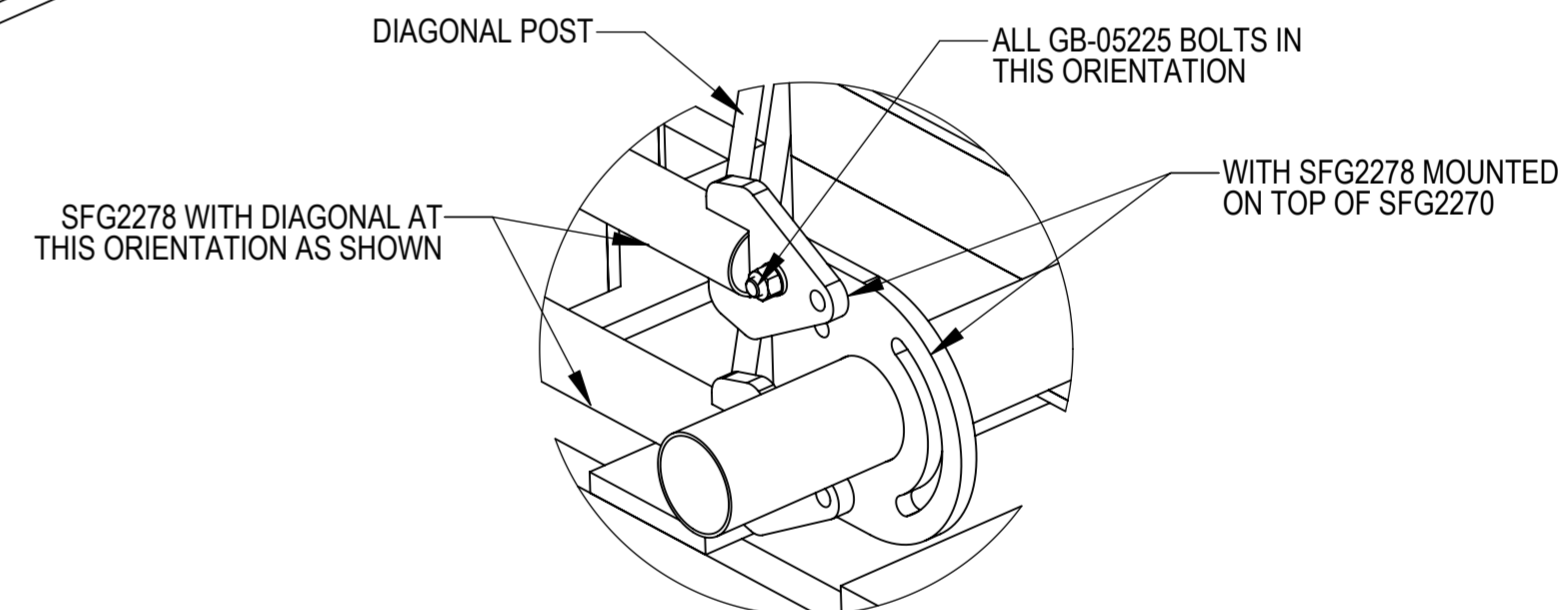
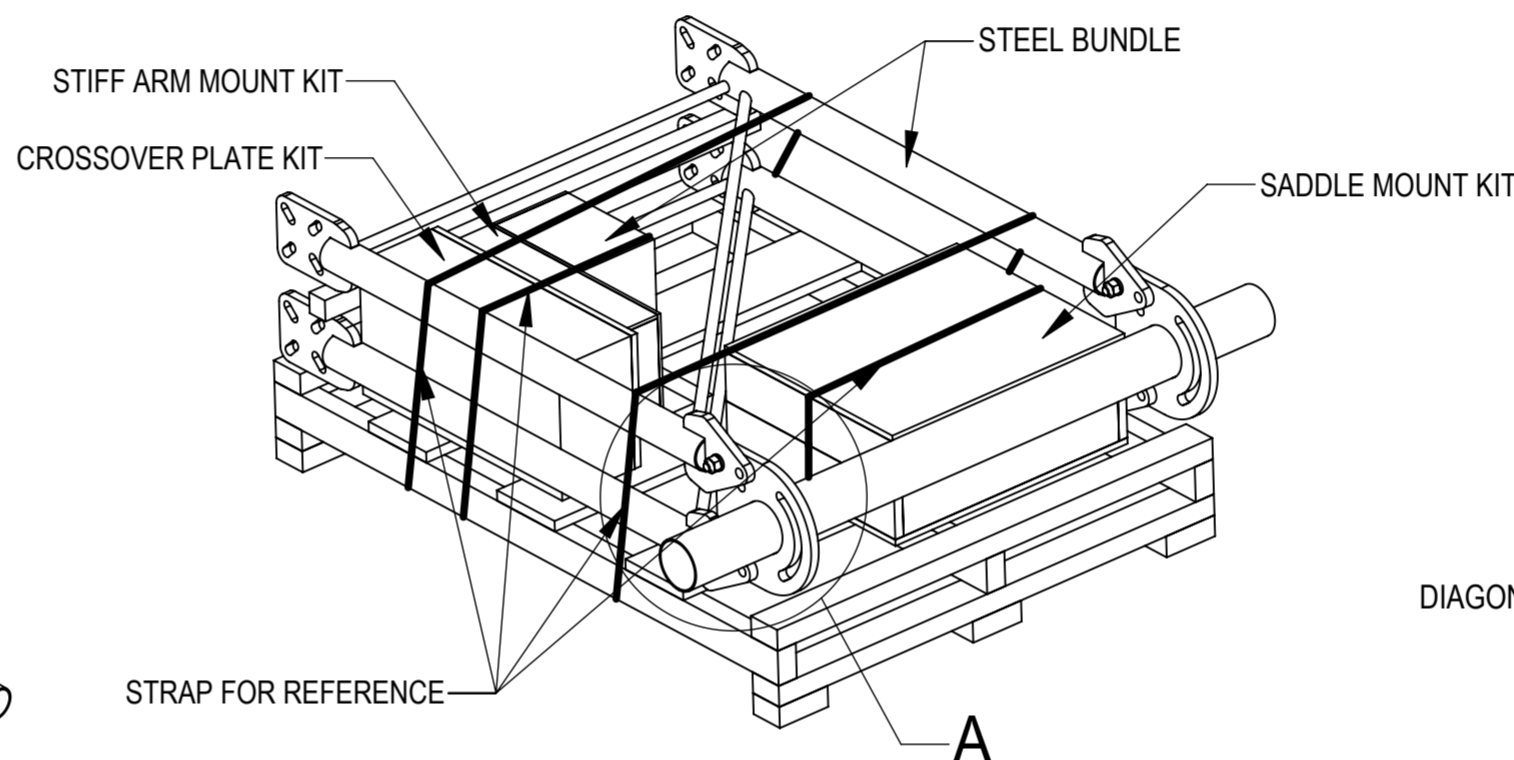
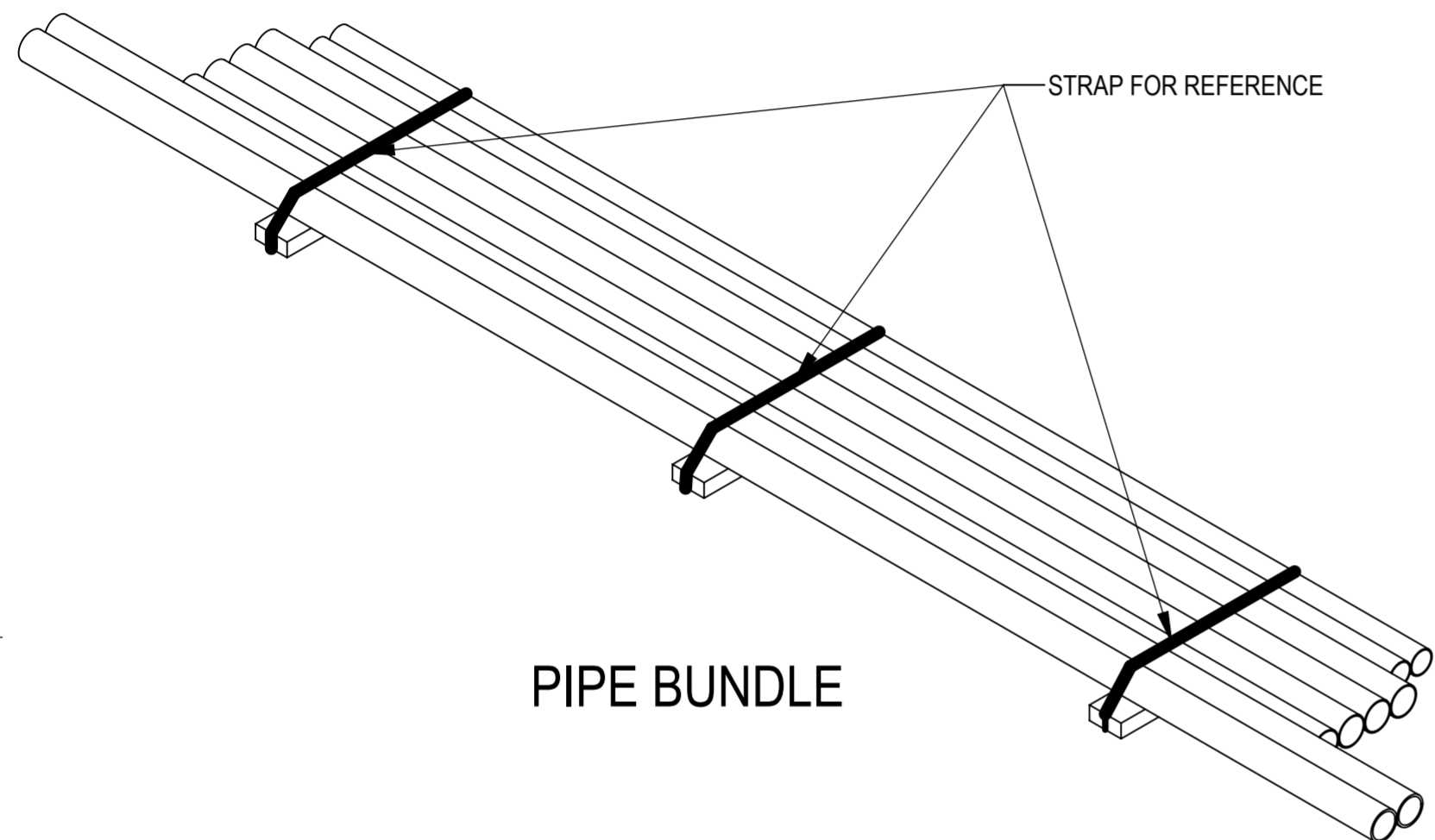


- 1.0 GENERAL NOTES  
 1.1 ALL IMPERIAL DIMENSIONS ARE IN BRACKETS [X. X]  
 1.2 FOR PATENT INFO: <https://www.cs-pat.com>  
 2.0 DESIGN NOTES  
 2.1 ANY HAZARDS OR OBSTRUCTIONS TO THE CLIMBING FACILITY AND SAFETY CLIMB MUST BE IDENTIFIED PRIOR TO INSTALLING THE APPURTENANCE. ADDITIONAL PRODUCTS MAY 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.  
 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 COMMSCOPE REQUIREMENTS PER DOCUMENT IS-PL-3005.  
 5.2 PRINTED DOCUMENT TO BE PLACED INSIDE POLYBAG AND THEN IN SHIPPING CONTAINER.  
 5.3 EXTRA HARDWARE MAYBE SUPPLIED, BAGGED AND SHIPPED.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
B	SFG2283 WAS SFG2239; ADDED NOTE	RJC 22FEB19	8000034052
C	ADDED VIEWS TO SHT 6 FOR CLARITY	RJC 13NOV19	8000038026
D	REPLACED XA W/ XP AND SFG2283 TO SFG2284	ES1081 27JUL20	8000039299
E	ADJUSTED INCORRECT XP CALL OUT	ES1081 29SEP20	8000043041
F	SFG22HDX SERIES BOM STANDARDIZATION	YMENG 01APR22	BCROSS 40144565CMO
G	SHEET 1: RE-NUMBERED NOTES; REMOVED ORIGINAL NOTE 1.2 & 3.1; UPDATED PACKAGING; UPDATED TABLE: DELETE SFG22HDX-8-B & SFG22HDX-10-B & SFG22HDX-12-B & SFG22HDX-14-B	YX1027 15JUL22	BA1025 40154579CMO

