

 EUROCHEM MINERAL AND CHEMICAL SUPPLY	 中国天辰 中国化学 CHINA TIANCHEN	Doc No.	INS-7G02-00-85-009
		Unit:	Offsite & Utilities-General
		Phase:	FEED

Chemical Complex for Phosphates Processing Project

Standard Hook-ups

0	2024-01-10	Issued for Final	Zhou X.	Zhu X.D.	Liu Z.W.		0
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A	2023-04-19	Issued for Review	Zhou X.	Zhu X.D.	Liu Z.W.		0
Rev	Date	Purpose of Issue	ORIG. By	CHK'D By	REV'D By	APP'D By	Change No.



EUROCHEM
INDUSTRIAL AND CHEMICAL EQUIPMENT



Standard Hook-ups

DOC. NO

INS-7G02-00-85-009

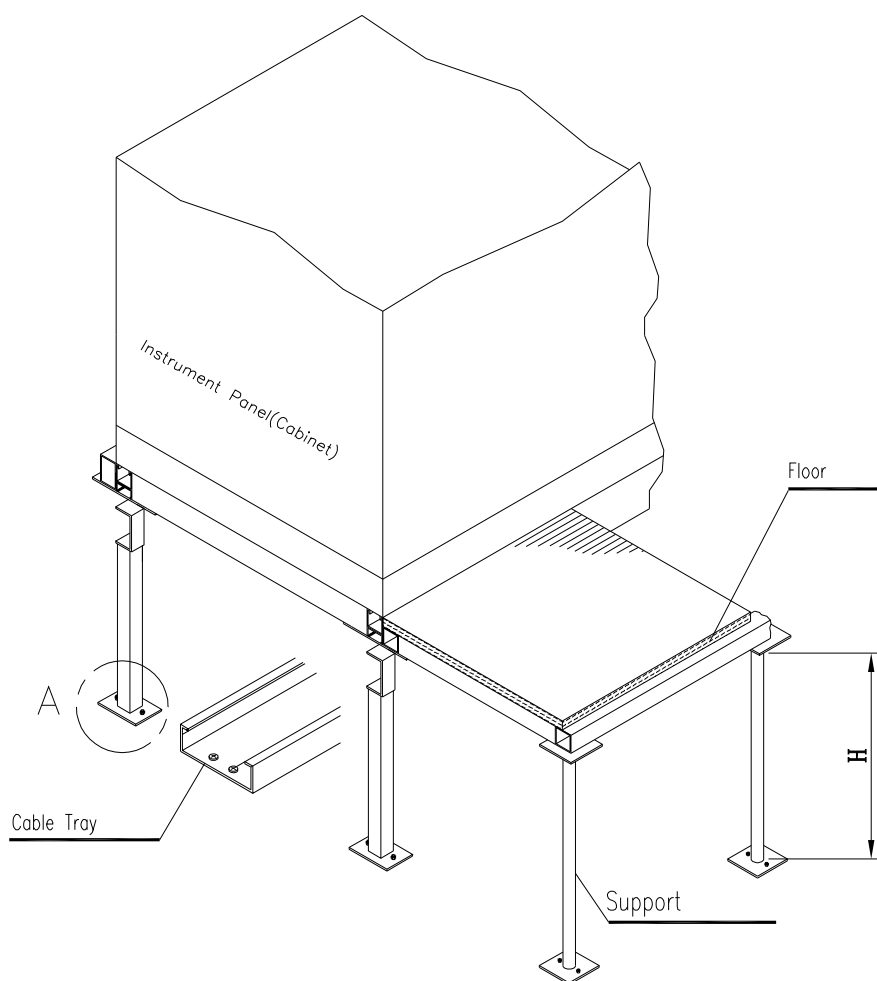
SHEET
NO

2 OF 28

CLIENT:

No.	Tag No.	Revision						Sheet No.	Remarks	No.	Tag No.	Revision						Sheet No.	Remarks
		A	B	0								A	B	0					
1	Cover	x	x	x				1		18	TYPICAL DRAWING OF CANTILEVERED ANGLE STEEL WALLFRAME	x	x	x				18	
2	Index	x	x	x				2		19	TYPICAL DRAWING OF CANTILEVERED WALLFRAME WITH INCLINED SUPPORT(FIXING IN EXPANDING BOLT)	x	x	x				19	
3	TYPICAL DRAWING OF INSTRUMENT PANEL OR CABINET IN CONTROL ROOM	x	x	x				3		20	TYPICAL DRAWING OF CANTILEVERED WALLFRAME WITH INCLINED (EMBEDDED STEEL PLATE WELDING)	x	x	x				20	
4	TYPICAL DRAWING OF LOCAL INSTRUMENT PANEL OR CABINET(PAVED AREA)	x	x	x				4		21	INSTALLATION DRAWING OF JUNCTION BOX ON COLUMN	x	x	x				21	
5	TYPICAL DRAWING OF AIR SUPPLY TUBING	x	x	x				5		22	INSTALLATION DRAWING OF JUNCTION BOX ON FLOOR	x	x	x				22	
6	TYPICAL DRAWING OF TUBES/CAPILLARY WITH POLYETHYLENE COVERING ALUMINIUM TIE	x	x	x				6		23	TYPICAL DRAWING OF FIELD EQUIPMENT GROUNDING(1)	x	x	x				23	
7	TYPICAL DRAWING OF CABLE TRAY SPACE ARRANGEMENT	x	x	x				7		24	TYPICAL DRAWING OF FIELD EQUIPMENT GROUNDING(2)	x	x	x				24	
8	TYPICAL DRAWING OF CABLE DUCT SPACE ARRANGEMENT SCHEMATIC	x	x	x				8		25	TYPICAL DRAWING OF SUPPORT ON GROUND	x	x	x				25	
9	TYPICAL DRAWING OF TRAY VERTICAL INSTALLATION ALONG WALL	x	x	x				9		26	TYPICAL DRAWING OF SUPPORT ON UPRIGHT POSITION	x	x	x				26	
10	TRAY HORIZONTAL INSTALLATION DRAWING ALONG GROUND	x	x	x				10		27	TYPICAL DRAWING OF SUPPORT INSIDE STEEL PLATFORM	x	x	x				27	
11	TYPICAL DRAWING OF TRAY HORIZONTAL INSTALLATION ALONG WALL	x	x	x				11		28	TYPICAL DRAWING OF INSTRUMENT ON SUPPORT WITH SUNSHADE	x	x	x				28	
12	TYPICAL DRAWING OF TRAY HORIZONTAL INSTALLATION ALONG STEEL STRUCTURE	x	x	x				12		29									
13	TYPICAL DRAWING OF TRAY INSTALLATION ON PIPE RACK	x	x	x				13		30									
14	TYPICAL DRAWING OF TRAY INSTALLATION ON PIPE RACK	x	x	x				14		31									
15	TYPICAL DRAWING OF TUBING TRAY INSTALLATION	x	x	x				15		32									
16	TYPICAL DRAWING OF U-BOLT INSTALLATION	x	x	x				16		33									
17	TYPICAL DRAWING OF SEVERAL KINDS OF CABLE CLIPS	x	x	x				17		34									

Index



Channel Steel 100x48x5.3

Steel Plate $\delta=6\text{mm}$

Weld

Expansion Bolt, M10x100

Detail A

Note:

The floor height is decided by engineering.

NO.

