SABROE SMC reciprocating compressor units

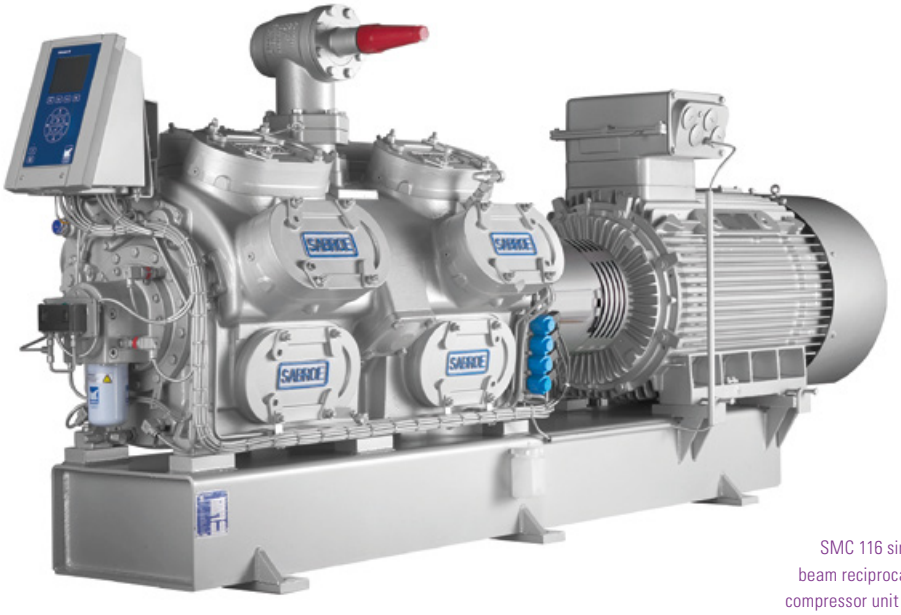
Large single-stage compressors with swept volumes of 200–1350 m^3/h

SMC compressor units are ideal for use in medium-sized refrigeration installations where reliable service is a major priority. They are particularly effective under part-load conditions.

SABROE SMC compressors are world-renowned for their exceptional reliability, making them an economical, low-maintenance solution for heavy-duty refrigeration, using all common refrigerants.

Range

Fifteen different models are available to provide swept volumes of between 226 and 1357 m^3/h.



SMC 116 single-beam reciprocating compressor unit with Unisab III systems controller

Advantages	Benefits
High coefficient of performance (COP), with excellent performance under part-load conditions	Low power consumption, which greatly reduces operating costs
Variable-speed drive provides stepless capacity control over the entire operating range	Power consumption and operating costs kept to a minimum
Condition-based service intervals embedded in the controls equipment	Minimum downtime and low service costs due to extremely long service intervals
Easy to access for service, with limited spare parts requirements	Easy, inexpensive maintenance, which helps limit downtime and reduce operating costs
Optional special oil separator design based on coalescer technology	Low oil carry-over, which cuts back on oil costs
Configured without oil system	Small footprint and easy service access

Options

- Unisab III systems controller
- Variable-speed drive line (Unisab always included)
- Oil separator for low oil carry-over
- Gauges, thermometers and temperature/pressure control switches
- Extended cylinder capacity control
- Oil level regulator (for use in parallel systems)
- ATEX-compliant configuration
- Special vibration dampening.

Model	Number of cylinders	Swept volume at 1500 rpm	Swept volume at 1800 rpm	R717 *						Unit dimensions in mm			Weight excluding motor	Sound pressure level at 1500 rpm	Sound pressure level at 1800 rpm
				Nominal capacities in kW at 1500 rpm			Nominal capacities in kW at 1800 rpm								
				Single/high-stage		Booster	Single/high-stage		Booster						
		m^3/h	m^3/h	-10/+35°C	0/+40°C	-40/-10°C	-10/+35°C	0/+40°C	-40/-10°C	L	W	H	kg	db(A)	db(A)
SMC 104 S	4	226	271	127	195	35	153	235	42	2261-2865	1213	1229	1195	79	82
SMC 104 L	4	283	339	165	250	47	198	300	57	2261-2865	1213	1229	1215	80	83
SMC 104 E	4	339	N/A	203	306	58	N/A	N/A	N/A	2261-2865	1213	1229	1220	80	83
SMC 106 S	6	339	407	191	293	53	229	352	64	2286-2890	1267	1247	1380	81	83
SMC 106 L	6	424	509	247	375	71	297	450	85	2286-2890	1267	1247	1400	82	84
SMC 106 E	6	509	N/A	304	459	87	N/A	N/A	N/A	2286-2890	1267	1247	1410	82	84
SMC 108 S	8	452	543	255	391	71	306	469	85	2311-2915	1361	1247	1595	82	84
SMC 108 L	8	566	679	330	500	94	396	600	113	2311-2915	1361	1247	1630	83	85
SMC 108 E	8	679	N/A	406	612	116	N/A	N/A	N/A	2311-2915	1361	1247	1650	83	85
SMC 112 S	12	679	814	382	586	106	459	703	127	3279-3687	1475	1448	2255	83	85
SMC 112 L	12	848	1018	495	750	141	593	900	169	3279-3687	1475	1448	2280	83	86
SMC 112 E	12	1018	N/A	609	918	173	N/A	N/A	N/A	3279-3687	1475	1448	2330	83	86
SMC 116 S	16	905	1086	510	782	141	611	938	170	3329-3737	1536	1445	2505	84	86
SMC 116 L	16	1131	1357	659	1000	188	791	1200	226	3329-3737	1536	1445	2535	84	87
SMC 116 E	16	1357	N/A	812	1224	231	N/A	N/A	N/A	3329-3737	1536	1445	2590	84	87

* Other refrigerants available on request

Nominal capacities are based on:
1500 rpm at 50 Hz.
1800 rpm at 60 Hz or VSD.

For R717
2 K liquid subcooling and 0.5 K non-usable suction superheat.

Design pressure, HP side: 28 bar
Design pressure, LP side: 18 bar
Differential pressure: 25 bar.

Sound pressure levels in free field, over reflecting plane and one metre distance from the compressor block.

Min./max. speed	R717
SMC S-series	500-1800 rpm
SMC L-series	500-1800 rpm
SMC E-series	500-1500 rpm

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