

 <p>شرکت توسعه صنایع لوان Lavan Industry Development Company</p>	<p><b>LIDCO, Pars SEE Zone, Assaluyeh, Integrated Methanol and Ammonia Plant 3000 MTPD MeOH / 900 MTPD NH3 PROJECT</b></p>																				
	<p><b>Cause &amp; Effect Chart</b></p>																				
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**Airpack B.V. - Air Compressor –  
Integrated Methanol and Ammonia Plant  
17735-COM Cause & Effect Chart (K020)**

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Cause & Effect Chart

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

CAUSE SIGNALS ARE INCLUDED IN P&ID DOCUMENT					EFFECT	Tag, Number	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		Component	MOTOR START	MOTOR STOP	LOAD / UNLOAD VALVE	EMERGENCY TRIP LAMP	AVAILABLE STATUS SIGNAL	FAILURE STATUS SIGNAL	RUNNING LIGHT
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 <sup>4</sup>		x	
320HS-8202	STOP	BUTTON	STOP COMPRESSOR LPS/DCS	IP-923			SP	DE		x <sup>3</sup>			
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).  
 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