Code

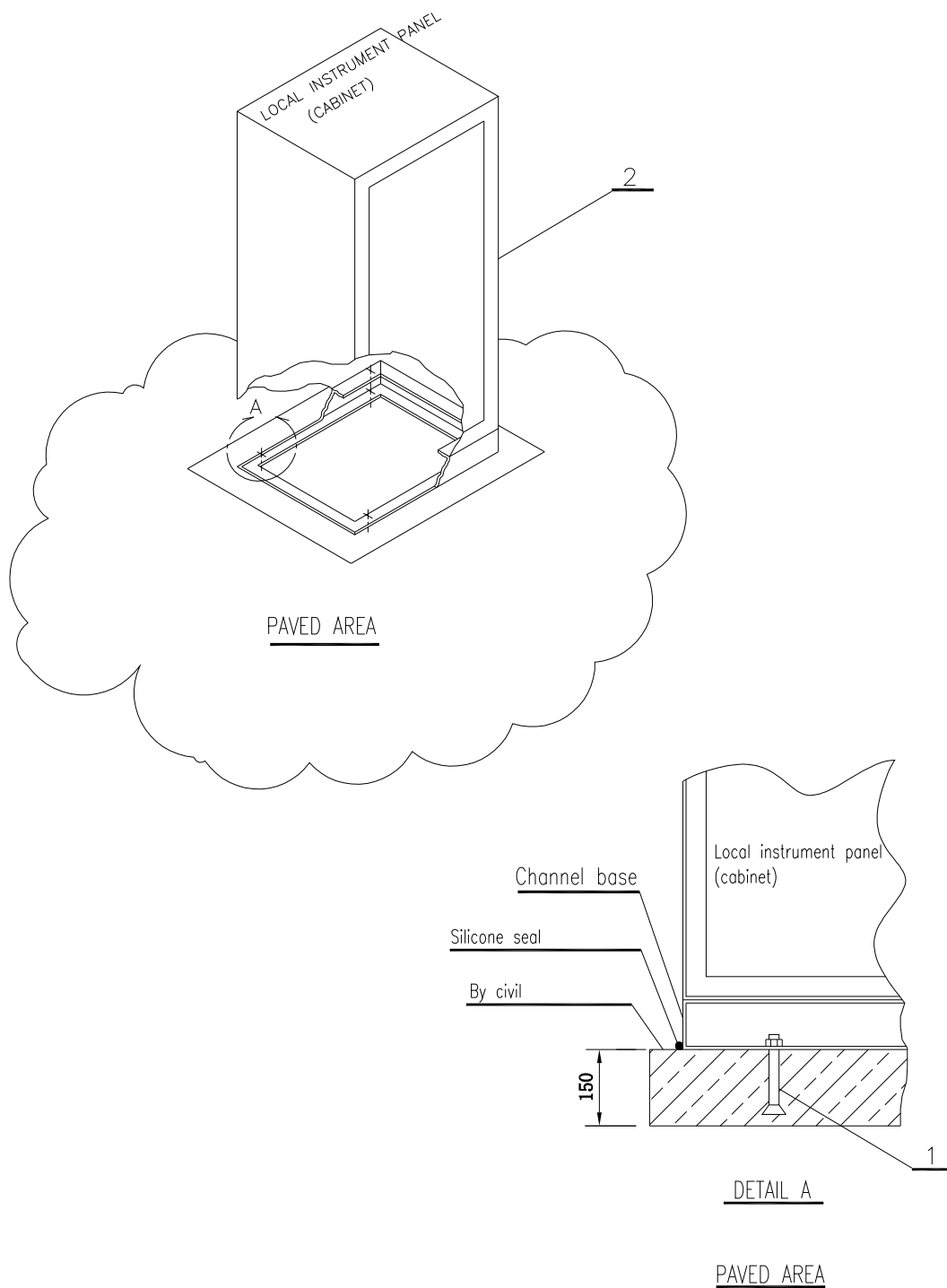
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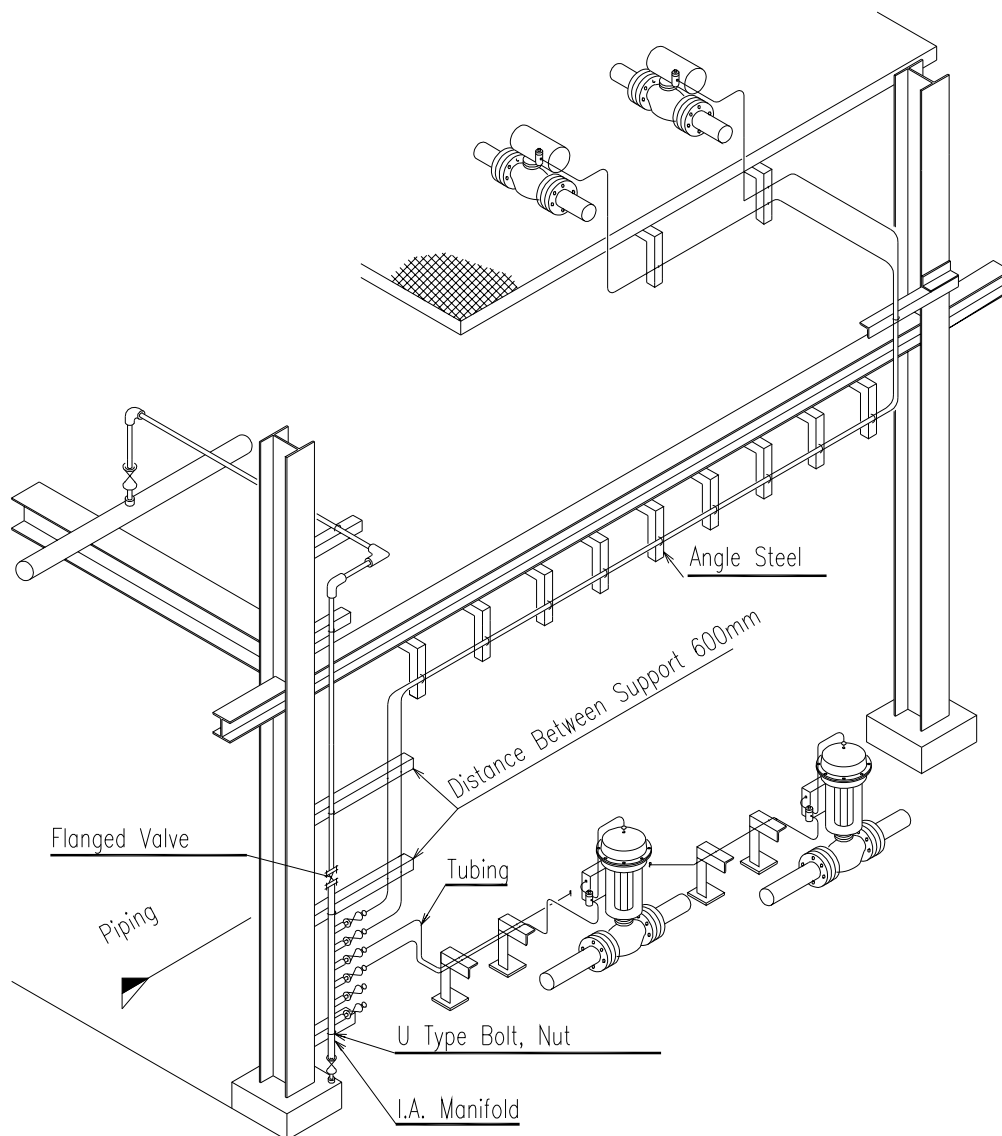
Q'ty

Remarks

BILL OF MATERIAL



Inst. og inv. N					
Signature and date					
Inv. N original	2		Local instrument panel (cabinet)		
	1		Expansion bolt, M12x110	C.S./Galvanized	
	NO.	Code	Material description	Material	Q'ty
Remarks					
BILL OF MATERIAL					



Inst. og inv. N

Signature and date

Inv. N original

NO.

Code

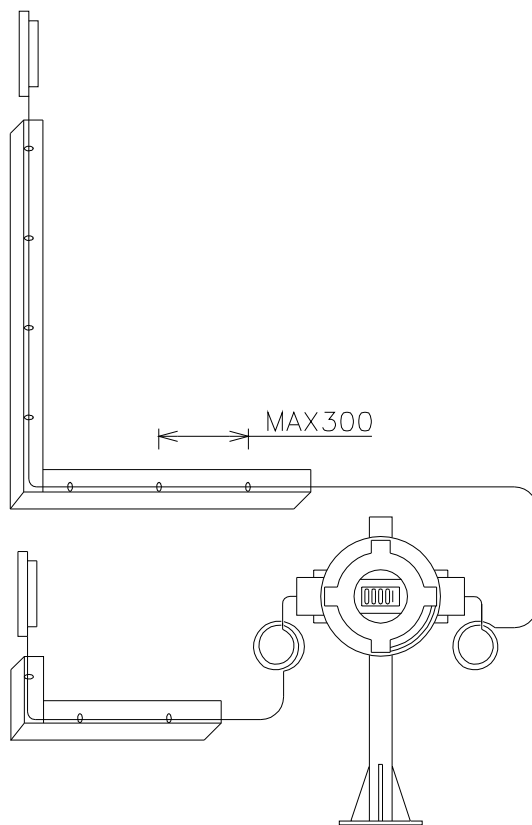
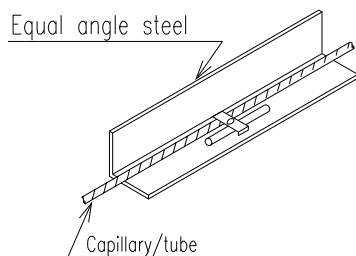
Material description

Material

Q'ty

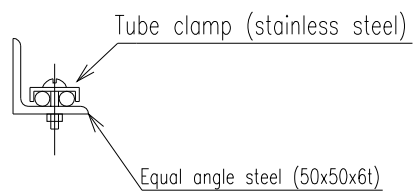
Remarks

BILL OF MATERIAL

REMOTE DIAPHRAGM
SEALED D/P

Equal angle steel

Capillary/tube

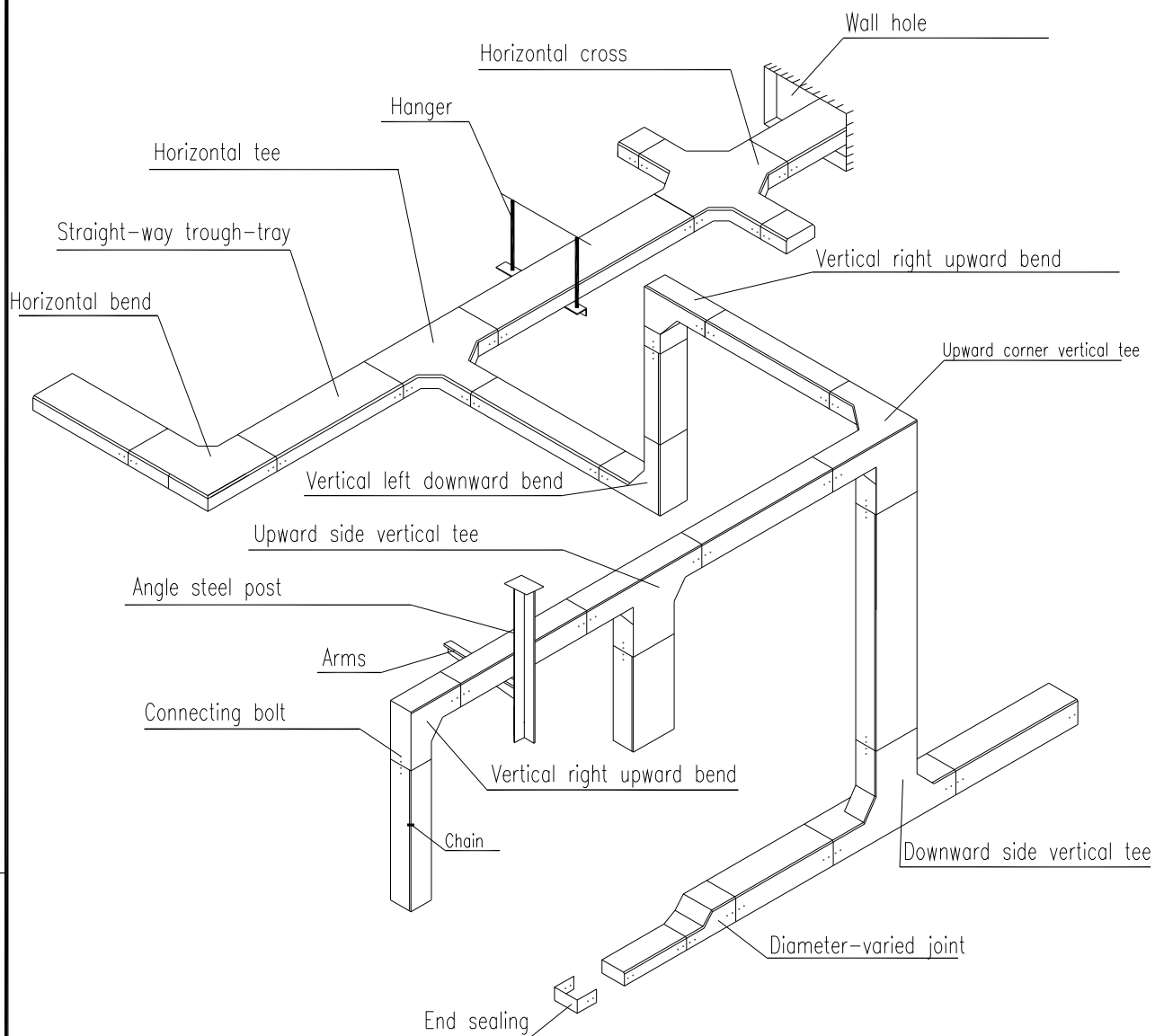


Tube clamp (stainless steel)

Equal angle steel (50x50x6t)

Inv. N original	Inst. og inv. N
Signature and date	

NO.	Code	Material description	Material	Q'ty	Remarks
BILL OF MATERIAL					



Inst. og inv. N

Signature and date

Inv. N original

NO.

