STYRENE PARK OFFSITE

Document Title:

Piping And Instrumentation Diagram (P&ID)

Rev.	Issued Date	DESCRIPTION	PREPARED	CHECKED	APPROVED
A0	09-02-2025	AS & AFC	F.SH	M.O	A.M
R2	07-11-2024	IFA	F.SH	M.O	A.M
R1	27-08-2024	IFA	F.SH	M.O	A.M
R0	30-06-2024	IFA	F.SH	M.O	A.M

REVISION RECORD SHEET

Page	Revisions								Page	Revisions						
Page	R0	R1	R2	A0	R4	R5	R6			R0	R1	R2	R3	R4	R5	R6
1	X	X	X	X					41							
2	X	X	X	X					42							
3	X	X	X	X					43							
4	X	X	X	X					44							
5	X	X	X	X					45							
6	X	X	X	X					46							
7	X	X	X	X					47							
8	X	X	X	X					48							
9	X	X	X	X					49							
10				X					50							
11				X					51							
12				X					52							
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INSTRUMENT NUMBERING

EACH INSTRUMENT HAS BEEN NAMED AS SHOWN BELOW IN THE DOCUMENTATION:
TAG-RU0001X-AA
WHERE,

X : ONE DIGITS, WHICH IDENTIFY THE REFRIGERANT PACKAGE TRAIN (A OR B)
TAG : INSTRUMENT TAG (ATTACHMENT: P&ID SYMBOLS)
AA : TWO DIGITS, WHICH IS THE PROGRESSIVE ITEM NUMBER IN THE UNIT FROM 01 TO 99.

MOTOR INSTRUMENT NUMBERING

IF AN INSTRUMENT OR A FUNCTION IS INSTALLED ON A ELECTRIC DRIVER OF A MACHINERY WHICH NAME IS TAG-RU0001X-AA, THE INSTRUMENT NAME IS: TAG-RU0001X-AA

PIPE LINE NUMBERING
DN-MP-RU0001YXX-ML3R1-C

WHERE,
DN : NOMINAL DIAMETER IN INCH
MP : FLUID CODE
RU0001 : PACKAGE NAME
Y : PACKAGE TRAIN (A OR B)
XX : LETTER WHICH INDENTIFIES THE LINE NUMBER

ML3R1: M L 3 R 1
- MAYEKAWA/ MYCOM KOREA
- MATERIAL
- RATING
- FLANGE TYPE
- CORROSION ALLOWANCE

Rating:	MATERIAL:	FLANGE TYPE:	CORROSION ALLOWANCE:
1=150 CLASS	C: CARBON STEEL	R = RAISED FACE	0 = 0 mm
3=300 CLASS	L: LOW TEMPERATURE CARBON STEEL	F = FLAT FACE	1 = 1.5 mm
6=600 CLASS	S: STAINLESS STEEL	R = RING TYPE JOINT	2 = 3.0 mm
9=900 CLASS	I: INSTRUMENT AIR STAINLESS STEEL	J = LARGE MALE/ FEMALE	
15=1500 CLASS		S = SMALL L TONGUE/GROOVE	

FLUID CODE:	DESCRIPTION
AV	Atmospheric Vent
CWS	Cooling Water Supply
CWR	Cooling Water Return
FWG	Flare/Vent gas
IA	Instrument Air
OI	Hydraulic Oil
ST	Styrene
PR	Propane

Instrument line and function symbols

HARDWARE Symbol	HARDWARE Denomination
	Locally mounted
	Monted on back panel
	Monted in main control room
	Monted on back panel in auxiliary control room or on local panel
	Monted on panel in auxiliary control room or on local panel
I	Filed relay
	Back panel relay in auxiliary control room or on local panel
	Monted on back panel
*	Star indicated that the instrument is supplied by package manufacturer
	SIGNAL LIGHT
FF	Foundation Fieldbus
+ / -	Differential between two value + Upper Value - lower value

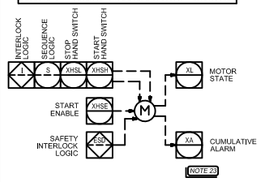
SOFTWARE Symbol	SOFTWARE Denomination
	Field mounted, shared display, shared control
	Function normally inaccessible to operator and installed in main control room
	Function normally accessible to operator and installed in main control room
	Function normally inaccessible to operator and installed in auxiliary control room or on local panel
	Function normally accessible to operator and installed in auxiliary control room or on local panel
	Software Interloc logic normally Inaccessible to operator and installed in main control room
S	Sequential logic functions
ESD	Safety interlock logic
	Package Control System PLC

Symbol	Denomination	
	Connection to process	Instrument line Symbols
	Pneumatic signal	
	Electric signal	
	Capillary tubing (FILLED SYSTEM)	
	Internal system link (SOFTWARE / DATA LINK)	
	Electromagnetic or sonic signal	
	ELECTRICAL SIGNAL FIELDBUS TECHNOLOGY	
Σ	Summing function	FUNCTION LABELS
Δ	Difference function	
X	Proportional function	
X	Multiplying function	
÷	Dividing function	
>	High selecting function	
<	Low selecting function	

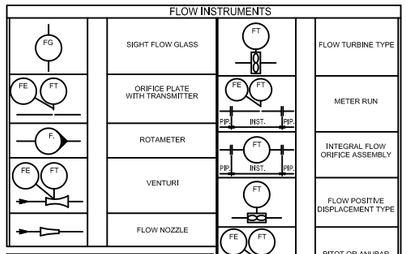
INSULATION AND TRACING CODES

A	:	ACOUSTIC INSULATION
H	:	HOT INSULATION
C	:	COLD INSULATION
P	:	PERSONNEL PROTECTION (FROM 60°C AND ABOVE)
FS	:	FIRE SAFE PROTECTION
T	:	STEAM TRACING
TW	:	HOT OIL TRACING
TC	:	HOT WATER TRACING
E	:	ELECTRICAL TRACING
JT	:	TOTAL JACKETED LINE
JR	:	REDUCED JACKETED LINE
JP	:	PARTIAL JACKETED LINE
F	:	ANTI FREEZING
D	:	DUAL INSULATION
B	:	SOLAR PROTECTION
K	:	ANTI CONDENSATION
AC	:	COLD AND ACOUSTIC INSULATION
AH	:	HOT AND ACOUSTIC INSULATION
N	:	NOT INSULATED
W	:	TAPE WRAPPED (UNDERGROUND LINES)

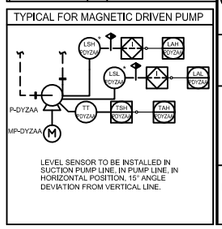
TYPICAL ELECTRICAL MOTORS INSTRUMENTATION

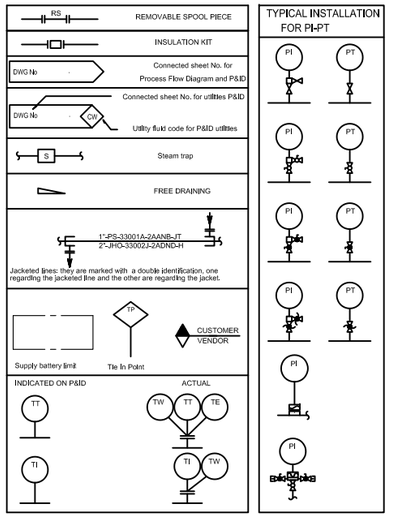


FLOW INSTRUMENTS

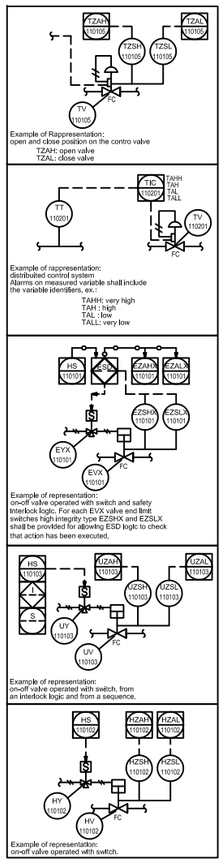


TYPICAL FOR MAGNETIC DRIVEN PUMP





TYPICAL INSTALLATION FOR PI-PT



Symbol	Denomination	Abbreviation
	CARTRIDGE Filter	FT
	Basket Filter	
S.STR	Suction Element	TST
	Coalescer	D
	Decanter	
M	Compressor Screw	C
	Vertical Shell & Tube Exchanger	E
	Pump Reciprocat	P
	Ejector	EJ
	Aircooler	AE

Piping and relevant components

Symbol	Denomination
	Main process
	Secondary process
	Utility
	Jacket
	Electrical Heat Tracing(Insulated)
	Hydraulic System Tubing (1/2" SS)
	Electrical Heat Tracing Tubing (Insulated)
	Blind flange
	Cap (butt weld)
DN/dn	Reducer (Bottom flat)
DN/dn	Reducer (Top flat)
DN/dn	Reducer (Concentric)
AC	Sample connection
	Sample Point
	Gate or generic inline valve
	Check Valve
	Stop Check Valve
	Globe or disc Valve
	Bellow Valve
	Butterfly Valve
N	Needle Valve
	Plug Valve
	Ball Valve (FULL BORE)
	Ball Valve (REDUCED BORE)
	Three-way Valve
	Spring Valve

Piping

Symbol	Denomination
	Female Connection
	Male Connection
	Flange Connection
(H)	Manhole
	Female nitrogen service
	Male nitrogen service

Auxiliary connections with quick coupling

Symbol	Denomination
	Cone Type strainer
	Temporary strainer
	Y-Strainer
	T-Strainer
	Ring spade
	Spectacle blind - normally closed
	Spectacle blind - normally open
	Ring spacer

Process vent and drains

Symbol	Denomination
DN DN	With gate or generic valve

All process vents and drains must be provided with plug or blind flange according to piping specification.

