

1. UNIT IDENTIFICATION NUMBER

PLANT NO. & ABBREVIATION	PLANT DESCRIPTION	UNIT NO.	UNIT DESCRIPTION	ABBREVIATION
120 : 2	COMPRESSOR STATION	1	PROCESS	21
120 : 2	COMPRESSOR STATION	2	UTILITY	22
120 : 2	COMPRESSOR STATION	3	FIRE WATER	23

2. GENERAL NOTES

- 2.1 GENERAL NOTES**
- THE SIMPLIFY ROUTING OF PROCESS FLOW LINES, SOME PIECES OF EQUIPMENT MAY APPEAR IN MORE THAN ONE PLACE ON THE FLOW DIAGRAM EQUIPMENT SO DUPLICATED WILL BE INDICATED BY DASHED LINES.
 - INSTRUMENT IDENTIFICATION AS ILLUSTRATED ARE BASED ON IPS-E-PR-230 AND THE INSTRUMENT SOCIETY OF AMERICA STANDARDS S.5.1 AND S.5.3.
 - WHEN NECESSARY PIPING AND / OR EQUIPMENT SYMBOLS MAY BE INCLUDED AS PART OF AN INSTRUMENT LOOP.
 - DIMENSION FROM CENTER OF LC BALLON TO TANGENT LINE OR BOTTOM OF HORIZONTAL VESSEL INDICATES NOMINAL LEVEL.
 - DIMENSION UNDER LC BALLON INDICATES FLOAT RANGE.
 - DIMENSION UNDER LS BALLON INDICATES VISIBLE GLASS LENGTH.
 - DIMENSION UNDER LS BALLON INDICATES POINT OF ACTUATION OF LS UNIT ABOVE TANGENT LINE OR BOTTOM OF HORIZONTAL VESSEL.
 - PIPING COMPONENTS NOT IDENTIFIED BY INSTRUMENT OR MECHANICAL EQUIPMENT, NUMBER, ETC. AND NOT COVERED BY THE PIPING MATERIAL SPECIFICATION, ARE IDENTIFIED BY SPECIAL ITEM NUMBER.
 - ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFICALLY NOTED.
 - HIGH POINT VENTS AND LOW POINT DRAINS USED FOR HYDRAULIC TEST PURPOSES ONLY SHALL BE PROVIDED BUT ARE NOT SHOWN ON THE P & ID. VENT FOR HYDRAULIC TEST PURPOSE SHALL BE PROVIDED ONLY FOR 2" AND LARGER LINE.
 - PROVIDE DOUBLE ISOLATION VALVES (BALL VALVES AND BLEED VALVES) FOR VENT PURPOSES FOR HYDROPHOBIC SERVICES WHICH ARE BEING TEST DRAINING FOR 300# PIPING AND UNDER ONE SINGLE BALL VALVE FOR ALL GAS SYSTEMS. VENTS AND DRAINS USE DOUBLE ISOLATION BALL VALVE FOR ALL CLASSES FOR RELIEF VALVE BYPASS, IN CLASS OF 600# AND HIGHER, DOUBLE ISOLATION VALVE (SINGLE BALL VALVE + GLOBE VALVE) FOR 300# AND UNDER ONE SINGLE BALL VALVE.
 - ALL DRAINS TO ATMOSPHERE ARE BALL VALVE WITH CAP, FOR ALL CLASS RATING, FOR PIPING CLASS 600# AND HIGHER USE DOUBLE BLOCK VALVES FOR 2" AND HIGHER.
 - VALVED VENT SHALL BE INSTALLED AT VAPOR POCKET OF 1 1/4" AND LARGER LIQUID LINE.
 - VALVE DRAIN ON SUCTION PIPING OF PUMP EXCEPT CLEAN SERVICE SHALL BE LEAD VALVE WITH EXTENDED TAIL PIPE FLANGED AT END OR FLANGED WITH SPECTACLE BLIND INSERTED AS SHOWN.
 - ALL CLOSED PRESSURE RELIEF VALVE DISCHARGE LEADS SHALL BE FREE DRAINING FROM PRESSURE RELIEF VALVE TO THE TOP OR SIDE OF THE DISCHARGE HEADER.
 - 9MM WEEP HOLES ARE PROVIDED AT LOW POINTS OF PRESSURE RELIEF VALVE AND RAPTURE DISC DISCHARGING TO ATMOSPHERE.
 - DEFINITIONS :

(1) FREE DRAINING : LINE TO BE ROUTED TO A POINT DESIGNATED WITH NO LIQUID POCKET AND NO VAPOR POCKET IN THE LINE.



(2) SLOPED LINE : ELEVATION CHANGES ARE CONTINUOUSLY DOWNWARD INLET, NO POCKETS ARE FORMED, SPECIFIC SLOPES REQUIRED ARE SHOWN BY SYMBOL.



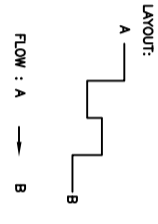
(3) NO LIQUID POCKET : NO LIQUID POCKET IN THE LINE.



(4) NO VAPOR POCKET : NO VAPOR POCKET IN THE LINE.



(5) GRABTY FLOW : ELEVATION DOWNSTREAM NEVER EXCEED INLET ELEVATIONS, LINE MAY CONTAIN LIQUID POCKETS AND VAPOR POCKETS.



2.2 ABBREVIATIONS

- 2.2.1 VALVE & CONTROL VALVE**
- BDV : BLOWDOWN VALVE
 - BV : BALL VALVE
 - CAO : CLOSE-AUTOMATIC-OPEN
 - CC : CABLE CONTROL
 - CHV : CHECK VALVE
 - CO : CHAIN OPERATED
 - CSG : CAR SEALED CLOSED
 - CSO : CAR SEALED OPEN
 - D : DRAIN
 - ESDV : EMERGENCY SHUTDOWN VALVE
 - FB : FULL BORE
 - FC : FAIL CLOSED (CLOSE ON MINIMUM SIGNAL TO VALVE ACTUATOR)
 - FOV : FLOW CONTROL VALVE
 - FD : FLEX DISC VALVE
 - FL : FAIL LOCKED
 - FLC : FAIL LOCKED CLOSED, VALVE POSITION DOES NOT CHANGE ON LOSS OF ACTUATING MEDIUM SUPPLY.
 - FLO : FAIL LOCKED OPEN, VALVE POSITION DOES NOT CHANGE ON LOSS OF ACTUATING MEDIUM SUPPLY.
 - FO : FAIL OPEN (OPENS ON MINIMUM SIGNAL TO VALVE ACTUATOR)
 - FP : FULL PORT
 - GM : GEAR OPERATED AND MOTORIZED VALVE
 - GO : GEAR OPERATED VALVE
 - IW : INSULATED VALVE
 - HW : HOT INSULATED VALVE
 - LBV : LINE BREAK VALVE
 - LC : LOCKED CLOSED
 - LCV : LEVEL CONTROL VALVE
 - LO : LOCKED OPEN
 - MOV : MOTOR OPERATED VALVE
 - NC : NORMALLY CLOSED
 - NO : NORMALLY OPEN
 - NV : NEEDLE VALVE
 - ORB : ORBIT VALVE
 - OV : OPERATING VALVE
 - P : PLUGGED
 - PCV : PRESSURE REGULATOR/ PRESSURE CONTROL VALVE
 - PMA : POST INDICATOR VALVE
 - PSE : RUPURE DISK ASSEMBLY (PRESSURE SAFETY EQUIPMENT)
 - PSV : PRESSURE SAFETY RELIEF VALVE
 - PSV : PRESSURE / VACUUM VALVE
 - SR : SPLIT RANGE
 - SS : SOFT SEAT VALVE
 - ST : STELLITE VALVE
 - T : TRAP
 - TCV : TEMPERATURE CONTROL VALVE
 - TSO : TIGHT SHUT-OFF VALVE
 - V : VENT
 - WR(U) : WACKETED PLUG VALVE
 - WV : WARNING VALVE
 - X : TYPE 316 STAINLESS STEEL TRIM VALVE
 - XV : MULTIMATERIAL FINAL ELEMENT (ON/OFF VALVE)
 - XX : 18-8 STAINLESS STEEL TRIM VALVE
- 2.2.2 PIPING**
- CS : CARBON STEEL
 - DN : DIAMETER NOMINAL
 - FF : FLAT FACE
 - FS : FORGED STEEL
 - GA : GALVANIZED
 - GRP : GLASS REINFORCED PLASTIC
 - HB : HAMMER BLIND
 - IC : INSULATED COLD
 - IH : INSULATED HOT
 - IS : INSULATED FOR PERSONNEL PROTECTION
 - PB : PRESSURE BLIND
 - PN : PRESSURE NOMINAL
 - PRV : PRESSURE REGULATOR VALVE

- 2.2.3 OTHERS**
- RF : RAISED FACE
 - RS : REMOVABLE SPOOL
 - RSP : RING SPACER
 - RUI : RING TYPE JOINT
 - SB : SPECTACLE BLIND
 - SO : SLIP ON
 - SPB : SPRADE BLIND
 - SS : STAINLESS STEEL
 - SW : SOCKET WELD
 - VB : VAPOR BLIND
 - WN : WELD NECK
 - W/G : ABOVE GROUND
 - B.L : BATTERY LIMIT
 - COF : CENTER OF FLOW
 - OP : DESIGN PRESSURE
 - ELEV : ELEVATION
 - EM : EMERGENCY VENT
 - F : FURNISHED
 - F&P : FURNISHED & PIPED
 - GH : GAUGE HATCH
 - HILL : HIGH HIGH LIQUID LEVEL
 - HIPS : HIGH INTEGRITY PRESSURE PROTECTION SYSTEM
 - HIL : HIGH INTERFACE LIQUID LEVEL
 - HLL : HIGH LIQUID LEVEL
 - IJ : ISOLATION JOINT
 - LF : LIQUID FLOW
 - LL : LOW INTERFACE LIQUID LEVEL
 - LLL : LOW LIQUID LEVEL
 - LLL : LOW LOW LIQUID LEVEL
 - MH : MANHOLE
 - NIL : NORMAL INTERFACE LIQUID LEVEL
 - NIL : NORMAL LIQUID LEVEL
 - NIF : NORMALLY NO FLOW
 - P : PRESSURE
 - P & ID : PIPING & INSTRUMENTATION DIAGRAM
 - PB : PUSH BUTTON
 - PRD : PROCESS FLOW DIAGRAM
 - PO : PUMP OUT
 - PTC : PRESSURE TEST CONNECT
 - PV : PROCESS VARIABLE
 - RES : RESIDUE
 - RG : REFRIGERANT GAS
 - RL : REFRIGERANT LIQUID
 - RO : RESTRICTION ORIFICE
 - RS : REMOVE SETPOINT
 - RTD : RESISTANCE TEMPERATURE DETECTOR
 - RVP : RED VAPOR PRESSURE
 - SC : SAMPLE CONNECTION
 - SC : SAMPLE COOLER
 - SF : SOLUTION FLOW
 - SO : SIGHT GLASS
 - SP : SET POINT
 - SP. GR. : RELATIVE MASS DENSITY (SPECIFIC GRAVITY)
 - T/L/TL : TANGENT TO TANGENT
 - TW : THERMO-WELL
 - TX : SKIN TEMPERATURE
 - TXE : SKIN T/C ELEMENT
 - UC : UTILITY CONNECTION
 - URD : UTILITY FLOW DIAGRAM
 - U/G : UNDER GROUND
 - VB : VORTEX BREAKER
 - IAS : INSTRUMENT AIR SUPPLY
 - CC/CP : CORROSION PROB AND COUPON
 - CT : CORROSION TRANSMITTER
 - ZS : PIG SIGNALER
 - ZI : PIG INDICATOR

