

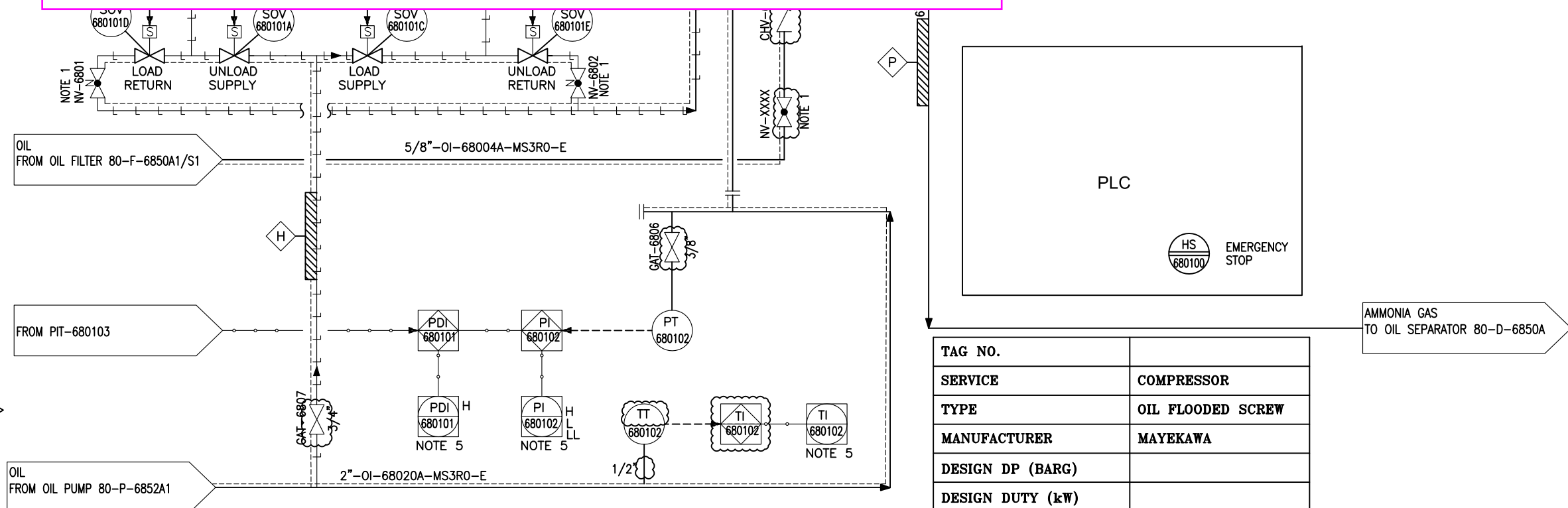
One Common KO drum will be considered as inlet for Both Compressor Units

For preparation of P&IDs, the following requirements shall be considered by vendor:

1. For numbering of instruments and loops on P&ID sheets, the range between 50300 ~ 50399 shall be used.
2. Same loop/instrument number for PT, PDT, and PG is not acceptable (E.g.: if PT-50300 is used, then PG-50300 is not acceptable and PG-50301 shall be used). Same strategy shall be followed for temperature, flow ... loop/instruments.
3. All instruments shall be shown on P&IDs and shall have tag no.
4. Legend of Symbols for Piping and Instrument Diagram (1231-BE-00-PR-PID-001-011) shall be followed for preparing PIDs.
5. All process alarm and values shall be transferred to Plant Control System (DCS) through MODBUS-TCP/IP. This shall be indicated on P&ID by related symbols.
6. All following communication signals shall be indicated on PIDs
 - Communication signals between Package PLC and MCC (start/stop/fault/ ...)
 - Hardwire signal between Plant HWC/DCS/ESD (Supplied by others) and Package PLC (if any)
 - Communication signals between Local Panels (field push buttons and lamps) and MCC/Package PLC (If any).
7. Size of PSV (TSV) should be indicated.
8. Instrument with MOS shall be defined on P&ID (If any).
9. Line sizes smaller than 4", shall be increased to 4" to accommodate thermowell.
10. Where ever machinery sensor will be connected to package PLC ,transmitter shall be provided by vendor. Direct connection of machinery sensor to package PLC is not acceptable. It should be noted that winding temp. sensors shall be connected to **MCC** directly. (in other word there shall not be any connection between winding temp. sensors and Package PLC.)
11. Vendor to clarify that if bearing temp. sensors will be connected to Package PLC or will be connected to MCC directly. If bearing temp. sensors will be connected to Package PLC ,refer to item 10 (above) ,temperature transmitters shall be provided by vendor.)

