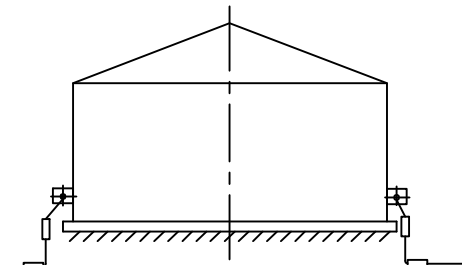
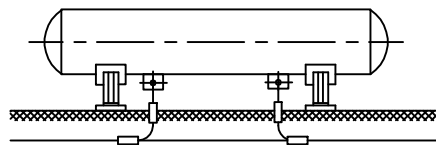


**TYPICAL FOR TANK & STRUCTURE EARTHING CONNECTIONS**

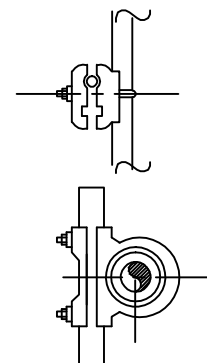
TANK DIAMETER (m)	< 5	< 20	< 30	< 40
NO OF LINKS	1	2	3	4



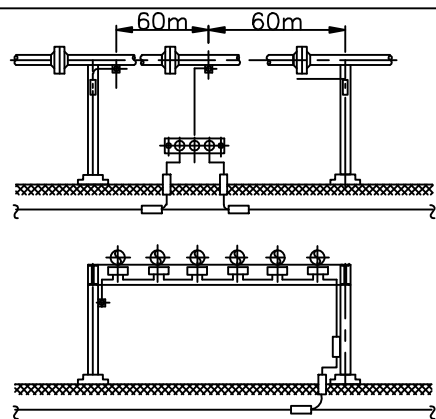
**TANK EARTHING CONNECTIONS**



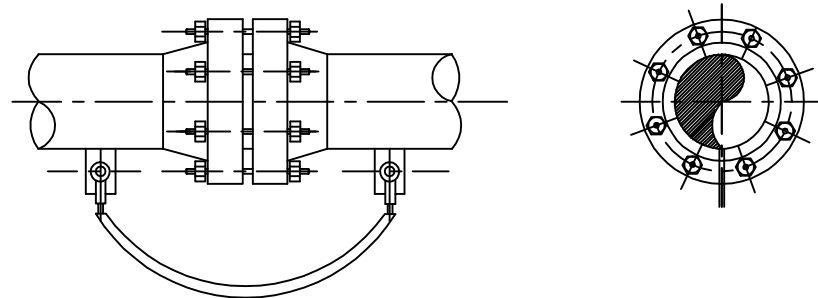
**VESSEL EARTHING CONNECTIONS**



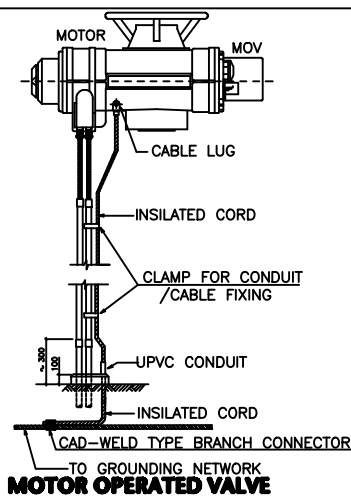
**CABLE TERMINAL FOR EARTHING POLE CONNECTIONS**



