

PIPING AND RELEVANT COMPONENTS

ITEM	SYMBOL	DESCRIPTION
01		MAIN PROCESS (THK 0.8)
02		SECONDARY PROCESS (THK 0.6)
03		UTILITY, MAIN PROCESS AND SPACE MACHINE (THK 0.3)
04		DIRECT CONNECTION
05		MANUAL LOADING
06		HEAT TRACED PIPELINE
07		VENDOR PACKAGE
08		UNDERGROUND PIPING
09		JACKETED
10		HOSE
11		WITH BLIND FLANGE
12		WITH SPECIAL FLANGE
13		WITH PLUG
14		WITH CAP
15		WITH REDUCER
16		WITH OPEN FUNNEL
17		WITH CLOSED FUNNEL
18		WITH SPRAY NOZZLE
19		FLANGE CONNECTION
20		ELECTOR

PIPING SYMBOLS

ITEM	SYMBOL	DESCRIPTION
01		WITH SPIGON
02		EXPANSION BELLOW
03		TELESCOPIC
04		U SHAPED
05		FEMALE
06		MALE
07		FEMALE, NITROGEN SERVICE
08		MALE, NITROGEN SERVICE
09		WITH BLIND FLANGE
10		FEMALE
11		MALE
12		FEMALE, NITROGEN SERVICE
13		MALE, NITROGEN SERVICE

PIPING COMPONENTS

ITEM	SYMBOL	DESCRIPTION
01		UPWARD VENT
02		DOWNWARD VENT
03		LATERAL VENT
04		WITH DAMPER OR SILENCER
05		WITH FLAME TRAP
06		PULSATION DAMPENER
07		GATE
08		CHECK
09		GLOBE
10		PISTON VALVE
11		PISTON VALVE WITH HANDWHEEL
12		Y-GLOBE VALVE
13		NEEDLE
14		BELLOWS
15		DIAPHRAGM
16		PINCH
17		SPRINGLOCKING VALVE

PIPING COMPONENTS - TYPICAL INSTALLATIONS (1)

ITEM	SYMBOL	DESCRIPTION
01		SPECIAL BLIND (CLOSED)
02		SPECIAL BLIND (OPEN)
03		TEMPORARY STRAINER
04		Y-STRAINER
05		T-STRAINER
06		CONTROL STRAINER
07		SIGHT FLOW GLASS
08		WATER
09		STEAM TRAP
10		TRACING MANIFOLD (SUPPLY OR DISCHARGE)
11		GAS TRAP
12		SLENDER
13		VORTEX BREAKER
14		SWING ELBOW
15		FILTER FOR COMPRESSOR
16		FILTER (GENERAL)
17		REMOVABLE SPOOL PIECE
18		MINIMUM DISTANCE

INSTRUMENT SYMBOLS

ITEM	SYMBOL	DESCRIPTION
01		TRANSIT TIME FLOW METER
02		VORTEX FLOW METER
03		WEDGE TYPE FLOW METER
04		VENTURI TUBE OR FLOW NOZZLE
05		PITOT TUBE OR PITOT VENTURI ELEMENT
06		FLOW ELEMENT (ORIFICE)
07		CALIBRATED ORIFICE WITH METER RUN
08		INTEGRAL ORIFICE
09		MASS FLOWMETER/COROLUX
10		MAGNETIC FLOWMETER
11		ROTAMETER WITH FLOW CONTROL
12		ROTAMETER
13		GLOBE CONTROL VALVE WITH DIAPHRAGM ACTUATOR
14		AS ABOVE WITH HANDWHEEL
15		PRESSURE REDUCING REGULATOR WITH EXTERNAL PRESSURE TAP
16		PRESSURE REDUCING REGULATOR SELF CONTAINED
17		BUTTERFLY CONTROL VALVE
18		BALL VALVE WITH DIAPHRAGM ACTUATOR
19		TWO WAY SOLENOID VALVE
20		PISTON VALVE WITH ACTUATOR
21		MOTOR ACTUATED
22		THREE WAY SOLENOID VALVE
23		FOUR WAY SOLENOID VALVE
24		ECCENTRIC ROTARY VALVE
25		BALL VALVE WITH PISTON ACTUATOR
26		V BALL VALVE WITH PISTON ACTUATOR
27		PLUG ON/OFF VALVE WITH PISTON ACTUATOR
28		THREE WAY BALL VALVE WITH PISTON ACTUATOR
29		BUTTERFLY VALVE WITH PISTON ACTUATOR
30		SLIDE GATE VALVE WITH PISTON ACTUATOR
31		DIVERTER VALVE WITH PISTON ACTUATOR
32		NYLON MELTING CONNECTION ON PNEUMATIC VALVE (FOR SAFETY IN CASE OF EXTERNAL FIRE) (6)
33		I/P TRANSDUCER
34		ELECTROPNEUMATIC TRANSDUCER

