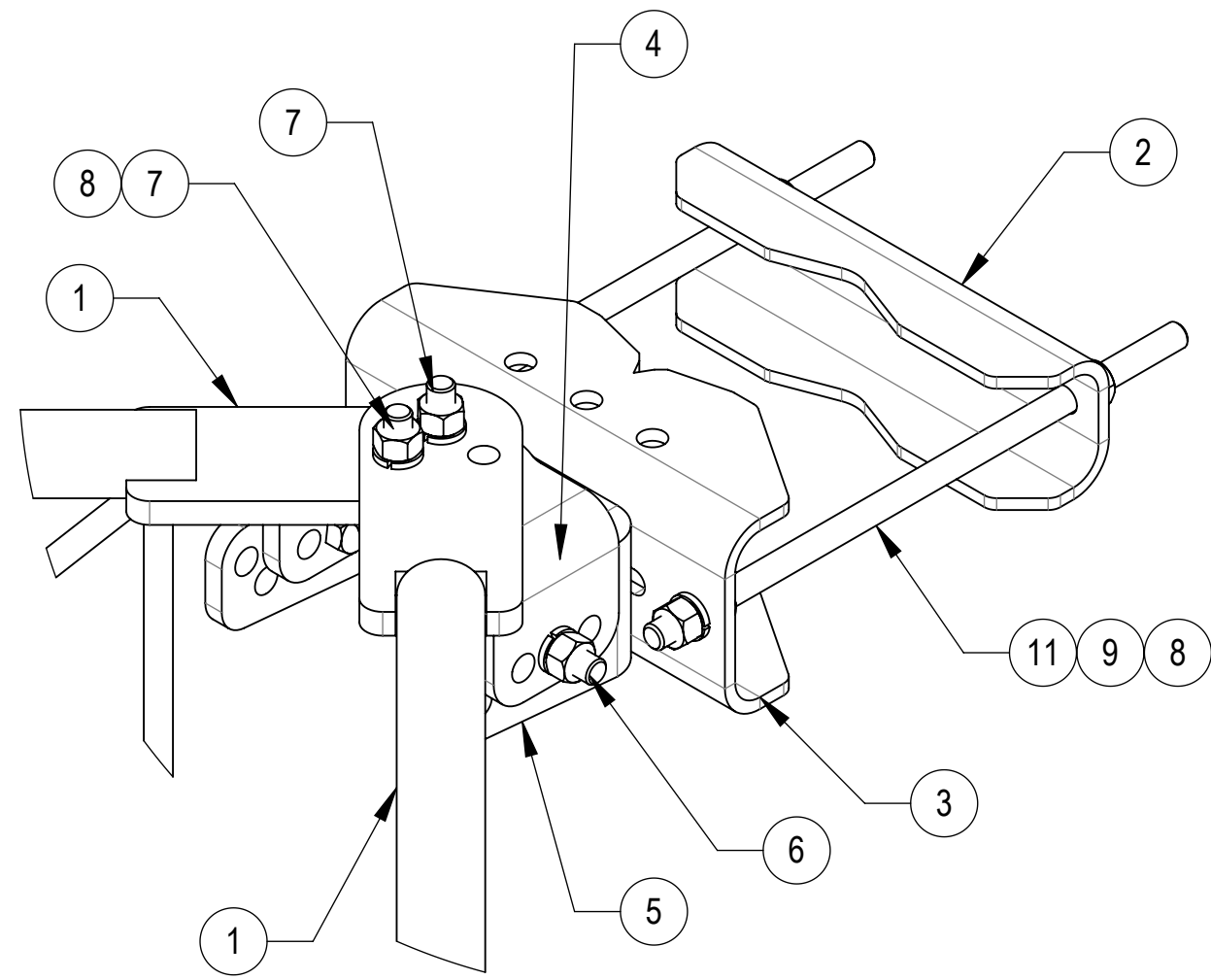
- NOTE:
1. ANTENNA PIPES ARE CONSIDERED SEPARATELY.
 2. KA FACTOR OF 3-SECTOR EPA INCLUDED.
 3. COMBINE THE ASSOCIATED EPA VALUES IN THE TABLES ABOVE TO DETERMINE THE EPA OF A MOUNT MODEL WITH A LISTED MOUNT PIPE CONFIGURATION.
 FOR EXAMPLE: SFG21HD-7-2-96 HAS A FRONT EPA OF 5.24 FT² WITH NO ICE PLUS 2 ANTENNA PIPES WITH A FRONT EPA OF 2X1.71=3.42 FT² WITH NO ICE.
 SO, THE TOTAL FRONT EPA SHOULD BE 8.66 FT²; (SIDE EPA SAME METHOD AS FRONT EPA).
 WHEN 3 SECTOR FRAMES ARE MOUNTED AT THE SAME RELATIVE ELEVATION IN AN ARRANGEMENT, IT HAS A 3-SECTOR EPA OF 10.47 FT² WITH NO ICE PLUS 2 ANTENNA PIPES WITH A 3-SECTOR EPA OF (2X1.52)X3=9.12 FT² WITH NO ICE. SO, THE TOTAL 3-SECTOR EPA SHOULD BE 19.59 FT².

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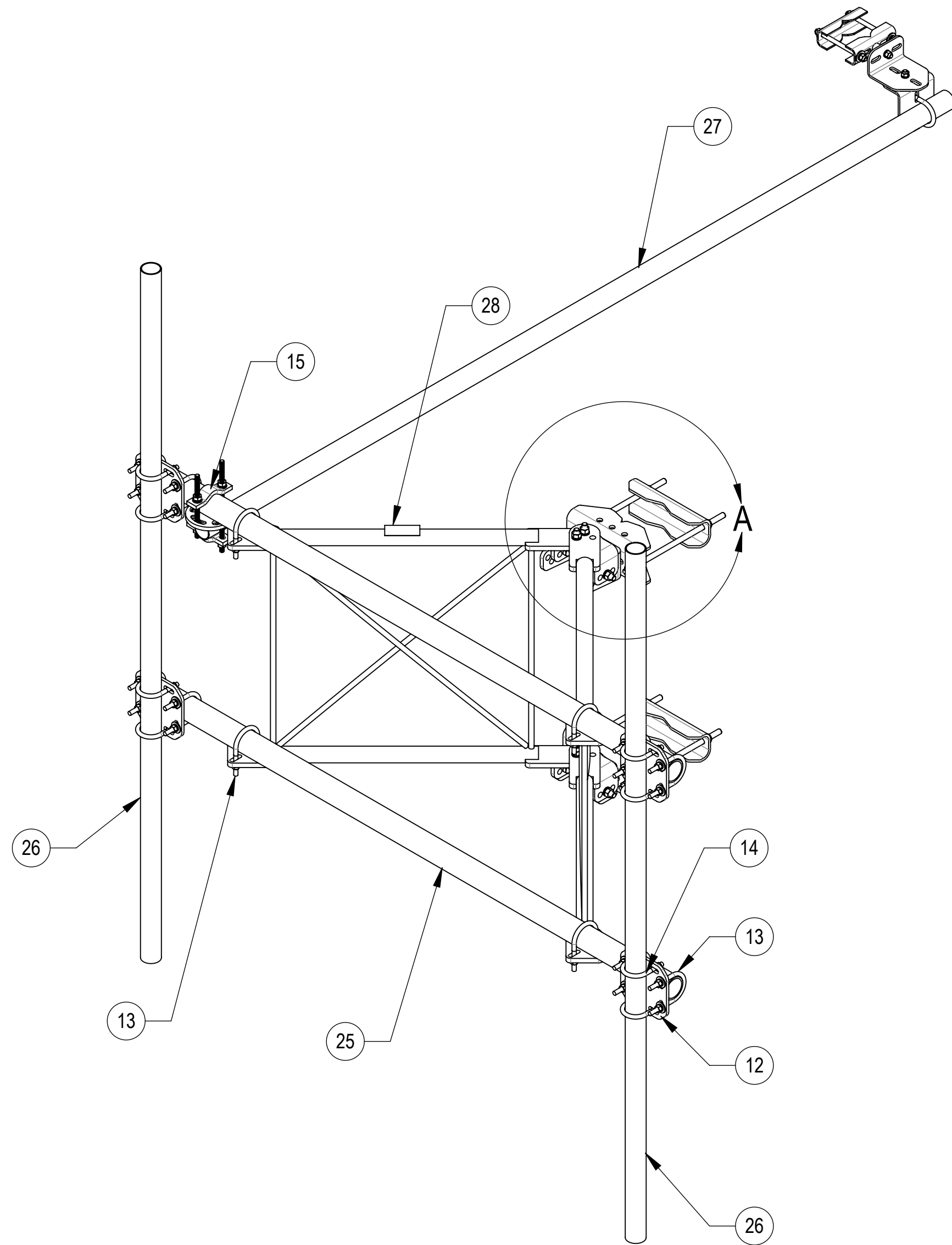
TITLE
SF,7FT-FACE,(2) 2-3/8"X96"ANT-PIPES

SIZE C	SCALE 1:8	DOCUMENT NO. SFG21HD-7-2-96
DRAWING		SHEET
VERSION 01	STATUS RE	REVISION B
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DETAIL A
SCALE 1 : 4



COMPONENT PART NUMBERS PROVIDED FOR ASSEMBLY PURPOSES;
INDIVIDUAL COMPONENTS MAY BE SHIPPED AS PARTS WITHIN AN INCLUDED KIT.