**MOUNT MUST BE INSTALLED WITH DIAGONALS AS SHOWN**



**DETAIL A  
SCALE 1:6**

**PATENT PENDING**

**TOP LEVEL ZNSK COMPONENTS**

PART NO.	DESCRIPTION	SADDLE MOUNT KIT	STIFF ARM MOUNT KIT	CROSSOVER PLATE KIT	STEEL BUNDLE	PIPE BUNDLE
SFG22HDX-10-3-126	SECTOR FRAME 10'6" FACE, (3) 126" ANT	SM-U2080HDG22	SFG22HDX-HK03	XP25256	SFG22HDX-SB01	PB02TEA0310B0210K
SFG22HDX-10-3-96	SECTOR FRAME 10'6" FACE, (3) 96" ANT	SM-U2080HDG22	SFG22HDX-HK03	XP25256	SFG22HDX-SB01	PB02TEA0308B0210K
SFG22HDX-12-4-126	SECTOR FRAME 12'6" FACE, (4) 126" ANT	SM-U2080HDG22	SFG22HDX-HK03	XP25258	SFG22HDX-SB01	PB02TEA0410B0212K
SFG22HDX-12-4-96	SECTOR FRAME 12'6" FACE, (4) 96" ANT	SM-U2080HDG22	SFG22HDX-HK03	XP25258	SFG22HDX-SB01	PB02TEA0408B0212K
SFG22HDX-14-4-126	SECTOR FRAME 14'6" FACE, (4) 126" ANT	SM-U2080HDG22	SFG22HDX-HK03	XP25258	SFG22HDX-SB01	PB02TEA0410B0214P
SFG22HDX-14-4-96	SECTOR FRAME 14'6" FACE, (4) 96" ANT	SM-U2080HDG22	SFG22HDX-HK03	XP25258	SFG22HDX-SB01	PB02TEA0408B0214P
SFG22HDX-8-3-126	SECTOR FRAME 8' FACE, (3) 126" ANT	SM-U2080HDG22	SFG22HDX-HK01	XP25256	SFG22HDX-SB01	PB0310B02TEB0208K
SFG22HDX-8-3-96	SECTOR FRAME 8' FACE, (3) 96" ANT	SM-U2080HDG22	SFG22HDX-HK01	XP25256	SFG22HDX-SB01	PB02TEB0308B0208K
SFG22HDX-8-4-126	SECTOR FRAME 8' FACE, (4) 126" ANT	SM-U2080HDG22	SFG22HDX-HK01	XP25258	SFG22HDX-SB01	PB0410B02TEB0208K
SFG22HDX-8-4-96	SECTOR FRAME 8' FACE, (4) 96" ANT	SM-U2080HDG22	SFG22HDX-HK01	XP25258	SFG22HDX-SB01	PB02TEB0408B0208K
SFG22HDX12-4-H10	SINGLE SECTOR FRM KIT 12'6" FACE W/4 AP	SM-U2080HDG22	SFG22HDX-HK01	XP25258	SFG22HDX-SB01	PB06TEB0212K
SFG22HDX12-5-WLL	SINGLE SECTOR FRM KIT 12'6" FACE W/5 AP	SM-U2080HDG22	SFG22HDX-HK01	XP25256 + XP25254	SFG22HDX-SB01	PB07TEB0212K
SFG22HDX14-4-H10	SINGLE SECTOR FRM KIT 14'6" FACE W/4 AP	SM-U2080HDG22	SFG22HDX-HK01	XP25258	SFG22HDX-SB01	PB06TEB0214P
SFG22HDX14-5-WLL	SINGLE SECTOR FRM KIT 14'6" FACE W/5 AP	SM-U2080HDG22	SFG22HDX-HK01	XP25256 + XP25254	SFG22HDX-SB01	PB07TEB0214P

**COMMSCOPE, INC. OF NORTH CAROLINA**

TOLERANCES: 0 PLACE X[.X] ± 5[0.2] 2 PLACE .XX[.XXX] ± 1.50[0.060] 1 PLACE .X[.XX] ± 3.0[0.12] ANGLES ± 2°

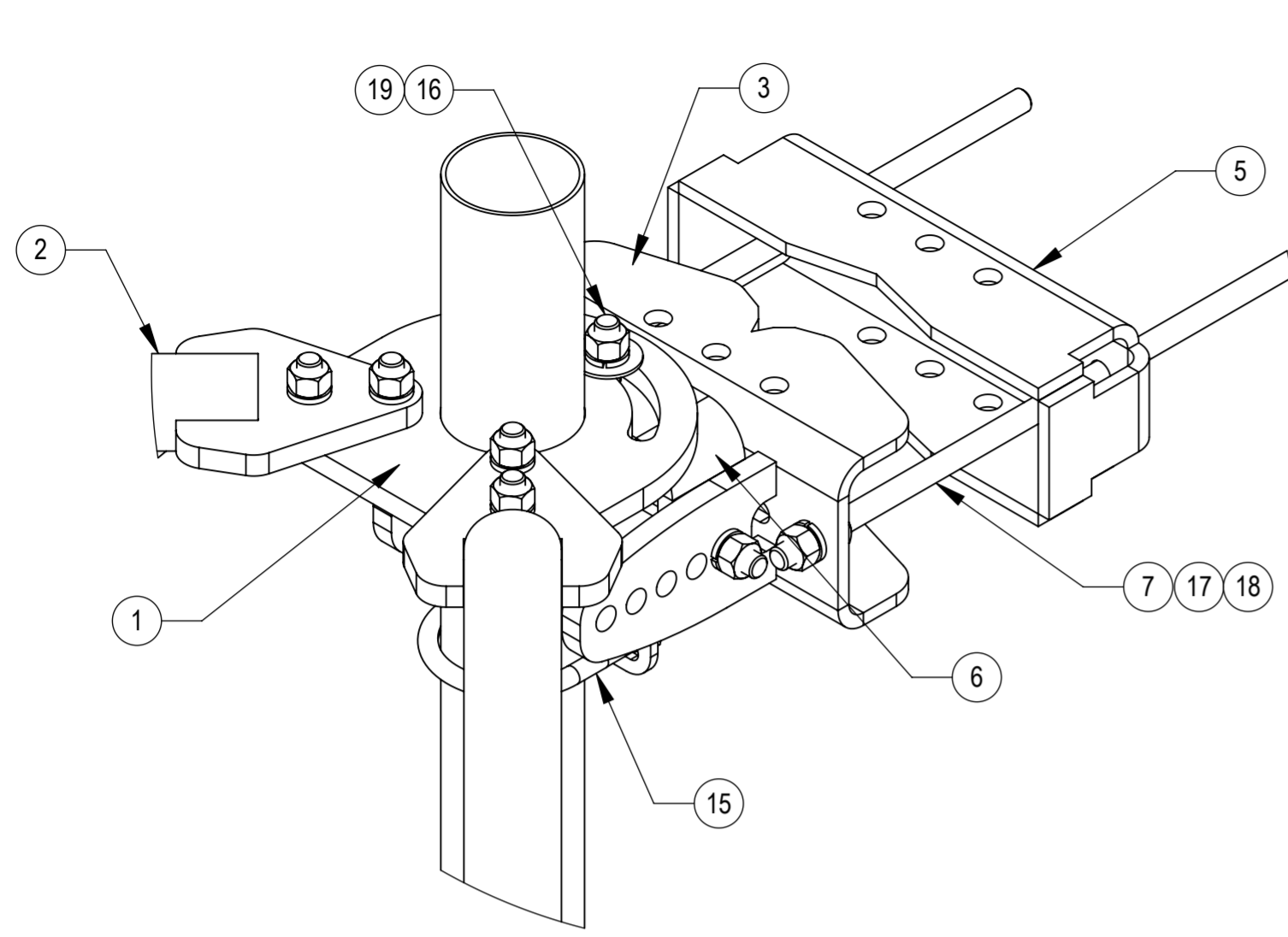
SAP MATERIAL MASTER: SEE TABLE

FINISH: MATERIAL

NAME	DATE	TITLE
CE RJC	01/11/2019	SFG22HDX SECTOR FRAME SERIES
RW YMENG	08/16/2022	
AD BCROSS	08/16/2022	
RE YMENG	09/15/2022	
ECN 40154579CMO		

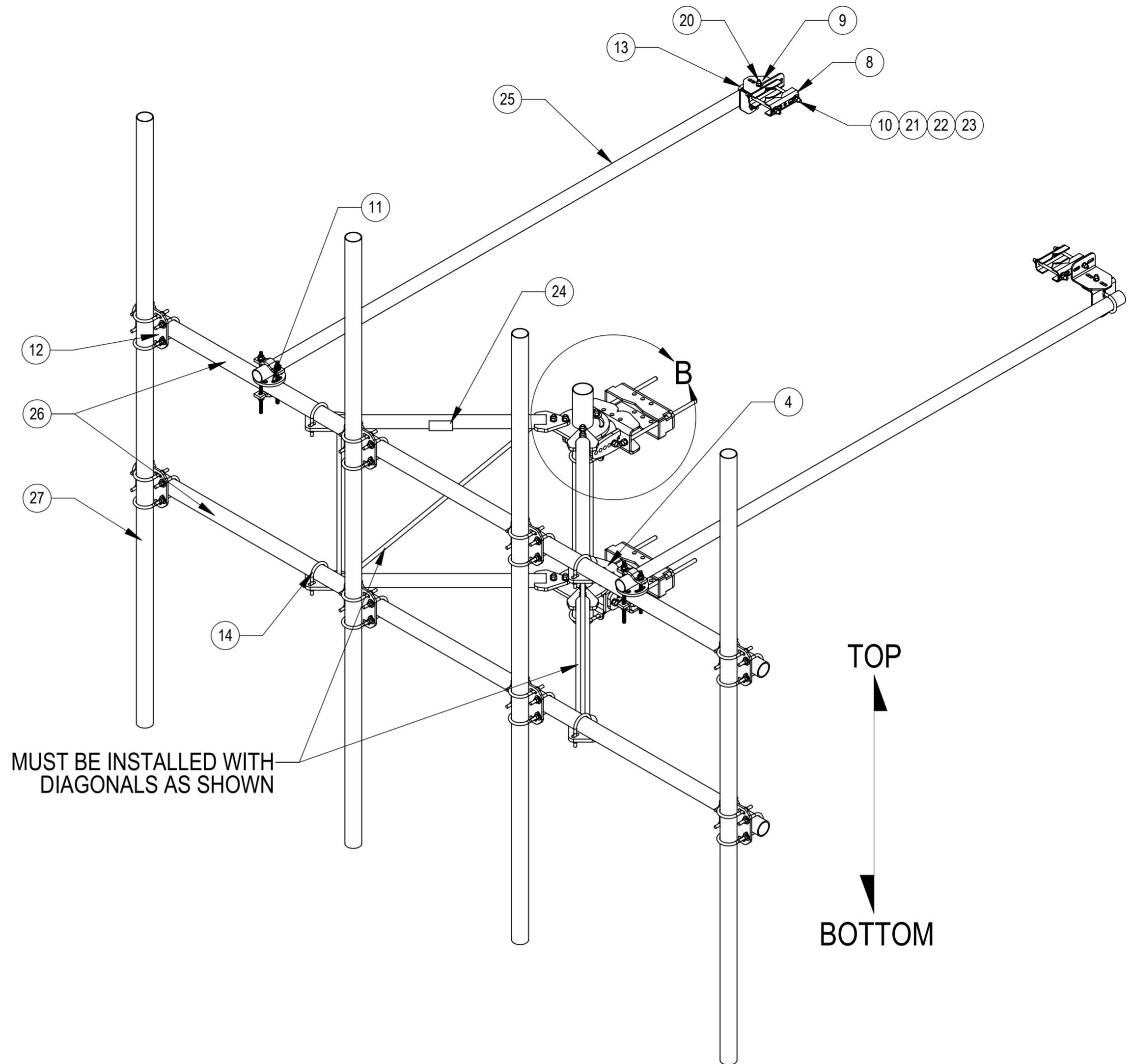
SCALE: 1:12 DOCUMENT NO. SFG22HDX

SIZE	Auth Group	INSL	MODEL	DRAWING			SHEET		
A2			VERSION	STATUS	REVISION	VERSION	STATUS	REVISION	8 OF 9
			07	RE	F	12	RE	G	



**DETAIL B**  
SCALE 1 : 4

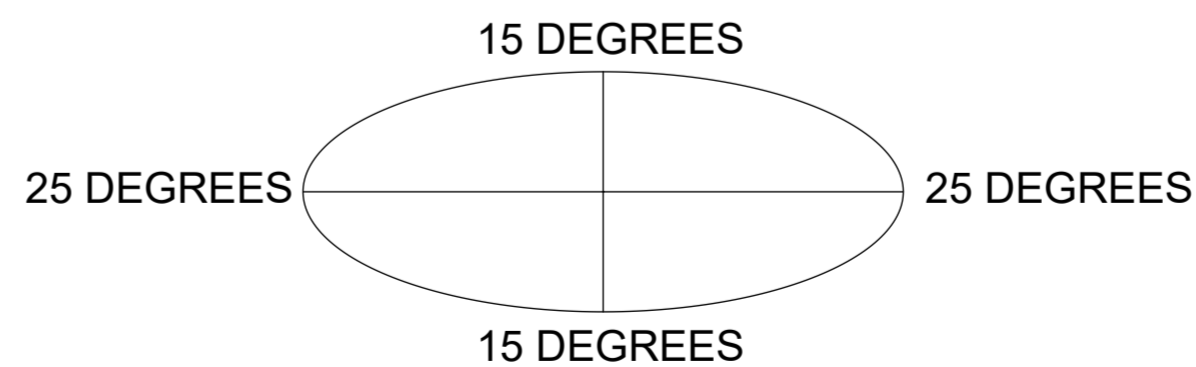
SFG22HDX-12-4-126 SHOWN FOR REFERENCE  
(NOT ALL CONFIGURATIONS INCLUDE ALL ITEMS, SEE NOTES IN TABLE)