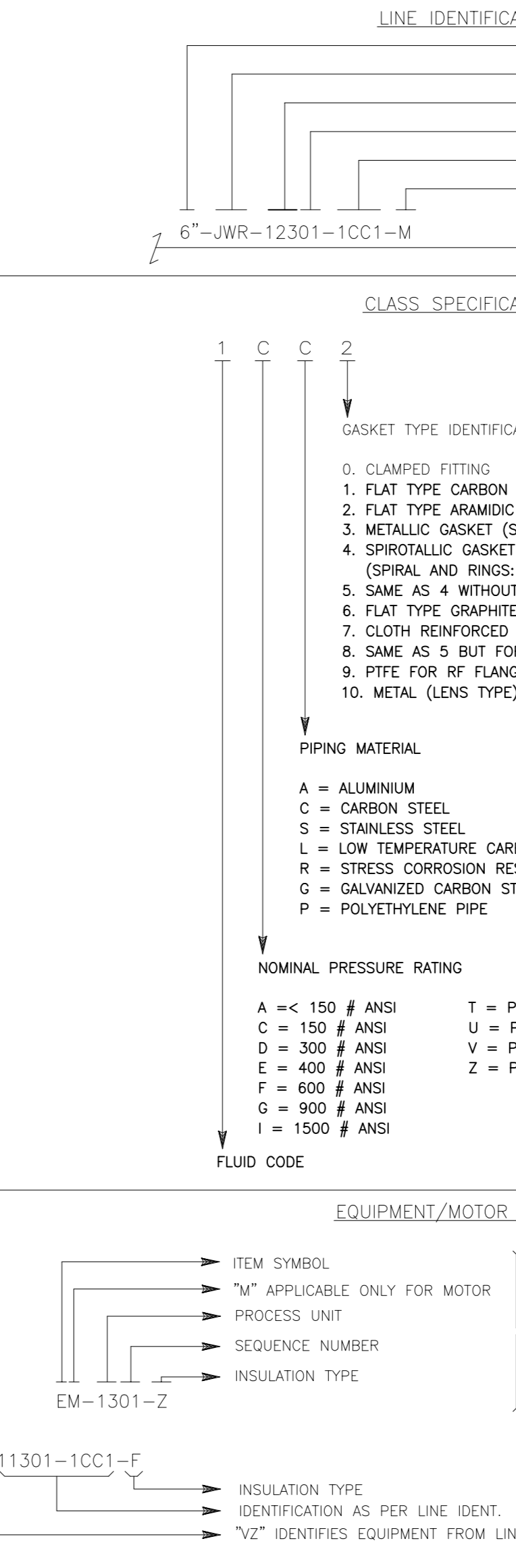
INSTRUMENT SYMBOLS

ITEM	SYMBOL	DESCRIPTION
01		PRESSURE RELIEF OR SAFETY VALVE
02		PRESSURE & VACUUM RELIEF VALVE (BREATHING VALVE)
03		VACUUM RELIEF VALVE
04		DOUBLE SOLENOID VALVE (SEE DETAIL A)
05		VALVE WITH 5 WAYS PNEUMATIC DISTRIBUTOR (SEE DETAIL B)
06		VALVE WITH 5 WAYS PNEUMATIC DISTRIBUTOR (SEE DETAIL C)
07		PROCESS CONNECTION/MECHANICAL LINK
08		ELECTRIC SIGNAL
09		SOFTWARE OR DATA LINK
10		FIELDBUS FOUNDATION SIGNAL
11		PNEUMATIC TRANSMISSION LINE
12		CAPILLARY LINE (FILLED SYSTEM)
13		ELECTROMAGNETIC OR RADIOACTIVE SIGNAL
14		HYDRAULIC SIGNAL
15		PANEL MOUNTED INSTRUMENT MAIN BOARD
16		PANEL MOUNTED INSTRUMENT (LOCAL)
17		REAR PANEL MOUNTED INSTRUMENT MAIN BOARD
18		REAR PANEL MOUNTED INSTRUMENT (LOCAL)
19		MEASURE OR SIGNAL DISPLAYED ON DCS
20		MEASURE OR SIGNAL DISPLAY ON PCK DISPLAY
21		STATUS LAMP ON LOCAL PANEL
22		FIELD MOUNTED INSTRUMENT
23		INTERLOCK SYSTEM DEACTIVATION SWITCH ON SHUT-DOWN AUXILIARY CONSOLE
24		START SWITCH ON SHUT-DOWN AUXILIARY CONSOLE
25		INTERLOCK RESET ON DCS
26		INTERLOCK RESET ON DCS
27		SHUT DOWN INTERLOCK LOGIC (ESD)
28		OPERATIVE INTERLOCK LOGIC (OCS)
29		INTERLOCK LOGIC INSIDE PACKAGE LOCAL PANEL
30		INTERLOCK LOGIC IMPLEMENTED IN MCC
31		FIRE & GAS PLC

FLUID DESCRIPTION

FLUID NAME	FLUID DESCRIPTION
BDG	WASTE GAS TO BLOW DOWN
BDL	BLOW DOWN LOW TEMPERATURE
BDP	BLOW DOWN HIGH TEMPERATURE
BDW	BLIND WATER
BDY	BLIND OIL
BDZ	BLIND GAS
CHW	COLD HEXANE
CHWR	COLD HEXANE RETURN
CHWS	COLD HEXANE SUPPLY
CIN	IN CORROSION INHIBITOR
CSD	CAUSTIC SODA
CSW	CHEMICAL SEWER WATER
CWR	COOLING WATER RETURN
CWS	COOLING WATER SUPPLY
CT	CATALYST
DRW	DRINKING WATER
DTO	DATHERMIC OIL
DW	DEMINERALIZED WATER
ET	ETHYLENE
FU	FUEL GAS
FL	WASTE GAS TO FLARE
FW	FIRE FIGHTING WATER
H	HYDROGEN
HC	HYDROCARBONS
HCS	H.C. SLOP
HPS	HIGH PRESSURE STEAM
HPC	HIGH PRESSURE STEAM CONDENSATE
HWS	HEATING WATER SUPPLY
HWR	HEATING WATER RETURN
HX	HEXANE
IA	INSTRUMENT AIR
IPRA	ISOPRENE ALUMINIUM
JCW	JACKET COOLING WATER
JLPS	LOW PRESSURE STEAM (JACKET)
JMS	JACKET WATER SUPPLY
JCSW	CHEMICAL SEWER WATER (JACKET)
JWR	JACKET WATER RETURN
LPS	LOW PRESSURE STEAM
LPC	LOW PRESSURE STEAM CONDENSATE
MG	MAGNESIUM ETHYLATE
ML	MOTHERLIQUOR
MPS	MEDIUM PRESSURE STEAM
MPC	MEDIUM PRESSURE STEAM CONDENSATE
N	NITROGEN
O	OIL
OG	OFF GAS
P	POLYMER + GAS
PA	PLANT AIR
PC	PRESSURIZED CONDENSATE
PC	HOPE PELLETS
PDW	HOPE TRANSPORT WATER
PP	PROPYLENE
RLS	REGENERATION GAS
SA	SOLID ADDITIVE
SL	SLURRY
SW	SERVICE WATER
TEA	TEAL
THOS	TEMPERED HEXANE SUPPLY
THOR	TEMPERED HEXANE RETURN
TIC	TITANIUM TETRA CHLORIDE
V	VENTS
WG	WASTE GAS
WX	WAX
WW	WASTE WATER

