



**Bharat Heavy Electricals Limited
(A Govt. of India Undertaking)**

Piping Centre, 80, G. N. Chetty Road, CHENNAI – 600 017
Phone : 91 (044) 28161245, Fax 044 28161 341 e-mail: prs@bhelmpc.co.in

REF: ENQ NO: 4101200003

DT: 04.01.2012

Sub: Procurement of Fabricated Tees and Y-pieces, Pipe with attachments.

Ref: Enquiry No: PC: 4101200003 dt 04.01.2012

Please find the following tender documents for reference.

1. List of items and sample drawings
2. Tech. delivery condition TDG: 108:05, 109:00 & 101.03.

Pre qualification is the criteria for consideration for other than BHEL approved vendors. After qualifying for registration, the new vendors may be considered for future requirements, in line with BHEL system and policy. Such vendors will not be considered for this enquiry.

This is a limited tender and only vendors who are contacted through e-mail/courier may submit their offers. Offers from other vendors will not be considered for this enquiry.

New vendors may download vendor registration forms from BHEL web site www.bhel.com and relevant data for formal registration.

For further details please contact the undersigned through email.

Manager / Purchase
BHEL / Piping Centre
80, GN Road, T.Nagar
Chennai-600017
Email id: varada@bhelmpc.co.in

PC 4101200003

LIST OF ITEMS _ FAB TEES AND Y-PIECES, PIPE WITH ATTACHMENTS.

