



LEGEND

PLC BASED INSTRUMENT LOCAL, PANEL MOUNTED INSTRUMENT
LOCAL, DIRECT MOUNTED INSTRUMENT REMOTE MOUNTED INSTRUMENT

CSC: CENTRAL CONTROL ROOM
MCC: MOTOR CONTROL CENTRE

PROCESS EQUIPMENT TRIP FUNCTION

LINE CLASSES

1A3 :ANSI 150# RATED SYSTEM, A312 Gr.304 STAINLESS STEEL, MIN. TEMP. :-104°C
3A3 :ANSI 300# RATED SYSTEM, A312 Gr.304 STAINLESS STEEL, MIN. TEMP. :-104°C

GENERAL NOTES

VENTS / TESTING DRAINS TO BE PLACED IN APPROPRIATE POSITIONS BY OTHERS.
I/P'S AND REMOTE OPEN/CLOSE FACILITIES PROVIDED FOR ALL CONTROL VALVES
RUNNING AND FAULT INDICATION PROVIDED FOR ALL MOTORS
ALL PSV AND TSV OUTLETS TO CONNECT INTO TOP OF HEADER

NOTES

1. AIR COOLED CONDENSER WITH 2 BANKS OF 5 FANS & FAN MOTORS.
2. AS HIGH AS POSSIBLE
3. MINIMUM HEIGHT : 300mm
4. PACKAGE SUPPLIED BY YORK
5. NOZZLES ON E-1510 TO BE BLINDED OFF

DESIGN DATA					
ITEM No	SERVICE	INNER D X TAN LENGTH (mm)	DESIGN PRESSURE (bar g)	DESIGN TEMPERATURE (°C)	INSULATION (mm)
V-1518	RELIEUFEACTION RECEIVER	850 X 2700	30	-104/+100	C90
V-1520	REFRIGERANT RECEIVER	600 X 5800	23	-48/+100	N

ITEM No	SERVICE	DUTY (kW)	SHELL SIDE DES. PRESS. / DESIGN TEMP. (bar g/°C)	TUBE SIDE DES. PRESS. / DESIGN TEMP. (bar g/°C)	INSULATION (mm)
E-1510	RELIEUFEACTION CONDENSER	296	25/-48/+120	30/-48/+120	C90
E-1509	DESUPERHEATER	123	20/+3/+100	30/+3/+185	N

ITEM No	SERVICE	REFRIGERATION CAPACITY (kW)	SUCTION PRESSURE (bar a)	DIFFERENTIAL PRESSURE (bar)	DISCHARGE TEMPERATURE (°C)
B-1502	REFRIGERANT COMPRESSOR	325	1.88	18.20	79.2

ITEM No	SERVICE	DUTY (kW)	TUBE SIDE DES. PRESS. / DESIGN TEMP. (bar g/°C)	AMBIENT AIR TEMPERATURE (°C)	FANS ABSORBED POWER (kW)
E-1512	REFRIGERANT CONDENSER	652.3	-25/+100	+3/+47	36

C INDICATES CUSTOMER SCOPE OF SUPPLY, EVTL
Y INDICATES VENDOR SCOPE OF SUPPLY, YORK

REV.	DATE	DESCRIPTION	DRAWN	CHECKED	APPR.
11	05/09/09	AS BUILT			
10		AS BUILT (CR-088)			
09	04/11/08	UPDATED TO CLIENTS COMMENTS (CR-078)	JS	LUC	AGS
08	12/09/08	PI-2316 WAS PIC-2316. PE-2345 WAS PE-415. PP-1106 WAS V-1106. PI-2345 PIC-2320. INSULATION & ARROW ADDED AND BM-1502 REMOVED (CR-086)	JS	JM	MH
07	08/08/08	EVTL VENDOR DATA ADDED (CR-084)	LE	LUC	AGS
06	25/07/08	TAG Nos. REVISED (CR-082)	JH	JM	JGC
05	17/07/08	DRAIN & BLEED ASSEMBLY ADDED (CR-080)	JS	AGS	AGS
04	04/07/08	APPROVED FOR CONSTRUCTION (CR-041 & CR-051)	JS	LUC	AGS
03	14/03/08	APPROVED FOR CONSTRUCTION (CR-025, CR-030 AND CR-032)	JS	LUC	MH
02	20/12/07	UPDATED TO CLIENTS COMMENTS (CR-015)	JS	AGS	AGS
01	19/10/07	POST DESIGN REVIEW / HAZOP (CR-002)	JS	LUC	MH
00	20/07/07	FOR DESIGN REVIEW / HAZOP	JS	LC	AJS

CLIENT: **ENGRO VOPAK TERMINAL LIMITED**

PROJECT: **ETHYLENE STORAGE AND HANDLING FACILITY KARACHI, PAKISTAN**

Excellent Engineering Solutions **WEIR LGE PROCESS** Young House 42 Discovery Terrace Edinburgh EH14 4AP Scotland U.K. Tel. : +44(0)131 317 8787 Fax. : +44(0)131 452 3333 E-mail : info@lgeprocess.com

TITLE: **P&I Diagram REFRIGERATION UNIT**

DRAWING No.	REV.	NEXT SHEET	SCALE	SIZE
07006-PD-10-002-03	11	04	NTS	A1

THIS DOCUMENT IS CONFIDENTIAL. ALL RIGHTS RESERVED. COPYRIGHT © LIQUID GAS EQUIPMENT LTD.
DISTRIBUTION, COPYING OR RETENTION OF THIS DRAWING, WHETHER IN WHOLE OR IN PART AND IRRESPECTIVE OF THE TYPE OF MEDIA ON WHICH IS HELD OR TRANSMITTED, IS PROHIBITED EXCEPT WITH OUR EXPRESS PRIOR WRITTEN CONSENT.