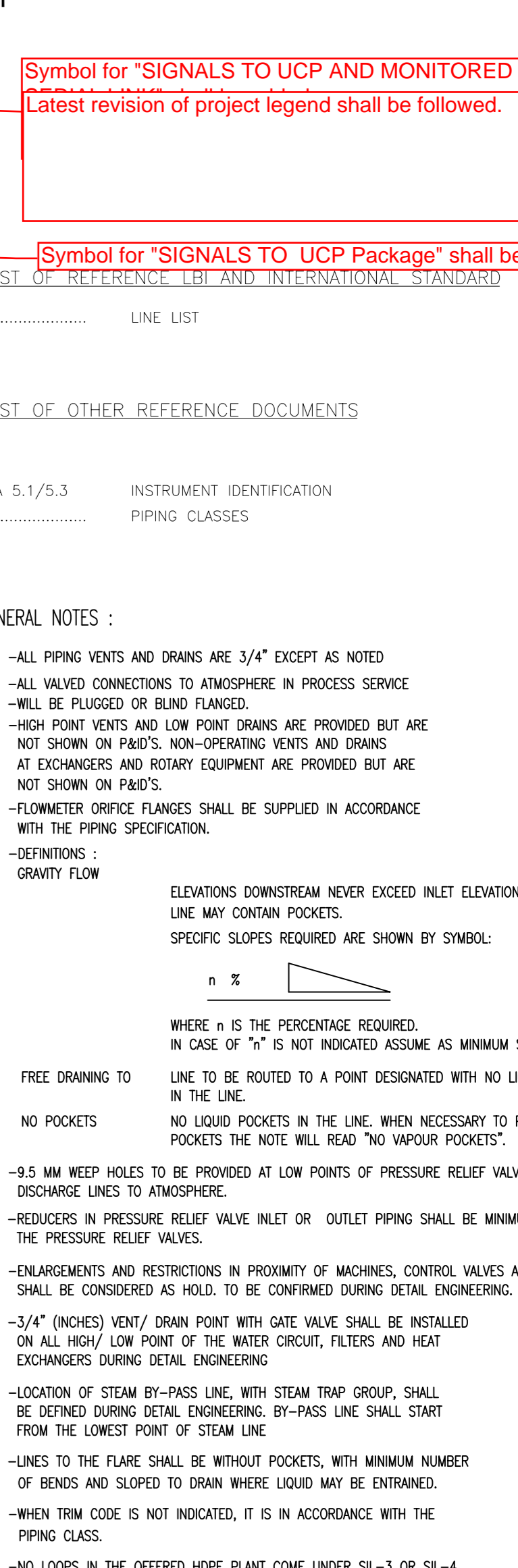
LINE IDENTIFICATION



CLASS SPECIFICATION KEY

CLASSIFICATION	DESCRIPTION
1	CLAMPED FITTING
2	FLAT TYPE CARBON FIBER GASKET FOR HYDROCARBON (ASBESTOS FREE)
3	FLAT TYPE ARAMID FIBER (ASBESTOS FREE)
4	METALLIC GASKET (SOFT COMPRESSIBLE OPEN VALVE)
5	SPIROALIC GASKET WITH CENTERING AND INNER RING
6	SAME AS 4 WITHOUT CENTERING AND INNER RING TO BE UTILIZED
7	FLAT TYPE GRAPHITEMERIAL FIBER (KVLAR)
8	CLOTH REINFORCED COLORLESS OR WHITE RUBBER
9	SAME AS 5 BUT FOR LG/LT FLANGES
10	PIPE FOR RF FLANGES
11	METAL (LENS TYPE)

EQUIPMENT/MOTOR IDENTIFICATION



INSULATION TYPE

INSULATION TYPE	DESCRIPTION
D	ANTI-SWEAT INSULATION
ET	ELECTRICAL TRACING
F	FIRE PROTECTION
H	ENERGY SAVING HOT INSULATION (CONTINUITY OF INSULATION IS REQUESTED)
Z	ENERGY SAVING HOT INSULATION (CONTINUITY OF INSULATION IS NOT REQUESTED)
M	COLD CONSERVATION WITH CONTINUITY
Y	COLD CONSERVATION AND FIRE PROTECTION
P	PERSONNEL PROTECTION
T	STEAM TRACING AND INSULATION
X	CELLULOSIC GLASS
J	JACKETED LINE

Symbol for "SIGNALS TO UCP AND MONITORED ON DCS VIA Latest revision of project legend shall be followed.

Symbol for "SIGNALS TO UCP Package" shall be added.

LIST OF REFERENCE I&E AND INTERNATIONAL STANDARD

LIST OF OTHER REFERENCE DOCUMENTS

ISA 5.1/5.3 INSTRUMENT IDENTIFICATION PIPING CLASSES

GENERAL NOTES :

- ALL PIPING VENTS AND DRAINS ARE 3/4" EXCEPT AS NOTED
- ALL VALVED CONNECTIONS TO ATMOSPHERE IN PROCESS SERVICE -MUST BE FLANGED OR BEND FLANGED
- HIGH POINT VENTS AND LOW POINT DRAINS ARE PROVIDED BUT ARE NOT SHOWN ON P&ID'S. NON-OPERATING VENTS AND DRAINS AT EXCHANGERS AND ROTARY EQUIPMENT ARE PROVIDED BUT ARE NOT SHOWN ON P&ID'S.
- FLOWMETER ORIFICE FLANGES SHALL BE SUPPLIED IN ACCORDANCE WITH THE PIPING SPECIFICATION.
- DEFINITIONS:
 - ELEVATIONS DIMENSIONS NEVER EXCEED MILE ELEVATIONS. LINE MAY CONTAIN POCKETS.
 - SPECIFIC SLOPES REQUIRED ARE SHOWN BY SYMBOL:

$$n = \frac{\text{SLOPE}}{100}$$

WHERE n IS THE PERCENTAGE REQUIRED. IN CASE OF "n" IS NOT INDICATED ASSUME AS MINIMUM SLOPE OF 0.2%.

FREE DRAINING TO LINE TO BE ROUTED TO A POINT DESIGNATED WITH NO LIQUID POCKETS IN THE LINE.

NO LIQUID POCKETS IN THE LINE. WHEN NECESSARY TO PREVENT LIQUID POCKETS THE NOTE WILL READ "NO LIQUID POCKETS".

-9.5 MM WEEP HOLES TO BE PROVIDED AT LOW POINTS OF PRESSURE RELIEF VALVE AND RUPURE DISK DISCHARGE LINES TO ATMOSPHERE.

-REDUCERS IN PRESSURE RELIEF VALVE INLET OR OUTLET PIPING SHALL BE MINIMUM SLOPE FROM THE PRESSURE RELIEF VALVES.

-ENLARGEMENTS AND RESTRICTIONS IN PROXIMITY OF MACHINES, CONTROL VALVES AND DISTANCE VALVES SHALL BE CONSIDERED AS HOLD. TO BE CONFIRMED DURING DETAIL ENGINEERING.

-3/4" (INCH) VENT / DRAIN POINT WITH GATE VALVE SHALL BE INSTALLED ON ALL HIGH / LOW POINT OF THE WATER CIRCULATING FILTERS AND HEAT EXCHANGERS DURING DETAIL ENGINEERING.

-LOCATION OF STEAM BY-PASS LINE WITH STEAM TRAP GROUP, SHALL BE DETAILED DURING DETAIL ENGINEERING. BY-PASS LINE SHALL START FROM THE LOWEST POINT OF STEAM LINE.

-LINES TO THE FLARE SHALL BE WITHOUT POCKETS, WITH MINIMUM NUMBER OF BENDS AND SLOPED TO DRAIN WHERE LIQUID MAY BE ACCUMULATED.

-WHEN TRIM CODE IS NOT INDICATED, IT IS IN ACCORDANCE WITH THE PIPING CLASS.

-NO LOOPS IN THE OFFERED HOPE PLANT COME UNDER SL-3 OR SL-4 CLASSIFICATION.

-FOR THE EQUIPMENT WHERE SIZES ARE ENLARGED SMALLER, THE REQUIREMENT OF SAFETY VALVES SIZES FOR THE EXTERNAL FIRE IS TO BE CONFIRMED DURING THE DETAIL ENGINEERING.

-EXCEPT FOR T&A, STEAM TRACING IS ACCEPTABLE IN PLACE OF ELECTRICAL TRACING.