SI No	MATLCD	Description	Ind	Qty	TDC	DRAWING	CURR	Unit Rate
1	1925057820000	FAB UET 559X54/ 323.9X31 SA182F91		4	TDG:108 REV:05	3-80-999-97699/01		
2	1925057900000	FAB UET 914 X 30 / 711 X 25 SA182F91		2	TDG:108 REV:05	3-80-999-97704/01		
3	1925057920000	FAB UET 711.2 X 40/660 X 36 SA182F22CL3		3	TDG:108 REV:05	3-80-999-97707/00		
4	1925057960000	FAB UET 368 X 48/ 219.1 X 30 SA105		4	TDG:108 REV:05	3-80-999-97702/00		
5	1925057970000	FAB UET 508 X 64 / 368 X 48 SA105		1	TDG:108 REV:05	3-80-999-97703/00		
6	1925058070000	FAB UET 323.9 X 31/ 219.1X 25 SA182 F91		1	TDG:108 REV:05	3-80-999-97709/00		
7	1925058080000	FAB EQT 323.9 X 31SA182 F91		12	TDG:108 REV:05	3-80-999-97711/01		
8	1925058090000	FAB UET323.9 X 31/168.3 X 27.5SA 182 F91		2	TDG:108 REV:05	3-80-999-97710/00		
9	1925058170000	FAB UNEQTEE 762 X 25/ 711 X25 SA182F91		2	TDG:108 REV:05	3-80-310-26024/02		
10	1925058180000	FAB UNEQTEE 965 X 32 /762 X 25 SA182F91		1	TDG:108 REV:05	3-80-310-26026/01		
11	1925058190000	FAB Y PIECE 965 X32 /762 X25 SA182F91		1	TDG:108 REV:05	2-80-310-09377/01		
12	1925058200000	FABUNEQTEE965 X37/559 X28.58 SA182F22CL3		4	TDG:108 REV:05	3-80-320-26028/01		
13	1925058220000	FABUNEQTEE965 X25/355.6X11.13SA105		2	TDG:108 REV:05	3-80-320-26030/01		
14	1925058340000	FAB UNEQTEE 457 X42/ 219.1X 25 SA182F91		24	TDG:108 REV:05	3-80-301-26067/01		
15	1925058500000	FABUNEQTEED508X48/ OD355.6X36 SA105		20	TDG:108 REV:05	3-80-423-26717/01		
16	1925058510000	FABUNEQTEED355.6X29/OD273X25SA182F91		6	TDG:108 REV:05	3-80-999-97760/01		
17	1925058540000	FABUNEQTEED355.6X 29/168.3X27.5SA182F91		1	TDG:108 REV:05	3-80-999-97778/00		
18	1925058760000	FABUNEQTEED864X50/508X30SA182F22CL3	*	6	TDG:108 REV:05	3-80-320-27188/02		
19	1925058770000	FABUNEQTEED864X50/711X42 SA182F91	*	9	TDG:108 REV:05	3-80-310-27187/02		
20	1925058790000	FAB Y PIECE ID460X85/ID350X60 SA182 F91	*	3	TDG:108 REV:05	2-80-301-10066/03		
21	1925058800000	FAB UN EQTEE ID460X85/OD323.9X48SA182F91	*	6	TDG:108 REV:05	3-80-301-27186/02		
22	1925058810000	FAB UN EQTEE ID460X85/ID350X60 SA182F91	*	3	TDG:108 REV:05	3-80-301-27185/00		
23	1925058830000	FAB Y PIECE OD 864X50 / 711X42 SA182F91	*	3	TDG:108 REV:05	2-80-310-10067/02		
24	1925058840000	FAB Y PIECE OD 864X29/ OD660X23 SA105	*	3	TDG:108 REV:05	2-80-320-10068/01		
25	1925058850000	FABUNEQTEE OD864X50/323.9X20 SA182F22CL3	*	3	TDG:108 REV:05	3-80-320-27198/00		
26	1925058860000	FAB UNEQTEE OD864X29/355.6X15.09 SA105	*	3	TDG:108 REV:05	3-80-320-27303/00		
27	1925059130000	FABUET457X48/323.9X31SA182F91(con457x42)		24	TDG:108 REV:05	3-80-999-97804/02		
28	1925059140000	FABUET457X48/219.1x36SA182 F91(con457x42)		10	TDG:108 REV:05	3-80-999-97805/02		
29	1925059730000	FABUNEQTEE OD559X75/355.6X64SA105	*	3	TDG:108 REV:05	3-80-423-28063/00		
30	1925059950000	FAB 'Y' PIECE OD965x34/OD813x31SA105		2	TDG:108 REV:05	2-80-320-10813/00		
31	1925059960000	FAB UNEQUALTEE 559X54 / 273X30 SA182F91		4	TDG:108 REV:05	3-80-301-28707/00		
32	1925166940000	PIPE WITH STUB(MS-SV) NB 350 -SA182 F91		1	TDG:109	3-80-999-97761/03		
33	1925167010000	PIPEID712X40SA335P91WITH STUBS(D1=715.6)		2	TDG:109	3-80-999-97765/01		
34	1925167050000	PIPEWITHSVSTUB(CONNPIPE323.9X31)SA182F91		24	TDG:109	3-80-999-97785/00		
35	1925167460000	PIPEWITHSTUB-(CRH- SV) NB 550 SA105		2	TDG:109	3-80-320-28692/00		
				201				