NOTES

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REFERENCE DRAWING

NO.	DATE	DESCRIPTION

KEY PLAN

NO.	DATE	DESCRIPTION

NO.	DATE	DESCRIPTION	BY	DATE	BY	DATE

PROJECT NAME: BINAQ OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION

PROJECT NO.: 071000

EPIC CONTRACTOR: PETROBRAN DEVELOPMENT COMPANY

EPD/EPIC CONTRACTOR (GC): PETROBRAN DEVELOPMENT COMPANY

DRIVING TITLE: Symbols & Legends For P&ID and P&ID

SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.	REV.	DATE
AS	A3	IK-03-TRICO-180-PI-0001	1 OF 8	004		

3. EQUIPMENT

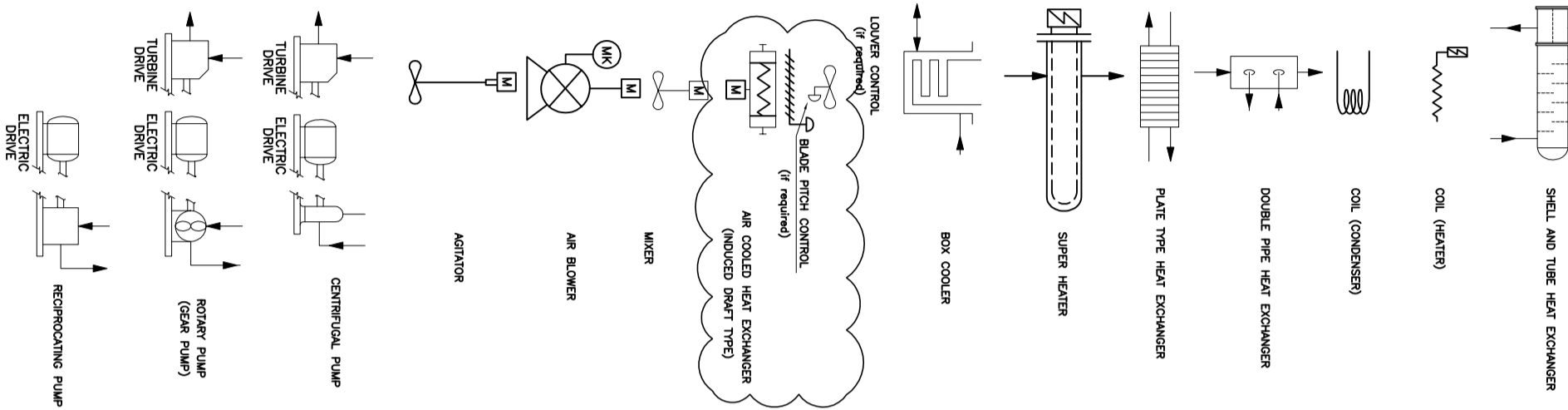
NOTES

3.1 EQUIPMENT NUMBERING

AA	BCDD	E
AA	EQUIPMENT CODE	
	EQUIPMENT	
AE	ARCOOLER	AE
C	COMPRESSOR	C
LC(OP)	CONTROL PANEL	LC(OP)
D	DIESEL ENGINE	D
E	EXCHANGER SHELL-AND TUBE, DOUBLE PIPE, PLATE, COIL, AIR COOLED, REBOILER, BOX COOLER, CASCADE COOLER, SURFACE CONDENSER, BAROMETRIC CONDENSER, WASTE-HEAT BOILER	E
FA	FAN	FA
F	FILTER	F
FS(SST)	FLARE STACK	FS(SST)
GT	GAS TURBINE	GT
H	HEATER, FRED, FURNACE	H
HI	HOIST	HI
HH	HOSE HOUSE	HH
HR	HOSE REEL	HR
IG	IGNITION PACKAGE	IG
N(OHR)	INDOOR HOSE REELS	N(OHR)
M	MOTOR ELECTRIC	M
OH(OHR)	OUTDOOR HOSE REELS	OH(OHR)
PK	PACKAGE UNIT	PK
PL	PIG LAUNCHER	PL
PD	PULSATION DAMPNER	PD
P	PUMP	P
SC	SCALE, WEIGHING, MEASURING	SC
SI	SILENCE, MUFFLER	SI
SE	STACK, CHIMNEY	SE
ST(STR)	STRAINER	ST(STR)
SU	SUMP	SU
TK	TANK, SILO, HOPPER	TK
T	TOWER, COLUMN	T
UL	UNLOADER	UL
V	VESSEL (SCRUBBER, ACCUMULATOR, K.O. DRUM, SPHERE, BULLET, SEPARATOR)	V