Symbol	Denomination
	With flame trap
	With dumper or silencer
	Downward
	Upward
	Lateral

Discharge to atmosphere

Symbol	Denomination
	Expansion joint
LC	Locked Close Valve
LO	Locked Open Valve
NO	Normally open valve
NC	Normally closed valve
CSO	Car seal open valve
CSC	Car seal closed valve
TSO	Tight Shut Off Valve
SG	Sight glass
C.L. CAV CDA	Pipe line class change

VALVES

Instrument identification

Symbol	Denomination
	Instrument tap on line
PI	Pressure tap with manifold valve
PI	Pressure tap with generic valves
PI	Pressure tap diaphragm type
FO	Fixed restriction orifice
FT	Primary flow element with transmitter
FICV	Automatic regulator with integral flow indication

Symbol	Denomination
	Handwheel for automatic valves (valve with actuators)
	Diaphragm, spring-opposed
	spring-opposed single-acting
	Cylinder, spring-opposed double-acting
M	Rotary motor
S	Solenoid
S	Solenoid valve with manual reset
	Hand actuator
	Butterfly Valve
PSV SET Mpa	Pressure relief or safety valve
TSV	Temperature relief or safety valve
FO	Two-Way Valve Fail Open
FC	Two-Way Valve Fail Close
FL	Two-Way valve fail locked
FI	Two-way valve fail indeterminate
A B FD C	three-way valve fail open to path A-C
(MAG) LG	MAGNETIC LEVEL GAUGE
(ME) LT	LEVEL TRANSMITTER WITH DIAPHRAGM SEPARATOR WITH EXTENSION
O C	Open Close

Actuator action in event of air failure

NOTES :

1- AN ADDITIONAL "X" AFTER THE INSTRUMENT CODE MEANS THAT INSTRUMENT BELONGS TO ESD SYSTEM.
2- FOR TEMPERATURE MEASURING INSTRUMENTS WHOSE SIGNAL HAS TO BE ROUTED TO A REMOTE SYSTEM (DCS, PLC), THE TRANSMITTER HAS BEEN ALWAYS INDICATED EVEN IF IT IS STRICTLY REQUIRED ONLY FOR CONTROL LOOPS, PROCESS INTERLOCKS AND SAFETY INTERLOCKS. IN CASE OF TEMPERATURE INDICATOR.
3- IN ALL THE P&ID, PACKAGES ARE REPPRESENTED IN A SIMPLIFIED WAY. IN GENERAL, WHAT IS REPPRESENTED IS LICENSOR MINIMUM REQUIREMENT. THE CHARACTERISTICS OF EACH PACKAGE ARE DESCRIBED IN THE RELEVANT DATA SHEET. IN ANY CASE, PACKAGES VENDORS SHALL SUPPLY FINAL P&ID.
4- FOR PIPES CARRYNG THE FOLLOWING FLUIDS :
   - EB (ETHYLBENZENE)
   - AN (ACRYLONITRILE)
   - CD (ORGANIC LIQUID CONDENSATE)
   - ST (STYRENE)
   - BD (BUTADIENE)
   THE NUMBER OF FLANGES SHALL BE MINIMIZED.
5- INSTALL DRAINS ON THE PIPING CIRCUITS (OR SINGLE LINES) LOWEST POINTS AND VENTS IN THE PIPING CIRCUITS (OR SINGLE LINES) HIGHEST POINTS.
6- MINIMIZE FLANGED COUPLINGS ON HOT/THERMAL OIL (HO) MAIN DISTRIBUTION HEADER LINES. FOR THERMAL OIL (HO, CO) LINES INSTALLED ON PIPE RACKS, FLANGED COUPLINGS SHALL BE EQUIPPED WITH SAFE–RING OR EQUIVALENT FLANGES JOINTS SPRAY PROTECTION.
7- WHEN AN INTERLOCK OR A SEQUENCE REQUIRES TO PERFORM AN ACTION, THE INTERLOCK OR SEQUENCE ITSELF SHALL VERIFY IF THE ACTION HAS BEEN DONE. THIS HAS TO BE CONSIDERED AS STANDARD INSTALLATION AND IS NOT REPRESENTED ON P&IDS.
8- IN GENERAL ON P&IDs SEQUENCES CHECK PHASE IS NOT REPRESENTED EXCEPT FOR:
   - ABS PLANT: RUBBER DISSOLUTION SECTION
   - RUBBER PLANT: REACTION SECTION
9- THE SIZE OF CONTROL VALVES BY–PASS VALVES WILL BE DEFINED / CONFIRMED ACCORDING TO THE FINAL SIZE OF CONTROL VALVES.
10- IN CASE DRIP RING IS INDICATED ON P&ID, IT SHALL BE SUPPLIED BY PIPING VENDOR. FOR DRIP RING TYPICAL SEE DOC. J–80/85/88–IN–STD–1500–0001 "DRIP RING FOR DIAPHRAGM INSTRUMENT TYPICAL".
11- THE INSTALLATION OF ALL PI–PT–TI–TT REPRESENTED ON P&ID IS INDICATED IN THE TYPICAL.
12- ALL SIGNALS FROM PLC TO ESD SHALL BE HARD–WIRED (NON–DATALINK)
13- ALL SIGNALS FROM UNIT 88 INSTRUMENTS SHALL BE CONNECTED TO DCS /FCS /ESD OF RUBBER PLANT.
14- ALL VALVES ON PSV INLET /OUTLET LINES SHALL BE FULL BORE TYPE. GATE VALVE ON FLARE LINE TO BE INSTALLED WITH STEM IN HORIZONTAL POSITION.
15- FOR SPECIAL PIPING ITEMS LIST REFER TO DOC.J–85–PI–PI–LSC–8501.
16- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
17- ELEVATION SHOWN ARE ABOVE THE HIGHEST POINT OF PAVING.
18- ALL VALVES ARE LINE SIZE UNLESS OTHERWISE SHOWN.
19- THIS FLOW DIAGRAM IS DIAGRAMMATIC ONLY. DESIGN OF PIPE LINE MUST BE INVESTIGATED FOR VENTING OF GAS AND VAPOR POCKETS IN PIPING AND EQUIPMENT, LOW POINTS IN PIPING, PUMPS AND EQUIPMENT FOR DRAINING AND ACCESSIBILITY OF ALL VALVES, FLANGES AND INSTRUMENTS INCLUDING THERMOCOUPLES ETC.
20- ALL ELECTRONIC INSTRUMENTATION SHALL BE INSTALLED AWAY FROM STEAM LINES AND HIGH TEMPERATURE HEAT SOURCE.
21- SAMPLE TAPING FOR GAS SAMPLES SHALL BE FROM THE TOP OF THE MAIN LINE. FOR LIQUID SAMPLES TAPPING SHALL BE DONE FROM THE SIDE.
22- EXCEPT FOR PROCESS REASONS, LOW POINT DRAINS AND HIGH POINT VENT ARE NOT SHOWN.
23- CABLING BETWEEN DCS REMOTE I/O CARDS IN MCC CUBICLE CABINET AND MAIN CONTROL ROOM WILL BE VIA SOFT LINK EXCEPT FOR ESD SIGNALS TO MCC THAT WOULD BE HARD WIRED.
24- EDSL MEANS EARTHING SWITCH LOW.
25- SIGNALS OF CURRENT TRANSMITTERS ARE TAKEN FROM MCC.
26- WHILE PURGING THE EQUIPMENTS, VENTS SHALL BE PROPERLY KEPT OPEN IN ORDER TO AVOID EQUIPMENT PRESSURIZATION ABOVE EQUIPMENT DESIGN/PSV SET PRESSURE BY MAINTAINING PROPER ADMINISTRATIVE CONTROL. PRESSURE SAFETY VALVES AND RUPTURE DISCS ARE NOT DESIGNED FOR THE MAXIMUM PURGING CONDITION MENTIONED IN THE LICENSOR PDP DATA.

REFERENCE DRAWING	DWG NO.	REV.

HOLDE:

EQUIPMENT LIST:

KEY PLAN :

REV.	ISSUE DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED
03	FEB–2025	AS BUILT	A.K	F.SH	A.M
02	OCT–2024	ISSUED FOR APPROVAL (IFA)	A.K	F.SH	A.M
01	AUG–2024	ISSUED FOR APPROVAL (IFA)	A.K	F.SH	A.M
00	JUL–2024	ISSUED FOR APPROVAL (IFA)	A.K	F.SH	A.M