MUST BE INSTALLED WITH  
DIAGONALS AS SHOWN

**ALLOWABLE TIEBACK ANGLE**

±15 DEGREES VERTICAL  
±25 DEGREES HORIZONTAL



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

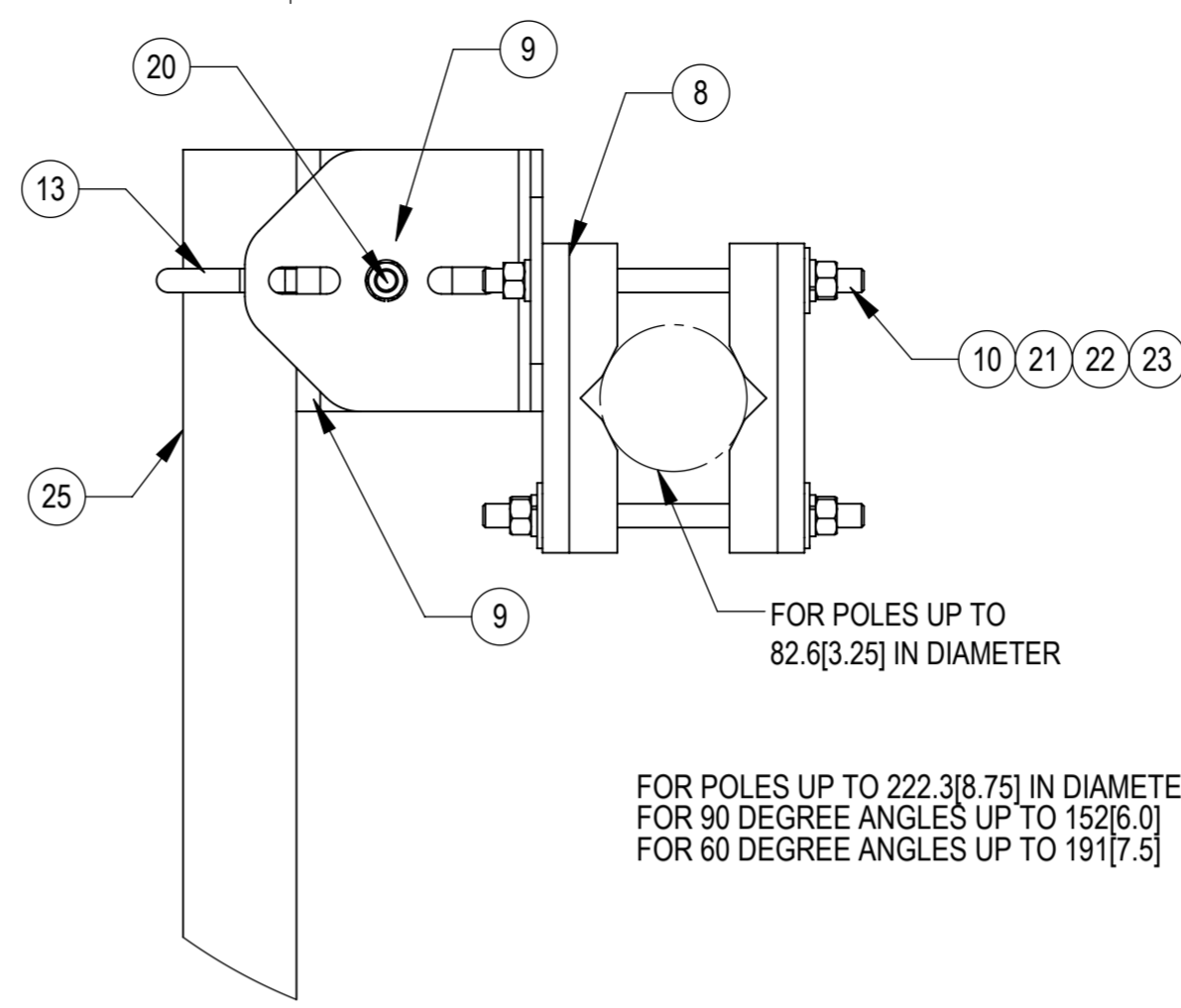
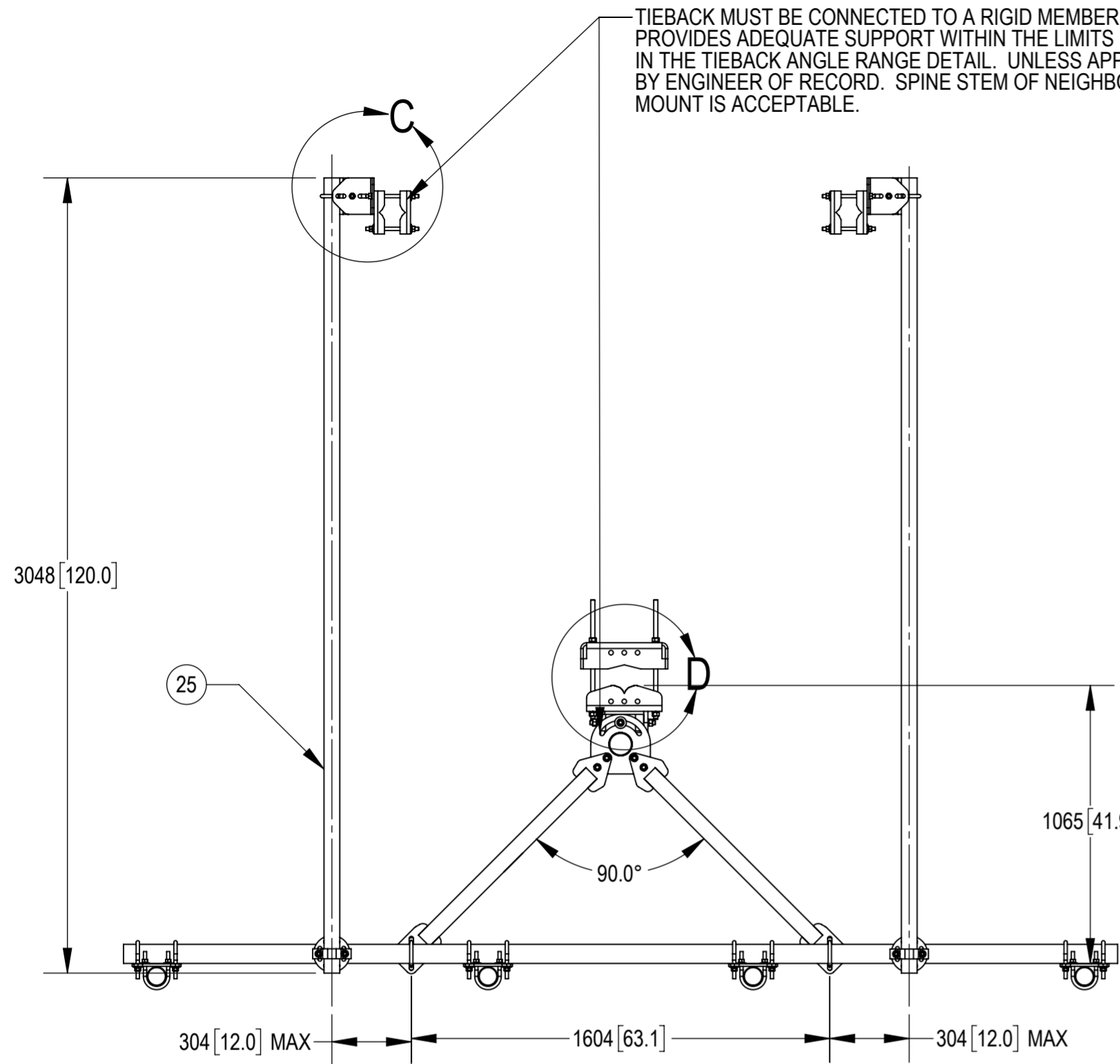
ITEM	PART NO.	DESCRIPTION	QTY.	NOTE NO.
1	SFG2270	BACK VERTICAL ARM MOUNT	1	
2	SFG2278	ARM, STANDOFF - SFG22	2	
3	SFG2345	WELDMENT, TOP TAPER BRACKET	1	
4	SFG2343	WELDMENT, LOWER, TOWER LEG BRACKET	1	
5	SFG2284	BRACKET, FRONT TOWER LEG, BARE	2	
6	SFG2237	WELDMENT, AZIMUTH/TAPER BRACKET	2	
7	MT-382-18	5/8" X 18" GALV THREADED ROD	4	
8	SAB01	FORMED CLAMP	4	
9	XAU01	ANGLE, CROSSOVER, 1.9-3.5" X 1.9-3.5" OD	4	
10	MT-379-8	1/2" X 8" GALV THREADED ROD	4	
11	XP-R	CROSSOVER PLATE, ROUND, UP TO 3.5" OD	2	
12	XP-2525	CROSSOVER PLATE KIT, 2-7/8 OD X 2-7/8 OD	8	QTY SEE SEPARATE BILLS OF MATERIAL
13	GUB-4240	1/2" X 2-1/2" X 4" GALV U-BOLT	2	QTY SEE SEPARATE BILLS OF MATERIAL
14	GUB-4352	1/2" X 3" X 5-1/4" GALV U-BOLT	4	QTY SEE SEPARATE BILLS OF MATERIAL
15	GUB-4355	1/2" X 3-5/8" X 5" GALV U-BOLT	2	
16	GB-05225	5/8" X 2-1/4" GALV BOLT KIT	14	
17	GN-05	5/8" GALV HEX NUT	12	
18	GWL-05	5/8" GALV LOCK WASHER	8	
19	GWF-05	5/8" GALV FLAT WASHER, 1.7OD	2	
20	GB-04145	1/2" X 1-1/2" GALV BOLT KIT	2	
21	GN-04	1/2" GALV HEX NUT	10	
22	GWL-04	1/2" GALV LOCK WASHER	10	
23	GWF-04	1/2" GALV FLAT WASHER	8	
24	SFG2250	LABEL, SFG22	1	
25	MT-651-120	PIPE, 2.375"OD X 120"	2	PART NO. SEE SEPARATE BILLS OF MATERIAL
26	MT-546-150	PIPE, 2.875"OD X 150"	2	PART NO. SEE SEPARATE BILLS OF MATERIAL
27	MT546126120	PIPE, 2.875"OD X 126"	4	PART NO. AND QTY SEE SEPARATE BILLS OF MATERIAL

**PATENT PENDING**

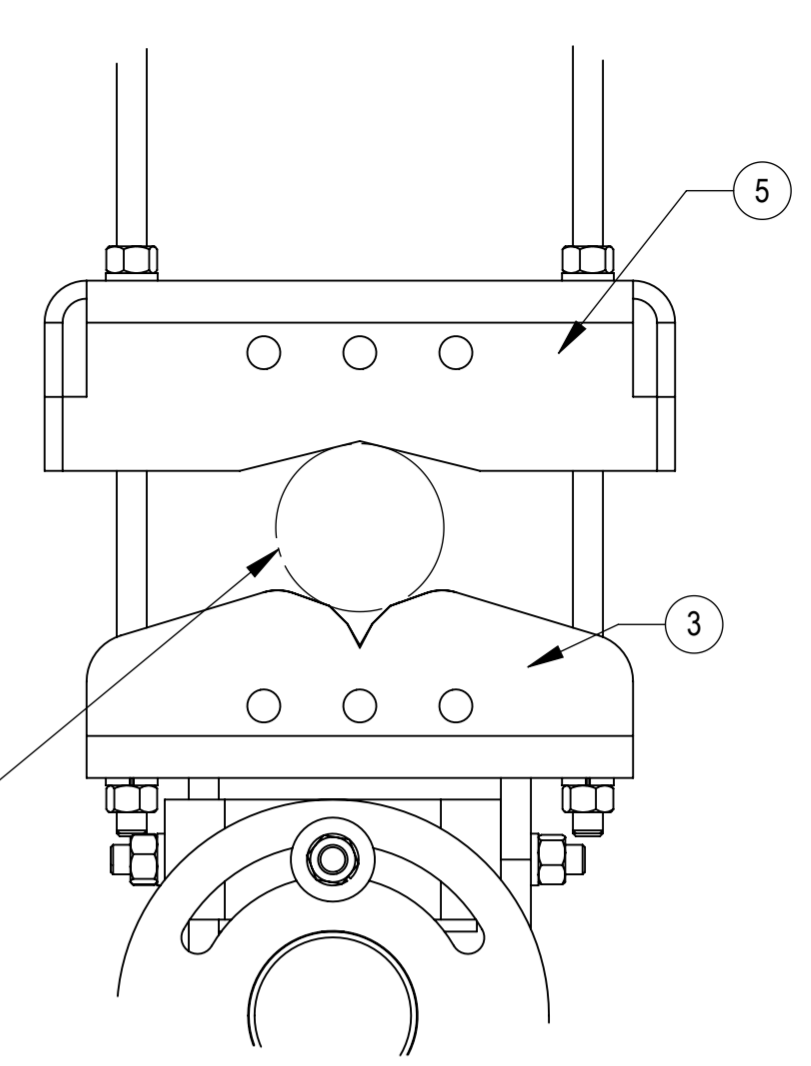
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TITLE SFG22HDX SECTOR FRAME SERIES			
SIZE <b>A2</b>	SCALE <b>1:14</b>	DOCUMENT NO. <b>SFG22HDX</b>	
DRAWING			SHEET
VERSION 12	STATUS RE	REVISION G	2 OF 9



TIEBACK MUST BE CONNECTED TO A RIGID MEMBER THAT PROVIDES ADEQUATE SUPPORT WITHIN THE LIMITS NOTED IN THE TIEBACK ANGLE RANGE DETAIL. UNLESS APPROVED BY ENGINEER OF RECORD. SPINE STEM OF NEIGHBORING MOUNT IS ACCEPTABLE.



