



LIDCO, Pars SEE Zone, Assaluyeh,
Integrated Methanol and Ammonia
Plant 3000 MTPD MeOH / 900 MTPD NH3 PROJECT



Piping & Instrument Diagram

Document No. 17735-03

Project No.	Vendor Doc.	P.O. No.	Department	Document Type	Serial No	Revision	Page
N278	VD	6019	PR	PID	0002	03	Page 1 of 5

**Airpack B.V. - Air Compressor –
Integrated Methanol and Ammonia Plant
17735-COM Piping & Instrument Diagram (K020)**

code-2
M. Vakili

- All previous comment should be implemented and If any comments is not applicable please send reply sheet.
- all Tag name in **all documents** should be same format. no needs "-" after prefix 320. example correct format is 320TT-8201,

03	06-12-2023	Issued for Approval	S.K.	J.J.	S.K.
02	02-11-2023	Issued for Approval	T.T.	S.K.	J.J.
01	14-09-2023	Issued for Approval	S.K.	J.J.	S.K.
REV.	DATE	DESCRIPTION	DRAWN	CHECKED	APPROVED

This document has been produced by Contractor for LIDCO. It is confidential and cannot be disclosed to or used by any third party for any purpose without prior written consent.

Piping & Instrument Diagram

Document No. 17735-03

Project No.	Vendor Doc.	P.O. No.	Department	Document Type	Serial No	Revision	Page
N278	VD	6019	PR	PID	0002	03	Page 2 of 5























LIST OF REVISED PAGES

Rev. Page	01	02	03	04	05	Rev. Page	01	02	03	04	05	Rev. Page	01	02	03	04	05	Rev. Page	01	02	03	04	05
1	X	X	X			26						51						76					
2	X	X	X			27						52						77					
3	X	X	X			28						53						78					
4	X	X	X			29						54						79					
5		X	X			30						55						80					
6		X				31						56						81					
7						32						57						82					
8						33						58						83					
9						34						59						84					
10						35						60						85					
11						36						61						86					
12						37						62						87					
13						38						63						88					
14						39						64						89					
15						40						65						90					
16						41						66						91					
17						42						67						92					
18						43						68						ATTACHMENT					
19						44						69						1					
20						45						70						2					
21						46						71						3					
22						47						72						4					
23						48						73						5					
24						49						74						6					
25						50						75						7					

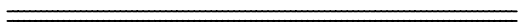



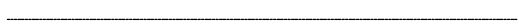






ABBREVIATIONS

CV = CHECK VALVE
 FG = FLOW GAUGE
 FT = FLOW TRANSMITTER
 LPS = LOCAL PUSHBUTTON STATION
 LG = LEVEL GAUGE
 PAH = HIGH PRESSURE ALARM (TRANSMITTER)
 PAHH = HIGH PRESSURE TRIP (TRANSMITTER)
 PAL = LOW PRESSURE ALARM (TRANSMITTER)
 PALL = LOW PRESSURE TRIP (TRANSMITTER)
 PCV = PRESSURE CONTROL VALVE
 PDAH = HIGH PRESSURE DIFFERENTIAL ALARM (TRANSMITTER)
 PDAH= HIGH PRESSURE DIFFERENTIAL TRIP (TRANSMITTER)
 PDAL = LOW PRESSURE DIFFERENTIAL ALARM (TRANSMITTER)
 PDALL = LOW PRESSURE DIFFERENTIAL TRIP (TRANSMITTER)
 PDG = PRESSURE DIFFERENTIAL GAUGE
 PDIT = PRESSURE DIFFERENTIAL INDICATING TRANSMITTER
 PDT = PRESSURE DIFFERENTIAL TRANSMITTER
 PG = PRESSURE GAUGE
 PIT = PRESSURE INDICATING TRANSMITTER
 PRV = PRESSURE REDUCING VALVE
 PSV = PRESSURE SAFETY VALVE
 PT = PRESSURE TRANSMITTER
 SG = SIGHT GLASS
 XY = SOLENOID VALVE
 TAH = HIGH TEMPERATURE ALARM (TRANSMITTER)
 TAHH = HIGH TEMPERATURE TRIP (TRANSMITTER)
 TAL = LOW TEMPERATURE ALARM (TRANSMITTER)
 TALL = LOW TEMPERATURE TRIP (TRANSMITTER)
 TCV = TEMPERATURE CONTROL VALVE
 TG = TEMPERATURE GAUGE
 TIT = TEMPERATURE INDICATING TRANSMITTER
 TRV = THERMAL RELIEF VALVE
 TT = TEMPERATURE TRANSMITTER
 TW = THERMOWELL
 HE = HEATER
 JB = JUNCTION BOX
 B = BLOWER
 VAH = HIGH VIBRATION ALARM (TRANSMITTER)
 VAHH = HIGH VIBRATION TRIP (TRANSMITTER)
 XI = ANNUNCIATOR (HORN)
 VT = VIBRATION TRANSMITTER
 FIT = FLOW INDICATED TRANSMITTER
 TIC = TEMPERATURE INDICATED CONTROL
 PIC = PRESSURE INDICATED CONTROL

