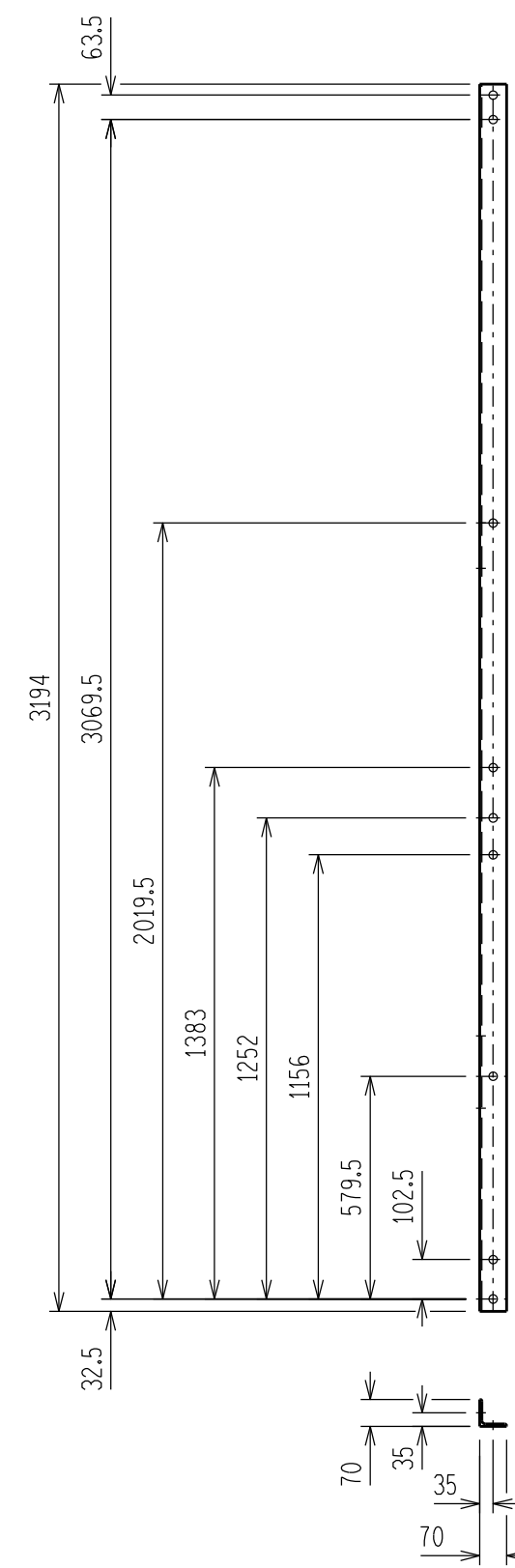
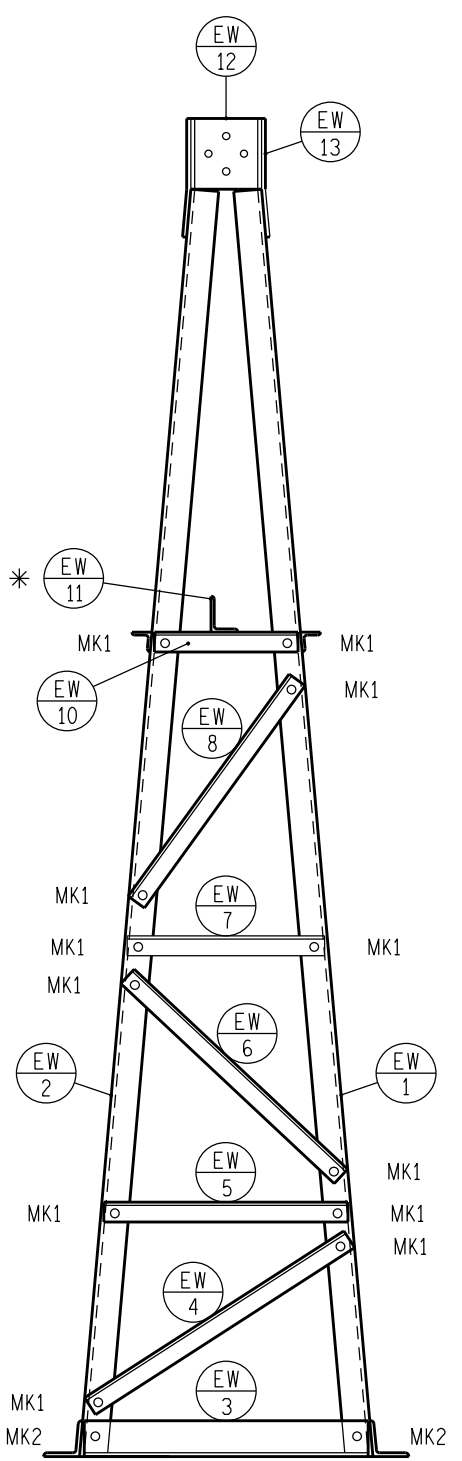
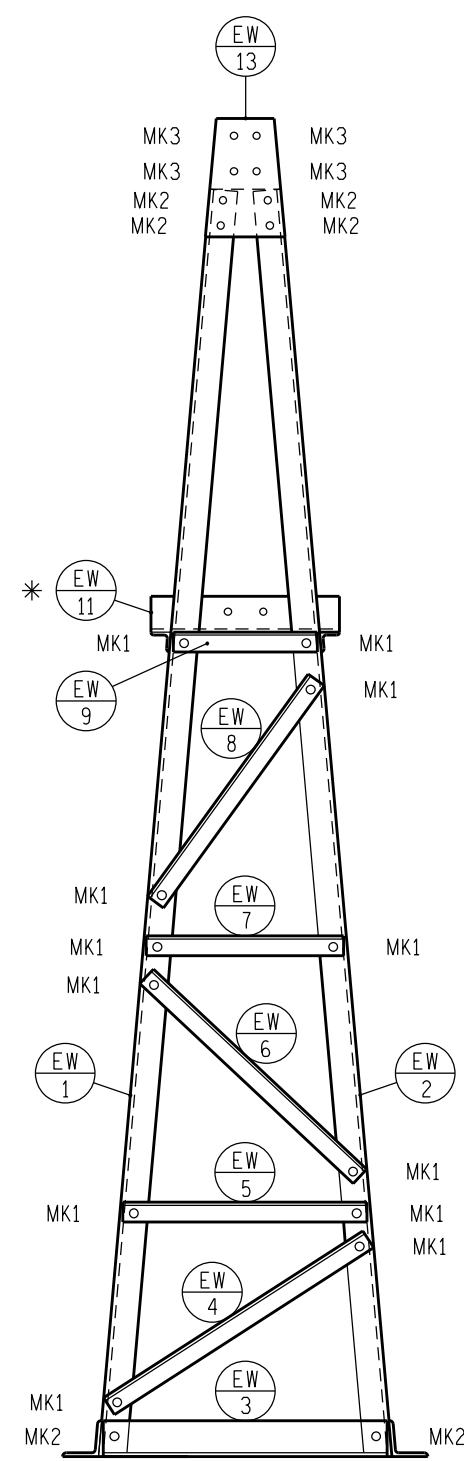
