


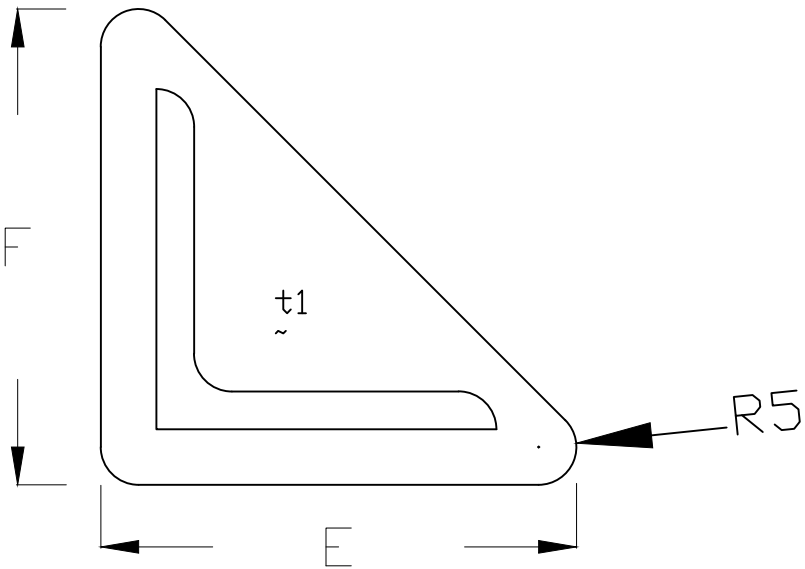
SUPPORT INDEX SHEET					
	SHEET NO	DRAWN	DATE	REVISION	REMARKS
COVER PAGE	i		20/09/2024	A	
PAD DETAILS	ii		20/09/2024	A	
U-Bolt Typical Details	iii		20/09/2024	A	
BA-S-01	1		20/09/2024	A	
BA-S-02	2		20/09/2024	A	
BA-S-03	3		20/09/2024	A	
BA-S-04	4		20/09/2024	A	
BA-S-05	5		20/09/2024	A	
BA-S-06	6		20/09/2024	A	
BA-S-07	7		20/09/2024	A	
BA-S-08	8		20/09/2024	A	
BA-S-09	9		20/09/2024	A	
BA-S-10	10		20/09/2024	A	

REFERENCE DRAWINGS:-  
1) PIPING SUPPORT LAYOUT DRAWING FOR BWTS

NOTES:  
1. ALL DIMENSIONS ARE IN MILLIMETERS.  
2. THE PAD TO ANGLE JOINT SHALL BE TACK WELDED FOR FINAL ADJUSTMENT ON-BOARD.

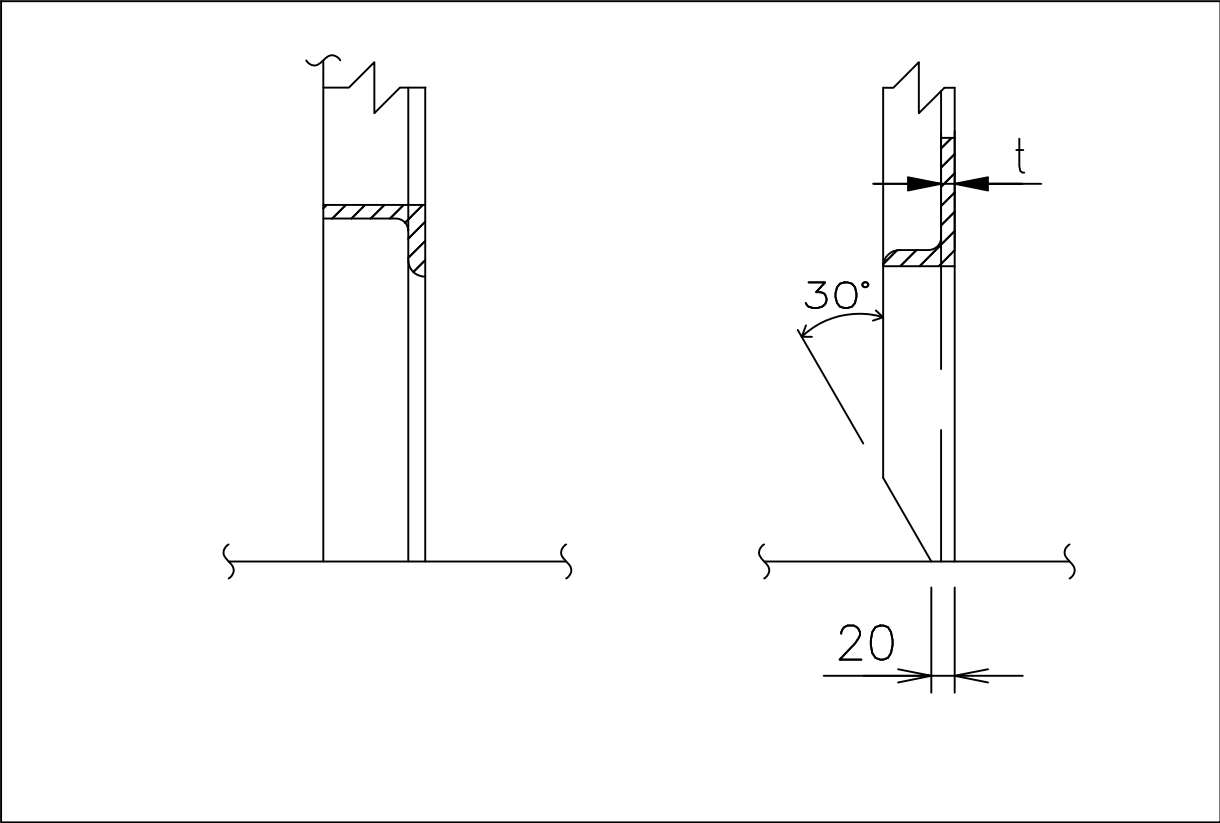
A	20/09/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
REV.	DATE	DESCRIPTION	DRAWN BY	CHKD BY	APPRD
<div><div></div><div><div>Goltens</div><div>Singapore Pte Ltd.</div></div></div>					
Client: EMAS OFFSHORE LIMITED		BWTS Maker Name: BIO-SEA			
Location: -		IMO No.: 9354947			
Project No: P1482		Project Name: JP 88 STORK			
Drawing title: PIPING SUPPORT DETAILED DRAWING FOR BWTS (1" & ABOVE)					
Scale N.T.S	Format A3	Sheet i	Drawing No: GSPL-P1482-PI-0302		Revision No. A

PAD FOR PIPE SUPPORT



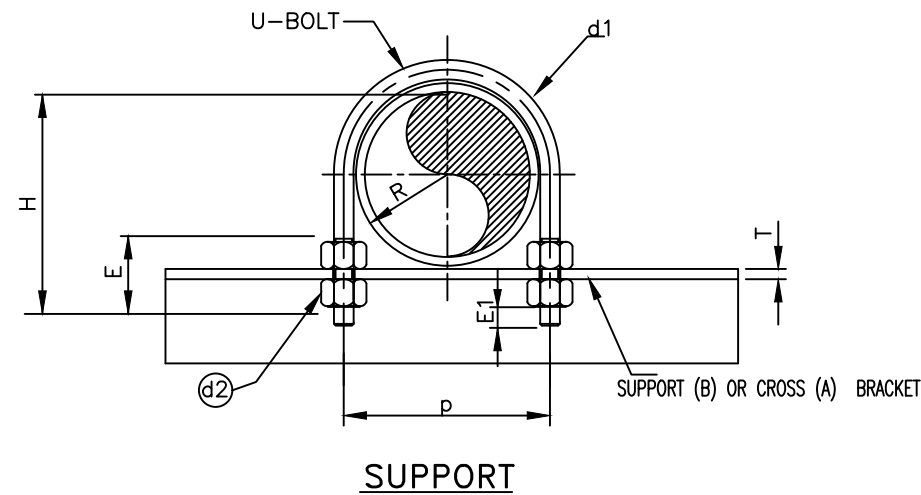
TRIANGLE TYPE

ENDSNIPING OF SUPPORTS (TYPL.)