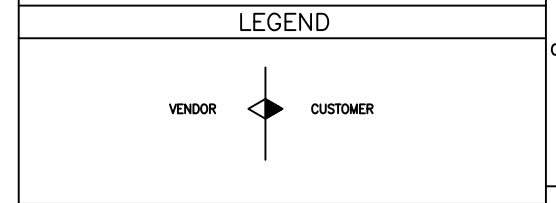
Vendor Reply

1. Noted and will follow.
2. Noted and will follow.
3. Noted and will follow.
4. Noted and will follow.
5. Noted and will follow.
6. Noted and will follow.
- Noted and will follow
- Noted and will be clarified when submitting the project P&ID
- Noted and will be clarified when submitting the project P&ID.
7. Noted and will follow.
8. Noted and will be clarified when submitting the project P&ID.
9. Line size where thermowell is installed will sized based on stream velocity to assure proper reading of the sensor.
10. Confirmed
11. Due to size of the motor using anti-friction ball bearings, RTDs are not offered.



PTC/TE will be considered for Main motors

- ### NOTES
- 1- OPENING DEGREE TO BE SET DURING COMMISSIONING AND LOGGED
 - 2- DELETED.
 - 3- TYPE OF THIS VALVE IS SPRING LOAD CHECK VALVE AND IT WILL OPEN WHEN DIFFERENTIAL PRESSURE INCREASE TO 5 BAR.
 - 4- ONE FUNCTIONAL ELEMENT AND ONE SPARE. VENDOR ONLY CONNECTS FUNCTIONAL ELEMENT TO JB ON PACKAGE.
 - 5- SIGNALS ROUT TO DCS.



REFERENCE DRAWINGS	DWG. No.
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Status Code	Eng.	Dept.	Date

Comment status code:

AP	Approved and released for Manufacture	NC	No Comments
CO	Not Approved	AC	Approved with Comments
RE	Rejected		

IMPORTANT: Permission to proceed does not constitute acceptance or approval of design details, calculations, analyses, test methods or materials developed or selected by the supplier and does not relieve supplier from full compliance with contractual obligation.

VENDOR:	VENDOR DOC. NO.:

Rev.	Date	Class	Purpose of Issue	Prepared by	Checked by	Approved by

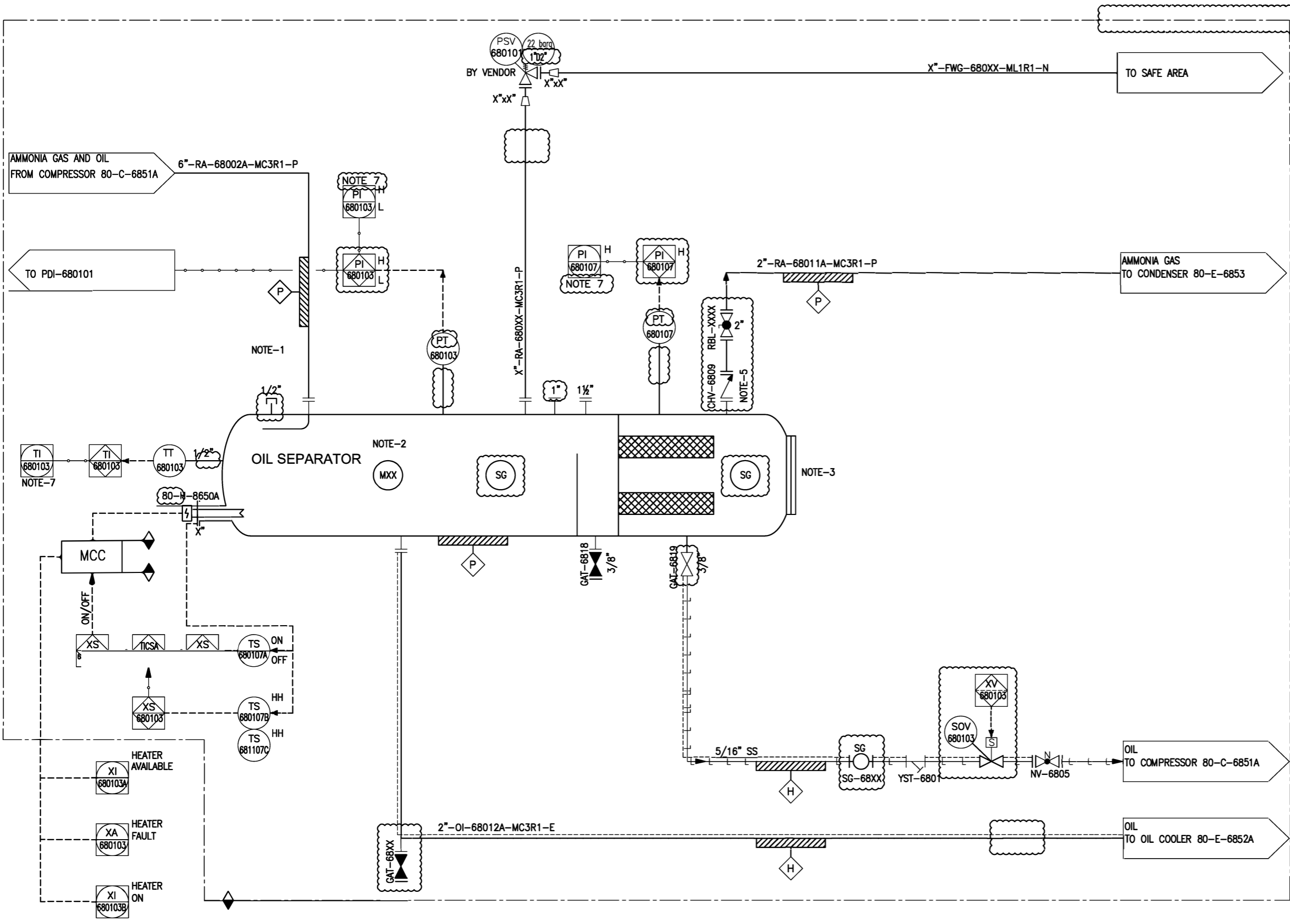
OWNER:

PROJECT:
CONTRACTOR:

DRAWING TITLE:			
PROCESS & INSTRUMENTATION DIAGRAM (P&ID)-RU			
	Rev.	Size.	Scale.
	03a	A3	NTS
			Sheet No.
			2 OF 9

TAG NO.	
SERVICE	OIL SEPARATOR
DESIGN PRESS. (BARG)	22
DESIGN TEMP. (°C)	5 / 120
ID x L (mm)	

- NOTES
- OIL TOP UP & VACUUM CONNECTION.
 - HAND HOLE.
 - INSPECTION HOLE.
 - LOCK OPEN DURING OPERATION LOOKING METHOD AND DEVICE BY SITE OPERATOR.
 - STOP CHECK VALVE FOR PREVENT SPIN BACK.
 - SIZE OF PSV WILL BE FINALIZED ON NEXT STAGE.
 - SIGNAL ROUT TO DCS.



LEGEND

VENDOR CUSTOMER

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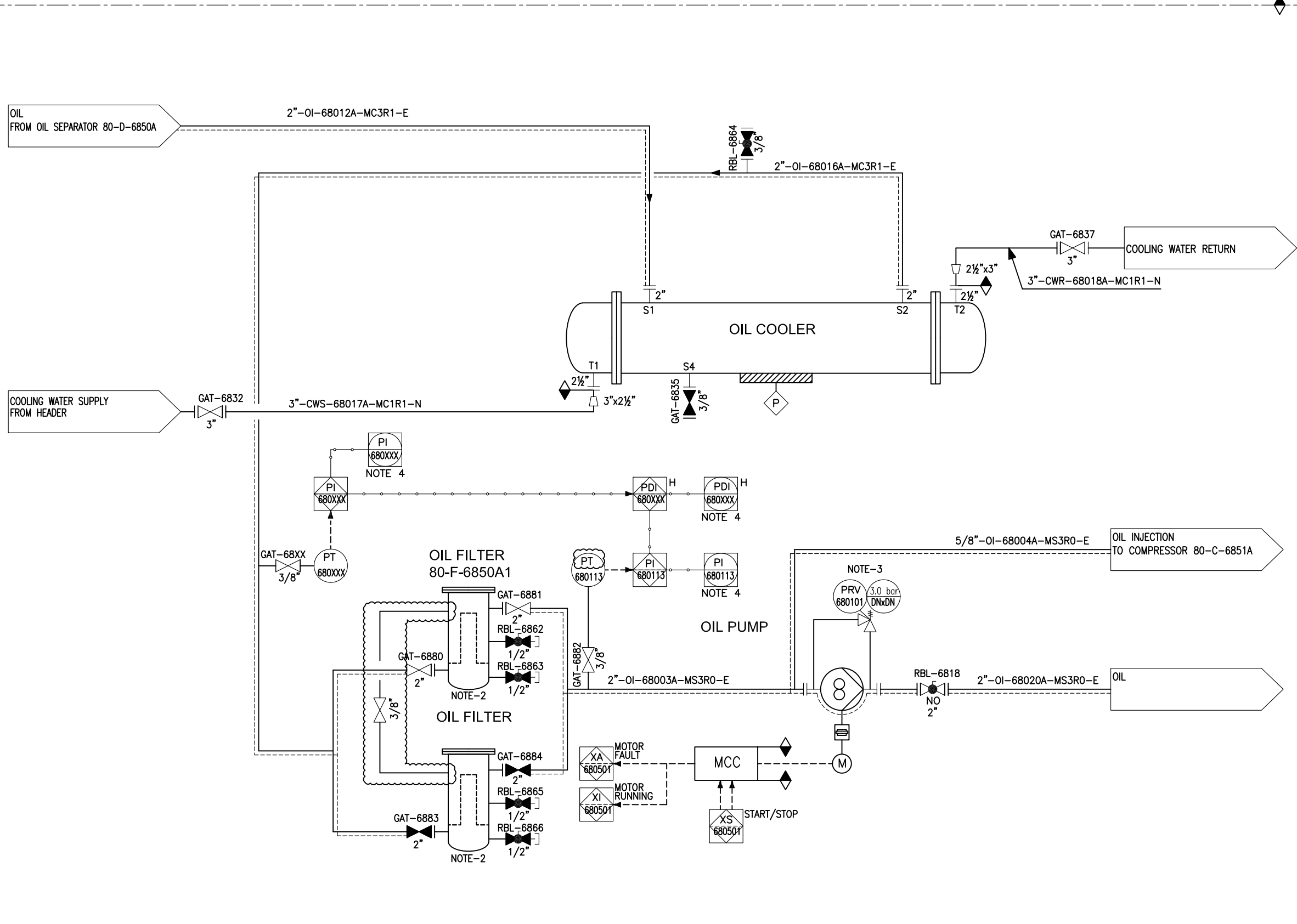
Rev.	Size	Scale	Sheet No.
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TAG NO.	
SERVICE	OIL COOLER
DESIGN PRESS. (BARG)	S: 22, T:17
DESIGN TEMP. (°C)	S:5/120, T:5/85
DESIGN DUTY (kW)	
ID x L (mm)	
TEMA TYPE	

TAG NO.	
SERVICE	OIL PUMP
TYPE	SCREW PUMP
DESIGN PRESS. (BARG)	
DESIGN TEMP. (°C)	5 / 120
RATED POWER (kW)	

TAG NO.	
SERVICE	OIL FILTER
DESIGN PRESS. (BARG)	26
DESIGN TEMP. (°C)	5/120
ID x L (mm)	MAYEKAWA

- NOTES
- 1- COLLECTION POT TO BE EMPTIED ONCE EVERY (HOLD) WEEKS TIME.
 - 2- ONE OPERATING / ONE STAND-BY.
 - 3- DP=3 BAR.
 - 4- SIGNAL ROUT TO DCS.