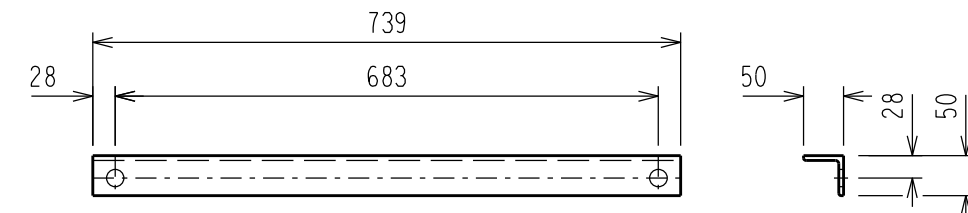
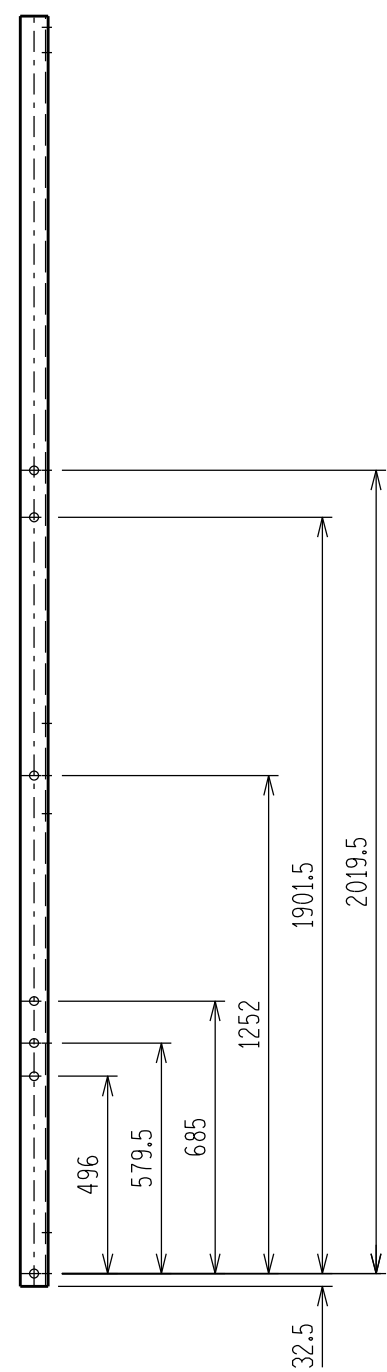