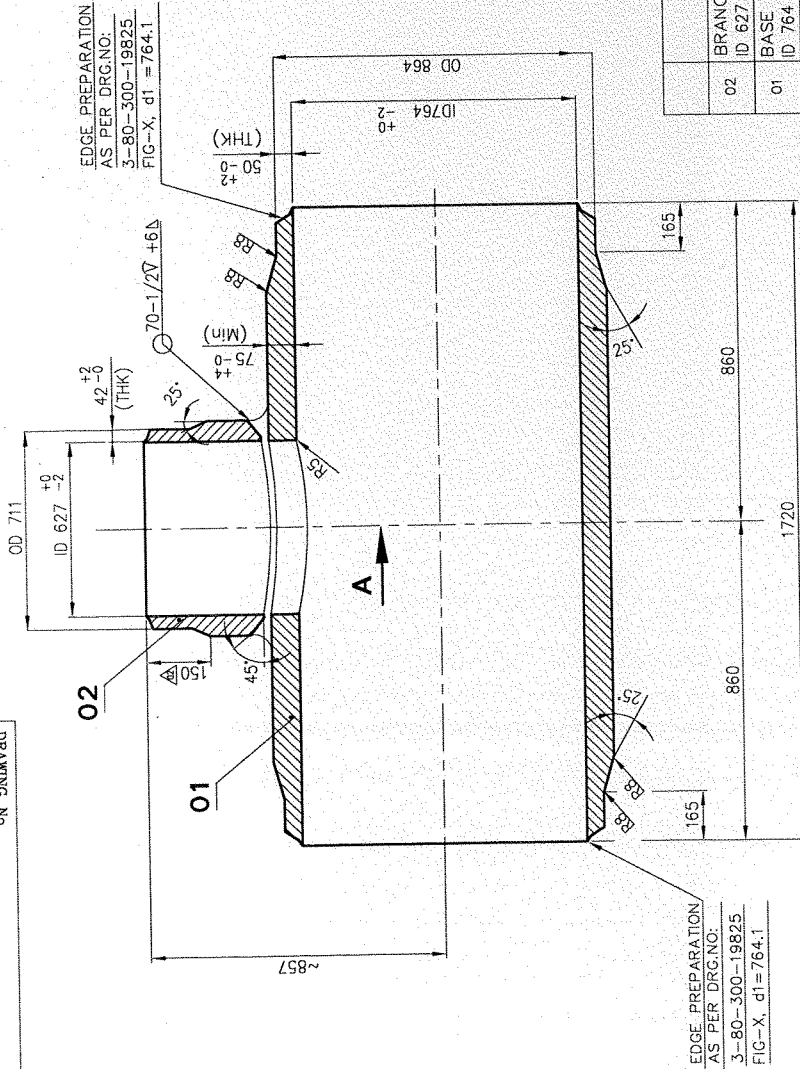
* is an indication that the raw materials and other services for corresponding items shall NOT be sourced from CHINA.

CAUTION
THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY

3-80-310-27187

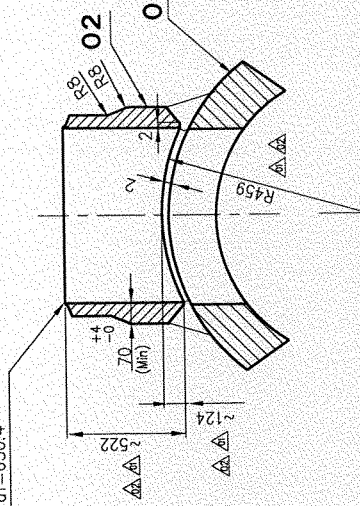
DRAWING No

A



EDGE PREPARATION
AS PER DRG.NO:
3-80-300-19825
FIG-X, d1=764.1

SECTION-AA



NOTES :-

- DESIGN PRESSURE : 68 Kg/Sq.Cm (g)
- DESIGN TEMPERATURE : 60° C
- FOLLOW TDG : 108 LATEST
- ELECTRODES TO BE USED ARE:
a) GTAW : ER80S-B8 (A)
b) SMAW : E9015-B9 (A)
GIVE WPS FOR BHEL'S APPROVAL.
- PIPE SA335P91(A) CAN ALSO BE USED IN PLACE OF SA182F91(A).
- THE STOCK CODE FOR THE FINISHED UEQ. TEE: 925058/70000

EDGE PREPARATION
AS PER DRG.NO:
3-80-300-19825
FIG-X, d1=630.4

EDGE PREPARATION
AS PER DRG.NO:
3-80-300-19825
FIG-X, d1=764.1

ITEM NO.	DESCRIPTION	DRAWING NO.	UNIT WT.	QTY.
02	BRANCH NOZZLE L=524 ID 627 x Thk 70 Min	3-80-310-27187	SA 182 F91	601.312
01	BASE PIPE L = 1720 ID 764 x Thk 75 Min	3-80-310-27187	SA 182 F91	2667.786
			MATERIAL CODE	
			MATERIAL SPEC.	

TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT



BHARAT HEAVY ELECTRICALS LTD.
PIPING CENTRE,
CHENNAI 600 017

REV	DATE	NO OF	SIGN	NAME	DATE	NO OF
02	04.03.11	01	ALIT	SD	07.02.10	01
01	21.02.11	01	ALIT	SD	07.02.10	01

REV	DATE	NO OF	SIGN	NAME	DATE	NO OF
02	04.03.11	01	ALIT	SD	07.02.10	01
01	21.02.11	01	ALIT	SD	07.02.10	01

REV	DATE	NO OF	SIGN	NAME	DATE	NO OF
02	04.03.11	01	ALIT	SD	07.02.10	01
01	21.02.11	01	ALIT	SD	07.02.10	01

REV	DATE	NO OF	SIGN	NAME	DATE	NO OF
02	04.03.11	01	ALIT	SD	07.02.10	01
01	21.02.11	01	ALIT	SD	07.02.10	01

FABRICATED UNEQUAL TEE
(OD864x50/OD711x42) SA182F91

DRAWING No.

3-80-310-27187

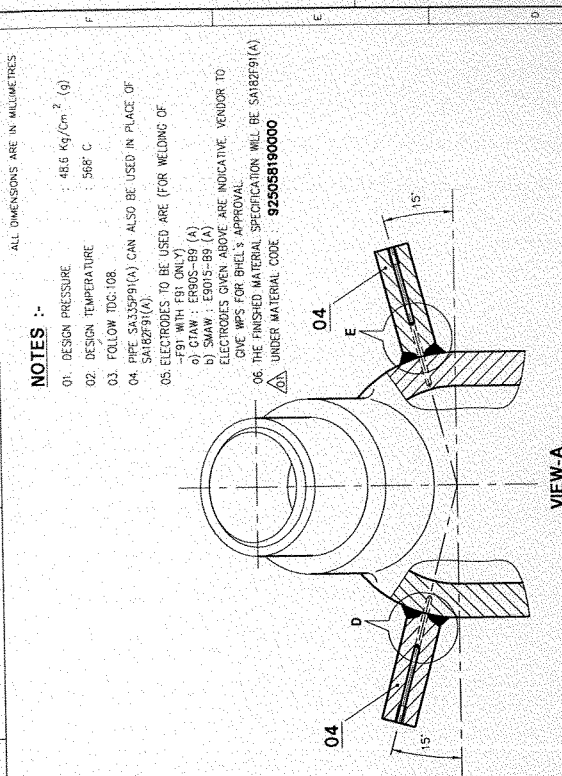
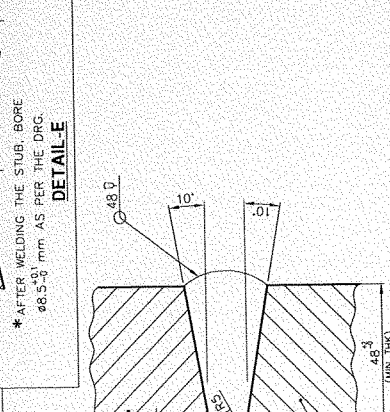
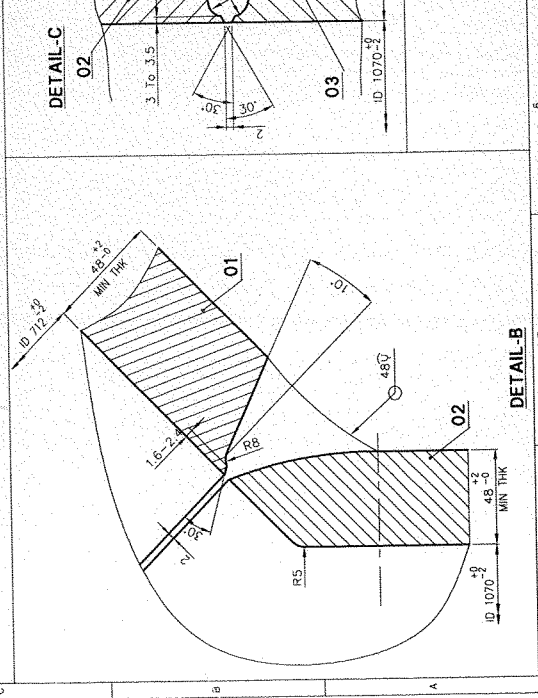
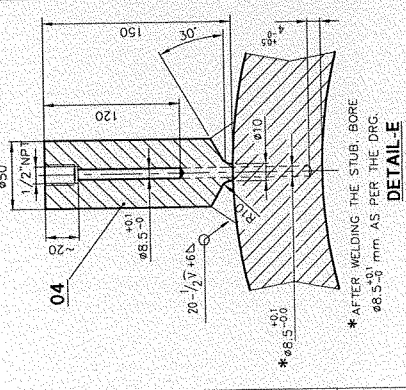
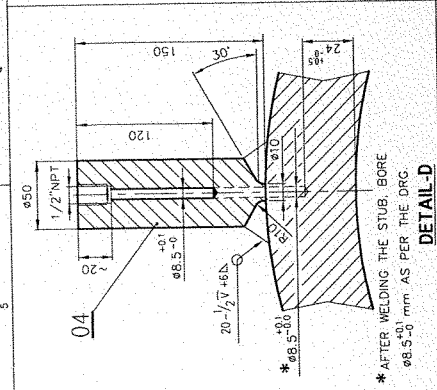
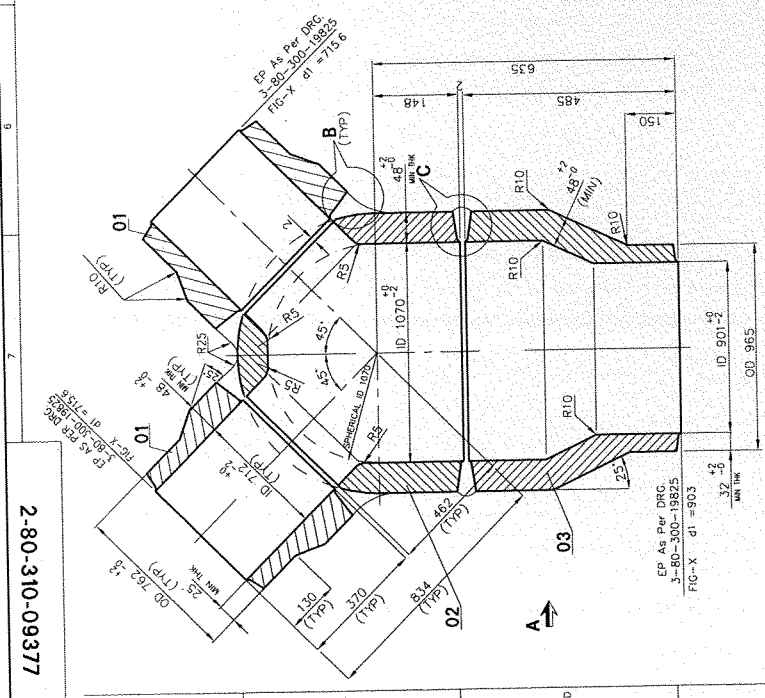
U 01

