

 <p>شرکت توسعه صنایع لوان Lavan Industry Development Company</p>	<p>LIDCO, Pars SEE Zone, Assaluyeh, Integrated Methanol and Ammonia Plant 3000 MTPD MeOH / 900 MTPD NH3 PROJECT</p>																				
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Project No.	Vendor Doc.	P.O. No.	Department	Document Type	Serial No	Revision															
N278	VD	6019	IN	DS	0039	01															

**Airpack B.V. - Air Compressor –
Integrated Methanol and Ammonia Plant
17735-COM PSV Data Sheets (K020)**

01	08-11-2023	Issued for Approval	S.K.	J.J.	S.K.
REV.	DATE	DESCRIPTION	DRAWN	CHECKED	APPROVED

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PSV Data Sheets

Document No. 17735-46

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Note


**INSTRUMENT AND VALVE
DATASHEET
Index**



01	SK	8-11-2023	Issue for Approval


GENERAL	1	Tag Number		320-PSV-8201	
	2	Service		Pressure Safety Valve	
	3	P&ID No.		17735-03	
	4	Location		Package inlet	
	5	Nozzle		semi nozzle	
	6	Design type		Safety	
	7	Conv., Bellows, Pilot op.		Conventional type	
	8	Bonnet Type		Closed	
	9	Bonnet connection		Screwed / Bolted	
PROCESS CONDITIONS	10	Fluid	State	Air	Vapor
	11	Pressure	Inlet Max.	9,5 bar(g)	12,5 bar(g)
	12	Temperature	Norm. Max.	46 °C	-
	13	Design	Press. Temp.	12,5	75 °C
	14	Ambient Temp.	Min. Max.	-	-
	15	Flow		35 Nm³/hr	
BASIS AND SELECTION	16	Set Pressure		12,5 bar(g)	
	17	Molecular Weight	Oper. Sp. Gr.	-	-
	18	Back Pres. (bar(g))		ATM	
	19	Allowable Overpressure (%)		-	
	20	Compressibility Factor (Z)		1	
	21	Ratio of Specific Heat (Cp/Cv)		-	
	22	Operating Viscosity (cP)		-	
	23	Barometric Pressure		1,013	
	24	Max. Allowable Relief Pressure		14,763	
	25	Design Code		API 520 / 521	
	26	Size Basis		Blocked discharge	
	27	Required discharge Area (sq.mm)		VTA	
	28	Selected Area (sq.mm)		VTA	
	29	Orifice Designation		VTA	
CONNECTIONS	31	Inlet Size	Outlet Size	3/4"	VTA
	32	Inlet Connection	Outlet Conn.	RF	RF
	33	Inlet Rating	Outlet Rating	300#	VTA
	34				
	35				
MATERIAL	36	Body and Bonnet		CS	
	37	Seat and Disc		VTA	
	38	Guide and Rings		CS	
	39	Spring		CS	
	40	Nozzle		VTA	
	41				
OPTIONS	42				
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	47				
CERTIFICATES	48	3.1 Material certificate		Yes	
	49	Calibration certificate		Yes	
	50	Leakage test acc to API STD 527		Yes	
	51	Functional test		No	
CALCULATIONS	52	Sizing calculation		No	
	53				
	54				
PURCHASE	55	Manufacturer		According to approved vendor list	
	56	Model		VTA	
	57				

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				INSTRUMENT AND VALVE DATASHEET	
				Pressure Safety Valve	
					
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GENERAL	1	Tag Number		320-PSV-8202	
	2	Service		Pressure Safety Valve	
	3	P&ID No.		17735-03	
	4	Location		1st stage discharge	
	5	Nozzle		semi nozzle	
	6	Design type		Safety	
	7	Conv., Bellows, Pilot op.		Conventional type	
	8	Bonnet Type		Closed	
	9	Bonnet connection		Screwed / Bolted	
PROCESS CONDITIONS	10	Fluid	State	Air	Vapor
	11	Pressure	Inlet Max.	23,3	30,5 bar(g)
	12	Temperature	Norm. Max.	157 °C	-
	13	Design	Press. Temp.	30,5	175 °C
	14	Ambient Temp.	Min. Max.	-	-
	15	Flow			
BASIS AND SELECTION	16	Set Pressure		30,5 bar(g)	
	17	Molecular Weight	Oper. Sp. Gr.	-	-
	18	Back Pres. (bar(g))		ATM	
	19	Allowable Overpressure (%)		-	
	20	Compressibility Factor (Z)		1	
	21	Ratio of Specific Heat (Cp/Cv)		-	
	22	Operating Viscosity (cP)		-	
	23	Barometric Pressure		1,013	
	24	Max. Allowable Relief Pressure		28,513	
	25	Design Code		API 520 / 521	
	26	Size Basis		Blocked discharge	
	27	Required discharge Area (sq.mm)		VTA	
	28	Selected Area (sq.mm)		VTA	
	29	Orifice Designation		VTA	
CONNECTIONS	31	Inlet Size	Outlet Size	3/4"	VTA
	32	Inlet Connection	Outlet Conn.	RF	RF
	33	Inlet Rating	Outlet Rating	300#	VTA
	34				
	35				
MATERIAL	36	Body and Bonnet		CS	
	37	Seat and Disc		VTA	
	38	Guide and Rings		CS	
	39	Spring		CS	
	40	Nozzle		VTA	
OPTIONS	41				
	42				
	43				
	44				
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	46				
	47				
CERTIFICATES	48	3.1 Material certificate		Yes	
	49	Calibration certificate		Yes	
	50	Leakage test acc to API STD 527		Yes	
	51	Functional test		No	
CALCULATIONS	52	Sizing calculation		No	
	53				
	54				
PURCHASE	55	Manufacturer		According to approved vendor list	
	56	Model		VTA	
	57				