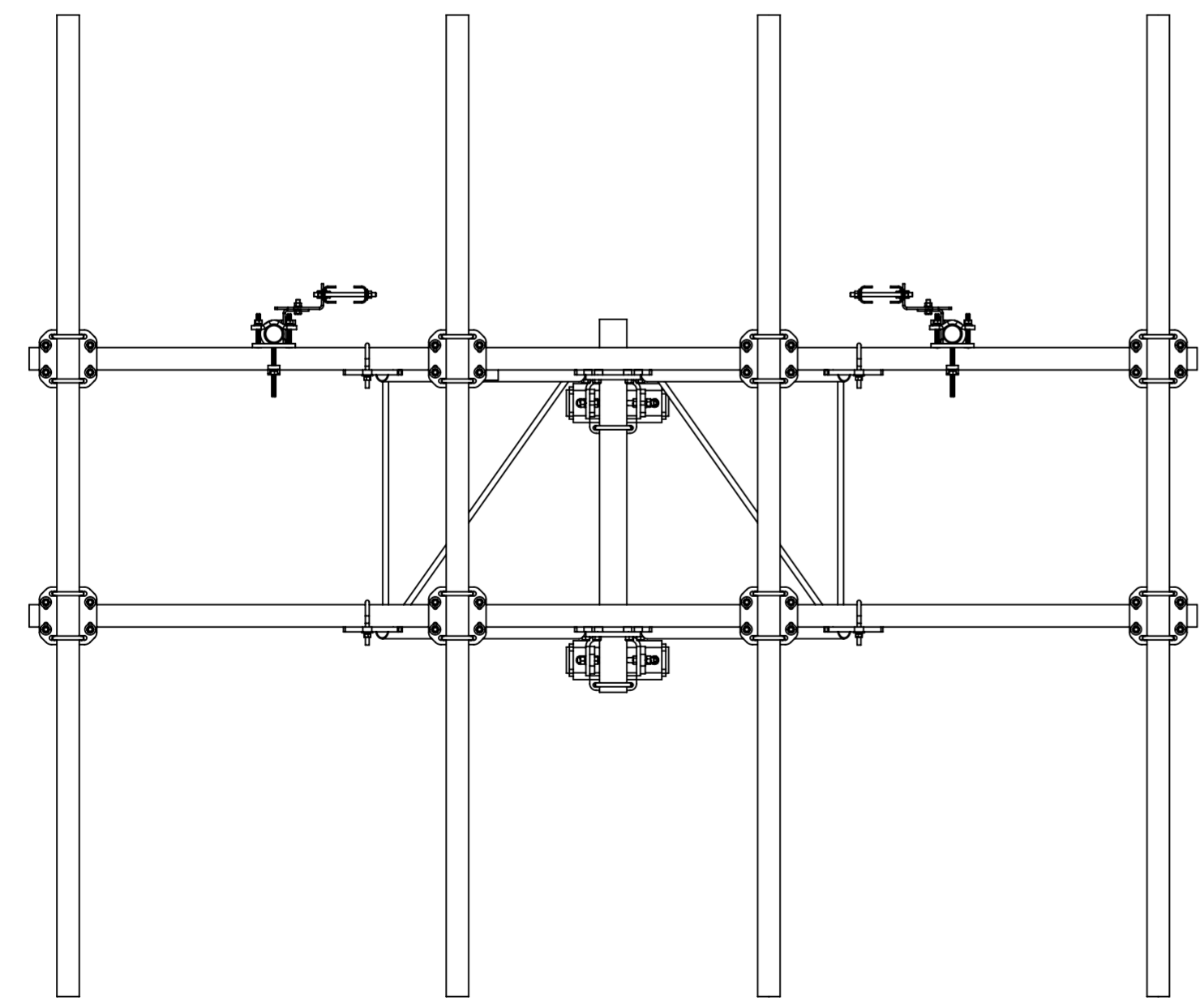
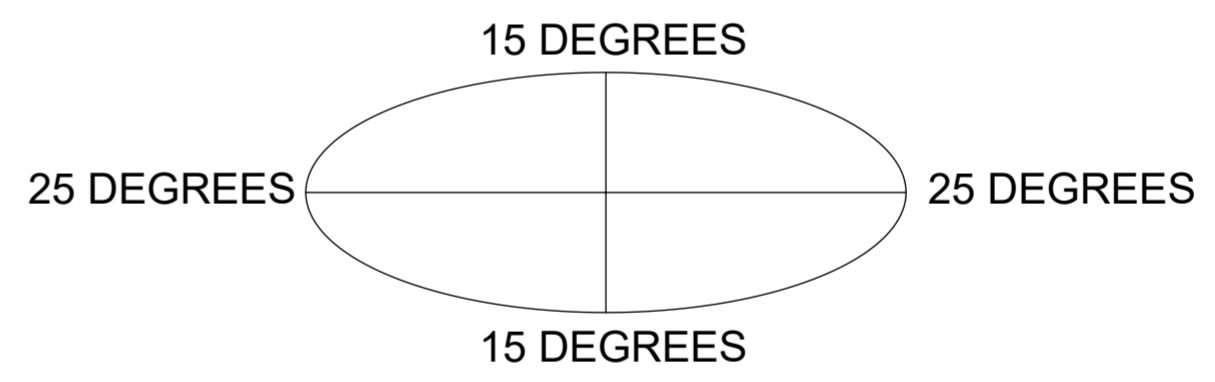
DETAIL C  
SCALE 1:4



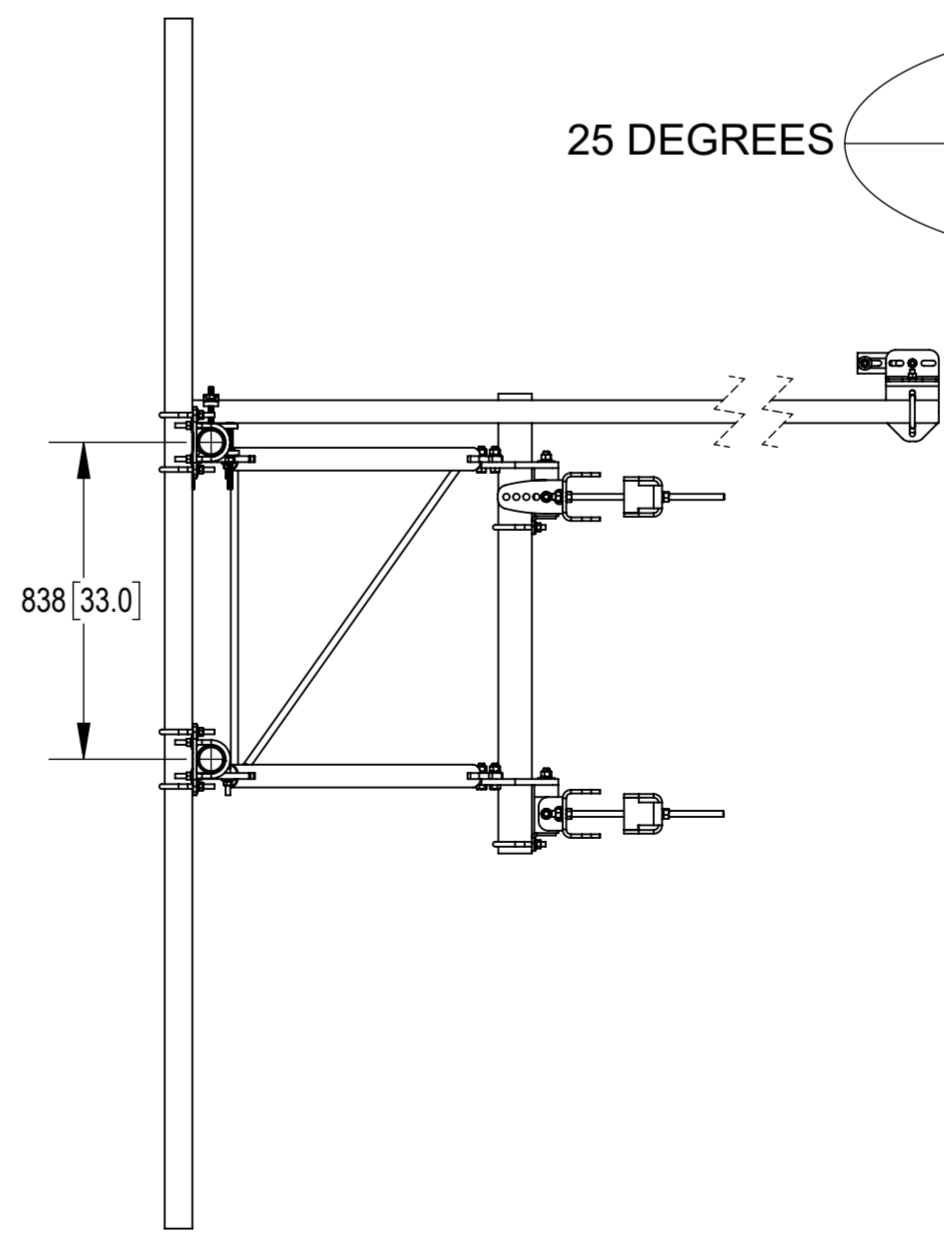
DETAIL D  
SCALE 1:4

SFG22HDX-12-4-126 SHOWN FOR REFERENCE  
(NOT ALL CONFIGURATIONS INCLUDE ALL ITEMS, SEE  
NOTES IN TABLE ON PAGE 2.)

**ALLOWABLE TIEBACK ANGLE**  
± 15 DEGREES VERTICAL  
± 25 DEGREES HORIZONTAL



TOP  
↓  
BOTTOM

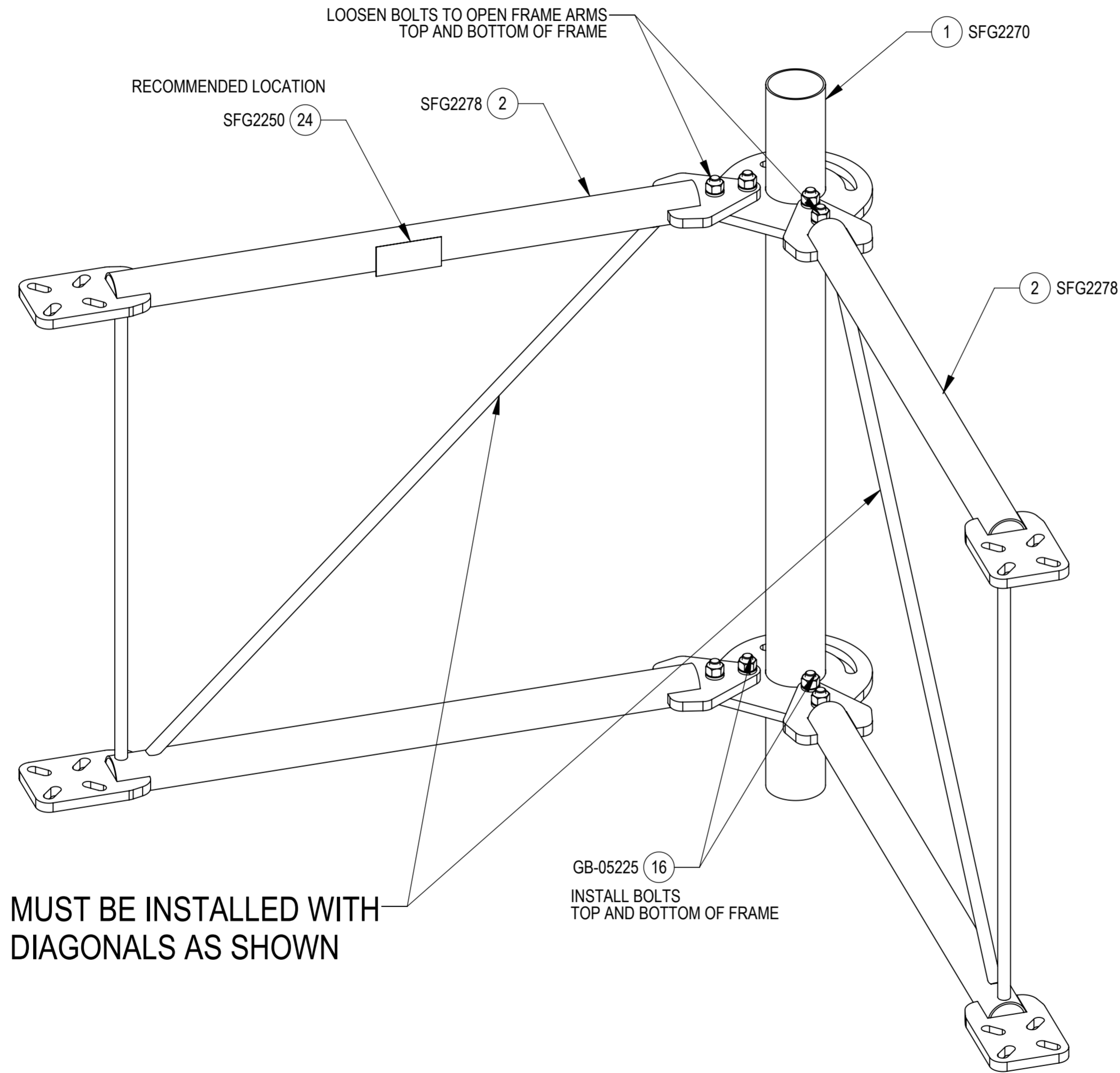


**PATENT PENDING**

COMMSCOPE, INC. OF NORTH CAROLINA				
TITLE SFG22HDX SECTOR FRAME SERIES				
SIZE A2	SCALE 1:20	DOCUMENT NO. SFG22HDX		
		DRAWING		SHEET
		VERSION	STATUS	REVISION
		12	RE	G
				SHEET 3 OF 9