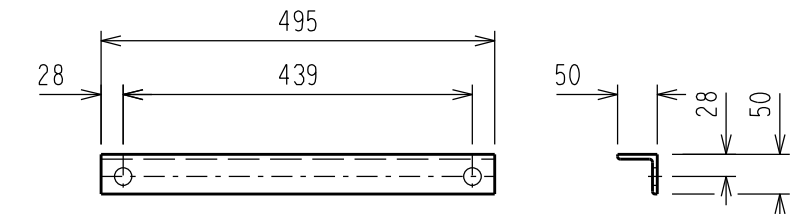
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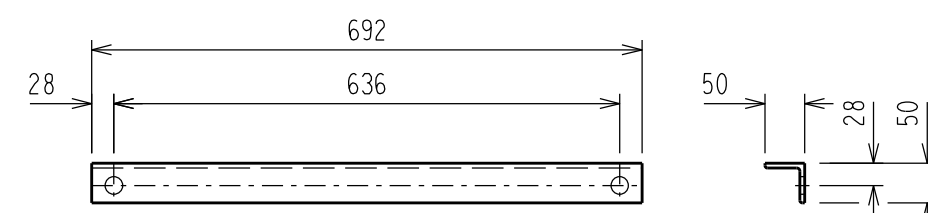
EW 1