SIZE A3

2-80-310-09377

05-228/C

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VAR. NO.	ITEM NO.	DESCRIPTION	DRAWING NO.	MATERIAL CODE	A	UNIT WEIGHT	QTY
	01	TEMP. SUB. L=150	2-80-310-09377	SA 182 F22 CL3	A	4.000	
	02	TEMP. SUB. L=150	2-80-310-09377	SA 182 F22 CL3	A	4.000	
	03	TEMP. SUB. L=150	2-80-310-09377	SA 182 F22 CL3	A	4.000	
	04	TEMP. SUB. L=150	2-80-310-09377	SA 182 F22 CL3	A	4.000	
	05	TEMP. SUB. L=150	2-80-310-09377	SA 182 F22 CL3	A	4.000	

NOTES :-

01. DESIGN PRESSURE : 46.6 Kg/cm² (g)

02. DESIGN TEMPERATURE : 568° C

03. FOLLOW TDG: 108

04. PREP. 6315599(A) CAN ALSO BE USED IN PLACE OF SA182F91(A)

05. ELECTRODES TO BE USED ARE (FOR WELDING OF 1) WITH ERNOS-B9 (A)

2) SAW : ERNOS-B9 (A)

3) SAW : ERNOS-B9 (A)

4) SAW : ERNOS-B9 (A)

5) SAW : ERNOS-B9 (A)

6) SAW : ERNOS-B9 (A)

7) SAW : ERNOS-B9 (A)

8) SAW : ERNOS-B9 (A)

