J SERIES SCREW COMPRESSOR

MAYEKAWA
MYCOM

MAYEKAWA MFG.CO.,LTD.
[Head Office]: 3-14-15 Botan, Koto-ku, Tokyo 135-8482, JAPAN
TEL:(81)3-3642-8181 FAX:(81)3-3643-7094
[Inquiries]: **global-contact@mayekawa.co.jp**
http://www.mayekawa.com

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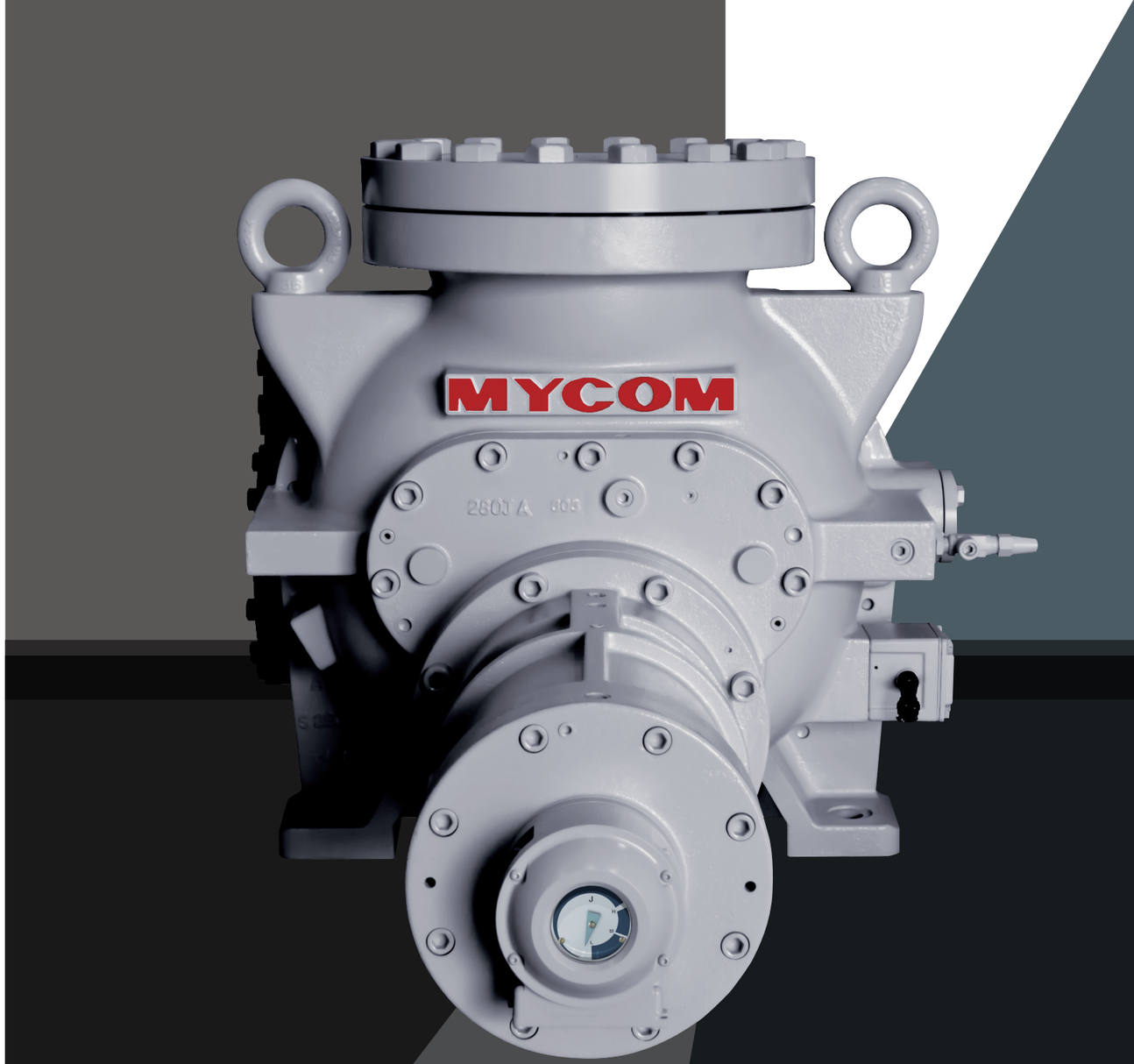

