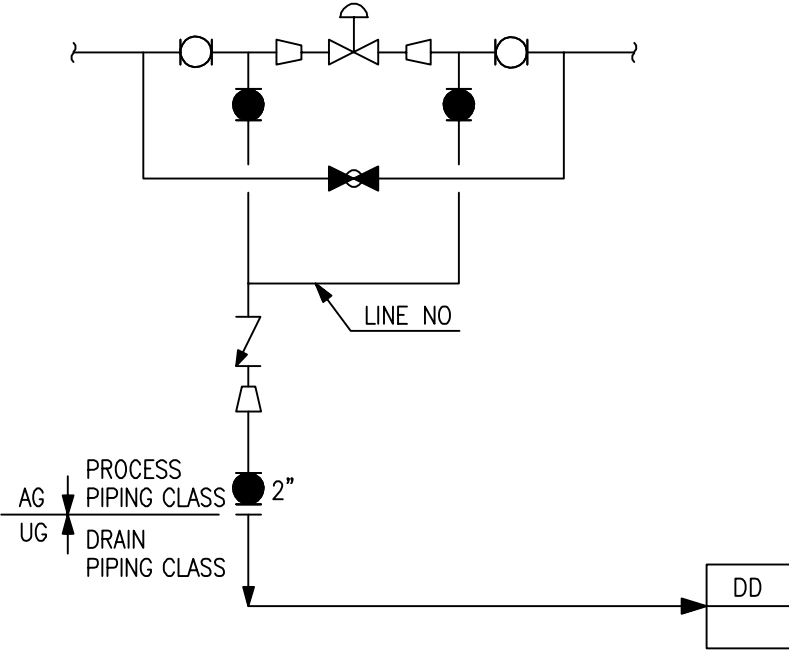
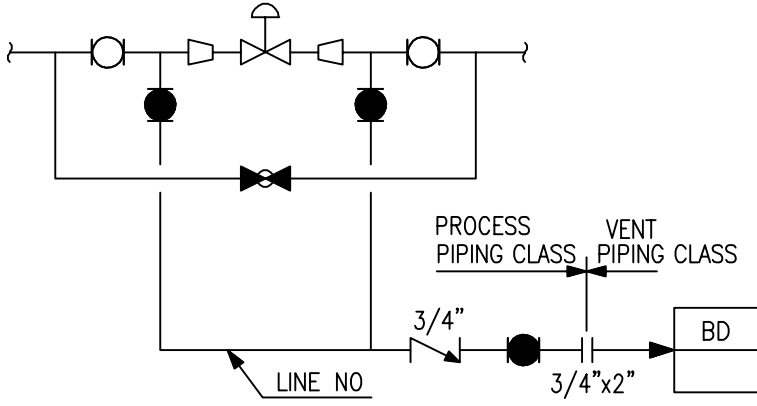
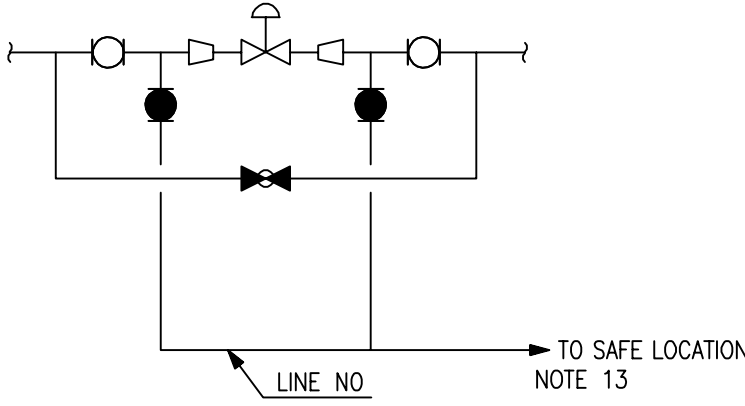
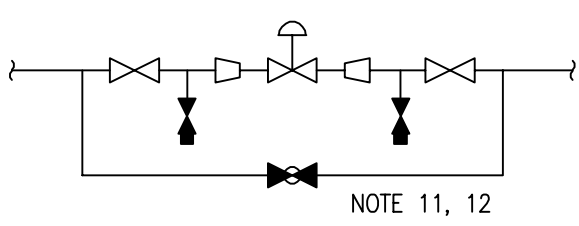
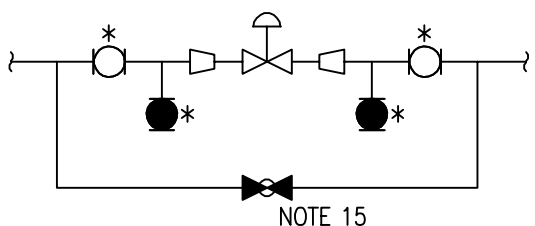
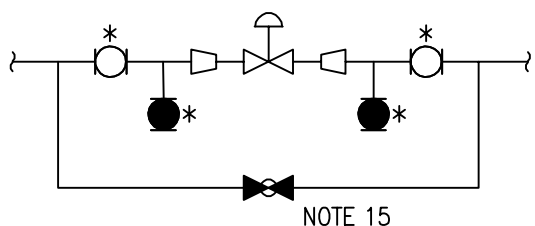
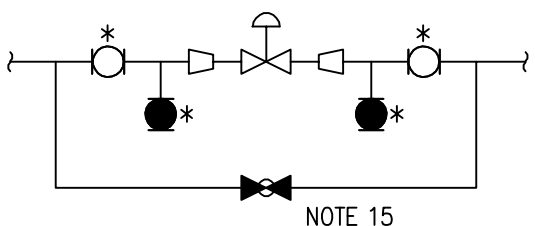