9) SAW : ERNOS-B9 (A)

10) SAW : ERNOS-B9 (A)

11) SAW : ERNOS-B9 (A)

12) SAW : ERNOS-B9 (A)

13) SAW : ERNOS-B9 (A)

14) SAW : ERNOS-B9 (A)

15) SAW : ERNOS-B9 (A)

16) SAW : ERNOS-B9 (A)

17) SAW : ERNOS-B9 (A)

18) SAW : ERNOS-B9 (A)

19) SAW : ERNOS-B9 (A)

20) SAW : ERNOS-B9 (A)

21) SAW : ERNOS-B9 (A)

22) SAW : ERNOS-B9 (A)

23) SAW : ERNOS-B9 (A)

24) SAW : ERNOS-B9 (A)

25) SAW : ERNOS-B9 (A)

26) SAW : ERNOS-B9 (A)

27) SAW : ERNOS-B9 (A)

28) SAW : ERNOS-B9 (A)

29) SAW : ERNOS-B9 (A)

30) SAW : ERNOS-B9 (A)

31) SAW : ERNOS-B9 (A)

32) SAW : ERNOS-B9 (A)

33) SAW : ERNOS-B9 (A)

34) SAW : ERNOS-B9 (A)

35) SAW : ERNOS-B9 (A)

36) SAW : ERNOS-B9 (A)

37) SAW : ERNOS-B9 (A)

38) SAW : ERNOS-B9 (A)

39) SAW : ERNOS-B9 (A)

40) SAW : ERNOS-B9 (A)

41) SAW : ERNOS-B9 (A)

42) SAW : ERNOS-B9 (A)

43) SAW : ERNOS-B9 (A)

44) SAW : ERNOS-B9 (A)

45) SAW : ERNOS-B9 (A)

46) SAW : ERNOS-B9 (A)

47) SAW : ERNOS-B9 (A)

48) SAW : ERNOS-B9 (A)

49) SAW : ERNOS-B9 (A)

50) SAW : ERNOS-B9 (A)

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62) SAW : ERNOS-B9 (A)

63) SAW : ERNOS-B9 (A)

64) SAW : ERNOS-B9 (A)

65) SAW : ERNOS-B9 (A)

66) SAW : ERNOS-B9 (A)

67) SAW : ERNOS-B9 (A)

68) SAW : ERNOS-B9 (A)

69) SAW : ERNOS-B9 (A)

70) SAW : ERNOS-B9 (A)

71) SAW : ERNOS-B9 (A)

72) SAW : ERNOS-B9 (A)

73) SAW : ERNOS-B9 (A)

74) SAW : ERNOS-B9 (A)

75) SAW : ERNOS-B9 (A)

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79) SAW : ERNOS-B9 (A)

80) SAW : ERNOS-B9 (A)

81) SAW : ERNOS-B9 (A)

82) SAW : ERNOS-B9 (A)

83) SAW : ERNOS-B9 (A)

84) SAW : ERNOS-B9 (A)

85) SAW : ERNOS-B9 (A)

86) SAW : ERNOS-B9 (A)

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88) SAW : ERNOS-B9 (A)

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91) SAW : ERNOS-B9 (A)

92) SAW : ERNOS-B9 (A)

93) SAW : ERNOS-B9 (A)

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95) SAW : ERNOS-B9 (A)

96) SAW : ERNOS-B9 (A)

97) SAW : ERNOS-B9 (A)

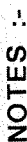
98) SAW : ERNOS-B9 (A)

99) SAW : ERNOS-B9 (A)

100) SAW : ERNOS-B9 (A)

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		BHARAT HEAVY ELECTRICALS LTD. PIPING CENTRE, CHENNAI 600 017		SCALE : N.T.S.		WEIGHT (KG) : 2014.000		DATE : 04-02-08	
DEPT. : C/M/F		GRADE OF PIPE : 10		C/M/F		C/M/F		C/M/F	
REV. : 01		DATE : 06-03-08		APPR. : VENKAT		SIGN. : VENKAT		NO. OF ITEMS : 04-02-08	
NOTE-03 MATERIAL SPECIFICATION REVISED		ALL REVISIONS INDICATED AS		TITLE : Y-PIECE (OD965x32/OD762x25 U 01)		2-80-310-09377		REV. : 01	

DRAWING NO.