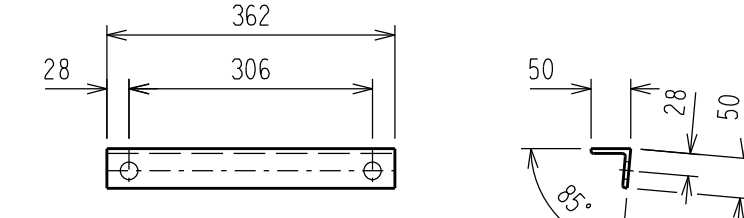
EW 6 SCALE 1:10



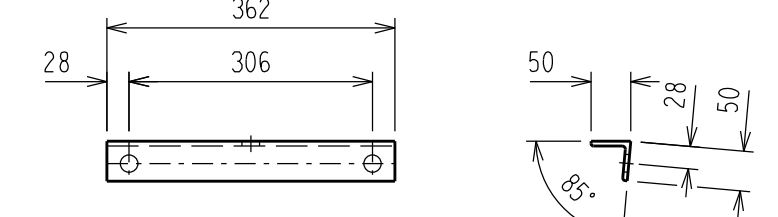
EW 7 SCALE 1:10



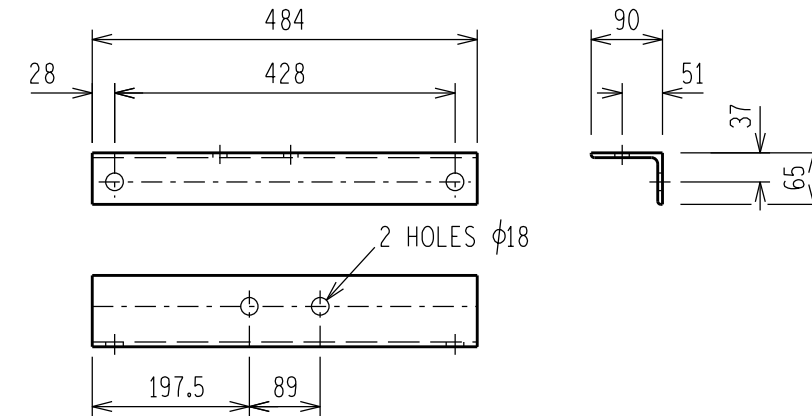
EW 8 SCALE 1:10



EW 9 SCALE 1:10

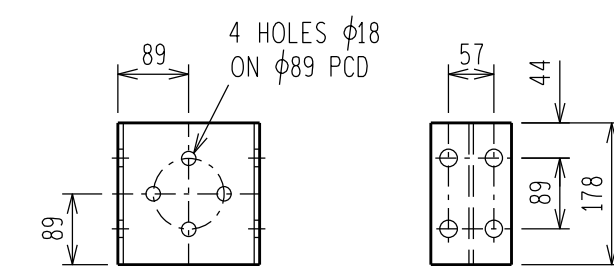


EW 10 SCALE 1:10

