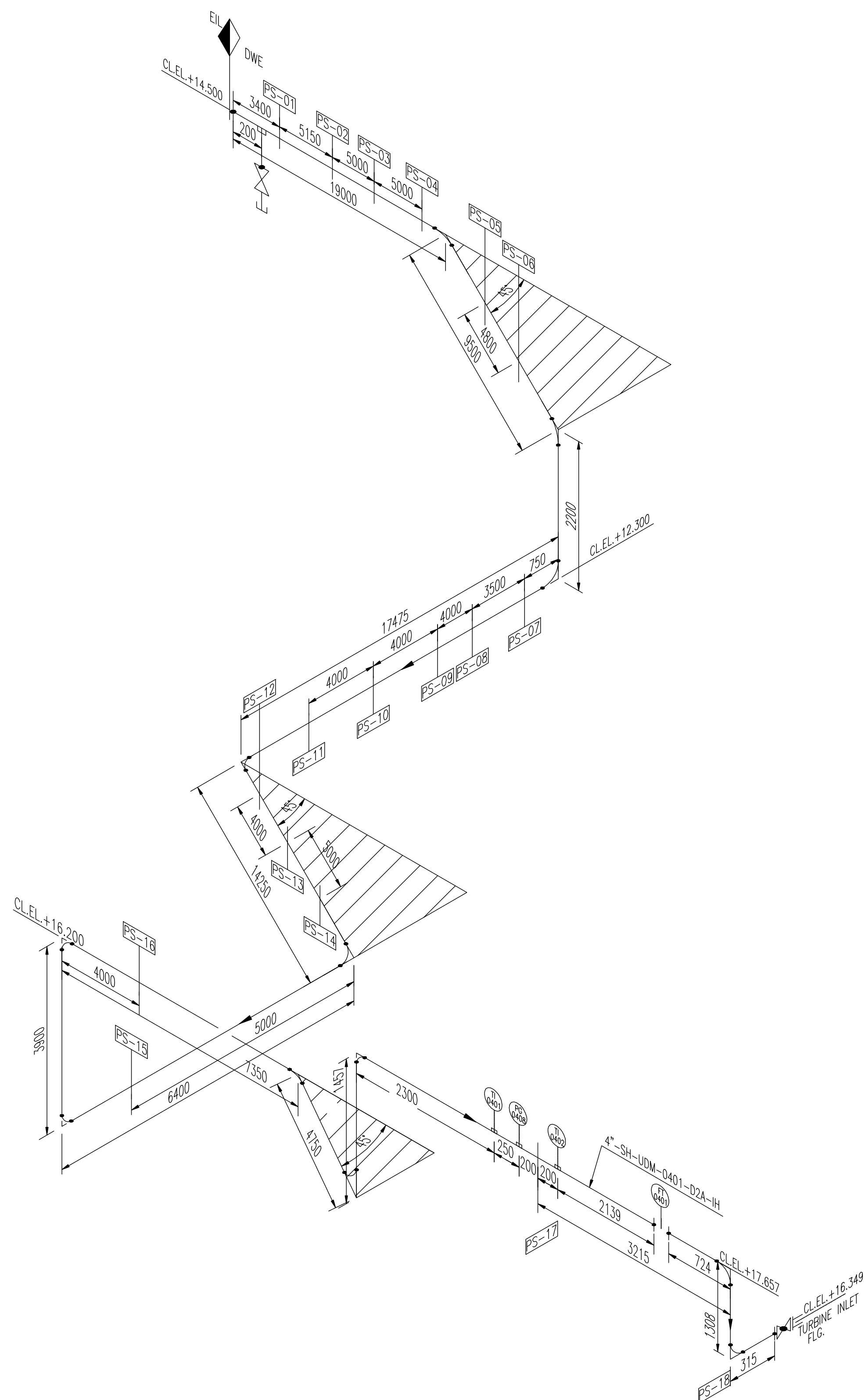


COPY RIGHT : THIS DRAWING IS THE COPY RIGHT & PROPERTY OF DRIPLEX WATER ENGG. LTD. AND MUST NOT BE COPIED, MADE PUBLIC OR SHOWN TO A THIRD PARTY WITH OUT THE WRITTEN CONSENT OF THE COMPANY