PAD DETAILS				
SUPPORT (ANGLE)	PAD (TRIANGLE TYPE) (mm)			
A X B X t	E	F	t1	R
L 40 X 40 X 5	70	70	8	5
L 50 X 50 X 6	70	70	8	
L 70 X 70 X 8	130	130	10	
L 75 X 75 X 8	130	130	10	
L 100 X 100 X 10	130	130	10	
L 130 X 130 X 10	160	160	10	
L 130 X 130 X 12	160	160	10	

## U-BOLT TYPICAL DETAILS



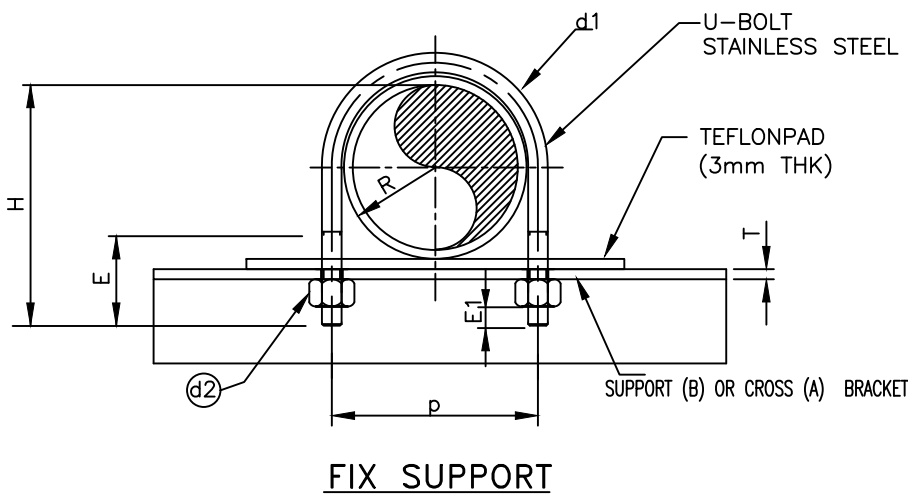
### 2. SHAPE AND DIMENSIONS

PIPE ND		JIS PIPE	U - BOLT					P	WT(Kg)
[MM]	[INCH]	OD	d1	E1	R	E	H		
15	1/2"	21.7	M10	4.3	12			34	0.031
20	3/4"	27.2	M10	4.8	15			40	0.04
25	1"	34.0	M10	4	18			46	0.06
32	1 1/4"	42.7	M10	4.3	23			56	0.08
40	1 1/2"	48.6	M10	4.4	26			62	.16
50	2"	60.5	M10	4.5	32	35	81	74	0.3
65	2-1/2"	76.3	M12	5.7	38	44	102	88	0.31
80	3"	89.1	M12	5.9	46	44	115	104	.34
100	4"	114.3	M16	6.7	59	50	144	134	.76
125	5"	139.8	M16	6.2	74	50	170	164	1.4
150	6"	165.2	M16	6.8	87	50	199	190	2.4
200	8"	216.3	M20	7.7	112	60	254	244	2.9
250	10"	267.4	M20	7.6	139	60	309	298	3.3
300	12"	318.5	M24	10.5	165	70	367	354	6.5
350	14"	355.6	M24	9.4	181	70	398	386	6.9
400	16"	406.4	M24	10.6	207	70	450	438	7.6
450	18"	457.2	M30	12.8	233	85	508	496	8.3
500	20"	508.0	M30	13	259	85	559	548	13.6
550	22"	558.8	M30	13.2	284	85	598	598	14.6
600	24"	609.6	M36	14.8	310	100	656	656	15.7

### 3. MATERIALS

MARK	ITEM	MATERIALS	QTY
1	U-BOLT	CARBON STEEL (HOT GAL.)	1
2	NUT	ASTM A307 Gr.B OR EQUAL. (HOT GAL.)	4

## STAINLESS STEEL PIPE SUPPORT (U-BOLT TYPICAL DETAILS )



### 2. SHAPE AND DIMENSIONS

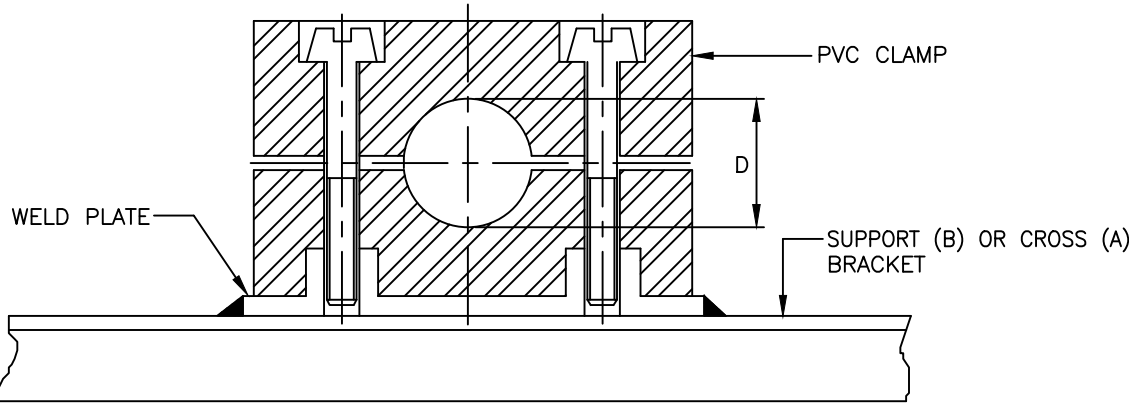
PIPE ND		JIS PIPE	U - BOLT					P	WT(Kg)
[MM]	[INCH]	OD	d1	E1	R	E	H		
15	1/2"	21.7	M10	4.3	12	40	55	34	0.031
20	3/4"	27.2	M10	4.8	15	40	61	40	0.04
25	1"	34.0	M10	4	18	43	68	46	0.06
32	1 1/4"	42.7	M10	4.3	23	43	76	56	0.08
40	1 1/2"	48.6	M10	4.4	26	46	82	62	.16
50	2"	60.5	M10	4.5	32	58	94	74	0.3
65	2-1/2"	76.3	M12	5.7	38	60	115	88	0.31

NOTE: WT. IS TOTAL WEIGHT OF 2 (two) SET WITH NUT.

### 3. MATERIALS

MARK	ITEM	MATERIALS	QTY
1	U-BOLT	STAINLESS STEEL	1
2	NUT	ASTM A304 Gr.B	2

## COPPER PIPE - TYPICAL PIPE SUPPORT



## SINGLE CLAMP SUPPORT

Drawing title:  
PIPING SUPPORT DETAILED DRAWING FOR BWTS (1" & ABOVE)

Scale	Format	Sheet	Drawing No:	Revision No.
N.T.S	A3	iii	GSPL-P1482-PI-0302	A



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# SUPPORT DRAWING

WEIGHT

REV.

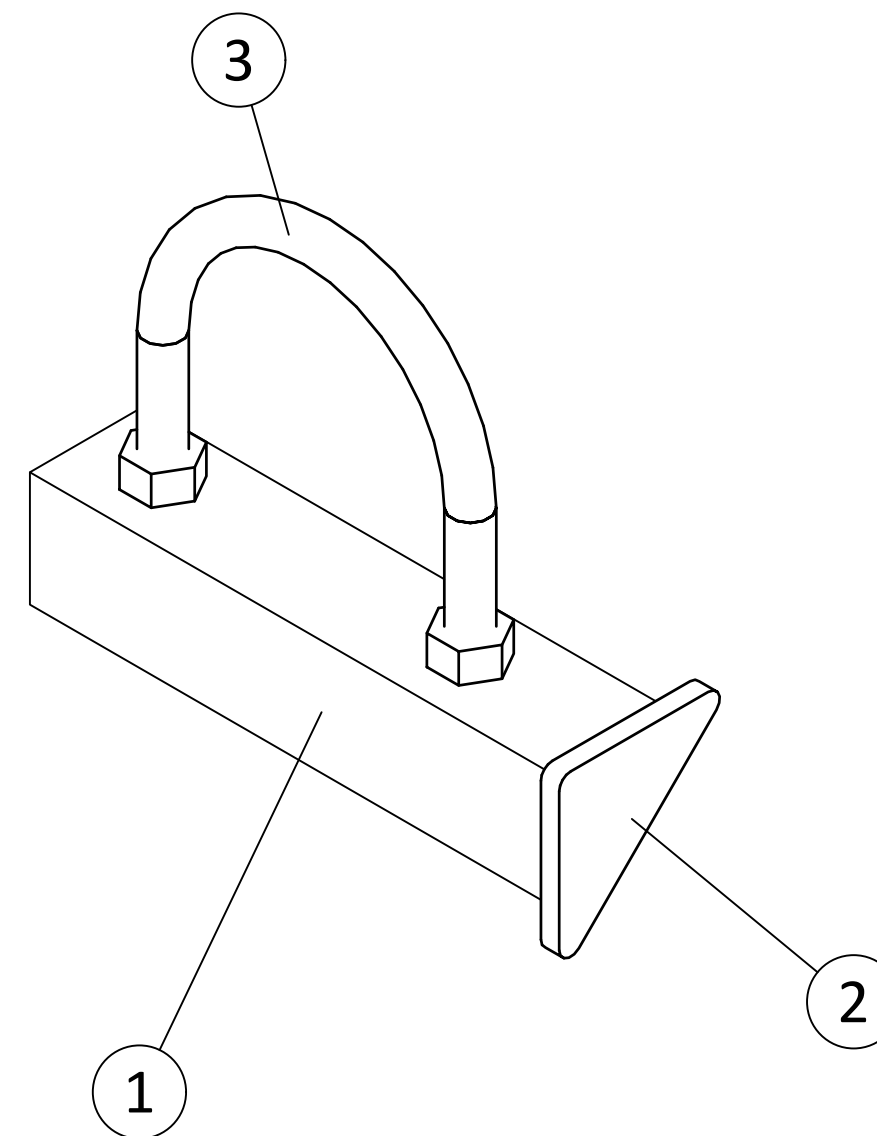
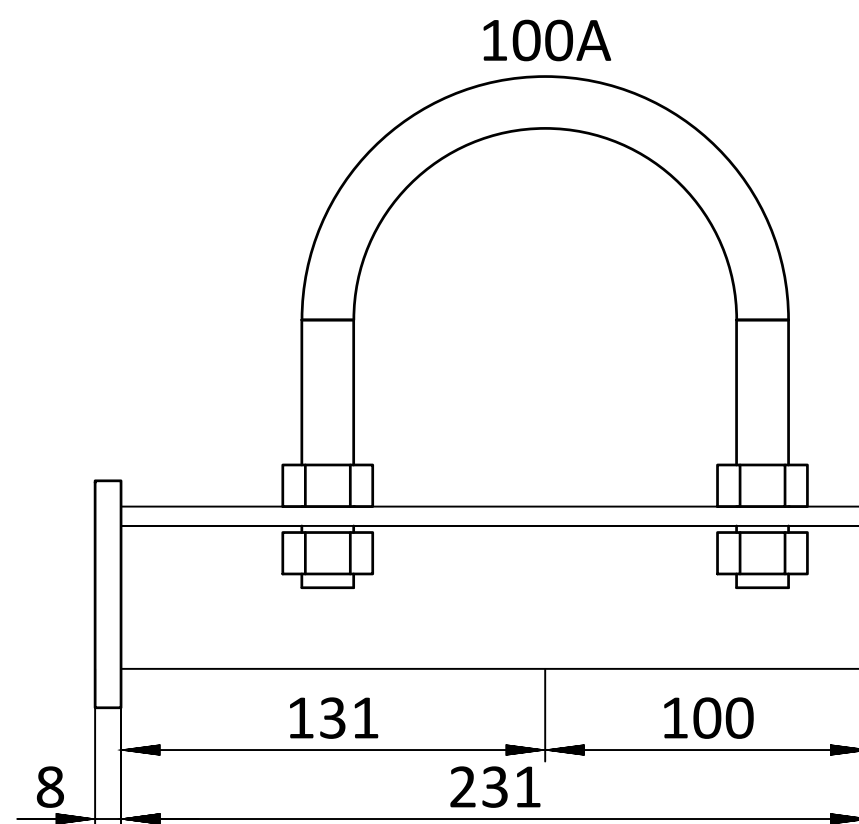
01