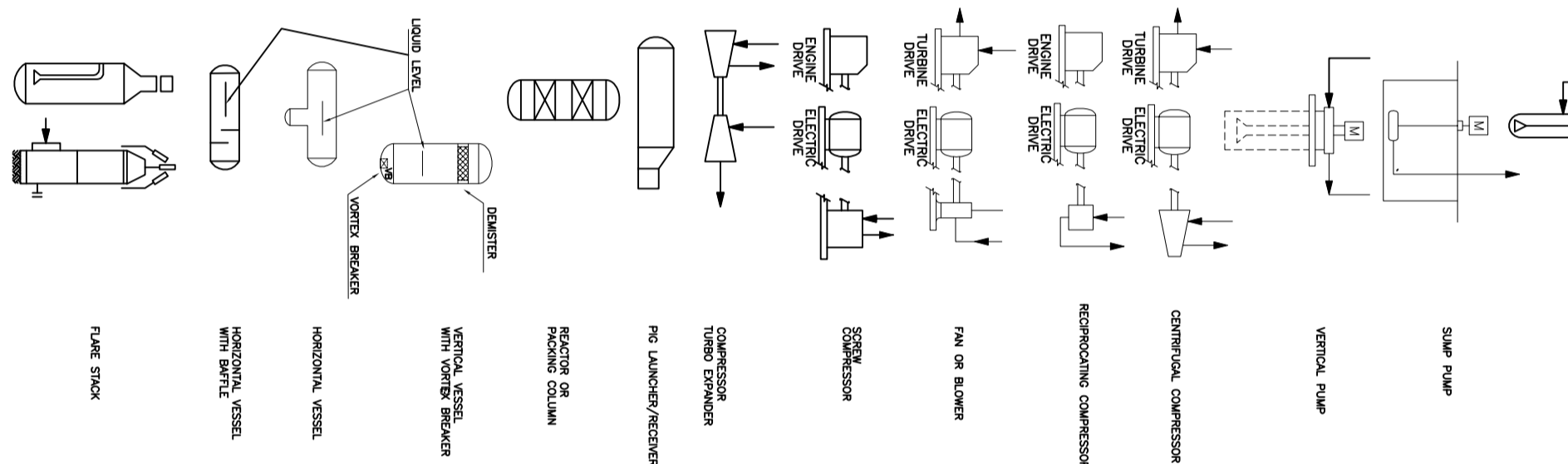
3.2 SYMBOL

DESCRIPTION



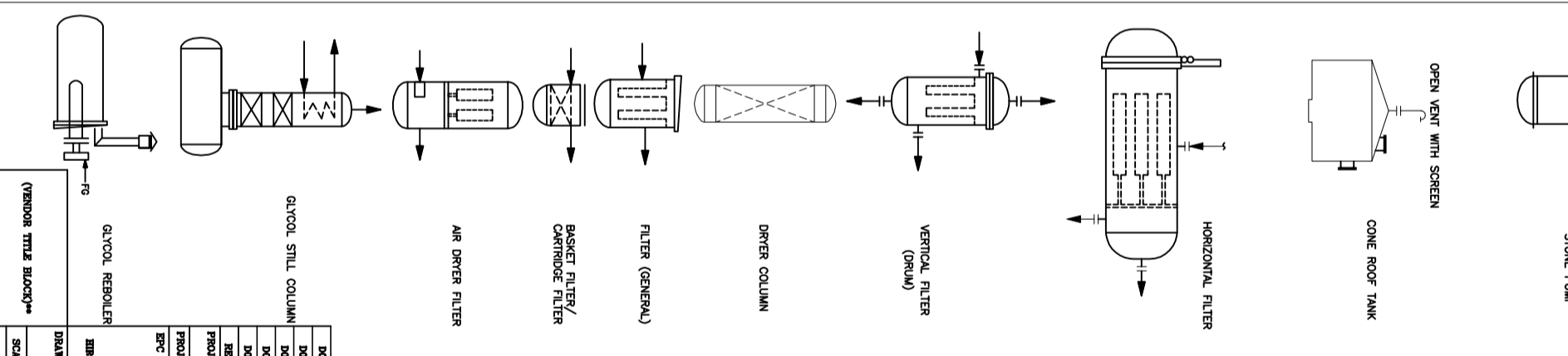
SYMBOL

DESCRIPTION



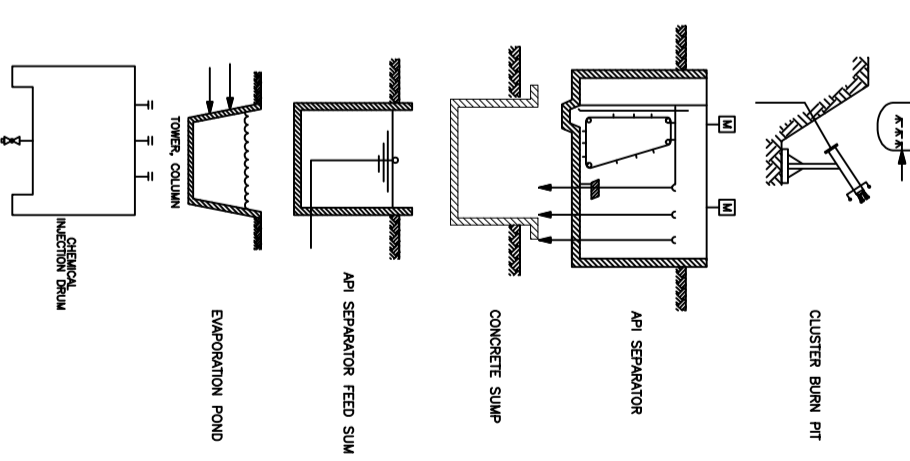
SYMBOL

DESCRIPTION



SYMBOL

DESCRIPTION



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REFERENCE DRAWING

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004	APR 2023	APC	XXXXXXXXXX	XXXXXXXXXX					
003	NOV 2022	APC	XXXXXXXXXX	XXXXXXXXXX					
002	MAR 2022	IPA	XXXXXXXXXX	XXXXXXXXXX					
001	JAN 2022	IPA	XXXXXXXXXX	XXXXXXXXXX					
000	OCT 2021	IPC	XXXXXXXXXX	XXXXXXXXXX					

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES
 PRODUCT NAME: GAS COMPRESSOR STATION
 PROJECT NO.: PT1000

EPC CONTRACTOR: **BRISQAN** PETROBRAN DEVELOPMENT COMPANY
 ESD/PEC CONTRACTOR (GC): **PBDCO**

DRAWING TITLE: Symbols & Legends For PFD and P&ID

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AS	A3	IK-QS-PRDCO-180-PR-PI-0001	2 OF 8	004		

4.1.1 LINE NUMBERING

AAA - XXX - YYY - ZZZZ - D" - CC(1)
 (1) - (2) - (3) - (4) - (5) - (6)
 (1) FLUID IDENTIFICATION CODE
 CODE DESCRIPTION

- A. AIR SYSTEM
 - ISA INSTRUMENT AIR
 - PLA PLANT AIR
- B. BLOWDOWN & PUMP OUT SYSTEM/EFFLUENT DISPOSAL
 - BDN BLOW DOWN
 - CB0 CONTINUOUS BLOW DOWN
 - IBD INTERMITTENT BLOW DOWN
- C. DRAIN (SEWER) SYSTEM
 - CB8 CONCRETE DRAIN BOX
 - CBH CLOSED DRAIN HEADER
 - CSW CHEMICAL SEWER
 - CV CHEMICAL DRAIN PIT
 - DBP DRAIN PIT
 - NSW NON OILY WATER SEWER
 - OPD OPEN DRAIN
 - OSW OILY WATER SEWER
 - SSW SANITARY WATER SEWER
 - Y DRAIN FUNNEL (GENERAL)
- D. FLARE SYSTEM AND VENT
 - ATM ATMOSPHERE
 - FL FLARE (NORMAL)
 - HPL HIGH PRESSURE FLARE
 - LPL LOW PRESSURE FLARE
- E. FUELS
 - FLO FUEL GAS / PURE GAS
 - FLO FUEL OIL
 - NG NATURAL GAS
 - DO DIESEL OIL
- F. SPECIAL GAS SYSTEM
 - AR AIR (DRYING SERVICE)
 - FLG FLE GAZ
 - NT NITROGEN
- G. SPECIAL CHEMICAL AND SOLVENT SYSTEM
 - CHM CHEMICALS
 - MEL METHANOL
- I. WATER SYSTEM
 - FVA FIRE WATER
 - OWA OILY WATER
 - PRW PROCESS WATER
 - PWV POTABLE WATER
 - PWA PLANT WATER
 - RWA RAW WATER
- K. PROCESS SERVICE
 - QAS GAS
 - QSO GAS OIL
 - HCB HYDROCARBON
 - PRO PROCESS FLUID
 - REG RECYCLE GAS
 - SLP SLOP
 - CRD CRUDE OIL
 - TEG TETRATHIENE GLYCOL

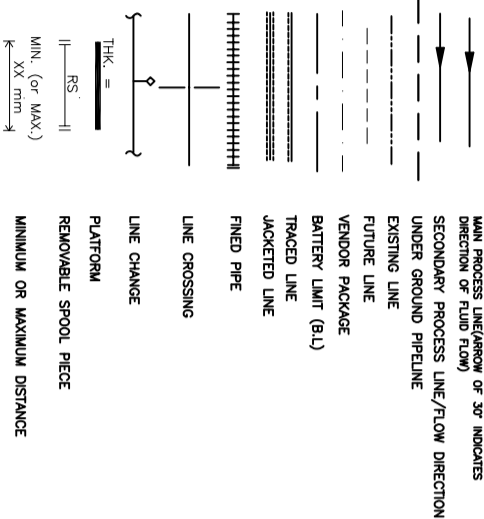
4.1.2 TRIM NUMBERING

AAA - XXX - YYY - ZZZZ - D" - CC(1)
 (1) TRIM LINE CODE
 CODE DESCRIPTION
 TRM TRIM LINE

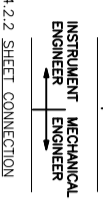
- (2) EQUIPMENT TAG
 - (3) PIPING SERIAL NUMBER
 - (4) PIPING CLASS CODE
 - (5) CODE OF INSULATION OR HEATH TRACING:
- SAME AZ CODE OF INSULATION OR HEATH TRACING CODE AT LINE NUMBERING

4.2 SYMBOLS

4.2.1 LINE SYMBOL

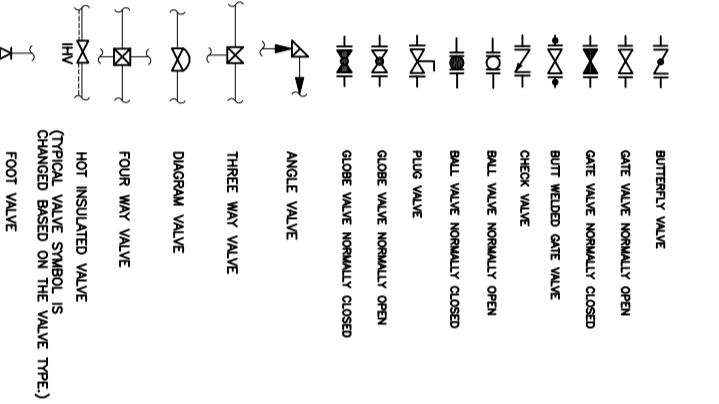


4.2.2 SHEET CONNECTION

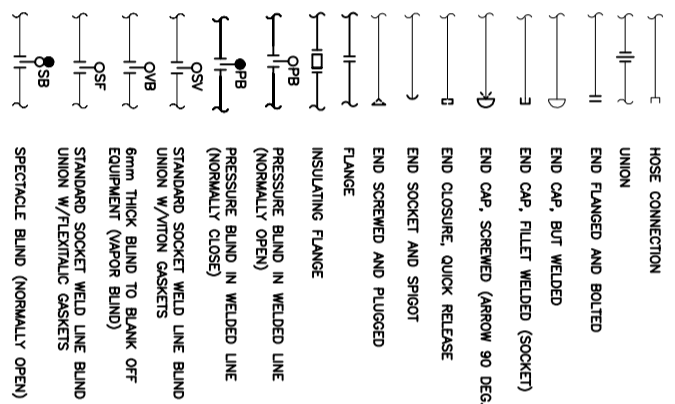


- (1) PROCESS/UTILITY LINES
- (2) INSTRUMENT SIGNAL LINE
- (3) INSTRUMENT OR EQUIP. NO. TO/FROM INSTRUMENT OR EQUIP. NO. TO/FROM B.L.
- (4) BIRD SCREEN
- (5) ISOLATION JOINT
- (6) TRAP