**INSTALLATION SEQUENCE - REFERENCE ONLY**

**STEP 1: LOOSEN BOLT KITS (GB-05225) TO OPEN FRAME SUPPORT ARMS. INSTALL ADDITIONAL 4X BOLT KITS (GB-05225).**



**MUST BE INSTALLED WITH  
DIAGONALS AS SHOWN**

**ISO VIEW**

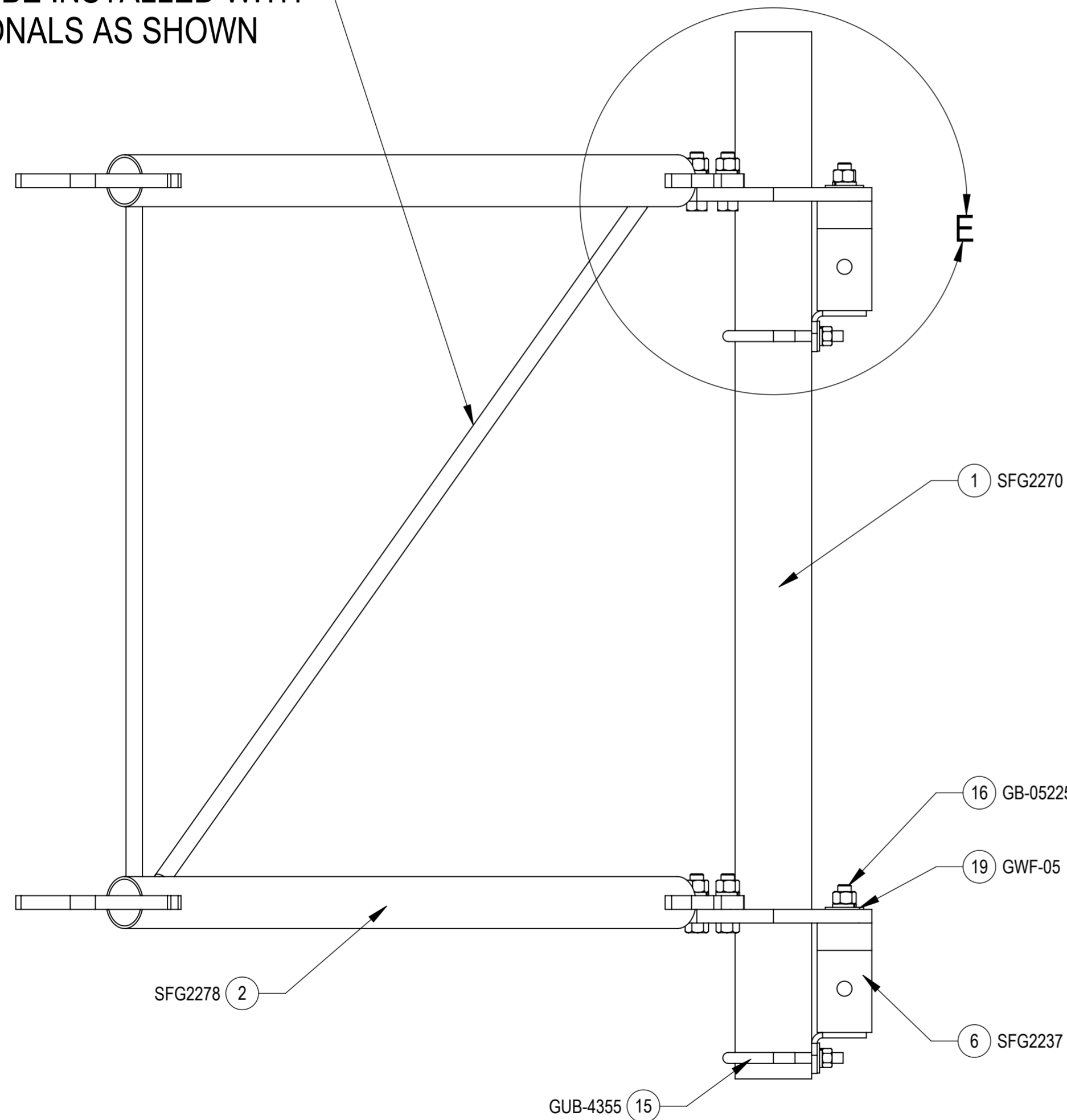
**TOP**  
↑  
↓  
**BOTTOM**

**PATENT PENDING**

COMMSCOPE, INC. OF NORTH CAROLINA				
TITLE SFG22HDX SECTOR FRAME SERIES				
SIZE <b>A2</b>	SCALE <b>1:4</b>	DOCUMENT NO. <b>SFG22HDX</b>		
DRAWING				SHEET
VERSION 12	STATUS RE	REVISION G	4 OF 9	

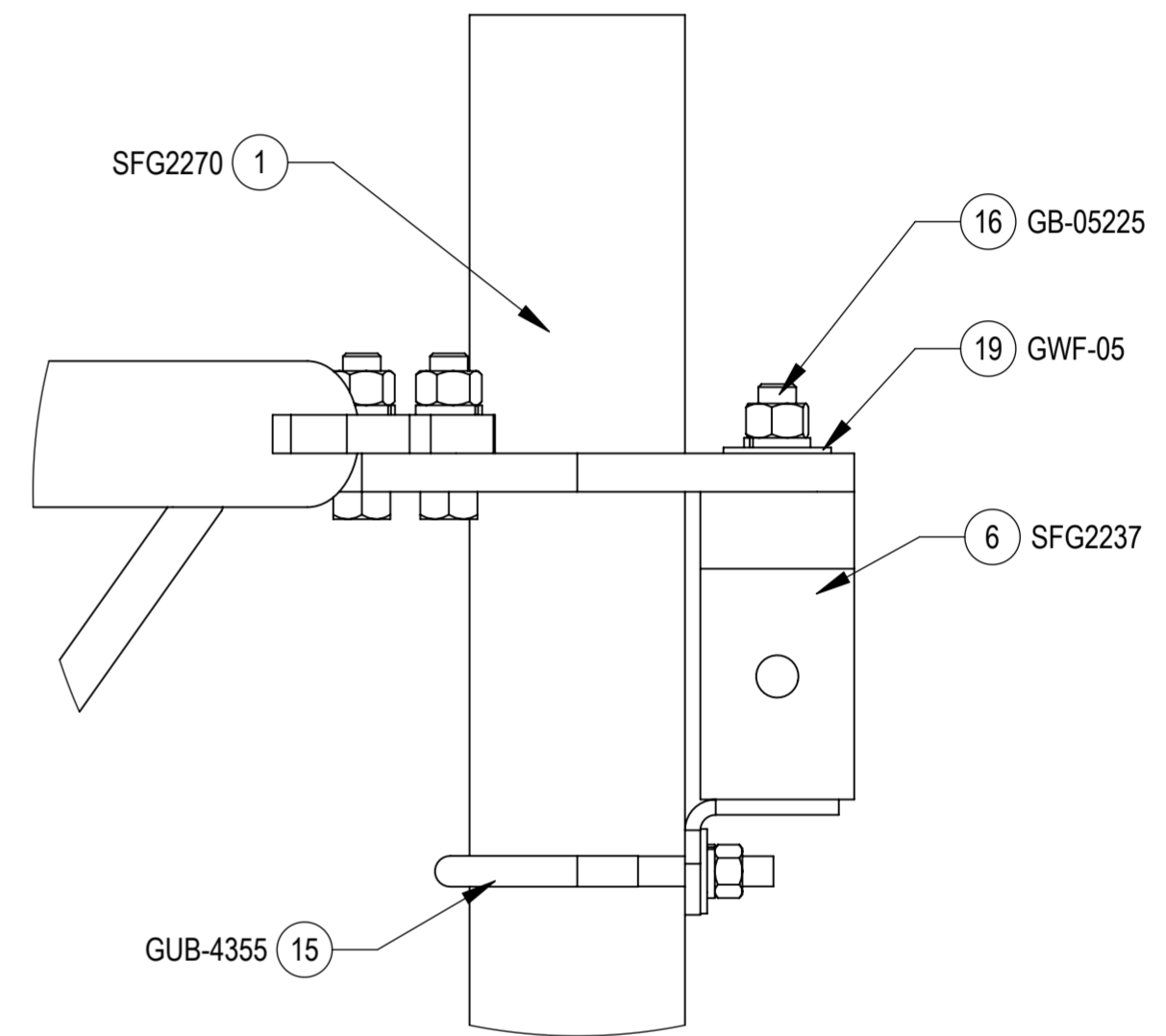
STEP 2: ATTACH AZIMUTH/TAPER BRACKET (SFG2237) TO BACK VERTICAL ARM MOUNT (SFG2270) USING BOLT KITS (GB-05225), U-BOLTS (GUB-4355) AND FLAT WASHERS (GWF-05).

MUST BE INSTALLED WITH  
DIAGONALS AS SHOWN



SIDE VIEW

TOP  
↓  
BOTTOM

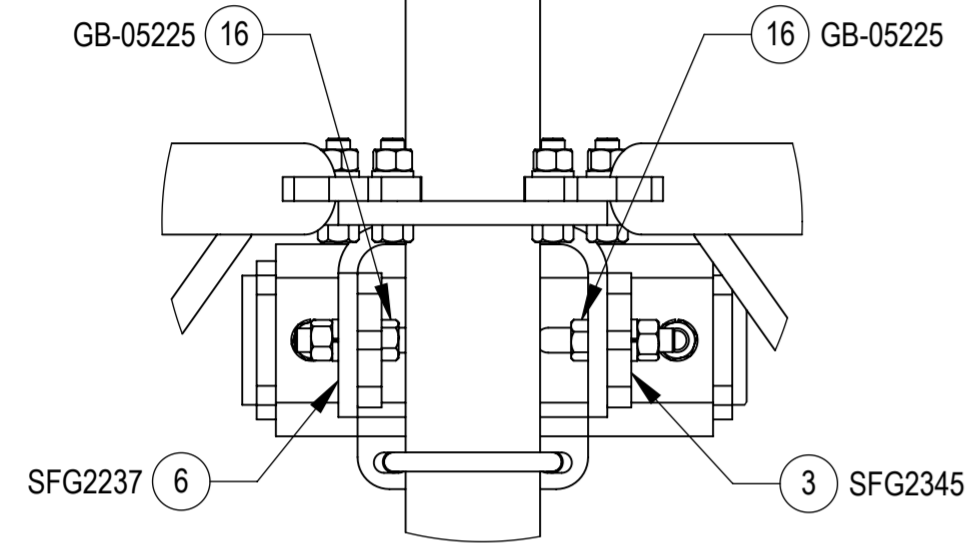


DETAIL E  
SCALE 1 : 3

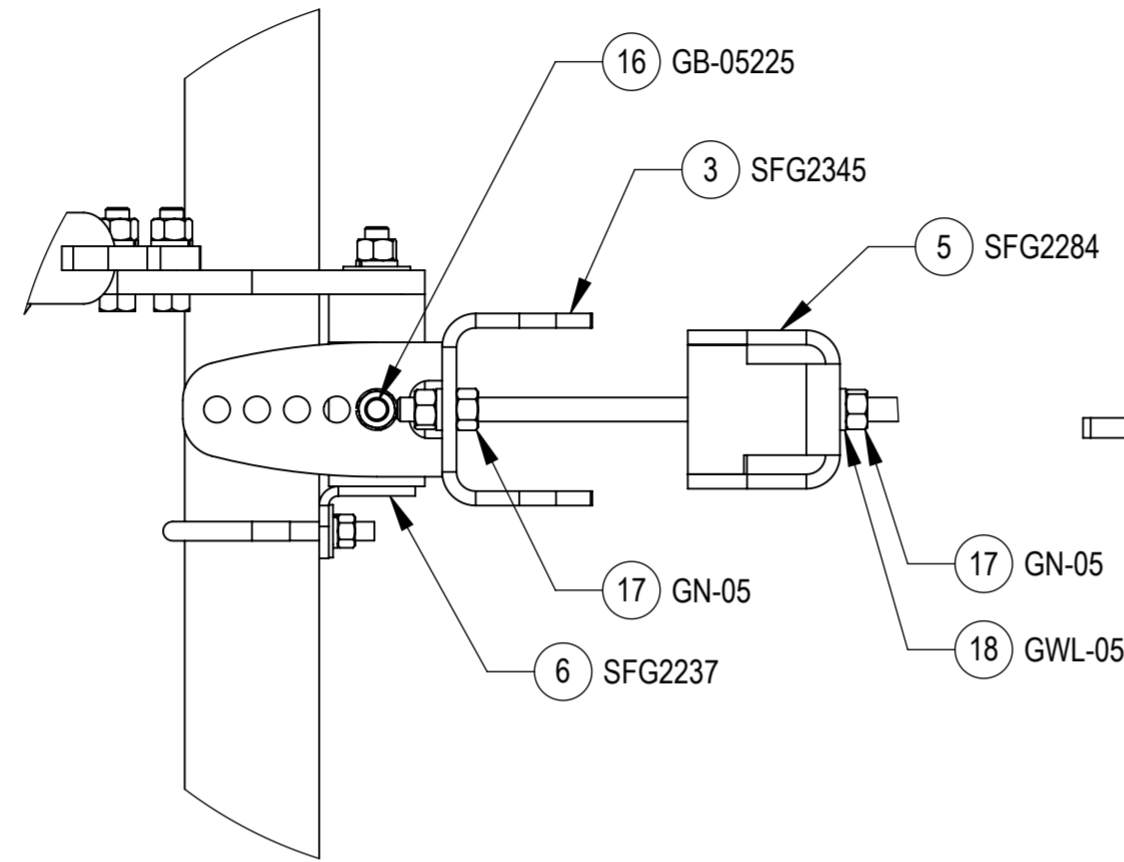
PATENT PENDING

COMMSCOPE, INC. OF NORTH CAROLINA				
TITLE SFG22HDX SECTOR FRAME SERIES				
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DRAWING				SHEET
VERSION 12	STATUS RE	REVISION G	5 OF 9	