**DESIGN PARAMETERS:-**

Design Code : ASME B31.1/IBR 1950  
 Working Pressure : 37 kg/cm<sup>2</sup>(g)  
 Working Temperature : 380 Deg C  
 Hydro Test Pressure : 56 kg/cm<sup>2</sup>(g)

**BILL OF MATERIAL (PIPING) MAIN STEAM LINE FROM RACK B/L TO TURBINE INLET**

Sr. No.	PIPE				BEND		REDUCER		TEE		FLANGE		SCOPE
	SIZE	SCH.	LENGTH	90°	45°	SIZE	QTY.	SIZE	QTY.	SIZE	QTY.	RATING	
1	100 NB	80	93.0 M	8	4							WNRF 600 #	2
2	80 NB	80	0.6 M									WNRF 600 #	1
3	20 NB	160	19.0 M						20x20x20	6		SWRF 600 #	10

**BILL OF MATERIAL (FITTINGS) MAIN STEAM LINE FROM RACK B/L TO TURBINE INLET**

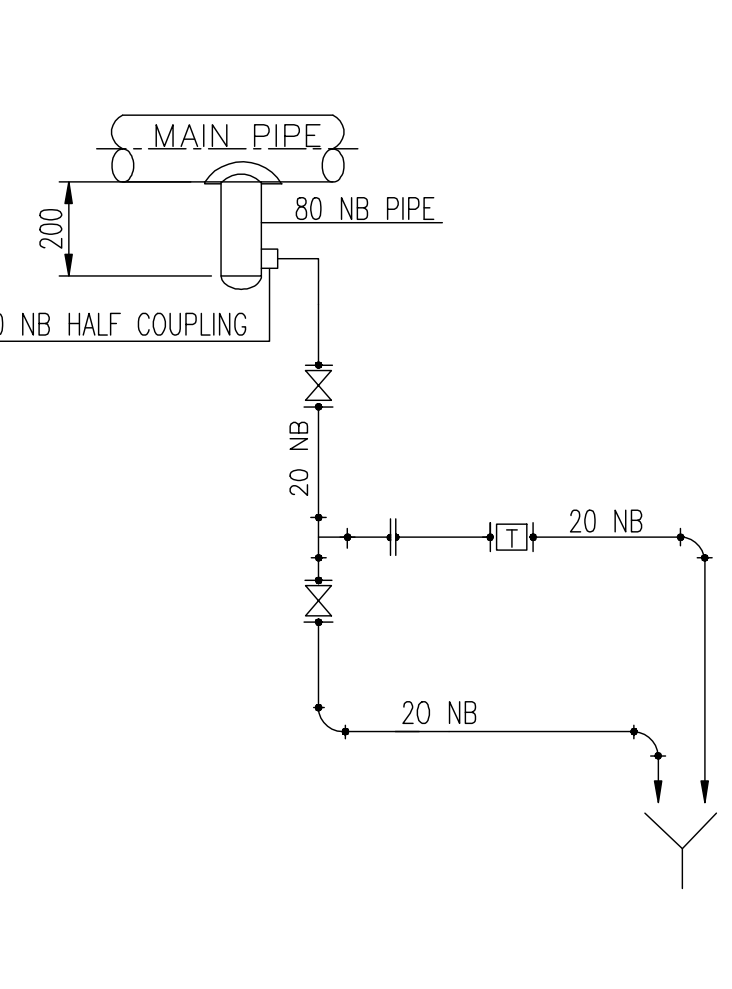
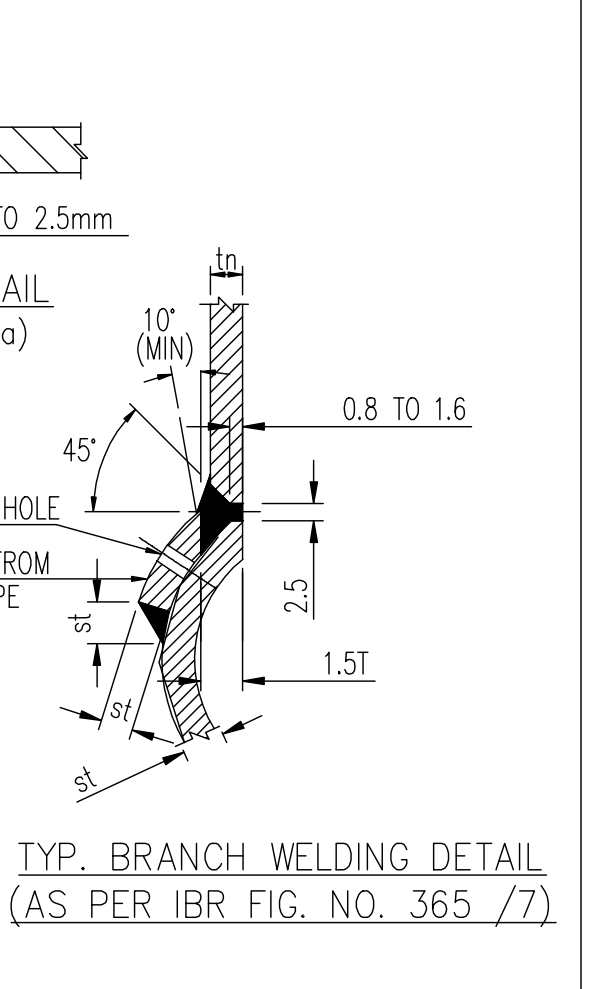