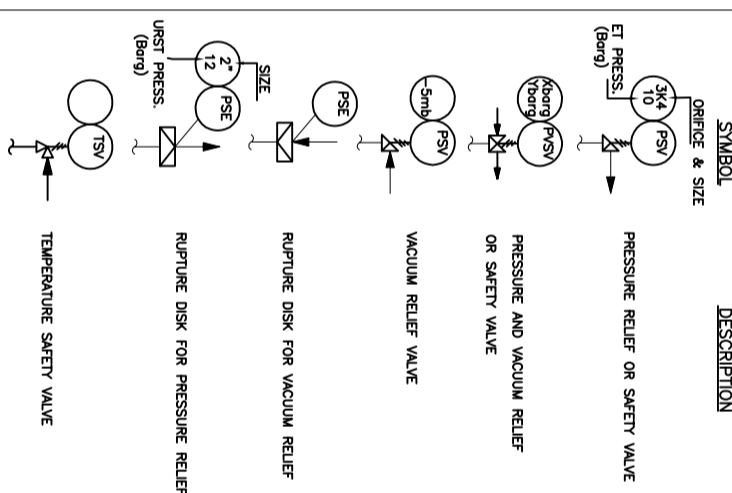
4.2.3 VALVE SYMBOL



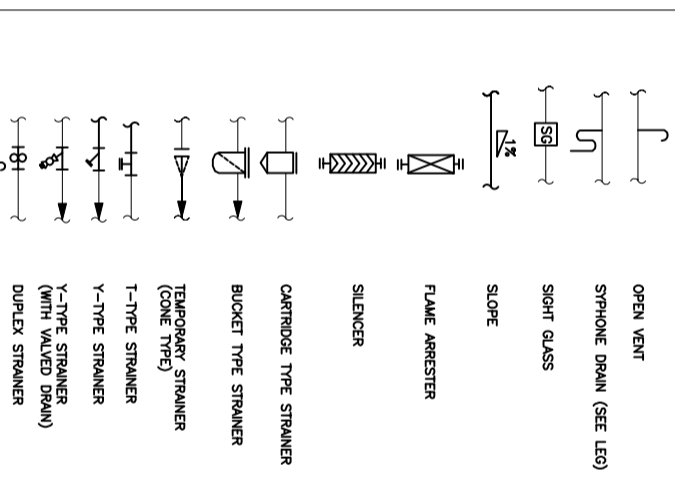
4.2.4 PIPE FITTING SYMBOL



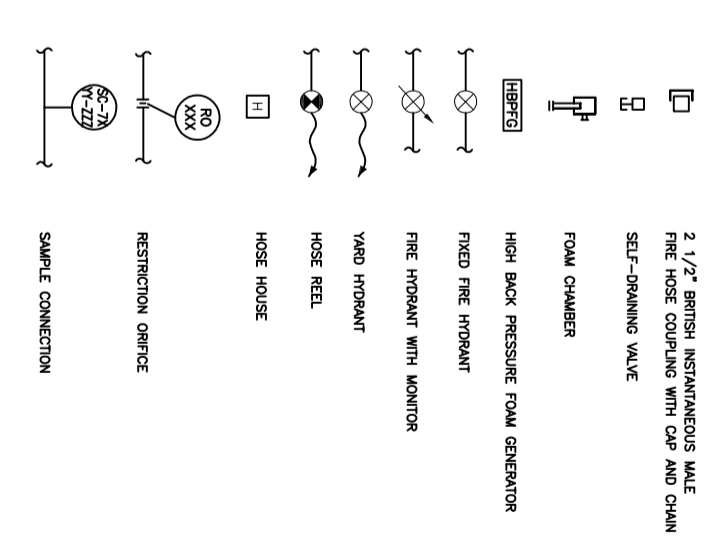
4.2.5 PRESSURE RELIEF VALVE SYMBOL



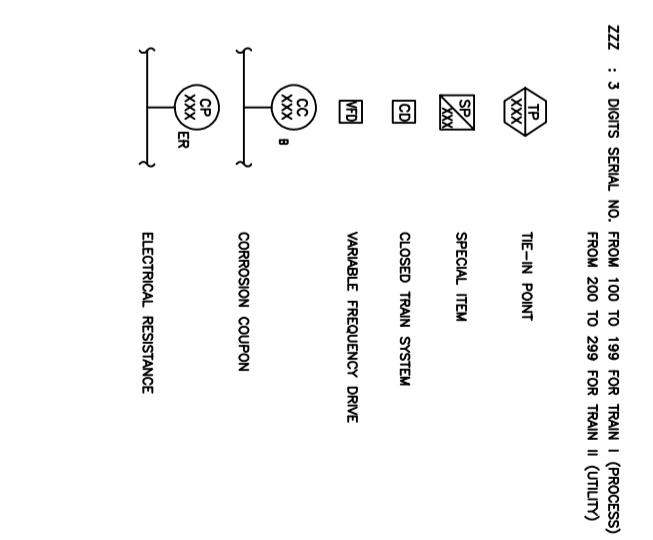
4.2.6 MISCELLANEOUS SYMBOL



LEGEND



KEY PLAN



REV.	DATE	DESCRIPTION	BY	CHECKED	DATE	BY	DATE
004	APR 2025						
003	NOV 2025						
002	MAR 2025						
001	MAR 2025						
000	OCT 2024						

REV.	DATE	DESCRIPTION	BY	CHECKED	DATE	BY	DATE
004	APR 2025						
003	NOV 2025						
002	MAR 2025						
001	MAR 2025						
000	OCT 2024						

FIG.	DESIGN SYMBOL	FIG. C.A.	FIG. M.E.	FIG. EOR.	FIG. NON-METAL.	FIG. PIPE	FIG. MATERIAL	FIG. TYPE
0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7

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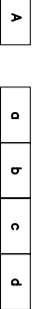
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5. INSTRUMENT

NOTES

1- ALL ESD VALVES ARE SPRING RETURN TYPE.

5.1 INSTRUMENT NUMBERING



- A : INSTRUMENT TYPE ASPER SECTION 5.3
- (a) : PLANT NO. ASPER SECTION 1.
- (b) : UNIT NO. ASPER SECTION 1.
- (c) : SEQUENCE NO.
- (d) : OPTIONAL SUFFIX (ONE LETTER)

5.2 SYMBOLS NOTE 1

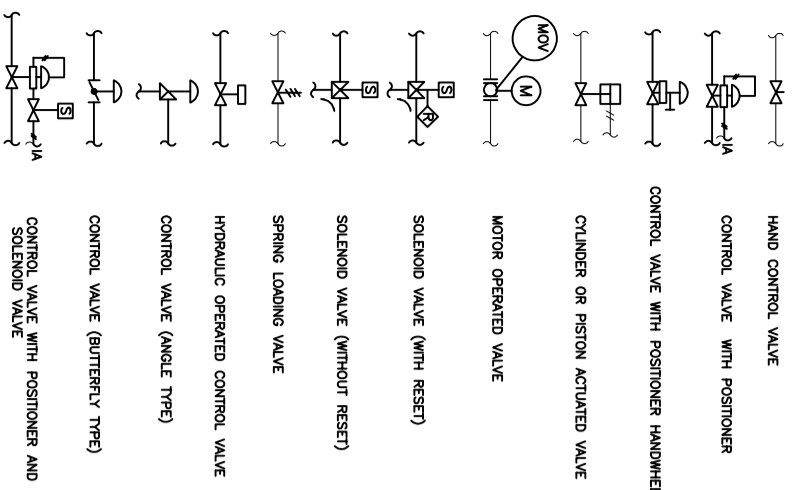
5.2.1 LINE / SIGNAL



- PNEUMATIC SIGNAL
- ELECTRICAL SIGNAL (DIGITAL/ANALOGUE SMART/HART)
- HYDRAULIC SIGNAL
- CAPILLARY TUBE
- ELECTROMAGNETIC OR SONIC SIGNAL
- INTERNAL SYSTEM LINK (SOFTWARE OR DATA LINK)
- FIBER OPTIC

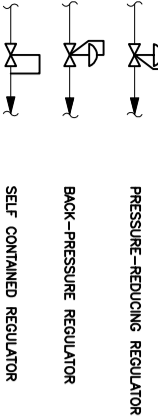
5.2.2 CONTROL VALVE & ACTUATOR

SYMBOL DESCRIPTION



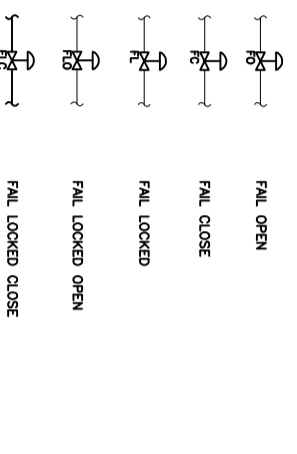
5.2.3 SELF ACTUATED REGULATOR

SYMBOL DESCRIPTION



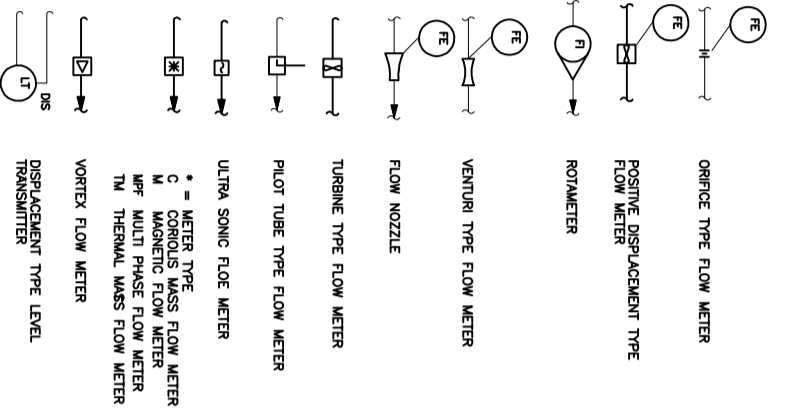
5.2.4 FAILURE ACTION OF CONTROL VALVE

SYMBOL DESCRIPTION

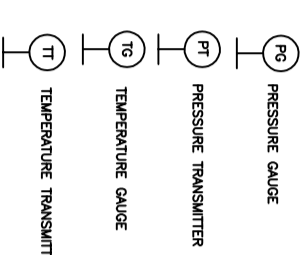


5.2.5 PRIMARY ELEMENT

SYMBOL DESCRIPTION

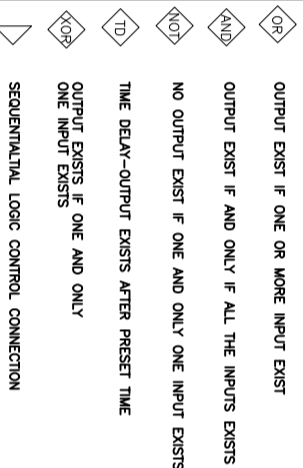


LEVEL GAUGE



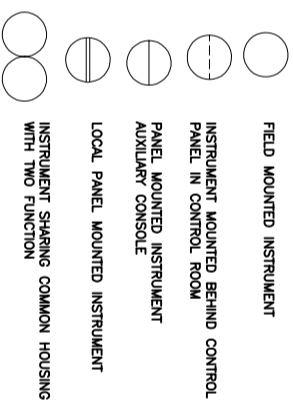
5.2.6 INTERLOCK LOGIC SYMBOL

SYMBOL DESCRIPTION



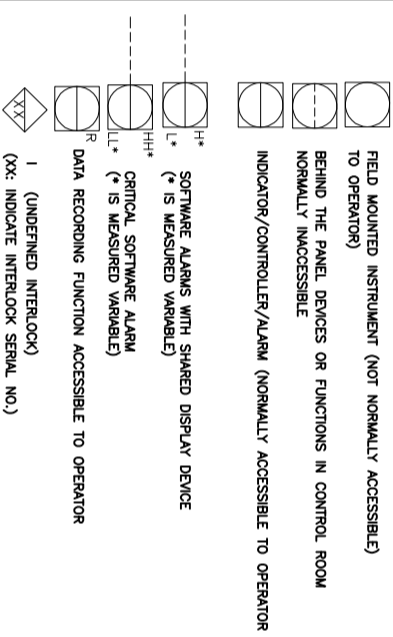
5.2.7 GENERAL INSTRUMENT SYMBOL

SYMBOL DESCRIPTION



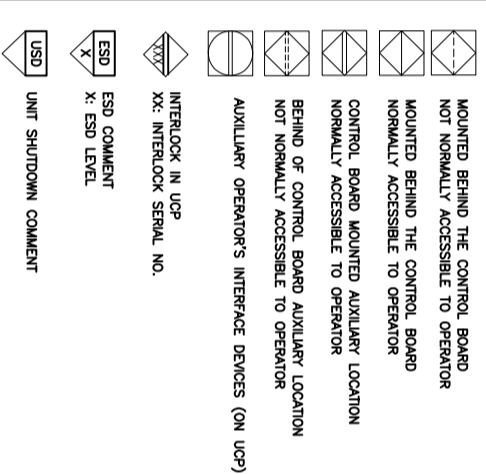
5.2.8 DISTRIBUTED CONTROL / SHARED DISPLAY SYMBOL