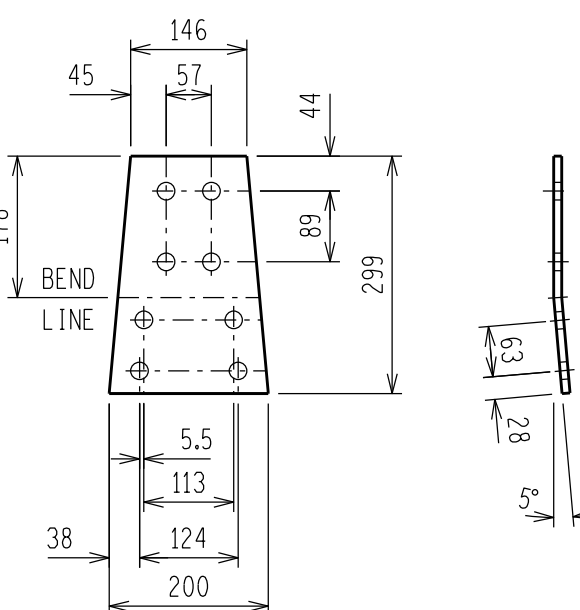


EW 11 SCALE 1:10

LIGHTNING SPIKE

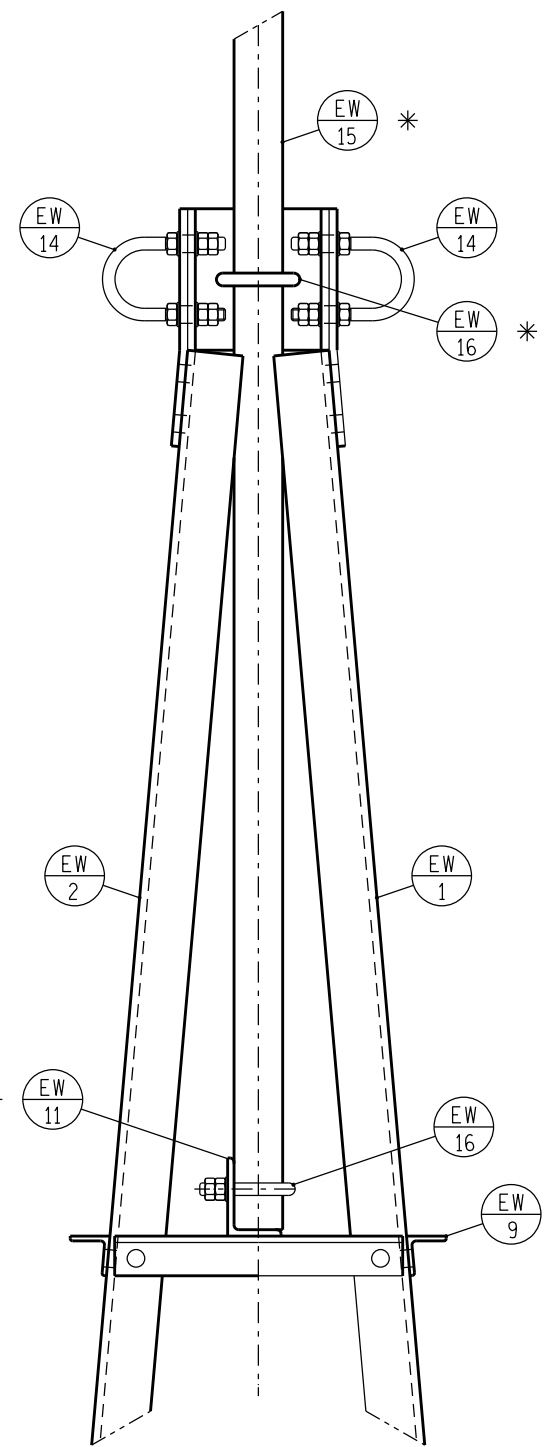


EW 12 SCALE 1:10

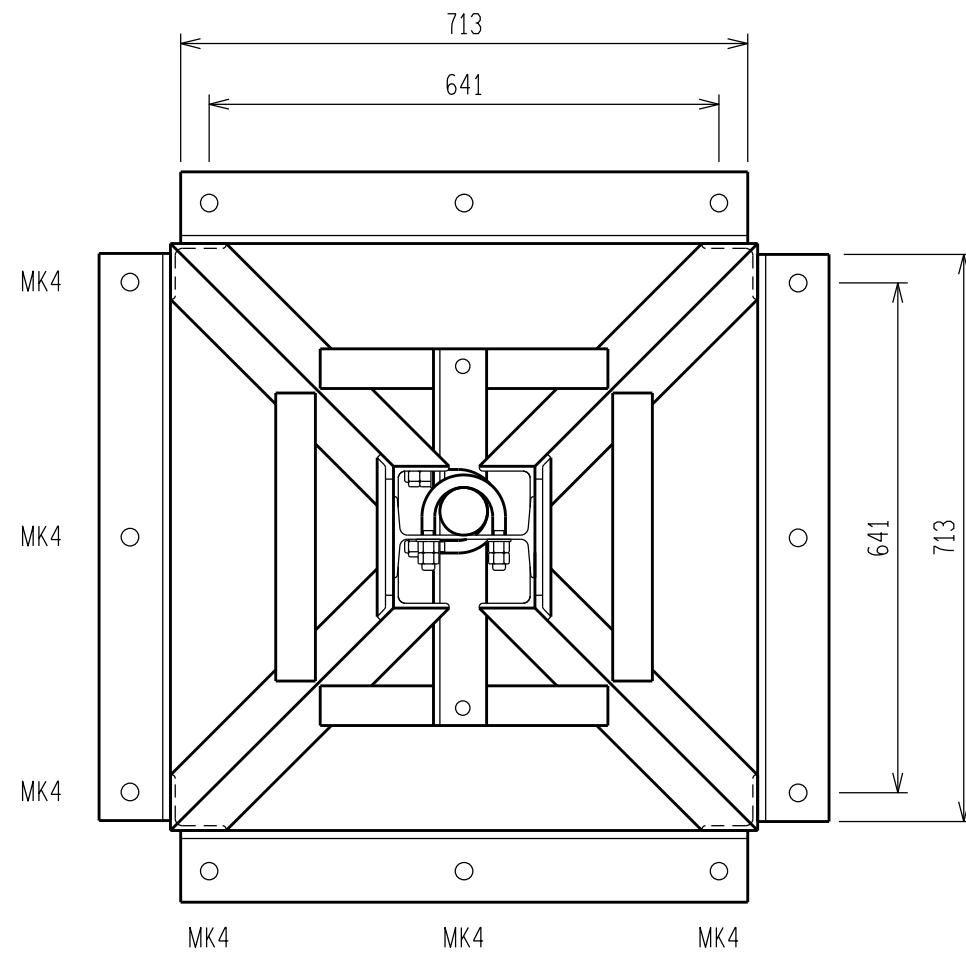


EW 13 SCALE 1:10

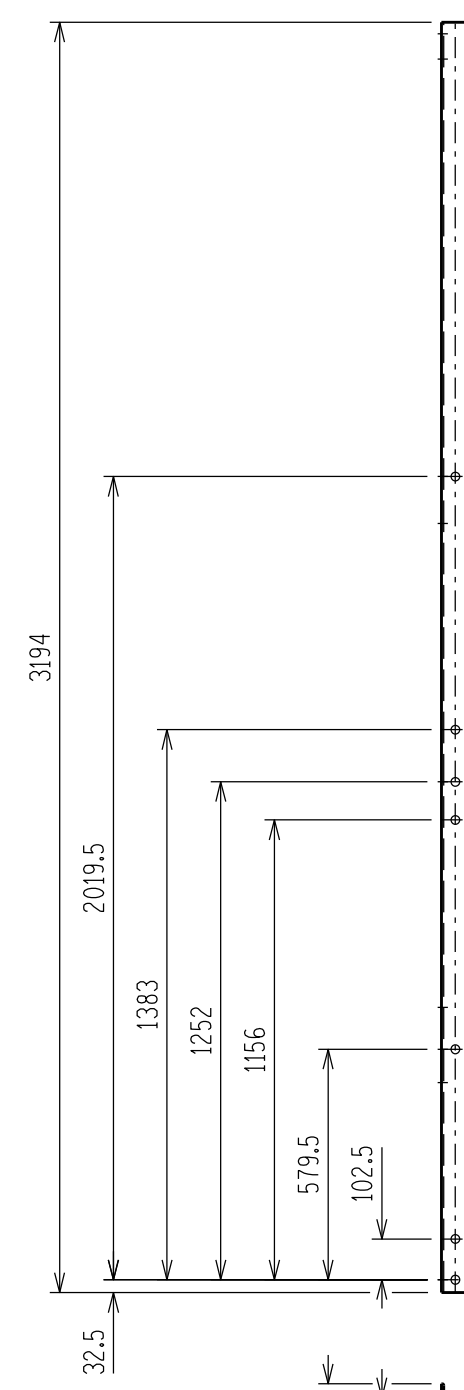
EARTHWIRE SUPPORT



