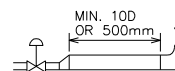


172-C		
METHANATOR HEATER		
	SHELL	TUBE
DES./OPER.TEMP	°C 454/302;316	360/327.9;327.9
DES./OPER.PRESS	kg/cm2G 40/35.4	139.2/126.5
INSULATION/THICK	mm HOT/120	HOT/120
MATERIAL	2.1/4Cr-1Mo	2.1/4Cr-1Mo
DIMENSION (ID SHELLxL)	mm 1000x3000	
SURFACE AREA	m2 123	

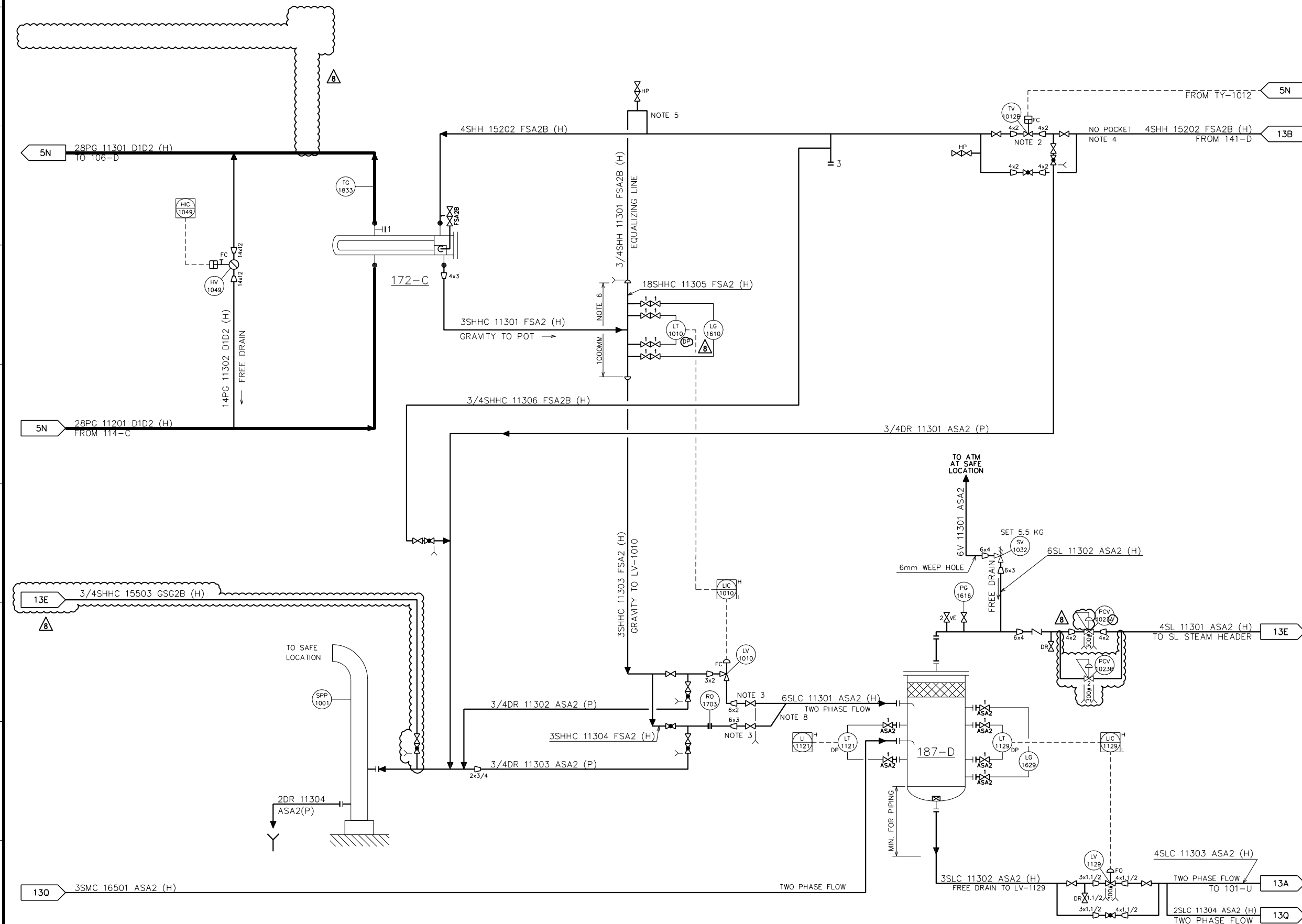
187-D	
HP CONDENSATE FLASH DRUM	
DES./OPER.TEMP	°C 275/153
DES./OPER.PRESS.	kg/cm2G 5.5/4.2
INSULATION/THICK.	mm HOT/80
MATERIAL	CS
DIMENSION (IDx(TL-TL))	mm 492x3350
VOLUME	m3 0.66

## NOTES

- FOR GENERAL NOTES AND SYMBOLS SEE DRAWING 4A, 4B.
- TV-1012B TO HAVE MINIMUM STOP AT 5 PERCENT OPEN BY DCS LOGIC.
- STRAIGHT LENGTH AFTER REDUCER IS MIN. 10 TIMES OF PIPING DIA.



- NO POCKET UP TO TV-1012B.
- PIPING CONNECTION OF EQUALIZING LINE SHALL BE CONNECTED TO THE TOP OF PIPING.
- LOCATE CENTER OF 18" PIPE POT 400MM BELOW BOTTOM TANGENT LINE OF 172-C
- DELETED.
- 45 DEGREES CONNECTION.



8	RE-ISSUED FOR CONSTRUCTION (AFC-3)	TS	ABA	DU	HCB	ANG	HN	US	14/11/13
7	RE-ISSUED FOR CONSTRUCTION (AFC-2)	TS	ABA	DU	HCB	AN	HN	US	29/06/13
6	RE-ISSUED FOR CONSTRUCTION (AFC-1)	TS	ABA	DU	HCB	AN	HN	US	10/06/13
5	ISSUED FOR CONSTRUCTION (AFC)	EB	ABA	DU	BN	AN	SH	US	25/11/12
4	RE-ISSUED FOR APPROVAL (AFD-1)	EB	ABA	DU	BN	LI	SH	US	29/06/12
3	ISSUED FOR APPROVAL (AFD)	EB	ABA	DU	BN	LI	SH	US	22/06/12
2	ISSUED FOR DETAIL DESIGN (AFD-2)	EB	ABA	JAH	YSA	BSP	HAN	SH	14/02/12
REV.	DESCRIPTION	DRWN	DESIGNED	APPROV	DATE	APPROV	DATE	APPROV	DATE

REVISIONS									
PROJECT NAME : KALTIM-5 PROJECT									
2500 MTPD AMMONIA AND 3500 MTPD UREA									
BONTANG, EAST KALIMANTAN, INDONESIA									
CLIENT NAME : PT. PUPUK KALIMANTAN TIMUR									

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PIPING & INSTRUMENT FLOW DIAGRAM  
METHANATOR PREHEATER

SCALE : DWG. NO. K5-01-E1-PD-5N1-T  
DOC. NO. K5-01-E1-PD-015-T SHEET 015/013 REV.8