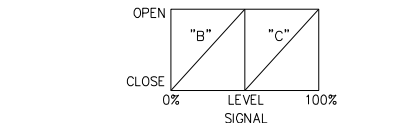
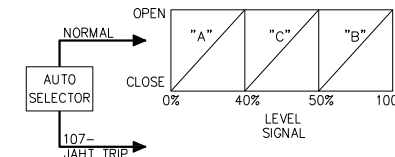


NOTES

- FOR GENERAL NOTES AND SYMBOLS SEE DRAWING 4A, 4B.
- FOR STEAM SIDE PIPING SEE DRAWING 13N.
- "Y" CONNECTION SHALL BE APPLIED.
- RO SHALL BE MULTI STAGE OR MULTI HOLE TYPE.
- REFER TO WRITE-UP BY CONTROL SYSTEMS ENGINEERING FOR INTERLOCK DESCRIPTION.
- LV-1004A,B,C CONTROL SEQUENCE.



- C.S (D1A4X) TO BE APPLIED TO 107-JA/JB/JC DISCHARGE STRAIGHT LINE, BUT ELBOW TO BE SS (D1K0).
- UP TO FIRST ELBOW AFTER MOV.
- NOZZLE TYPE CHECK VALVE.

107-JAHT	
HYDRAULIC TURBINE FOR SEMI-LEAN SOLUTION PUMP	
SEAL PLAN 32	
DES./OPER.TEMP	°C -/84.6
DES./OPER.PRESS	kg/cm2G -/36.26; 9.96
RATED POWER	kW 2833

107-JBT	
TURBINE FOR SEMI-LEAN SOLUTION PUMP	
SEAL PLAN 32	
DES./OPER.TEMP	°C -/385.1
DES./OPER.PRESS	kg/cm2G -/45.9; 3.75
RATED POWER	kW 2779

107-JA/JB/JC	
SEMI LEAN SOLUTION PUMP	
SEAL PLAN 32	
DESIGN CAPACITY	m3/h 2078
SUCT./DISCH.	kg/cm2G 4.07/40.93
HEAD/NPSHR	m 348/-
TYPE OF SEAL	MECH. SEAL
POWER	KW 2526
MAT. CASING/IMPELL.	SCS13A/A890 MGr-5A

REV	DESCRIPTION	DATE	BY	CHK	APP	DATE
1	RE-ISSUED FOR CONSTRUCTION (AFC-3)	14/11/13	ABA	DU	HCH	ANG
2	RE-ISSUED FOR CONSTRUCTION (AFC-2)	29/06/13	ABA	DU	HCH	ANG
3	RE-ISSUED FOR CONSTRUCTION (AFC-1)	10/04/13	ABA	DU	HCH	ANG
4	ISSUED FOR CONSTRUCTION (AFC)	25/01/13	ABA	DU	HCH	ANG
5	RE-ISSUED FOR APPROVAL (AFD-1)	29/06/12	ABA	DU	HCH	ANG
6	ISSUED FOR APPROVAL (AFD)	22/04/12	ABA	DU	HCH	ANG
7	ISSUED FOR DETAIL DESIGN (AFD-2)	14/02/12	ABA	DU	HCH	ANG

PROJECT NAME : KALTIM-5 PROJECT
2500 MTPD AMMONIA AND 3500 MTPD UREA
BONTANG, EAST KALIMANTAN, INDONESIA

CLIENT NAME : PT. PUPUK KALIMANTAN TIMUR

KBR Engineering Services by
KBR Technical Services, Inc.

THIS DOCUMENT/ SOFTWARE CONTAINS TECHNICAL INFORMATION WHICH IS PROPRIETARY TO KALLOD BROWN & ROOT. THIS INFORMATION IS TO BE
HOLD IN CONFIDENCE. NO DISCLOSURE, REPRODUCTION OR OTHER USE OF THIS DOCUMENT IS TO BE MADE WITHOUT THE
PRIOR WRITTEN CONSENT OF KALLOD BROWN & ROOT.

THIS DRAWING EMBODIES PROPRIETARY INFORMATION OF TOYO ENGINEERING CORPORATION
THE DRAWING OF THE MATERIAL DESCRIBED THEREIN MAY NOT BE COPIED OR DISCLOSED
IN ANY FORM OR MANNER TO THIRD PARTIES FOR OTHER THAN THE PURPOSES FOR
WHICH IT HAS BEEN PROVIDED HEREIN OR IN PART IN ANY MANNER EXCEPT AS EXPRESSLY
PERMITTED BY TOYO ENGINEERING CORPORATION.

CONTRACTOR : PT. PUPUK KALIMANTAN TIMUR
TOYO ENGINEERING CORPORATION

CONTRACTOR WORK NUMBER : 10107 / BA096300 / 11-018-01

PIPING & INSTRUMENT FLOW DIAGRAM
SEMI-LEAN SOLUTION PUMPS

SCALE : DWG. NO. K5-01-E1-PD-5AG-T
DOC. NO. K5-01-E1-PD-034-T SHEET 034/073 REV.8