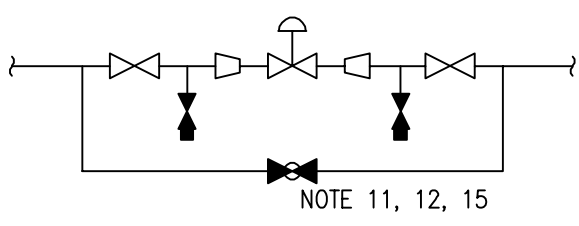
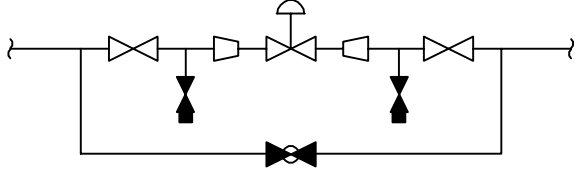
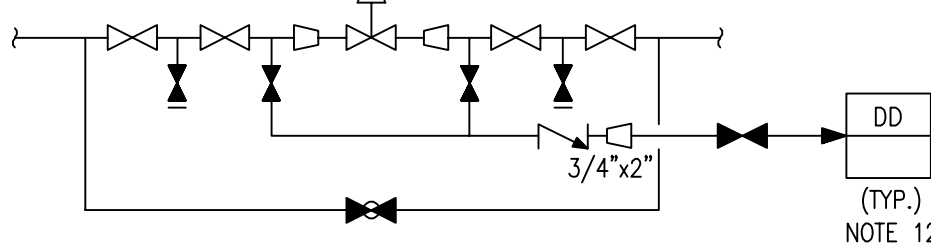
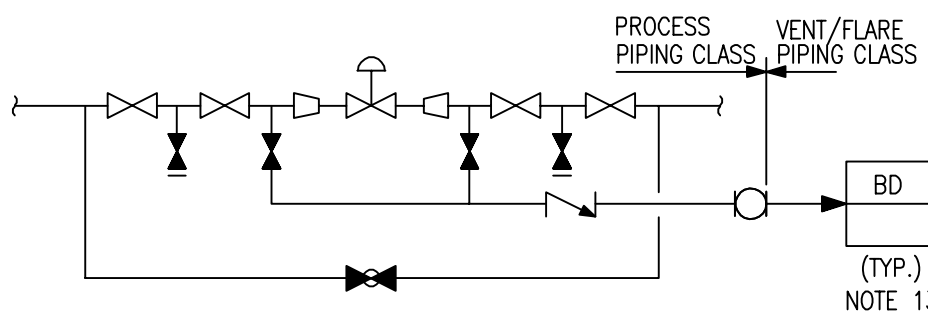
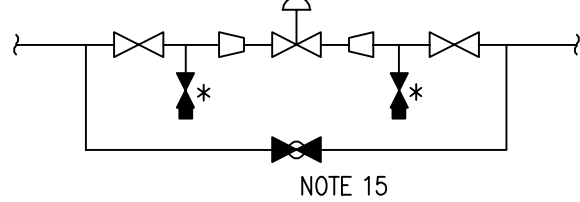
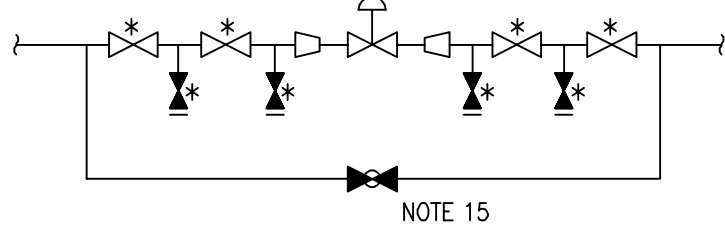
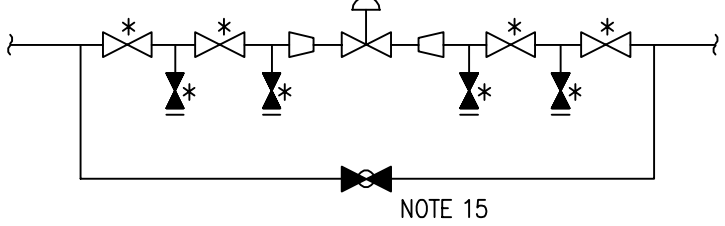


