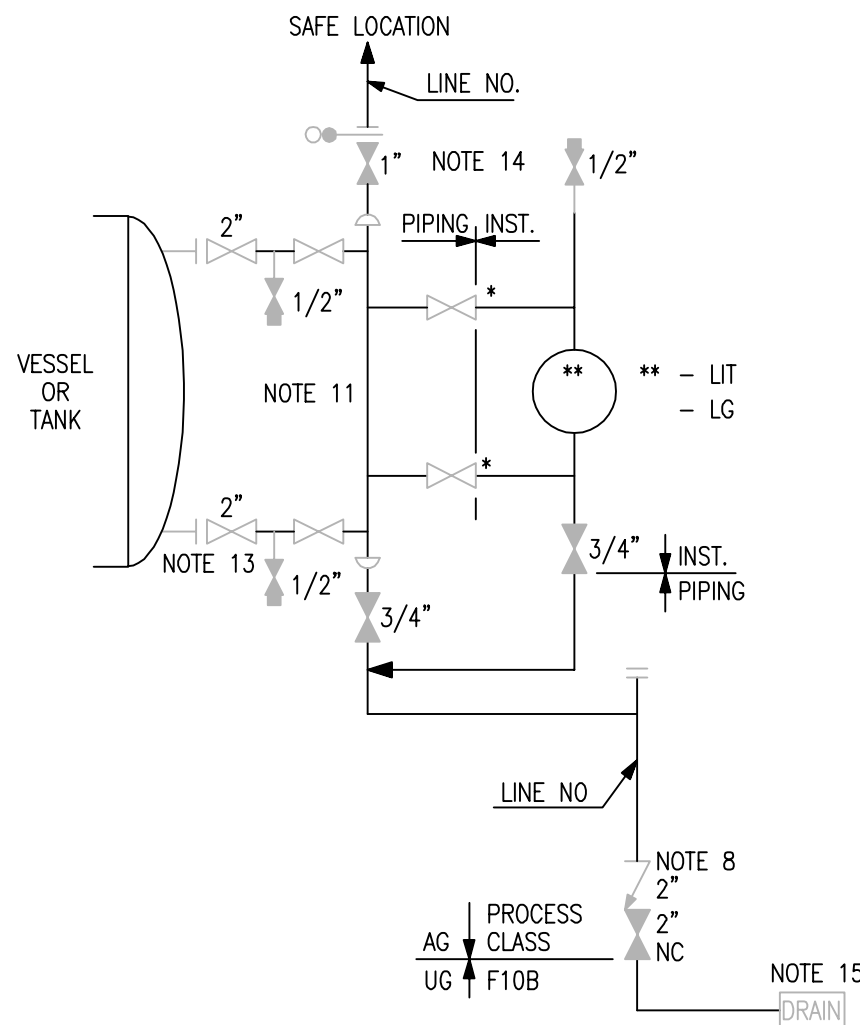


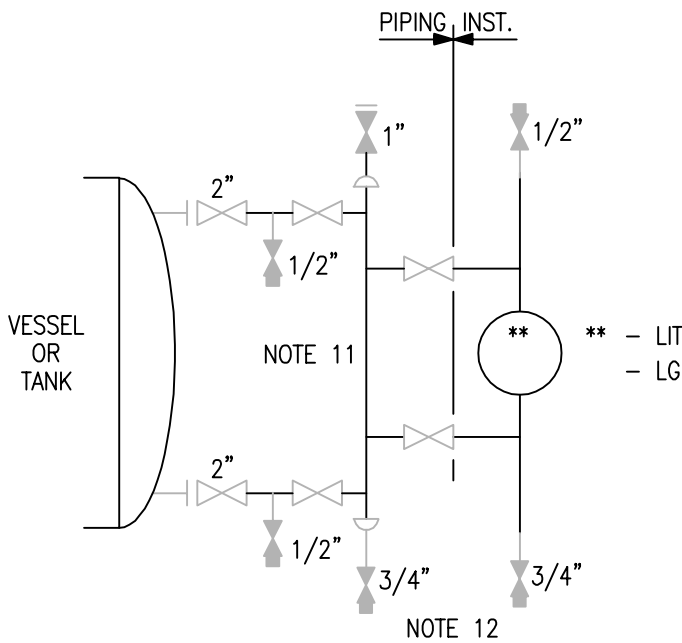
LEVEL INSTRUMENT VENT & DRAIN (NOTE 4, 7, 9)

TYPE "A" (LEVEL BRIDLE WITH STAND PIPE) – HYDROCARBON LIQUID SERVICE



\* INSTRUMENT CONNECTION  
A. LEVEL GAUGE (LG) : 1"  
B. LT (D/P CELL TYPE) : 3/4"  
C. LT (DISPLACEMENT TYPE) : 2"

TYPE "B" (LEVEL BRIDLE WITH STAND PIPE) – NON-HYDROCARBON LIQUID SERVICE



\* INSTRUMENT CONNECTION  
A. LEVEL GAUGE (LG) : 1"  
B. LT (D/P CELL TYPE) : 3/4"  
C. LT (DISPLACEMENT TYPE) : 2"

GENERAL NOTES:

1. ALL INSTRUMENT TAG NUMBERS ARE PREFIXED BY 030- WHICH IS NOT SHOWN ON P&ID'S.
2. INSTRUMENTS SYMBOLOGY IS IN ACCORDANCE WITH ANSI/ISA SECTION 5-1 & 5-2 & IS SHOWN ON DWG. 50489-530-020-PID-1104.002.
3. INSTRUMENT CONNECTIONS ARE TYPICAL ONLY. DETAILS ARE MODIFIED TO MATCH RELEVANT PIPING SPECIFICATION. ONLY LINE CLASS PIPING VALVES ARE SHOWN ON P&ID'S. FOR INSTRUMENT ISOLATION VALVES REFER TO INSTRUMENT HOOK-UP DRAWINGS.
4. TYPICAL LEVEL BRIDLE SHOWING ISOLATION VALVES, VENTS & DRAINS. ALL DETAILS ARE MODIFIED TO MATCH TO RELEVANT PIPING SPECIFICATION LINE CLASS VALVES ARE INDICATED, INSTRUMENT VALVE ARE NOT SHOWN.
5. THE PIPING MATERIAL CLASSES FOR VESSEL NOZZLE & INSTRUMENT ARE SAME AND MINIMUM 300# MATERIAL CLASS AS PROCESS CONDITION.
6. THE PIPING MATERIAL CLASSES FOR STAND PIPE ARE SAME OR HIGHER MATERIAL CLASS AS PROCESS CONDITION.
7. LEVEL GAUGES IN DIRTY SERVICE (CRUDE, EFFLUENT WATER) FOR TANKS, SEPARATORS AND DESALTERS ARE MAGNETIC REFLECTOR TYPE.
8. CHECK VALVE IS INSTALLED HORIZONTAL.
9. LEVEL BRIDLE LOWER CONNECTION IS ONLY LOCATED ON THE CYLINDRICAL SHELL SIDE OF VESSEL.
10. FIRST DRAIN ISOLATION VALVE ARE FITTING TO FITTING. (MINIMUM DISTANCE) FROM HEADER OR PIPE TO REDUCE DEAD LEG CORROSION.
11. STAND PIPE SIZES ARE AS PER LEVEL SKETCHES.
12. DRAIN IS EXTENDED UP TO THE GRADE LEVEL WITH ISOLATION & PLUG.
13. NOZZLE SIZE ARE MINIMUM 2" 300# UNLESS OTHERWISE SPECIFIED IN P&ID.
14. FOR TOXIC & HYDROCARBON SERVICE, LEVEL BRIDLE VENT HARD PIPE TO BE ROUTED TO SAFE LOCATION.
15. STAND PIPE DRAIN ARE CONNECTED TO CLOSED PRESSURIZED DRAIN SYSTEM FOR FUEL GAS INLET K.O. DRUM (V-031) ONLY.
16. FOR LEVEL INSTRUMENT DRAIN LINE NUMBER, REFER PID-1113.001 TO PID-1113.009.

AS-BUILT
KOC APPROVAL
NAME / KOC No:
DESIGNATION :
GROUP / TEAM :
SIGNATURE :
DATE :

AS-BUILT
LARSEN & TOUBRO LIMITED
NAME : VAIBHAV VERMA
DESIGNATION : AGM
SIGNATURE :
DATE : 05-Aug-2018
DEPT/ DIVISION : ENGINEERING

Z0	ISSUED FOR AS-BUILT	BAK/SSI	AKG	SRA	DER	05.08.18
01	ISSUED FOR CONSTRUCTION	BAK/SSI	AKG	SRA	DER	15.12.16
0	ISSUED FOR CONSTRUCTION	PAK/ABY	AKG	SRA	RAK	27.04.16
D	ISSUED INCORPORATED CLIENT COMMENTS	BAK/ABY	AKG	SRA	RAK	31.12.15
C	ISSUED INCORPORATED CLIENT COMMENTS	BAK/ABY	AKG	SRA	RAK	28.10.15
0C	ISSUED INCORPORATED CLIENT COMMENTS	BAK/ABY	AKG	SRA	RAK	08.09.15
B	ISSUED INCORPORATED CLIENT COMMENTS	JSI/VSA	AKG	SRA	RAK	20.01.15
A	ISSUED FOR APPROVAL	JSI/VSA	AKG	SRA	RAK	24.11.14
REV.	DESCRIPTION	DRAWN	CHECKED	HOD APPRD.	PEM	DATE

CONTRACTOR REVISION



CONTRACTOR DETAILS:-  
 LARSEN & TOUBRO LIMITED  
FARIDABAD

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

DOCUMENT TITLE:-  
PIPING & INSTRUMENTATION DIAGRAM  
LEVEL INSTRUMENT VENT & DRAIN

PROJECT NO.	DRAWING NO.			
EF1902	CONTRACTOR DRG. NO.	REV.	KOC DRG. NO.	REV.
	50489-530-020-PID-1108.008	Z0		
	SHEET NO. 8 OF 20		SHEET NO.	
	COMPANY DRG. NO.	REV.		
	EF1902-530-DCO-PID-0109.004	A1		
	SHEET NO.			