SYMBOL DESCRIPTION



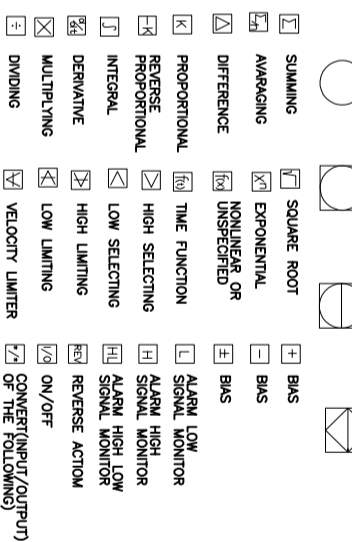
5.2.10 PROGRAMMABLE LOGIC CONTROLLER (PLC) FUNCTION SYMBOL

SYMBOL DESCRIPTION



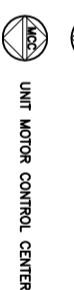
5.2.11 FUNCTION IDENTIFICATION

SYMBOL DESCRIPTION



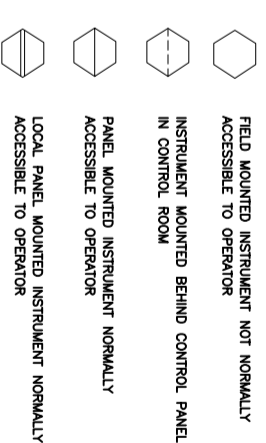
5.2.12 MCC IDENTIFICATION

SYMBOL DESCRIPTION

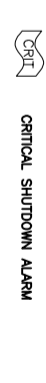
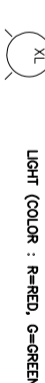
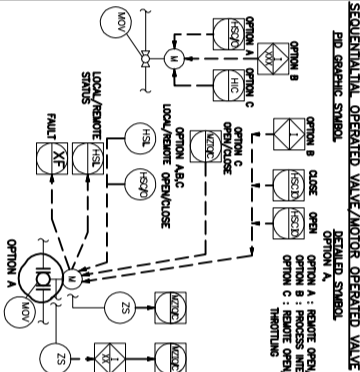


5.2.9 COMPUTER (DATA STORAGE) FUNCTION SYMBOL

SYMBOL DESCRIPTION



SEQUENTIAL OPERATED VALVE/MOTOR OPERATED VALVE



DESIGNATION	SIGNAL
A	ANALOG
V	VARIABLE
E	FIELD BUS
F	CURRENT
I	HYDRAULIC
H	ELECTROMAGNETIC
O	RESISTANCE
P	RESISTANCE
R	MULTIPLS
MV	MULTIPLS

KEY PLAN

NO.	DESCRIPTION	BY	DATE	REV.	DATE
001	*****	*****	*****	01	*****
002	*****	*****	*****	02	*****

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ENDOR TITLE BLOCK**
 DRAWING TITLE: Symbols & Legends For PFD and P&ID
 SCALE: AS
 SHEET NO. 4 OF 8
 REV. 004
 PROJECT NO.: 971000
 EPC CONTRACTOR: EPC CONTRACTOR (GC)
 DEVELOPMENT COMPANY: PETROBRAS DEVELOPMENT COMPANY
 DRAWING NO. BK-QS-PRDCC-180-PP-PI-001
 SHEET NO. 4 OF 8
 REV. 004
 DATE: 04-07-2007

5. INSTRUMENT (CONTINUED)

5.3 FUNCTIONAL IDENTIFICATION LETTERS

SIGNAL TYPES	FIRST-LETTER	MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	SUCCESSING-LETTER	OUTPUT FUNCTION	MODIFIER
BZIO		BLOW DOWN VALVE					
EZCS		EMERGENCY VALVE					
EZSO		EMERGENCY VALVE					
EZIC		EMERGENCY VALVE					
EZIO		EMERGENCY VALVE					
HSM		HAND SWITCH					
HSP		HAND SWITCH					
HSS		HAND SWITCH					
HSL		HAND SWITCH					
XR		RUNNING FEEDBACK					
XL		LOCAL/REMOTE FEEDBACK					
XF		FAULT FEEDBACK					
HSC/O		HAND SWITCH					
XZSO		ON/OFF VALVE					
XZSC		ON/OFF VALVE					
XZIO		ON/OFF VALVE					
XZIC		ON/OFF VALVE					
ESOV		EMERGENCY SOLENOID VALVE					
PSOV		PROCESS SOLENOID VALVE					
XSP		PERMISSION TO START					
XA		GENERAL ALARM					
HSD		HAND SWITCH					

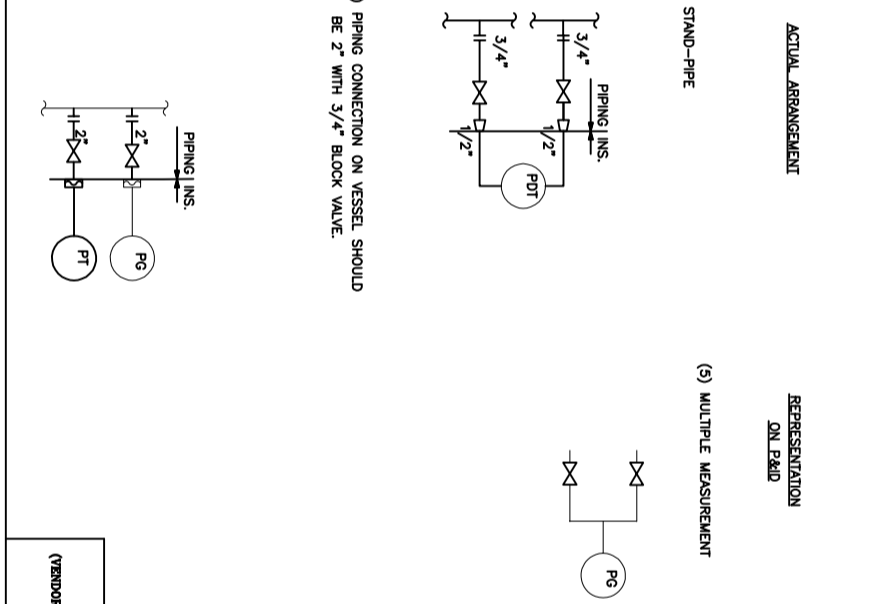
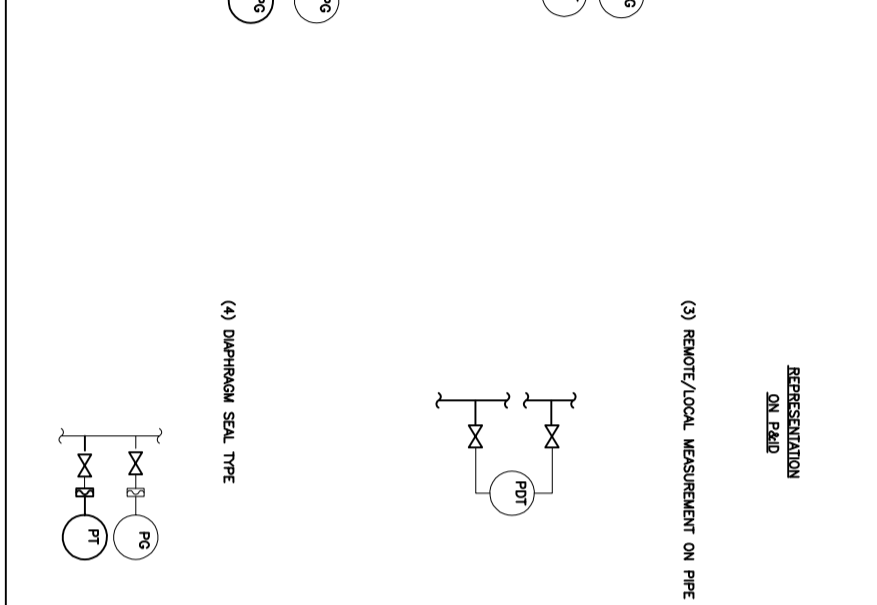
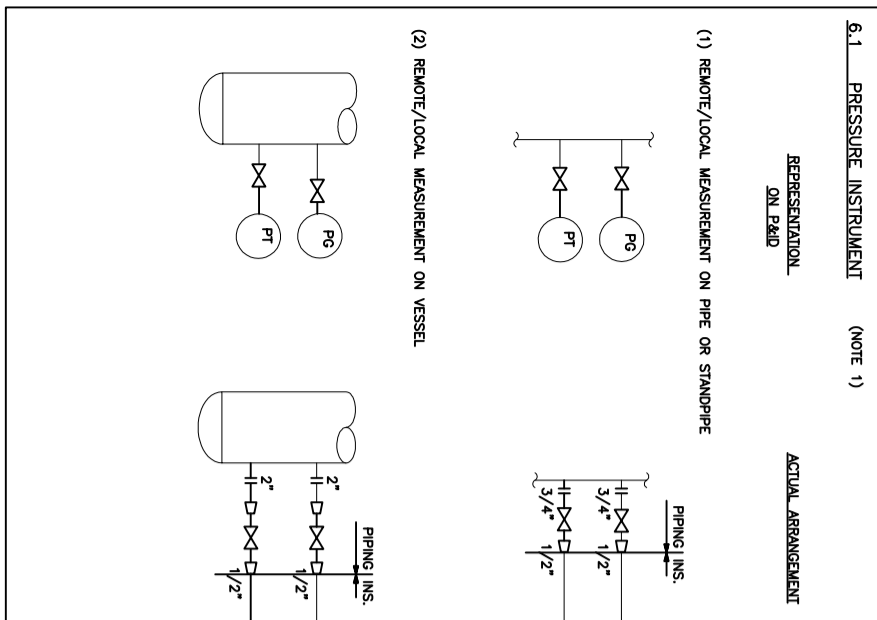
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
ANALYSIS	BURNER COMBUSTION	DIFFERENTIAL	VOLTAGE	FLOW RATE	HAND	CURRENT (ELEC.)	POWER	TIME SCHEDULE	TIME RATE OF CHANGE	LEVEL	MOISTURE/HUMIDITY	PRESSURE/VACUUM	PRESSURE/VACUUM	QUANTITY, NUMBER	RADIATION	SPEED, FREQUENCY	TEMPERATURE	MULTIVARIABLE	VIBRATION, MECHANICAL ANALYSIS	WEIGHT, FORCE	SPECIFIC GRAVITY	EVENT STATE OR PRESENCE	POSITION, DIMENSION		