Code

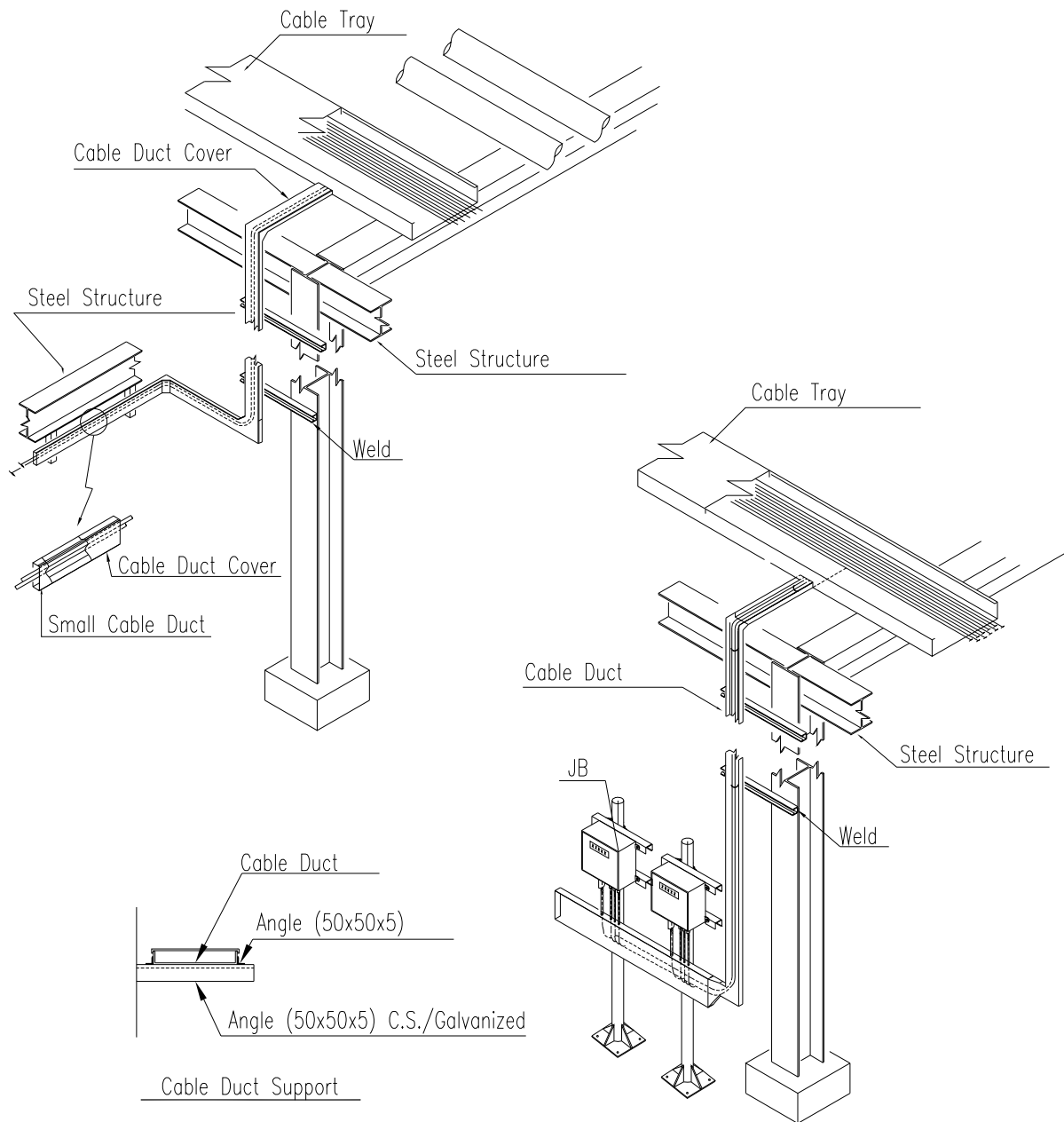
Material description

Material

Q'ty

Remarks

BILL OF MATERIAL

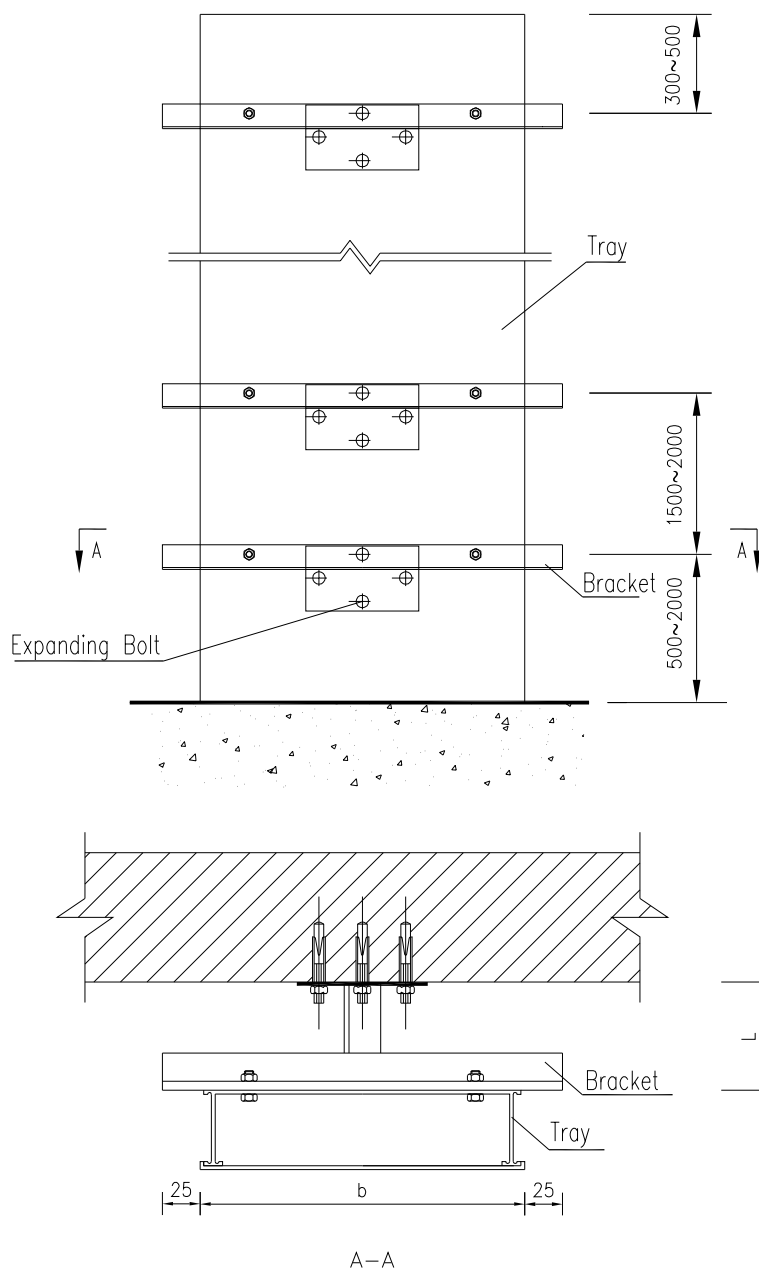


Note:

Above ground cables shall be fixed using UV stabilized PVC covered stainless steel strapping. PVC cable ties shall not be used. Cables shall be fixed at approximately 500mm intervals in vertical runs and 1000mm intervals on horizontal runs.

NO.	Code	Material description	Material	Q'ty	Remarks
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BILL OF MATERIAL



Note:

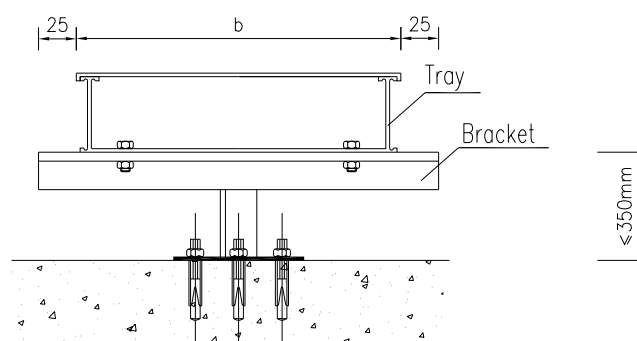
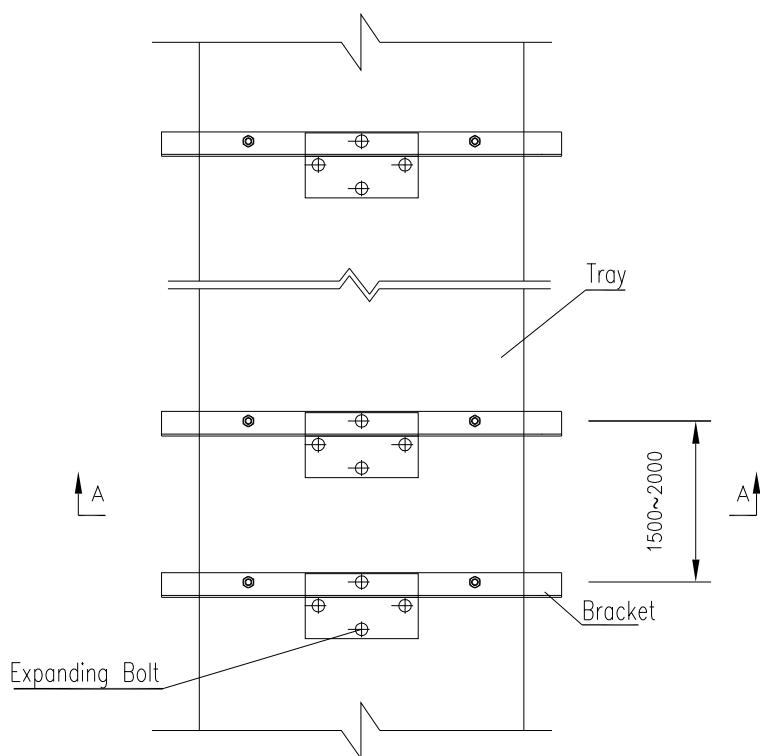
1. This tray is only used for tray width of less than 600mm and one layer.
2. The size of L is less than 350mm.

NO.	Code	Material description	Material	Q'ty	Remarks
BILL OF MATERIAL					

Inst. og inv. N

Signature and date

Inv. N original



Note:

1.This tray is only used for tray width of less than 600mm and one layer.

NO.

Code

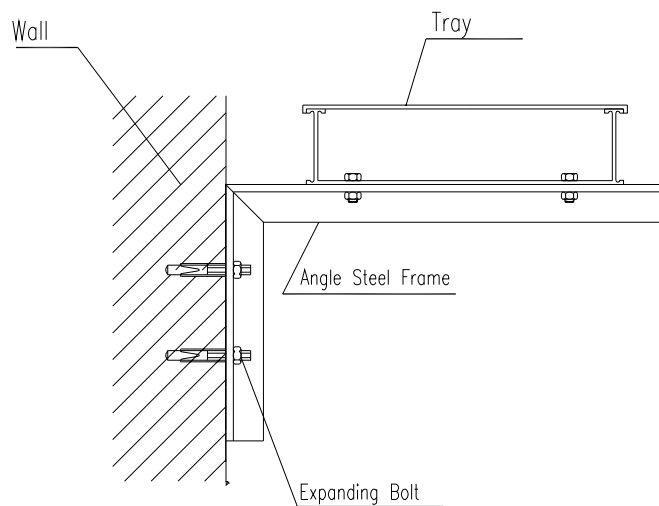
Material description

Material

Q'ty

Remarks

BILL OF MATERIAL



Note:

The width is beyond of 150mm when the tray lays down along the wall, the tray should be fixed with double bolts.