NOTES FOR PIPING SYMBOLS

- SEE PIPING CLASSES
- SEE REFERENCE DOCUMENT N
- SYMBOL REPRESENT IN A SIMPLIFIED WAY THE COMPLETE TYPICAL INSTALLATION OF PIPING CLASS. INSTALLATIONS OTHER THAN THOSE SHOWN ON PIPING CLASSES MUST BE INDICATED ON P&ID IN DETAIL WITH THEIR OWN COMPONENTS.
- TRACING MARKED ITEM AS PER REFERENCE DOCUMENT N
- SPECIAL PIPING COMPONENTS "X" TRACED

NOTES FOR INSTRUMENT SYMBOLS

GENERAL NOTES :

- THE IDENTIFICATION FOR VERY HIGH OR MAXIMUM IS (H)
- THE IDENTIFICATION FOR VERY LOW OR MINIMUM IS (L)
- THE TERMS HIGH AND LOW, WHEN APPLIED TO THE POSITION OF VALVES OR MOTORS, ARE DEFINED AS FOLLOWS:
 - H = VALUE OPEN / MOTOR RUNNING / DEVIATOR "P" POSITION/MOTOR START
 - L = VALUE CLOSED / MOTOR STOPPING / DEVIATOR "N" POSITION/MOTOR STOP
- WHERE NECESSARY ADDITIONAL SYMBOLS (SEE TABLE) HAVE BEEN USED TO CLARIFY THE FUNCTION.
- WHERE PIPING TUBING (BEING CONNECTION) IS USED AS A "TUBING LINE", THE TUBING SHALL BE IDENTIFIED WITH LABEL TAGS AT REGULAR INTERVALS (OR COLOR CODED) TO INDICATE THAT IT IS PART OF THE PROTECTION SYSTEM. THE TUBING SHALL BE LOCATED WHERE IT WILL BE EXPOSED TO A POTENTIAL FIRE. FOR VESSEL, THE TUBING SHOULD BE WRAPPED AROUND THE VESSEL AND EXTEND TO WITHIN 3M FROM GRADE.
- AUXILIARY COMPONENTS OF THE INSTRUMENT LOOPS (SUCH AS I.S. BARRIERS, TRANSDUCERS ETC) ARE NOT SHOWN ON P&ID.
- FOR THE COMPLETE LIST OF SIGNALIZATIONS, ALARMS, METERINGS AND COMMANDS RELATED TO ELECTRIC APPARATUS REFER TO THE INSTRUMENT LIST. THEY ARE NOT COMPLETELY SHOWN ON P&ID'S.
- THE TERMS L AND R, WHEN APPLIED TO A MACHINE:
 - L = LOCAL
 - R = REMOTE

PIPING COMPONENTS - TYPICAL INSTALLATIONS (2)

ITEM	SYMBOL	DESCRIPTION
01		WITH GATE VALVE
02		WITH PLUG VALVE
03		WITH BALL VALVE
04		WITH GATE VALVE
05		WITH PLUG VALVE
06		WITH BALL VALVE
07		WITH VALVE
08		WITH PLUG VALVE
09		WITH BALL VALVE
10		WITH VALVE
11		WITH PLUG VALVE
12		WITH BALL VALVE

PIPING COMPONENTS - TYPICAL INSTALLATIONS (2)

ITEM	SYMBOL	DESCRIPTION
01		ON LINES AND EQUIPMENT
02		ON LINES AND EQUIPMENT
03		ON LINES AND EQUIPMENT
04		ON LINES AND EQUIPMENT
05		ON LINES AND EQUIPMENT
06		ON LINES AND EQUIPMENT
07		ON LINES AND EQUIPMENT
08		ON LINES AND EQUIPMENT
09		ON LINES AND EQUIPMENT
10		ON LINES AND EQUIPMENT
11		ON LINES AND EQUIPMENT
12		ON LINES AND EQUIPMENT
13		ON LINES AND EQUIPMENT
14		ON LINES AND EQUIPMENT
15		ON LINES AND EQUIPMENT
16		ON LINES AND EQUIPMENT
17		ON LINES AND EQUIPMENT
18		ON LINES AND EQUIPMENT
19		ON LINES AND EQUIPMENT
20		ON LINES AND EQUIPMENT
21		ON LINES AND EQUIPMENT
22		ON LINES AND EQUIPMENT
23		ON LINES AND EQUIPMENT
24		ON LINES AND EQUIPMENT
25		ON LINES AND EQUIPMENT
26		ON LINES AND EQUIPMENT

General Comments:
 -1) Size of flare lines will be checked/ approved after receiving flare load summary (or PSVs datasheet) from vendor.
 2) composition shall be reported by vendor for flare lines.
 3) simultaneous scenario shall be specified.

BDL have been referred to blow down flare system, destination should be checked.

1- what does FINISHING mean?
 NEC Reply: please specify size
 2- ok
 3- ok
 4- This is not mentioned in the contract
 NEC Reply: it is mentioned in package data sheet (MR attachment) instrumentation section Page 14/16 Note2.
 5- in next revisions.

Please clarify.

please clarify magnet type level transmitter, displacer or DP could be used as per project spec.

- NOTES**
- NOTE 1: LT & LG ARE MAGNETIC TYPE.
 - NOTE 2: TEMP. TRANSMITTER TO BE LOCATED AS FAR AS POSSIBLE FROM ECONOMIZER
 - NOTE 3: OIL RECOVERY NOZZLE.
 - NOTE 4: NITROGEN FILL OR PURGE/DRAIN.
 - NOTE 5: DELETED.
 - NOTE 6: ELECTRICAL TRACING. T= 30 °C.
 - NOTE 7: TYPE OF CV WILL BE DEFINED LATER.

1- Based on General Specification for Instrumentation "On-off" connection line which shall be indicated shall be schematically shown
 Please specify location of electrical tracing
 For each valve NC or NO shall be added
 SW/SL slope value shall be specified
 Please specify instrument which shall be on gauge board and indicated

2- Interfacing shall be done after final data sheet and finalized after receiving relevant calculations and DSH.

3- Control Philosophy shall be based on final data sheet and finalized after receiving relevant calculations and DSH.

GENERAL COMMENT FINISHING FOR ALL L
 Process and start up procedure to be submitted for PID checking.

6- Interfacing receiving Control Philosophy.

7- signals of Electro-Motors shall be modified based on P&ID legend.

8- All common Tag names shall be same as reference project P&ID.

9- Individual page shall be considered for interface signals between PLC and DCS/ESD. (All Interface signals shall be clearly mentioned).

10- Indication on DCS of all signals shall be mentioned on P&ID by using proper symbol. (Above page mentioned)

This Symbol not defined on Legend

Procedure:
 01XX-KYYZZ
 XX: instrument device: PT, PALL...
 K: indicate for package
 YYY: PID No.
 ZZ: sequence no.
 e.g.: 01PT-K23001

No need for control valve on CW LINE of this condenser.
 NEC Reply: So please consider proper instrument for manually adjustment of JW during summer and winter.

CLIENT: MC
 CONTRACTOR: Petropars Ltd. NARGAN

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 Please clarify level control system.

