SRM TEC

SRM GERMANY

SEMI-HERMETIC COMPACT SCREW COMPRESSOR UNIT

Compact and Leak-proof Design
Suiting Seasonal / Periodic Use
Flexible Compressor Configurations
For Ammonia Applications
Displacement 84 - 2.230 m^3/h

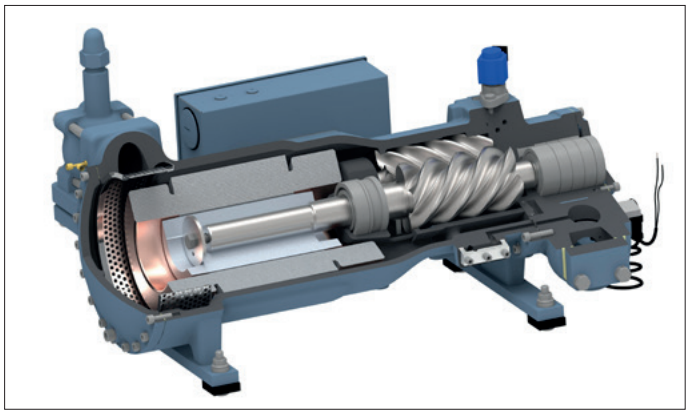
MADE IN EUROPE

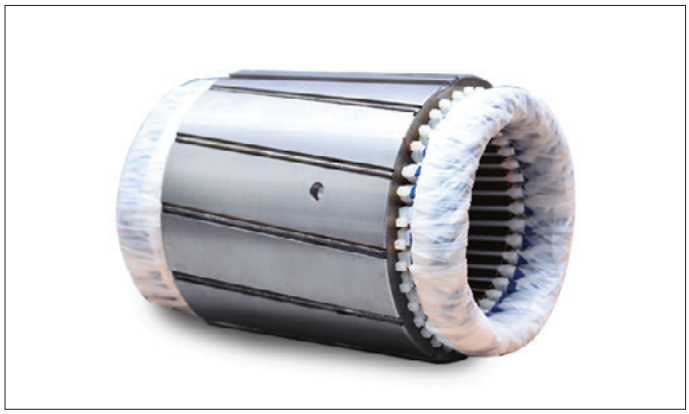
SRM Germany GmbH – www.srm-germany.de

The SRS Series Semi-hermetic Compressor allows extremely compact and hermetically sealed solutions. It is targeted for installations where a leak proof system is wished or a necessity.

The C Series package is also suitable seasonally periodically used systems with a high portion of part load operations. Flexible and varied compressor configurations with the complete range of SRS compressors (SRS 08/10/12/14/16) can be well adapted to your operating parameters.

SRS single or compound two-stage screw compressor with aluminium windings permanent magnet synchronous motor specially designed for R717 application.





Compressor body

- high-strength design with working pressure of up to 28 bar
- optimized suction gas flow through the motor to ensure motor cooling with
- significantly reduced pressure drop for low energy consumption
- integrated reliable lubrication system for simple installation
- compact design with integrated stop valve and discharge temperature sensor
- oil system with fine filter, differential pressure switch and shut- off valve

Screw technology

- high-efficiency SRM rotor, designed by the Inventor of the screw compressor
- slide Valve stepless capacity control or stepwise (25)-50-75-100%
- internal pressure relief valve
- compressor with integrated discharge check valve
- suction- and discharge stop valve
- integrated suction and oil filter
- economizer operation
- micrometer precision ensures tight sealing and smooth operation resulting in low noise and long service life

- the maximum speed of up to 4,200 rpm is significantly increasing capacity and flexibility

Motor

- specially adopted materials are used to make it applicable to ammonia
- permanent Magnet synchronous variable frequency motors with a high power
- factor increase efficiency and flexibility
- inverter speed controlled the compressor follows exactly the load profile - thus saving energy especially during part load conditions

VI (internal volume ratio)

- Vi- control guarantees best adaptation to the operating parameters for highest COP.
  It is available on SRS- 14 to SRS- 16 models
- manual Regulation is used to adapt infrequently to new conditions like for summer/winter mode or changing temperature levels in cold- rooms for different goods
- automatic regulation is perfectly suitable for frequently changing conditions like huge differences between day and night or climate chambers with multiple temperature simulations
- the smaller SRS-08 /10 and 12 models are avalible with different fixes Vi for low and medium temp applications

Horizontal oil separator (PED), oil system

- 3 stage separation
- coalizer filter, oil carry over rate 3-7 ppm
- 3 models WYF600/800/900, design pressure: 25 Bar

Oil system

- oil system with automatic oil temperature regulation valve
- plate (shell and tube) oil cooler for heat reclaim as option
- big volume oil filter 25my (redundant dual oil filter as option for uninterruped service)
- solenoid valve and oil flow switch (each compressor)
- oil filter (inside SRS compressor), pressure sensor controlled)
- booster applications with full lube oil pump

