

AIR LIQUIDE

Safety Valve List

Diagram No.: 792.86811
Revision: P1 TF
Date: 21.05.2004
Diagram Status: RevP1

Project: ASU No9 KOSICE
Project-No.: K70101
List Status.: Rev0

COVER-SHEET

Distributor	
Name	Department
H. Dr. Krey	IV.Z
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Processing		
Date	Name	Status
03.11.2004	Chiran	Rev.0

Type of Connection

F = Flange joint
BW = Butt weld joint
T = Threaded joint
SW = Socket weld joint
CR = Cutting ring

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Project: ASU N09 KOSICE
Project-No.: K70101
List Status: Rev0

Safety valve No.	Place of Install.	P & I Sheet	Pressure space				Valve data								Module	Remarks			
			Coord.	Set pressure (bar ü)	Temp. (°C)	Density (kg/m³)	Operating flow rate (kg/h)	Blow off mass (kg/h)	Inlet		Outlet		Connection				Order data		Date of delivery
									DN	PN	DN	PN	Seal. surface	Type			Manufacturer	Supplier Spec.-No.	
Z 11031	400 A 11002 AA10C1	001 C10	6					1/2"		3/4"		F	C				TR		
Z 11590	300 WC 80002 AA10C2	001 F3	8									F	C						
Z 11631	WC 80012 AA10C2	027 D11	8																
Z 11824	OIL SYSTEM MAC	027 F8																	
Z 12002	100 WC 14002 AA16C2	002 C11	16					1/2"		3/4"							TR		
Z 12071	150 WC 13020 AA10C2	002 E12	8					1/2"		3/4"							TR		
Z 16007	500 A 15005 AA10C1	006 C1	6																
Z 16074	V16001	006 C10	63																
Z 16631	WC 80018 AA10C2	028 E11	8																
Z 16824	OIL SYSTEM BAC	028 F8																	
Z 20026	100 N 20004 ZB40C1	009 F3	30																
Z 20027	250 O 20006 ZB40C1	009 G2	40																

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			Set pressure (bar ü)	Temp. (°C)	Density (kg/m³)	Operating flow rate (kg/h)	Blow off mass (kg/h)	Inlet		Outlet		Type	Connection			Order data		Date of delivery	
								DN	PN	DN	PN		DIN			Seal surface	Manufacturer		Supplier
Z 21012	N 21020 MA__W	014 C5	6																
Z 22010	N 22004 MA__W	013 A6	1,5																
Z 22020	N 22004 MA__W	013 A7	2																
Z 22030	50 O 61111 MA__W	014 B2	16						1/2"	3/4"	T							TR	
Z 23001	50 NL 23003 ZB16C1	011 C11	16						1/2"	3/4"								TR	
Z 24101	80 WC 80005 AA10C1	029 E11	8																
Z 24102	150 A 24105 MA__W	007 E6	16																
Z 24105	100 A 20002 MA__W	007 C8	63						1/2"	3/4"								TR	
Z 24155	25 N 81025 AA10C1	029 A8	16																
Z 24201	80 WC 80006 AA10C1	030 E12	10																
Z 24202	150 A 24205 MA__W	008 E6	16																
Z 24205	100 A 20001 MA__W	008 C8	63						1/2"	3/4"								TR	