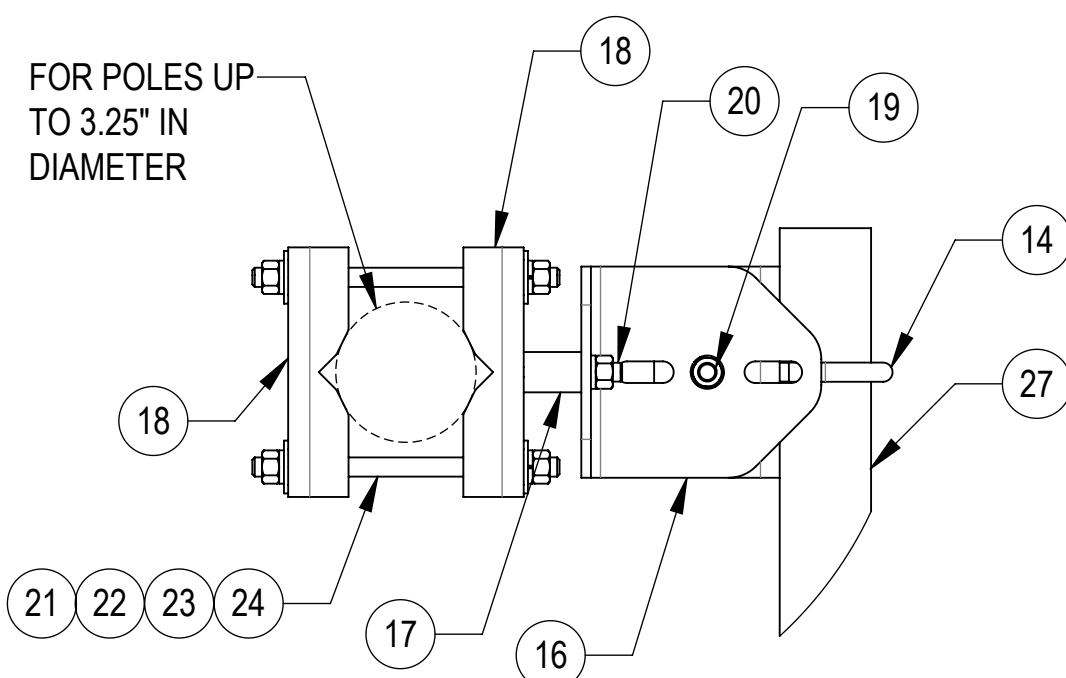
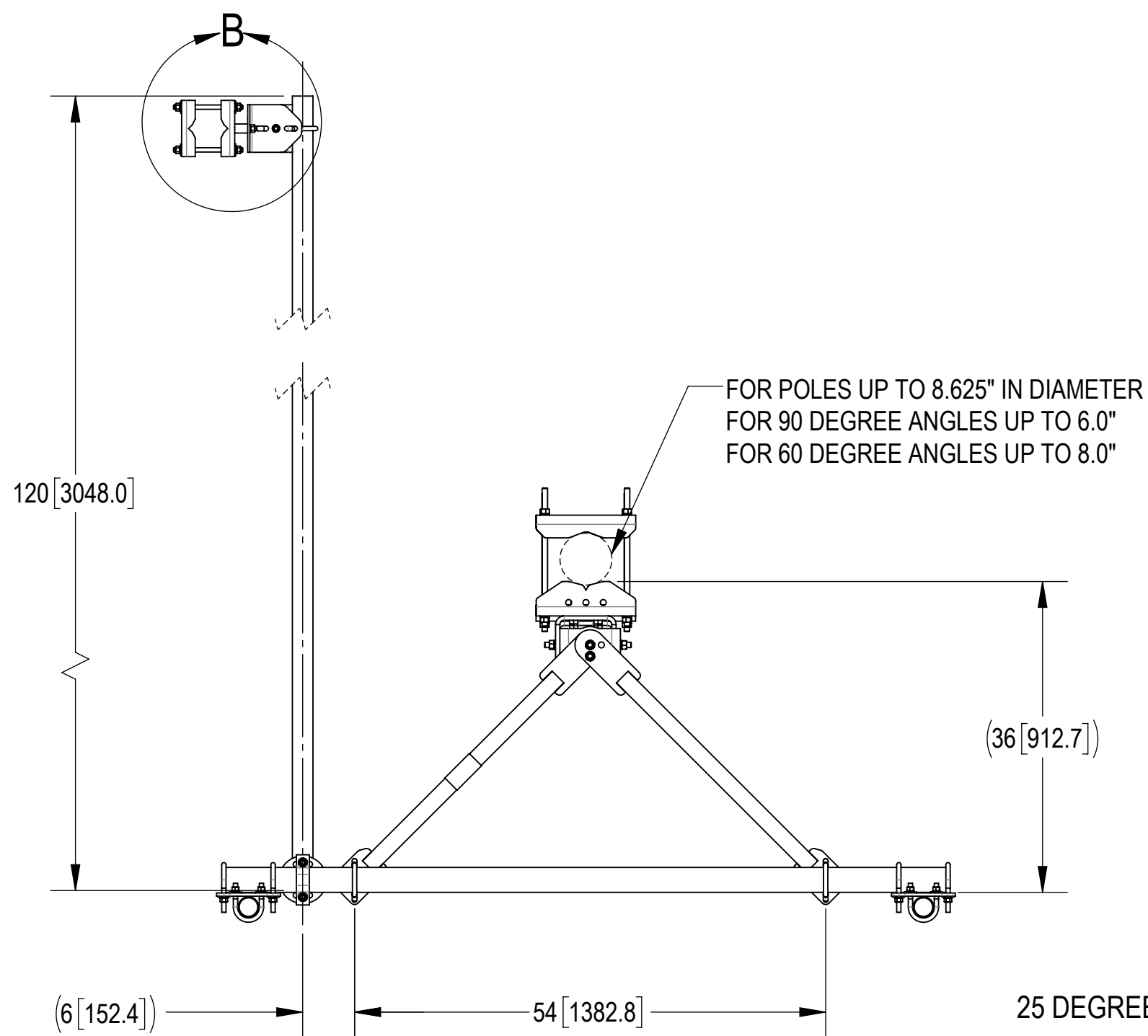
ITEM	PART NO.	DESCRIPTION	QTY.	WEIGHT	NOTE NO.
1	SFV01	WELDMNT, SF-V STANDOFF ARM	2	38.31 LBS	
2	MTC397521	CLAMP, BACK	2	6.94 LBS	
3	MTC397522	CLAMP, FRONT MOUNTING	2	10.02 LBS	
4	SFV02	SFV AZIMUTH BRACKET	3	5.91 LBS	
5	SFV03	SFV TAPER BRACKET	1	7.49 LBS	
6	GB-05225	5/8" X 2-1/4" GALV BOLT KIT	8	0.28 LBS	
7	GB-05305	5/8" X 3" GALV BOLT KIT	4	0.35 LBS	
8	GWF-05	5/8" GALV FLAT WASHER, 1.7OD	6	0.06 LBS	
9	GWL-05	5/8" GALV LOCK WASHER	8	0.03 LBS	
10	GN-05	5/8" GALV HEX NUT	12	0.08 LBS	
11	MT-382-16	5/8" X 16" GALV THREADED ROD	4	1.38 LBS	
12	XPU01	PLATE, CROSSOVER, 1.9-3.5" X 1.9-3.5" OD	4	4.76 LBS	
13	GUB-4352	1/2" X 3" X 5-1/4" GALV U-BOLT	12	0.71 LBS	
14	GUB-4240	1/2" X 2-1/2" X 4" GALV U-BOLT	9	0.56 LBS	
15	XP-R	CROSSOVER PLATE, ROUND, UP TO 3.5" OD	1	6.20 LBS	
16	XAU01	ANGLE, CROSSOVER, 1.9-3.5" X 1.9-3.5" OD	2	2.98 LBS	
17	OS15034	3/4" X 1-1/2" OFFSET COLLAR	1	0.14 LBS	
18	SAB01	FORMED CLAMP	2	1.35 LBS	
19	GB-04125	1/2" X 1-1/4" GALV BOLT KIT	1	0.12 LBS	
20	GB-04265	1/2" X 2-3/4" GALV BOLT KIT	1	0.20 LBS	
21	GN-04	1/2" GALV HEX NUT	4	0.04 LBS	
22	GWL-04	1/2" GALV LOCK WASHER	4	0.01 LBS	
23	GWF-04	1/2" GALV FLAT WASHER	4	0.04 LBS	
24	MT-379-8	1/2" X 8" GALV THREADED ROD	2	0.44 LBS	
25	MT54684	2.875" OD x 84" Pipe	2	40.22 LBS	
26	MT-651-96	2.375" OD X 96" PIPE	2	23.05 LBS	
27	MT-651-120	PIPE, 2.375"OD X 120"	1	29.07 LBS	
28	SFG2152	LABEL, SFG21HD	1	0.04 LBS	

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TITLE
SF,7FT-FACE,(2) 2-3/8"X96"ANT-PIPES