1.991 Kg

A

10

SUPPORT NO: BA-S-01



					MISCELLANEOUS					
						3	U-Bolt with Double Nuts-(DN100)	Galv. Steel	1	0.80
						2	Pad-(70 x 70 x 8)	Steel	1	0.16
1	L 50 x 50 x 6.0	Steel	231.0	1.03		PART NO.	DESCRIPTION	MATERIAL	QTY.	WT(Kg)
PART NO.	DESCRIPTION	MATERIAL	LEN(mm)	WT(Kg)						



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SUPPORT DRAWING

WEIGHT

REV.

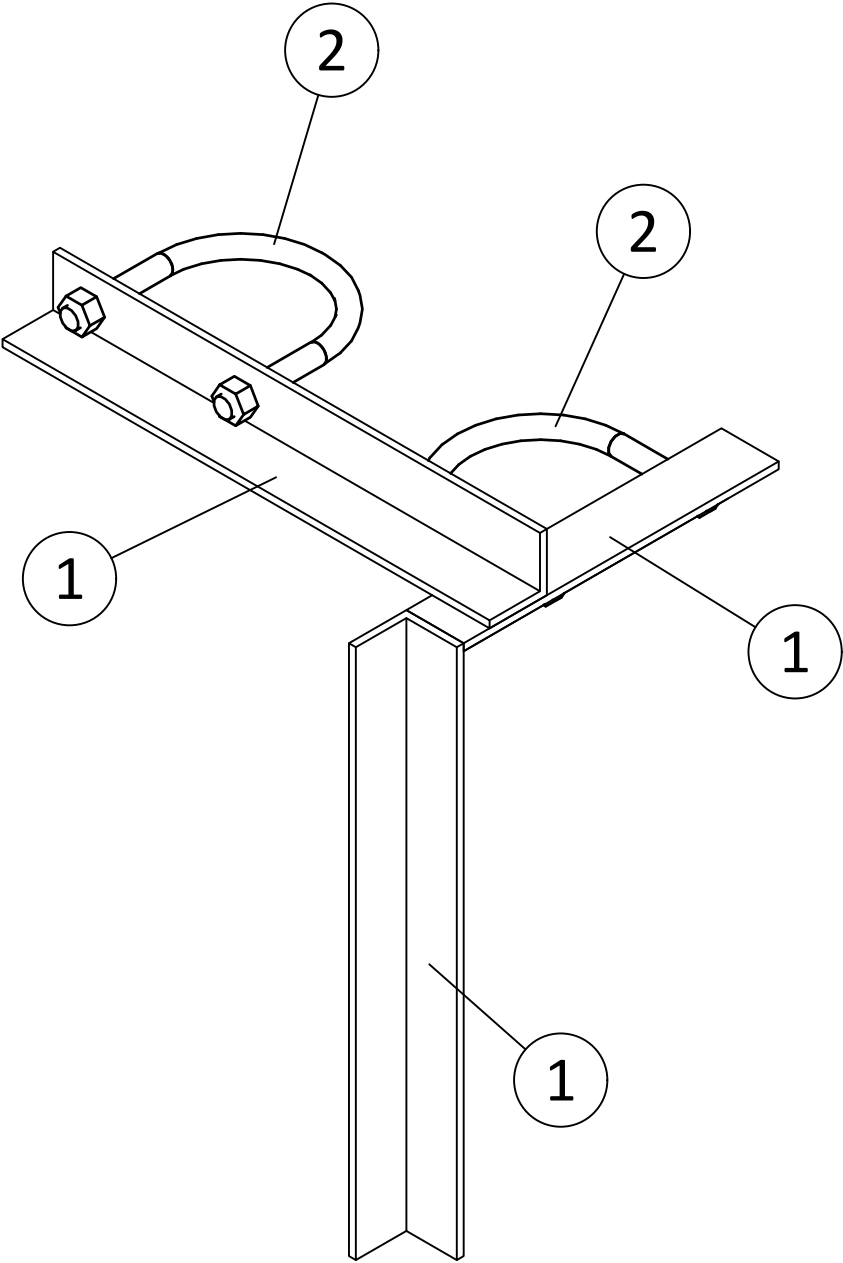
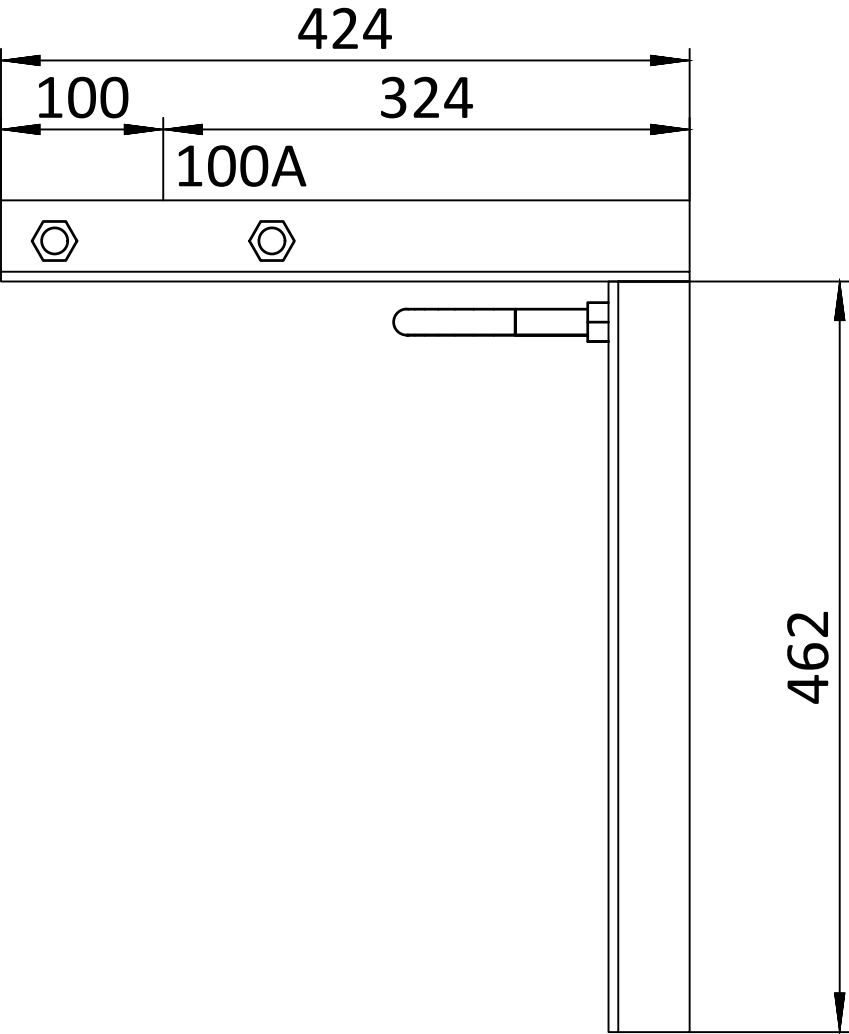
02

6.792 Kg

A

10

SUPPORT NO: BA-S-02



					MISCELLANEOUS					
1	L 50 x 50 x 6.0	Steel	1161.0	5.19		2	U-Bolt with Double Nuts-(DN100)	Galv. Steel	2	0.80
PART NO.	DESCRIPTION	MATERIAL	LEN(mm)	WT(Kg)		PART NO.	DESCRIPTION	MATERIAL	QTY.	WT(Kg)



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# SUPPORT DRAWING

WEIGHT

REV.