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			Set pressure (bar ü)	Temp. (°C)	Density (kg/m³)	Operating flow rate (kg/h)	Blow off mass (kg/h)	Inlet		Outlet		Connection		Order data			Date of delivery			
								DN	PN	DN	PN	Seal. surface	Type	Manufacturer				Supplier Spec.-No.		
Z 24255	25 N 81026 AA10C1	030 A8	16																	
Z 40102	25 OL 40013 ZB10C1	016 F7	6					1/2"		3/4"			T							TR
Z 40150	100 OL 40101 MA-W	016 E4	16					1/2"		3/4"			T							TR
Z 40170	80 OL 40103 MA-W	016 C4	16					1/2"		3/4"			T							TR
Z 43028	80 N 43009 MA_W	018 A10	6					1/2"		3/4"			T							TR
Z 43032	A 15046 MA_W	018 B5	2					1/2"		3/4"			T							TR
Z 44052	50 RL 44004 ZB16C1	042 B11	5					1/2"		3/4"			T							TR
Z 44104	25 R 44104 ZB16C1	041 D10	40					1/2"		3/4"			T							TR
Z 44106	B44101	041 D5	40					1/2"		3/4"			T							TR
Z 44110	B44101	041 F5	10					1/2"		3/4"			T							TR
Z 44136	B44101	041 A7	5					1/2"		3/4"			T							TR
Z 44137	B44101	041 A8	5					1/2"		3/4"			T							TR

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			Set pressure (bar ü)	Temp. (°C)	Density (kg/m³)	Operating flow rate (kg/h)	Blow off mass (kg/h)	Inlet		Outlet		Connection		Order data				
								DN	PN	DN	PN	Type	Seal surface	Manufacturer Type	Supplier Spec.-No.	Date of delivery		
Z 44204	R 44204 ZB10C1	042 E8	40				1/2"		3/4"	T							TR	
Z 44210	B44201	042 E3	40				1/2"		3/4"	T							TR	
Z 44236	B44201	042 B6	5				1/2"		3/4"	T							TR	
Z 44237	B44201	042 B7	5				1/2"		3/4"	T							TR	
Z 44250	80 RL 44102 ZB16C1	042 G5	7				1/2"		3/4"	T							TR	
Z 44251	80 RL 44201 ZB16C1	042 F6	7				1/2"		3/4"	T							TR	
Z 48010	80 RL 44201 ZB16C1	043 F4	7														TR	
Z 48010	50 RL 48105 ZB10C1	044 E4	40				1/2"		3/4"	T							TR	
Z 48020	25 R 48033 ZB40C1	044 G6	40				1/2"		3/4"								TR	
Z 48038	50 RL 48105 ZB10C1	044 C3	40				1/2"		3/4"	T							TR	
Z 48050	50 RL 48001 ZB40C1	043 C8	40				1/2"		3/4"	T							TR	
Z 48061	B48001	044 B4	37				1/2"		3/4"	T							TR	

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			Coord.	Set pressure (bar ti)	Temp. (°C)	Density (kg/m³)	Operating flow rate (kg/h)	Blow off mass (kg/h)	Inlet		Outlet		Connection				Order data		Date of delivery	
									DN	PN	DN	PN	Seal. surface	Type			Manufacturer	Supplier		
																				Type
Z 48062	B48001	044 B4	37					1/2"		3/4"		T						TR		
Z 48063	25 RL 48009 ZB16C1	044 C7	40					1/2"		3/4"		T						TR		
Z 48102	50 R 48033 ZB40C1	044 F8	40																	
Z 48202	50 R 48034 ZB40C1	044 G8	40																	
Z 49008	50 R 48033 ZB40C1	044 F9	40																	
Z 61001	50 O 61102 MA_W	011 E10	10																	
Z 61102	200 OL 21007 MA_W	012 D8	6					1/2"		3/4"		T						TR		
Z 61150	100 OL 61101 MA_W	012 C4	40					1/2"		3/4"		T						TR		
Z 61170	100 OL 61105 ZB40C1	012 B5	40					1/2"		3/4"		T						TR		
Z 61202	200 OL 21008 ZB16C1	012 G6	6					1/2"		3/4"										
Z 61250	100 OL 61201 ZB40C1	012 G2	40					1/2"		3/4"		T						TR		
Z 61270	100 OL 61205 ZB40C1	012 C3	40					1/2"		3/4"		T						TR		

