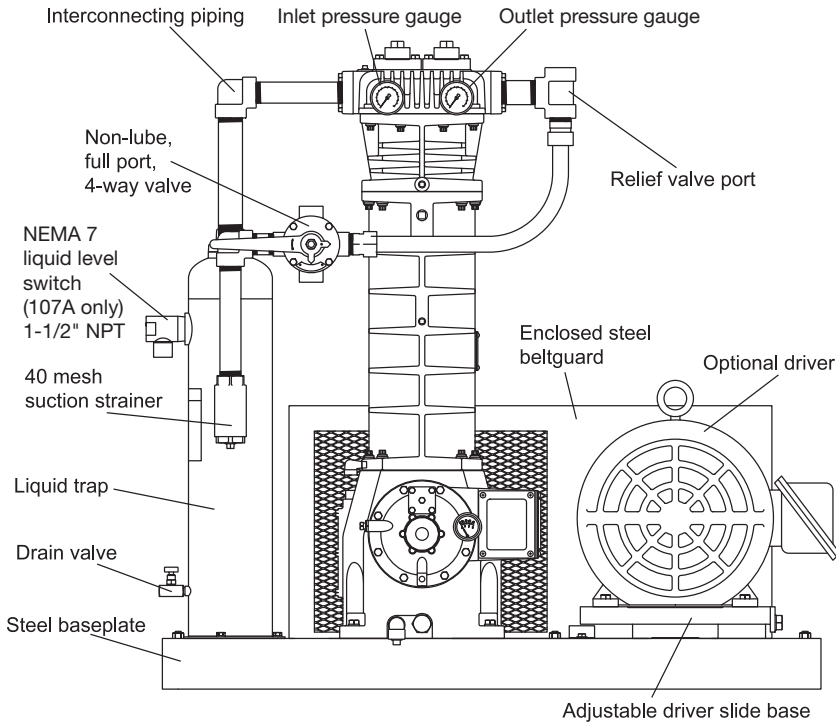


Appendix D—Compressor Selection

Compressor Mounting Selections



Standard 107 Items

- Steel baseplate
- V-Belt drive
- Adjustable driver slide base
- Enclosed steel belt guard
- Inlet and outlet pressure gauges
- 40 Micron strainer
- Non-lube 4-way valve
- Interconnecting piping
- Liquid trap as specified below

107 Mounting

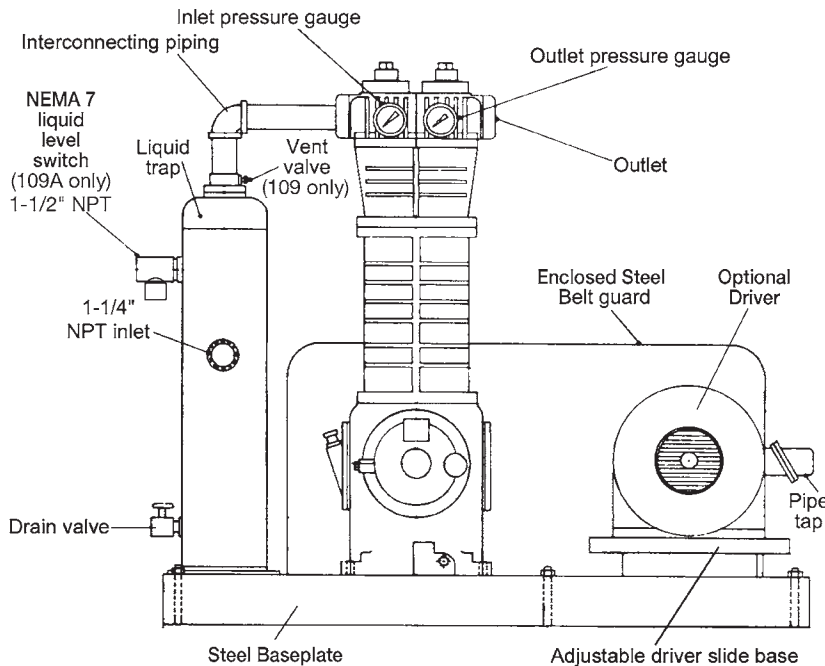
Mechanical liquid trap with ball float

107A Mounting

Automatic liquid trap with one NEMA 7 liquid level switch

107B Mounting

Automatic liquid trap (ASME code) with two NEMA 7 liquid level switches



Standard 109 Items

- Steel baseplate
- V-Belt drive
- Adjustable driver slide base
- Enclosed steel belt guard
- Inlet and outlet pressure gauges
- Interconnecting piping
- Liquid trap as specified below

