

Cause & Effect Chart

Document No. 17735-27

Page

Project No.	Vendor Doc.	P.O. No.	Department	Document Type	Serial No	Revision	Page
N278	VD	6019	GN	SF	0029	04	Page 1 of 3

**Airpack B.V. - Air Compressor –  
Integrated Methanol and Ammonia Plant  
17735-COM Cause & Effect Chart (K020)**

Code 2  
M.Dalakeh

04	25-06-2024	Issued for Approval	S.K.	J.J.	S.K.
03	11-06-2024	Issued for Approval	S.K.	J.J.	S.K.
02	23-05-2024	Issued for Approval	S.K.	J.J.	S.K.
01	12-12-2023	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.

Cause & Effect Chart

Document No. 17735-27

Page

Project No.	Vendor Doc.	P.O. No.	Department	Document Type	Serial No	Revision	Page
N278	VD	6019	GN	SF	0029	04	Page 2 of 3

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						29						54						79					
5						30						55						80					
6						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					



**DOCUMENT TITLE: 17735-27**  
**Cause & Effect chart Compressor**

Based on PID:  
 Operational YL-8202  
 discrepancy with PID shall be removed

Based on PID:  
 FAULT XA-8203  
 discrepancy with PID shall be removed

**CAUSE**  
**SIGNALS ARE INCLUDED IN P&ID DOCUMENT**

Instrument Tag	Signal	Type	Description	Interlock
320HS-8203	EMERGENCY STOP	BUTTON	EMERGENCY SHUT DOWN LPS	IP-920
320HS-8206	EMERGENCY STOP	ESD	EMERGENCY SHUT DOWN DCS	IP-920
320HS-8201	START	BUTTON	START COMPRESSOR LPS/DCS	IP-922
320HS-8202	STOP	BUTTON	STOP COMPRESSOR LPS/DCS	IP-923
320PT-8201	TRANSMITTER	LL	COMPRESSOR INLET PRESSURE LOW LOW	IP-920
320PT-8202	TRANSMITTER	LL	2ND STAGE SUCTION PRESSURE LOW LOW	IP-920
320TT-8203	TRANSMITTER	HH	2ND STAGE SUCTION TEMPERATURE HIGH HIGH	IP-920
320TT-8205	TRANSMITTER	HH	COMPRESSOR OULTET TEMPERATURE HIGH HIGH	IP-920
320PT-8203	TRANSMITTER	HH	COMPRESSOR OULTET PRESSURE HIGH HIGH	IP-920
320PT-8204	TRANSMITTER	LL	OIL PRESSURE LOW LOW	IP-920
101-MBP-001	MOTOR	CONTROL	MOTOR RUNNING FEEDBACK TRIP	Note 1

EFFECT	Tag	320-	320-	320-PCV-8201	320-LY-8204	320-MBP-001	320-MBP-001	320-ML-8201
	Component	MOTOR START	MOTOR STOP	LOAD / UNLOAD VALVE	EMERGENCY TRIP LAMP	AVAILABLE STATUS SIGNAL	FAILURE STATUS SIGNAL	RUNNING LIGHT
		SP	DE	x		x		
		SP	DE	x		x		
		ST		E	x <sup>4</sup>			x
		SP	DE		x <sup>3</sup>			
		SP	DE	x		x		
		SP	DE	x		x		
		SP	DE	x		x		
		SP	DE	x		x		
		SP	DE	x		x		
		SP	DE	x		x		

**Legend:**  
 ST = Start  
 SP = Stop  
 X = Action  
 E = Energize  
 DE = De-energize

**NOTES:**  
 1. MOTOR FEEDBACK TRIP, 2 SECOND AFTER START SINGAL IS SEND AND MOTOR IS NOT SENDING FEEDBACK, THE PACKAGE IS TRIPPED  
 2. PCV-8201 ENERGIZE MEANS PCV IS REGULATING THE OUTLET PRESSURE AT THE SET POINT. DE-ENERGIZE IS FAIL POSITION (OPEN).  
 3. AFTER SHUTDOWN, COMPRESSOR WILL BE AVAILABLE AFTER THE RESTART DELAY TIMER.  
 4. WHEN COMPRESSOR IS RUNNING IN LOAD, AVAILABLE SIGNAL IS DE ENERGIZED. ENERGIZED IN LOAD

Refer to: 17735-03 P&ID, 17735-21 Control philosophy

It seems shall be "Unload".  
 Please recheck