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			Coord.	Set pressure (bar ü)	Temp. (°C)	Density (kg/m³)	Operating flow rate (kg/h)	Blow off mass (kg/h)	Inlet		Outlet		Connection			Order data		Date of delivery
		DN							PN	DN	PN	Seal. surface	Manufacturer Type	Supplier Spec.-No.				
Z 62001	B 62001	032 D4	0,01															Tankfarm
Z 62002	B 62001	032 C4	0,01															Tankfarm
Z 62003	B 62001	032 C4	0,01															Tankfarm
Z 62004	B 62001	032 B4	0,275															Tankfarm
Z 62016	150 OL 62002 ZB10C1	032 F8	6	-159	27		1696	1/2"	3/4"	T								TR Tankfarm
Z 62022	B62001	032 F6	0,3															Tankfarm
Z 62036	B 62001	032 A7	0,2 / - 0,0043															Tankfarm
Z 62037	B 62001	032 A7	0,2 / - 0,0043															Tankfarm
Z 62038	B 62001	032 A6	0,005 / - 0,022															Tankfarm
Z 62040	25 OL 62006 ZB10C1	032 G4	10	-152	42		217	1/2"	3/4"	T								TR Tankfarm
Z 62052	50 OL 61102 ZB10C1	032 D7	10	-152	42		543	1/2"	3/4"	T								TR Tankfarm
Z 62053	50 OL 61102 ZB10C1	032 G2	10	-152	42		217	1/2"	3/4"	T								TR Tankfarm

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			Set pressure (bar ü)	Temp. (°C)	Density (kg/m³)	Operating flow rate (kg/h)	Blow off mass (kg/h)	Inlet		Outlet	Connection		Order data			Date of delivery	
								DN	PN		Type	Seal surface	Manufacturer				Supplier Spec.-No.
Z 63016	80 OL 62002 ZB10C1	032 G9	6	-159	27		80	100		F	2633 C					Tankfarm	
Z 64009	100 OL 62001 ZB10C1	033 E2	10	-152	42		1/2"	3/4"								TR Tankfarm	
Z 64010	W 64001	034 D4	40	-10	63											Tankfarm	
Z 64011	W 64001	034 D5	40	-10	63											Tankfarm	
Z 64020	80 OL 64101 ZB40C1	033 A11	40	-123	203		1/2"	3/4"								TR Tankfarm	
Z 64030	80 OL 64101 ZB40C1	034 B3	40	-123	203		1/2"	3/4"		T						TR Tankfarm	
Z 64101	100 OL 62001 ZB10C1	033 E5	6	-159	27		1/2"	3/4"		T						TR Tankfarm	
Z 64170	80 OL 64102 ZB40C1	033 B3	40	-123	203		1/2"	3/4"		T						TR Tankfarm	
Z 64201	100 OL 62005 ZB10C1	033 H5	6	-159	27		1/2"	3/4"		T						TR Tankfarm	
Z 64270	80 OL 64202 ZB40C1	033 B4	40	-123	203		1/2"	3/4"		T						TR Tankfarm	
Z 70035	150 N 75006 AA16C1	019 C11	10														
Z 70505	150 WC 80007 AA10C2	019 F4	8														

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			Set pressure (bar ü)	Temp. (°C)	Density (kg/m³)	Operating flow rate (kg/h)	Blow off mass (kg/h)	Inlet		Outlet		Connection				Order data		
								DN	PN	DN	PN	Seal surface	DIN			Manufacturer Type	Supplier Spec.-No.	Date of delivery
Z 71102	80 NL 21013 MA__W	015 D8	6				1/2"		3/4"	T						TR		
Z 71150	50 NL 71101 MA__W	015 C4	40				1/2"		3/4"	T						TR		
Z 71170	50 NL 71102 MA__W	015 A4	40				1/2"		3/4"	T						TR		
Z 71180	15 N 20028 AA40C1	015 B10	10															
Z 71202	80 NL 21014 ZB16C1	015 G6	6				1/2"		3/4"									
Z 71250	50 NL 71201 ZB16C1	015 G2	40				1/2"		3/4"	T						TR		
Z 71270	50 NL 71202 MA__W	015 C2	40				1/2"		3/4"	T						TR		
Z 72001	B 72001	035 C3	0,01													Tankfarm		
Z 72002	B 72001	035 C4	0,01													Tankfarm		
Z 72003	B 72001	035 C4	0,01													Tankfarm		
Z 72004	B 72001	035 B4	0,275													Tankfarm		
Z 72016	100 NL 72101 ZB10C1	035 F8	6	-175	29		1357	1/2"	3/4"	T						TR Tankfarm		