Package

Strong and compact design

- collecting suction pipe, suction Filter flexible position
- discharge line with start-up regulation-, check- and stop vale
- low part load by multiple compressors plus wide speed range of 1500 to 4200 rpm by VSD
- compact multiple compressor units for process safety due to redundancy

Sensors and switches

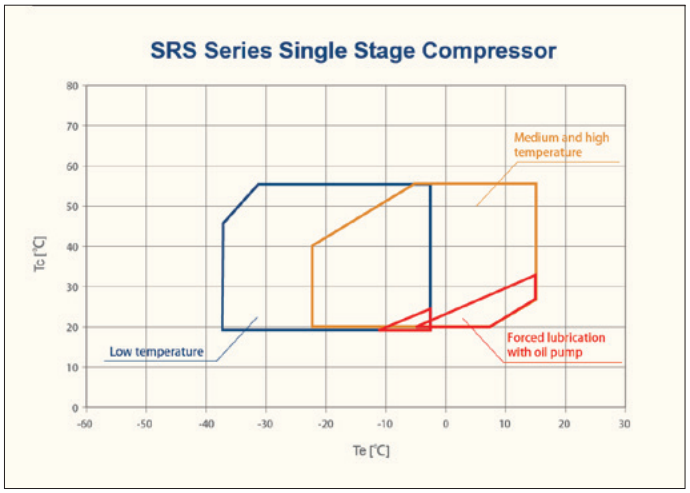
- suction pressure and temperature
- discharge pressure and temperature
- oil pressure and temperature after pre oil filter
- oil pressure after compressor integrated oil filter pressure
- oil level sensor (oil separator min)
- discharge pressure switch RT6AB/ RT6AS
- suction / discharge/ oil pressure gauge

PLC with data interface is optionally available for real-time control and analysis as well as remote monitoring.

Nomenclature

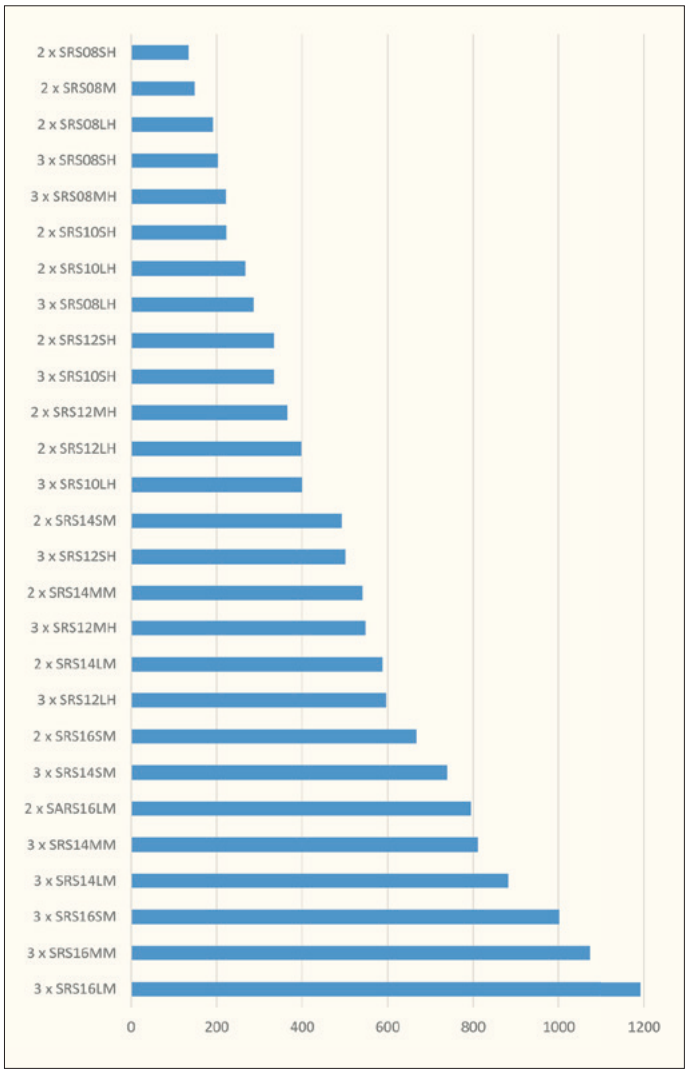
	C	2	N	A	16LM	H	D	L	V
Compact Series	C	2	N	A	16LM	H	D	L	V
Number of compressors 1 , 2 or 3	C	**2**	N	A	16LM	H	D	L	V
Economizer A with eco N without eco	C	2	**N**	A	16LM	H	D	L	V
Refrigerant A = Ammonia R717	C	2	N	**A**	16LM	H	D	L	V
Compressor Model SRS08S -SRS16L	C	2	N	A	**16LM**	H	D	L	V
Oil Separator H = horizontal V = vertical	C	2	N	A	16LM	**H**	D	L	V
Oil Cooler A = thermo-siphon D = water/glycol S&T	C	2	N	A	16LM	H	**D**	L	V
Temperature Range L = low temperature M = medium temperature H = high temperature	C	2	N	A	16LM	H	D	**L**	V
Capacity Control Methode V = inverter speed controled	C	2	N	A	16LM	H	D	L	**V**