109 Mounting

Mechanical liquid trap with ball float

109A Mounting

Automatic liquid trap with one NEMA 7 liquid level switch

109B Mounting

Automatic liquid trap (ASME code) with two NEMA 7 liquid level switches

Appendix D—Compressor Selection

Butane Compressor Selection Table

Service	Capacity gpm ¹	Displacement cfm	Compressor		Driver Sheave Size Pitch Diameter (inches) ²		Driver Horsepower				Piping Size ³	
							Liquid Transfer & Residual Vapor Recovery		Liquid Transfer Without Residual Vapor Recovery			
							100°F	80°F	100°F	80°F		
Model	RPM	1,750 RPM	1,450 RPM					Vapor	Liquid			
Small bulk plants	13	4	91	400	A 3.0	A 3.6	3	3	3	3	3/4	1-1/4
	17	5	91	505	A 3.8	B 4.6	3	3	3	3	3/4	1-1/4
	20	6	91	590	B 4.6	B 5.6	3	3	3	3	1	1-1/4
	24	7	91	695	B 5.4	B 6.6	5	5	5	5	1	1-1/2
	23	7	290, 291	345	A 3.0	A 3.6	2	2	2	2	1	1-1/2
Unloading single tank car or transport	27	8	91	795	B 6.2	B 7.4	5	5	5	5	1	1-1/2
	26	8	290, 291	390	A 3.4	B 4.0	2	2	2	2	1	1-1/2
	30	9	290, 291	435	A 3.8	B 4.6	3	3	3	3	1	1-1/2
	33	10	290, 291	490	B 4.4	B 5.2	3	3	3	3	1	2
	36	11	290, 291	535	B 4.8	B 5.8	3	3	3	3	1	2
	39	12	290, 291	580	B 5.2	B 6.2	5	3	5	3	1	2
	42	13	290, 291	625	B 5.6	B 6.6	5	5	5	5	1-1/4	2
	47	14	290, 291	695	B 6.2	B 7.4	5	5	5	5	1-1/4	2
	50	15	290, 291	735	B 6.6	B 8.0	5	5	5	5	1-1/4	2-1/2
	50	15	490, 491	345	A 3.0	A 3.6	5	5	5	5	1-1/4	2-1/2
53	16	290, 291	780	B 7.0	B 8.6	7-1/2	5	7-1/2	5	1-1/4	2-1/2	
53	16	490, 491	370	A 3.2	A 3.8	5	5	5	5	1-1/4	2-1/2	
Unloading two or more tank cars at one time or large transport with excess flow valves of adequate capacity	56	17	490, 491	390	A 3.4	B 4.0	5	5	5	5	1-1/4	3
	60	18	490, 491	415	A 3.6	B 4.4	5	5	5	5	1-1/4	3
	63	19	490, 491	435	A 3.8	B 4.6	5	5	5	5	1-1/4	3
	65	20	490, 491	445	B 4.0	B 4.8	5	5	5	5	1-1/4	3
	68	21	490, 491	470	B 4.2	B 5.0	5	5	5	5	1-1/4	3
	71	22	490, 491	490	B 4.4	B 5.2	7-1/2	5	7-1/2	5	1-1/4	3