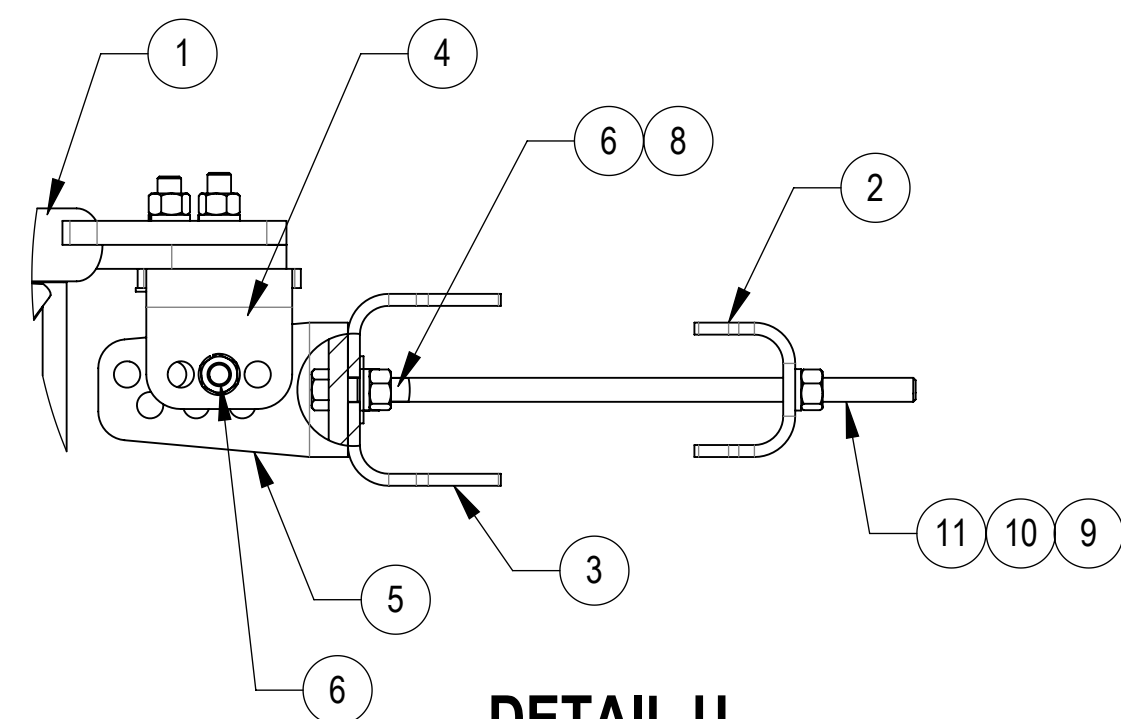
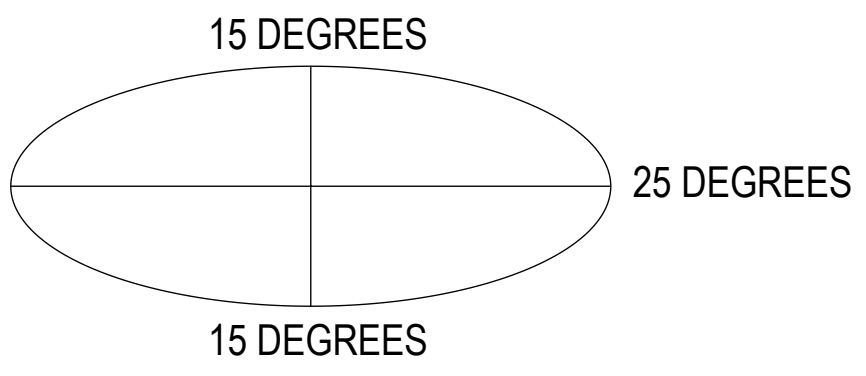
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DRAWING		SHEET
VERSION 01	STATUS RE	REVISION B
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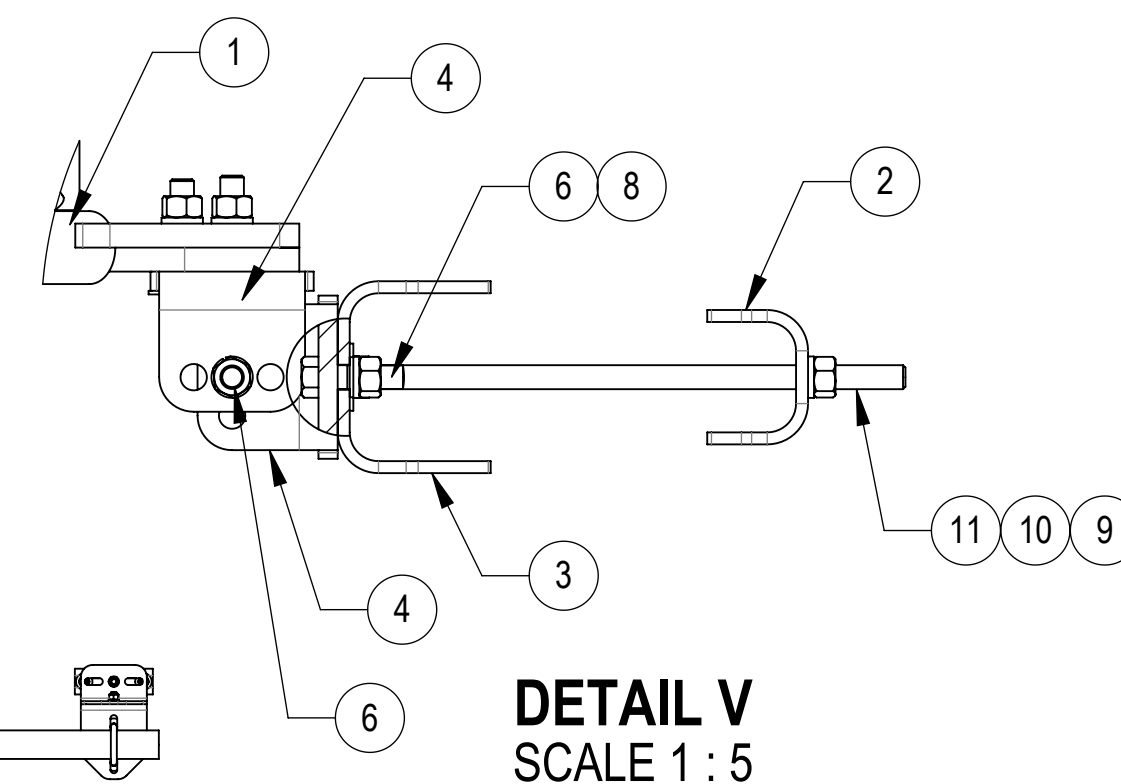
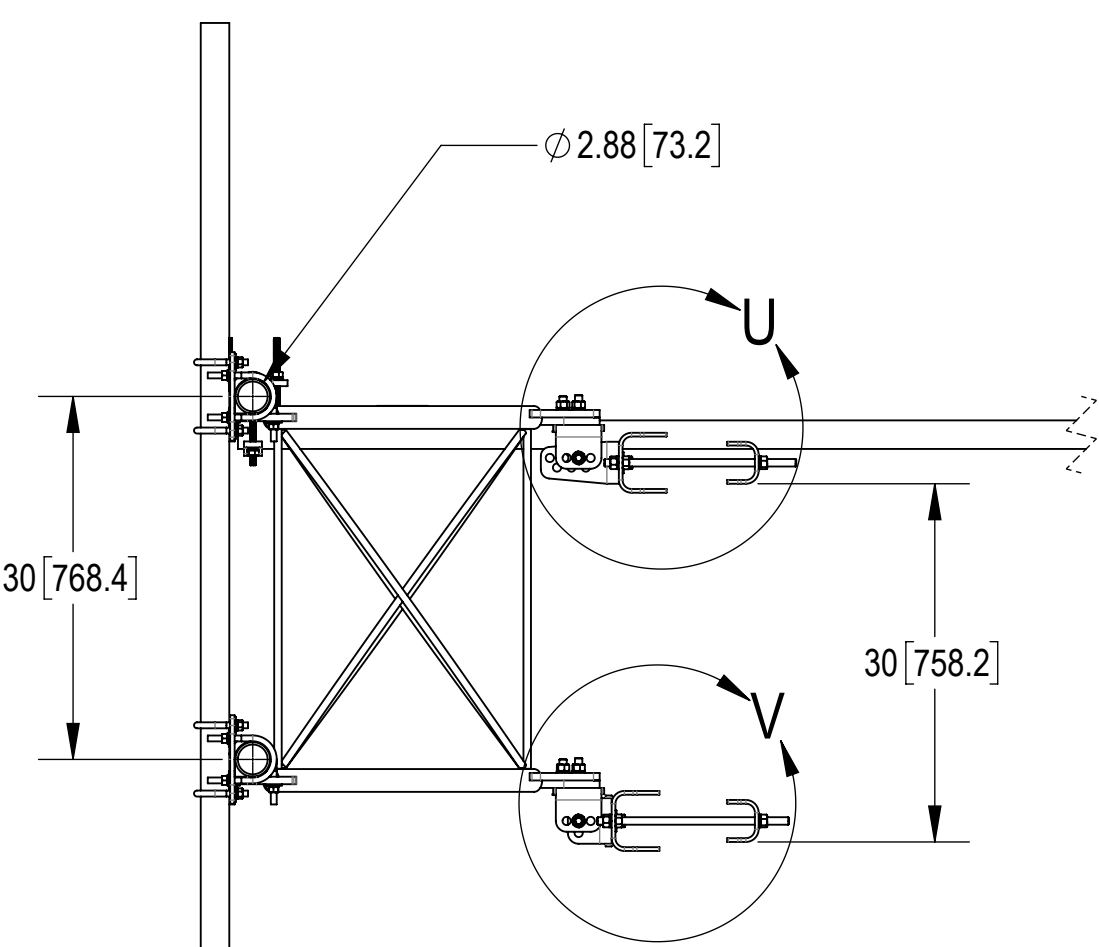
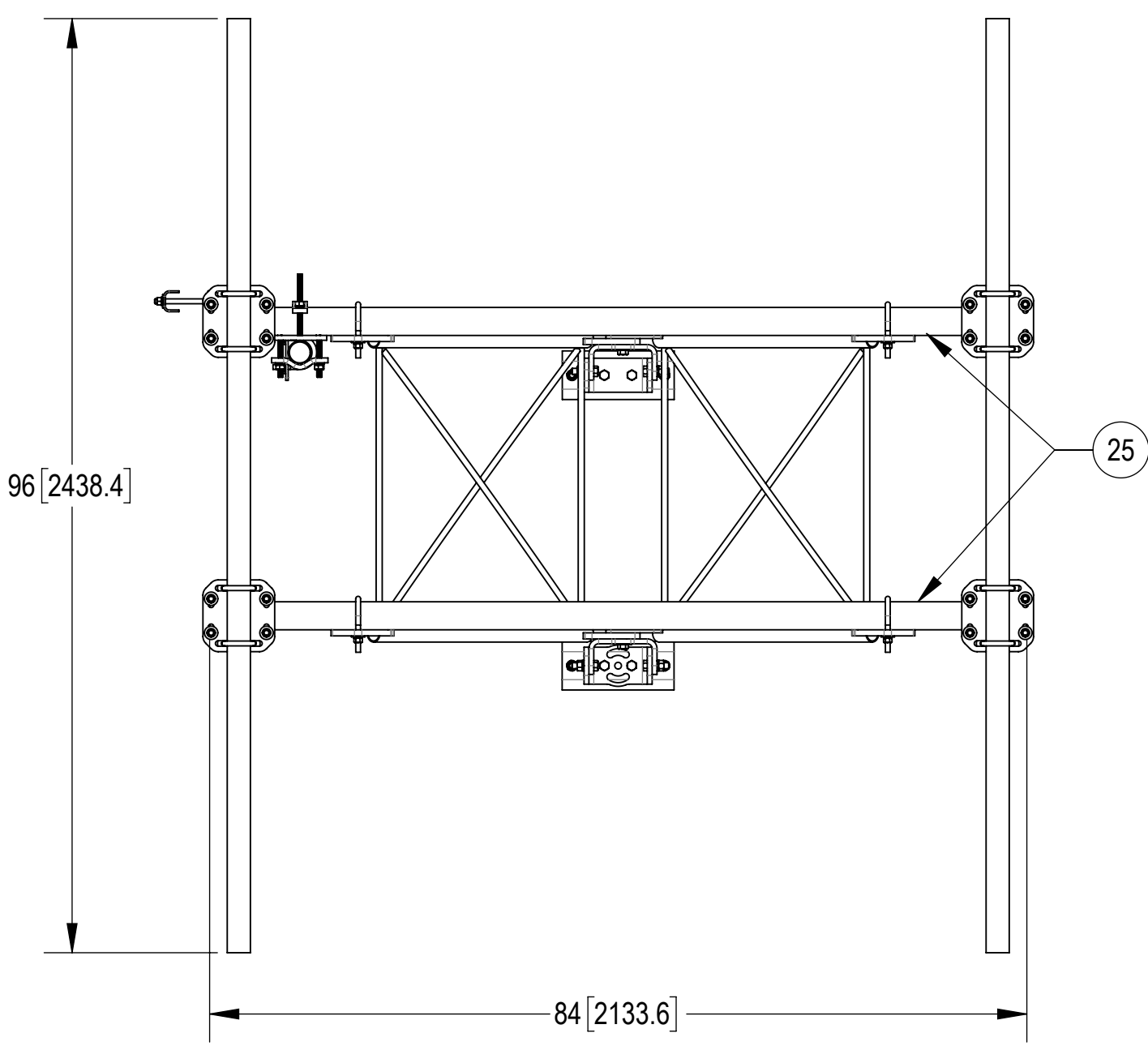


DETAIL B
SCALE 1 : 5

ALLOWABLE TIEBACK ANGLE
± 15 DEGREES VERTICAL
± 25 DEGREES HORIZONTAL



DETAIL U
SCALE 1 : 5



DETAIL V
SCALE 1 : 5

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TITLE
SF,7FT-FACE,(2) 2-3/8"X96"ANT-PIPES