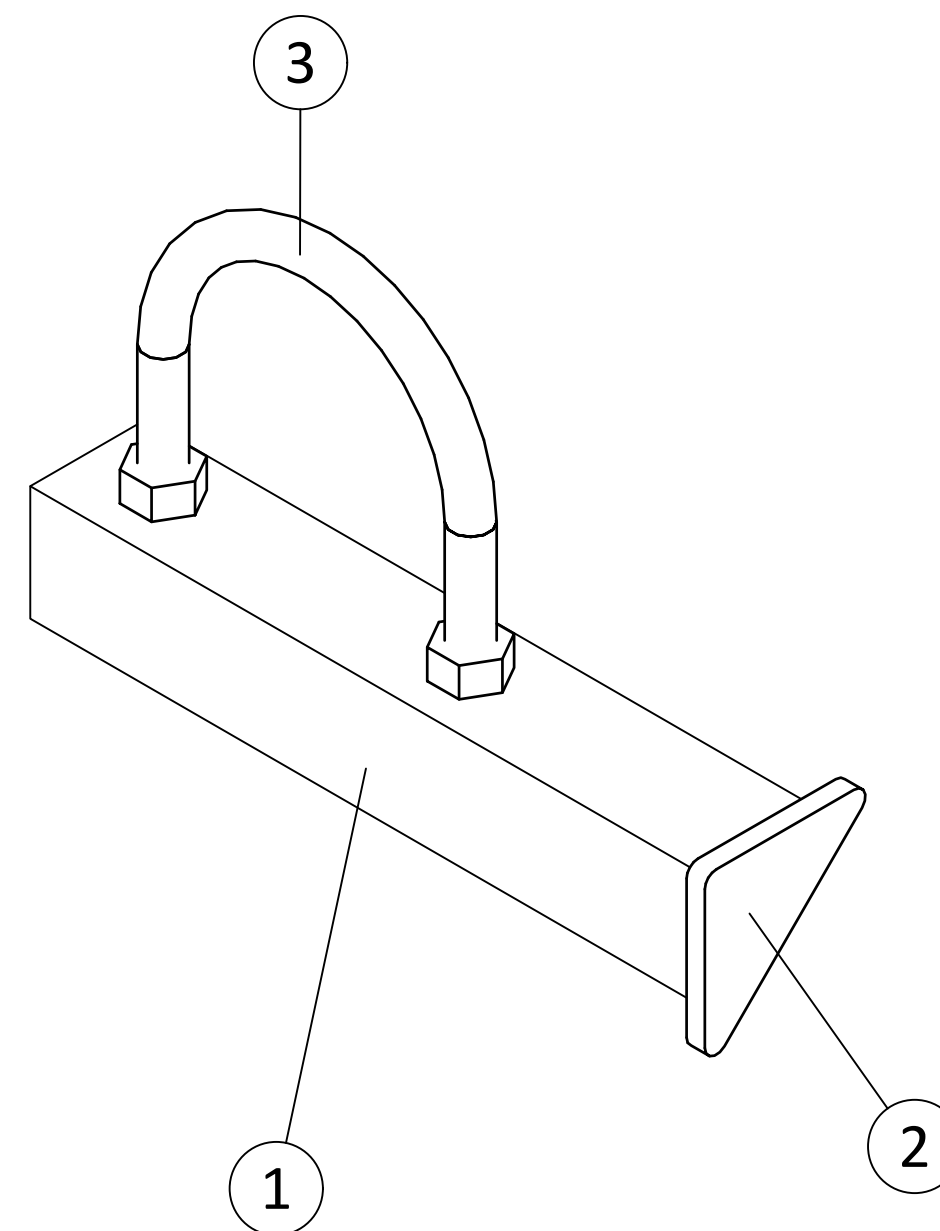
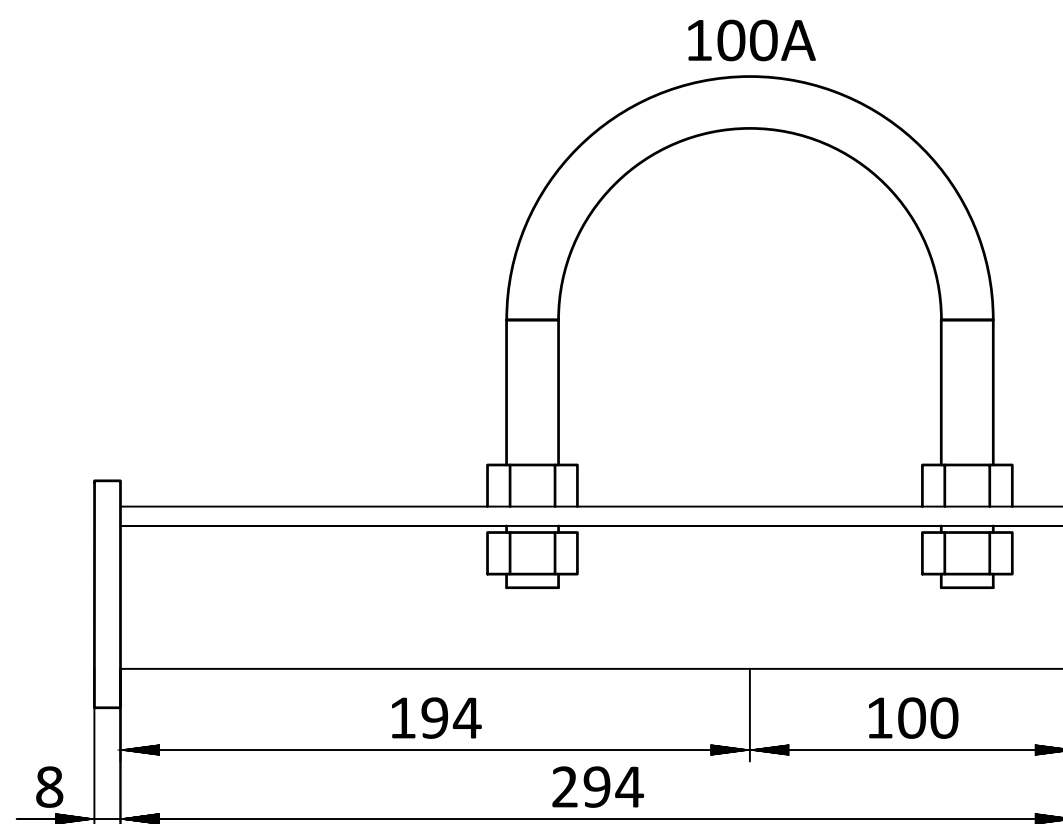
03

2.274 Kg

A

10

SUPPORT NO: BA-S-03



					MISCELLANEOUS					
1	L 50 x 50 x 6.0	Steel	294.0	1.31		3	U-Bolt with Double Nuts-(DN100)	Galv. Steel	1	0.80
						2	Pad-(70 x 70 x 8)	Steel	1	0.16
PART NO.	DESCRIPTION	MATERIAL	LEN(mm)	WT(Kg)		PART NO.	DESCRIPTION	MATERIAL	QTY.	WT(Kg)



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# SUPPORT DRAWING

WEIGHT

REV.