TYPICAL LETTER COMBINATIONS

PROCESS VARIABLE	PRIMARY ELEMENT	TRANSMITTER	INDICATING TRANSMITTER	SCAN	INDICATOR	RECORDER	BLIND CONTROLLER	INDICATING CONTROLLER	RECORDING CONTROLLER	SWITCH	ALARM	GLASS VIEWING DEVICE	WELL(W) CONNECTION(P)	SELF-ACTUATED REGULATOR VALVE	SOLENOID VALVE RELAY, CONVERTER	FINAL ELEMENT
A	AE	AT	AU	AI	AR	AG	AIC	ARC	ASH	ASH	ASH	ASH	ASH	ASH	ASH	ASH
B	BE	BT	BU	BI	BR	BC	BIC	BRC	BSH	BSH	BSH	BSH	BSH	BSH	BSH	BSH
C	CE	CT	CU	CI	CR	CC	CIC	CCS	CSH	CSH	CSH	CSH	CSH	CSH	CSH	CSH
D	DE	DT	DU	DI	DR	DC	DIC	DRC	DSH	DSH	DSH	DSH	DSH	DSH	DSH	DSH
E	EE	ET	EU	EI	ER	EC	EIC	ERC	ESH	ESH	ESH	ESH	ESH	ESH	ESH	ESH
F	FE	FT	FU	FI	FR	FC	FCG	FSH	FSL	FSL	FSL	FSL	FSL	FSL	FSL	FSL
FF	FF															
G	G	GT	GU	GI	GR	GC	GIC	GRG	GSH	GSH	GSH	GSH	GSH	GSH	GSH	GSH
H	HE	HT	HU	HI	HR	HC	HIC	HRC	HSH	HSH	HSH	HSH	HSH	HSH	HSH	HSH
I	IE	IT	IU	II	IR	IC	IIC	IRC	ISH	ISH	ISH	ISH	ISH	ISH	ISH	ISH
J	JE	JT	JU	JI	JR	JC	JIC	JRC	JSH	JSH	JSH	JSH	JSH	JSH	JSH	JSH
K	KE	KT	KU	KI	KR	KC	KIC	KRC	KSH	KSH	KSH	KSH	KSH	KSH	KSH	KSH
L	LE	LT	LU	LI	LR	LC	LIC	LRC	LSH	LSL	LSL	LSL	LSL	LSL	LSL	LSL
M	ME	MT	MU	MI	MR	MC	MIC	MRC	MSH	MSH	MSH	MSH	MSH	MSH	MSH	MSH
N	NE	NT	NU	NI	NR	NC	NIC	NRC	NSH	NSH	NSH	NSH	NSH	NSH	NSH	NSH
N	ND	NL	NU	NI	NR	NC	NIC	NRC	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
N	NE	NT	NU	NI	NR	NC	NIC	NRC	NSH	NSH	NSH	NSH	NSH	NSH	NSH	NSH
N	ND	NL	NU	NI	NR	NC	NIC	NRC	NSH	NSH	NSH	NSH	NSH	NSH	NSH	NSH
N	NE	NT	NU	NI	NR	NC	NIC	NRC	NSH	NSH	NSH	NSH	NSH	NSH	NSH	NSH

*RO : RESTRICTION ORIFICE **PSV : PRESSURE RELIEF OR SAFETY VALVE PSE : PRESSURE RUPTURE DISC

6. TYPICAL PIPING ARRANGEMENT



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REVISIONS:

NO.	DATE	BY	DESCRIPTION
1
2

BINAQ OILFIELD DEVELOPMENT SURFACE FACILITIES GAS COMPRESSOR STATION

DATE: [Date] SCALE: [Scale] DRAWING BY: [Name] CHECKED BY: [Name] PROJECT ENG. DATE: [Date]

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

APPROVED FOR CONSTRUCTION BY: [Signature] DATE: [Date]

REVISIONS:

NO.	DATE	BY	DESCRIPTION
1
2

BINAQ OILFIELD DEVELOPMENT SURFACE FACILITIES GAS COMPRESSOR STATION

DATE: [Date] SCALE: [Scale] DRAWING BY: [Name] CHECKED BY: [Name] PROJECT ENG. DATE: [Date]

KEY PLAN

NOTES

1- FOR MORE DETAILS REFER TO INSTRUMENT HOOD UP DIAGRAM AND PIPING ASSEMBLY DRAWING FOR EACH ITEM.

LEGEND

REFERENCE DRAWING

(VENDOR TITLE BLOCK)**

SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.	REV.
AS	A3	IK-03-PRDCO-180-PR-01-0001	5 OF 8	D04	D04



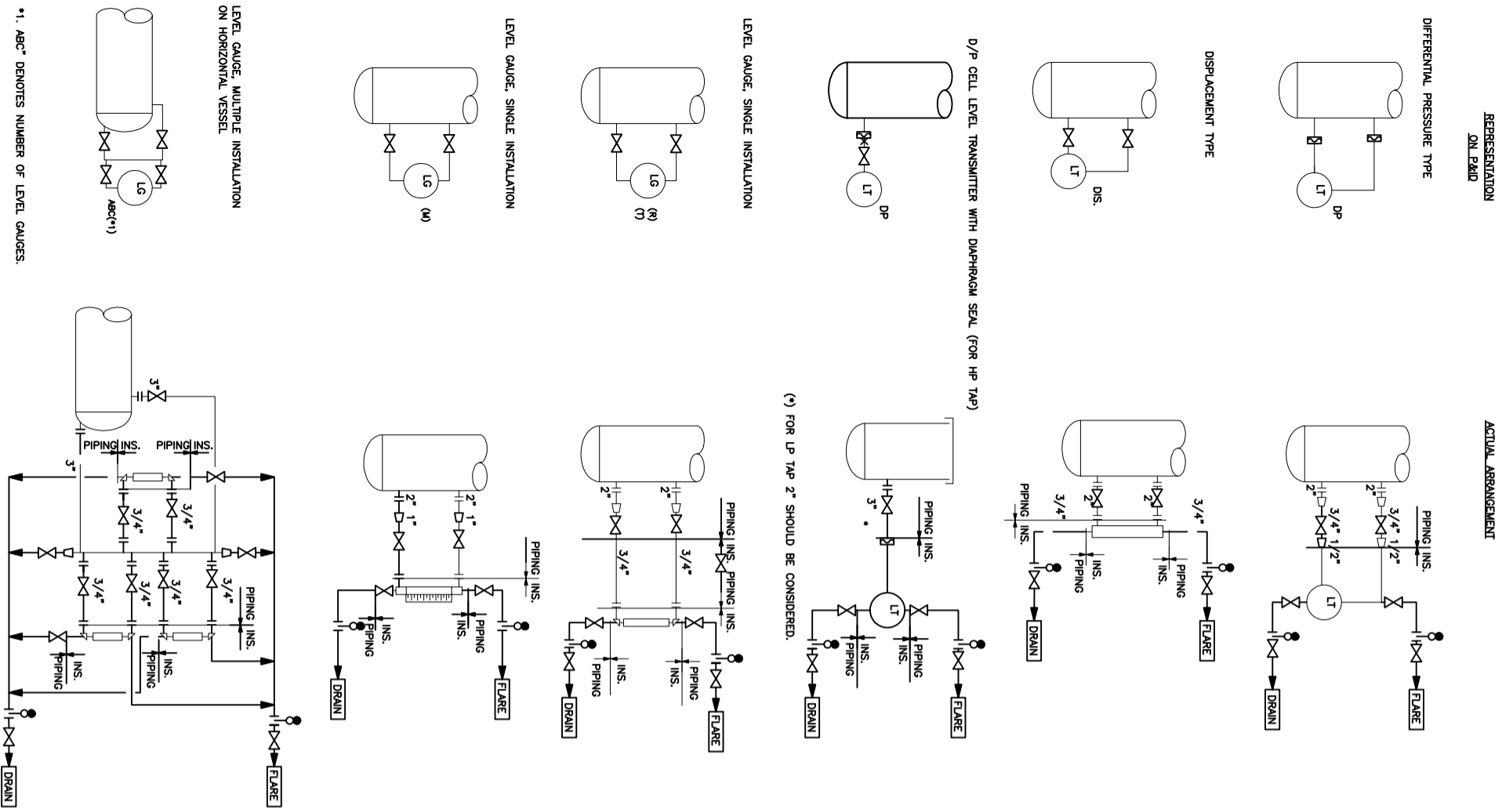
PROJECT NO.: 071009

PROJECT NAME: BINAQ OILFIELD DEVELOPMENT SURFACE FACILITIES GAS COMPRESSOR STATION

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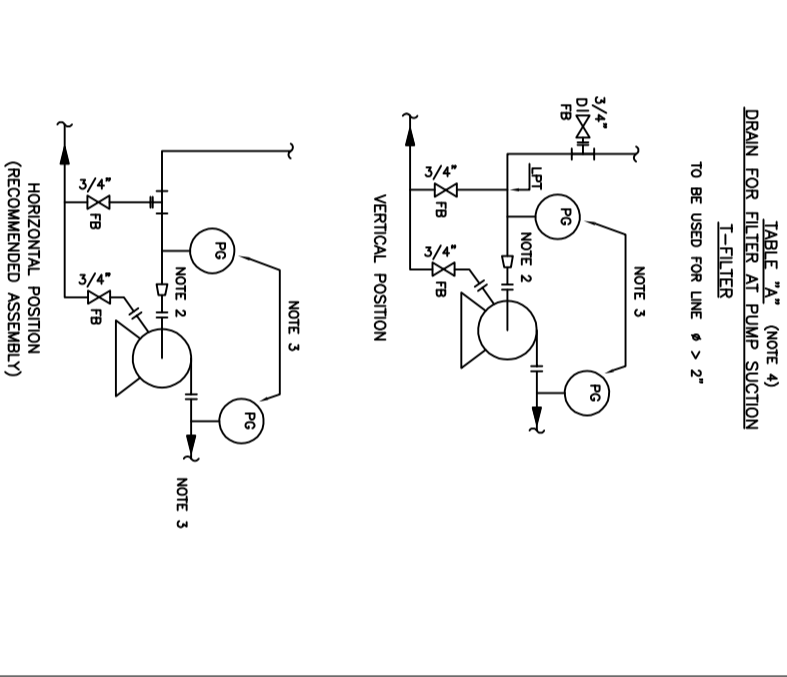
6. TYPICAL PIPING ARRANGEMENT