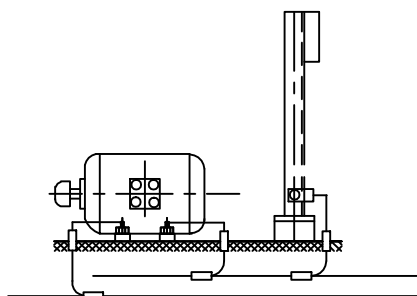
**PIPES OF RACK EARTHING CONNECTIONS**



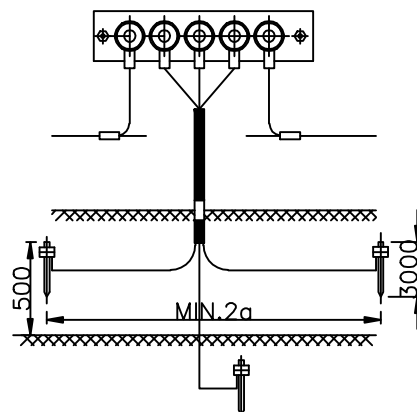
**PIPE EARTHING CONNECTIONS**



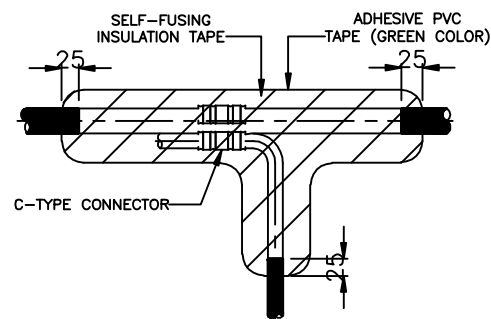
**MOTOR OPERATED VALVE**



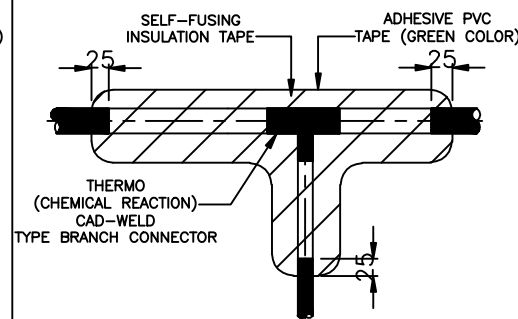
**MOTOR & COLUMN GROUNDING CONNECTION**



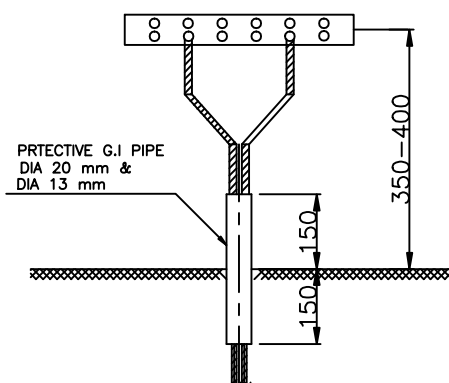
**EARTH PLATE CONNECTIONS BOND**



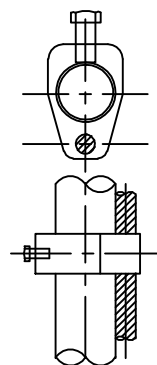
**COMPRESSION 'C' TYPE CONNECTOR CONNECTION**