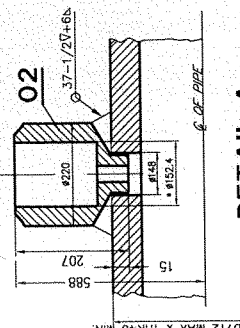
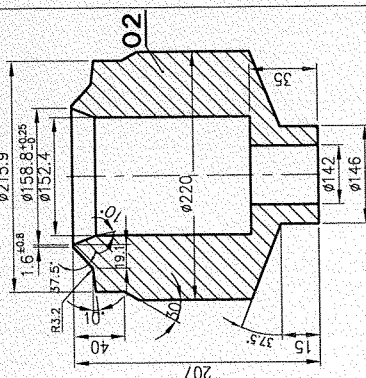
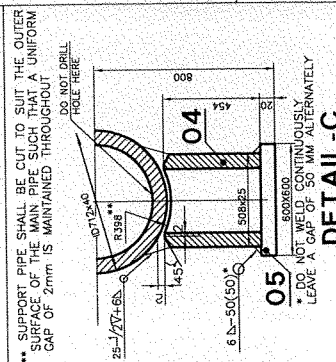
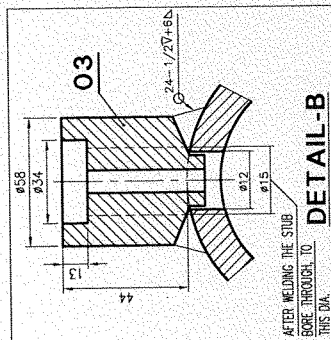
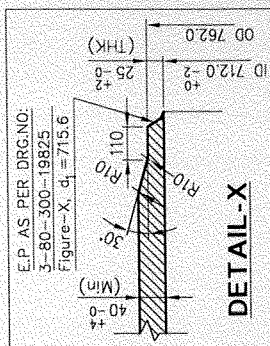
1. DESIGN PRESSURE
2. DESIGN TEMPERATURE
3. FOLLOW TDG : 109

12.5/

MATERIAL SPECN. (A)	ELECTRODE DATA(A)
SAC35P91	FURTHER RUN
SAC35P91	ER90S89 E901569
SAC35P91	ER90S83 E901883
SAC35P22 SA18Z72QJ3	

5. FABRICATION, INSPECTION, TESTING AS PER IBR 1950

7. HARD PUNCH FLOW DIRECTION.
8. THE FINISHED MATERIAL CODE : 925167010000



ITEM NO.	DESCRIPTION	DRAWING NO.	ITEM NO.	MATERIAL CODE	MATERIAL SPEC.	UNIT WT.	QTY.
05	BOTTOM PLATE 20X600X600	3-80-999-97765		15 942 254 0000	C	56.520	
				SA387G372CL2		3	
04	PIPE OD508X25 L=454	3-80-999-97765		15 991 637 0000	C	135.201	
				SA 335 P22		3	
03	ASME B16.11 SW STUB NB25 CL6000	4-80-999-97635		84SWSA84089997635	A	0.810	
				SA 182 F22 CL3		1	
02	SAFETY VALVE STUB F91 OD220/215.9 di=158.8 L207	3-80-999-97765		92 516 673 0000	A	26.000	
				SA 182 F91		3	
01	PIPE ID712XThK 40Min L=6480	3-80-999-97765		15 958 149 6500	A	4793.904	
				SA 335 P91		1	
ITEM NO.	DESCRIPTION	DRAWING NO.	ITEM NO.	MATERIAL CODE	MATERIAL SPEC.	UNIT WT.	QTY.



STANDARD

DEPT.	GRADE OF UN TOL DIM	SCALE	WEIGHT (Kg).	BHEL PO REF. NO.	ITEM No.
CODE	C/M/F		N.T.S. 5447.877		

PIPE ID 712X40 THK
-SA335 P91 WITH STUB

CARD	DRAWING No.
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3-80-999-97765

U 01

SIZE A3