CLIENT

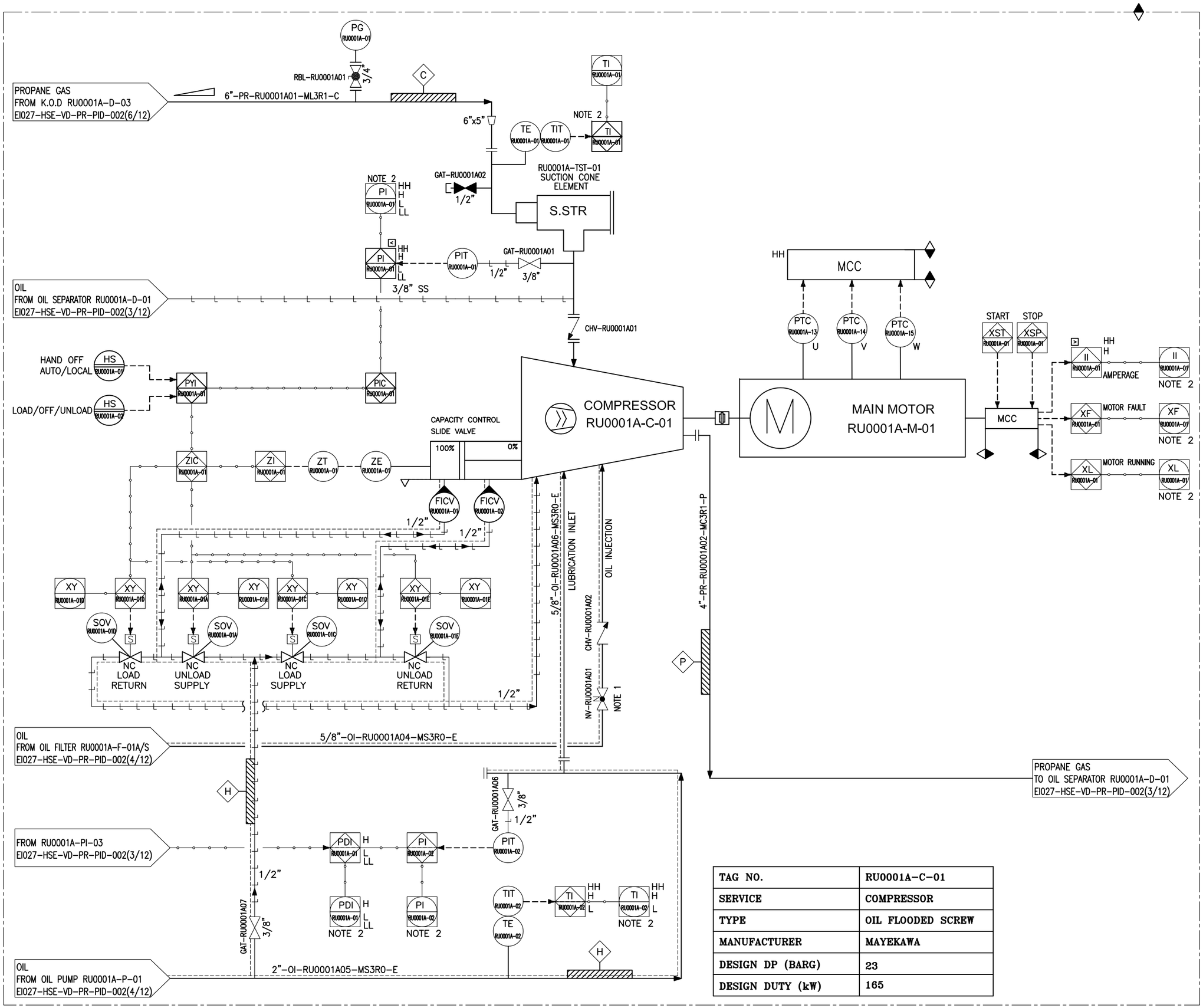
پتروشیمی توسعه پارک صنعتی گوهر افق

CONSULTING ENGINEER

PROJECT: STYRENE PARK OFFSITE

DRAWING TITLE:
PROCESS & INSTRUMENTATION DIAGRAM (P&ID)–RU
SYMBOL, ABBREVIATION AND GENERAL NOTES

DRAWING NO.	REV.	SIZE	SCALE	SHEET
EI027–HSE–VD–PR–PID–002	03	A3	NTC	1 of 12



TAG NO.	RU0001A-C-01
SERVICE	COMPRESSOR
TYPE	OIL FLOODED SCREW
MANUFACTURER	MAYEKAWA
DESIGN DP (BARG)	23
DESIGN DUTY (kW)	165

REFERENCE DRAWING	DWG NO.	REV.

NOTES :

1- OPENING DEGREE TO BE SET DURING COMMISIONING AND LOGGED.
2- SIGNALS ROUT TO DCS.
3- MAINTAIN TEMPERATURE FOR ELECTRICAL INSULATIONS IS 30°C.

LEGEND:

VENDOR CUSTOMER

HOLDE:

EQUIPMENT LIST:

KEY PLAN :

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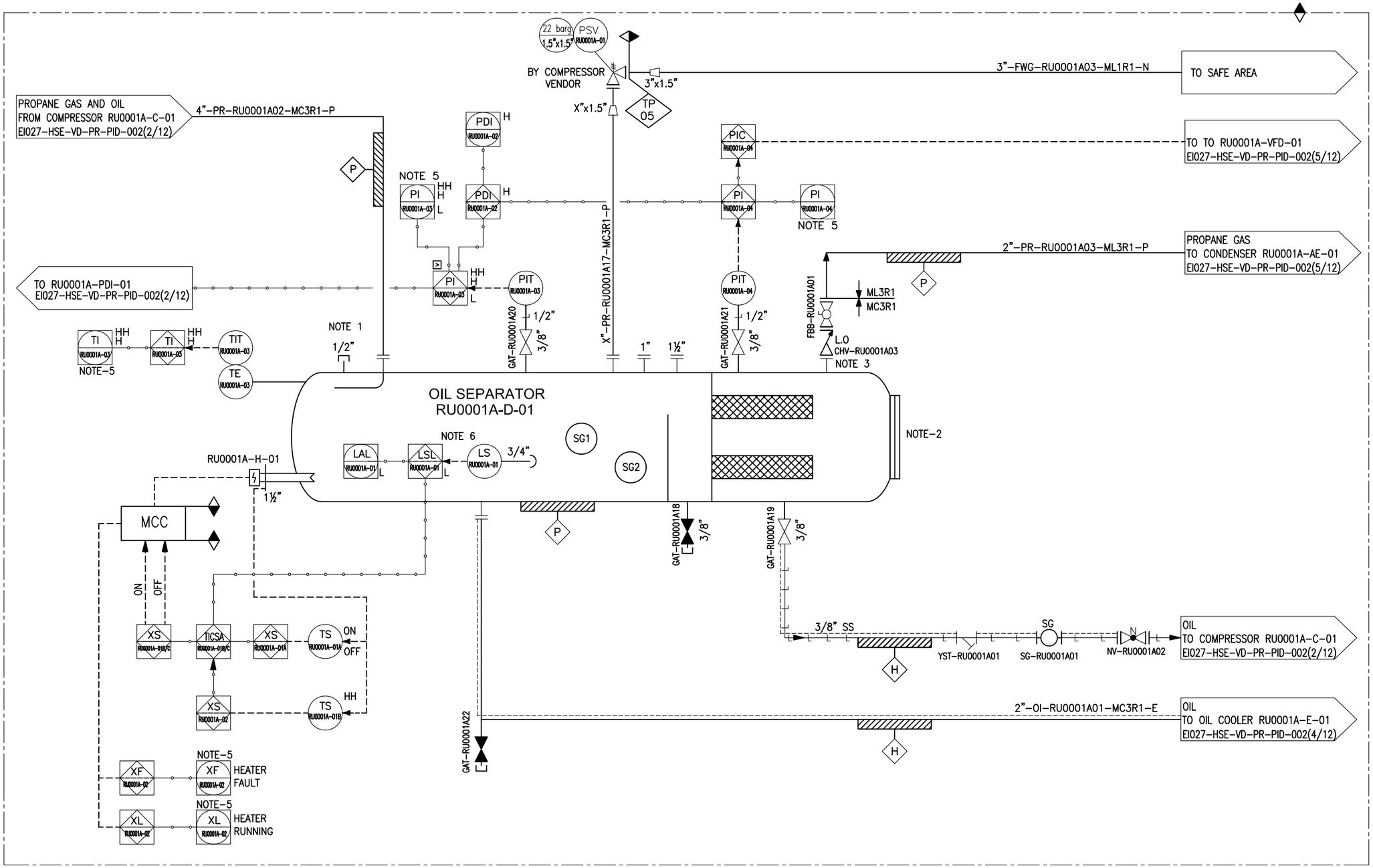
CONSULTING ENGINEER

PROJECT: STYRENE PARK OFFSITE

DRAWING TITLE: PROCESS & INSTRUMENTATION DIAGRAM (P&ID)-RU

DRAWING NO.	REV.	SIZE	SCALE	SHEET
EI027-HSE-VD-PR-PID-002	03	A3	NTC	2 of 12

TAG NO.	RU0001A-D-01
SERVICE	OIL SEPARATOR
DESIGN PRESS. (BARG)	22
DESIGN TEMP. (°C)	-29/100
ID x L (mm)	590 x 2250



REFERENCE DRAWING	DWG NO.	REV.

NOTES :

1- OIL TOP UP & VACUUM CONNECTION.
2- INSPECTION HOLE.
3- STOP CHECK VALVE FOR PREVENT SPIN BACK.
4- DELETED.
5- SIGNAL ROUT TO DCS.
6- IN CASE OF LOW LEVEL, THE OIL HEATER TO BE TRIPPED.
7- MAINTAIN TEMPERATURE FOR ELECTRICAL INSULATIONS IS 30°C.