J SERIES SCREW COMPRESSOR

Screw Compressor / Single Stage Open Type

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Newly designed compressor achieving high performance:
Next-generation standard for industrial applications

Screw Compressor [Single Stage] Open Type

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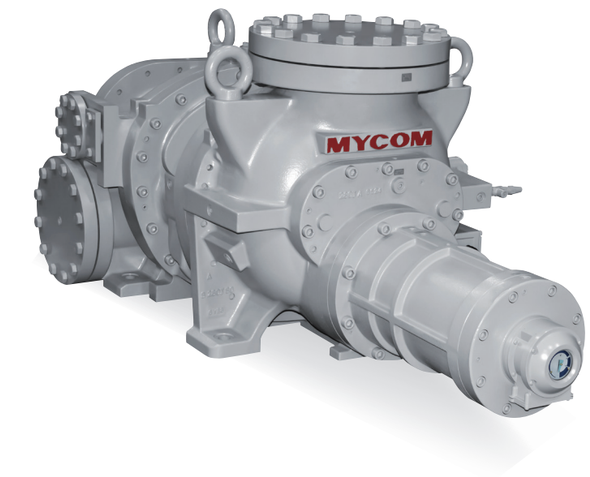


High Performance Derived from New Design

The series is intended to be the standard for next-generation compressors in industrial fields.

Adoption of New-Type Rotor

The newly developed J-profile rotor design consisting of a 5:6 lobe configuration enables to achieving high-performance.

Rich in Variation

Natural refrigerants (e.g. ammonia, CO_2, propane) and fluorocarbon refrigerants can be used. Flexible setup of applications is possible.

Low Vibration and Low Noise

* Noise level reduced by 5 dB compared to a conventional machine type.

Stepless Capacity Control from 100% to 25% Range

Owing to the stepless control feature, the series optimally operates in accordance with the required load and delivers high energy-saving performance.

Automatically Variable Vi Mechanism (2.5-5.0 range) to Efficiently Cover Wide Temperature Range

Supports Flange Motors to Facilitate Design of Packaged Systems

The built-in check valve as well as the compatibility with flange motors help reduce cost for designing packaged systems while contributing to space saving.

* The 280J has no built-in check valve and thus does not support flange motors.

Specifications

Item \ Model (N/C/P/F)*1			170J			220J			280J		
			S-V	M-V	L-V	S-V	M-V	L-V	S-V	M-V	L-V
Refrigerant			Ammonia / CO_2 / Propane, Propylene / HFCs								
Theoretical displacement	2950rpm	m^3/h	390	507	659	856	1114	1447	1886	2451	3190
	3550rpm	m^3/h	469	610	793	1030	1340	1741	2269	2949	3839
Minimum rotation speed		rpm	1450*2								
Maximum rotation speed		rpm	4500*2								
Rotation direction			CCW as viewed from motor								
Capacity control		%	100-25						100-30		
Gas inlet port			ANSI #300 5"			ANSI #300 8"			ANSI #300 12"		
Gas outlet port			ANSI #300 3"			ANSI #300 5"			ANSI #300 8"		
Flange motor connection		NEMA	44*D / 50*D			44*D / 50*D			Not compatible		
		IEC	FF500 / 600			FF500 / 600					

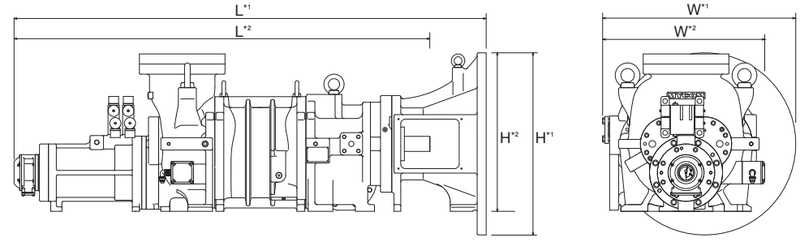
* 1. Specify the refrigerant by adding a prefix to the model code (N = ammonia / C = CO_2 / P = propane, propylene / F = fluorocarbons).
* 2. The range of rotation speed varies by operating conditions. Please refer to the ranges of use stated in the operating instructions.