	75	23	490, 491	515	B 4.6	B 5.6	7-1/2	5	7-1/2	5	1-1/4	3
	77	24	490, 491	535	B 4.8	B 5.8	7-1/2	7-1/2	7-1/2	7-1/2	1-1/4	3
	81	25	490, 491	560	B 5.0	B 6.0	7-1/2	7-1/2	7-1/2	7-1/2	1-1/4	3
	84	26	490, 491	580	B 5.2	B 6.2	7-1/2	7-1/2	7-1/2	7-1/2	1-1/4	3
	87	27	490, 491	605	B 5.4	B 6.4	7-1/2	7-1/2	7-1/2	7-1/2	1-1/4	3
	91	28	490, 491	625	B 5.6	B 6.6	7-1/2	7-1/2	7-1/2	7-1/2	1-1/2	3
	94	29	490, 491	650	B 5.8	B 7.0	10	7-1/2	10	7-1/2	1-1/2	3
	97	30	490, 491	670	B 6.0		10	7-1/2	10	7-1/2	1-1/2	3
	94	30	690, 691	400	B 4.4	B 5.2	7-1/2	7-1/2	7-1/2	7-1/2	1-1/2	3
100	31	490, 491	695	B 6.2	B 7.4	10	7-1/2	10	7-1/2	1-1/2	3	
98	31	690, 691	420	B 4.6	B 5.6	10	7-1/2	10	7-1/2	1-1/2	3	
107	32	490, 491	740	B 6.6	B 8.0	10	10	10	10	1-1/2	3	
Unloading large tank cars, multiple vessels, barges or terminals	103	32	690, 691	440	B 4.8	B 5.8	10	7-1/2	10	7-1/2	1-1/2	3
	110	33	490, 491	760	B 6.8	B 8.0	10	10	10	10	1-1/2	3
	113	34	490, 491	780	B 7.0	B 8.6	10	10	10	10	1-1/2	3
	107	34	690, 691	455	B 5.0	B 6.0	10	10	10	10	1-1/2	3
	111	35	690, 691	475	B 5.2	B 6.2	10	10	10	10	1-1/2	3
	119	36	490, 491	825	B 7.4	B 8.6	15	10	15	10	1-1/2	3
	116	36	690, 691	495	B 5.4	A 6.4	10	10	10	10	1-1/2	3
	120	38	690, 691	510	B 5.6	B 6.8	10	10	10	10	1-1/2	4
	124	39	690, 691	530	B 5.8	B 7.0	10	10	10	10	1-1/2	4
	129	41	690, 691	550	B 6.0	A 7.0	10	10	10	10	1-1/2	4
	133	42	690, 691	565	B 6.2	B 7.4	10	10	10	10	2	4
	137	43	690, 691	585	B 6.4	A 7.4	10	10	10	10	2	4
	142	45	690, 691	605	B 6.6	B 8.0	15	10	15	10	2	4
	145	46	690, 691	620	B 6.8		15	10	15	10	2	4
	150	47	690, 691	640	B 7.0	A 8.2	15	10	15	10	2	4
158	48	690, 691	675	B 7.4	B 8.6	15	15	15	15	2	4	
171	54	690, 691	730	B 8.0	B 9.4	15	15	15	15	2	4	
184	58	690, 691	785	B 8.6		15	15	15	15	2	4	
193	60	690, 691	820	TB 9.0	A 10.6	15	15	15	15	2	4	
260	82.1		D891	580	5V 7.1	5V 8.5	20	20	20	20	3	6
359	113.3		D891	800	5V 9.75	5V 11.8	25	25	25	25	3	6