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			Set pressure (bar ü)	Temp. (°C)	Density (kg/m³)	Operating flow rate (kg/h)	Blow off mass (kg/h)	Inlet		Outlet		Connection				Order data		Date of delivery
								DN	PN	DN	PN	Type	Seal. surface			Manufacturer Type	Supplier Spec.-No.	
Z 72022	B 72001	035 F6	0,3														Tankfarm	
Z 72036	B 72001	035 A7	0,2 / - 0,0043														Tankfarm	
Z 72037	B72001	035 A7	0,2 / - 0,0043														Tankfarm	
Z 72038	B 72001	035 A6	0,005 / - 0,0022														Tankfarm	
Z 72040	25 NL 72004 ZB10C1	035 G4	10	-168	46		163	25	32	F	2633 C						Tankfarm	
Z 72052	50 NL 72003 ZB16C1	035 E7	16	-161	74		326	25	32	F	2633 C						Tankfarm	
Z 72053	40 NL 73005 ZB16C1	035 G4	10	-161	74		1018	40	50	F	2633 C						Tankfarm	
Z 73001	40 NL 73001 MA_W	014 E3	16					1/2"	3/4"	T							TR	
Z 73002	50 N 74095 AA63C1	038 B3	25	-40	35		25800	50	65	F	2635 C						Tankfarm	
Z 73005	20 NL 73008 ZB40C1	038 E7	40	-147	288		13	1/2"	3/4"	T							TR Tankfarm	
Z 73007	B 73002	038 A4	22,5	-40 bis 50	35,2		75	1/2"	3/4"	T							TR Tankfarm	
Z 73010	80 NL 73003 ZB25C1	039 B3	25	-153	131		204	1/2"	3/4"	T							TR Tankfarm	

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			Set pressure (bar ü)	Temp. (°C)	Density (kg/m³)	Operating flow rate (kg/h)	Blow off mass (kg/h)	Inlet		Outlet		Connection		Order data			Date of delivery	
								DN	PN	DN	PN	Seal surface	DIN	Manufacturer				Supplier
Z 73014		038	25	-153	131		136										Tankfarm	
Z 73015		038	25	-153	131		136										Tankfarm	
Z 73015	50 N 73004 ZB25C1	038 B5	15	-40	24		18000	50	65		F	2635 C					Tankfarm	
Z 73021	B 73001	038 F3	40					1/2"	3/4"		T						TR Tankfarm	
Z 73022	B 73001	038 C3	40					1/2"	3/4"		T						TR Tankfarm	
Z 73025	B 73001	038 F4	40					1/2"	3/4"		T						TR Tankfarm	
Z 73026	80 NL 73001 ZB25C1	038 F8	25	-153	131		1221	1/2"	3/4"		T						TR Tankfarm	
Z 73036	50 N 73004 ZB25C1	038 B6	15					1/2"	3/4"		T						TR Tankfarm	
Z 73037	50 N 73004 ZB25C1	038 B6	15					1/2"	3/4"		T						TR Tankfarm	
Z 73101	100 NL 72002 ZB10C1	037 E5	6	-175	29		1357	1/2"	3/4"		T						TR Tankfarm	
Z 73110	80 NL 73001 ZB25C1	040 A2	25	-153	131		102	1/2"	3/4"		T						TR Tankfarm	
Z 73150	300 N 73105 AA40C1	040 B7	25	-10	34		59993										Tankfarm	