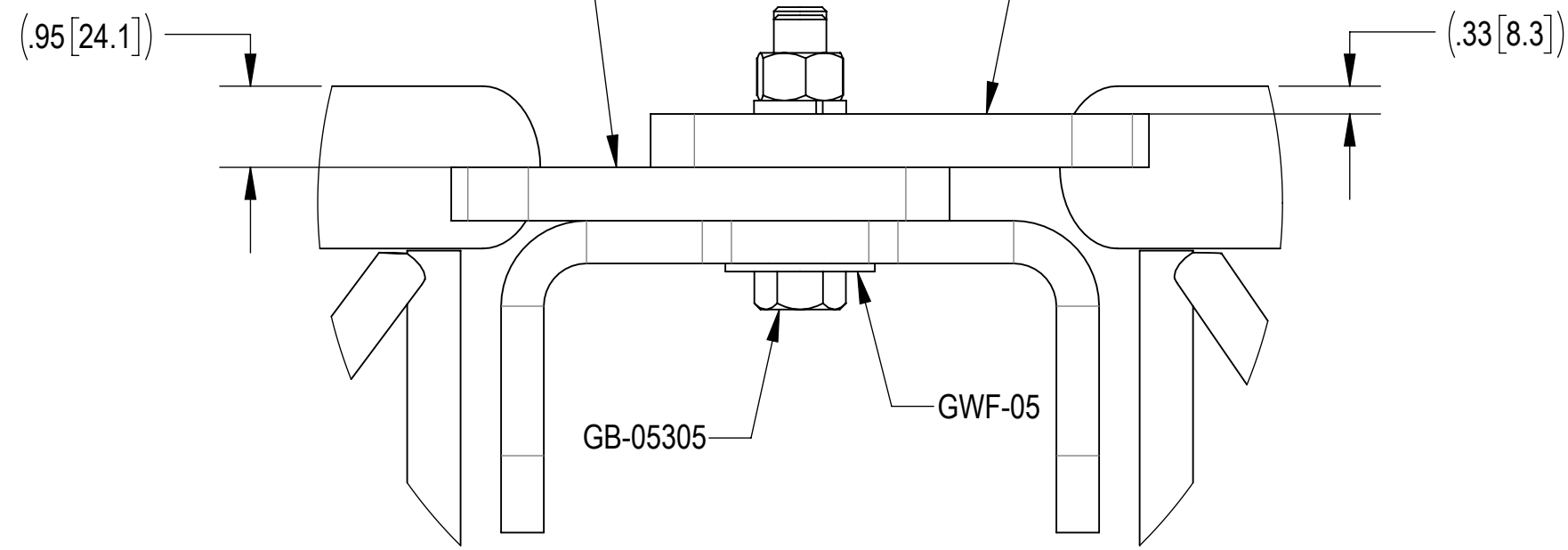
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VERSION	STATUS	REVISION	
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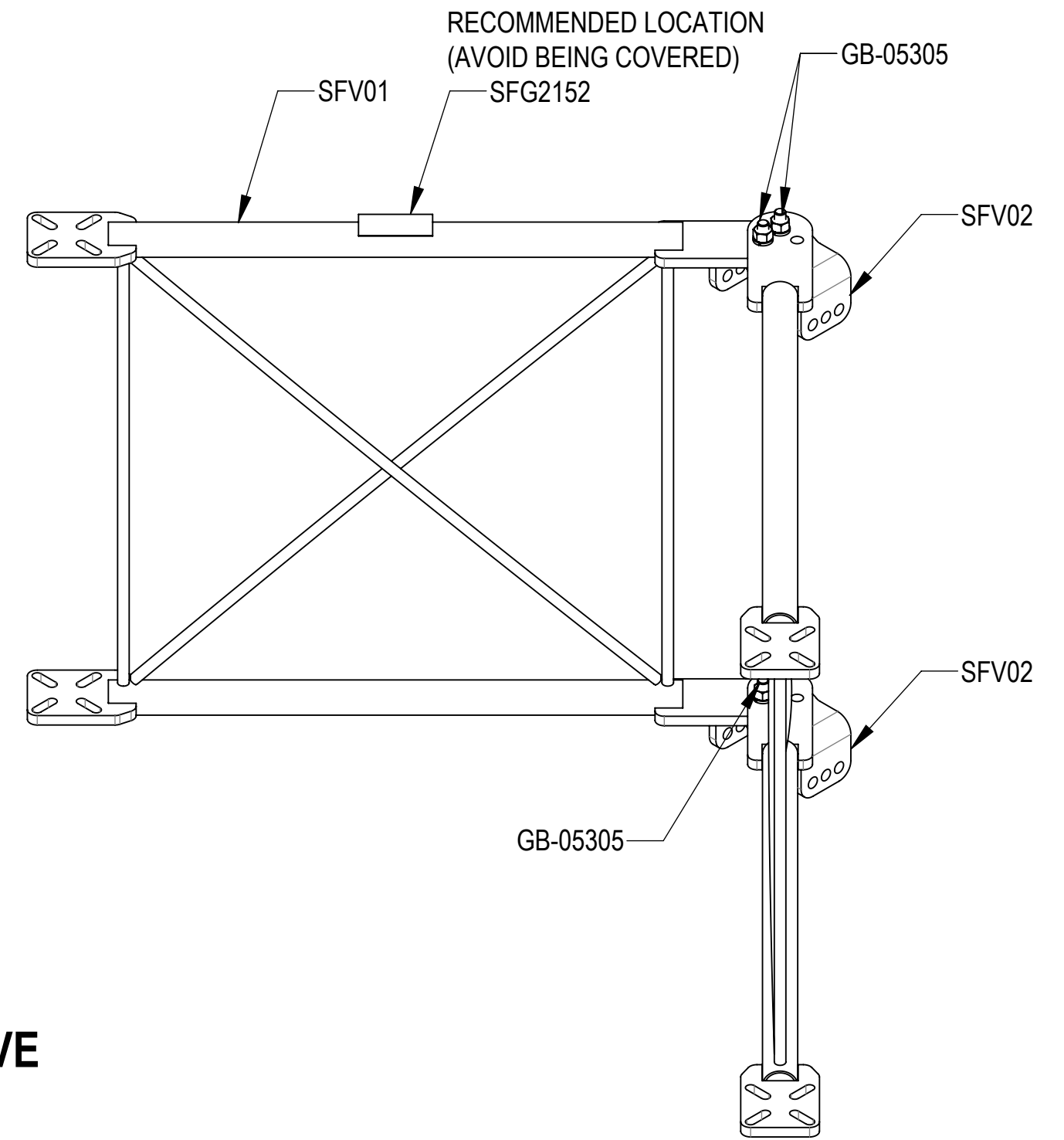
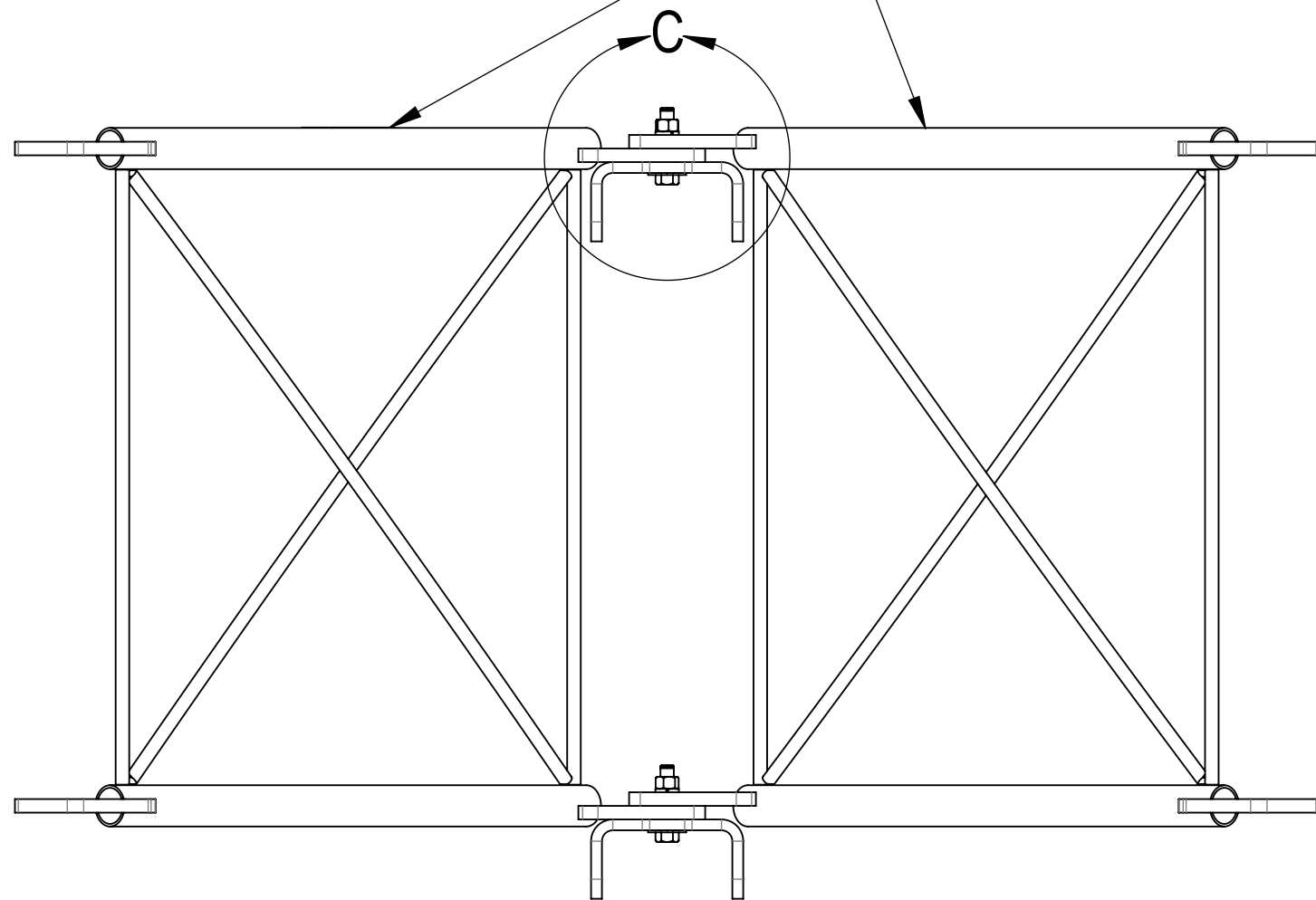
STEP1: ATTACH STANDOFF ARMS (SFV01) TO AZIMUTH BRACKETS (SFV02) USING BOLT KITS (GB-05305) AND FLAT WASHERS (GWF-05). PLACE LABEL (SFG2152) ON TOP OF STANDOFF ARMS (SFV01). (WIPE GALVANIZED SURFACE WITH ALCOHOL CLEANER BEFORE APPLYING LABEL)



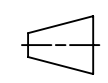
LOWER ARM "UPSIDE DOWN" UPPER ARM "RIGHT SIDE UP"



