



G-016A/B
HP FLARE K.O DRUM PUMP (NOTE 9,11)

FLOWRATE m3/hr (BPD) : 55 (8303)
DRIVER POWER KW (HP) : 30 (40.2)
DIFF PRESS ΔP bar (PSI) : 5.4 (78.3)
S.G. @ OP OT : 0.84~0.88
FLUID VISCOSITY @ PT CP : 48/8
OP PRESS/DES PRESS barg (PSIG) : 5.5/14.4 (79.8/209)
OP TEMP/DESIGN TEMP °C (°F) : 15~60/93/-3 (59~140/200/27)
TRIM NO. :
UTC NO. : GT-G016A/B-Q15B

GENERAL NOTES:

- FOR STANDARD SYMBOLS AND NOMENCLATURE SEE DRAWINGS 50489-530-020-PID-1104.001 & .002.
- ALL EQUIPMENT NUMBERS SHOWN ON THIS P&ID ARE PREFIXED BY 530-.
- ALL INSTRUMENT NUMBERS SHOWN ON THIS P&ID ARE PREFIXED BY 030-.
- FOR TYPICAL INSTRUMENT CONNECTION SBOV, XV, MOV AND ESDV DETAILS SEE DRAWINGS 50489-530-020-PID-1106.001, .002, .003, .004, .006 & .007.
- FOR MISCELLANEOUS PIPING TYPICAL VALVING, DRAINAGE AND GENERAL ARRANGEMENT OF LEVEL INSTRUMENTS, PUMPS & CONTROL VALVES SEE DRAWING 50489-530-020-PID-1108.001 TO 1108.010.
- DRAWING NUMBERS SHOWN IN P&ID CONTINUATION BOXES ARE ABBREVIATED SHOWING DRAWING SEQUENTIAL NUMBERS ONLY. THE FULL FORM OF THE DRAWING NUMBER IS 50489-530-020-PID-XXXX.SHT. NO.
- FOR MATERIAL SELECTION DIAGRAM SEE DRAWINGS 50489-530-020-MSD-1001.001 TO 1023.
- DETAIL NUMBERING FOR CI, SC, CC & CP SEE DRAWING 50489-530-020-PID-1108.003.
- PAINTING & COATING ARE IN ACCORDANCE WITH KOC-P-001.
- LOW POINT DRAIN & HIGH POINT VENT ARE PROVIDED AS PER PIPING LAYOUT.
- FOR CAUSE & EFFECT REFER DOC. NO. 50489-530-020-PHL-1009.
- FOR ALARM VALUES REFER DOC. NO. 50489-530-020-SUM-1006.

NOTES:

- DELETED.
 - DELETED.
 - FLARE LINES ARE SLOPED AND NO POCKET TO FACILITATE DRAINING TO LOW POINT DRAIN/FLARE K.O DRUM.
 - * MARKED ITEM IS SUPPLIED BY HP FLARE VENDOR.
 - THERMAL MASS FLOW METER WITH 1 1/2" BALL VALVE.
 - INLET AND OUTLET PIPING TO AND FROM HP FLARE K.O DRUMS IS SYMMETRICAL.
 - DUPLEX STRAINERS WITH FULLY PIPED DRAINAGE TO DRAIN SYSTEM ALSO.
 - DELETED.
 - HP FLARE PUMPS ARE ON EMERGENCY POWER SUPPLY ALSO.
 - LAHH INITATES LEVEL 2 SHUTDOWN ONLY WHEN LAHH-0594 & 0595 COMES SIMULTANEOUSLY OTHERWISE, JUST AN ALARM.
 - ONE PUMP OPERATING AND ONE PUMP ON STAND-BY.
 - FALL-0596B LOGIC CAN INITIATE LEVEL-4 SHUTDOWN ONLY WHEN K.O DRUM PUMPS (G-016A/B) ARE IN RUNNING CONDITION (TIME DELAY 45 SEC). EXPECT THIS DURATION FALL-0596B LOGIC SHALL BE INACTIVATED.
 - STRAIGHT LENGTH REQUIREMENT FOR THERMAL MASS FLOW METER ARE 10D UPSTREAM & 5D DOWNSTREAM.
 - STRAIGHT LENGTH REQUIREMENT FOR ORIFICE FLOW METER ARE 20D UPSTREAM & 5D DOWNSTREAM.
- | HP FLARE K.O DRUM V-016A | HP FLARE K.O DRUM V-016B | LOGIC | PUMP START/STOP | SSLS/ESD |
|--------------------------|--------------------------|-----------------------|---------------------------|----------|
| HLL1 | HLL1 | ONE OF HLL1 ACTUATED | DUTY PUMP STARTS | SSLS |
| HLL2 | HLL2 | ONE OF HLL2 ACTUATED | STANDBY PUMP STARTS | SSLS |
| LLL | LLL | ONE OF LLL ACTUATED | STANDBY PUMP STOPS | SSLS |
| LLL | LLL | BOTH OF LLL ACTUATED | STANDBY & DUTY PUMP STOPS | SSLS |
| LLLL | LLLL | BOTH OF LLLL ACTUATED | STANDBY & DUTY PUMP TRIP | ESD |
- PURGE POINT.
 - BLEED POINT.
 - LINE NUMBER OF LINE GOING TO HP FLARE STACK F-029A & F-029B ARE SAME AS 56"-BD-1534-C15B1. LINE NUMBER OF LINE GOING TO HP FLARE STACK F-029B CHANGED AS 56"-BD-1302-C15B1 AFTER MOV-2590 (PID-50489-530-020-PID-1180.006).
 - STANDBY PUMP SHALL AUTO START IF DUTY PUMP FAILS TO START ON DEMAND.
 - DCS INDICATION NOT ALARM.
 - END CAP SHALL BE PROVIDED.

Z1	ISSUED FOR AS-BUILT	BAK/SSI	AKG	SRA	RAK	21.11.18
Z0	ISSUED FOR AS-BUILT	BAK/SSI	AKG	SRA	RAK	20.09.18
01	ISSUED FOR CONSTRUCTION	BAK/SSI	AKG	SRA	RAK	21.11.16
0	ISSUED FOR CONSTRUCTION	PAK/VSA	AKG	SRA	RAK	31.03.16
C	ISSUED INCORPORATED CLIENT COMMENTS	BAK/VSA	AKG	SRA	RAK	28.10.15
OC	ISSUED INCORPORATED CLIENT COMMENTS	BAK/SSI	AKG	SRA	RAK	02.06.15
B	ISSUED INCORPORATED CLIENT COMMENTS	BAK/VSA	AKG	SRA	RAK	18.02.15
A	ISSUED FOR APPROVAL	JSI/ABY	AKG	SRA	RAK	12.12.14
REV.	DESCRIPTION	DRAWN	CHECKED	HOD	PEM	DATE

CONTRACTOR REVISION

KUWAIT OIL CO.
K. S. C.
شركة نفط الكويت
ش.م.ك.
A Subsidiary of Kuwait Petroleum Corporation

CONTRACTOR DETAILS:-
LARSEN & TOUBRO LIMITED
FARIDABAD

PROJECT TITLE:-
NEW GATHERING CENTRE GC-30
IN NORTH KUWAIT

DOCUMENT TITLE:-
PIPING & INSTRUMENTAION DIAGRAM
HP FLARE K.O DRUM (V-016A/B)

PROJECT NO.	CONTRACTOR DRG. NO.	DRAWING NO.	REV.	KOC DRG. NO.	REV.
EF1902	50489-530-020-PID-1179	Z1			
	SHEET NO. 1 OF 1				
	COMPANY DRG. NO.	REV.			
	EF1902-530-DCO-PID-0179.001	A3			
	SHEET NO.				