DEHDASHT PETROCHEMICAL INDUSTRY COMPANY
 DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT

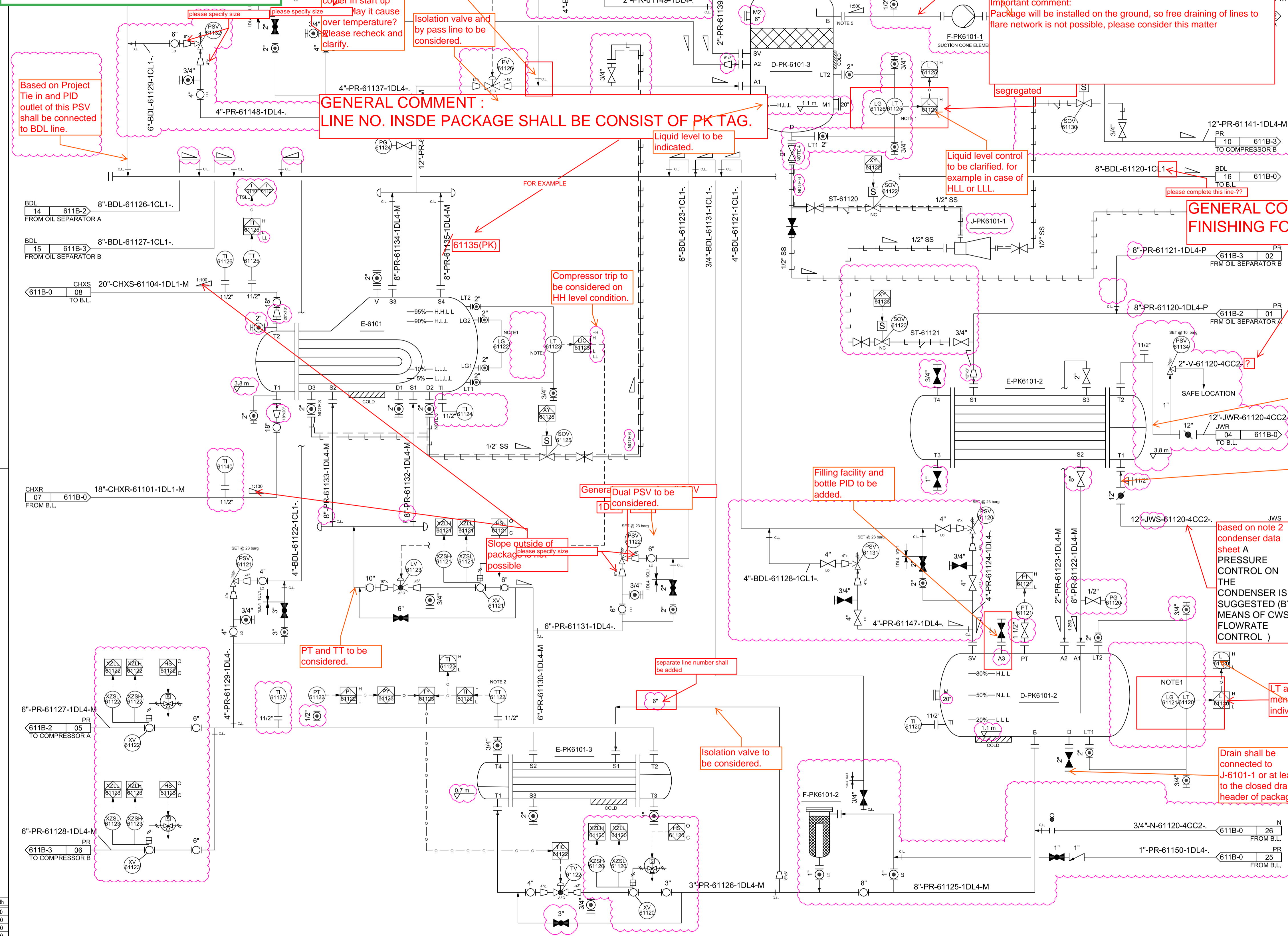
DRAWING TITLE:
 PIPING AND INSTRUMENT DIAGRAM (P&ID)

DOCUMENT No:	DPIC9812-000-VD-1002-ME-PID-0010	SC:	
Proj. Code	Area No.	VD	PO No.
000		VD	1002
Disc. Code	Doc. Type	Serial No.	Rev. Sheet No.
ME	PID	010	D1 2 OF 4

PURCHASER'S COMMENT/ APPROVAL STATUS
 1. AP: Approved (Released for Manufacturing)
 2. AN: Approved With Minor Comments (Fabrication may Proceed)
 3. NF: Approved With Comments (Fabrication not Proceed)
 4. RJ: Rejected
 5. NR: Not to be Returned

REQUISITION NO.: DPIC98-12-000-000-ME-MR-001
 ITEM NO. (TAG NO.): PK-6101
 Vendor Doc. No.: DPIC98-12-000-VD-1002-ME-PID-010-D1

REV	DATE	DESCRIPTION	PREP'D	CHK'D	APP'D
01	29-Dec-21	ISSUE FOR APPROVAL	R.GOURDARI	A.MALEKINIA	A.MALEKINIA
02	01-09-2021	ISSUE FOR APPROVAL	R.GOURDARI	A.MALEKINIA	A.MALEKINIA



GENERAL COMMENT :
 LINE NO. INSIDE PACKAGE SHALL BE CONSIST OF PK TAG.

If this item is filter so PDI to be considered.

Important comment:
 Package will be installed on the ground, so free draining of lines to flare network is not possible, please consider this matter

Liquid level control to be clarified, for example in case of HLL or LLL.

GENERAL COMMENT FINISHING FOR ALL L

Compressor trip to be considered on HH level condition.

General PSV to be considered.

Filling facility and bottle PID to be added.

based on note 2 condenser data sheet A
 PRESSURE CONTROL ON THE CONDENSER IS SUGGESTED (BY MEANS OF CWS FLOWRATE CONTROL)

LT and LG shall be mentioned on P&ID individually

Drain shall be connected to J-6101-1 or at least to the closed drain header of package.

All equipment shall be listed here.
 F-PK-6101-1 and J-PK-6101-1 are missed.