DETAIL C
SCALE 1 : 2

**STANDOFF ARM ORIENTATION IS CRITICAL!
WHEN ASSEMBLED, ARMS SHOULD BE LEVEL
WITH EACH OTHER. ALSO SEE DETAIL C ABOVE**

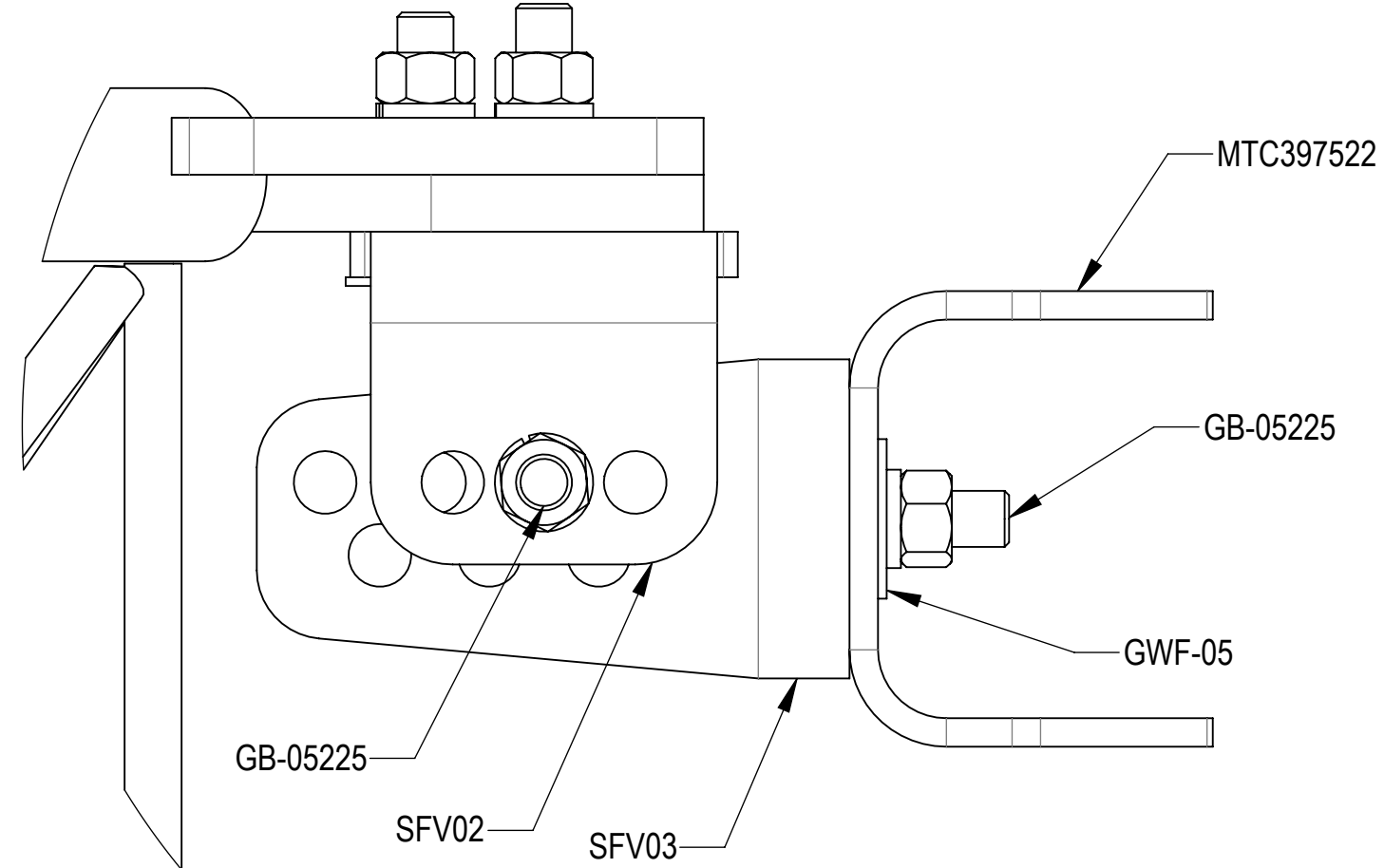


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TITLE SF,7FT-FACE,(2) 2-3/8"X96"ANT-PIPES				
SIZE C	SCALE 1:8	DOCUMENT NO. SFG21HD-7-2-96		
 		DRAWING		SHEET 5 OF 8
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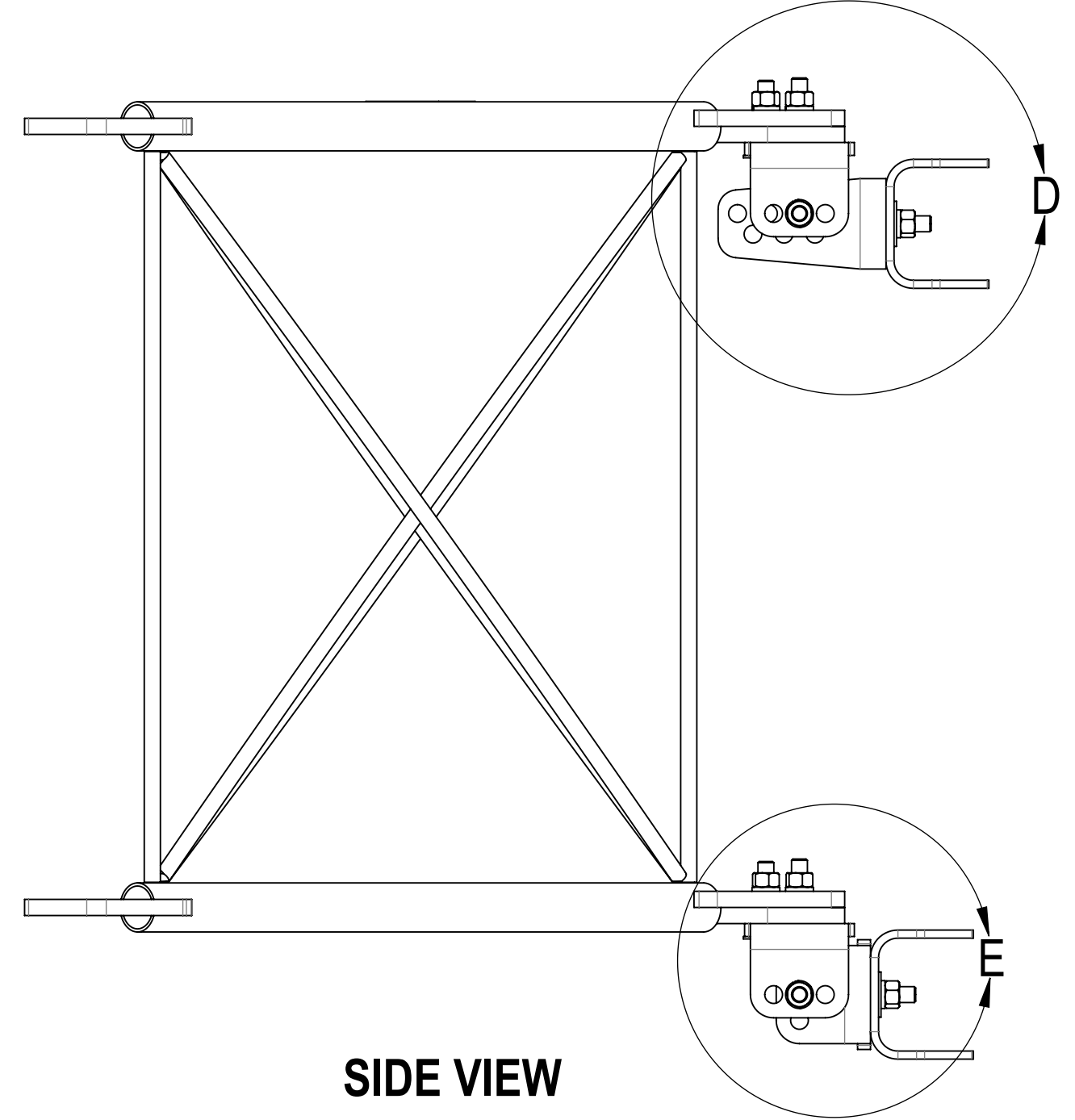
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**STEP 2A: ON TOP, ATTACH TAPER BRACKET (SFV03) TO AZIMUTH BRACKET (SFV02) USING BOLT KITS (GB-05225).
SEE ISO ROTATED VIEW. ATTACH TAPER BRACKET (SFV03) TO CLAMP, FRONT MTG (MTC397522) USING BOLT KITS (GB-05225)
AND FLAT WASHERS (GWF-05).**

**STEP 2B: ON BOTTOM, ATTACH AZIMUTH BRACKET (SFV02) TO AZIMUTH BRACKET (SFV02) USING BOLT KITS (GB-05225).
ATTACH AZIMUTH BRACKET (SFV02) TO CLAMP, FRONT MTG (MTC397522) USING BOLT KITS(GB-05225)
AND FLAT WASHERS (GWF-05).**