LEGEND:

VENDOR ◆ CUSTOMER

HOLDE:

EQUIPMENT LIST:

KEY PLAN :

REV.	ISSUE DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED
03	FEB-2025	AS BUILT	A.K	F.SH	A.M
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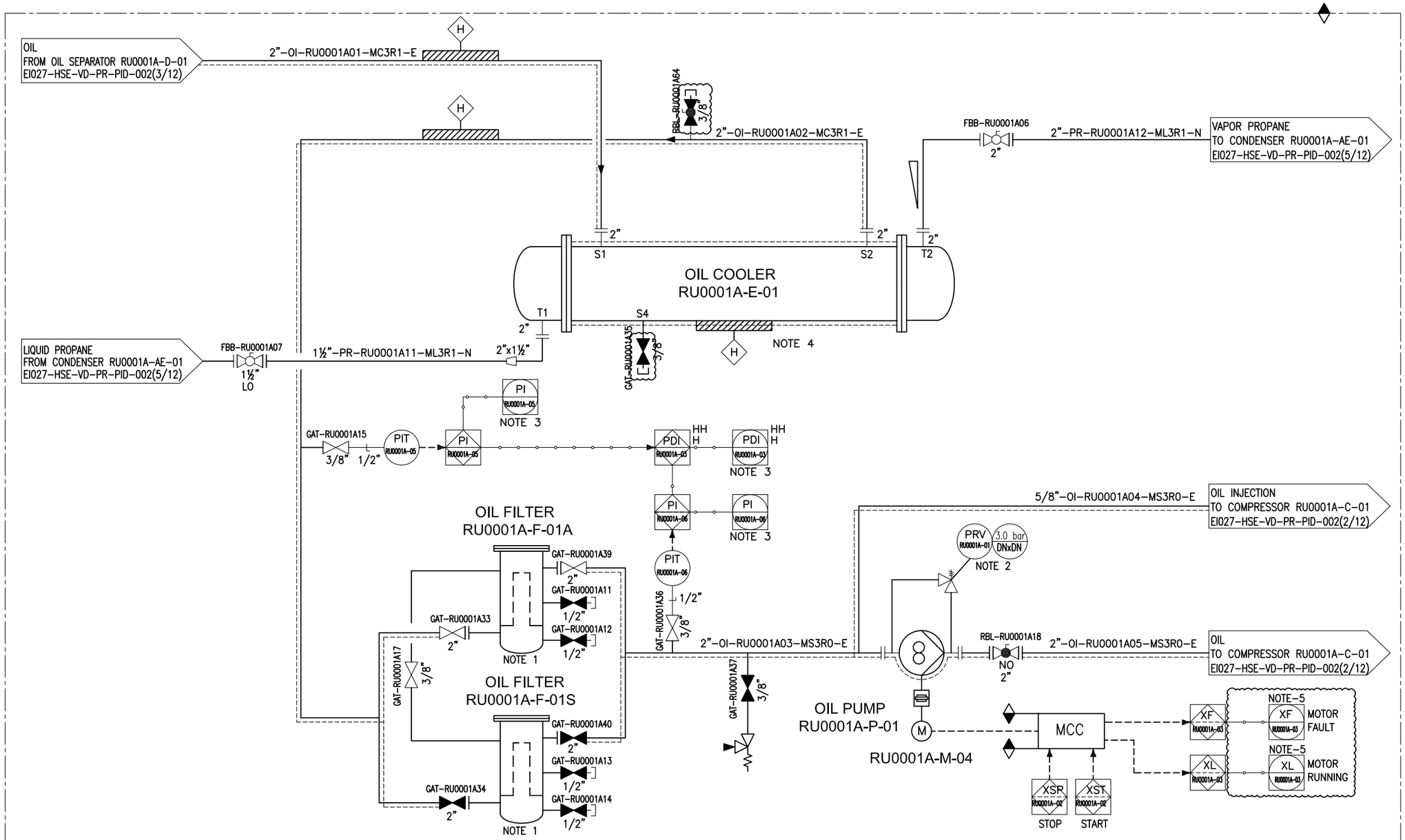
DRAWING NO.	REV.	SIZE	SCALE	SHEET
EI027-HSE-VD-PR-PID-002	03	A3	NTC	3 of 12

TAG NO.	RU0001A-E-01
SERVICE	OIL COOLER
DESIGN PRESS. (BARG)	S: 30, T:30
DESIGN TEMP. (°C)	S:5/100, T:-45/100
DESIGN DUTY (kW)	24.7
ID x L (mm)	139.7 x 2200
TYPE	AEH

TAG NO.	RU0001A-P-01
SERVICE	OIL PUMP
TYPE	SCREW PUMP
DESIGN PRESS. (BARG)	26
DESIGN TEMP. (°C)	5 / 100
RATED POWER (kW)	2.5

TAG NO.	RU0001A-F-01A/S
SERVICE	OIL FILTER
DESIGN PRESS. (BARG)	23
DESIGN TEMP. (°C)	5/100
ID x L (mm)	MAYEKAWA



REFERENCE DRAWING	DWG NO.	REV.

NOTES :

1- ONE OPERATING / ONE STAND-BY.
2- DP=3 BAR.
3- SIGNAL ROUT TO DCS.
4- HEAT TRACING TO BE TURNED OFF DURING COMPRESSOR START.
5- MAINTAIN TEMPERATURE FOR ELECTRICAL INSULATIONS IS 30°C.

LEGEND:

VENDOR CUSTOMER

HOLDE:

EQUIPMENT LIST:

KEY PLAN :

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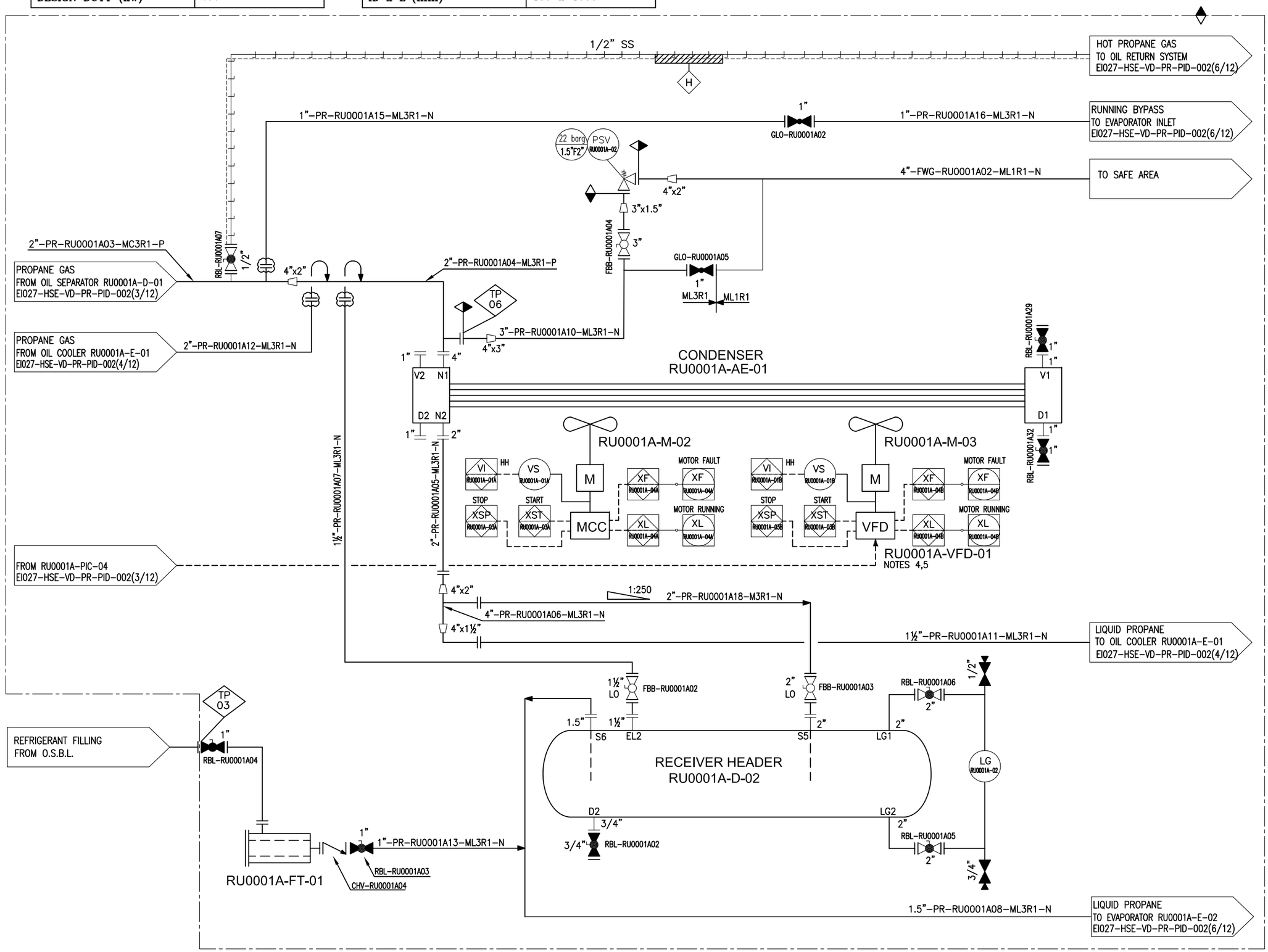
DRAWING NO.	REV.	SIZE	SCALE	SHEET
EI027-HSE-VD-PR-PID-002	03	A3	NTC	4 of 12

TAG NO.	RU0001A-AE-01
SERVICE	CONDENSER
DESIGN PRESS. (BARG)	22.0+FV
DESIGN TEMP. (°C)	-45/120
DESIGN DUTY (kW)	257

TAG NO.	RU0001A-D-02
SERVICE	RECEIVER HEADER
DESIGN PRESS. (BARG)	22.0+FV
DESIGN TEMP. (°C)	-45/120
ID x L (mm)	437 x 4000



REFERENCE DRAWING	DWG NO.	REV.

NOTES :

1- DELETED.
2- MANUAL FAN PITCH HAS BEEN CONSIDERED FOR EACH FAN.
3- MAINTAIN TEMPERATURE FOR ELECTRICAL INSULATIONS IS 30°C.
4- VARIABLE FREQUENCY DRIVE IS INSTALLED IN MOTOR CONTROL CENTER.
5- MOTOR HARDWIRE CONNECTED TO VARIABLE FREQUENCY DRIVE.