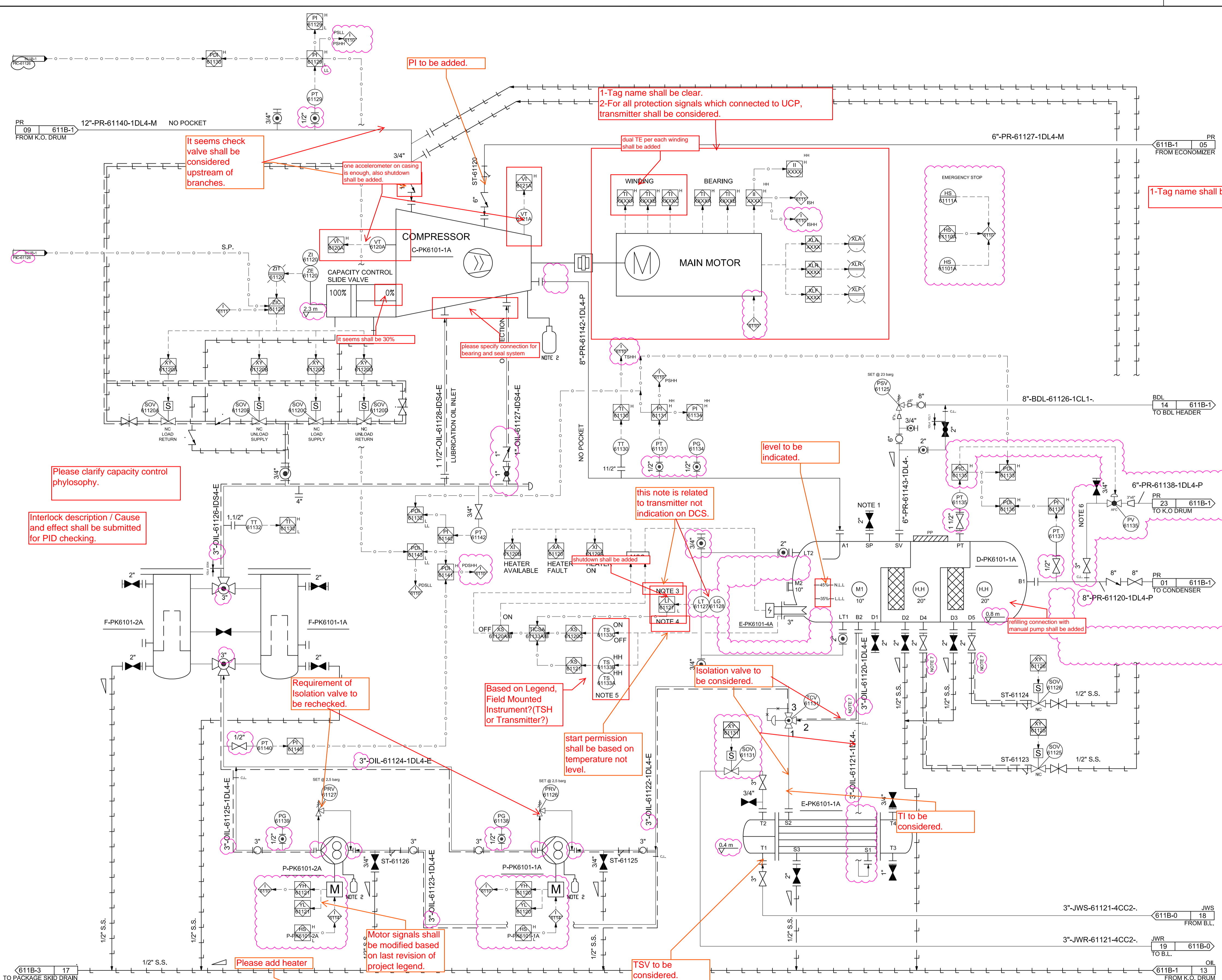
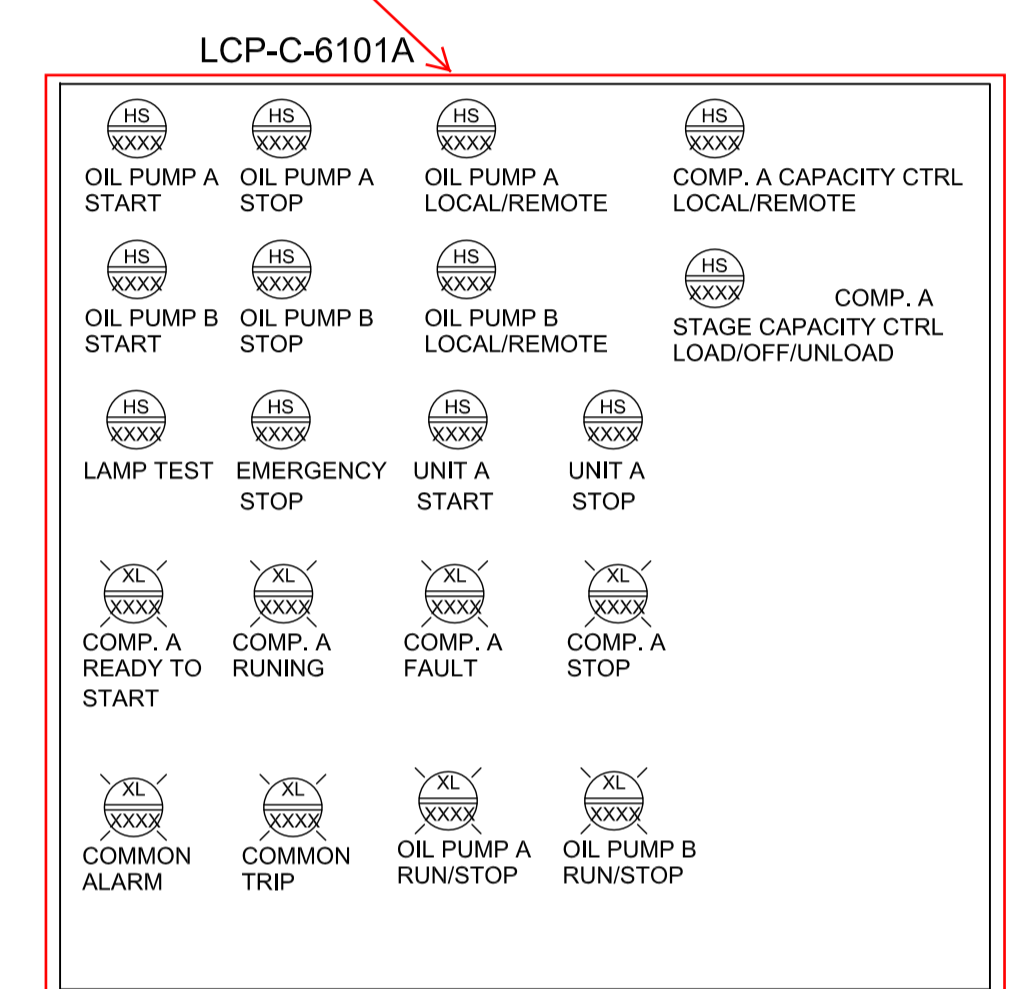
D-PK6101-2 LIQUID RECEIVER	D-PK6101-3 K.O. DRUM	E-6101 EVAPORATOR	E-PK6101-2 CONDENSER	E-PK6101-3 ECONOMIZER	F-PK6101-2 PROPYLENE FILTER/DRYER
ID X T.L T.L : 888.6 X 4000 mm	ID X T.L T.L : 1800 X 2800 mm	TEMA TYPE : BKM	TEMA TYPE : BEM	TEMA TYPE : BEM	TYPE : MOLECULAR SIEVE
VOLUME : 2.7 m ³	VOLUME : 7.78 m ³	ID X TUB.L : 1200/1656 X 4200 mm	ID X TUB.L : 1180 X 5000 mm	ID X TUB.L : 581 X 6000 mm	ID X T.L T.L : 4" X 195 mm
DESIGN PRESS. : 23 barg+F.V	DESIGN PRESS. : 23 barg + F.V	DUTY : 1688 kW	DUTY : 2682 kW	DUTY : 508.3 kW	DESIGN PRESS. (S/T) : 23.0 barg + FV
DESIGN TEMP. : -45/135 °C	DESIGN TEMP. : -45/135 °C	DESIGN PRESS. (S/T) : 23-F.V/23 barg	DESIGN PRESS. (S/T) : 23-F.V/23 barg	DESIGN PRESS. (S/T) : 23/23-F.V barg	DESIGN TEMP. (S/T) : -45/135 °C
MATERIAL : C.S.	MATERIAL : C.S.	DESIGN TEMP. (S/T) : -45-125/ -45-125 °C	DESIGN TEMP. (S/T) : -45-125/ -45-125 °C	DESIGN TEMP. (S/T) : 125/45-125 °C	MATERIAL (B/I) : C.S./S.S.
		MATERIAL (S/T) : C.S./C.S.	MATERIAL (S/T) : C.S./C.S.	MATERIAL (S/T) : C.S./C.S.	

