



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



Cause & Effect Chart

Document No. 17735-27

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

Code 2  
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REV.	DATE	DESCRIPTION	DRAWN	CHECKED	APPROVED
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**DOCUMENT TITLE: 17735-27**  
**Cause & Effect chart Compressor**

These signals are not found in PID

Activation of "Available" signal with START command to be rechecked

Based on control philosophy, after each shutdown, compressor will be "available" after a "Restart Delay Timer".

CAUSE SIGNALS ARE INCLUDED IN P&ID DOCUMENT					EFFECT	Component	Tag. Num	320-MBS-8201	320-MBW-8202	320-PCV-8201	320-UY-8204	320-MBG-8201	320-MBG-8201	320-ML-8201
Instrument Tag	Signal	Type	Description	Interlock										
320HS-8203	EMERGENCY STOP	BUTTON	EMERGENCY SHUT DOWN LPS	IP-920					SP	DE	x		x	
320HS-8206	EMERGENCY STOP	ESD	EMERGENCY SHUT DOWN DCS	IP-920					SP	DE	x		x	
320HS-8201	START	BUTTON	START COMPRESSOR LPS/DCS	IP-922				ST		E		x		x
320HS-8202	STOP	BUTTON	STOP COMPRESSOR LPS/DCS	IP-923					SP	DE		x		
320PT-8201	TRANSMITTER	LL	COMPRESSOR INLET PRESSURE LOW LOW	IP-920					SP	DE	x		x	
320PT-8202	TRANSMITTER	LL	2ND STAGE SUCTION PRESSURE LOW LOW	IP-920					SP	DE	x		x	
320TT-8203	TRANSMITTER	HH	2ND STAGE SUCTION TEMPERATURE HIGH HIGH	IP-920					SP	DE	x		x	
320TT-8205	TRANSMITTER	HH	COMPRESSOR OULTET TEMPERATURE HIGH HIGH	IP-920					SP	DE	x		x	
320PT-8203	TRANSMITTER	HH	COMPRESSOR OULTET PRESSURE HIGH HIGH	IP-920					SP	DE	x		x	
320PT-8204	TRANSMITTER	LL	OIL PRESSURE LOW LOW	IP-920					SP	DE	x		x	
101-MBP-001	MOTOR	CONTROL	MOTOR RUNNING FEEDBACK TRIP		Note 1				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).

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