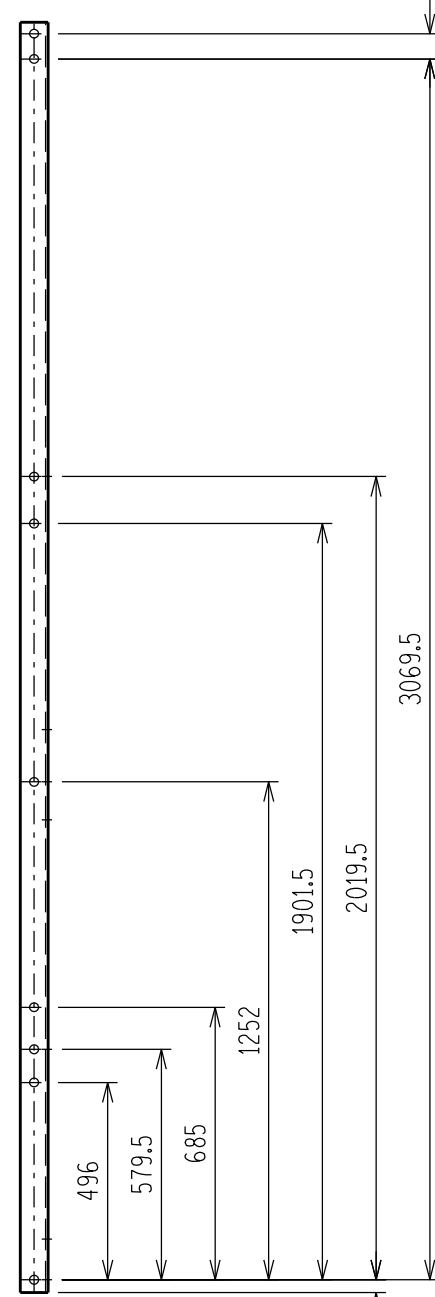
ASSEMBLY OF EARTHWIRE SUPPORT
WITH LIGHTNING SPIKE



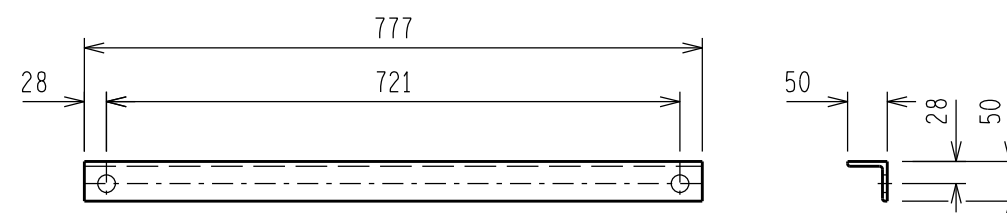
PLAN VIEW
LIGHTNING SPIKE



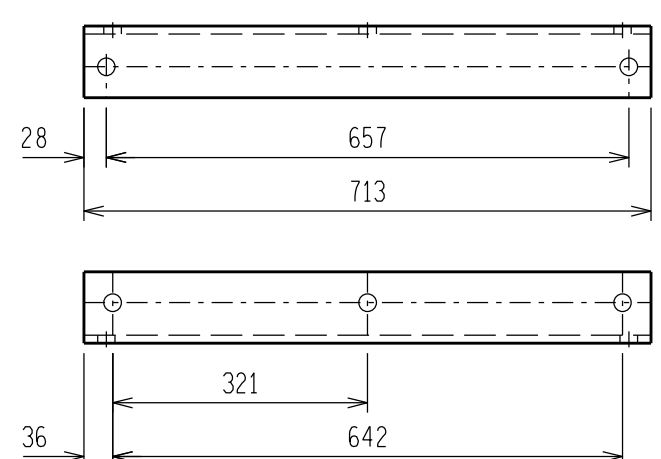
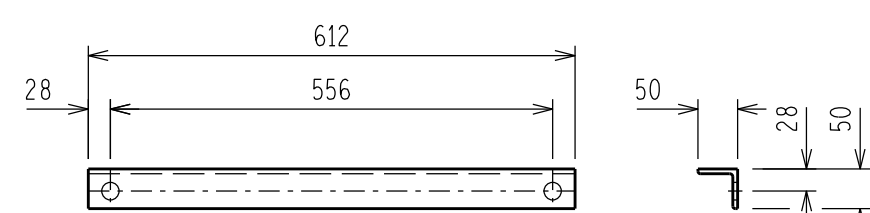
EW 2