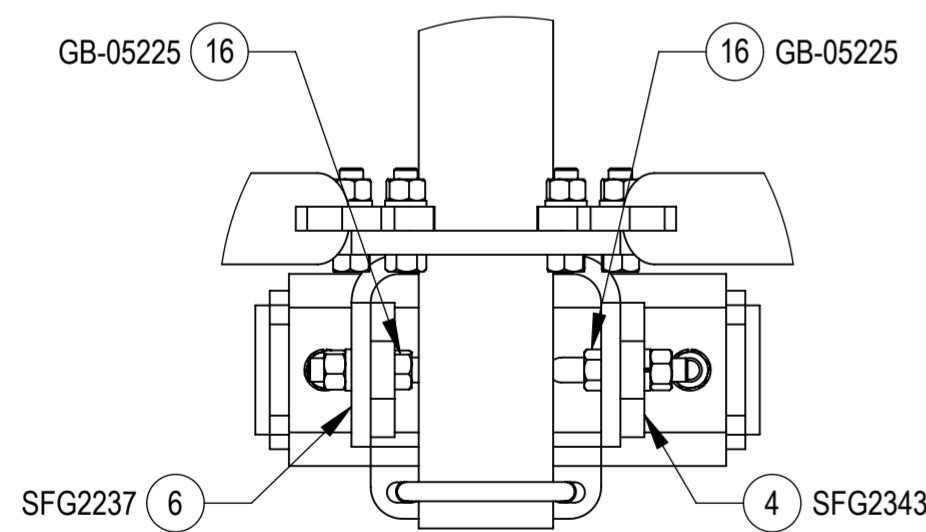
STEP 3: AT TOP, ATTACH TOP TAPER BRACKET (SFG2345) TO AZIMUTH/TAPER BRACKET (SFG2237) USING BOLT KITS (GB-05225);  
 AT BOTTOM, ATTACH LOWER TOWER LEG BRACKET (SFG2343) TO AZIMUTH/TAPER BRACKET (SFG2237) USING BOLT KITS (GB-05225).



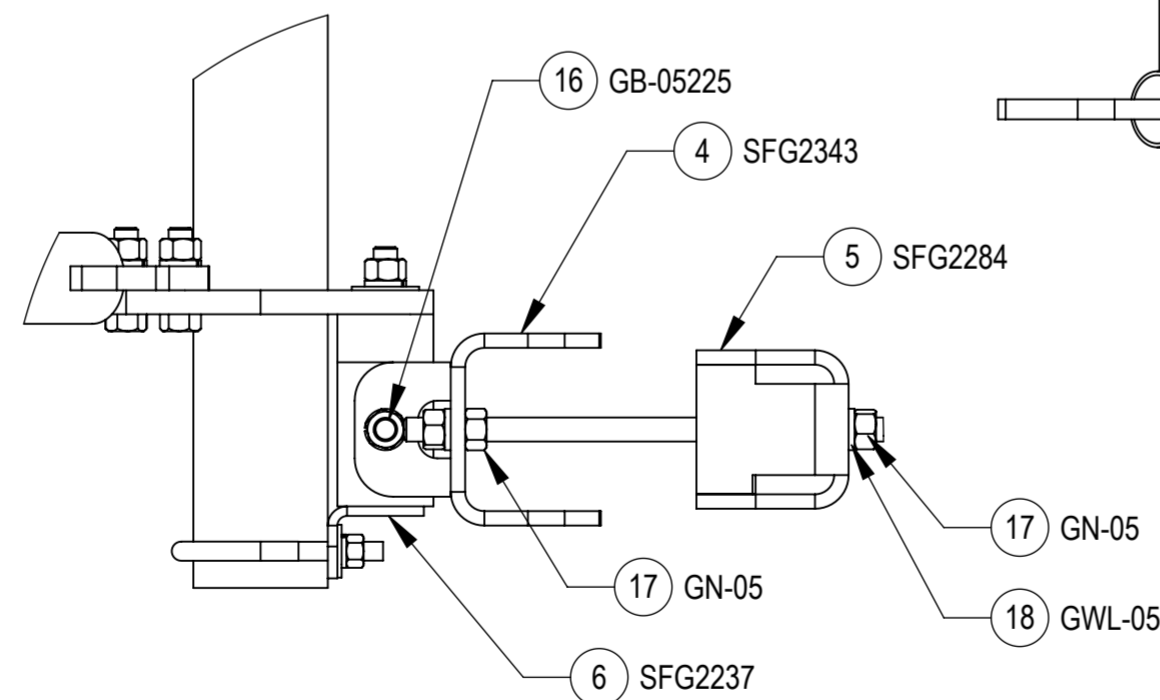
DETAIL F  
SCALE 1 : 5



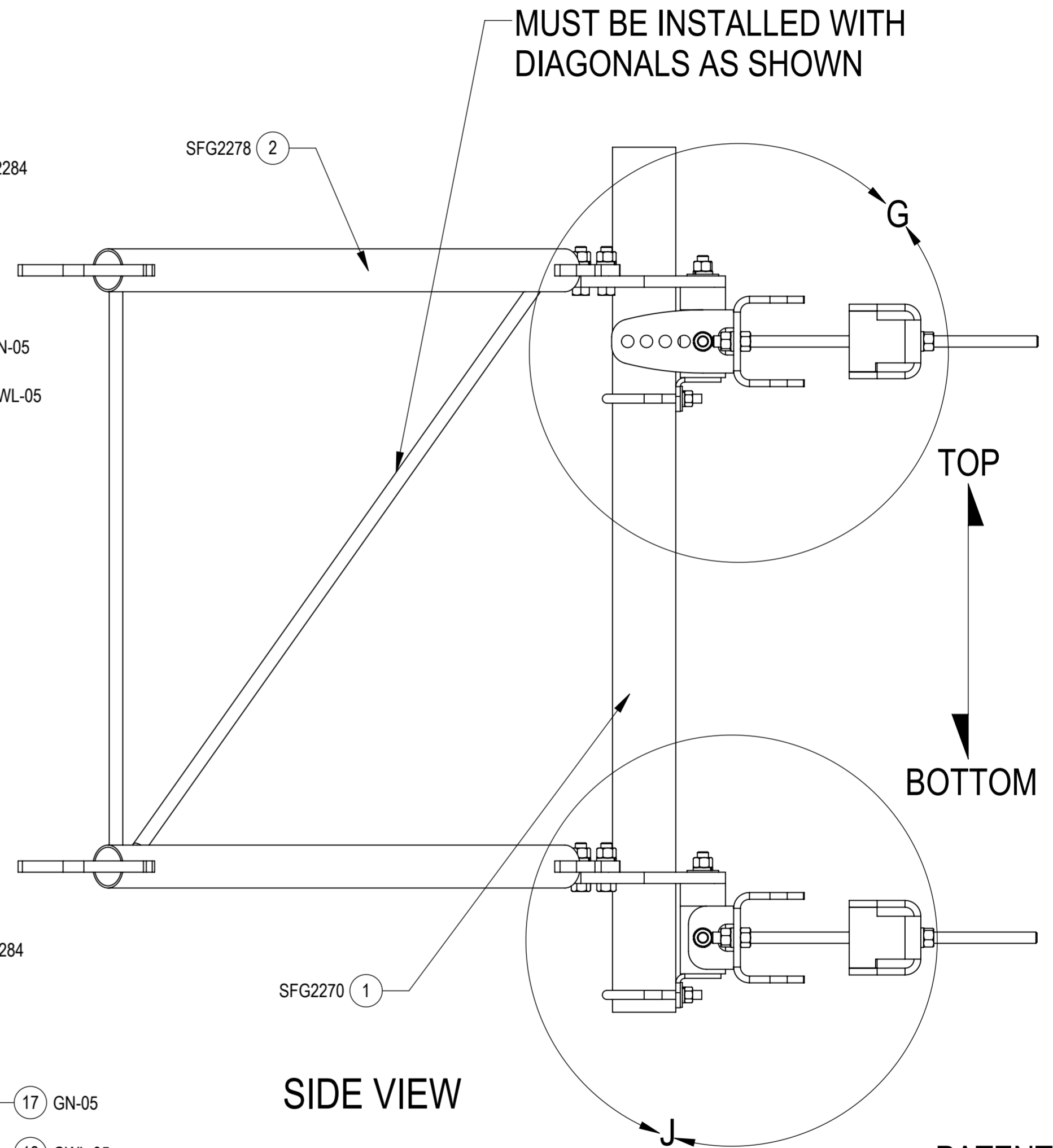
DETAIL G  
SCALE 1 : 5



DETAIL H  
SCALE 1 : 5



DETAIL J  
SCALE 1 : 5

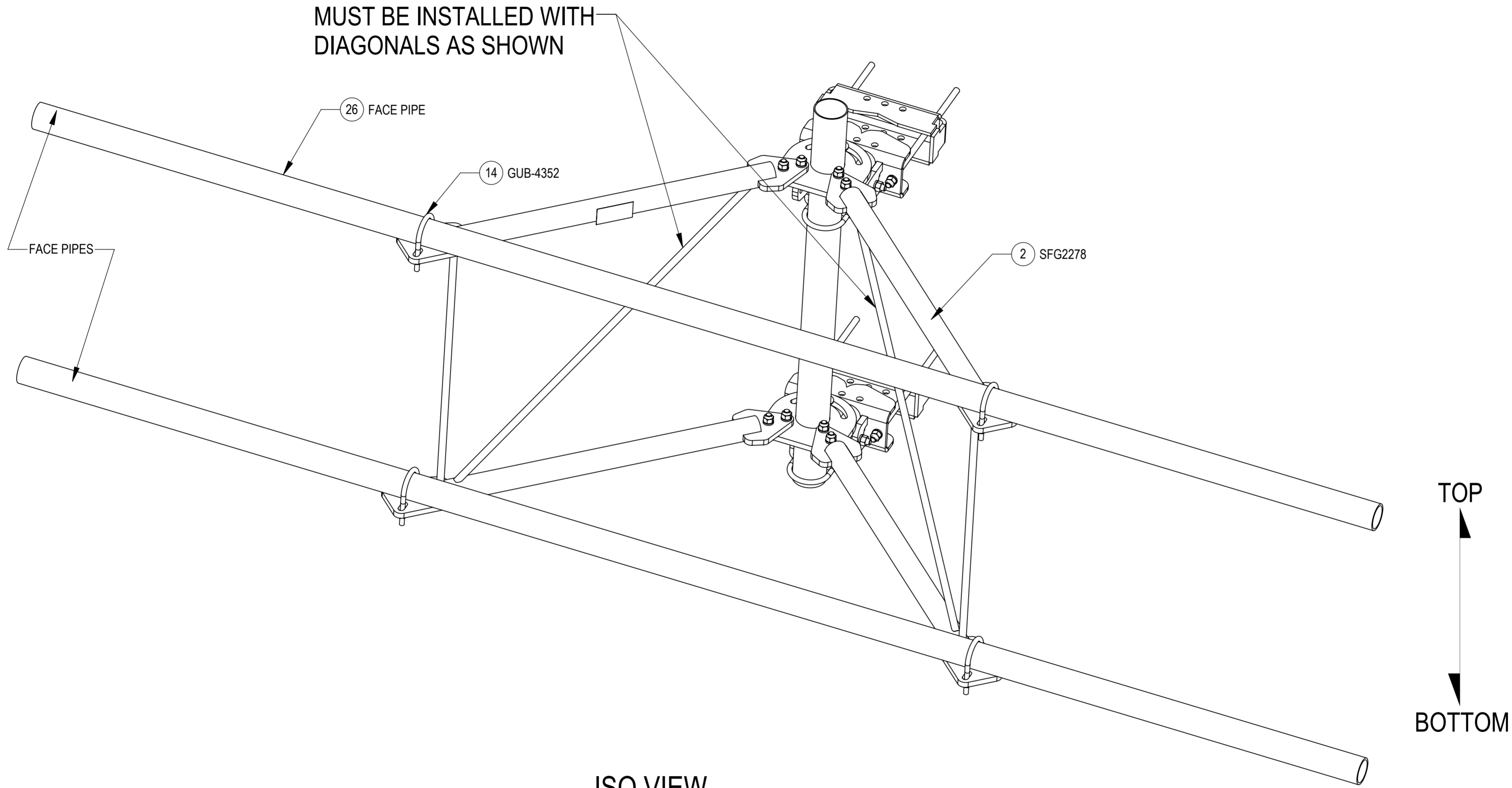


SIDE VIEW

PATENT PENDING

COMMSCOPE, INC. OF NORTH CAROLINA				
TITLE SFG22HDX SECTOR FRAME SERIES				
SIZE A2	SCALE 1:6	DOCUMENT NO. SFG22HDX		
		DRAWING		SHEET
		VERSION 12	STATUS RE	REVISION G
				6 OF 9