LEGEND:

VENDOR CUSTOMER

HOLDE:

EQUIPMENT LIST:

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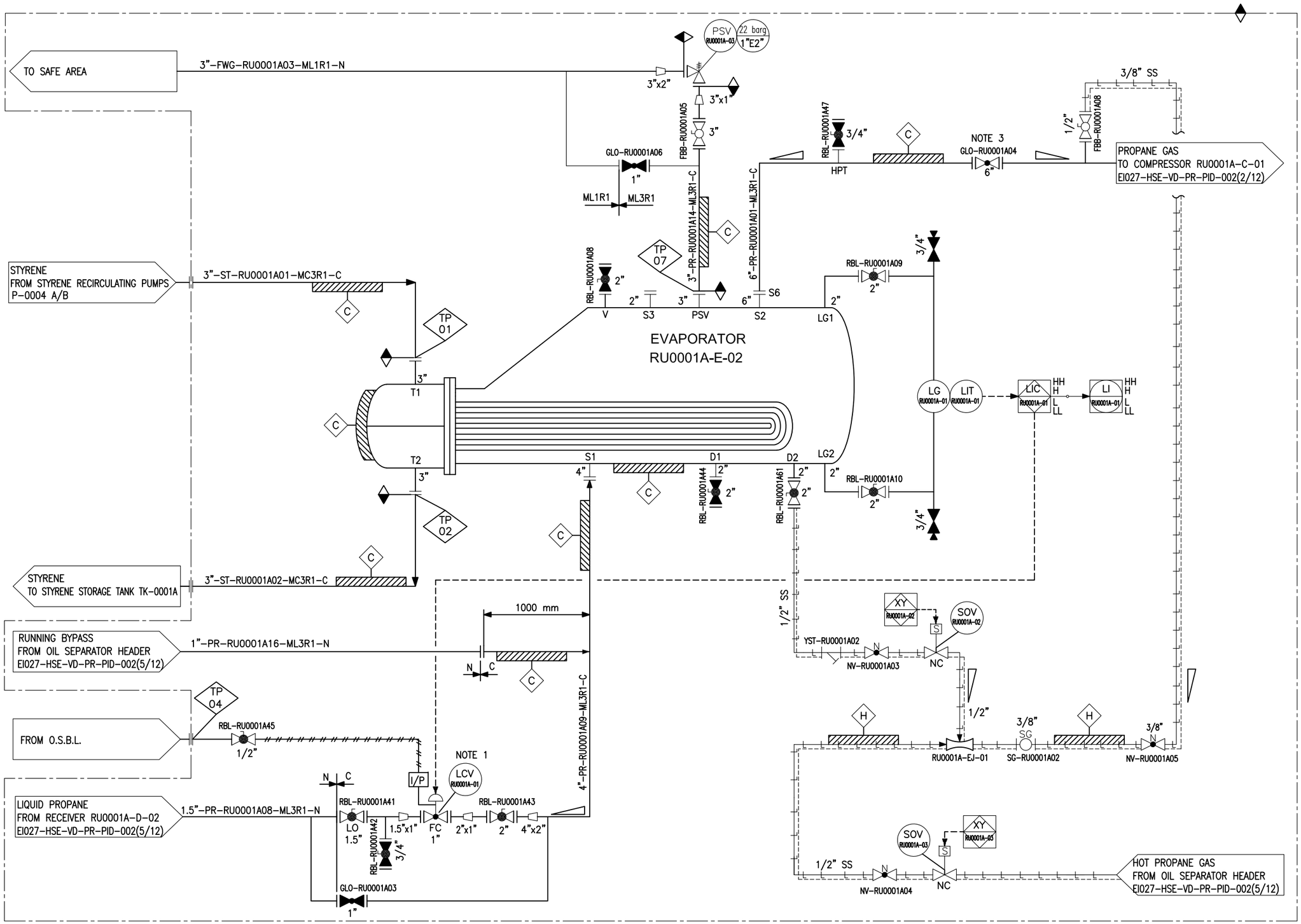
DRAWING NO.	REV.	SIZE	SCALE	SHEET
EI027-HSE-VD-PR-PID-002	03	A3	NTC	5 of 12

TAG NO.	**RU0001A-E-02**
SERVICE	**EVAPORATOR**
DESIGN PRESS. (barg)	**S: 22.0+FV, T: 6.8+FV**
DESIGN TEMP. (°C)	**S: -45/120, T: 85**
DESIGN DUTY (kW)	**166.6**
SHELL ID x TUBE L (mm)	**600-925 x 2300**
TEMA TYPE	**BKU**



REFERENCE DRAWING	DWG NO.	REV.

NOTES :

1- TRAVEL DOWN BLOCK TO BE SET AND LOCKED AT MINIMUM OPENING DURING COMMISSIONING (2 ~ 5%).
2- DELETED.
3- AT STAND STILL CONDITION, VALVE NEEDS TO BE CLOSED COMPLETLY. DURING START-UP VALVE TO BE OPENED SMOOTHLY.
4- MAINTAIN TEMPERATURE FOR ELECTRICAL INSULATIONS IS 30°C.

LEGEND:

VENDOR ◆ CUSTOMER

HOLDE:

EQUIPMENT LIST:

KEY PLAN :

REV.	ISSUE DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED
03	FEB-2025	AS BUILT	A.K	F.SH	A.M
02	OCT-2024	ISSUED FOR APPROVAL (IFA)	A.K	F.SH	A.M
01	AUG-2024	ISSUED FOR APPROVAL (IFA)	A.K	F.SH	A.M
00	JUL-2024	ISSUED FOR APPROVAL (IFA)	A.K	F.SH	A.M

CLIENT

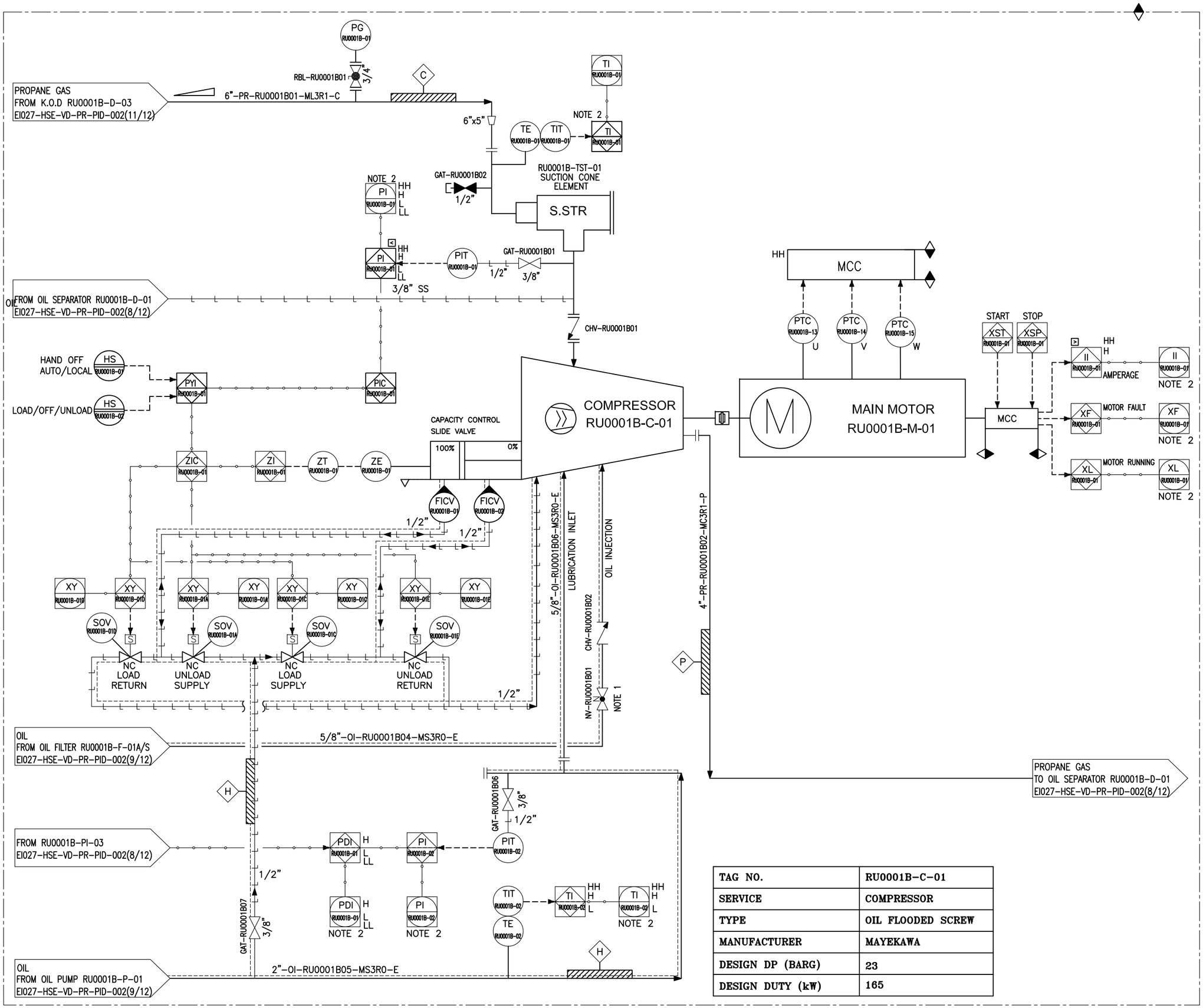
پتروشیمی توسعه پارک صنعتی گوهر افق

CONSULTING ENGINEER

PROJECT: STYRENE PARK OFFSITE

DRAWING TITLE: PROCESS & INSTRUMENTATION DIAGRAM (P&ID)-RU

DRAWING NO.	REV.	SIZE	SCALE	SHEET
EI027-HSE-VD-PR-PID-002	03	A3	NTC	6 of 12



TAG NO.	RU0001B-C-01
SERVICE	COMPRESSOR
TYPE	OIL FLOODED SCREW
MANUFACTURER	MAYEKAWA
DESIGN DP (BARG)	23
DESIGN DUTY (kW)	165

REFERENCE DRAWING	DWG NO.	REV.