¹ The capacities shown are based on 70°F, but will vary depending upon piping, fittings used, product being transferred and temperature. The factory can supply a detailed computer analysis if required.

² Driver sheaves: 91 (2 belts); 290, 291, 490, 491 (3 belts); 690, 691 (4 belts).

³ The piping sizes shown are considered minimum. If the length exceeds 100 ft., use the next larger size.

NOTE: Please consult factory for compressors with higher flows.

Appendix D—Compressor Selection

Propane Compressor Selection Table

Service	Capacity gpm ¹	Displacement cfm	Compressor		Driver Sheave Size Pitch Diameter (inches) ²		Driver Horsepower				Piping Size ³	
							Liquid Transfer & Residual Vapor Recovery		Liquid Transfer Without Residual Vapor Recovery			
							100°F	80°F	100°F	80°F		
Small bulk plants	23	4	91	400	A 3.0	A 3.6	5	3	3	3	3/4	1-1/4
	29	5	91	505	A 3.8	B 4.6	5	5	5	5	3/4	1-1/4
	34	6	91	590	B 4.6	B 5.6	5	5	5	5	1	1-1/4
	40	7	91	695	B 5.4	B 6.6	5	5	5	5	1	1-1/2
	39	7	290, 291	345	A 3.0	A 3.6	3	3	3	3	1	1-1/2
Unloading single tank car or transport	45	8	91	795	B 6.2	B 7.4	7-1/2	7-1/2	7-1/2	7-1/2	1	1-1/2
	44	8	290, 291	390	A 3.4	B 4.0	5	3	3	3	1	1-1/2
	50	9	290, 291	435	A 3.8	B 4.6	5	5	3	3	1	1-1/2
	56	10	290, 291	490	B 4.4	B 5.2	5	5	5	5	1	2
	61	11	290, 291	535	B 4.8	B 5.8	5	5	5	5	1	2
	66	12	290, 291	580	B 5.2	B 6.2	7-1/2	5	5	5	1	2
	71	13	290, 291	625	B 5.6	B 6.6	7-1/2	5	7-1/2	5	1-1/4	2
	79	14	290, 291	695	B 6.2	B 7.4	7-1/2	7-1/2	7-1/2	7-1/2	1-1/4	2
	84	15	290, 291	735	B 6.6	B 8.0	10	7-1/2	10	7-1/2	1-1/4	2-1/2
	84	15	490, 491	345	A 3.0	A 3.6	7-1/2	7-1/2	5	5	1-1/4	2-1/2
89	16	290, 291	780	B 7.0	B 8.6	10	10	10	10	1-1/4	2-1/2	
89	16	490, 491	370	A 3.2	A 3.8	7-1/2	7-1/2	7-1/2	5	1-1/4	2-1/2	
Unloading two or more tank cars at one time or large transport with excess flow valves of adequate capacity	95	17	490, 491	390	A 3.4	B 4.0	7-1/2	7-1/2	7-1/2	7-1/2	1-1/4	3
	101	18	490, 491	415	A 3.6	B 4.4	10	7-1/2	7-1/2	7-1/2	1-1/4	3
	106	19	490, 491	435	A 3.8	B 4.6	10	7-1/2	7-1/2	7-1/2	1-1/4	3
	108	20	490, 491	445	B 4.0	B 4.8	10	7-1/2	7-1/2	7-1/2	1-1/4	3
	114	21	490, 491	470	B 4.2	B 5.0	10	7-1/2	7-1/2	7-1/2	1-1/4	3
	119	22	490, 491	490	B 4.4	B 5.2	10	10	7-1/2	7-1/2	1-1/4	3
	125	23	490, 491	515	B 4.6	B 5.6	10	10	10	7-1/2	1-1/4	3
	130	24	490, 491	535	B 4.8	B 5.8	15	10	10	10	1-1/4	3
	136	25	490, 491	560	B 5.0	B 6.0	15	10	10	10	1-1/4	3
	141	26	490, 491	580	B 5.2	B 6.2	15	10	10	10	1-1/4	3
	147	27	490, 491	605	B 5.4	B 6.4	15	10	15	10	1-1/4	3
	152	28	490, 491	625	B 5.6	B 6.6	15	15	15	15	1-1/2	3
	158	29	490, 491	650	B 5.8	B 7.0	15	15	15	15	1-1/2	3
	163	30	490, 491	670	B 6.0	B 7.0	15	15	15	15	1-1/2	3
	163	30	690, 691	400	B 4.4	B 5.2	15	15	10	10	1-1/2	3
	168	31	490, 491	695	B 6.2	B 7.4	15	15	15	15	1-1/2	3
	171	31	690, 691	420	B 4.6	B 5.6	15	15	10	10	1-1/2	3
179	32	490, 491	740	B 6.6	B 8.0	15	15	15	15	1-1/2	3	
178	32	690, 691	440	B 4.8	B 5.8	15	15	10	10	1-1/2	3	
186	34	690, 691	455	B 5.0	B 6.0	15	15	15	10	1-1/2	3	
193	35	690, 691	475	B 5.2	B 6.2	15	15	15	10	1-1/2	3	
200	36	690, 691	495	B 5.4	B 6.4	15	15	15	15	1-1/2	3	
Unloading large tank cars, multiple vessels, barges or terminals	208	38	690, 691	510	B 5.6	B 6.8	20	15	15	15	1-1/2	4
	215	39	690, 691	530	B 5.8	B 7.0	20	15	15	15	1-1/2	4
	223	41	690, 691	550	B 6.0	A 7.0	20	15	15	15	1-1/2	4
	230	42	690, 691	565	B 6.2	B 7.4	20	15	15	15	2	4
	237	43	690, 691	585	B 6.4	A 7.4	20	15	15	15	2	4
	245	45	690, 691	605	B 6.6	B 8.0	20	15	15	15	2	4
	252	46	690, 691	620	B 6.8	B 8.0	20	20	15	15	2	4
	260	47	690, 691	640	B 7.0	A 8.2	20	20	20	15	2	4
	275	48	690, 691	675	B 7.4	B 8.6	25	20	20	20	2	4
	297	54	690, 691	730	B 8.0	B 9.4	25	20	20	20	2	4
	319	58	690, 691	785	B 8.6	B 9.4	25	20	25	20	2	4
	334	60	690, 691	820	TB 9.0	A 10.6	30	25	25	20	2	4
	452	82	D891	580	5V 7.1	5V 8.5	30	30	30	30	3	6
	623	113	D891	800	5V 9.75	5V 11.8		40	40	30	3	6