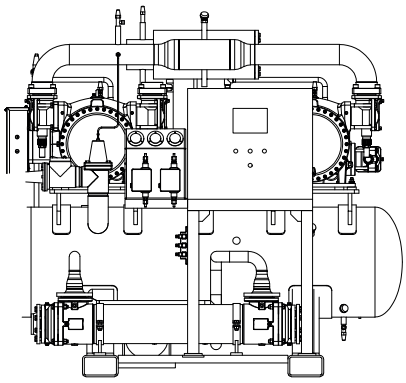
Application limit

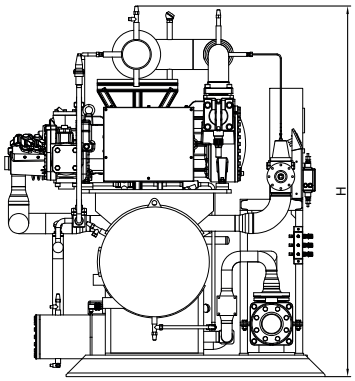


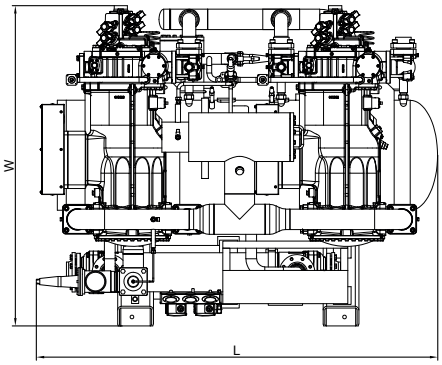
Performance data

Qo [kW] Capacity @ te/tc: -10/38; 3600 rpm (without Eco)

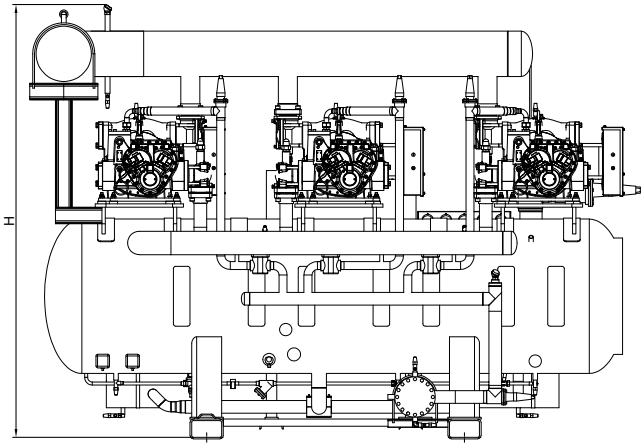


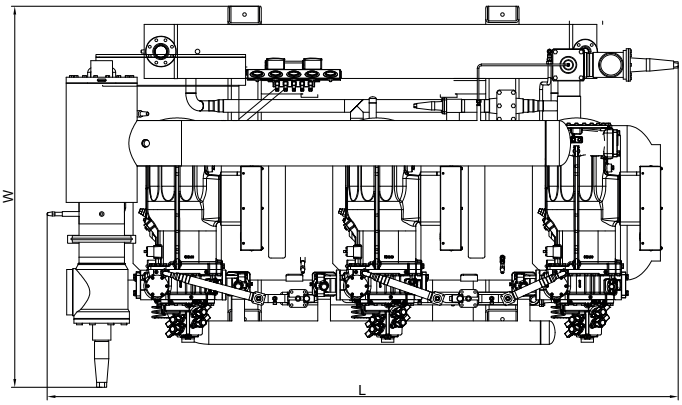






C2NAxxx - HDMV		Series				
		SRS08 S/M/L	SRS10 S/L	SRS12 S/M/L	SRS14 S/M/L	SRS16S/M/L
length	L [mm]	2300	2300	2300	2300	2300
width	W [mm]	1700	1700	1700	1700	1700
height	H [mm]	1900	2000	2000	2100	2100
transport weight	[kg]	1980	2200	2430	2600	2900
operation weight	[kg]	2250	2450	2680	2900	3200
oil volume	[l]	190	190	190	190	190
data are only for reference						





C3NAxxx-HDMV		serie		
		SRS12 S/M/L	SRS 14 S/M/L	SRS16 S/M/L
length	L [mm]	2780	2780	3650
width	W [mm]	1800/2020	1800/2020	2050/2250
height	H [mm]	2100	2100	2350
transport weight	[kg]	2200 - 2500	3000 – 3600	4500 – 5400
operation weight	[kg]	2450 - 2850	3300 – 3900	5000 – 5950
oil volume	[l]	180	360	360
data are only for reference				

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