SYMBOLS

 BALL VALVE
 BLOCK AND BLEED 2-WAY MANIFOLDS
 Y-STRAINER
 PRESSURE SAFETY VALVE
 VENT
 ~~SIDE GLASS~~
 COMPRESSOR STAGE
 GATE VALVE
 REDUCER
 PRESSURE CONTROL VALVE
 CHECK VALVE
 SIGNAL
 INSTRUMENT
 OIL SIEVE
 PUMP
 FAN
 OIL HEATER
 VESSEL
 SHELL / TUBE WATER COOLER
 MOTOR
 ELECTRICAL PANEL LIGHT INDICATOR
 ELECTRICAL PANEL PUSH BUTTON




LINES

 BELT
 SHAFT
 MECHANICAL CONNECTION
 COOLING WATER LINE
 ELECTRICAL LINE
 GAS/AIR LINE
 HEAT TRACING
 OIL LINE
 PURGE AIR
 INSULATION
 SIGNAL

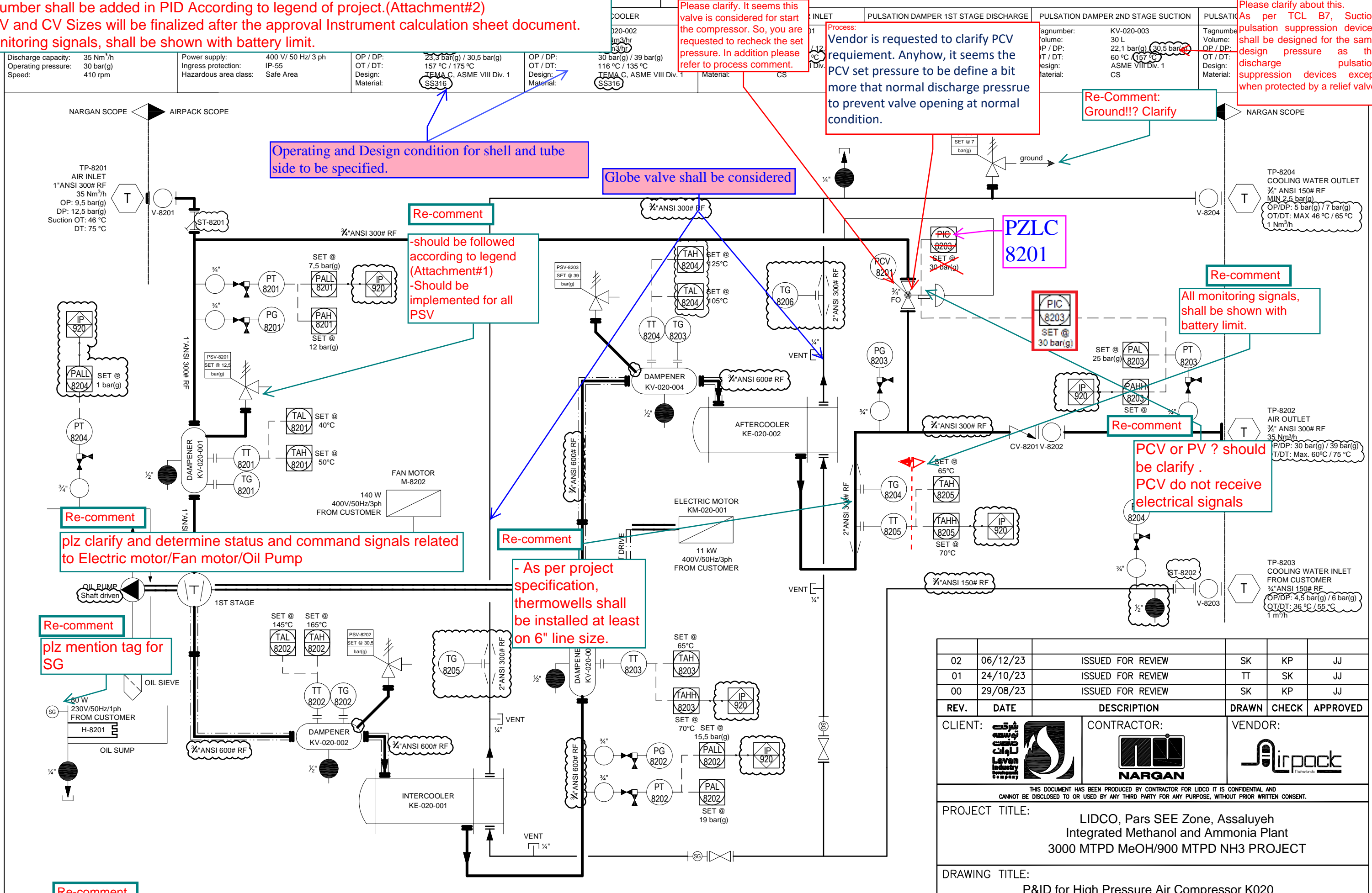
Modify to sight glass

Battery Limit

symbol selector switch should be added

02	06/12/23	ISSUED FOR REVIEW	SK	KP	JJ		
01	24/10/23	ISSUED FOR REVIEW	TT	SK	JJ		
00	29/08/23	ISSUED FOR REVIEW	SK	KP	JJ		
REV.	DATE	DESCRIPTION	DRAWN	CHECK	APPROVED		
CLIENT:		CONTRACTOR:		VENDOR:			
							
<small>THIS DOCUMENT HAS BEEN PRODUCED BY CONTRACTOR FOR LIDCO IT IS CONFIDENTIAL AND CANNOT BE DISCLOSED TO OR USED BY ANY THIRD PARTY FOR ANY PURPOSE, WITHOUT PRIOR WRITTEN CONSENT.</small>							
PROJECT TITLE:							
LIDCO, Pars SEE Zone, Assaluyeh Integrated Methanol and Ammonia Plant 3000 MTPD MeOH/900 MTPD NH3 PROJECT							
DRAWING TITLE:							
P&ID for High Pressure Air Compressor K020							
DOCUMENT No:					SC.		
17735-03 P&ID					SIZE: A3		
PROJECT No.	VENDOR DOC.	P.O. No.	DEPARTMENT	DOC. TYPE	SERIAL No.	REV.	SHEET No.
N278	VD	6019	PR	PID	0002	03	3 OF 5

- Line number shall be added in PID According to legend of project. (Attachment#2)
- All PSV and CV Sizes will be finalized after the approval Instrument calculation sheet document.
- All monitoring signals, shall be shown with battery limit.



Please clarify. It seems this valve is considered for start the compressor. So, you are requested to recheck the set pressure. In addition please refer to process comment.