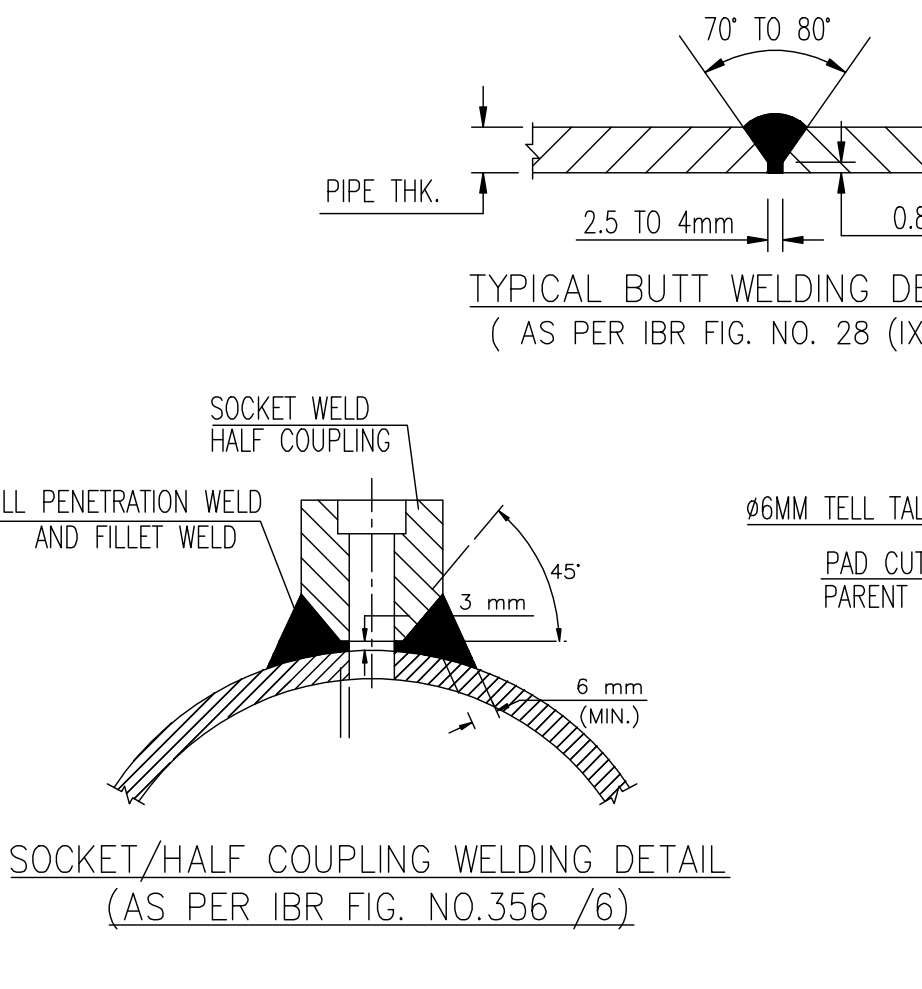
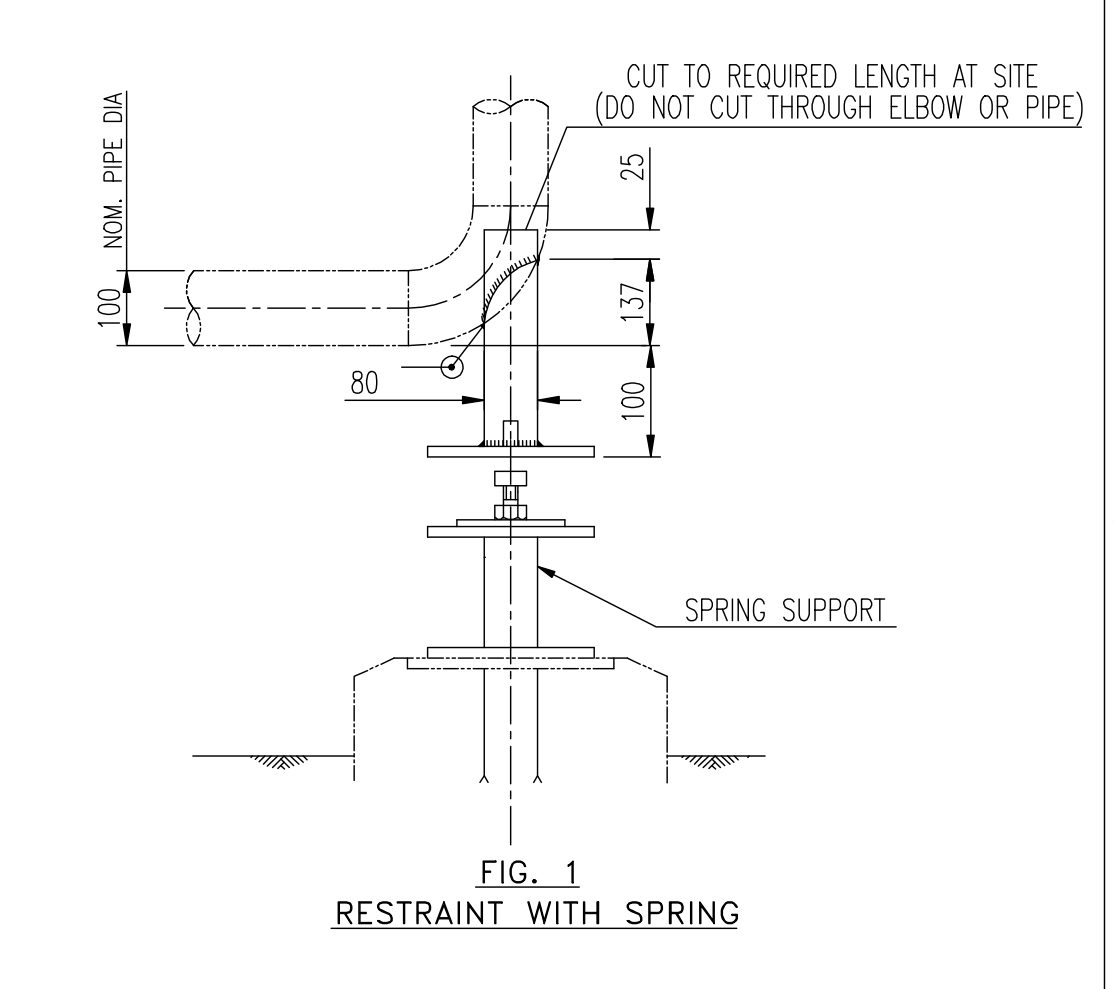
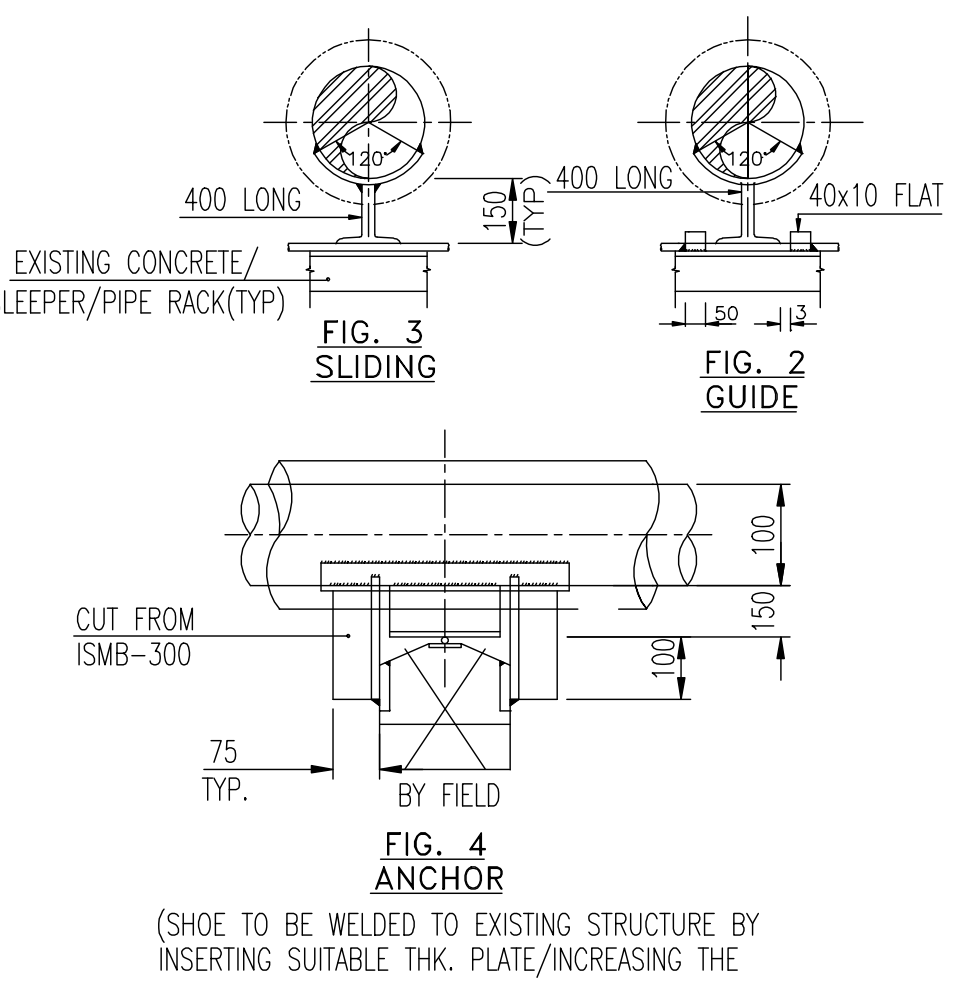
Sr. No.	VALVE				CHECK VALVE		HALF CPLG.		END CAP		TRAPS		SCOPE
	TYPE	SIZE	RATING	QTY.	SIZE	RATING	QTY.	SIZE	QTY.	SIZE	QTY.		
1	GATE	20 NB	800 #	4				20 NB	4			20 NB	3
2	GLOBE	20 NB	800 #	3									