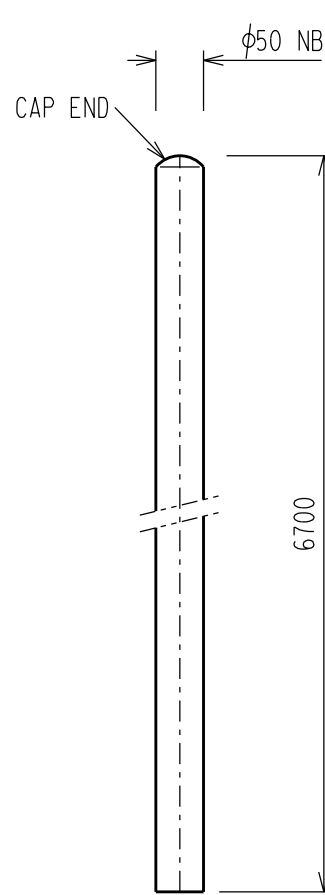
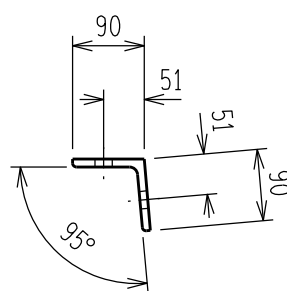
EW 4 SCALE 1:10



EW 5 SCALE 1:10

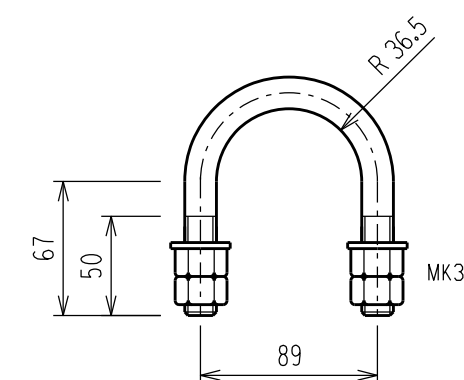


EW 3 SCALE 1:10



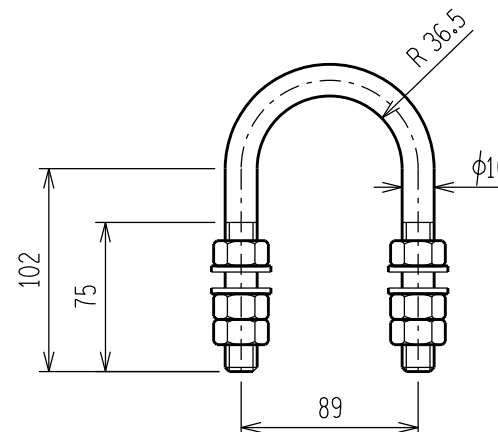
EW 15 SCALE 1:10

LIGHTNING SPIKE



EW 16 SCALE 1:5

LIGHTNING SPIKE



EW 14 SCALE 1:5

NOTES:

- 1 ALL WELDING AND WELDING SYMBOLS SHALL CONFORM TO SANS 10044 PART 1 TO 5.
- 2 ALL STRUCTURAL USE OF STEEL TO CONFORM TO SANS 10162.
- 3 GRADE OF STEEL TO BE SANS 1431 GRADE 350WA.
- 4 ALL WELDS TO BE SEALED WELDED.
- 5 STEELWORK TO BE HOT DIP GALVANIZED TO SANS 121.
- 6 STEELWORK TO BE CHECKED AND STRAIGHTENED AFTER GALVANIZING.
- 7 BOLTS, NUTS & WASHERS TO BE IN ACCORDANCE WITH SANS 1700.
- 8 ALL MARKINGS TO BE STAMPED ON TO STEELWORK AND SHALL BE CLEARLY LEGIBLE AFTER GALVANIZING.
- 9 NO STEEL EXTENSIONS WILL BE ALLOWED ON ANY STEELWORK.
- 10 NO SECTIONS TO BE BUTT WELDED.
- 11 ALL STEELWORK TO BE FABRICATED, ERECTED AND LEVELLED TO A TOLERANCE OF + - 1.5mm.
- 12 ALL HOLES TO BE 22mm DIA UNLESS OTHERWISE STATED.
- 13 ITEMS MARKED THUS * ONLY TO BE USED WHEN LIGHTNING SPIKE IS USED.