Vendor is requested to clarify PCV requirement. Anyhow, it seems the PCV set pressure to be define a bit more that normal discharge pressure to prevent valve opening at normal condition.

Re-Comment: Ground!!? Clarify

Please clarify about this. As per TCL B7, Suction pulsation suppression devices shall be designed for the same design pressure as the discharge pulsation suppression devices except when protected by a relief valve

Operating and Design condition for shell and tube side to be specified.

Globe valve shall be considered

Re-comment
-should be followed according to legend (Attachment#1)
-Should be implemented for all PSV

PZLC 8201

Re-comment
All monitoring signals, shall be shown with battery limit.

Re-comment
plz clarify and determine status and command signals related to Electric motor/Fan motor/Oil Pump

Re-comment
- As per project specification, thermowells shall be installed at least on 6" line size.

Re-comment
PCV or PV ? should be clarify .
PCV do not receive electrical signals

Re-comment
plz mention tag for SG

Re-comment

- NOTES
- 1) Prefix "320" to be added to all instruments tag Number.
 - 2) Instrument / control air tubing size: 12mm
 - 3) TT and TG process connection is 3/4" NPT
 - 4) TW process connection is 1 1/2" flange
 - 5) PT and PG process connection is 1/2" NPT
 - 6) Process connection of control valve is 300# flanged ANSI
 - 7) Main process line piping material is SS316
 - 8) Cooling water process line piping material is carbon steel

REV.	DATE	DESCRIPTION	DRAWN	CHECK	APPROVED
02	06/12/23	ISSUED FOR REVIEW	SK	KP	JJ
01	24/10/23	ISSUED FOR REVIEW	TT	SK	JJ
00	29/08/23	ISSUED FOR REVIEW	SK	KP	JJ

CLIENT:	CONTRACTOR:	VENDOR:

THIS DOCUMENT HAS BEEN PRODUCED BY CONTRACTOR FOR LIDCO IT IS CONFIDENTIAL AND CANNOT BE DISCLOSED TO OR USED BY ANY THIRD PARTY FOR ANY PURPOSE, WITHOUT PRIOR WRITTEN CONSENT.