Inst. og inv. N

Signature and date

Inv. N original

NO.

Code

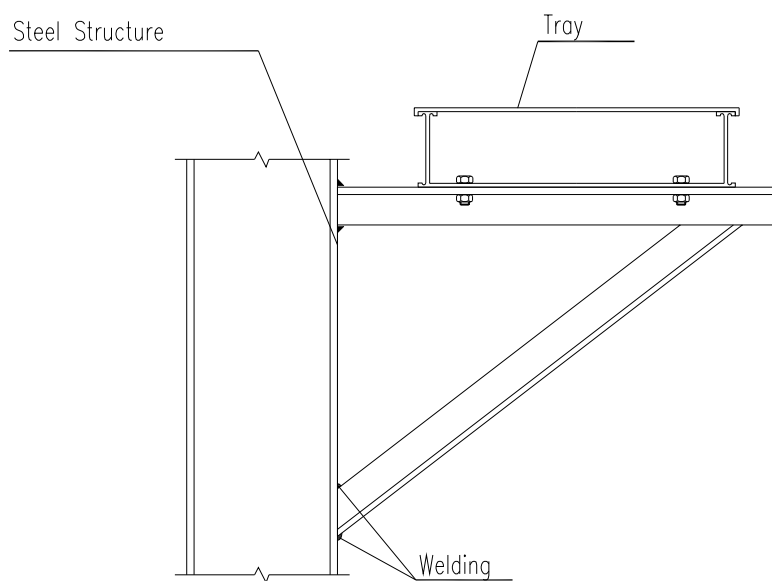
Material description

Material

Q'ty

Remarks

BILL OF MATERIAL



Inst. og inv. N

Signature and date

Inv. N original

NO.

Code

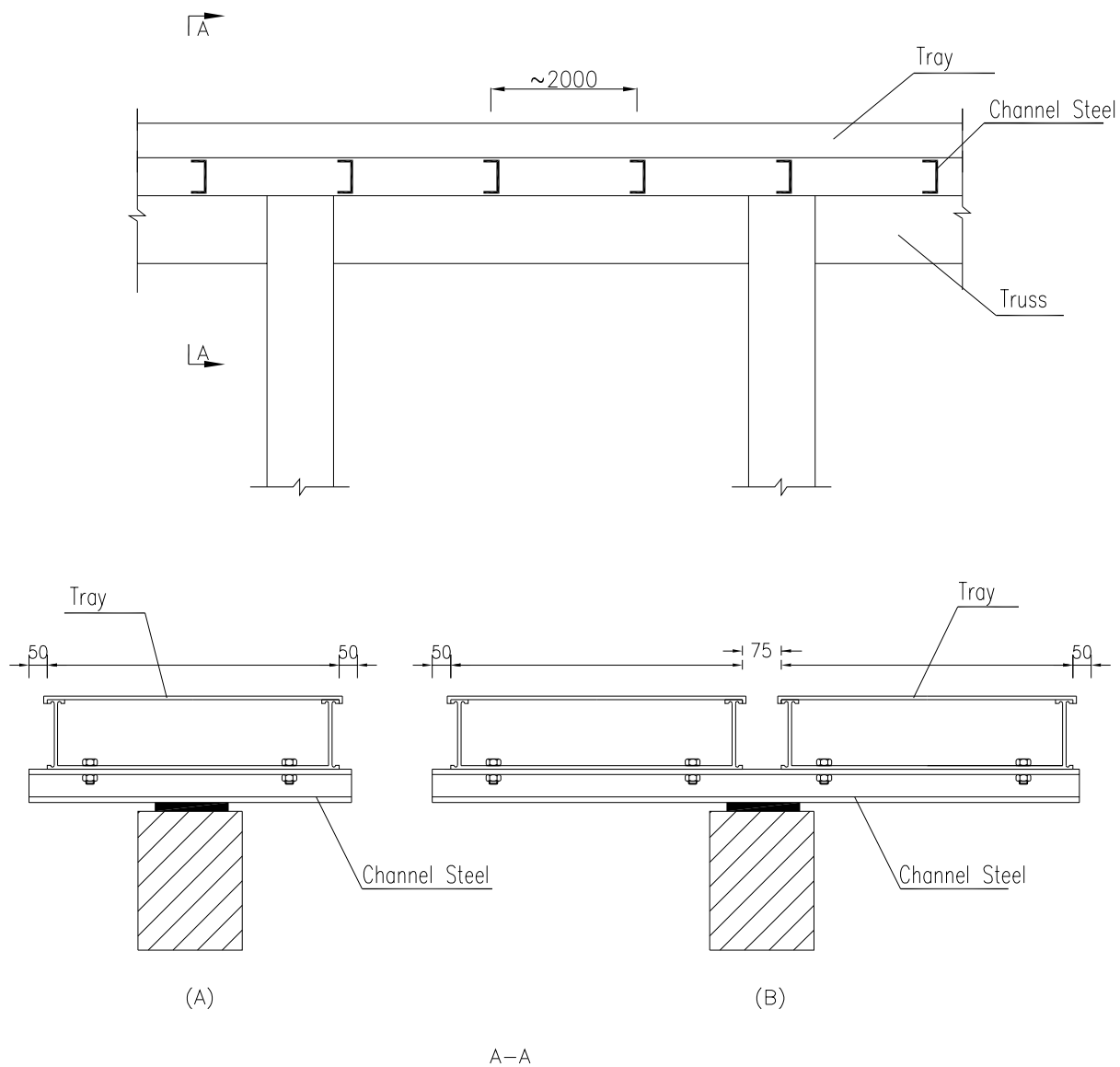
Material description

Material

Q'ty

Remarks

BILL OF MATERIAL



Inst. og inv. N

Signature and date

Inv. N original

NO.