Color	Width
RED	0.10
YEL	0.20
GRN	0.30
CYA	0.40
BLU	0.50
MAG	0.60
WHY	0.20
8	0.10
9	0.10
11	0.10
30	0.10
40	0.10
54	0.10
60	0.10
100	0.10
112	0.10
140	0.10
200	0.10

NOTES

- NOTE 1: OIL FILL UP & VACUUM CONNECTION.
- NOTE 2: COLLECTION POT TO BE EMPTIED ONCE EVERY (X) WEEKS TIME.
- NOTE 3: MAGNETIC TYPE.
- NOTE 4: START PERMISSION FOR OIL SEPARATOR HEATER.
- NOTE 5: 61133A= BOX CUT OUT SWITCH. 61133B= OVERHEAT SWITCH.
- NOTE 6: START UP BYPASS.
- NOTE 7: ELECTRICAL TRACING. T= 30 °C.

1-Tag name shall be considered for all Signals.



Please clarify capacity control philosophy.

Interlock description / Cause and effect shall be submitted for PID checking.

Requirement of isolation valve to be rechecked.

Motor signals shall be modified based on last revision of project legend.

Please add heater

TSV to be considered.

Color	Width
RED	0.10
YEL	0.20
GRN	0.30
CYA	0.40
BLU	0.50
MAG	0.60
WHY	0.20
8	0.10
9	0.10
11	0.10
30	0.10
40	0.10
54	0.10
60	0.10
100	0.10
112	0.10
140	0.10
200	0.10

Item	Description	Specifications
C-PK6101-A	SCREW COMPRESSOR	RATED POWER : 1400 kW DP PRESSURE : 17.65 bar MANUFACTURER : MAYEKAWA COMP. TYPE : OIL FLOODED SCREW MAYEKAWA TYPE : PPN320UD-ME
D-PK6101-1A	OIL SEPARATOR	ID X HEIGHT : 1041.4 X 6604 mm VOLUME : 5.9 m ³ DESIGN PRESS. : 20.69 barg DESIGN TEMP. : -42.8/107.2 °C MATERIAL : C.S.
E-PK6101-1A	OIL COOLER	TEMA TYPE : BEM ID X TUB.L : 381 X 3000 mm DUTY : 209 kW DESIGN PRESS. (S/T) : 25/25 barg DESIGN TEMP. (S/T) : 120/190 °C MATERIAL (S/T) : C.S./C.S.
F-PK6101-1A/2A	OIL FILTER	TYPE : CARTRIDGE ID X T.L.T.L : 8" X 1300 mm DESIGN PRESS. (S/T) : 25.0 barg + FV DESIGN TEMP. (S/T) : 120 °C MATERIAL (B/I) : C.S./S.S.
P-PK6101-1A/2A	OIL PUMP	TYPE : GEAR FLOW : 240 L/min DESIGN PRESS. : 25 barg DESIGN TEMP. : 120 °C POWER : 7.5 kW DP : 5.2 MATERIAL : C.S.

CLIENT:	MC	CONTRACTOR:
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PROJECT TITLE:
DEHDASHT PETROCHEMICAL INDUSTRY COMPANY
DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT

DRAWING TITLE:
PIPING AND INSTRUMENT DIAGRAM (P&ID)

DOCUMENT No:	DPIC9812-000-VD-1002-ME-PID-0010	SC.	18
Proj. Code	Area No.	VD	PO No.
DPIC9812	000	VD	1002
Disc. Code	Doc. Type	Serial No.	Rev.
ME	PID	010	D1
SIZE: A1			3 OF 4

PURCHASER'S COMMENT/APPROVAL STATUS	PURCHASER:
1. AP: Approved (Released for Manufacturing)	
2. AN: Approved With Minor Comments (Fabrication may Proceed)	
3. NF: Approved With Comments (Fabrication not Proceed)	REQUISITION NO.: DPIC98-12-001-000-ME-MR-
4. RJ: Rejected	ITEM NO. (TAG NO.): PK-6101
5. NR: Not Returned	VENDOR DOC. NO.: DPIC98-12-000-VD-1002-ME-PID-010-D1
Date: 15.01.2022	Signature: A.AB

REV	DATE	DESCRIPTION	PREP'D	CHK'D	APP'D
01	29-Dec-21	ISSUE FOR APPROVAL	R.GODARZI	A.MALEKINIA	A.MALEKINIA
02	01-09-2021	ISSUE FOR APPROVAL	R.GODARZI	A.MALEKINIA	A.MALEKINIA
03			PREP'D	CHK'D	APP'D