NOTES :

1- OPENING DEGREE TO BE SET DURING COMMISIONING AND LOGGED.
2- SIGNALS ROUT TO DCS.
3- MAINTAIN TEMPERATURE FOR ELECTRICAL INSULATIONS IS 30°C.

LEGEND:

VENDOR ◆ CUSTOMER

HOLDE:

EQUIPMENT LIST:

KEY PLAN :

REV.	ISSUE DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED
03	FEB-2025	AS BUILT	A.K	F.SH	A.M
02	OCT-2024	ISSUED FOR APPROVAL (IFA)	A.K	F.SH	A.M
01	AUG-2024	ISSUED FOR APPROVAL (IFA)	A.K	F.SH	A.M
00	JUL-2024	ISSUED FOR APPROVAL (IFA)	A.K	F.SH	A.M

CLIENT

پتروشیمی توسعه پارک صنعتی گوهر افق

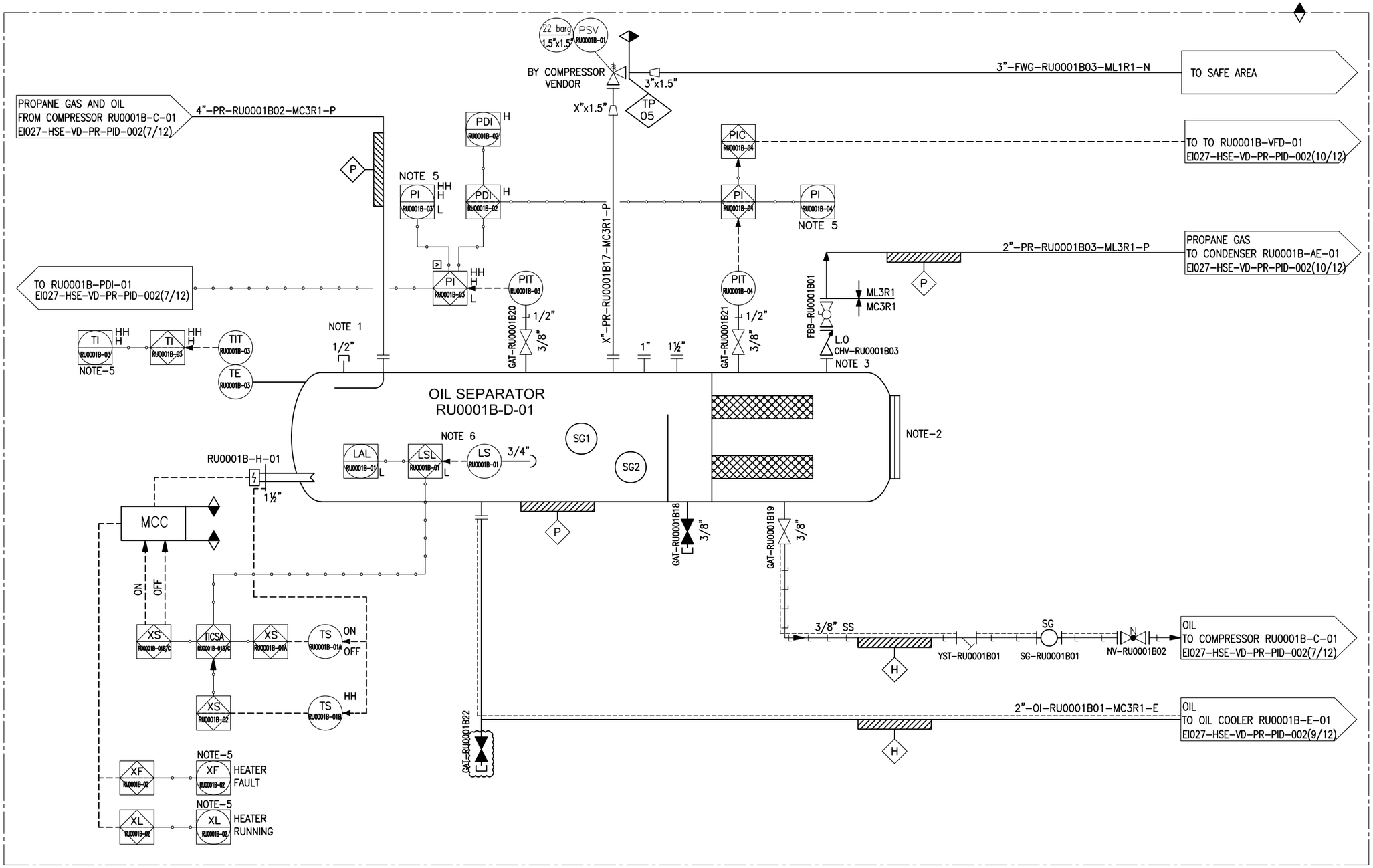
CONSULTING ENGINEER

PROJECT: STYRENE PARK OFFSITE

DRAWING TITLE: PROCESS & INSTRUMENTATION DIAGRAM (P&ID)-RU

DRAWING NO.	REV.	SIZE	SCALE	SHEET
EI027-HSE-VD-PR-PID-002	03	A3	NTC	7 of 12

TAG NO.	RU0001B-D-01
SERVICE	OIL SEPARATOR
DESIGN PRESS. (BARG)	22
DESIGN TEMP. (°C)	-29/100
ID x L (mm)	590 x 2250



REFERENCE DRAWING	DWG NO.	REV.

NOTES :

1- OIL TOP UP & VACUUM CONNECTION.
2- INSPECTION HOLE.
3- STOP CHECK VALVE FOR PREVENT SPIN BACK.
4- DELETED.
5- SIGNAL ROUT TO DCS.
6- IN CASE OF LOW LEVEL, THE OIL HEATER TO BE TRIPPED.
7- MAINTAIN TEMPERATURE FOR ELECTRICAL INSULATIONS IS 30°C.

LEGEND:

VENDOR CUSTOMER

HOLDE:

EQUIPMENT LIST:

KEY PLAN :

REV.	ISSUE DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED
03	FEB-2025	AS BUILT	A.K	F.SH	A.M
02	OCT-2024	ISSUED FOR APPROVAL (IFA)	A.K	F.SH	A.M
01	AUG-2024	ISSUED FOR APPROVAL (IFA)	A.K	F.SH	A.M
00	JUL-2024	ISSUED FOR APPROVAL (IFA)	A.K	F.SH	A.M

CLIENT

پتروشیمی توسعه پارک صنعتی گوهر افق

CONSULTING ENGINEER

PROJECT: STYRENE PARK OFFSITE

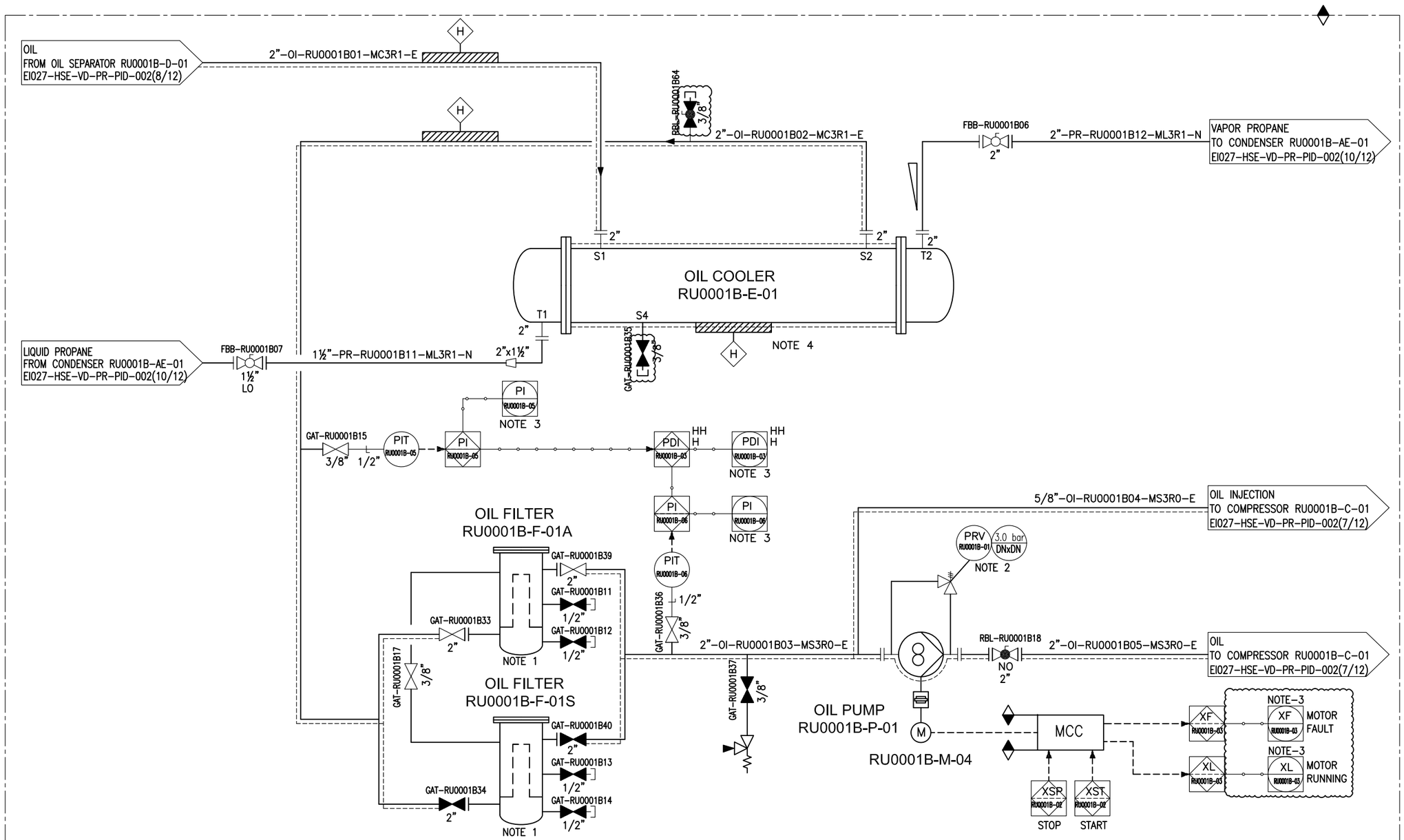
DRAWING TITLE: PROCESS & INSTRUMENTATION DIAGRAM (P&ID)-RU