CONTROL VALVE VENT & DRAIN			
TYPE "A" (HYDROCARBON LIQUID SERVICE)	TYPE "B" (HYDROCARBON VAPOUR SERVICE/FUEL GAS SERVICE)	TYPE "C" (FLARE SERVICE)	TYPE "D" (WATER SERVICE)
<div>DETAILED</div> 			
AS SHOWN P&ID FOR TYPE A	AS SHOWN P&ID FOR TYPE B	AS SHOWN P&ID FOR TYPE C	AS SHOWN P&ID FOR TYPE D
			
* TYPE & SIZE OF VALVES AS PER P&ID	* TYPE & SIZE OF VALVES AS PER P&ID	* TYPE & SIZE OF VALVES AS PER P&ID	
TYPE "E" (AIR SERVICE)	TYPE "F" LIQUID SERVICE	TYPE "G" (DOUBLE BLOCK & BLEED ARRANGEMENT FOR HYDROCARBON VAPOUR SERVICE/FUEL GAS SERVICE)	
			
AS SHOWN P&ID FOR TYPE E	AS SHOWN P&ID FOR TYPE F	AS SHOWN P&ID FOR TYPE G	
			
* TYPE & SIZE OF VALVES AS PER P&ID	* TYPE & SIZE OF VALVES AS PER P&ID	* TYPE & SIZE OF VALVES AS PER P&ID	

## GENERAL NOTES:

- ALL INSTRUMENT TAG NUMBERS ARE PREFIXED BY 030- WHICH IS NOT SHOWN ON P&ID'S.
- INSTRUMENTS SYMBOLOGY IS IN ACCORDANCE WITH ANSI/ISA SECTION 5-1 & 5-2 AND IS SHOWN ON DWG. 50489-530-020-PID-1104.002.
- HYDROCARBON VENTS AND DRAINS FROM LEVEL INSTRUMENTS AND CONTROL VALVES ARE CONNECTED TO THEIR RESPECTIVE DISPOSAL SYSTEMS.
- DELETED.
- FOR CONTROL VALVE VENT AND DRAIN RELATIVE TO FIRE FIGHTING, REFER FIRE FIGHTING SYSTEM P&ID'S.
- DELETED.
- FIRST DRAIN ISOLATION VALVE IS FITTING TO FITTING. (MINIMUM DISTANCE) FROM HEADER OR PIPE TO REDUCE DEAD LEG CORROSION.
- HYDROCARBON SERVICE - BALL VALVES  
NON-HYDROCARBON SERVICE - GATE VALVES UNLESS WHERE SPECIFIED ON P&ID'S.
- DELETED
- DRAIN IS EXTENDED UP TO THE GRADE LEVEL.
- BRACKISH WATER AND TREATED WATER CONTROL VALVE STATION DRAIN IS NOT CONNECTED TO CLOSED NETWORK (DD).
- VENT VALVE OF CONTROL VALVE USED IN FLARE SERVICE ARE ROUTED TO SAFE LOCATION WITHOUT ANY CHECK VALVE AND ARE NOT CONNECTED TO ANY CLOSED SYSTEM.
- DBB PHILOSOPHY FOR CONTROL VALVE STATION ARE AS PER PHILOSOPHY DOC. NO. 50489-530-020-PHL-1003.
- CONTROL VALVE BYPASS SIZE & REQUIREMENT FOR ISOLATION VALVE FOR GLOBE VALVE IS AS PER P&ID.
- FOR CONTROL VALVE DRAIN LINE NUMBER, REFER PID-1108.015 TO PID-1108.017.

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/ DIVISON : ENGINEERING

REV.	DESCRIPTION	DRAWN	CHECKED	HOD	PEM	DATE
Z0	ISSUED FOR AS-BUILT	SHH/SSI	AKG	SRA	DER	05.08.18
01	ISSUED FOR CONSTRUCTION	SHH/SSI	AKG	SRA	DER	23.12.16
0	ISSUED FOR CONSTRUCTION	PAK/ABY	AKG	SRA	RAK	27.04.16
D	ISSUED INCORPORATED CLIENT COMMENTS	BAK/ABY	AKG	SRA	RAK	04.01.16
C	ISSUED INCORPORATED CLIENT COMMENTS	BAK/ABY	AKG	SRA	RAK	28.10.15
0C	ISSUED INCORPORATED CLIENT COMMENTS	BAK/ABY	AKG	SRA	RAK	05.06.15
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

## CONTRACTOR REVISION



CONTRACTOR DETAILS:-  
**LARSEN & TOUBRO LIMITED**  
FARIDABAD

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

DOCUMENT TITLE:-  
**PIPING & INSTRUMENTATION DIAGRAM**  
**CONTROL VALVE VENT & DRAIN**

PROJECT NO.	DRAWING NO.		
EF1902	CONTRACTOR DRG. NO.	REV.	KOC DRG. NO.
	50489-530-020-PID-1108.010	Z0	
	SHEET NO. 10 OF 20	REV.	SHEET NO.
	COMPANY DRG. NO.		
	EF1902-530-DCO-PID-0109.005	A2	
	SHEET NO.		