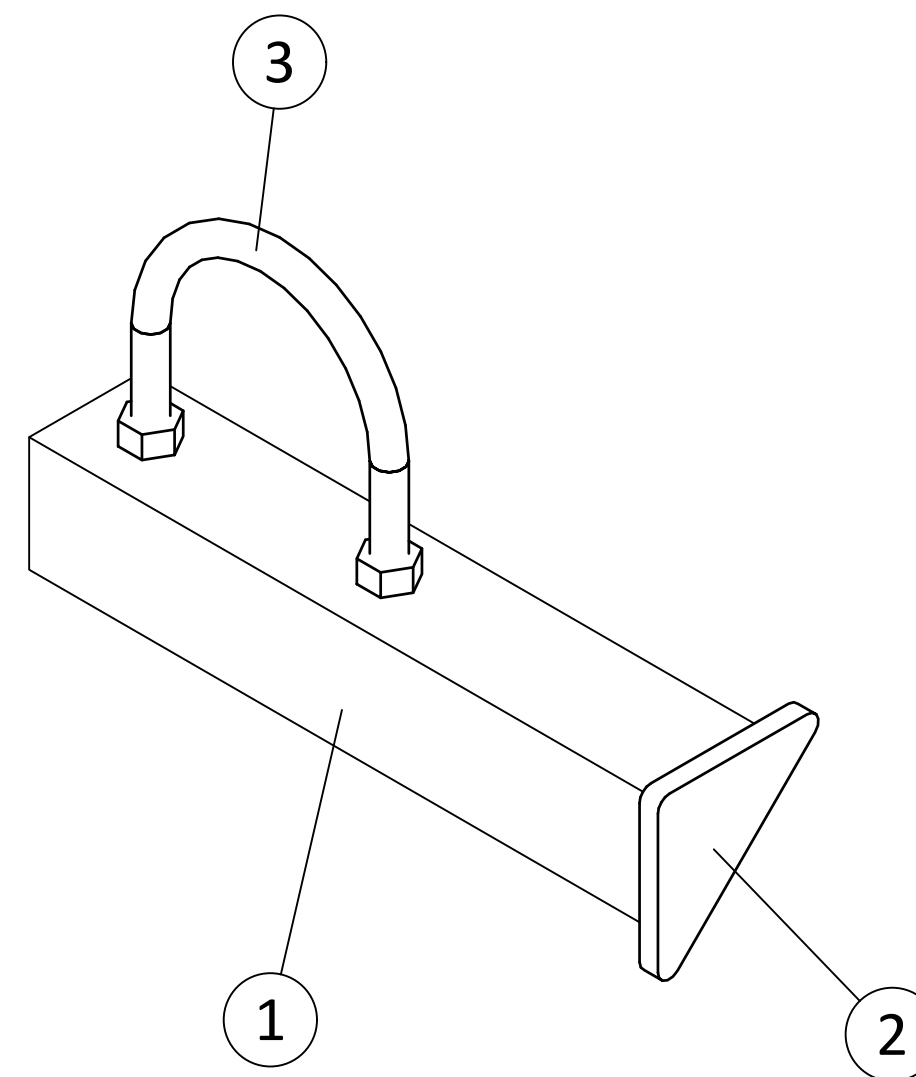
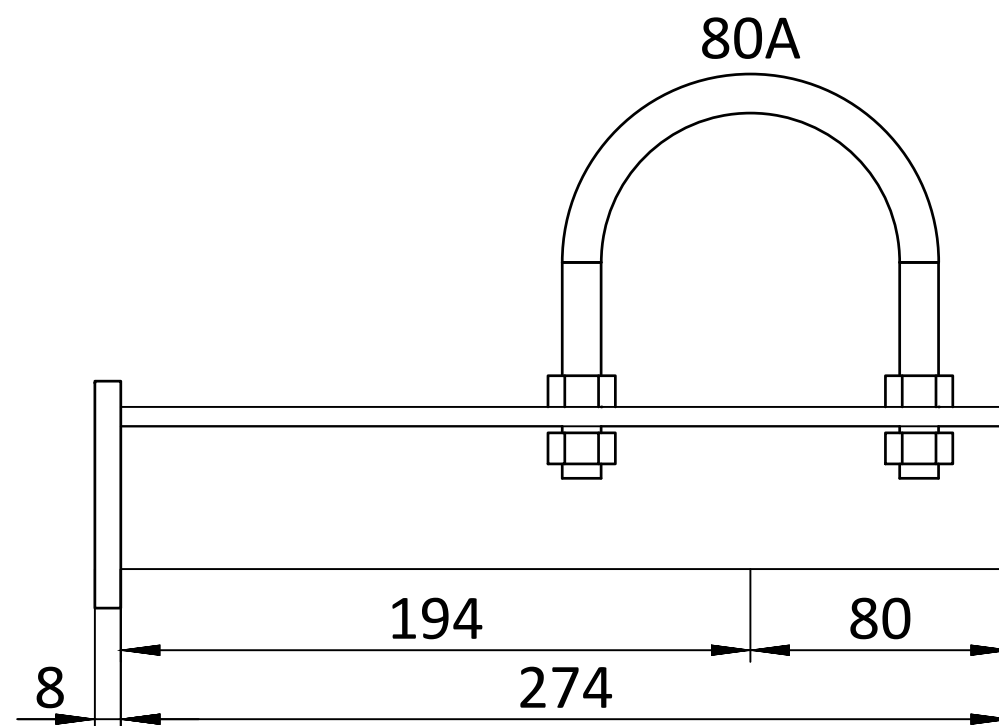
04

1.684 Kg

A

10

SUPPORT NO: BA-S-04



					MISCELLANEOUS					
						3	U-Bolt with Double Nuts-(DN80)	Galv. Steel	1	0.30
						2	Pad-(70 x 70 x 8)	Steel	1	0.16
PART NO.	DESCRIPTION	MATERIAL	LEN(mm)	WT(Kg)		PART NO.	DESCRIPTION	MATERIAL	QTY.	WT(Kg)



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# SUPPORT DRAWING

WEIGHT

REV.

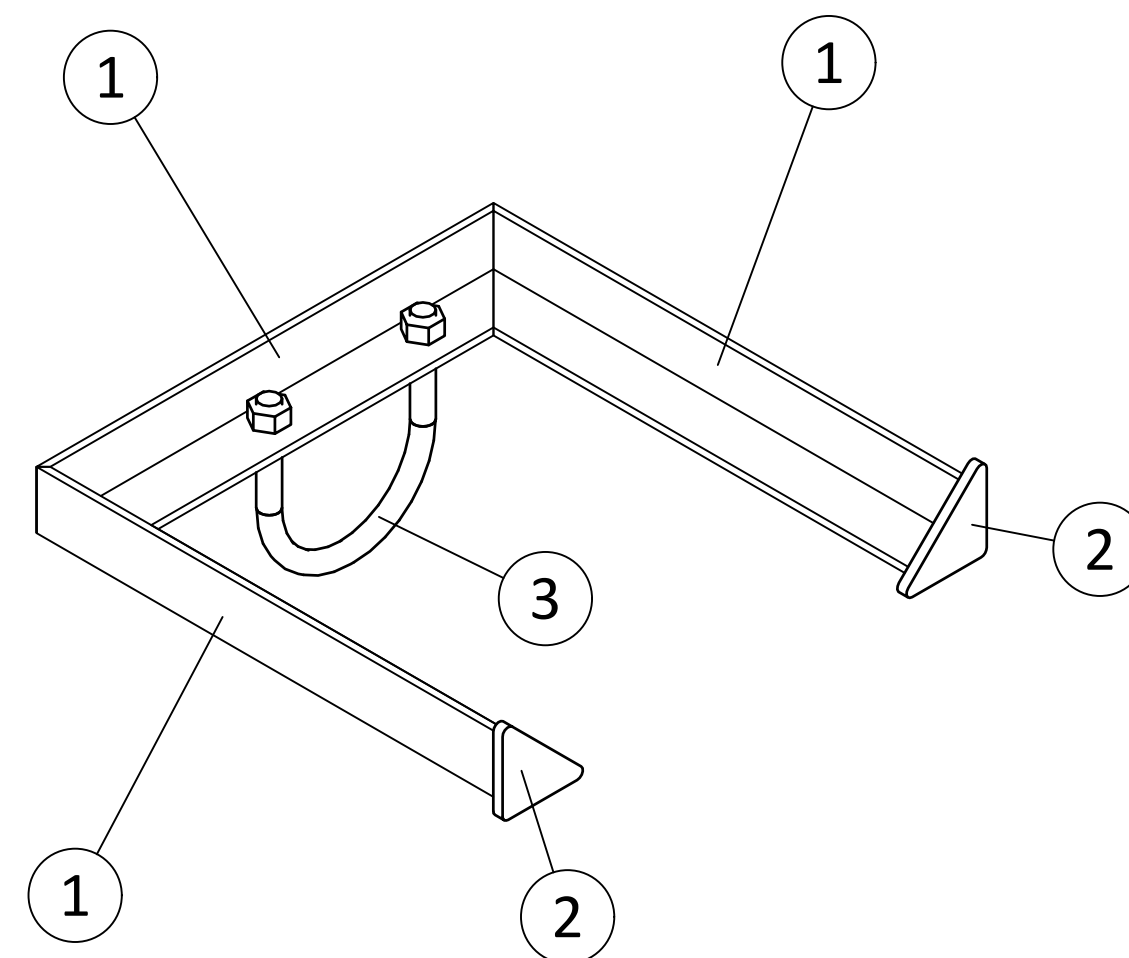
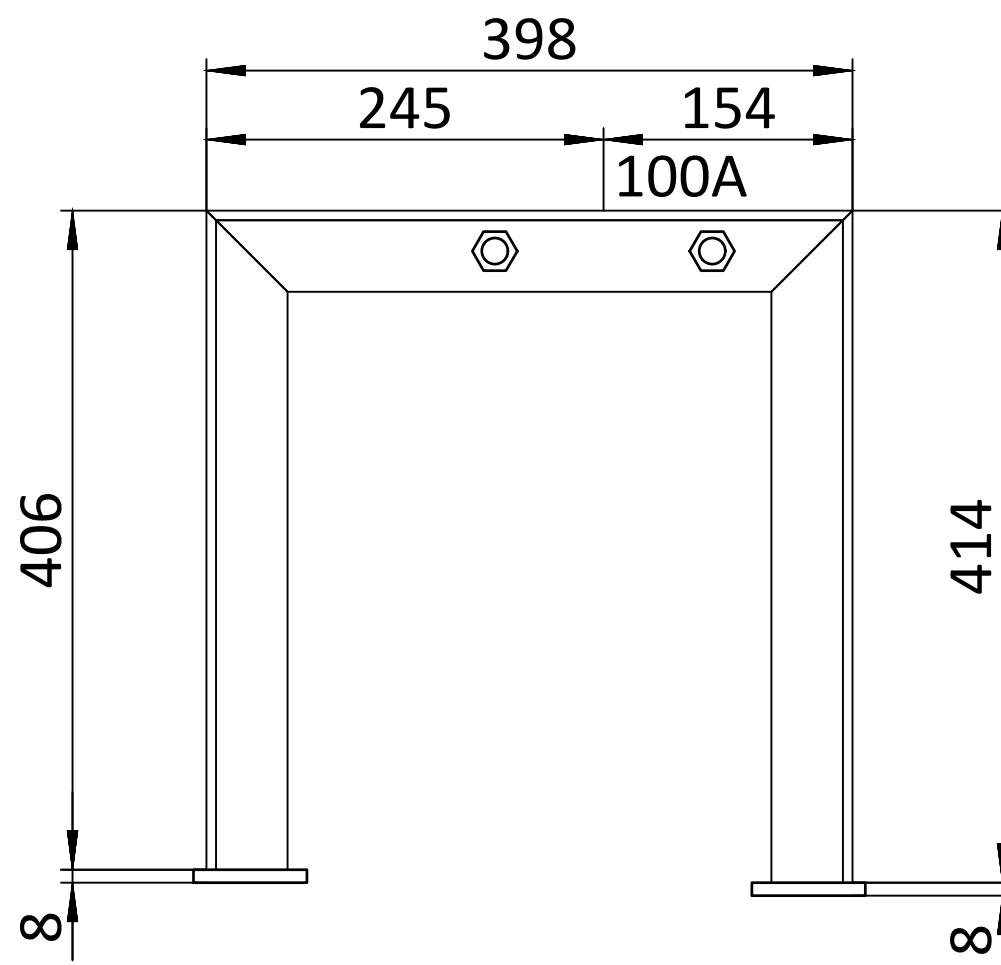
05