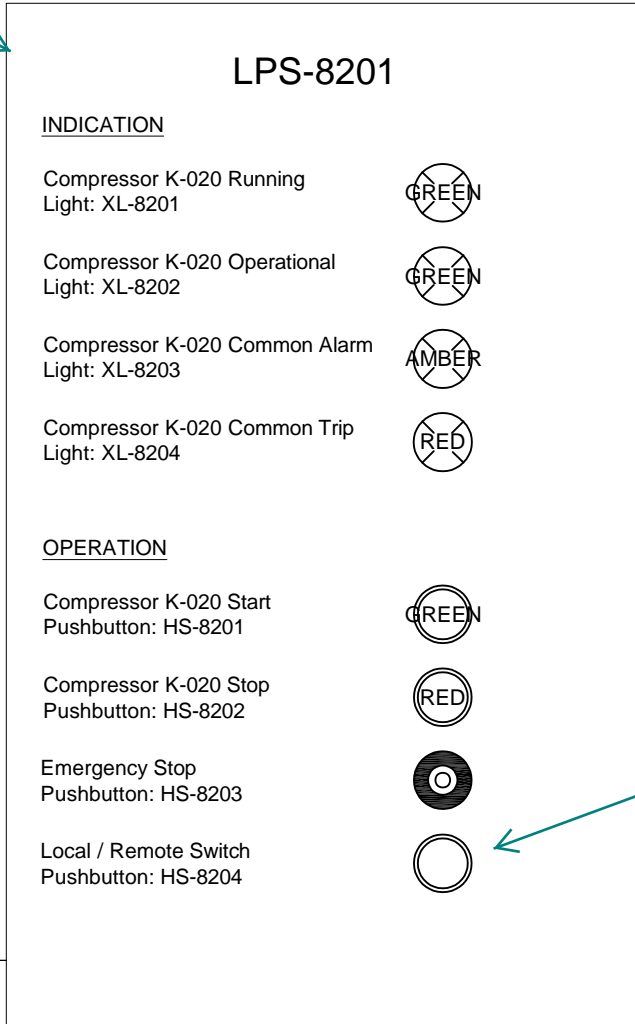
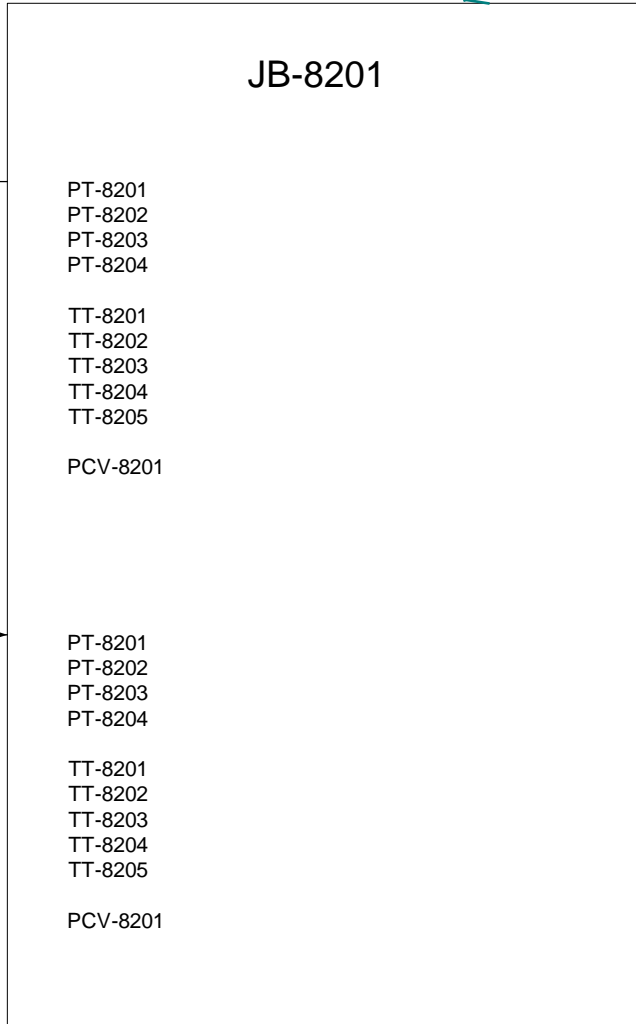
PROJECT TITLE:
LIDCO, Pars SEE Zone, Assaluyeh Integrated Methanol and Ammonia Plant
3000 MTPD MeOH/900 MTPD NH3 PROJECT