6.2 LT/LG ARRANGEMENT (NOTE 1)



7. SAMPLE CONNECTION DETAILS

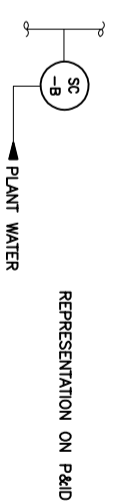
6.3 DRAIN FOR FILTER AT PUMP SUCTION



7.1 TYPE-A : FOR NON-HAZARDOUS LIQUID AND VAPOR WHOSE TEMPERATURE IS LOWER THAN 65°C. (NOTE 7)



7.2 TYPE-B : FOR NON-HAZARDOUS LIQUID AND VAPOR WHOSE TEMPERATURE IS LOWER THAN 65°C. (NOTE 7)



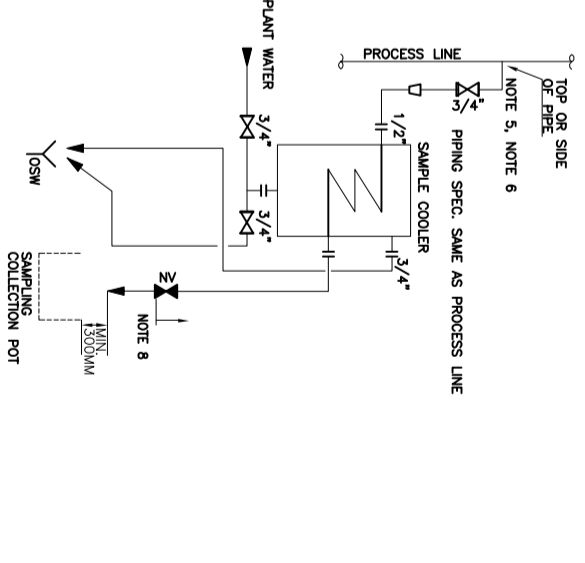
NOTES

- FOR MORE DETAILS REFER TO INSTRUMENT HOOK UP DIAGRAM AND PIPING ASSEMBLY DRAWING FOR EACH ITEM.
- IF A REDUCER IS REQUIRED AT THE SUCION OF THE PUMP, IT SHALL BE ECCENTRIC WITH FLUSH TOP.
- PRESSURE GAUGES TO BE INSTALLED IN ARRANGEMENT WITH STANDARD PREFERRED IN HORIZONTAL POSITION AND SHALL BE SIZED PROBABLY.
- SELECTION OF FILTERS ARRANGEMENT DRAIN ON P&ID SHALL NOT BE CONSIDERED AS AN INSTALLATION REQUIREMENT.
- MINIMIZE DISTANCE FROM PROCESS TAKE-OFF TO SAMPLE STATION.
- SAMPLE CONNECTIONS IN SERVICES WITH ANSI CLASS 900 RATINGS OR MORE SHALL BE PROVIDED WITH TWO BLOCK VALVES.
- IF PROCESS LINE HAS HEAT TRACE, SAMPLE CONNECTIONS SHALL BE PROVIDED WITH HEAT TRACE.
- LINE CLASS SHALL BE THE SAME S THAT OF MAIN LINE.
- GATE VALVE

LEGEND

REFERENCE DRAWING	DRG. No.
*****	*****

KEY PLAN



REV.	DATE	BY	CHK.	APP.	NOTES
004	APR 2023	ABC	XYZ	ABC	
003	NOV 2022	ABC	XYZ	ABC	
002	MAR 2022	DEF	XYZ	ABC	
001	JAN 2022	DEF	XYZ	ABC	
000	OCT 2021	DEF	XYZ	ABC	

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION

PROJECT NO.: 971000

EPD/EPIC CONTRACTOR (GC): PETROBRAS DEVELOPMENT COMPANY

EPD/EPIC CONTRACTOR (GC): PETROBRAS DEVELOPMENT COMPANY

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APPROVED FOR CONSTRUCTION BY: DATE: 03-07-2024

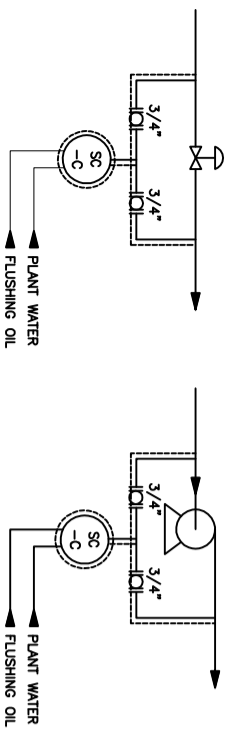
BY: SERIAL NO. 706779

DATE: 07-08

REVISION: 04

7. SAMPLE CONNECTION DETAILS

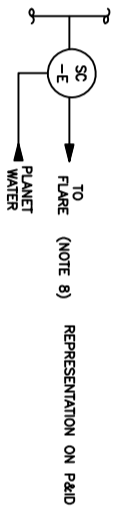
Z.3 TYPE-C : FOR NON-HAZARDOUS LIQUID WITH HIGH POUR POINT (HEAVIER H.C. LIQUID THAN LIGHT DIESEL) WHOSE TEMPERATURE IS HIGHER THAN 65°C. (HEAT TRACE IS REQUIRED)



FOR TYPE-C, TO AVOID SOLIDIFICATION IN LEAD PIPING, FAST LOOP SHALL BE PROVIDED ACROSS CONTROL VALVE OR PUMP AS FOLLOWS :

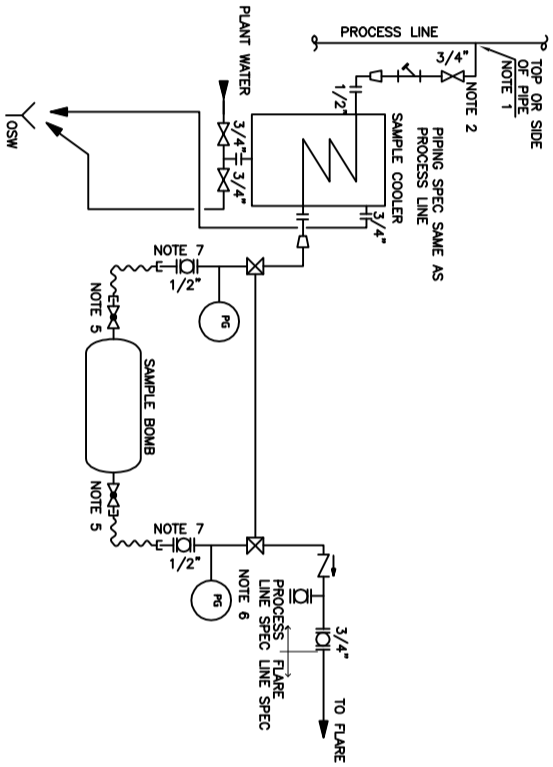
REPRESENTATION ON PAID

Z.5 TYPE-E : TOXIC CRUDE AND TOXIC GAS SERVICE WHOSE TEMPERATURE IS HIGHER THAN 65°C. (NOTE 3 & 4)

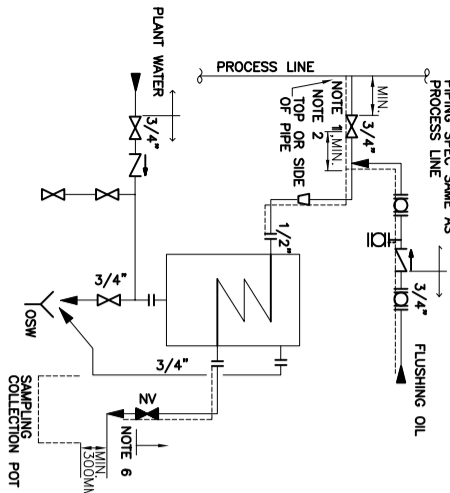


REPRESENTATION ON PAID

Z.6 TYPE-F : TOXIC GAS AND TOXIC CRUDE WHOSE TEMPERATURE IS LOWER THAN 65°C. (NOTE 3 & 4)

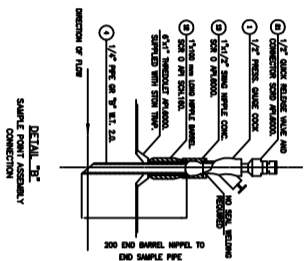
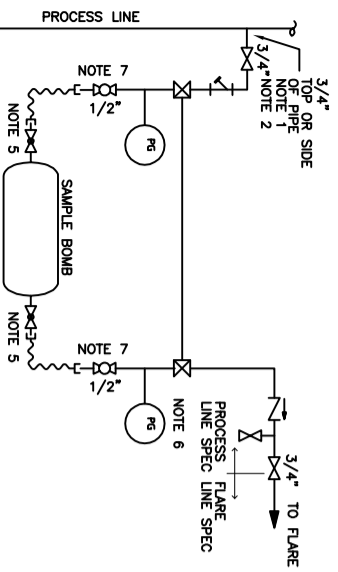