LEGEND

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PROJECT: _____

JSC Contract No: JPC 9387
TCM Project No: 3863

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

JSC Doc No.	Rev.	Size	Scale	Sheet No.
TCM Doc No.	03a	A3	NTS	6 OF 9

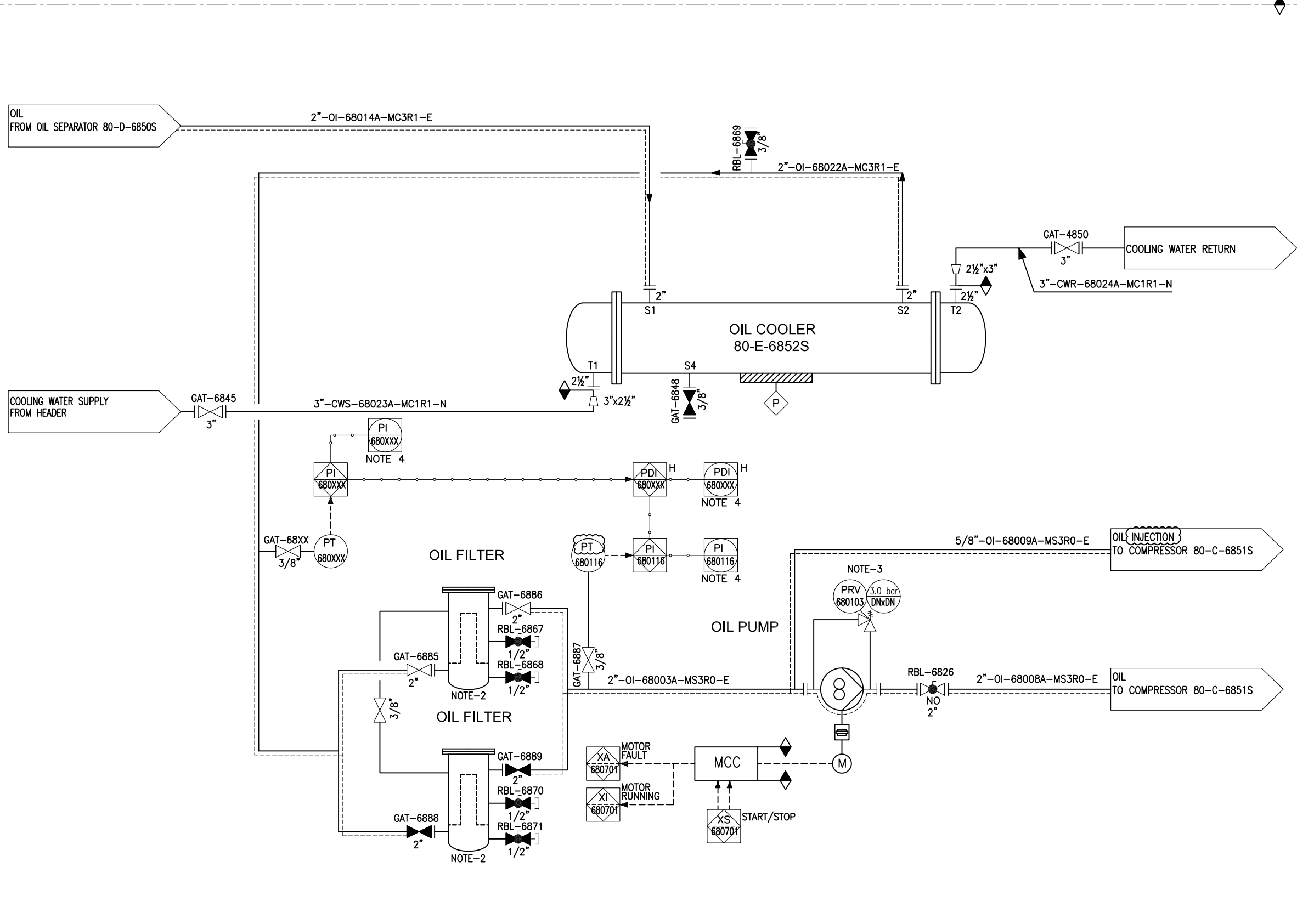
TAG NO.	80-E-6852S
SERVICE	OIL COOLER
DESIGN PRESS. (BARG)	S: 22, T:17
DESIGN TEMP. (°C)	S:5/120, T:5/85
DESIGN DUTY (kW)	124.75
SHELL ID x TUBE L (mm)	MAYEKAWA
TEMA TYPE	BEM

TAG NO.	
SERVICE	OIL PUMP
TYPE	SCREW PUMP
DESIGN PRESS. (BARG)	26
DESIGN TEMP. (°C)	5 / 120
RATED POWER (kW)	3.7

TAG NO.	
SERVICE	OIL FILTER
DESIGN PRESS. (BARG)	26
DESIGN TEMP. (°C)	5/120
ID x L (mm)	MAYEKAWA

NOTES

- COLLECTION POT TO BE EMPTIED ONCE EVERY (HOLD) WEEKS TIME.
- ONE OPERATING / ONE STAND-BY.
- DP= 3 BAR.
- SIGNAL ROUT TO DCS.