6.567 Kg

A

10

SUPPORT NO: BA-S-05



					MISCELLANEOUS					
						3	U-Bolt with Double Nuts-(DN100)	Galv. Steel	1	0.80
1	L 50 x 50 x 6.0	Steel	1218.0	5.44		2	Pad-(70 x 70 x 8)	Steel	2	0.16
PART NO.	DESCRIPTION	MATERIAL	LEN(mm)	WT(Kg)		PART NO.	DESCRIPTION	MATERIAL	QTY.	WT(Kg)





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# SUPPORT DRAWING

WEIGHT

REV.

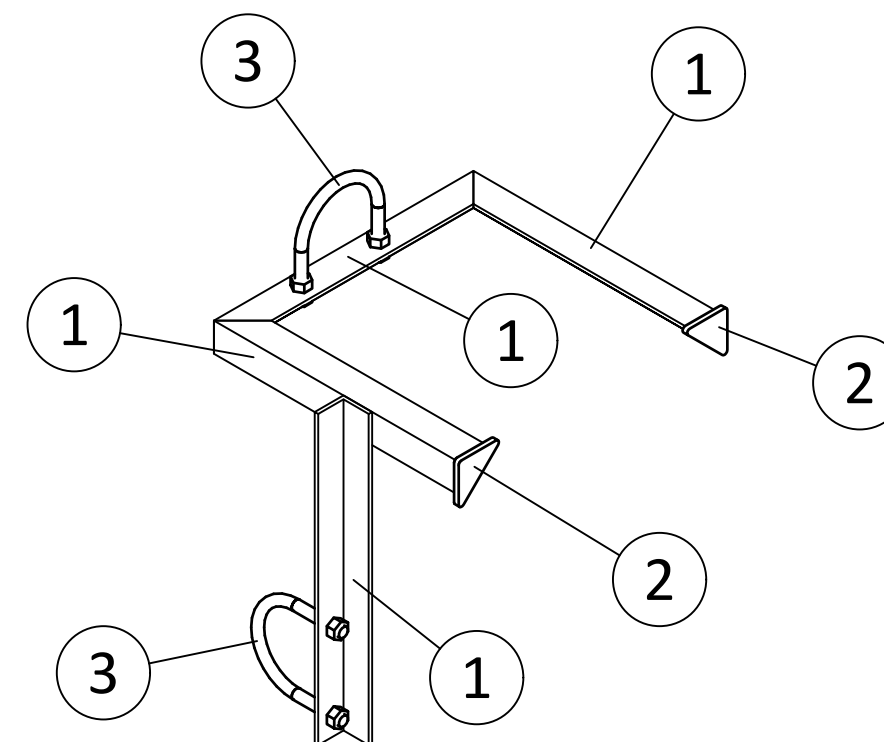
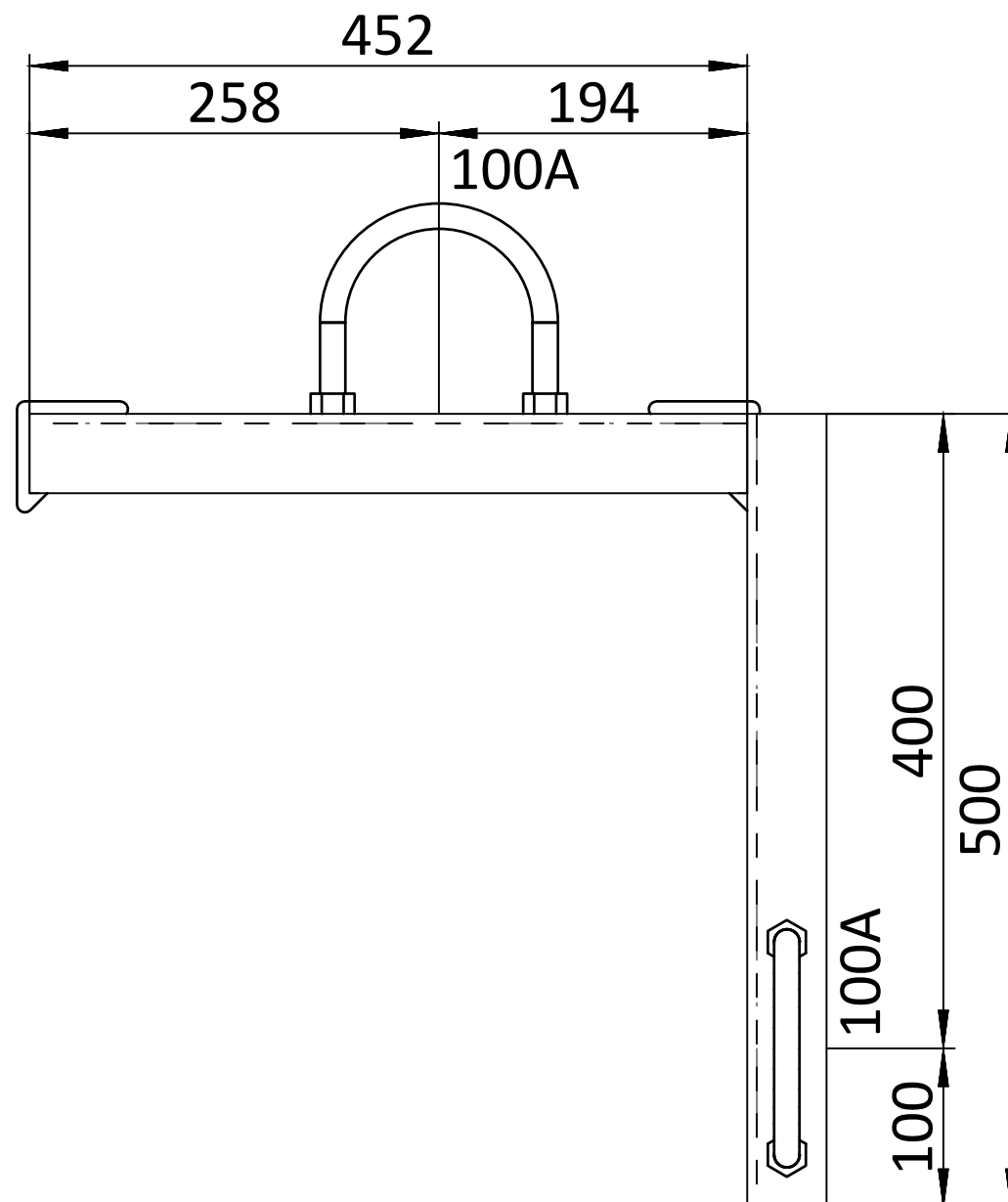
06