STEP 4: ATTACH FACE PIPES TO STANDOFF ARMS (SFG2278) USING U-BOLTS (GUB-4352)



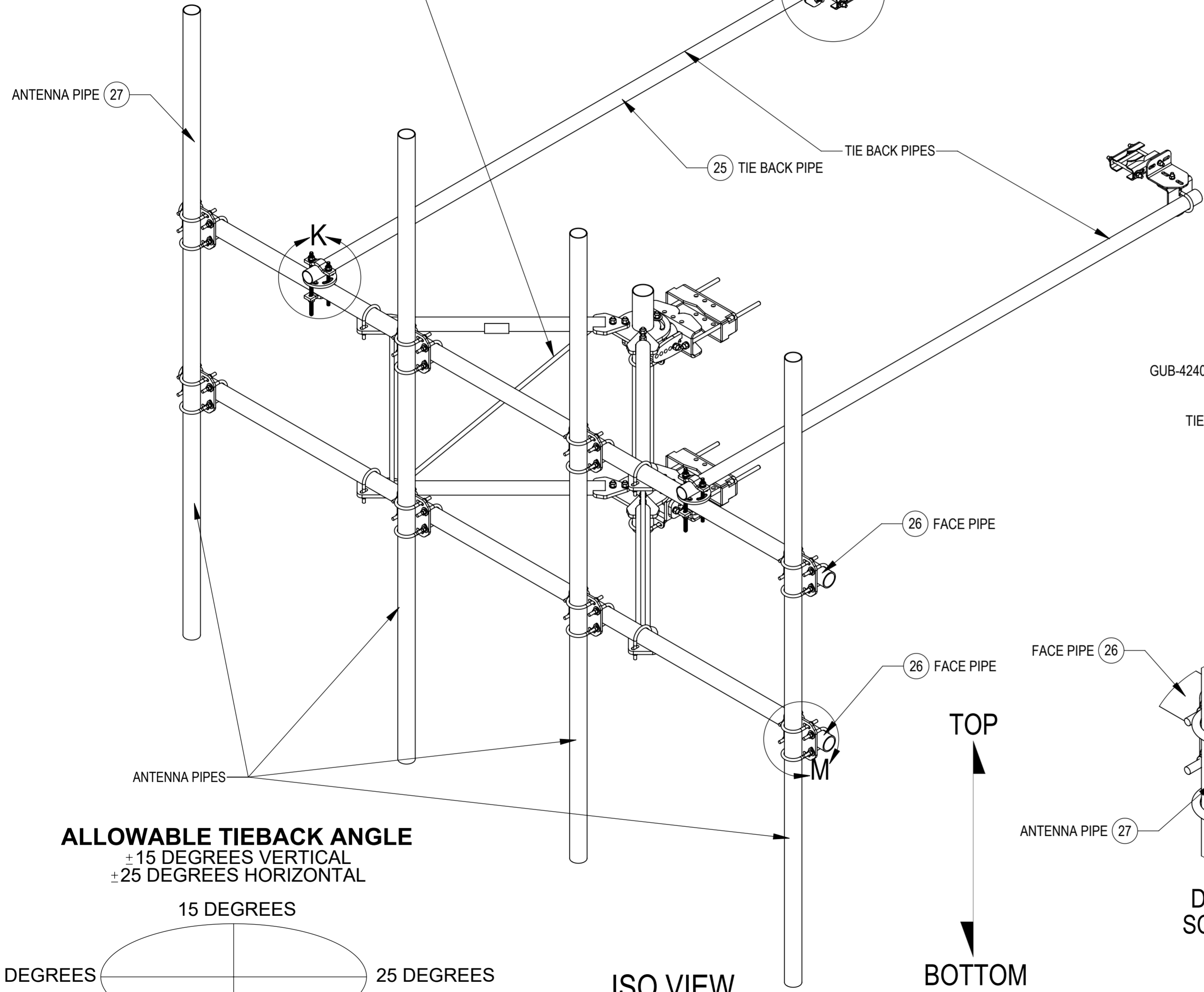
PATENT PENDING

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DRAWING			SHEET
VERSION 12	STATUS RE	REVISION G	7 OF 9

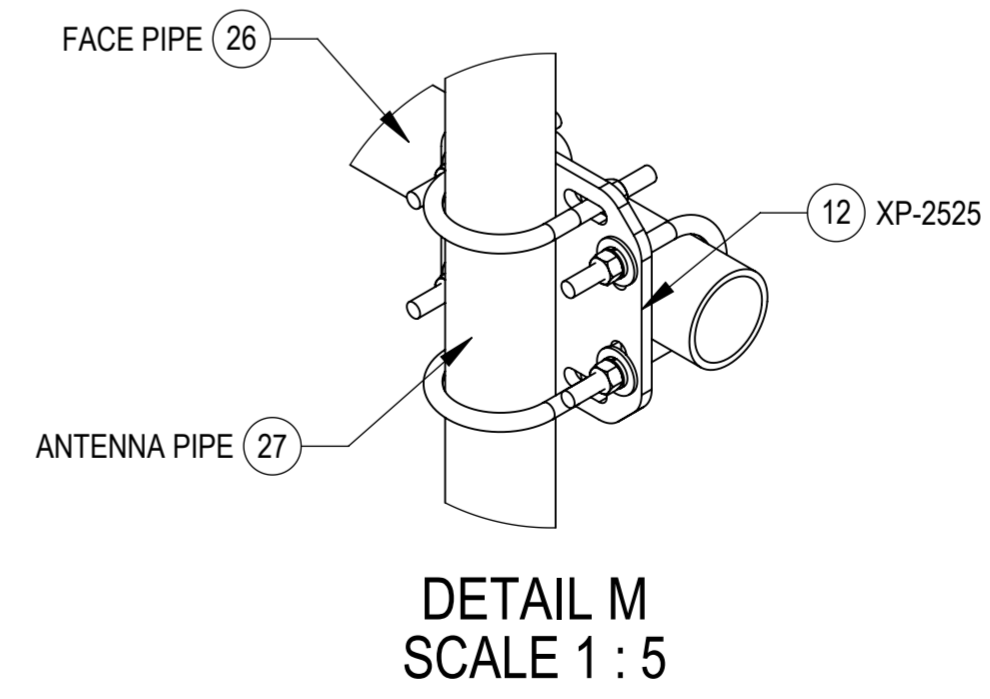
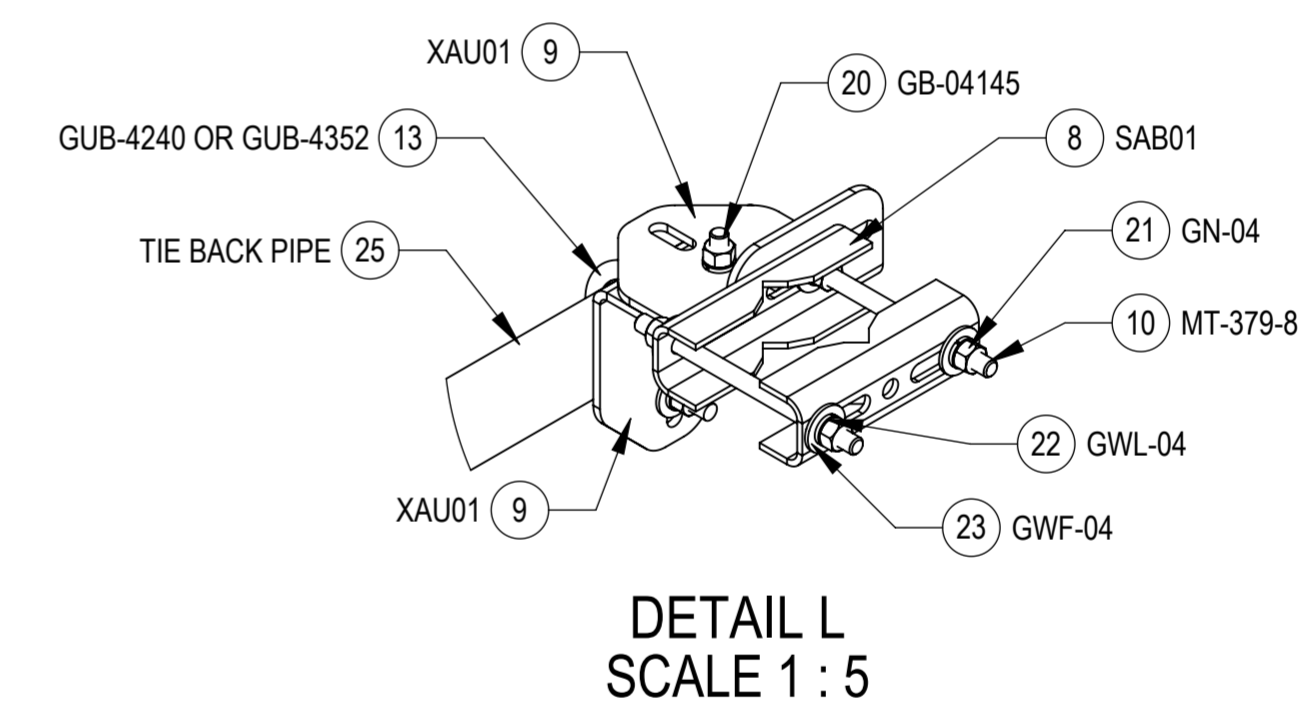
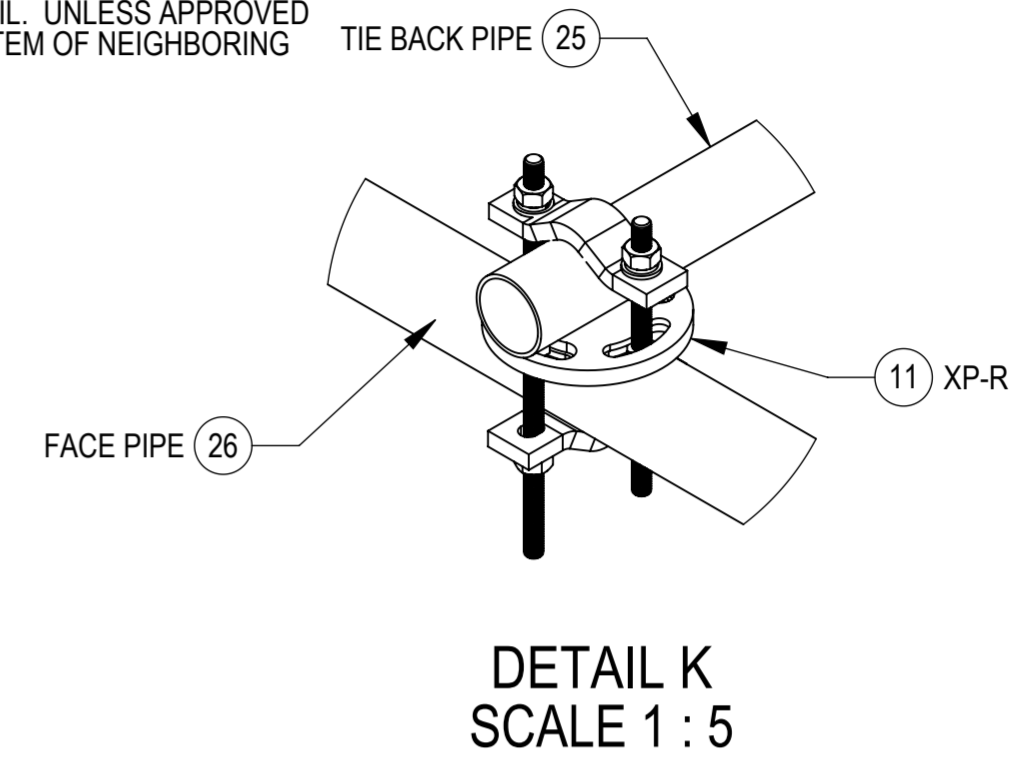