Performance charts

Refrigerant		Ammonia		CO_2	Propane	R404A		R134a
Model \ Temperature condition		-40 / +35°C	-10 / +35°C	-50 / -10°C	-10 / +35°C	-40 / +35°C	0 / +40°C	+2 / +42°C
		Liquid Subcooling : 5°C Suction Superheat : 0°C Rotation speed : 2950rpm Economizer-type	Liquid Subcooling : 5°C Suction Superheat : 0°C Rotation speed : 2950rpm	Liquid Subcooling : 0°C Suction Superheat : 0°C Rotation speed : 2950rpm	Liquid Subcooling : 5°C Suction Superheat : 10°C Rotation speed : 2950rpm	Liquid Subcooling : 5°C Suction Superheat : 25°C Rotation speed : 2950rpm Economizer-type	Liquid Subcooling : 5°C Suction Superheat : 25°C Rotation speed : 2950rpm	Liquid Subcooling : 5°C Suction Superheat : 25°C Rotation speed : 2950rpm
170JS-V	Cooling capacity (kW)	74.5	258.7	416.7	206.2	86.7	300.9	206.7
	Absorbed power (kW)	50.3	65.7	139.6	58.5	64.4	88.8	49.4
170JM-V	Cooling capacity (kW)	96.4	335.8	540.7	267.6	109.3	390.5	268.2
	Absorbed power (kW)	63.4	84.9	182.9	75.7	80.3	113.4	63.0
170JL-V	Cooling capacity (kW)	125.9	437.5	704.3	348.5	138.1	508.7	349.4
	Absorbed power (kW)	81.1	109.1	236.7	97.4	100.9	145.8	80.8
220JS-V	Cooling capacity (kW)	177.3	595.3	987.7	482.7	196.4	656.7	452.5
	Absorbed power (kW)	116.3	152.1	333.6	134.4	154.9	212.9	116.2
220JM-V	Cooling capacity (kW)	230.3	772.3	1280.8	625.9	255.2	851.8	586.8
	Absorbed power (kW)	147.2	192.6	424.9	169.9	198.6	274.0	148.6
220JL-V	Cooling capacity (kW)	301.4	1009.3	1673.1	817.6	334.2	1113.2	766.7
	Absorbed power (kW)	189.5	246.5	544.3	216.4	260.9	360.5	193.1
280JS-V	Cooling capacity (kW)	419.5	1359.0	2237.4	1065.7	464.8	1517.3	1020.0
	Absorbed power (kW)	254.2	330.1	725.4	292.7	341.2	466.3	255.9
280JM-V	Cooling capacity (kW)	544.1	1761.6	2900.3	1381.5	602.9	1967.0	1322.4
	Absorbed power (kW)	317.1	413.6	918.7	368.1	429.8	590.7	324.6
280JL-V	Cooling capacity (kW)	709.0	2293.7	3776.2	1798.7	785.4	2561.3	1721.8
	Absorbed power (kW)	397.3	519.4	1162.9	463.9	546.5	754.5	415.2

* Please consult us for further details.

Outer dimensions



Model	Weight (kg)	W (mm)	L (mm)	H (mm)
170JS-V*1	875	669	1599	660
170JM-V*1	905	669	1654	660
170JL-V*1	950	669	1726	660
220JS-V*1	1500	859	1935	810
220JM-V*1	1560	859	2007	810
220JL-V*1	1630	859	2100	810
280JS-V*2	2300	896	2112	812
280JM-V*2	2450	896	2205	812
280JL-V*2	2600	896	2328	812

* The outer dimension drawings illustrate the model 220JL with an IEC FF600 motor spacer.
* 1. Models 170-220JS/JM/JL include an IEC FF600 flange motor connection. * 2. Models 280JS/JM/JL do not support flange motor spacers.
* Please consult us for further details.