¹ The capacities shown are based on 70°F, but will vary depending upon piping, fittings used, product being transferred and temperature. The factory can supply a detailed computer analysis if required.

² Driver sheaves: 91 (2 belts); 290, 291, 490, 491 (3 belts); 690, 691 (4 belts).

³ The piping sizes shown are considered minimum. If the length exceeds 100 ft., use the next larger size.

NOTE: Please consult factory for compressors with higher flows.

Appendix D—Compressor Selection

Ammonia Compressor Selection Table

Service	Capacity gpm ¹	Displacement cfm	Compressor		Driver Sheave Size Pitch Diameter (inches) ²		Driver Horsepower				Piping Size ³	
							Liquid Transfer & Residual Vapor Recovery		Liquid Transfer Without Residual Vapor Recovery			
							100°F	80°F	100°F	80°F		
Model	RPM	1,750 RPM	1,450 RPM	100°F	80°F	100°F	80°F	Vapor	Liquid			
Small bulk plants	23	4	91	400	A 3.0	A 3.6	5	3	3	3	3/4	1-1/4
	29	5	91	505	A 3.8	B 4.6	5	5	5	3	3/4	1-1/4
	34	6	91	590	B 4.6	B 5.6	5	5	5	5	1	1-1/4
	40	7	91	695	B 5.4	B 6.6	5	5	5	5	1	1-1/2
	43	7	290, 291	345	A 3.0	A 3.6	5	3	3	3	1	1-1/2
Unloading single tank car or transport	46	8	91	795	B 6.2	B 7.4	7-1/2	5	5	5	1	1-1/2
	45	8	290, 291	390	A 3.4	B 4.0	5	3	3	3	1	1-1/2
	50	9	290, 291	435	A 3.8	B 4.6	5	5	3	3	1	1-1/2
	56	10	290, 291	490	B 4.4	B 5.2	5	5	5	3	1	2
	62	11	290, 291	535	B 4.8	B 5.8	7-1/2	5	5	5	1	2
	67	12	290, 291	580	B 5.2	B 6.2	7-1/2	5	5	5	1	2
	72	13	290, 291	625	B 5.6	B 6.6	7-1/2	5	5	5	1-1/4	2
	80	14	290, 291	695	B 6.2	B 7.4	7-1/2	7-1/2	7-1/2	5	1-1/4	2
	85	15	290, 291	735	B 6.6	B 8.0	10	7-1/2	7-1/2	7-1/2	1-1/4	2-1/2
	85	15	490, 491	345	A 3.0	A 3.6	7-1/2	7-1/2	5	5	1-1/4	2-1/2
90	16	290, 291	780	B 7.0	B 8.6	10	7-1/2	7-1/2	7-1/2	1-1/4	2-1/2	
90	16	490, 491	370	A 3.2	A 3.8	10	7-1/2	5	5	1-1/4	2-1/2	
Unloading two or more tank cars at one time or large transport with excess flow valves of adequate capacity	96	17	490, 491	390	A 3.4	B 4.0	10	7-1/2	5	5	1-1/4	3
	102	18	490, 491	415	A 3.6	B 4.4	10	7-1/2	7-1/2	7-1/2	1-1/4	3
	107	19	490, 491	435	A 3.8	B 4.6	10	7-1/2	7-1/2	7-1/2	1-1/4	3
	110	20	490, 491	445	B 4.0	B 4.8	10	7-1/2	7-1/2	7-1/2	1-1/4	3
	115	21	490, 491	470	B 4.2	B 5.0	10	7-1/2	7-1/2	7-1/2	1-1/4	3