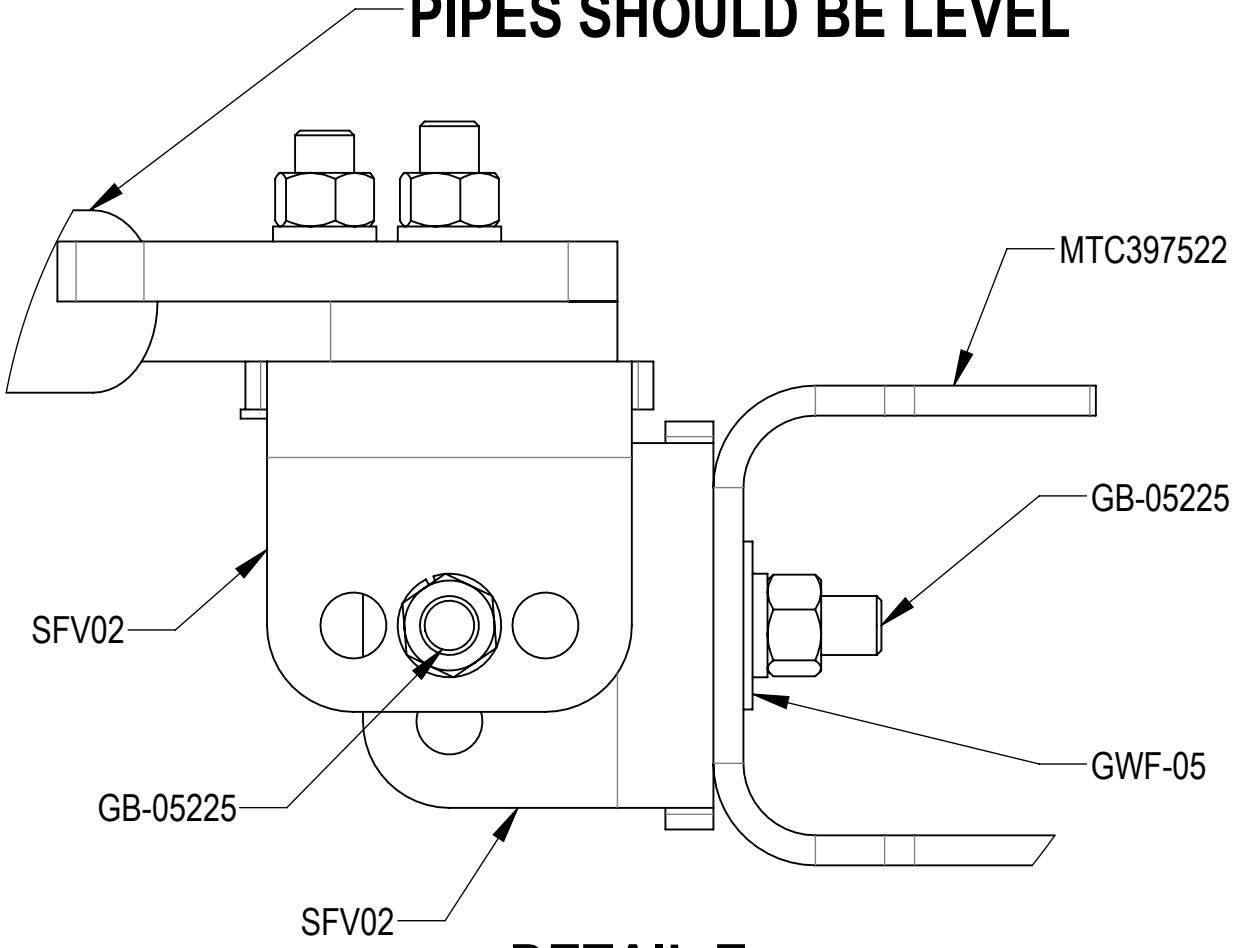


DETAIL D
SCALE 1 : 2

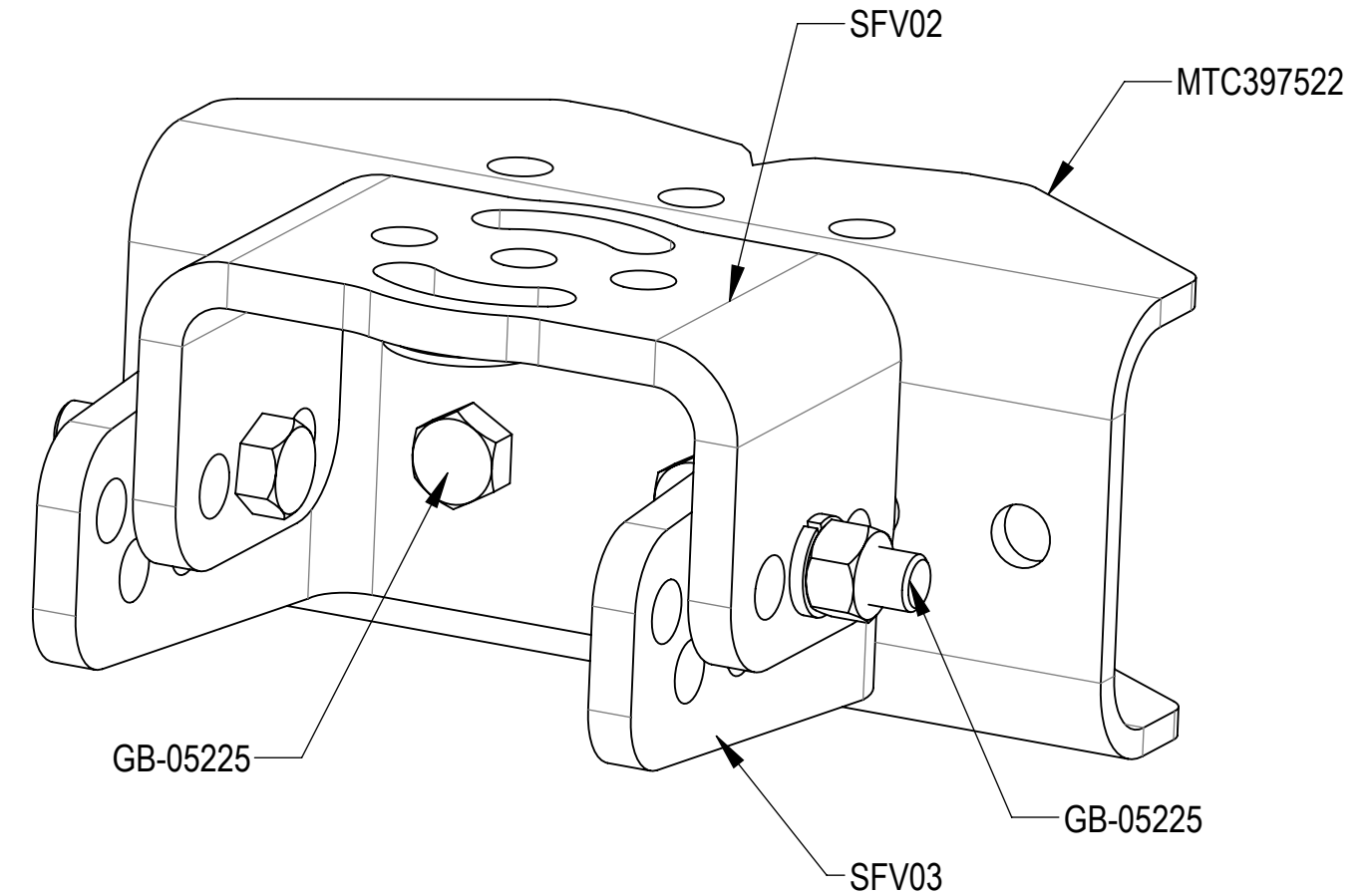


SIDE VIEW



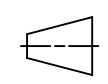
**STANDOFF ARM ORIENTATION
IS CRITICAL! WHEN ASSEMBLED,
PIPES SHOULD BE LEVEL**



DETAIL E
SCALE 1 : 2

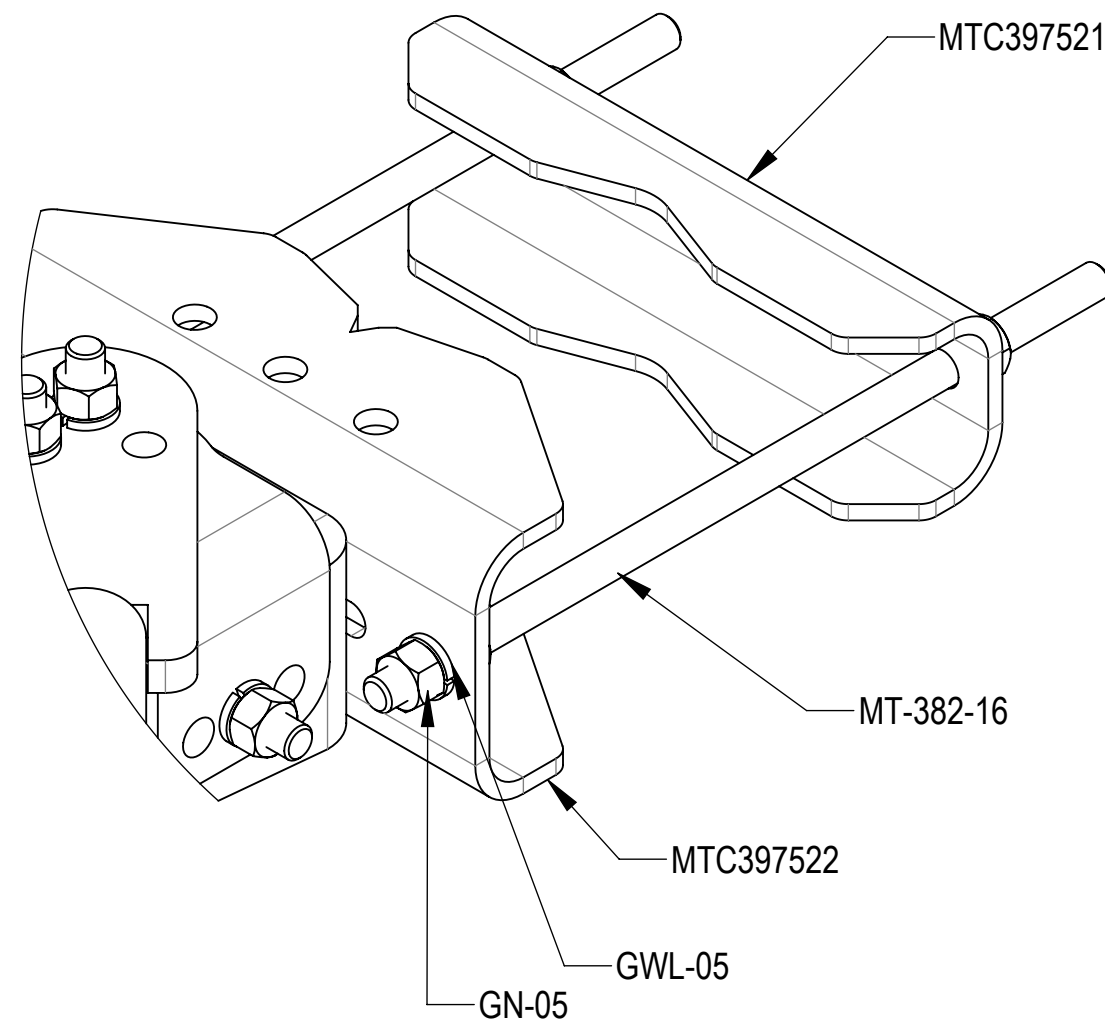


ISO ROTATED VIEW

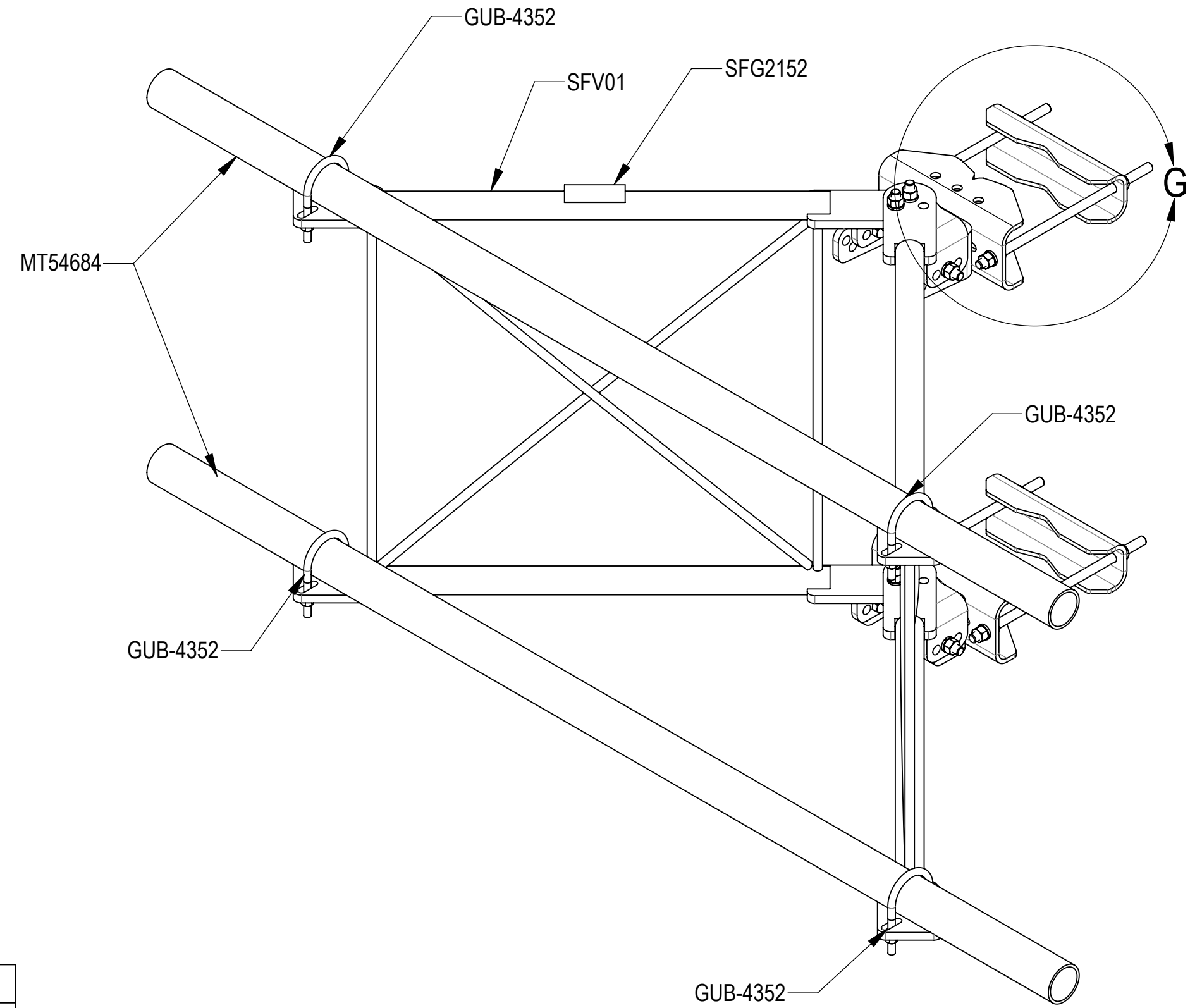
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TITLE SF,7FT-FACE,(2) 2-3/8"X96"ANT-PIPES				
SIZE C	SCALE 1:6	DOCUMENT NO. SFG21HD-7-2-96		