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OWNER: _____

PROJECT: _____

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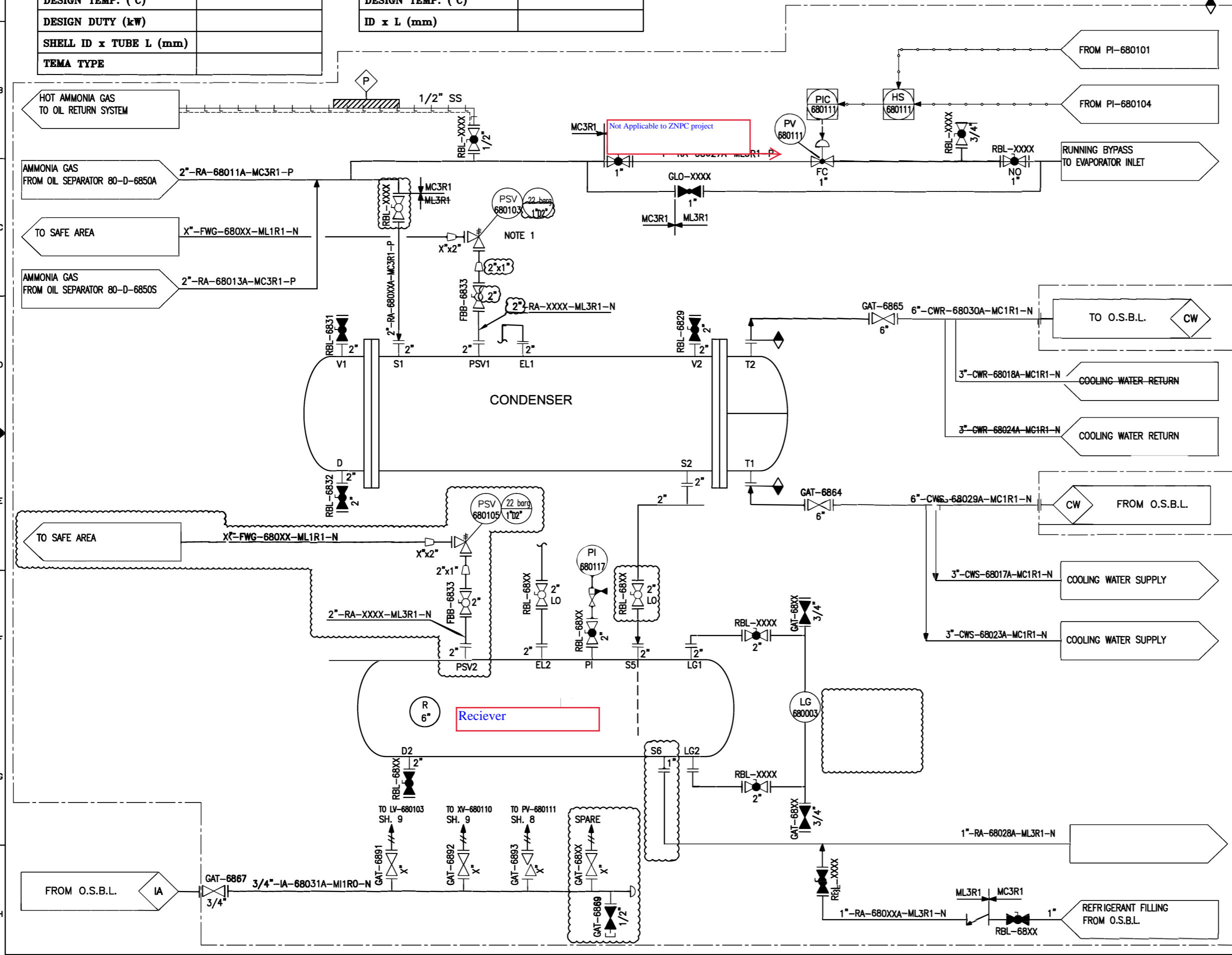
DRAWING TITLE:			
PROCESS & INSTRUMENTATION DIAGRAM (P&ID)-RU			
	Rev.	Size	Scale
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TAG NO.	
SERVICE	CONDENSER
DESIGN PRESS. (BARG)	
DESIGN TEMP. (°C)	
DESIGN DUTY (kW)	
SHELL ID x TUBE L (mm)	
TEMA TYPE	

TAG NO.	
SERVICE	RECEIVER
DESIGN PRESS. (BARG)	
DESIGN TEMP. (°C)	
ID x L (mm)	

Economizer will be added during detail design

NOTES
1- SIZE OF PSV WILL BE FINALIZED ON NEXT STAGE.



LEGEND
VENDOR CUSTOMER

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DRAWING TITLE:			
PROCESS & INSTRUMENTATION DIAGRAM (P&ID)-RU			
Rev.	Size	Scale	Sheet No.
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