

Sabroe PAC chillers

Packaged ammonia chillers based on screw compressors, with a 200–6200 kW capacity range

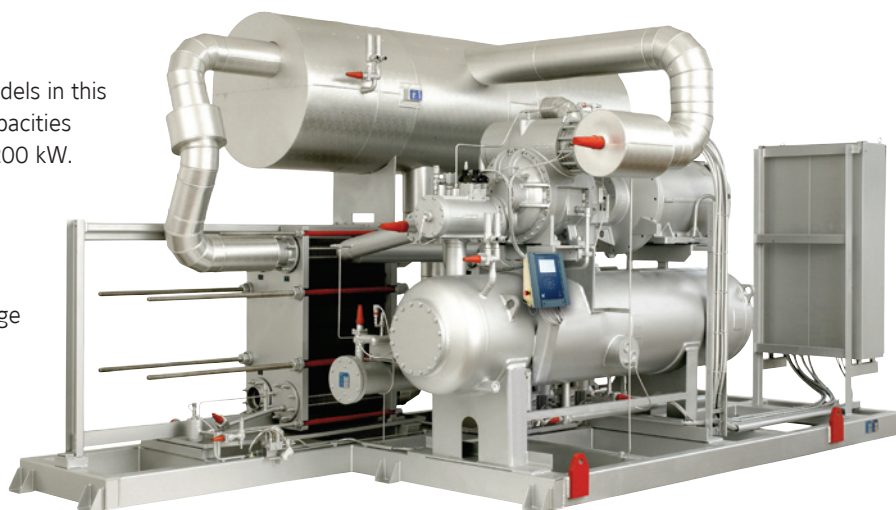
PAC ammonia-based chillers are fully integrated packaged units, designed to take full advantage of the many different models of ultra-reliable Sabroe screw compressors. They are popular because there is such a wide range of different standard sizes, and they are also particularly easy to customise to meet specific requirements.

The integrated design, with the plate evaporator/condenser, oil separator and control system all built in, means PAC units provide exceptional refrigeration capacity while only taking up a minimum of space. They are ideal for use in indirect cooling set-ups, and in installations where it is important to use future-compatible natural refrigerants, such as ammonia.

The advanced technology and the well-matched integration of the component systems make these chillers so energy efficient that their low operating costs make them the most economical choice over the lifetime of a refrigeration plant.

Range

There are 19 different standard models in this range of packaged chillers, with capacities ranging from approx. 200 kW to 6200 kW. Customised configurations are also available for use with remote air-cooled or evaporative condensers, and for twin or multi-packages, designed to provide particularly large cooling capacities.



PAC 233 chiller

Advantages

Factory-assembled, pre-tested packaged units

Comprehensive selection of compressor capacities, making it easier to match particular requirements

Very easy access for service

Indirect cooling and uncomplicated flooded evaporating system, using natural ammonia (R717) only

Plate evaporator/condenser are easy to open and service

Benefits

Easy pre-commissioning makes installation and running-in both faster and cheaper. Factory acceptance tests (FAT) available as an option

Avoid paying for greater capacity than needed

Improves safety, ensures maximum reliability and global sourcing of parts

Greater safety and outstanding reliability

Routine checks/service can be carried out by operator's own staff

Optional equipment

- Variable-speed drive
- Soft-starter or Y/D starter
- De-superheater
- Sub-cooler
- External condenser
- Control panel mounted separately



Water: inlet 12°C, outlet 7°C

Type	Capacity kW	E-motor kW	R717 charge kg	Operational weight kg	Dimensions in mm			Sound level dB(A)
					L	W	H	
PAC 120 S-A	197	55	38	4000	4310	1870	2260	82
PAC 120 M-A	254	75	40	4150	4310	1870	2260	83
PAC 120 L-A	326	75	50	4550	4310	1870	2260	84
PAC 120 E-A	441	110	54	4800	4560	1870	2360	86
PAC 151 S-A	496	132	55	5600	3800	2070	2360	88
PAC 151 M-A	600	132	59	5700	5700	2070	2360	89
PAC 151 L-A	761	200	75	6200	3940	2090	2450	89
PAC 193 S-A	885	200	81	6400	4600	2350	2450	82
PAC 151 E-A	921	200	80	6350	4600	2090	2450	90
PAC 193 L-A	1180	250	91	7000	5300	2350	2450	82
PAC 233 S-A	1595	355	169	11500	5500	2900	3200	83
PAC 233 L-A	2009	400	184	12500	6700	3000	3200	83
PAC 233 E-A	2481	500	211	15200	6700	3050	3400	84
PAC 283 S-A	2859	630	230	17000	7500	3400	3400	85
NSPAC 283 L-A	3596	800	350	20500	7300	3700	4500	83
NSPAC 283 E-A	4367	900	391	25500	8500	3700	4700	83
NSPAC 355 S-A	4516	1000	410	28000	8500	4000	4700	83
NSPAC 283 X-A	4939	1000	450	30000	9100	4000	4700	83
NSPAC 355 L-A	6180	1250	700	40000	10000	4000	6000	83

Ethylene glycol 30%: inlet -4°C, outlet -8°C

Type	Capacity kW	E-motor kW	R717 charge kg	Operational weight kg	Dimensions in mm			Sound level dB(A)
					L	W	H	
PAC 120 S-C	109	55	38	4000	4310	1870	2260	82
PAC 120 M-C	141	75	39	4150	4310	1870	2260	83
PAC 120 L-C	180	75	49	4500	4310	1870	2360	84
PAC 120 E-C	243	110	53	4700	4310	1870	2360	86
PAC 151 S-C	275	110	54	5550	3940	2070	2360	88
PAC 151 M-C	333	132	57	5600	3940	2070	2360	89
PAC 151 L-C	422	160	73	6100	3940	2090	2450	89
PAC 193 S-C	489	200	78	6250	4600	2350	2450	82
PAC 151 E-C	512	200	77	6200	4290	2090	2450	90
PAC 193 L-C	653	250	87	6750	5000	2350	2450	82
PAC 233 S-C	880	315	161	11250	5200	2750	3200	84
PAC 233 L-C	1103	400	175	12100	5800	2750	3200	84
PAC 233 E-C	1373	500	198	14700	6500	2800	3400	84
PAC 283 S-C	1597	560	211	16350	6700	3150	3400	86
PAC 283 L-C	1995	710	230	19000	7100	3700	3400	88
NSPAC 283 E-C	2412	900	374	24500	7300	3700	4500	84
NSPAC 355 S-C	2525	900	380	26000	8000	4000	4700	84
NSPAC 283 X-C	2752	1000	400	28000	8500	4000	4700	84
NSPAC 355 L-C	3418	1200	600	38000	9500	4000	6000	84

Condenser: water inlet 30°C, outlet 35°C

Motor: 3 x 400V, 50 Hz, 2960 rpm

The above data are only valid for the stated temperatures and operating conditions.

Capacities are nominal.

Sound pressure levels in free field. All sound measuring has been carried out according to ISO 9614-2 at a distance of 1 m.

Compliance

All Sabroe chiller units are fully compliant with appropriate major international design codes and the specifications laid down by the most common classification societies.

Approval in accordance with other technical requirements, specific national legislation or other classification societies' requirements is available on request.

All information is subject to change without notice.

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