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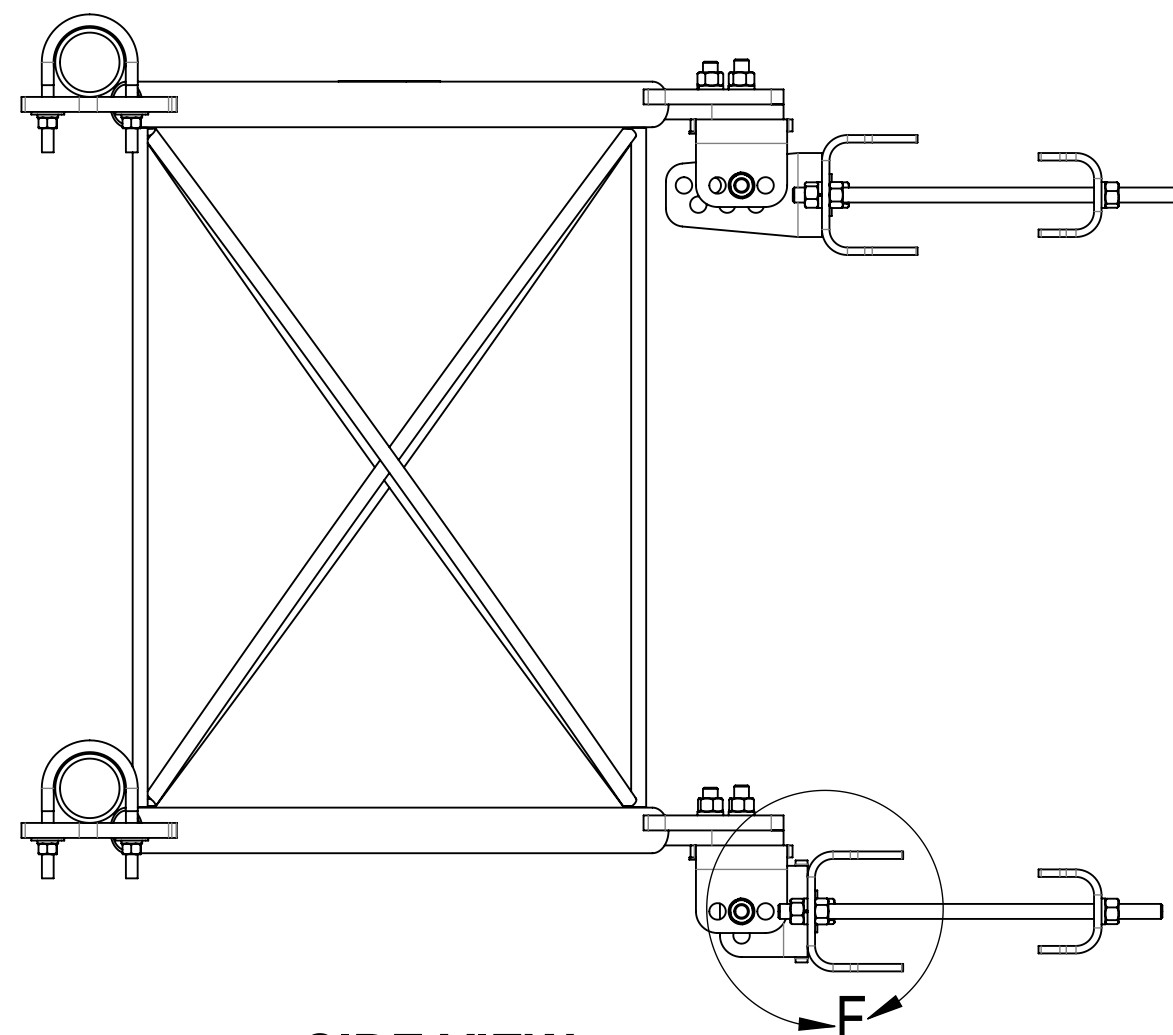
STEP 3: ATTACH FACE PIPES(MT54684) TO STANDOFF ARMS (SFV01) USING U-BOLTS (GUB-4352).



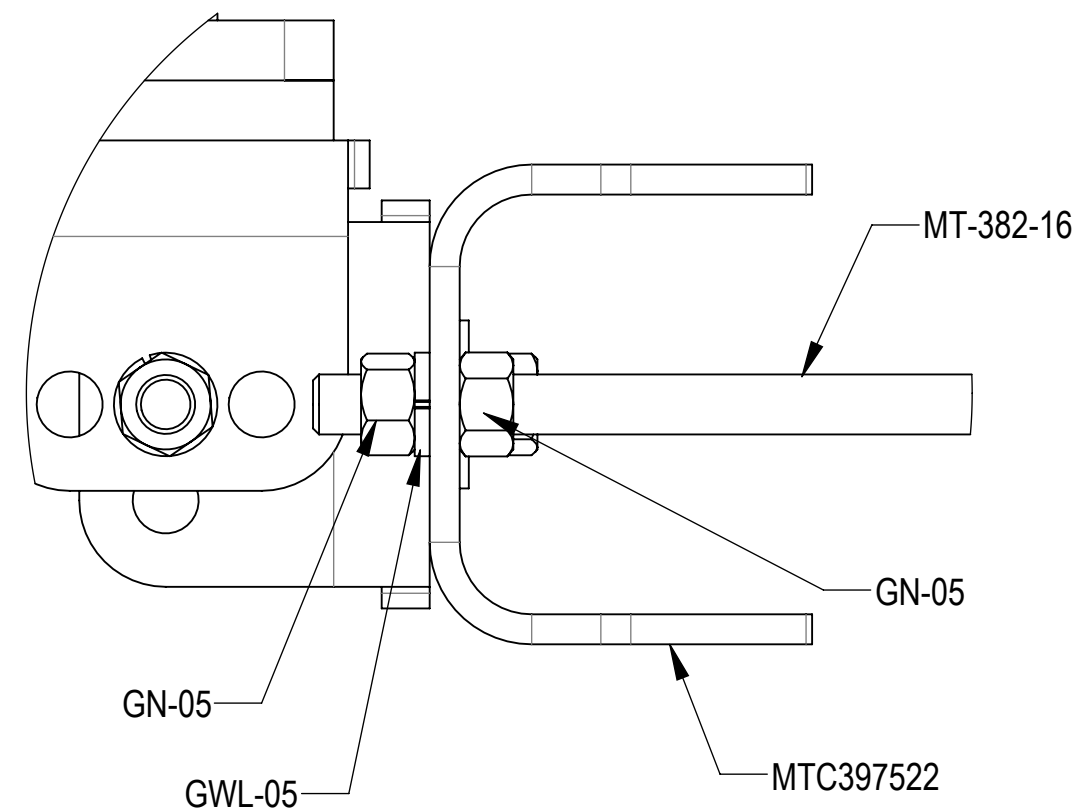
DETAIL G
SCALE 1 : 3





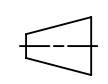
ISO VIEW



SIDE VIEW



DETAIL F
SCALE 1 : 2

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TITLE SF,7FT-FACE,(2) 2-3/8"X96"ANT-PIPES				
SIZE C	SCALE 1:8	DOCUMENT NO. SFG21HD-7-2-96		
 		DRAWING		SHEET 7 OF 8
		VERSION 01	STATUS RE	