Code

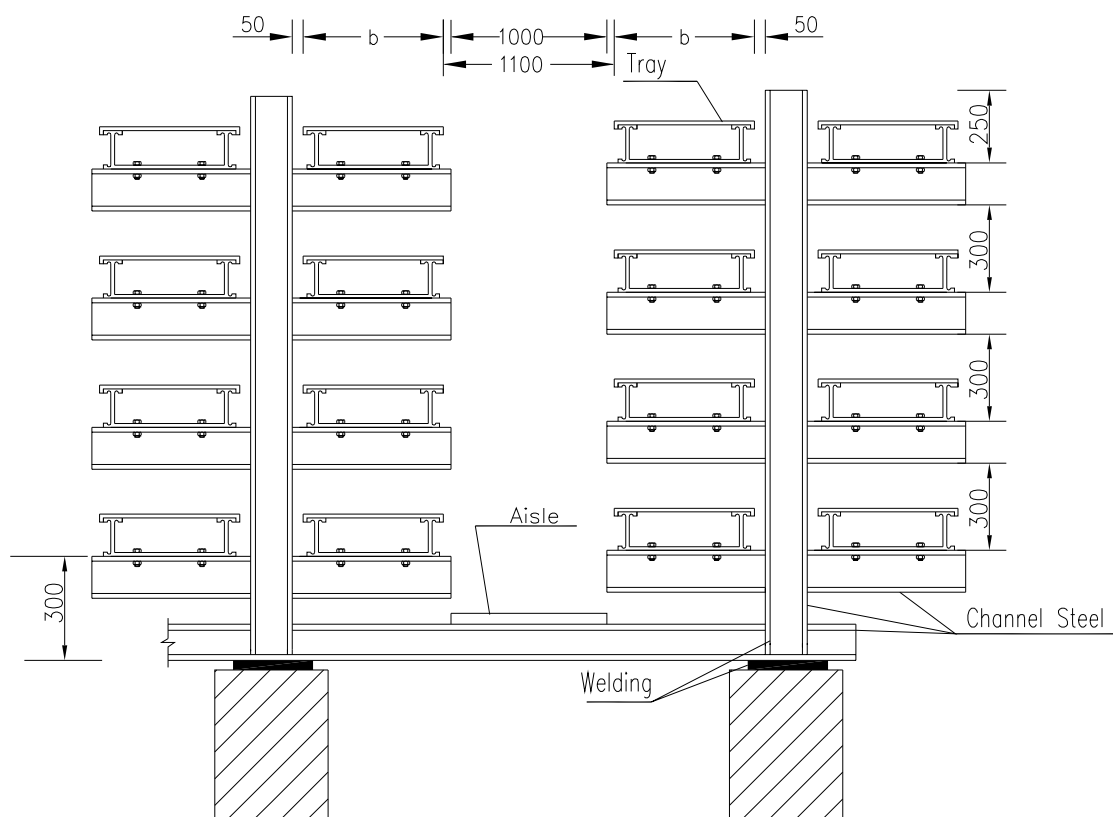
Material description

Material

Q'ty

Remarks

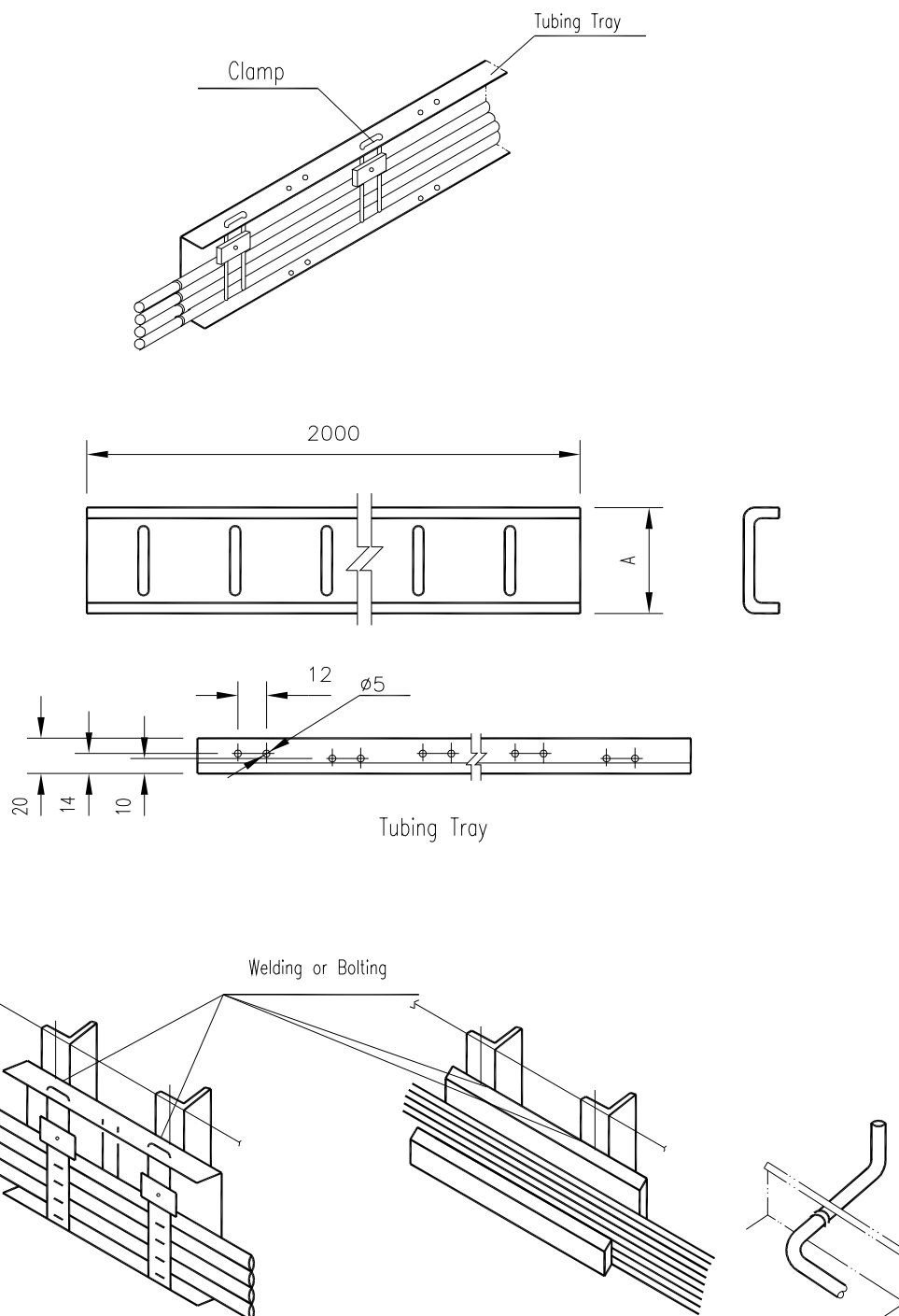
BILL OF MATERIAL



Note:
The way maybe used for the tray installation between two layers and four layers.

NO.	Code	Material description	Material	Q'ty	Remarks
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BILL OF MATERIAL



Note:

All tubing of three or more runs shall be in tubing trays. Where required, tubing runs shall be grouped together placed in tubing trays for support and firmly attached to the support a maximum of every 610mm.

NO.

Code

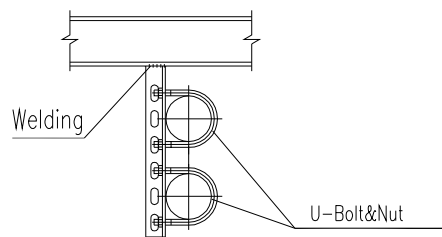
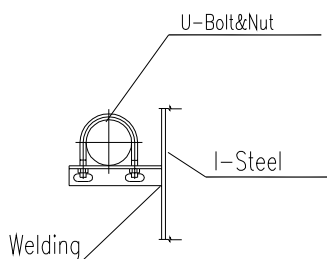
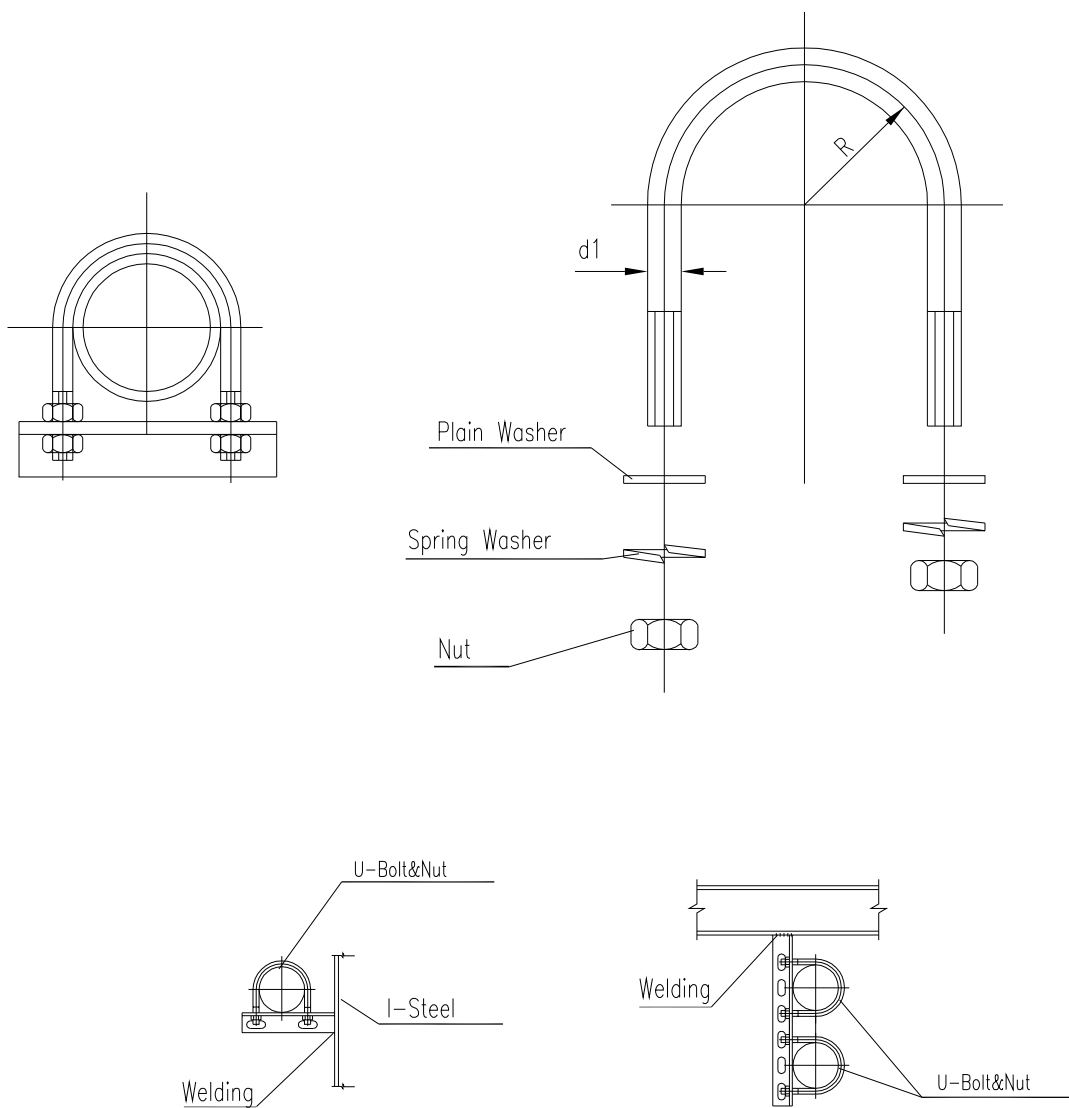
Material description

Material

Q'ty

Remarks

BILL OF MATERIAL



Size	R	d1(2)	Application for Pipe
M6X1"	18	6	1/4"~1/2"
M8X2"	32	8	1/2"~2"
M10X2"	40	10	2"

Inst. og inv. N

Signature and date

Inv. N original

NO.

Code

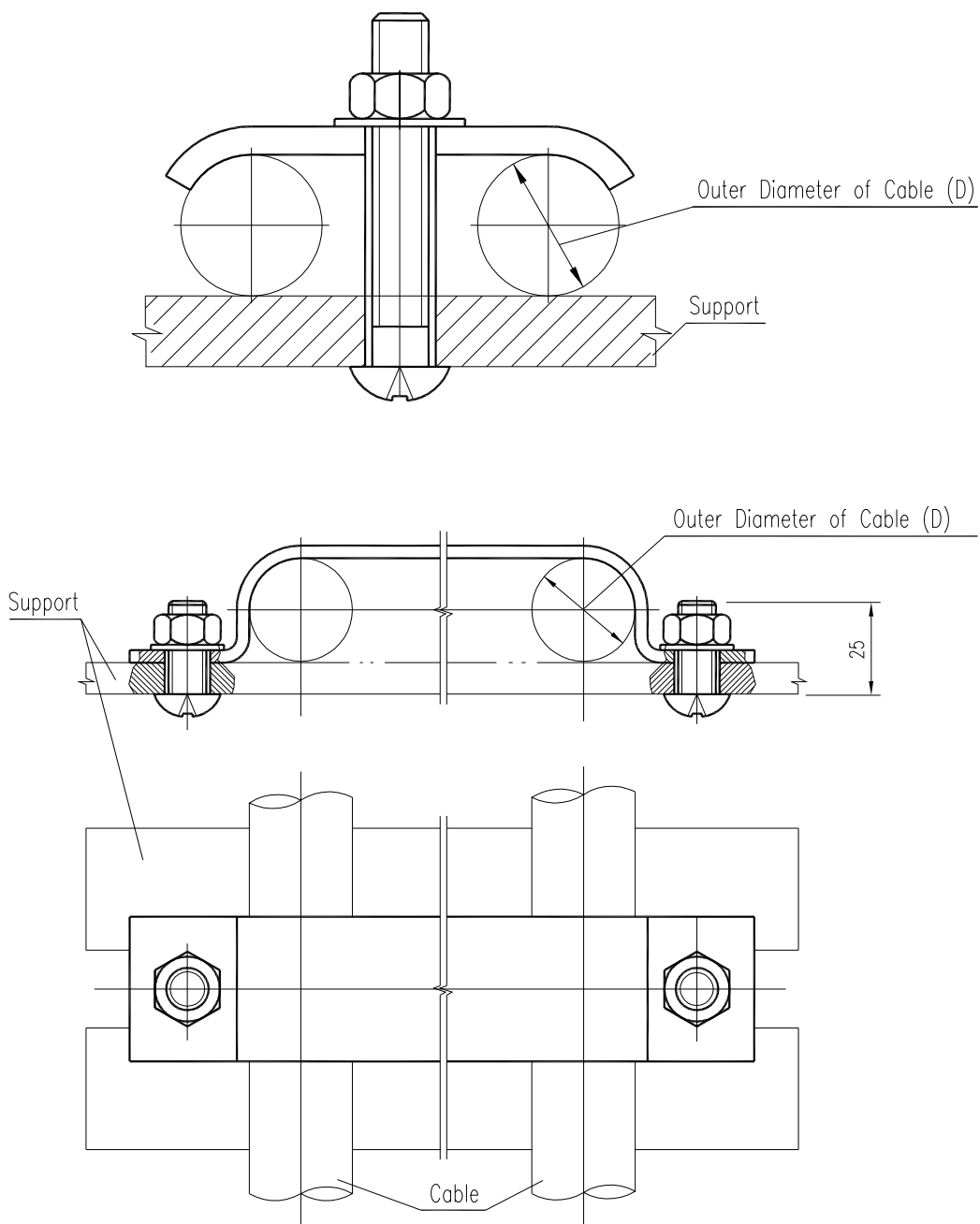
Material description

Material

Q'ty

Remarks

BILL OF MATERIAL



Inst. og inv. N

Signature and date

Inv. N original

NO.