**STEP 5: ATTACH ANTENNA PIPES TO FACE PIPES USING CROSSOVER PLATE KITS(XP-2525).  
ATTACH TIE BACK PIPES TO FACE PIPES USING ROUND CROSSOVER PLATE KITS (XP-R).**

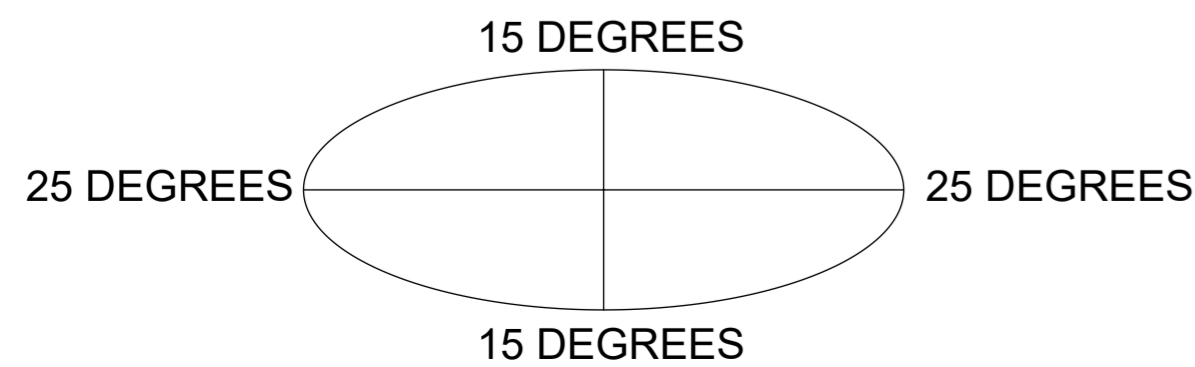
**MUST BE INSTALLED WITH  
DIAGONALS AS SHOWN**



TIEBACK MUST BE CONNECTED TO A RIGID MEMBER THAT PROVIDES ADEQUATE SUPPORT WITHIN THE LIMITS NOTED IN THE TIEBACK ANGLE RANGE DETAIL. UNLESS APPROVED BY ENGINEER OF RECORD. SPINE STEM OF NEIGHBORING MOUNT IS ACCEPTABLE.



**ALLOWABLE TIEBACK ANGLE**  
± 15 DEGREES VERTICAL  
± 25 DEGREES HORIZONTAL



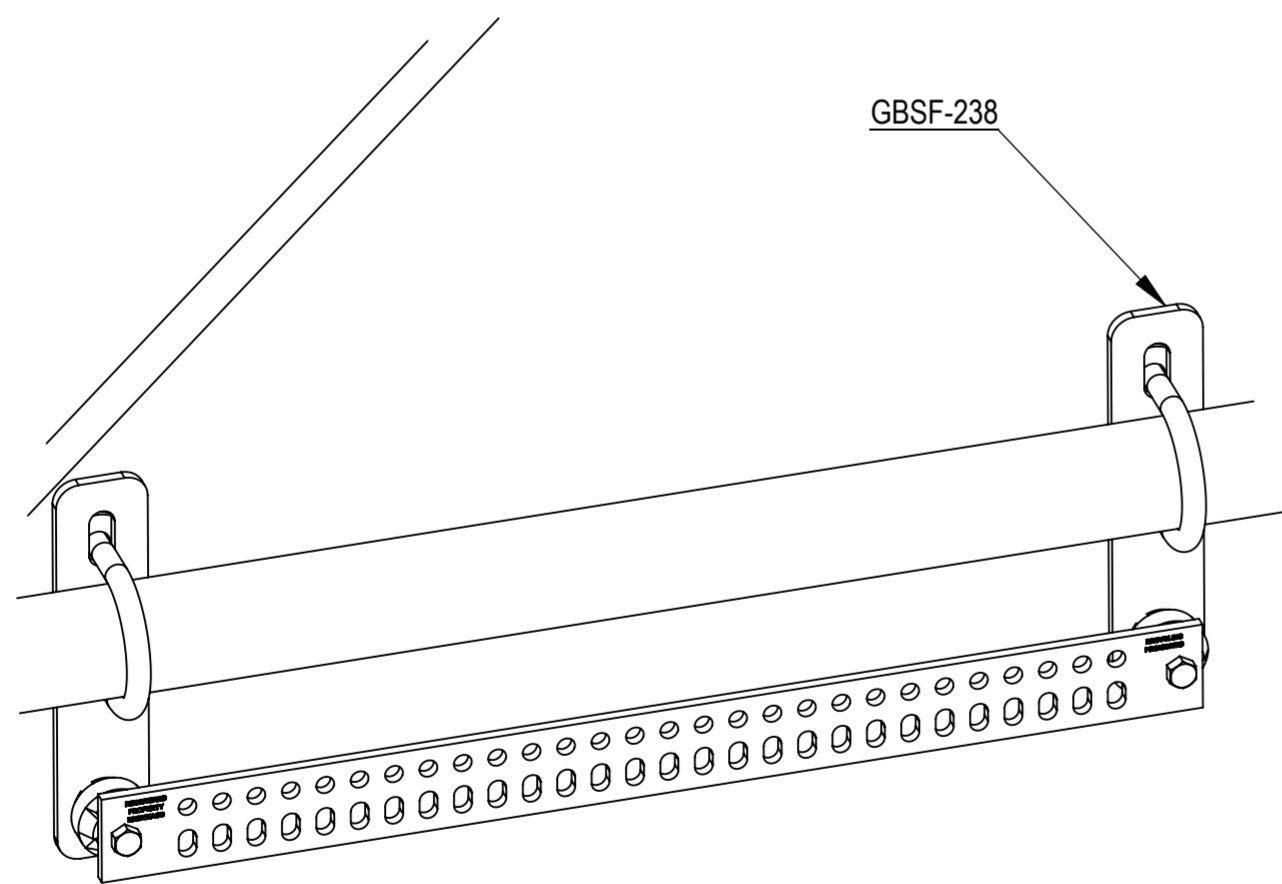
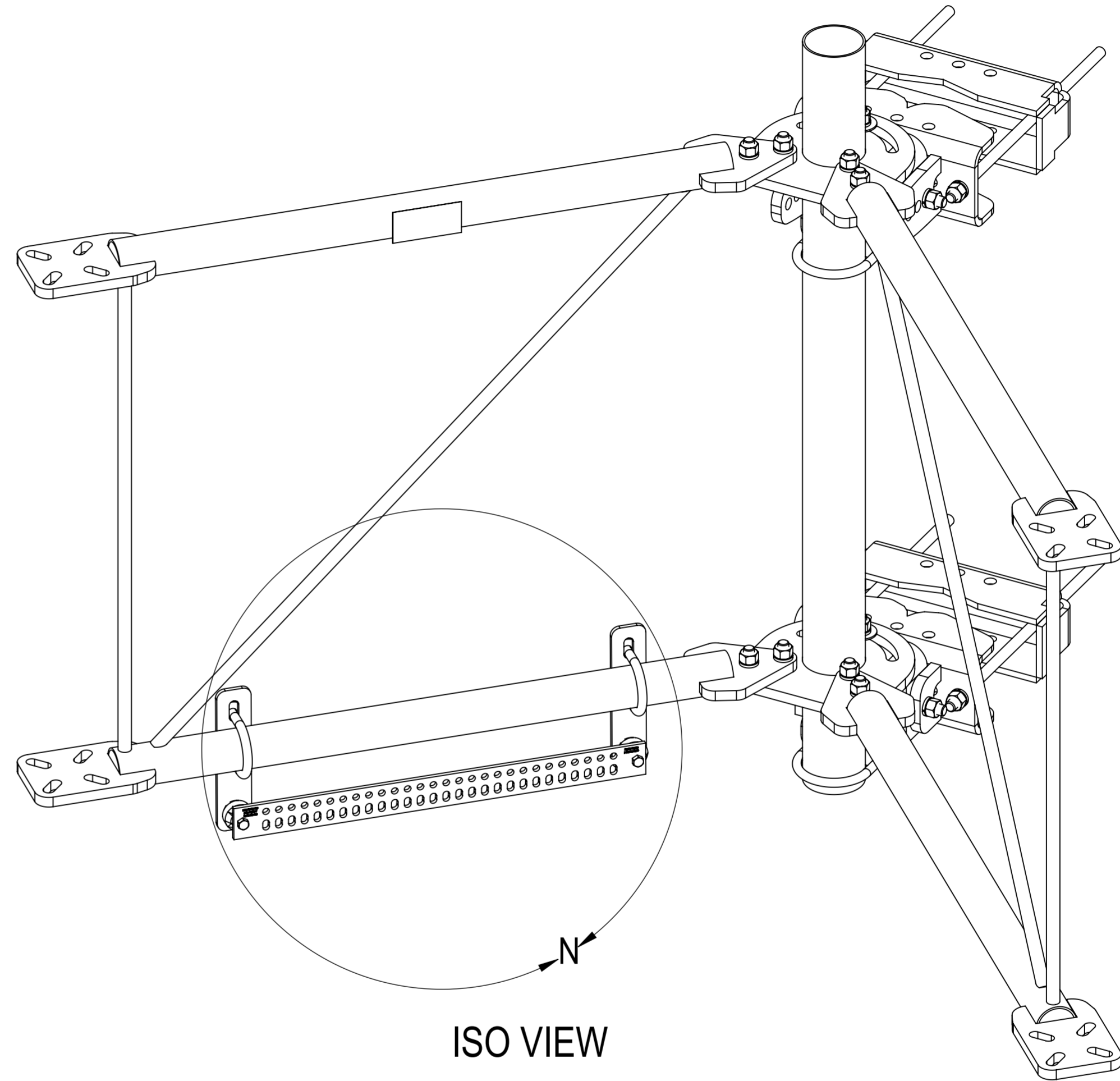
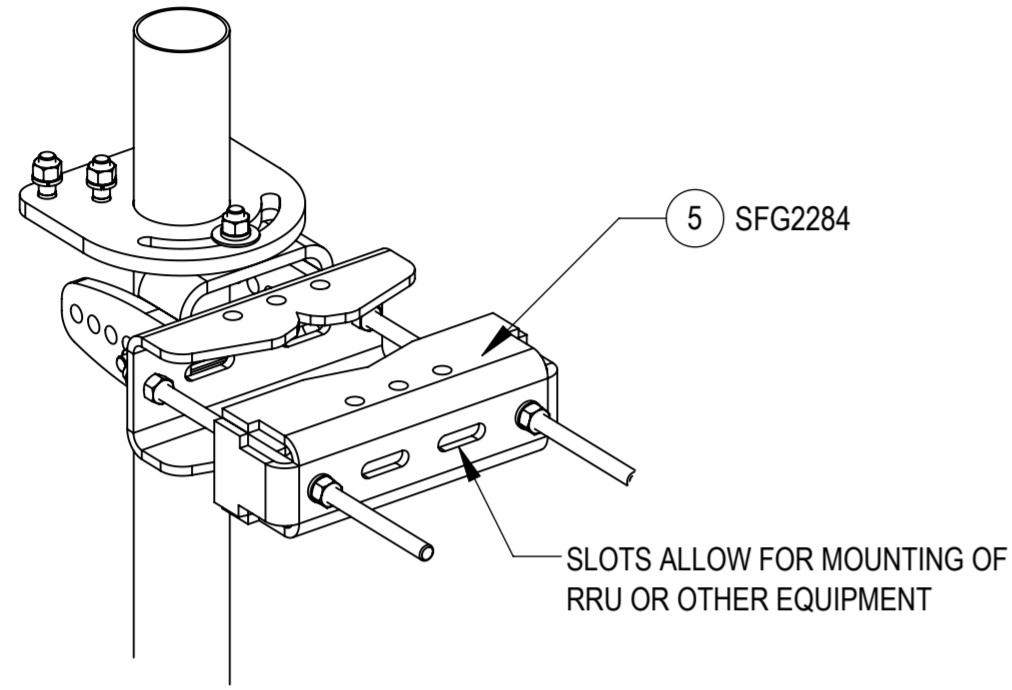
**PATENT PENDING**

COMMSCOPE, INC. OF NORTH CAROLINA				
TITLE SFG22HDX SECTOR FRAME SERIES				
SIZE <b>A2</b>	SCALE <b>1:12</b>	DOCUMENT NO. <b>SFG22HDX</b>		
DRAWING				SHEET
VERSION 12	STATUS RE	REVISION G	8 OF 9	



# OPTIONAL ACCESSORIES:

BUSS BAR MOUNT KIT GBSF-238 IS WELL SUITED TO BE USED SHOULD THE NEED ARISE  
NOTE THAT THIS KIT DOES NOT INCLUDE THE ISOLATORS OR BUSS BAR



DETAIL N  
SCALE 1 : 4

COMMSCOPE, INC. OF NORTH CAROLINA				
TITLE				
SFG22HDX SECTOR FRAME SERIES				
SIZE	SCALE	DOCUMENT NO.		
A2	1:12	SFG22HDX		
DRAWING				SHEET
VERSION	STATUS	REVISION	9 OF 9	
12	RE	G		