	120	22	490, 491	490	B 4.4	B 5.2	15	10	7-1/2	7-1/2	1-1/4	3
	126	23	490, 491	515	B 4.6	B 5.6	15	10	7-1/2	7-1/2	1-1/4	3
	131	24	490, 491	535	B 4.8	B 5.8	15	10	10	7-1/2	1-1/4	3
	138	25	490, 491	560	B 5.0	B 6.0	15	10	10	7-1/2	1-1/4	3
	142	26	490, 491	580	B 5.2	B 6.2	15	10	10	7-1/2	1-1/4	3
	148	27	490, 491	605	B 5.4	B 6.4	15	10	10	10	1-1/4	3
	153	28	490, 491	625	B 5.6	B 6.6	15	10	10	10	1-1/2	3
	160	29	490, 491	650	B 5.8	B 7.0	15	15	10	10	1-1/2	3
	165	30	490, 491	670	B 6.0	B 7.0	15	15	15	10	1-1/2	3
	165	30	690, 691	400	B 4.4	B 5.2	15	15	10	10	1-1/2	3
170	31	490, 491	695	B 6.2	B 7.4	15	15	15	10	1-1/2	3	
173	31	690, 691	420	B 4.6	B 5.6	15	15	10	10	1-1/2	3	
181	32	490, 491	740	B 6.6	B 8.0	15	15	15	15	1-1/2	3	
180	32	690, 691	440	B 4.8	B 5.8	15	15	10	10	1-1/2	3	
188	34	690, 691	455	B 5.0	B 6.0	20	15	10	10	1-1/2	3	
195	35	690, 691	475	B 5.2	B 6.2	20	15	10	10	1-1/2	3	
203	36	690, 691	495	B 5.4	B 6.4	20	15	15	10	1-1/2	3	
Unloading large tank cars, multiple vessels, barges or terminals	211	38	690, 691	510	B 5.6	B 6.8	20	15	15	10	1-1/2	4
	218	39	690, 691	530	B 5.8	B 7.0	20	15	15	15	1-1/2	4
	226	41	690, 691	550	B 6.0	A 7.0	20	15	15	15	1-1/2	4
	233	42	690, 691	565	B 6.2	B 7.4	20	15	15	15	2	4
	240	43	690, 691	585	B 6.4	A 7.4	20	20	15	15	2	4
	248	45	690, 691	605	B 6.6	B 8.0	20	20	15	15	2	4
	255	45	690, 691	620	B 6.8	B 8.0	25	20	15	15	2	4
	263	47	690, 691	640	B 7.0	A 8.2	25	20	15	15	2	4
	278	48	690, 691	675	B 7.4	B 8.6	25	20	15	15	2	4
	301	54	690, 691	730	B 8.0	B 9.4	25	20	20	15	2	4
	323	58	690, 691	785	B 8.6	B 9.4	30	25	20	20	2	4
	338	60	690, 691	820	TB 9.0	A 10.6	30	25	20	20	2	4
	459	82	D891	580	5V 7.1	5V 8.5	40	30	30	30	3	6
633	113	D891	800	5V 9.75	5V 11.8		40	40	30	3	6	

¹ The capacities shown are based on 70°F, but will vary depending upon piping, fittings used, product being transferred and temperature. The factory can supply a detailed computer analysis if required.

² Driver sheaves: 91 (2 belts); 290, 291, 490, 491 (3 belts); 690, 691 (4 belts).

³ The piping sizes shown are considered minimum. If the length exceeds 100 ft., use the next larger size.

NOTE: Please consult factory for compressors with higher flows.