- MATERIAL SPECIFICATIONS :- PIPE**
- 50 NB AND ABOVE : ASTM A 106 GR. B, DIM. TO B36.1, SCH. 80 BE
  - 15 NB TO 20 NB : ASTM A 106 GR. B, DIM. TO B36.1, SCH. 160 PE
- BENDS/ELBOWS**
- 50 NB AND ABOVE : ASTM A 234 GR. WPB, DIM. TO B16.9, SCH. 80, BW, R=1.5 D
  - 25 NB TO 40 NB : ASTM A 105, DIM. TO B16.11, 3000#, SW
  - 15 NB TO 20 NB : ASTM A 105, DIM. TO B16.11, 6000#, SW
- TEES AND REDUCERS**
- 50 NB AND ABOVE : ASTM A 234 GR. WPB, DIM. TO B16.9, SCH. 80, BW,
  - 20 NB AND BELOW : ASTM A 105, DIM. TO B16.11, 6000#, SW
- HALF COUPLING**
- 20 NB AND BELOW : ASTM A 105, DIM. TO B16.11, 6000#, SW
  - 40 NB TO 25 NB : ASTM A 105, DIM. TO B16.11, 3000#, SW
- FLANGES**
- ALL SIZES : ASTM A 105, DIM. TO B16.5, # 600, WNRF/BRF/SWRF