9.990 Kg

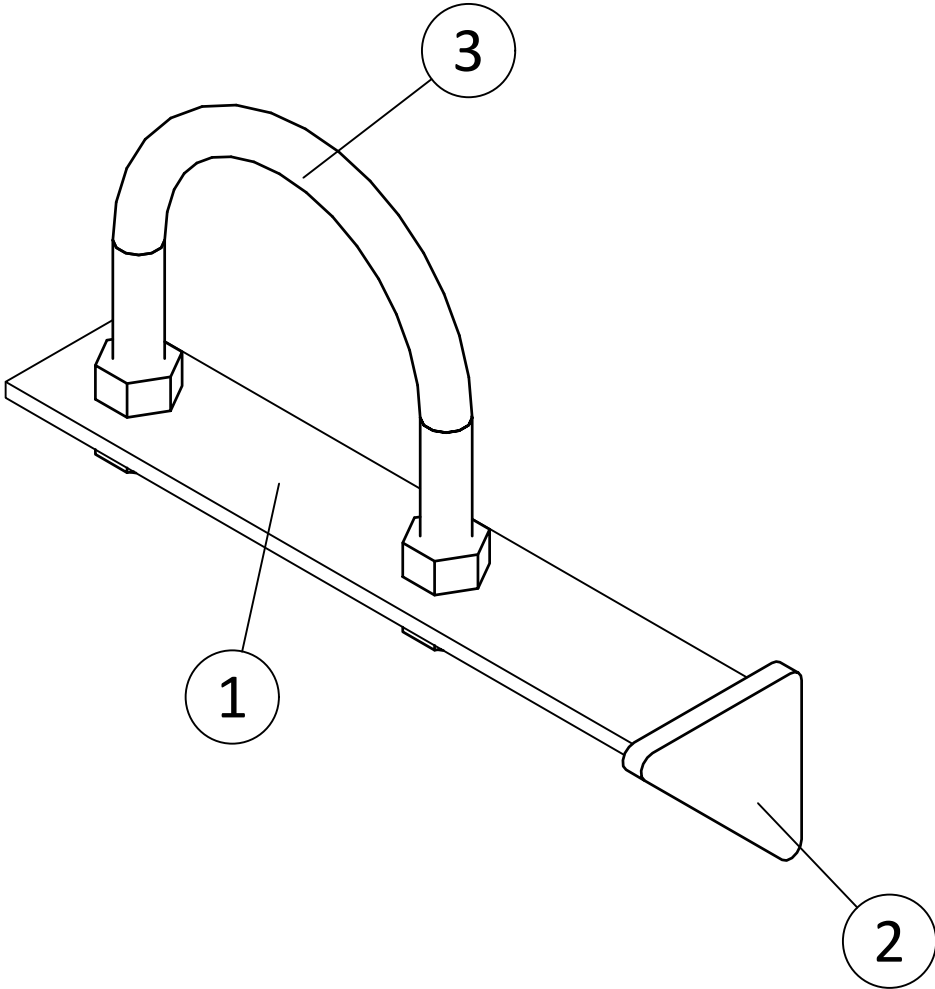
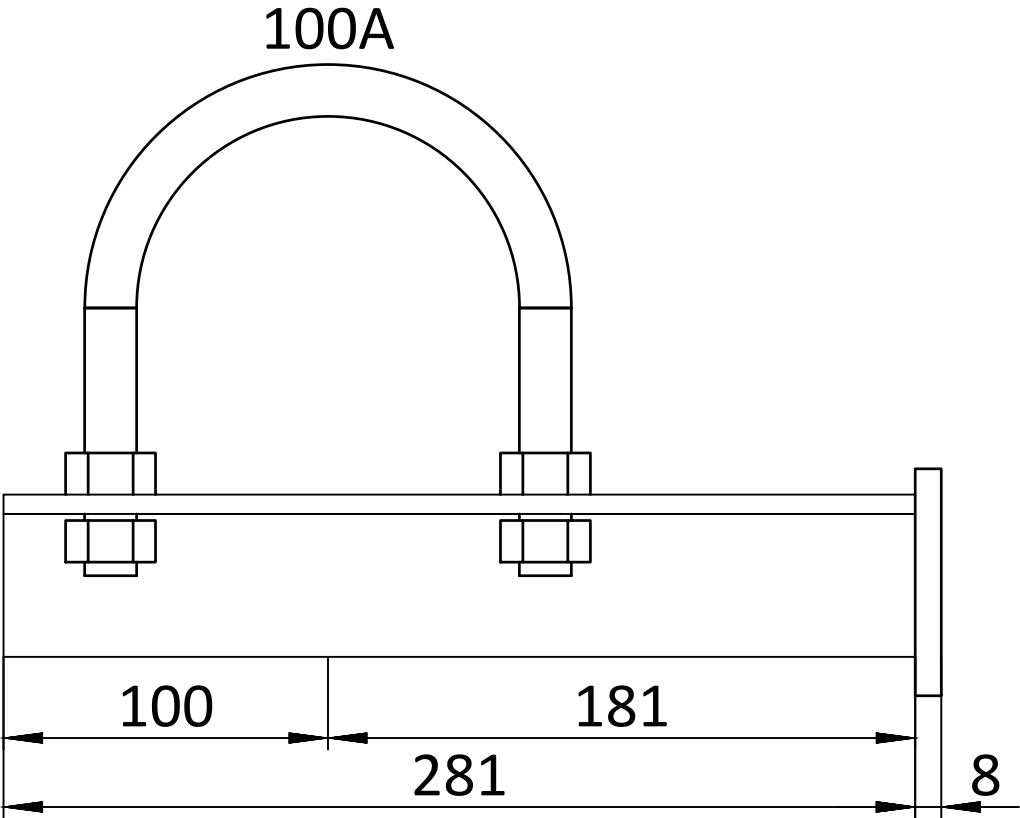
A

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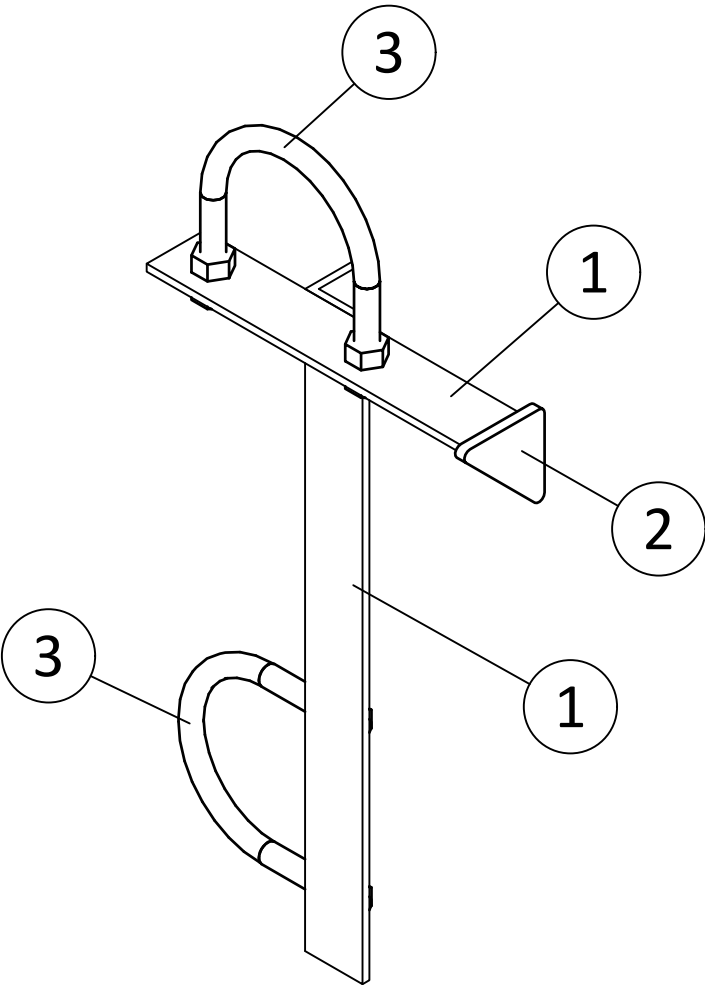
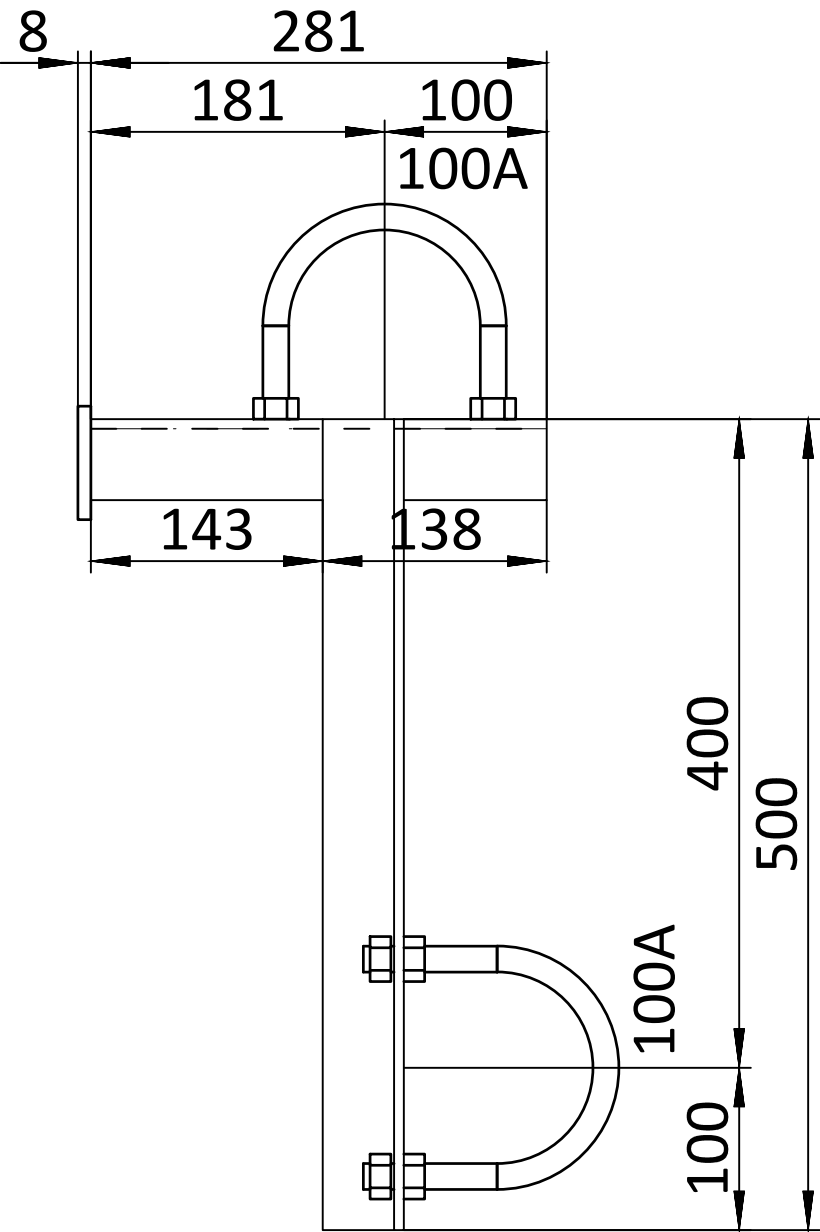
SUPPORT NO: BA-S-06