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			Set pressure (bar ü)	Temp. (°C)	Density (kg/m³)	Operating flow rate (kg/h)	Blow off mass (kg/h)	Inlet		Outlet		Connection		Order data						
								DN	PN	DN	PN	Type	Seal. surface	Manufacturer			Type	Supplier	Spec.-No.	Date of delivery
Z 73151	80 NL 73101 ZB25C1	037 B8	25	-153	131		407	1/2"		3/4"		T						TR Tankfarm		
Z 73170	80 NL 73102 ZB25C1	037 C4	25	-153	131		122	1/2"		3/4"		T						TR Tankfarm		
Z 73201	100 NL 72002 ZB10C1	037 G4	6	-175	29		1357	1/2"		3/4"		T						TR Tankfarm		
Z 73270	80 NL 73202 ZB25C1	037 B4	25	-153	131		122	1/2"		3/4"		T						TR Tankfarm		
Z 74004	80 NL 72001 ZB10C1	036 E2	10	-168	46		560	1/2"		3/4"		T						TR Tankfarm		
Z 74006	100 NL 72002 ZB10C1	037 E2	10	-168	46		684	1/2"		3/4"		T						TR Tankfarm		
Z 74009	W 73001	039 E4	25	-10	34		74991											Tankfarm		
Z 74101	80 NL 72001 ZB10C1	036 E4	6	-175	29		1357	1/2"		3/4"		T						TR Tankfarm		
Z 74151	50 NL 74101 ZB40C1	036 B7	40	-147	480		254	1/2"		3/4"		T						TR Tankfarm		
Z 74170	50 NL 74102 ZB40C1	036 C3	40	-147	480		51	1/2"		3/4"		T						TR Tankfarm		
Z 74185	80 NL 74185 ZB40C1	036 A9	40	25	46		7218					F		2635 C				Tankfarm		
Z 74201	80 NL 72004 ZB10C1	036 G4	6	-175	29		1357	1/2"		3/4"		T						TR Tankfarm		



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			Set pressure (bar ü)	Temp. (°C)	Density (kg/m³)	Operating flow rate (kg/h)	Blow off mass (kg/h)	Inlet		Outlet		Connection			Order data		Date of delivery			
								DN	PN	DN	PN	Type			Seal. surface	Manufacturer		Type	Supplier	Spec.-No.
Z 74270	50 NL 74202 ZB40C1	036 B3	40	-147	480		51	1/2"		3/4"	T					TR Tankfarm				
Z 74285	80 N 74285 ZB40C1	036 B9	40	25	46		7218				F		2635 C			Tankfarm				
Z 74385	80 N 74385 ZB40C1	036 B9	40	25	46		7218				F		2635 C			Tankfarm				
Z 74485	80 N 74485 ZB40C1	036 C9	40	25	46		7218				F		2635 C			Tankfarm				
Z 77035	150 N 76006 AA16C1	020 C10	10																	
Z 77505	150 WC 80008 AA10C2	020 F4	8																	
Z 81010	80 N 81001 AA10C1	025 D3	6	25	8		3300													
Z 81020	25 O 81020 ZB40C1	025 F9	10	20	14		1500													
Z 87012	100 N 87001 AA10C1	024 G5	0,4																	
Z 87013	H- BOX	024 C7	0,005/+0, 015																	
Z 87014	COLD - BOX	024 A9	0,005/+0, 015																	
Z 87026	H- BOX	024 C7	0,008																	

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								DN	PN	DN	PN	Type			Seal. surface	Manufacturer Type		Supplier Spec.-No.
Z 87027	H-BOX	024 E6	0,015															
Z 87066	COLD - BOX	024 A8	0,008															
Z 87072	COL - BOX	024 D9	0,015															
Z 87078	COL - BOX	024 E9	0,015															
Z 90013	50 NL 90004 ZB16C1	026 A4	16					1/2"	3/4"								TR	
Z 90014	80 OL 90001 ZB16C1	026 A3	16					1/2"	3/4"								TR	
Z 90015	50 RL 90002 ZB16C1	026 A5	16					1/2"	3/4"								TR	