- NOTES:-**
- ALL DIMENSIONS ARE IN MM & ELEVATIONS ARE IN METERS, UNLESS STATED OTHERWISE
  - ALL PIPING MATERIALS FOR STEAM LINES SHALL BE CONFIRM TO IBR 1950 AND ITS LATEST AMENDMENTS.
  - STEAM LINE SHOULD BE RUN WITH A FALLING SLOP OF 125mm FOR EVERY 30Mtrs. LENGTH IN THE DIRECTION OF FLOW.
  - ALL LOWEST POINTS SHOULD BE PROVIDED DRAIN WITH STEAM TRAP ASSEMBLY.
  - VENTS TO BE PROVIDED AT THE HIGHEST POINTS OF PIPE LINE.
  - ALL FLANGES SHALL BE DRILLED OFF-CENTERS, UNLESS STATED OTHERWISE
  - ALL WELDS TO BE DONE BY THE CERTIFIED WELDERS.
  - ARROW SHOWN ON LINE INDICATES THE DIRECTION OF FLOW.

0	05.05.10	ISSUED FOR IBR APPROVAL	JSP	S.G.	P.K.S.
REV.	DATE	PARTICULAR	DRN.	CHKD.	APPD.

**REVISION**



**driplex WATER ENGG., NEW DELHI**

**PROJECT CEMP-PHASE II-KOCHI REFINERY DM WATER PLANT PACKAGE.**

**CLIENT: BHARAT PETROLIUM CORPORATION LTD. KOCHI REFINERY AMBALAMUGAL, KERALA, INDIA**

**CONSULTANT: ENGINEERS INDIA LIMITED (A Govt. of India Undertaking) EIL JOB NO.: 6767**

**TITLE: ISO FOR STEAM LINE TO TURBINE**

**ISSUED FOR FAB. CLIENT'S DRG. NO.**

N.T.S.	D03-D-213-82-ISO-0262-C002	2 OF 2	0
<b>SCALE</b>	<b>DRAWING NUMBER</b>	<b>SHT. NO.</b>	<b>REV.</b>