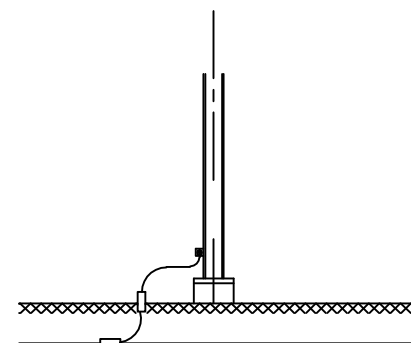
**CADWELD CONNECTOR CONNECTION**



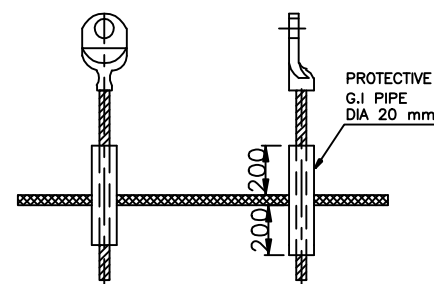
**EARTHING PLATE CONNECTION**



**EARTHING CABLE CONNECTIONS WITH STEEL PIPE**



**STRUCTURE GROUNDING CONNECTIONS**



**CABLE TERMINAL FOR EARTHING EQUIPMENT CONNECTIONS**

## NOTES:-

- ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED.
- EARTHING CONDUCTOR SIZE FOR PROCESS AND ELECTRICAL EQUIPMENT SHALL BE FINALIZED BY THE CONTRACTOR DURING THE DETAIL ENGINEERING. REFER ELECTRICAL BASIS OF DESIGN.
- THE CONDUCTOR SIZE SHALL BE FULLY SIZED TO WITHSTAND THE MAXIMUM POSSIBLE EARTH FAULT CURRENT OF THE SYSTEM.
- THE NUMBER OF EARTHING POINTS SHALL BE IN ACCORDANCE WITH EARTHING LAYOUT DRAWING TO BE DEVELOPED BY THE CONTRACTOR DURING THE DETAIL ENGINEERING.
- THE INTERVAL BETWEEN EARTHING POINTS ALONG TANK CIRCUMFERENCE SHALL NOT EXCEED 30 METERS.
- THE MAIN EARTHING/GROUNDING NETWORK IS REALISED WITH STRANDED BARE COPPER CONDUCTORS.
- ALL MAIN ELECTRICAL & MECHANICAL EQUIPMENTS SUCH AS THE TANKS, THE VESSELS ECT. SHALL BE CONNECTED TO THE MAIN NET WORK BY MEANS OF STRANDED COPPER CONDUCTOR (BARE)
- ALL OTHER EQUIPMENTS SUCH AS PUSH-BUTTON STATION, SOCKET STATION, LIGHT POLES & OTHER SMALL ITEMS SHALL BE CONNECTED BY MEANS OF COPPER CONDUCTOR CABLES/CORDS PVC (INSULATED) AS MENTIONED IN LAYOUT.
- THE EARTHING CONDUCTOR/CORD SHALL BE PROTECTED ABOVE EARTH WITH A PIECE OF HEAVY G.I PIPE OR HEAVY PVC PIPE (D-CLASS) FILLED WITH ARDENING MIXTURE FOR AN EXTENSION OF 200mm OUT OF EARTH.
- THE EARTHING TERMINALS SHALL BE REALISED IN ORDER TO ENSURE AT LEAST 200 SQ. mm OF CONTACT SURFACE.
- EARTHING TERMINALS & SCREWS ( $\phi > 10\text{mm}$ ) SHALL BE IN HOT DIPPED GALVANISED STEEL (OR HARDENED COPPER OR STAINLESS STEEL.)
- ALL CONNECTIONS WITH MAIN GROUNDING/EARTHING NETWORK INCLUDING, SCREWS,BOLTS,NUTS,CONNECTORS,LUGS & OTHER FITTINGS SHALL BE PROTECTED AGAINST CORROSION WITH INSULATING COATING.
- SELF-FUSING INSULATION TAPE AND ADHESIVE PVC INSULATION TAPE SHALL BE APPLIED WITH HALF-LAP WRAPPING.
- THE CONTRACTOR SHALL USE THE TOOLS AND MATERIALS SUITABLE FOR JOINING DIFFERENT SIZES OF CONDUCTORS.
- INTERCONNECTION IN EARTHING NETWORK SHALL BE DIRECTLY CLAMPED WITH COMPRESSION-TYPE BRANCH CONNECTORS FOR ABOVE-GROUND INSTALLATION AND THERMO(CAD)-WELDED FOR UNDERGROUND INSTALLATION SUBJECT TO APPROVAL OF CLIENT.
- ALL STUB-UP CONDUITS SHALL BE SEALED WITH SUITABLE SEALING COMPOUND.

**RE-ISSUED FOR TENDER**

1	25-02-2022	RE-ISSUED FOR TENDER	MAA	JAB	AIB	PM	MAS
0	07-01-2022	ISSUED FOR TENDER	MAA	JAB	AIB	PM	MAS
A	29-10-2021	ISSUED FOR REVIEW	MAA	JAB	AIB	PM	MAS
REV.	DATE	DESCRIPTION OF REVISION	DRAWN	DESIGN	CHKD.	QC	APPR.
<b>ENAR PETROTECH SERVICES (PRIVATE) LIMITED</b>			<b>Job No. 14-0258</b>				
7-B, Sector 7-A Korangi Industrial Area, Karachi Pakistan TEL: (9221) 5062791 E-mail: info@enar.com.pk URL: www.enar.com.pk			<b>Dwg. No. 0258-ELF-6801 Sheet-4</b>				
<b>OIL &amp; GAS DEVELOPMENT COMPANY LTD.</b>			<b>COMPUTER CODE 0258-ELF-6801</b>				
<b>TITLE: KPD - TAY COMPRESSION PROJECT</b>			<b>SHEET SIZE A3</b>				
<b>TYPICAL INSTALLATION DETAILS FOR EARTHING TERMINATION</b>			<b>SCALE 1:1100</b>				
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