					MISCELLANEOUS					
						3	U-Bolt with Double Nuts-(DN100)	Galv. Steel	2	0.80
1	L 50 x 50 x 6.0	Steel	1806.0	8.07		2	Pad-(70 x 70 x 8)	Steel	2	0.16
PART NO.	DESCRIPTION	MATERIAL	LEN(mm)	WT(Kg)		PART NO.	DESCRIPTION	MATERIAL	QTY.	WT(Kg)



					MISCELLANEOUS					
						3	U-Bolt with Double Nuts-(DN100)	Galv. Steel	1	0.80
1	L 50 x 50 x 6.0	Steel	281.0	1.26		2	Pad-(70 x 70 x 8)	Steel	1	0.16
PART NO.	DESCRIPTION	MATERIAL	LEN(mm)	WT(Kg)		PART NO.	DESCRIPTION	MATERIAL	QTY.	WT(Kg)



					MISCELLANEOUS					
						3	U-Bolt with Double Nuts-(DN100)	Galv. Steel	2	0.80
						2	Pad-(70 x 70 x 8)	Steel	1	0.16
PART NO.	DESCRIPTION	MATERIAL	LEN(mm)	WT(Kg)		PART NO.	DESCRIPTION	MATERIAL	QTY.	WT(Kg)



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SUPPORT DRAWING

WEIGHT

REV.

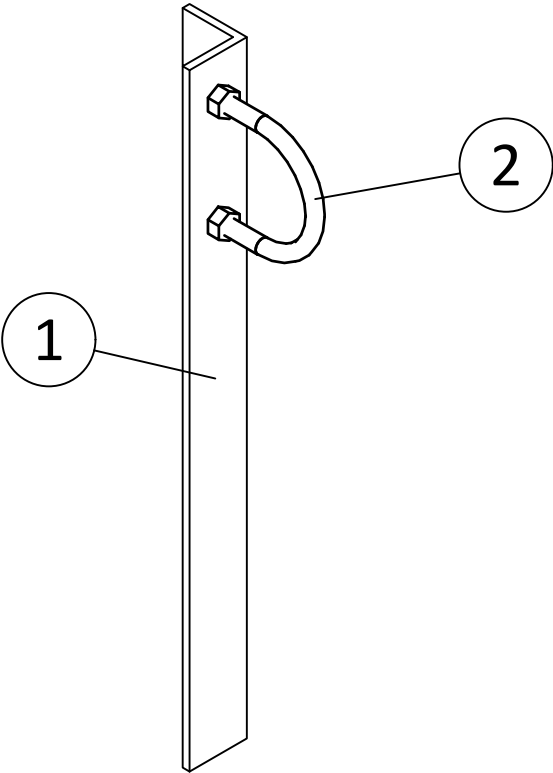
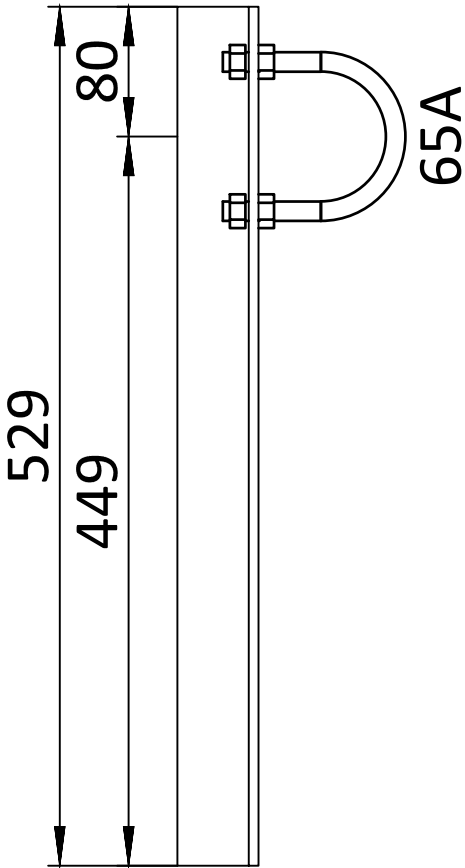
09

2.666 Kg

A

10

SUPPORT NO: BA-S-09



					MISCELLANEOUS					
1	L 50 x 50 x 6.0	Steel	529.0	2.36		2	U-Bolt with Double Nuts-(DN65)	Galv. Steel	1	0.30
PART NO.	DESCRIPTION	MATERIAL	LEN(mm)	WT(Kg)		PART NO.	DESCRIPTION	MATERIAL	QTY.	WT(Kg)



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SUPPORT DRAWING

WEIGHT

REV.

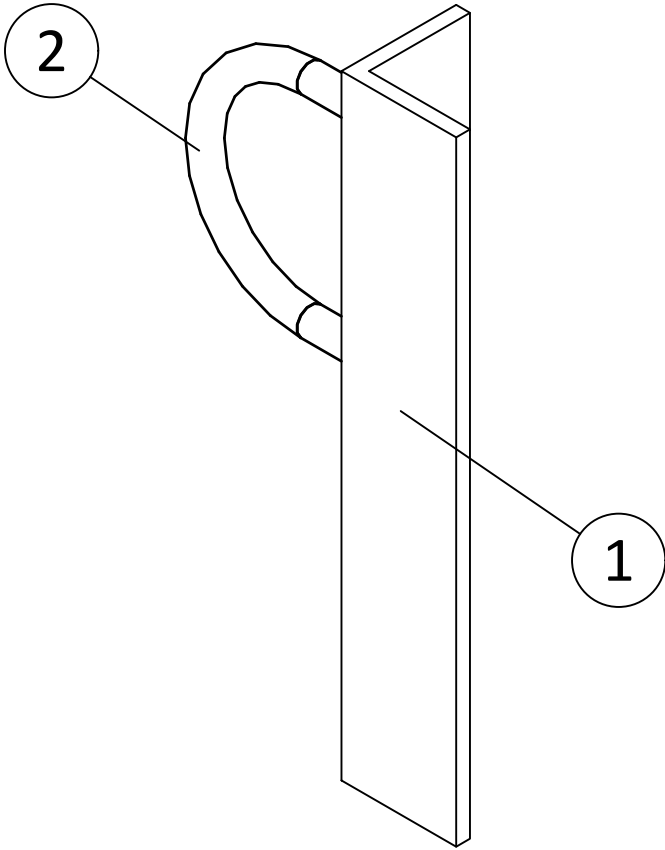
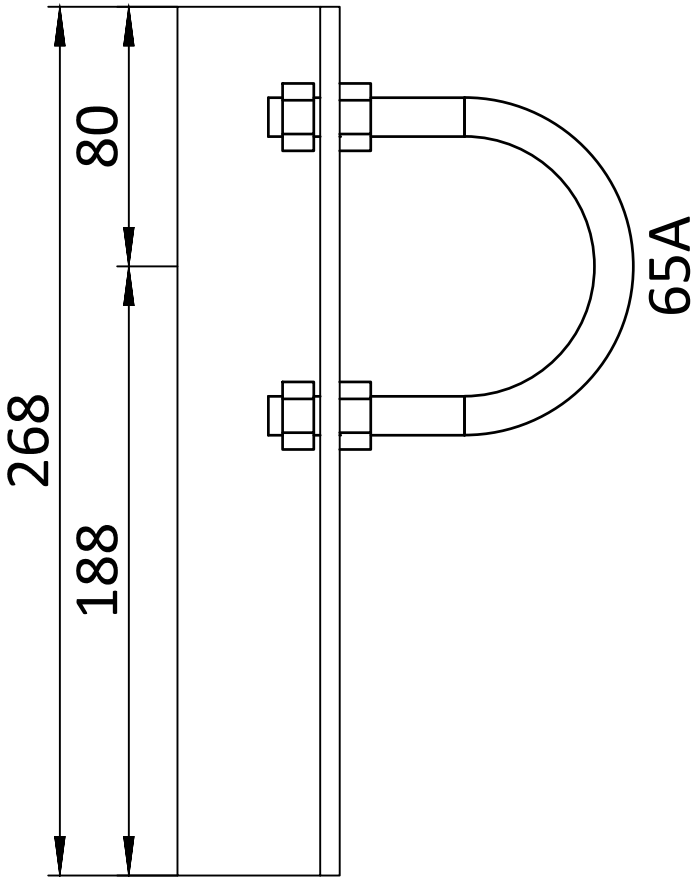
10

1.496 Kg

A

10

SUPPORT NO: BA-S-10



					MISCELLANEOUS					
1	L 50 x 50 x 6.0	Steel	268.0	1.20		2	U-Bolt with Double Nuts-(DN65)	Galv. Steel	1	0.30
PART NO.	DESCRIPTION	MATERIAL	LEN(mm)	WT(Kg)		PART NO.	DESCRIPTION	MATERIAL	QTY.	WT(Kg)