Code

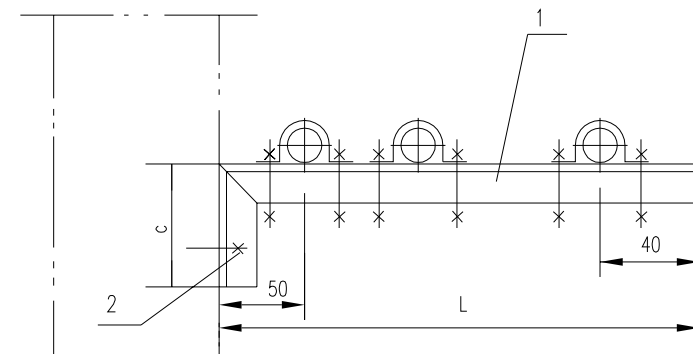
Material description

Material

Q'ty

Remarks

BILL OF MATERIAL



Angle Steel with Punched Holes for Cantilevered Wallframe	L	C
∠30x30x3	<300	100
∠40x40x4	300~900	150~300

Note:

This Wallframe is Suitable for Layout of Steel Pipe and Cable, or Fixing Support, Foundation Bed.
Angle Steel Shall be Selected According to Above Table.

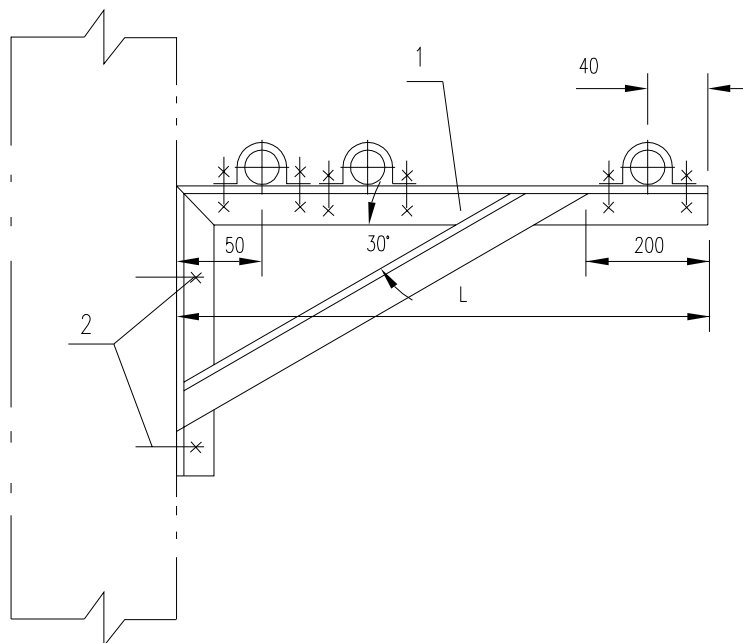
Inst. og inv. N

Signature and date

Inv. N original

2		Expansion Bolt, M10x100	C.S./Galvanized		
1		Angle Steel	C.S./Galvanized		
NO.	Code	Material description	Material	Q'ty	Remarks

BILL OF MATERIAL



Angle Steel with Punched Holes for Cantilevered Wallframe	L
∠50x50x5	900~1300
∠63x63x6	1300~1500

Note:

This Wallframe is Suitable for Layout of Steel Pipe and Cable, or Fixing Support, Foundation Bed.
Angle Steel Shall be Selected According to Above Table.

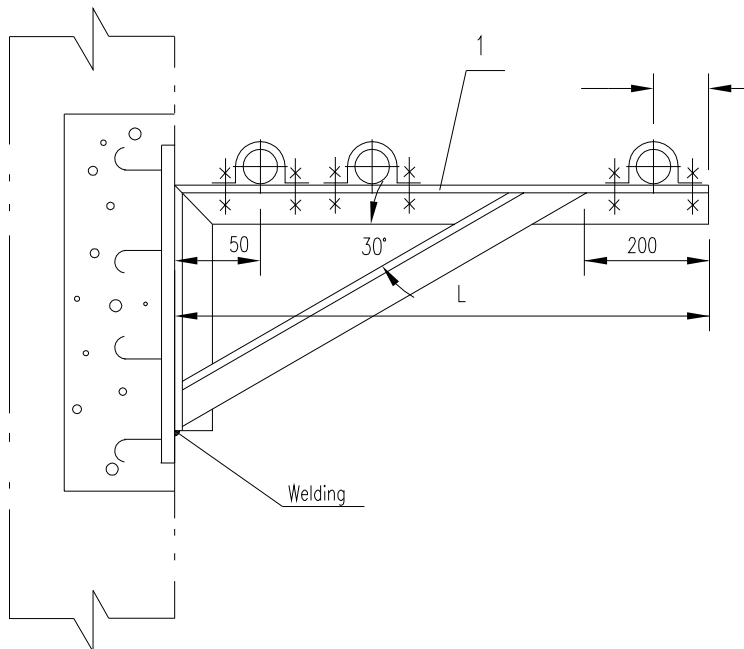
Inst. og inv. N

Signature and date

Inv. N original

2		Expansion Bolt, M10x100	C.S./Galvanized		
1		Angle Steel	C.S./Galvanized		
NO.	Code	Material description	Material	Q'ty	Remarks

BILL OF MATERIAL



Angle Steel with Punched Holes for Cantilevered Wallframe	L
∠50x50x5	900~1300
∠63x63x6	1300~1500

Note:

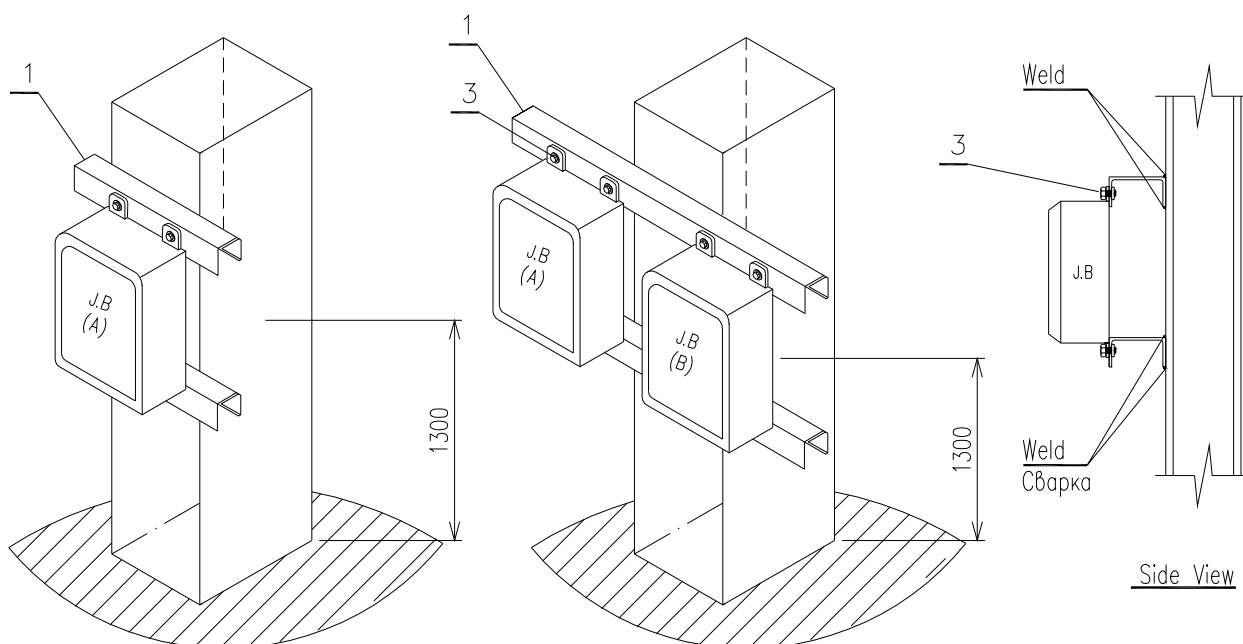
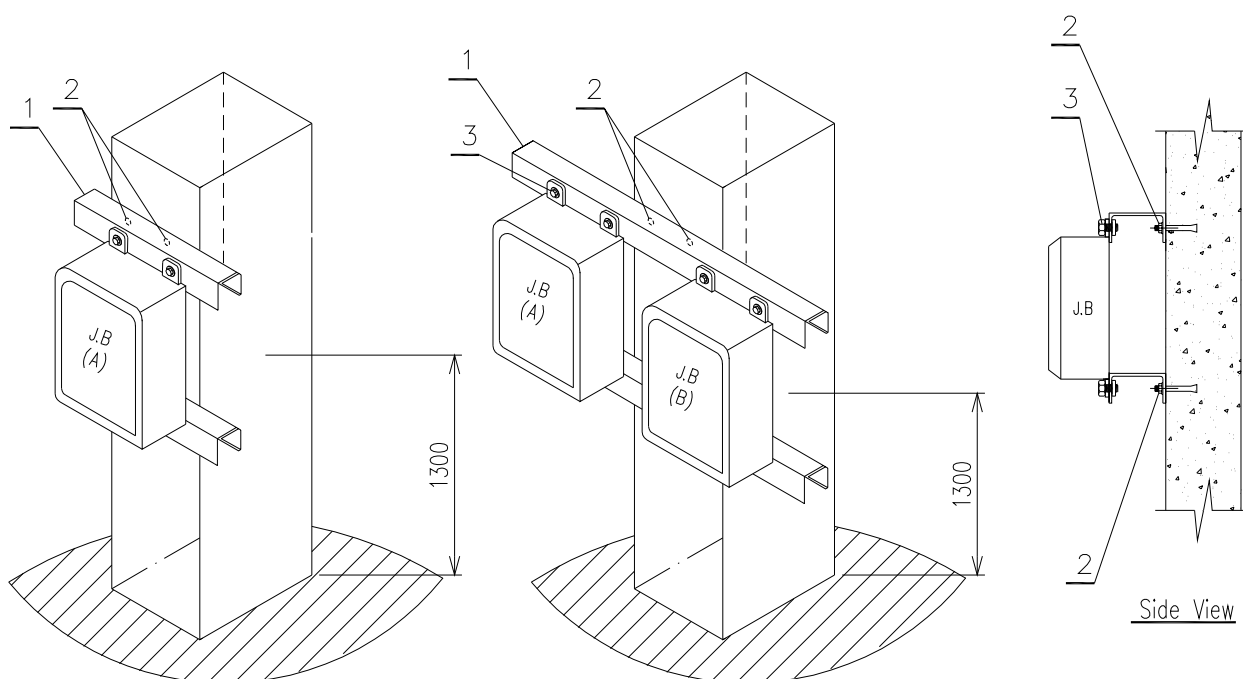
This Wallframe is Suitable for Layout of Steel Pipe and Cable, or Fixing Support, Foundation Bed.
 Angle Steel Shall be Selected According to Above Table.