DRAWING NO.	REV.	SIZE	SCALE	SHEET
EI027-HSE-VD-PR-PID-002	03	A3	NTC	8 of 12

TAG NO.	RU0001B-E-01
SERVICE	OIL COOLER
DESIGN PRESS. (BARG)	S: 30, T:30
DESIGN TEMP. (°C)	S:5/100, T:-45/100
DESIGN DUTY (kW)	24.7
ID x L (mm)	139.7 x 2200
TYPE	AEH

TAG NO.	RU0001B-P-01
SERVICE	OIL PUMP
TYPE	SCREW PUMP
DESIGN PRESS. (BARG)	26
DESIGN TEMP. (°C)	5 / 100
RATED POWER (kW)	2.5

TAG NO.	RU0001B-F-01A/S
SERVICE	OIL FILTER
DESIGN PRESS. (BARG)	23
DESIGN TEMP. (°C)	5/100
ID x L (mm)	MAYEKAWA



REFERENCE DRAWING	DWG NO.	REV.

NOTES :

1- ONE OPERATING / ONE STAND-BY.
2- DP=3 BAR.
3- SIGNAL ROUT TO DCS.
4- HEAT TRACING TO BE TURNED OFF DURING COMPRESSOR START.
5- MAINTAIN TEMPERATURE FOR ELECTRICAL INSULATIONS IS 30°C.

LEGEND:

VENDOR ◆ CUSTOMER

HOLDE:

EQUIPMENT LIST:

KEY PLAN :

REV.	ISSUE DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED
03	FEB-2025	AS BUILT	A.K	F.SH	A.M
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01	AUG-2024	ISSUED FOR APPROVAL (IFA)	A.K	F.SH	A.M
00	JUL-2024	ISSUED FOR APPROVAL (IFA)	A.K	F.SH	A.M

CLIENT

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CONSULTING ENGINEER

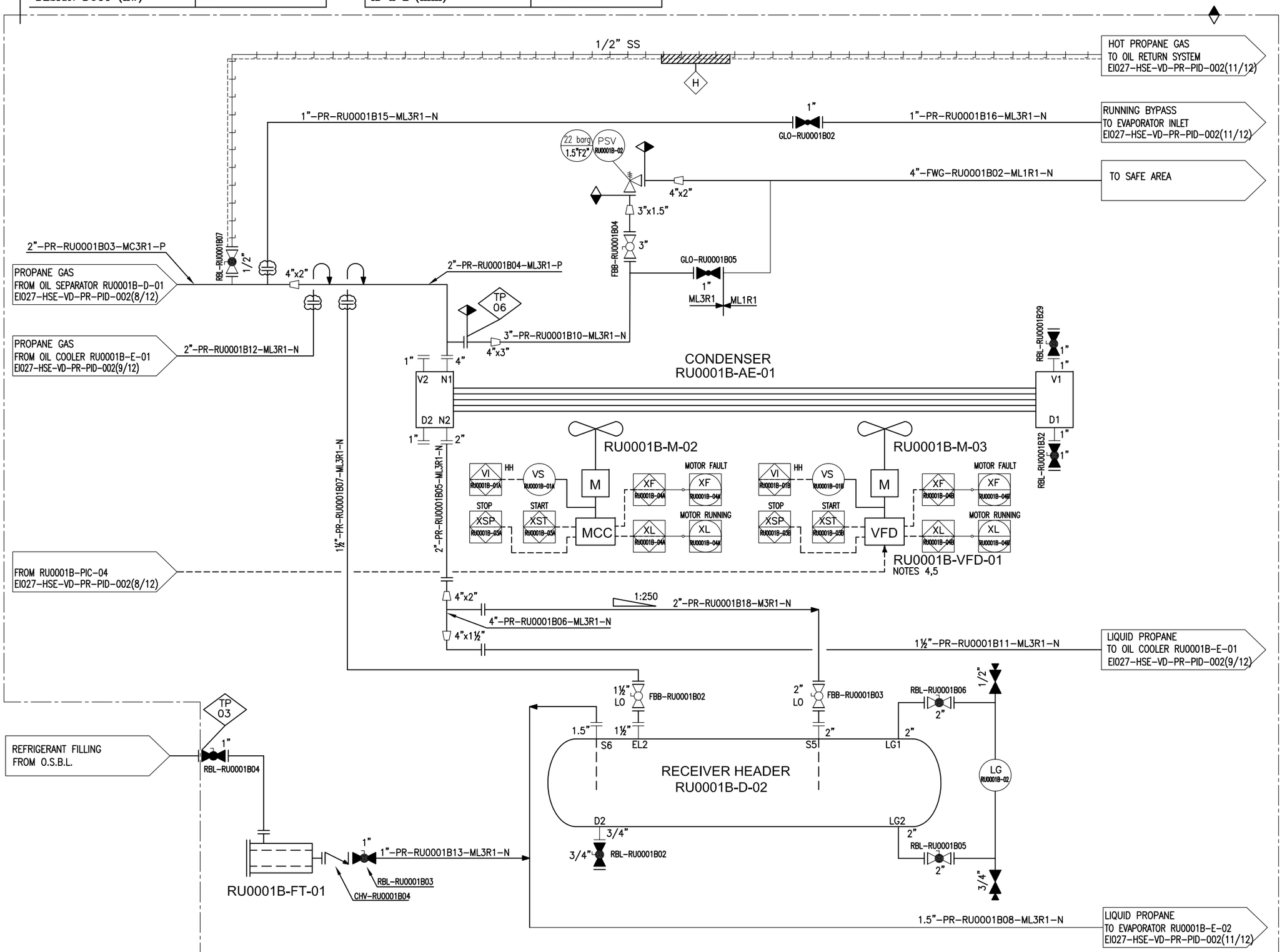
PROJECT: STYRENE PARK OFFSITE

DRAWING TITLE: PROCESS & INSTRUMENTATION DIAGRAM (P&ID)-RU

DRAWING NO.	REV.	SIZE	SCALE	SHEET
EI027-HSE-VD-PR-PID-002	03	A3	NTC	9 of 12

TAG NO.	RU0001B-AE-01
SERVICE	CONDENSER
DESIGN PRESS. (BARG)	22.0+FV
DESIGN TEMP. (°C)	-45/120
DESIGN DUTY (kW)	257

TAG NO.	RU0001B-D-02
SERVICE	RECEIVER HEADER
DESIGN PRESS. (BARG)	22.0+FV
DESIGN TEMP. (°C)	-45/120
ID x L (mm)	437 x 4000



REFERENCE DRAWING	DWG NO.	REV.

NOTES :

1- DELETED.
2- MANUAL FAN PITCH HAS BEEN CONSIDERED FOR EACH FAN.
3- MAINTAIN TEMPERATURE FOR ELECTRICAL INSULATIONS IS 30°C.
4- VARIABLE FREQUENCY DRIVE IS INSTALLED IN MOTOR CONTROL CENTER.
5- MOTOR HARDWIRE CONNECTED TO VARIABLE FREQUENCY DRIVE.

LEGEND:

VENDOR ◆ CUSTOMER

HOLDE:

EQUIPMENT LIST:

KEY PLAN :

REV.	ISSUE DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED
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00	JUL-2024	ISSUED FOR APPROVAL (IFA)	A.K	F.SH	A.M