Z.4 TYPE-D : CRUDE AND GAS SERVICE WHOSE TEMPERATURE IS LOWER THAN 65°C. (NOTE 3 & 4)



REPRESENTATION ON PAID

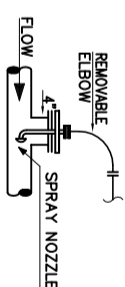
Z.7 TYPE-F : DETAIL "B" SAMPLE CONNECTION ASSEMBLY POINT ACCORDING TO NISOC STANDARD DRAWINGS (S44)



8. CONTINUOUS CHEMICAL INJECTION IN PROCESS LINE

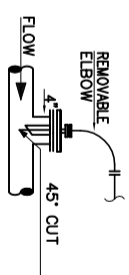
- NOTES**
- 1- MINIMIZE DISTANCE FROM PROCESS TAKE-OFF TO SAMPLE STATION.
 - 2- SAMPLE CONNECTIONS IN SERVICES WITH ANSI CLASS 900 RATINGS OR MORE SHALL BE PROVIDED WITH TWO BLOCK VALVES.
 - 3- IF PROCESS LINE HAS HEAT TRACE, SAMPLE CONNECTIONS SHALL BE PROVIDED WITH HEAT TRACE.
 - 4- SAMPLE CONNECTIONS SHALL BE ACCESSIBLE FROM GRADE AS MUCH AS POSSIBLE.
 - 5- METHOD OF SAMPLE CONNECTIONS TO MAINTAIN WATE PUT TORQUE ON TUBE OR PIPING.
 - 6- LINE CLASS SHALL BE THE SAME AS THAT OF MAIN LINE.
 - 7- BALL VALVE SHALL BE PROVIDED.
 - 8- RELEASE TO LOCAL BURN PIT FOR WELLSITE AREA.

TYPE 1



INJECTION DEVICE PERMANENTLY CONNECTED (GAS SERVICE)

TYPE 2



INJECTION DEVICE PERMANENTLY CONNECTED (OTHER SERVICE)

KEY PLAN

REFERENCE DRAWING	DRG. No.
*****	*****

REV.	DATE	DESCRIPTION	BY	DATE	BY	DATE
004	APR 2023	APC	*****	*****	*****	*****
003	NOV 2022	APC	*****	*****	*****	*****
002	MAR 2022	IPA	*****	*****	*****	*****
001	JAN 2022	IPA	*****	*****	*****	*****
000	OCT 2021	IPC	*****	*****	*****	*****

PROJECT NAME: BINAQ OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION

PROJECT NO.: 071000

EPIC CONTRACTOR: BINAQ ENERGY - DESIGN & INSPECTION

EPD/EPIC CONTRACTOR (GC): PETROBRAN DEVELOPMENT COMPANY

SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.	DATE	BY	DATE
AS	A3	IK-QCS-PRDCC-180-PP-01-0001	7 OF 8	004	NOV 2022	*****	*****

APPROVED FOR CONSTRUCTION	BY:	DATE:
*****	*****	*****

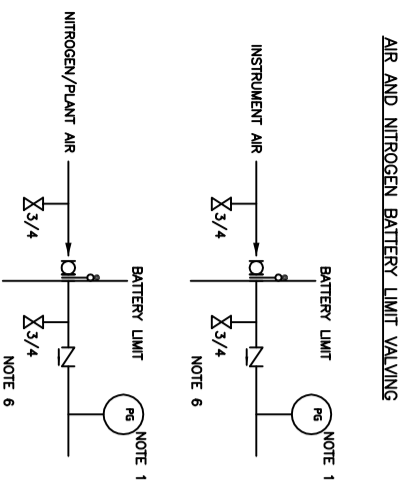
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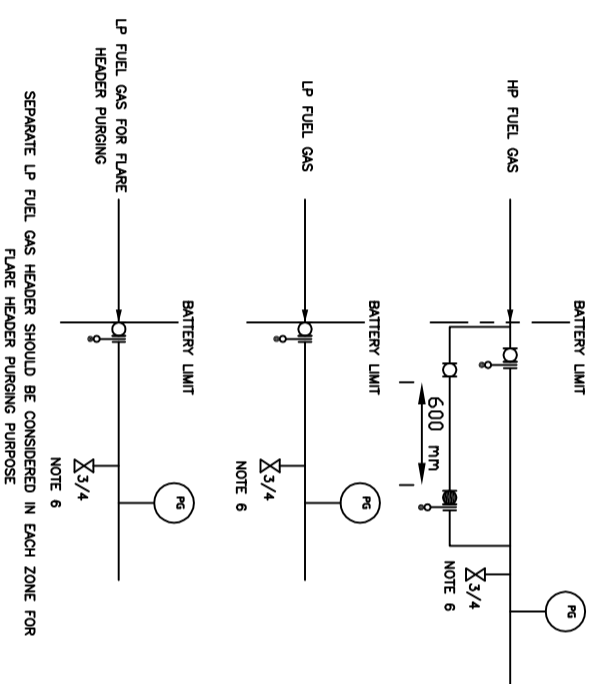
TYPICAL DETAIL FOR ISOLATION BATTERY LIMIT VALVING

NOTES

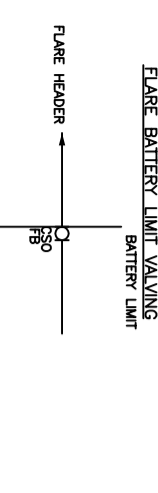
- 1- A LOCAL PG ON EACH STREAM SHALL BE PROVIDED.
- 2- DELETED.
- 3- GENERALLY BALL VALVE IS USED FOR GAS SERVICES AND GATE VALVE FOR LIQUID SERVICES.
- 4- DRAIN VALVE SIZE IS DETERMINED ON PROCESS LINE SIZE. NORMALLY 3/4".
- 5- TO/ FROM FLUSHING OIL, FLARE CONNECTION, ETC., IF REQUIRED, END CONNECTION WILL BE SPECIFIED BY PIPING MATERIAL SPECIFICATION FOR EACH PIPING CLASS.
- 7- FIT TO BE LOCATED AT DOWNSTREAM OF THE FLOW ELEMENT.
- 8- SAMPLE CONNECTION TO BE PROVIDED FOR ALL PRODUCTS LEAVING AND/OR ENTERING THE UNIT.
- 9- ALL HARDWARE SHALL NOT BE DUPLICATED ON THE ADVANCED UNIT.
- 10- DRAIN VALVE SIZE IS DETERMINED BASED ON B82-S0-5014.



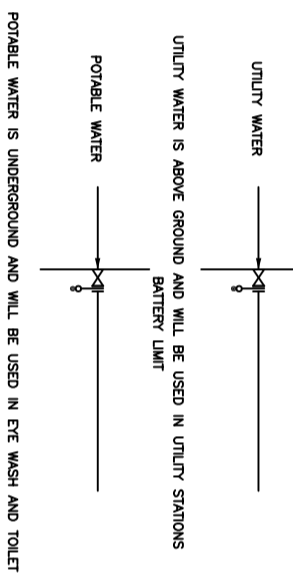
FUEL GAS BATTERY LIMIT VALVING



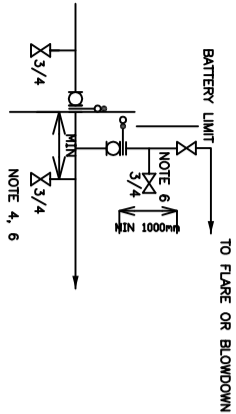
HIGH VAPOUR PRESSURE SERVICE UPSTREAM ISOLATION



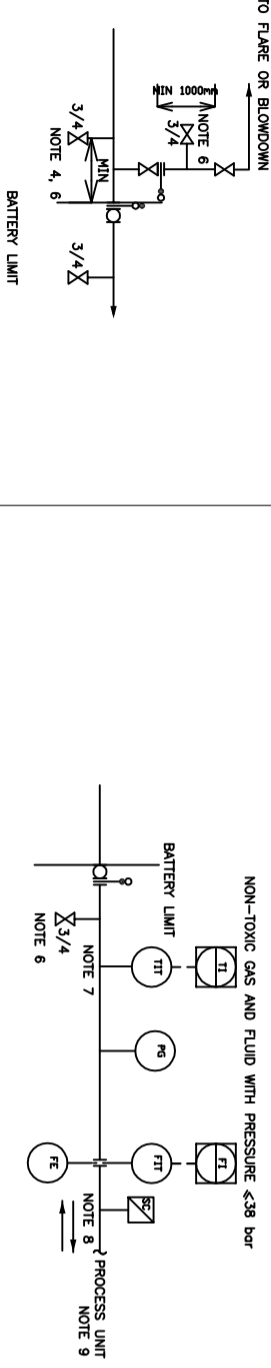
UTILITY & POTABLE WATER BATTERY LIMIT VALVING



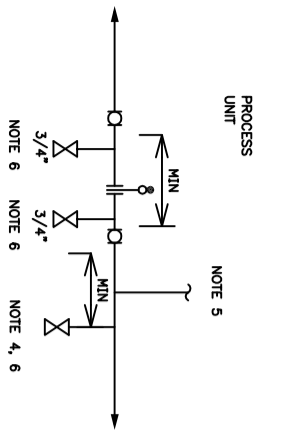
HIGH VAPOUR PRESSURE SERVICE DOWN STREAM ISOLATION



PROCESS BATTERY LIMIT VALVING



TWO WAY ISOLATION



(VENDOR TITLE BLOCK)**

DO4	APR 2023	APC	REVISION	DATE
DO3	NOV 2022	APC	REVISION	DATE
DO2	MAR 2022	IPA	REVISION	DATE
DO1	JAN 2022	IPA	REVISION	DATE
DO0	OCT 2021	IPC	REVISION	DATE

EPIC CONTRACTOR:

BRISQAN

BRISQAN ENERGY - DESIGN & INSPECTION

BRISQAN

PETROBRAS DEVELOPMENT COMPANY

SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.
NS	A3	BR-QCS-PRDCC-180-PR-PI-0001	9 OF 9	DO4

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REVISION LOCATION SIZE CLASS SERIAL NO. SHEET REVISION

9 OF 8 106779 9 OF 8 DO4

KEY PLAN

REFERENCE DRAWING	DRG. No.
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