Inst. og inv. N

Signature and date

Inv. N original

1		Angle Steel	C.S./Galvanized		
NO.	Code	Material description	Material	Q'ty	Remarks
BILL OF MATERIAL					

Install on Steel ColumnInstall on Concrete Column

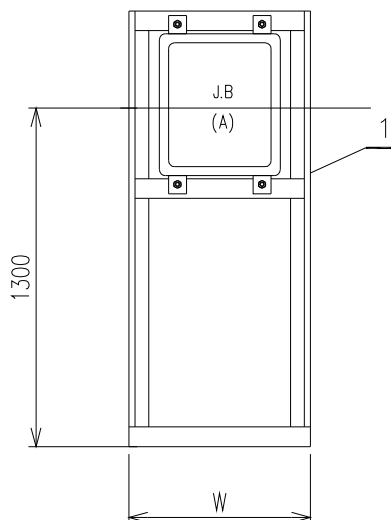
Inst. og inv. N

Signature and date

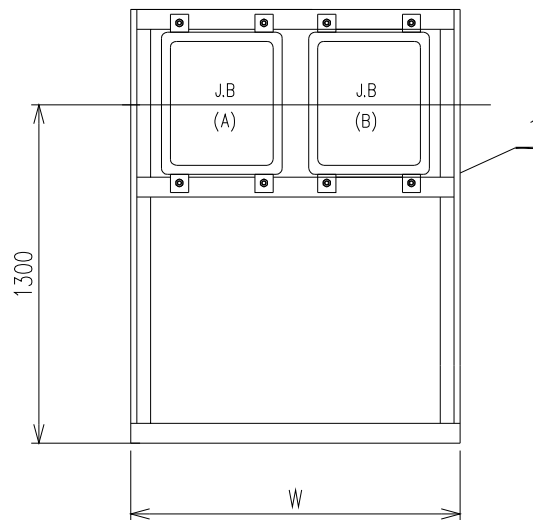
Inv. N original

3		Bolt, NUT, M8x45	304 S.S.	8	With Junction Box
2		Expansion Bolt, M10x80	C.S./Galvanized	4	REF. To MTO
1		Hot-rolled Channel Steel, 50x40x4	C.S./Galvanized	1.5m/3m	REF. To MTO
NO.	Code	Material description	Material	Q'ty	Remarks

BILL OF MATERIAL

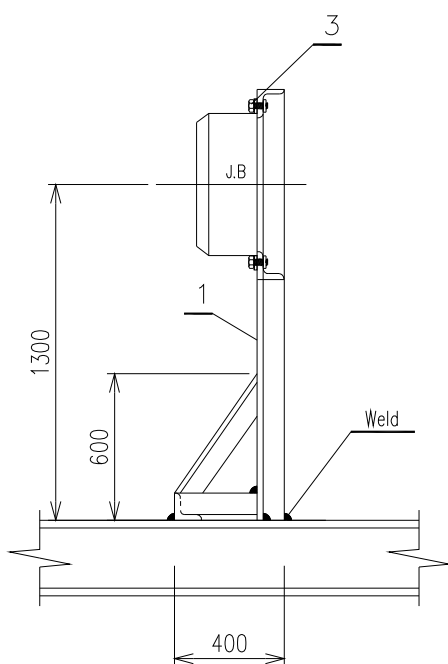


Front View

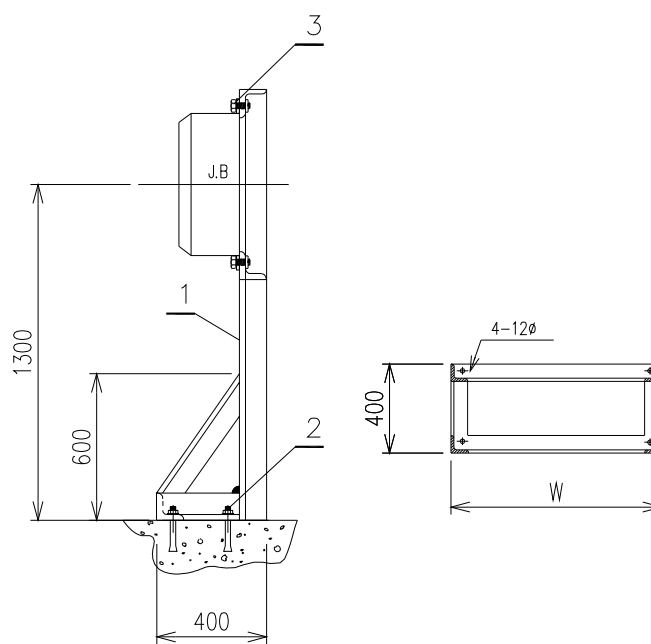


Front View

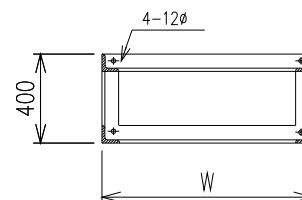
W : This dimension shall be decided by Junction Box size & number and field condition, for details refer to main cable tray layout drawing.



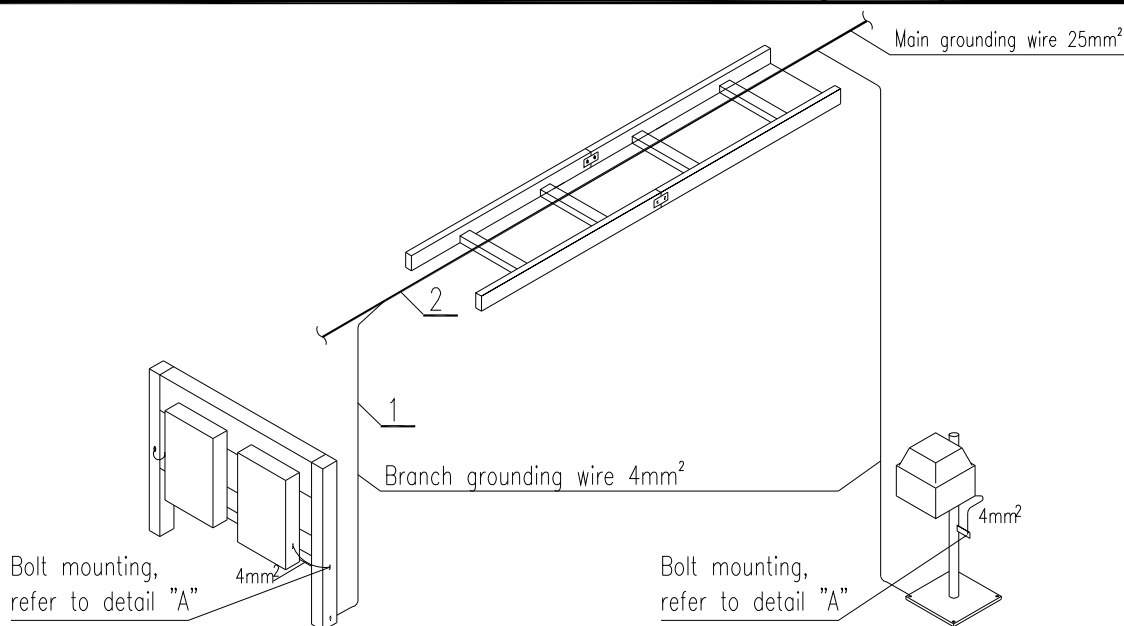
Install on Steel Column Side View



Install on Concrete Side View

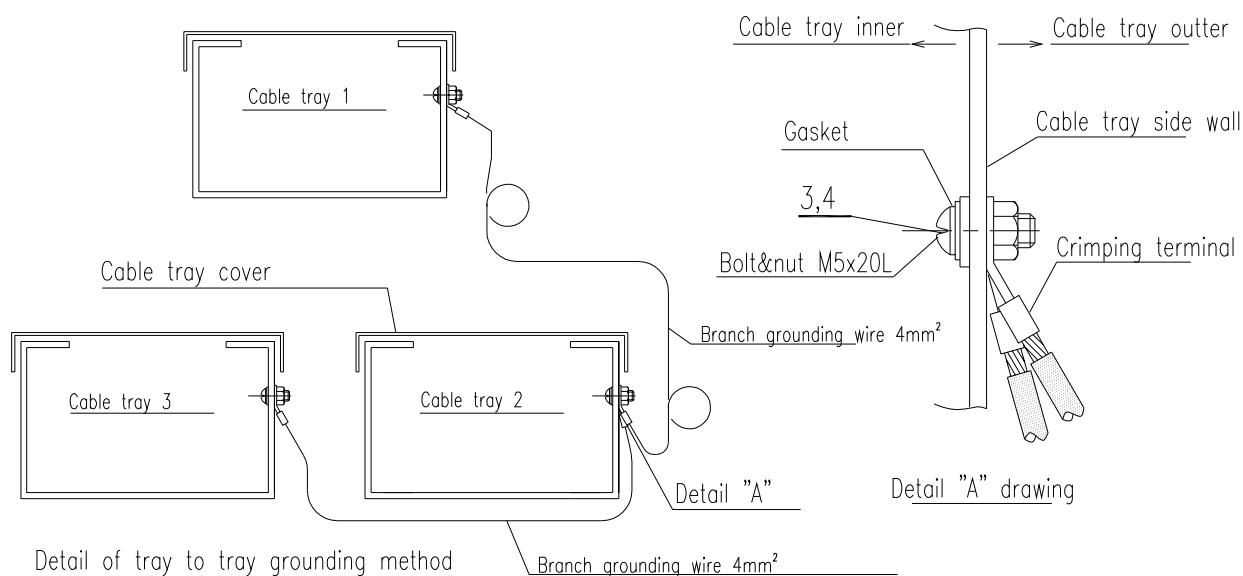


Inv. N original	Signature and date		Inst. og inv. N		
3		Bolt, NUT, M8x45	304 S.S.	8	With Junction Box
2		Expansion Bolt, M10x80	C.S./Galvanized	4	REF. To MTO
1		Hot-rolled Equal Leg Angle Steel $\angle 50 \times 50 \times 5$	C.S./Galvanized	7m/9m	REF. To MTO
NO.	Code	Material description	Material	Q'ty	Remarks
BILL OF MATERIAL					



Note:

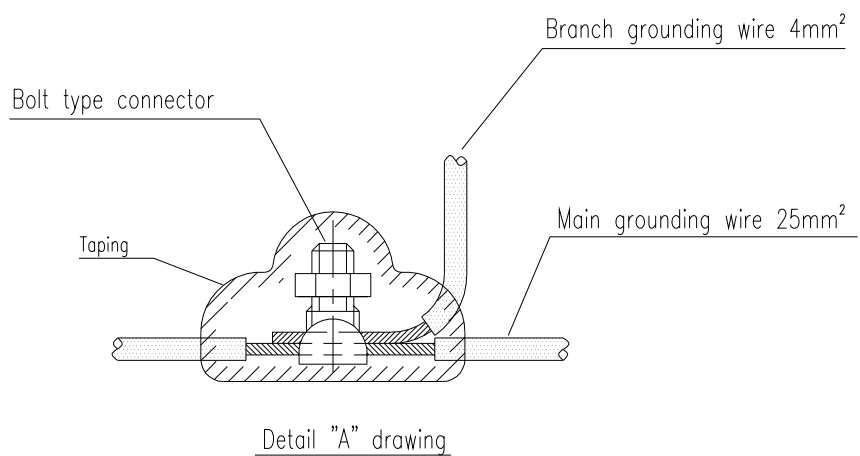
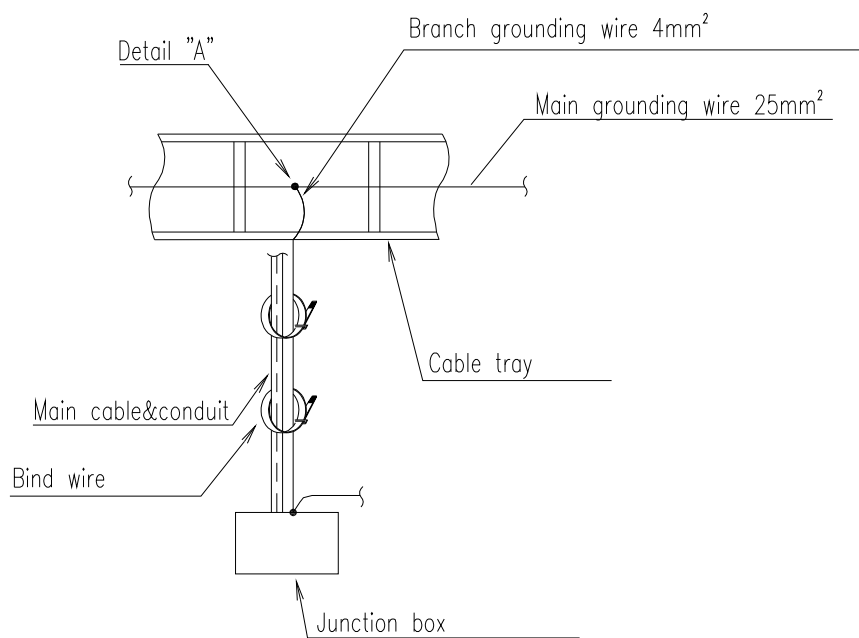
1. Field instrument without junction box wiring shall be protective earthed from enclosure.
2. Field instrument and junction box grounding could be connected to main grounding wire 25mm² in cable tray, metal cable tray, electrical grounding grid or steel structure.



Detail of tray to tray grounding method

4		Nut M5	C.S./Galvanized		REF. To MTO
3		Bolt M5x20	C.S./Galvanized		REF. To MTO
2		Grounding Wire 1x25mm2			REF. To MTO
1		Grounding Wire 1x4mm2			REF. To MTO
NO.	Code	Material description	Material	Q'ty	Remarks

BILL OF MATERIAL



Inst. og inv. N

Signature and date

Inv. N original

NO.

Code

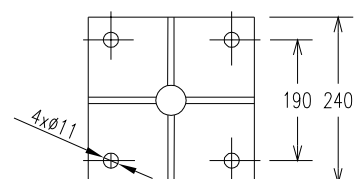
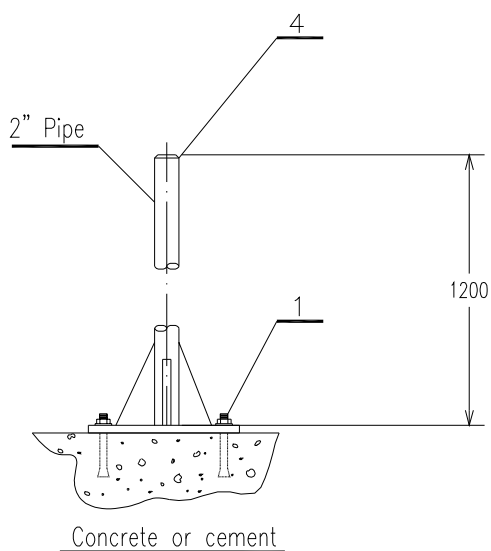
Material description

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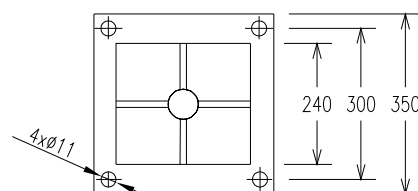
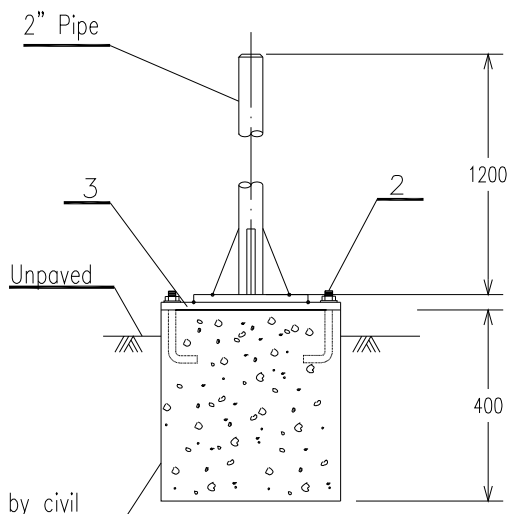
Q'ty

Remarks

BILL OF MATERIAL



Install on concrete



Install on unpaved area

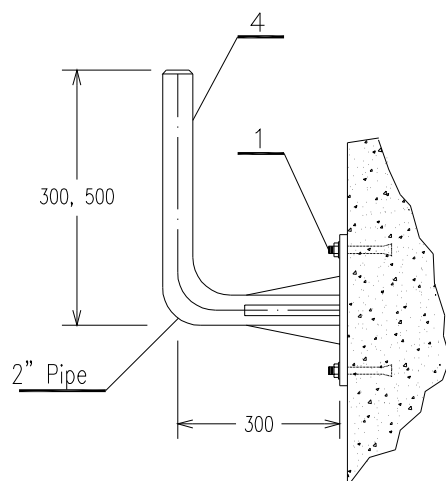
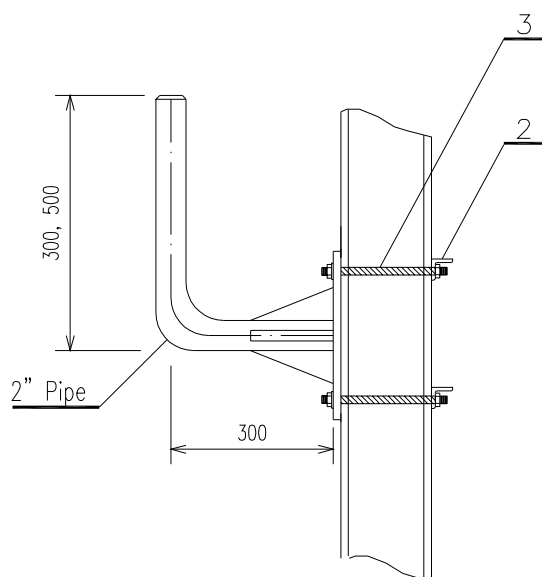
Inst. og inv. N

Signature and date

Inv. N original

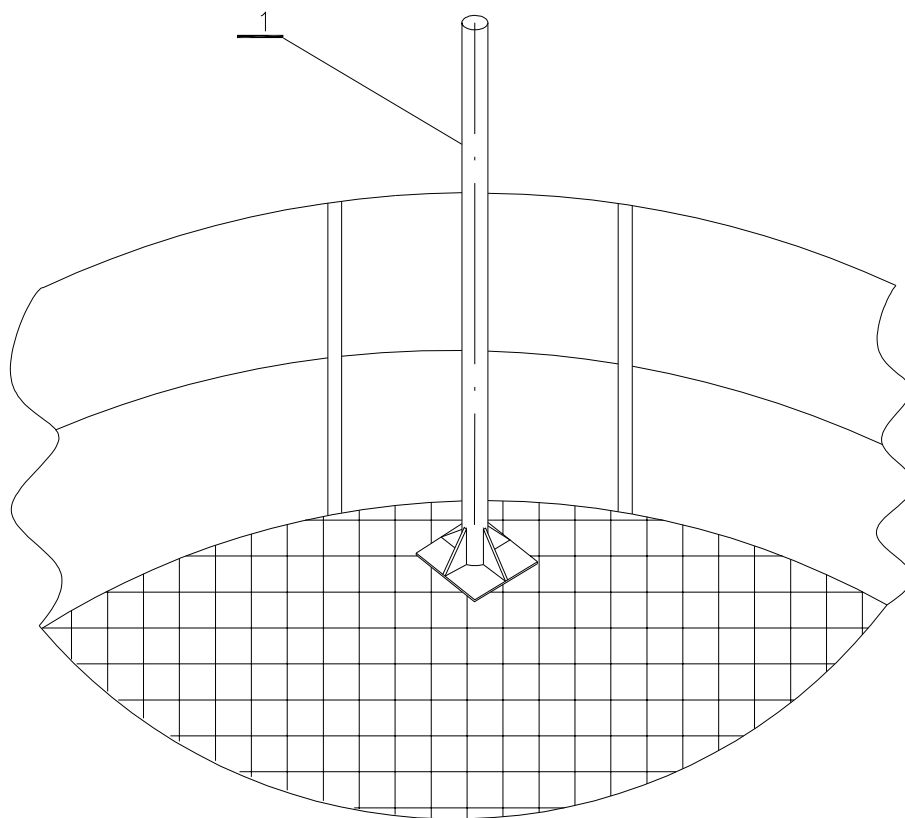
4		Support	C.S./Galvanized	1pcs/wm.	
3		Steep plate, 350x350 $\delta=6$	C.S.	1pcs/wm.	
2		Bolt, nut, M10x120	C.S./Galvanized	4pcs/wm.	
1		Expansion bolt, M10x80	C.S./Galvanized	4pcs/wm.	
NO.	Code	Material description	Material	Q'ty	Remarks

BILL OF MATERIAL

Install on equipment or wallInstall on steel column

4		Support	C.S./Galvanized	1pcs/wm.	
3		Bolt, nut, M10	C.S./Galvanized	4pcs/wm.	
2		Angle steel, $\angle$ 50x50x5			Ref. to MTO
1		Expansion bolt, M10x80	C.S./Galvanized	4pcs/wm.	
NO.	Code	Material description	Material	Q'ty	Remarks

BILL OF MATERIAL



Note:
Base plate of support use weld mode.

Inv. N original	Inst. og inv. N
Signature and date	

1		Support	C.S./Galvanized	1pcs/wm.	
NO.	Code	Material description	Material	Q'ty	Remarks
BILL OF MATERIAL					

Material for sunshade shall be 3.0t steel Q235-AF. Hot Dip Galvanized.
All dimensions are in millimeters, otherwise is indicated.

4		Bolt & nuts w/spring washer & flat washer M6x30	304 S.S.	6set	
3		U-bolt & nuts w/spring washer & flat washer 2" x 3/8"	304 S.S.	2set	
2		Angle steel L32x302x3t	C.S./Galvanized	1.7m/M	
1		Steel plate 3.0t	C.S./Galvanized	0.4m²	
NO.	Code	Material description	Material	Q'ty	Remarks
BILL OF MATERIAL					