CLIENT

پتروشیمی توسعه پارک صنعتی گوهر افق

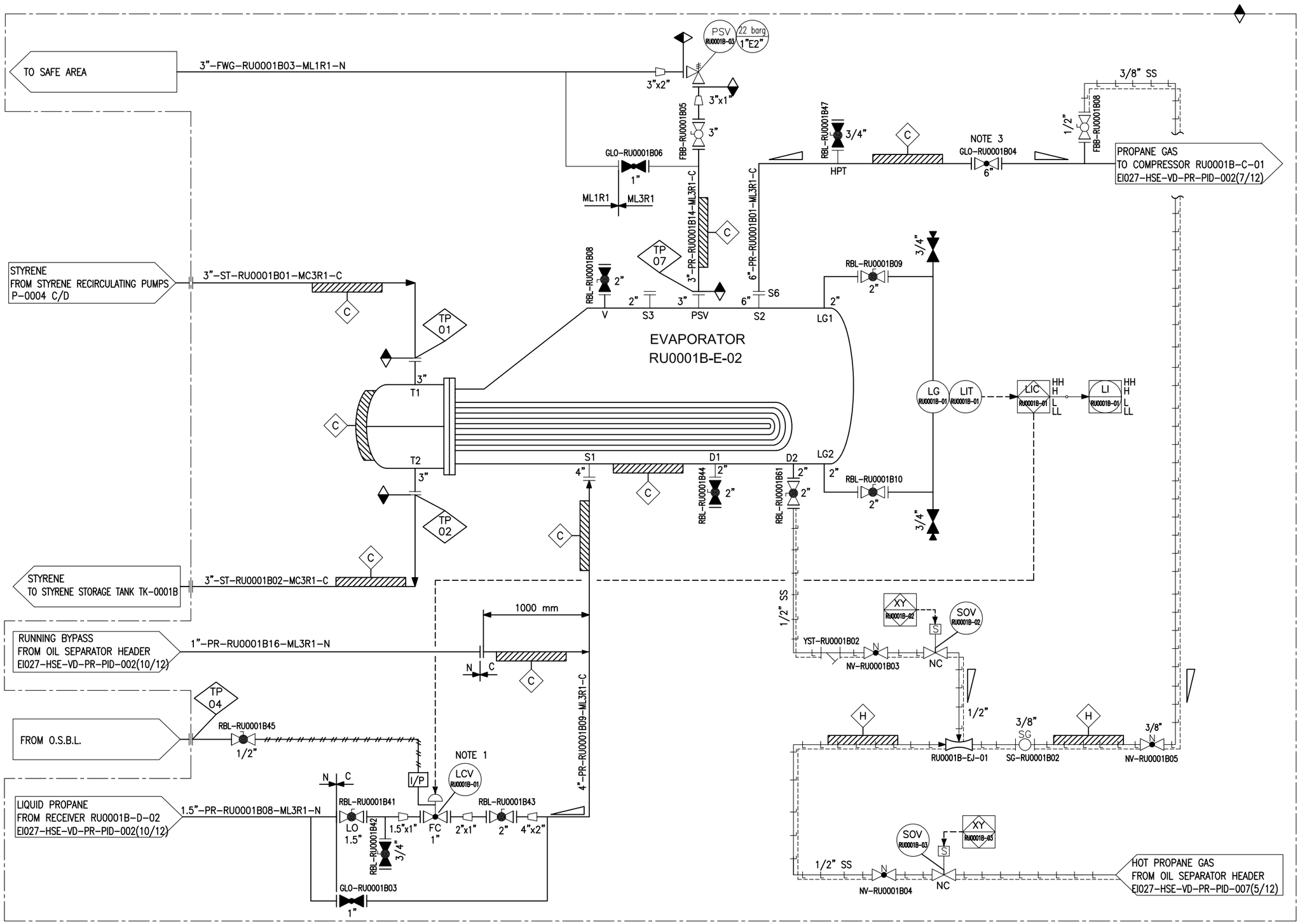
CONSULTING ENGINEER

PROJECT: STYRENE PARK OFFSITE

DRAWING TITLE: PROCESS & INSTRUMENTATION DIAGRAM (P&ID)-RU

DRAWING NO.	REV.	SIZE	SCALE	SHEET
EI027-HSE-VD-PR-PID-002	03	A3	NTC	10 of 12

TAG NO.	RU0001B-E-02
SERVICE	EVAPORATOR
DESIGN PRESS. (barg)	S: 22.0+FV, T: 6.8+FV
DESIGN TEMP. (°C)	S: -45/120, T: 85
DESIGN DUTY (kW)	166.6
SHELL ID x TUBE L (mm)	600-925 x 2300
TEMA TYPE	BKU



REFERENCE DRAWING	DWG NO.	REV.

NOTES :

1- TRAVEL DOWN BLOCK TO BE SET AND LOCKED AT MINIMUM OPENING DURING COMMISSIONING (2 ~ 5%).
2- DELETED.
3- AT STAND STILL CONDITION, VALVE NEEDS TO BE CLOSED COMPLETLY. DURING START-UP VALVE TO BE OPENED SMOOTHLY.
4- MAINTAIN TEMPERATURE FOR ELECTRICAL INSULATIONS IS 30°C.

LEGEND:

VENDOR ◆ CUSTOMER

HOLDE:

EQUIPMENT LIST:

KEY PLAN :

REV.	ISSUE DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED
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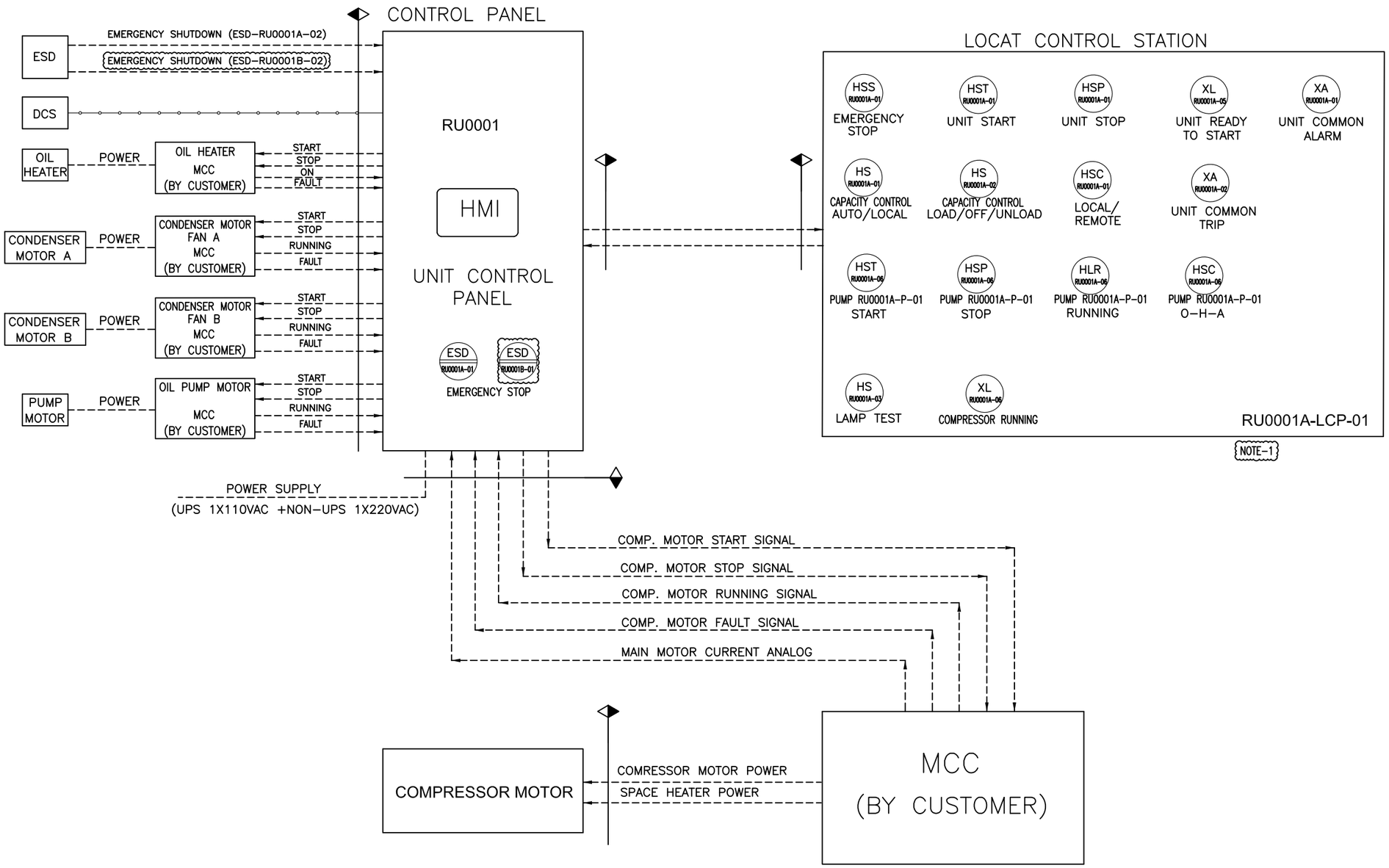
CONSULTING ENGINEER

PROJECT: STYRENE PARK OFFSITE

DRAWING TITLE: PROCESS & INSTRUMENTATION DIAGRAM (P&ID)-RU

DRAWING NO.	REV.	SIZE	SCALE	SHEET
EI027-HSE-VD-PR-PID-002	03	A3	NTC	11 of 12



CONNECTION LIST			
NO.	LOCATION	DESCRIPTION	SIZE
TP-01	PACKAGE	CHILLER INLET	3"-300 ANSI RF
TP-02	PACKAGE	CHILLER OUTLET	3"-300 ANSI RF
TP-03	PACKAGE	FILTER DRYER PROPYLENE INLET	1"-300 ANSI RF
TP-04	PACKAGE	INSTRUMENT AIR SUPPLY	1/2"-150 ANSI RF
TP-05	PACKAGE	OIL SEPARATOR PRESSURE SAFETY	1.5"-300 ANSI RF
TP-06	PACKAGE	CONDENSER PRESSURE SAFETY	3"-300 ANSI RF
TP-07	PACKAGE	EVAPORATOR PRESSURE SAFETY	3"-300 ANSI RF

REFERENCE DRAWING	DWG NO.	REV.

NOTES :

1- FOR RU-0001B-LCP-01, ALL TAG NUMBERS RU0001A IN LCP ARE CHANGED TO RU0001B

LEGEND:

VENDOR ◆ CUSTOMER

HOLDE:

EQUIPMENT LIST:

KEY PLAN :

REV.	ISSUE DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED
03	FEB-2025	AS BUILT	A.K	F.SH	A.M
02	OCT-2024	ISSUED FOR APPROVAL (IFA)	A.K	F.SH	A.M
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00	JUL-2024	ISSUED FOR APPROVAL (IFA)	A.K	F.SH	A.M

CLIENT

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CONSULTING ENGINEER

PROJECT: STYRENE PARK OFFSITE

DRAWING TITLE: PROCESS & INSTRUMENTATION DIAGRAM (P&ID)-RU

DRAWING NO.	REV.	SIZE	SCALE	SHEET
EI027-HSE-VD-PR-PID-002	03	A3	NTC	12 of 12