EARTHWIRE SUPPORT RATING SCHEDULE				
ITEM	DESCRIPTION	MOUNTING HEIGHT (m)	MAXIMUM LOADING PER PHASE (kN)	EARTHWIRE CONNECTION & LITHNING SPIKE
EW	EARTHWIRE SUPPORT	11.049	2.25	
LS	LIGHTNING SPIKE	14.326	0.0	

BOLT SCHEDULE - EARTHWIRE SUPPORT									
MARK	BOLT SIZE mm	MILD STEEL GRADE	PITCH mm	LENGTH mm	NO OFF BOLTS	NO OFF NUTS	NO OFF WASHERS	TORQUE Nm	TOTAL MASS kg
1	M20	4.8	2.5	40	48	48	96	225	14.35
2	M20	4.8	2.5	45	16	16	16	225	4.77
3	M20	4.8	2.5	50	8	8	8 BEVEL	225	2.45
4	M20	4.8	2.5	50	12	12	12	225	3.67
MASS OF BOLTS, WASHERS AND NUTS									25.24

BOLT SCHEDULE - FOR LIGHTNING SPIKE									
MARK	BOLT SIZE mm	MILD STEEL GRADE	PITCH mm	LENGTH mm	NO OFF BOLTS	NO OFF NUTS	NO OFF WASHERS	TORQUE Nm	TOTAL MASS kg
1	M20	4.8	2.5	40	2	2	4	225	0.60

STEEL SCHEDULE AND MASS - EARTHWIRE SUPPORT					
ITEM	QTY	DESCRIPTION	CUTTING LENGTH (mm)	TOTAL LENGTH (m)	TOTAL MASS (kg)
EW 1	2	MILD STEEL ANGLE 70 x 70 x 6	3194	6.39	40.76
EW 2	2	MILD STEEL ANGLE 70 x 70 x 6	3194	6.39	40.76
EW 3	4	MILD STEEL ANGLE 90 x 90 x 10	713	2.85	38.22
EW 4	4	MILD STEEL ANGLE 50 x 50 x 6	777	3.11	13.90
EW 5	4	MILD STEEL ANGLE 50 x 50 x 6	612	2.45	10.94
EW 6	4	MILD STEEL ANGLE 50 x 50 x 6	739	2.95	13.21
EW 7	4	MILD STEEL ANGLE 50 x 50 x 6	495	1.98	8.85
EW 8	4	MILD STEEL ANGLE 50 x 50 x 6	692	2.77	12.37
EW 9	2	MILD STEEL ANGLE 50 x 50 x 6	362	1.45	6.47
EW 10	2	MILD STEEL ANGLE 50 x 50 x 6	362	1.45	6.47
EW 12	1	TF I-SECTION 178 x 102 x 22kg/m	178	0.18	3.96
EW 13	2	MILD STEEL PLATE 299 x 10	200	0.40	9.35
EW 14	2	'U' BOLT MILD STEEL ROUND BAR ϕ 16	385	0.77	1.22
TOTAL MASS =					206.48

STEEL SCHEDULE AND MASS - LIGHTNING SPIKE					
ITEM	QTY	DESCRIPTION	CUTTING LENGTH (mm)	TOTAL LENGTH (m)	TOTAL MASS (kg)
EW 11	1	MILD STEEL UNEQUAL ANGLE 90 x 65 x 6	484	0.49	3.42
EW 15	1	MILD STEEL PIPE ϕ 50 NB	6700	6.70	30.22
EW 16	2	'U' BOLT MILD STEEL ROUND BAR ϕ 16	280	0.56	0.88
TOTAL MASS =					34.52

THIS DRAWING IS THE NEW OFFICIAL REVISION AND IT SUPERSEDES ALL OTHER PUBLISHED DRAWINGS					
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE
2	ALIGNING THE TWO HOLES ON EW/11 WITH THE CENTER LINE	BMH	SS	NMW	11/08/2014
1	EARTHWIRE SUPPORT RATING SCHEDULE ADDED	MOB	GJB	NMW	19/03/2013
0	FIRST ISSUE				

Eskom		EARTHWIRE SUPPORT - 132/EW		
LATTICE STEEL		STEELWORK MANUFACTURING		
DETAILS AND ASSEMBLY		D-DT-5252		
SAP No. 0559311		SET	SHEET	REVISION
SCALE 1:20			2E	2
THIS DRAWING IS THE PROPERTY OF ESKOM				

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