DRAWING TITLE:
P&ID for High Pressure Air Compressor K020

DOCUMENT No:
17735-03 P&ID

PROJECT No.	VENDOR DOC.	P.O. No.	DEPARTMENT	DOC. TYPE	SERIAL No.	REV.	SHEET No.
N278	VD	6019	PR	PID	0002	02	4 OF 5

Tag name should be modified.
300LP-820
300JDAN-820
Re-comment



Multi-pair cable by NARGAN
TO DCS

Individual Signal Cable by Airpack
FROM COMPRESSOR

Multi-pair cable by NARGAN

By AIRPACK

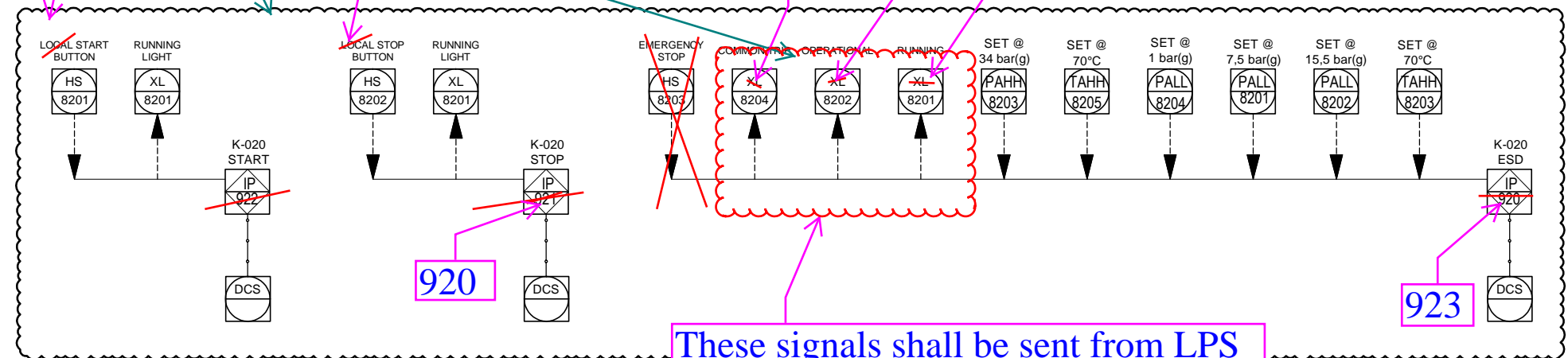
Re-comment
selector switch symbol should be modified

As per PID of project, interlocks and tag name (ML/XA/YL) should be modified

Remote

Remote

XA YL ML



These signals shall be sent from LPS to DCS. Please separate from other

02	06/12/23	ISSUED FOR REVIEW	SK	KP	JJ
01	24/10/23	ISSUED FOR REVIEW	TT	SK	JJ
00	29/08/23	ISSUED FOR REVIEW	SK	KP	JJ
REV.	DATE	DESCRIPTION	DRAWN	CHECK	APPROVED
CLIENT:		CONTRACTOR:	VENDOR:		

THIS DOCUMENT HAS BEEN PRODUCED BY CONTRACTOR FOR LIDCO IT IS CONFIDENTIAL AND CANNOT BE DISCLOSED TO OR USED BY ANY THIRD PARTY FOR ANY PURPOSE, WITHOUT PRIOR WRITTEN CONSENT.

PROJECT TITLE:
LIDCO, Pars SEE Zone, Assaluyeh Integrated Methanol and Ammonia Plant
3000 MTPD MeOH/900 MTPD NH3 PROJECT

DRAWING TITLE:
P&ID for High Pressure Air Compressor K020

- NOTES
- Prefix "320" to be added to all instruments tag Number.
 - Package will be DCS controlled (by others)

DOCUMENT No: 17735-03 P&ID						SC.	
						SIZE: A3	
PROJECT No.	VENDOR DOC.	P.O. No.	DEPARTMENT	DOC. TYPE	SERIAL No.	REV.	SHEET No.
N278	VD	6019	PR	PID	0002	03	5 OF 5