NOTES

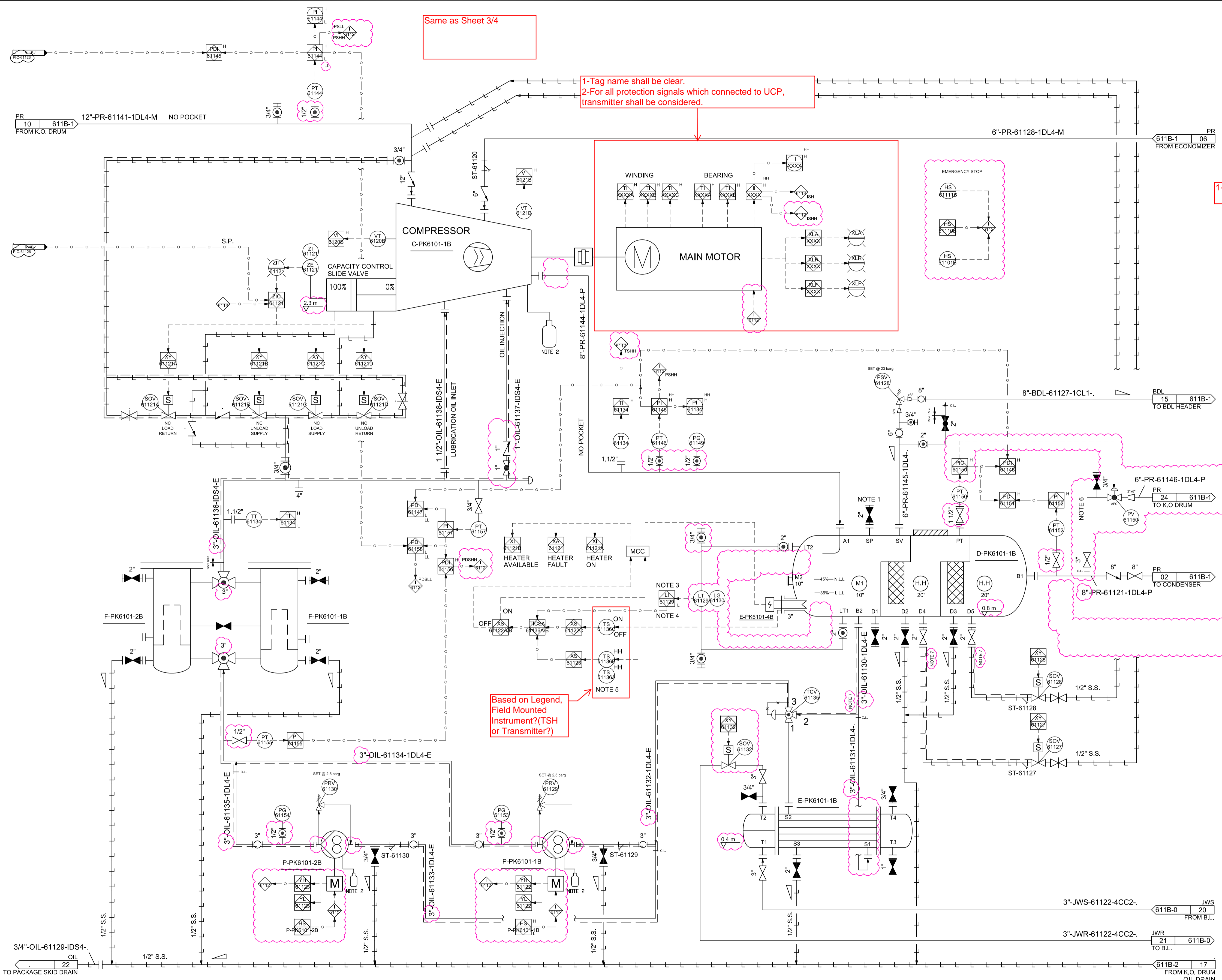
- NOTE 1: OIL FILL UP & VACUUM CONNECTION.
- NOTE 2: COLLECTION POT TO BE EMPTIED ONCE EVERY (X) WEEKS TIME.
- NOTE 3: MAGNETIC TYPE.
- NOTE 4: START PERMISSION FOR OIL SEPARATOR HEATER.
- NOTE 5: 61136A= BOX CUT OUT SWITCH. 61136B= OVERHEAT SWITCH.
- NOTE 6: START UP BYPASS.
- NOTE 7: ELECTRICAL TRACING. T= 30 °C.

1-Tag name shall be considered for all Signals.

Same as Sheet 3/4

1-Tag name shall be clear.
2-For all protection signals which connected to UCP, transmitter shall be considered.

Based on Legend, Field Mounted Instrument?(TSH or Transmitter?)



LCP-C-6101A

HS XXXX	HS XXXX	HS XXXX	HS XXXX
OIL PUMP A START	OIL PUMP A STOP	OIL PUMP A LOCAL/REMOTE	COMP. A CAPACITY CTRL LOCAL/REMOTE
HS XXXX	HS XXXX	HS XXXX	HS XXXX
OIL PUMP B START	OIL PUMP B STOP	OIL PUMP B LOCAL/REMOTE	COMP. A STAGE CAPACITY CTRL LOAD/OFF/UNLOAD
HS XXXX	HS XXXX	HS XXXX	HS XXXX
LAMP TEST STOP	EMERGENCY STOP	UNIT A START	UNIT A STOP
XL XXXX	XL XXXX	XL XXXX	XL XXXX
COMP. A READY TO START	COMP. A RUNNING	COMP. A FAULT	COMP. A STOP
XL XXXX	XL XXXX	XL XXXX	XL XXXX
COMMON ALARM	COMMON TRIP	OIL PUMP A RUN/STOP	OIL PUMP B RUN/STOP

Color	Width
RED	0.10
YEL	0.20
GRN	0.30
CYA	0.40
BLU	0.50
MAG	0.60
WHY	0.20
8	0.10
9	0.10
11	0.10
30	0.10
40	0.10
54	0.10
60	0.10
100	0.10
112	0.10
140	0.10
200	0.10

Equipment	Specifications
C-PK6101-B SCREW COMPRESSOR	RATED POWER : 1400 kW DP PRESSURE : 17.65 bar MANUFACTURER : MAYEKAWA COMP. TYPE : OIL FLOODED SCREW MAYEKAWA TYPE : PPN320LUD-ME
D-PK6101-1B OIL SEPARATOR	ID X HEIGHT : 1041.4 X 6604 mm VOLUME : 5.9 m ³ DESIGN PRESS. : 20.69 barg DESIGN TEMP. : -42.8/107.2 °C MATERIAL : C.S.
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P-PK6101-1B/2B OIL PUMP	TYPE : GEAR FLOW : 240 L/min DESIGN PRESS. : 25 barg DESIGN TEMP. : 120 °C POWER : 7.5 kW DP : 5.2 MATERIAL : C.S.

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PROJECT TITLE: DEHDASHT PETROCHEMICAL INDUSTRY COMPANY DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT		
DRAWING TITLE: PIPING AND INSTRUMENT DIAGRAM (P&ID)		
DOCUMENT No: DPIC9812-000-VD-1002-ME-PID-0010	SC. SIZE: A1	
Proj. Code	Area No.	VD
DPIC9812	000	VD
Disc. Code	Doc. Type	Serial No.
1002	ME	010
Rev.	Sheet No.	
4	4 OF 4	
PURCHASER'S COMMENT/APPROVAL STATUS 4150		
1. AP: Approved (Released for Manufacturing)		
2. AN: Approved With Minor Comments (Fabrication may Proceed)		
3. NR: Approved With Comments (Fabrication not Proceed)		
4. RJ: Rejected		
5. NR: Not Returned		
Date: 15.01.2022	Signature: AAB	VENDOR DOC. NO.: DPIC98-12-000-VD-1002-ME-PID-010-01
REV	DATE	DESCRIPTION
01	29-Dec-21	ISSUE FOR APPROVAL
02	01-09-2021	ISSUE FOR APPROVAL
		PREP'D
		CHK'D
		APP'D
KASRAVAND CO.		