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				INSTRUMENT AND VALVE DATASHEET	
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GENERAL	1	Tag Number		320-PSV-8203	
	2	Service		Pressure Safety Valve	
	3	P&ID No.		17735-03	
	4	Location		2nd stage discharge	
	5	Nozzle		semi nozzle	
	6	Design type		Safety	
	7	Conv., Bellows, Pilot op.		Conventional type	
	8	Bonnet Type		Closed	
	9	Bonnet connection		Screwed / Bolted	
PROCESS CONDITIONS	10	Fluid	State	Air	Vapor
	11	Pressure	Inlet Max.	30 bar (g)	39,0 bar(g)
	12	Temperature	Norm. Max.	116°C	-
	13	Design	Press. Temp.	39 bar (g)	135 °C
	14	Ambient Temp.	Min. Max.	-	-
	15	Flow			
BASIS AND SELECTION	16	Set Pressure		39,0 bar(g)	
	17	Molecular Weight	Oper. Sp. Gr.	-	-
	18	Back Pres. (bar(g))		ATM	
	19	Allowable Overpressure (%)		-	
	20	Compressibility Factor (Z)		1	
	21	Ratio of Specific Heat (Cp/Cv)		-	
	22	Operating Viscosity (cP)		-	
	23	Barometric Pressure		1,013	
	24	Max. Allowable Relief Pressure		38,413	
	25	Design Code		API 520 / 521	
	26	Size Basis		Blocked discharge	
	27	Required discharge Area (sq.mm)		VTA	
	28	Selected Area (sq.mm)		VTA	
	29	Orifice Designation		VTA	
CONNECTIONS	31	Inlet Size	Outlet Size	3/4"	VTA
	32	Inlet Connection	Outlet Conn.	RF	RF
	33	Inlet Rating	Outlet Rating	300#	VTA
	34				
	35				
MATERIAL	36	Body and Bonnet		CS	
	37	Seat and Disc		VTA	
	38	Guide and Rings		CS	
	39	Spring		CS	
	40	Nozzle		VTA	
	41				
OPTIONS	42				
	43				
	44				
	45				
	46				
	47				
CERTIFICATES	48	3.1 Material certificate		Yes	
	49	Calibration certificate		Yes	
	50	Leakage test acc to API STD 527		Yes	
	51	Functional test		No	
CALCULATIONS	52	Sizing calculation		No	
	53				
	54				
PURCHASE	55	Manufacturer		According to approved vendor list	
	56	Model		VTA	
	57				

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				INSTRUMENT AND VALVE DATASHEET	
				Pressure Safety Valve	
					
01	SK	8-11-2023	Issue for Approval	Sheet	4 of 7
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GENERAL	1	Tag Number		320-PSV-8204	
	2	Service		Pressure Safety Valve	
	3	P&ID No.		17735-03	
	4	Location		Water system	
	5	Nozzle		semi nozzle	
	6	Design type		Safety	
	7	Conv., Bellows, Pilot op.		Conventional type	
	8	Bonnet Type		Closed	
	9	Bonnet connection		Screwed / Bolted	
PROCESS CONDITIONS	10	Fluid	State	Water	Liquid
	11	Pressure	Inlet Max.	4,5 bar(g)	4,5 bar(g)
	12	Temperature	Norm. Max.	36°C	46 °C
	13	Design	Press. Temp.	4,5	125 °C
	14	Ambient Temp.	Min. Max.	-	-
	15	Flow			
BASIS AND SELECTION	16	Set Pressure		7,0 bar(g)	
	17	Molecular Weight	Oper. Sp. Gr.	-	-
	18	Back Pres. (bar(g))		ATM	
	19	Allowable Overpressure (%)		-	
	20	Compressibility Factor (Z)		1	
	21	Ratio of Specific Heat (Cp/Cv)		-	
	22	Operating Viscosity (cP)		-	
	23	Barometric Pressure		1,013	
	24	Max. Allowable Relief Pressure		8,713	
	25	Design Code		API 520 / 521	
	26	Size Basis		Blocked discharge	
	27	Required discharge Area (sq.mm)		VTA	
	28	Selected Area (sq.mm)		VTA	
	29	Orifice Designation		VTA	
CONNECTIONS	31	Inlet Size	Outlet Size	3/4"	VTA
	32	Inlet Connection	Outlet Conn.	RF	RF
	33	Inlet Rating	Outlet Rating	150#	VTA
	34				
	35				
MATERIAL	36	Body and Bonnet		CS	
	37	Seat and Disc		VTA	
	38	Guide and Rings		CS	
	39	Spring		CS	
	40	Nozzle		VTA	
	41				
OPTIONS	42				
	43				
	44				
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	46				
	47				
CERTIFICATES	48	3.1 Material certificate		Yes	
	49	Calibration certificate		Yes	
	50	Leakage test acc to API STD 527		Yes	
	51	Functional test		No	
CALCULATIONS	52	Sizing calculation		No	
	53				
	54				
PURCHASE	55	Manufacturer		According to approved vendor list	
	56	Model		VTA	
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