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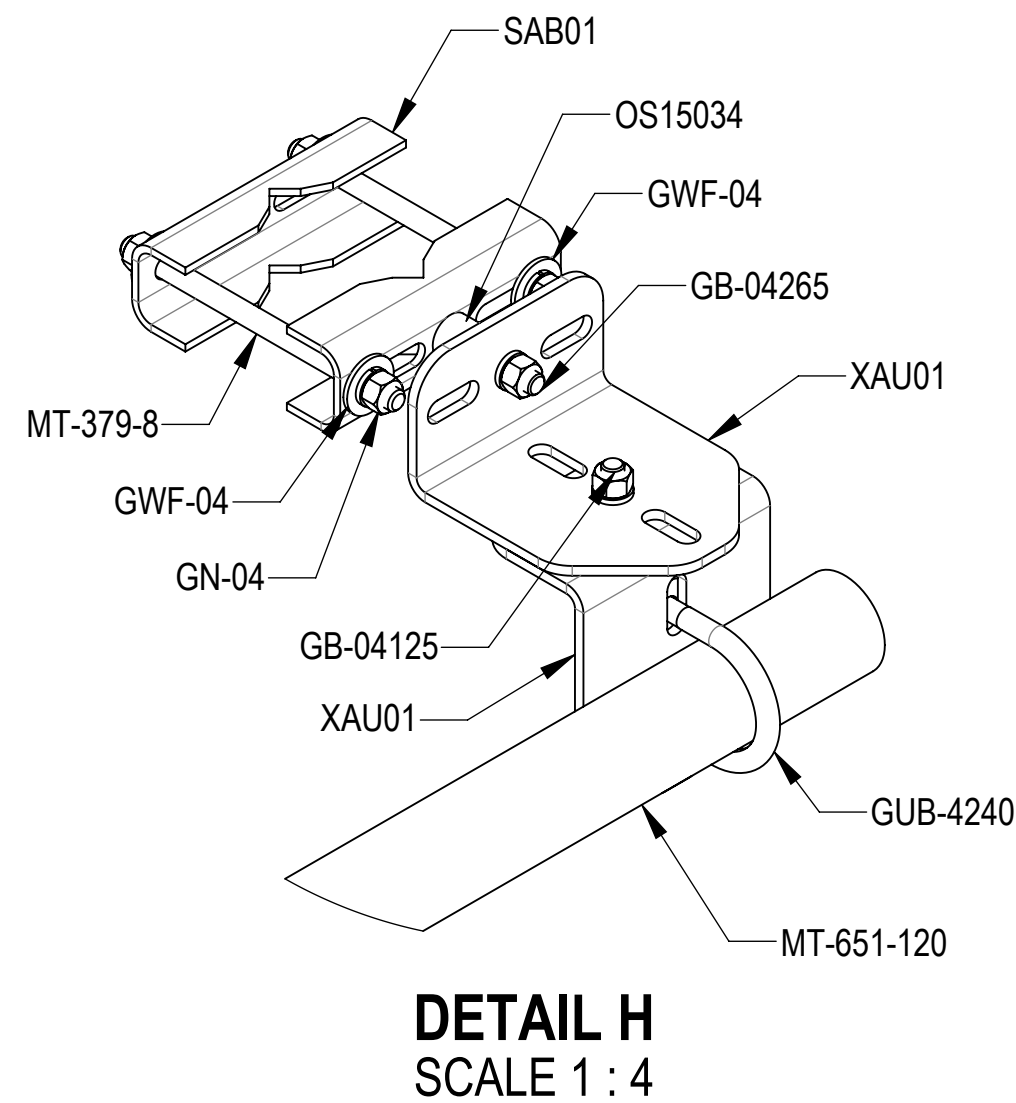
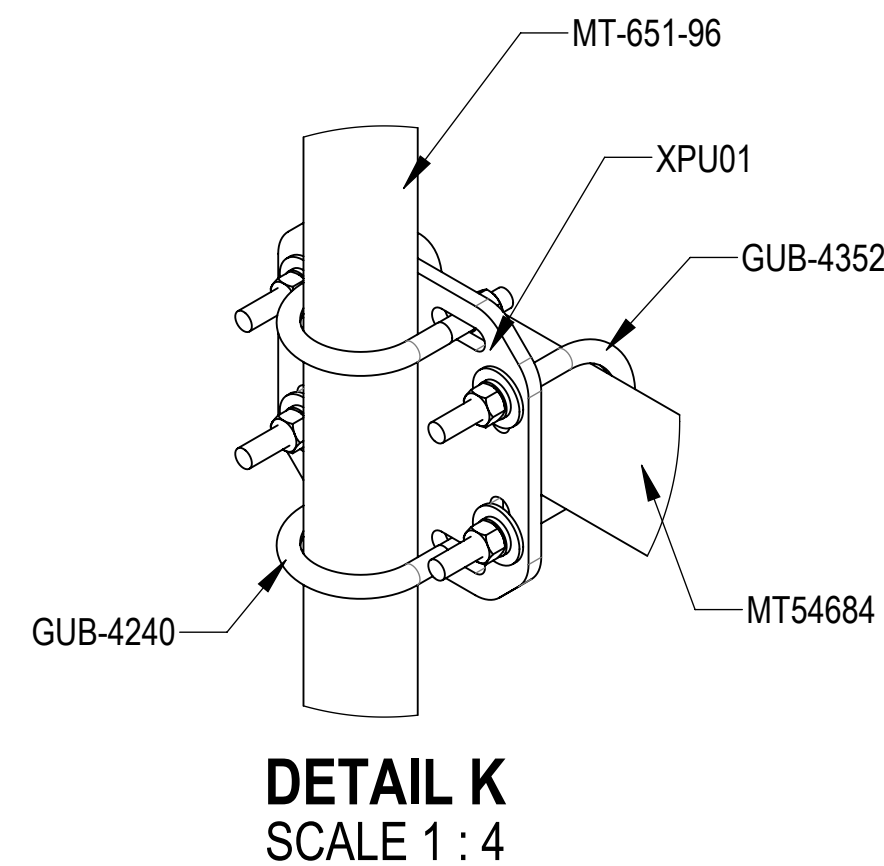
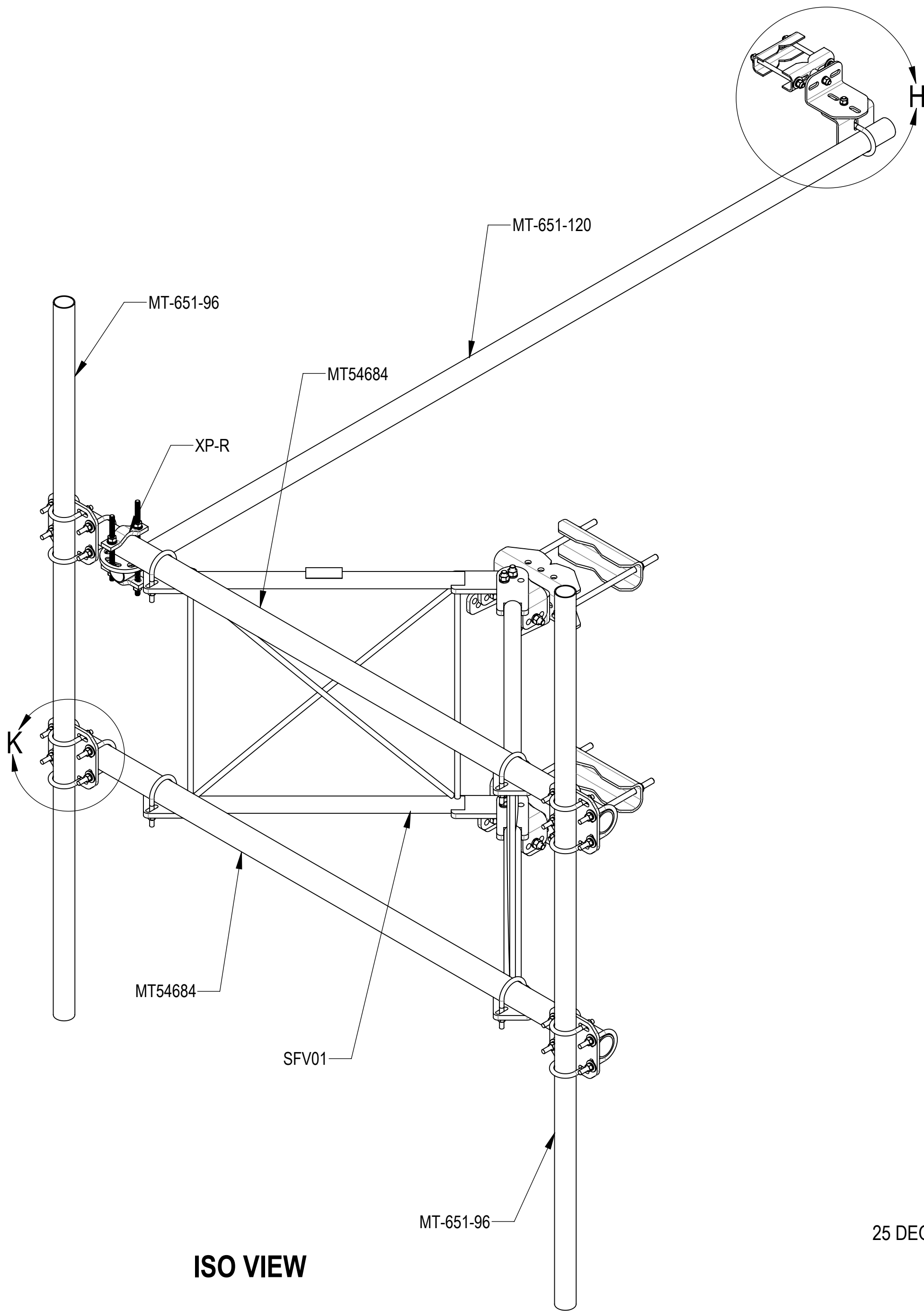
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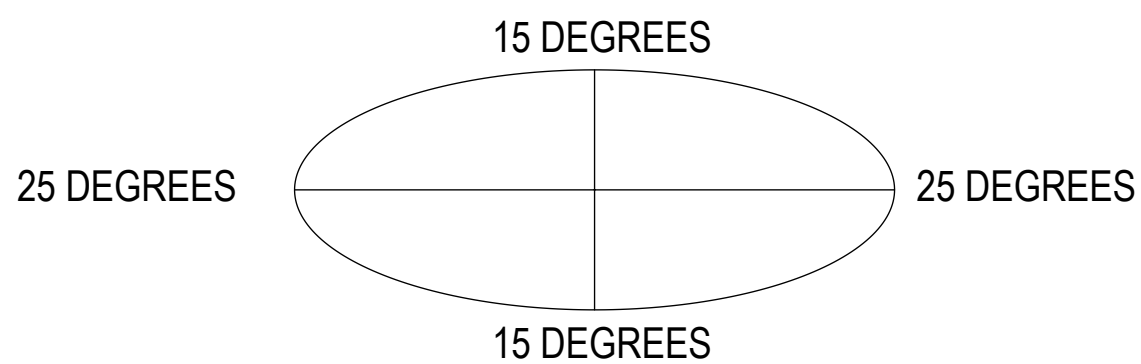
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**STEP 4: ATTACH ANTENNA PIPES(MT-651-96) TO FACE PIPES(MT54696) USING CROSSOVER PLATES (XPU01) AND U-BOLTS(GUB-4352 AND GUB-4240)
ATTACH TIE BACK PIPE (MT-651-120) TO FACE PIPE (MT54696) USING ROUND CROSSOVER PLATE KIT(XP-R).**



ALLOWABLE TIEBACK ANGLE
± 15 DEGREES VERTICAL
± 25 DEGREES HORIZONTAL



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TITLE
SF,7FT-FACE,(2) 2-3/8"X96"ANT-PIPES

SIZE **C** SCALE **1:10** DOCUMENT NO. SFG21HD-7-2-96

DRAWING			SHEET 8 OF 8
VERSION	STATUS	REVISION	
01	RE	B	

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