Mayekawa’s history began almost a century ago when the company was founded in 1924. Since then, through a true partnership with its customers, Mayekawa has built a compressor brand “MYCOM” that is internationally recognized today. Mayekawa’s oil flooded screw compressors, production of which began in 1964, have received high acclaim for their technological strength and reliability. They are renown globally not only in the food, beverage and cold storages in distribution centers, but also in the oil & gas and chemical markets for gas compression and refrigeration applications where extreme durability is required of critical equipment. Mayekawa is also an industry leader in customer satisfaction. They deliver quality local customer support from more than 100 locations worldwide.

PROVEN GAS COMPRESSION TECHNOLOGY

Mayekawa’s industry leading technology has enabled gas compression for virtually all kinds of gases under various conditions. It has broadened the range of applications of MYCOM compressors:

- Hydrocarbon gases -CmHn (VOC vapor recovery, wellhead gas gathering, etc.)
- Gases containing corrosive components like sour gas, flare gas, or coke oven gas
- Raw material gases such as vinyl chloride, monomer and methyl chloride, etc.
- Corrosive gases such as chloride, hydrogen chloride, hydrogen sulfide, C2F4, etc.
- Fuel gases such as natural gas, coal seam gas, liquefied petroleum gas, etc.
- Industrial gases such as helium, hydrogen, carbon dioxide, air, etc.
- Natural refrigerants such as propane, propylene, butane, pentane, ammonia, etc.
- Synthetic refrigerants including HFC, HCFC.
Compared to a conventional reciprocating compressor, a screw compressor has no consumable or fragile parts like suction/discharge valves, piston rings, etc. The main friction-bearing parts are limited to journal bearings, thrust bearings, shaft seals and the fully lubricated intermeshing rotors, therefore the construction of the compressors is extremely simple and robust. The rotors are also constructed with high strength materials and can withstand slightly wet gases containing mist or liquid where reciprocating or centrifugal compressors may have serious problems. Even under the most severe operating conditions, the screw compressor demonstrates very high reliability. Fewer parts mean less maintenance work, and superior operational lifespan is achieved.

Compression is achieved by successive volume reduction of the space enclosed between the meshing line by the rotation of the male / female rotors and the casing. During the suction phase, the gas enters the compressor rotors via the suction port and is sealed between the rotors and the casing. As the rotors continue to rotate, the meshing line of the lobes moves toward the discharge end of the casing and the trapped volume gradually decreases, resulting in gas compression. At the moment when compression reaches the designated ratio, this trapped volume becomes exposed to the discharge port and exits as a compressed gas. These phases are continuously performed.
Built-in unloader slide valve function enables the compressor capacity to be continuously adjusted from 10%* to 100%. Therefore, the compressor is able to run with appropriate load across a wide range of operating conditions, resulting in high efficiency operation. Capacity control through the use of bypass control valves or by variable speed inverter can be used in conjunction with the slide valve as well, depending on the process requirement.

* The minimum value of capacity control varies by operating conditions and models.

For capacity and control monitoring, Mayekawa provides slide valve position sensors with indicators (without indicators on GH series models). Explosion proof indicator is available as an option.

Previously, API619 was the standard for dry screw compressors exclusively, but from the 3rd edition (and moving forward) oil flooded screw compressors are also officially included. Mayekawa is able to meet the specifications required by API 619 such as cast steel casings, forged steel rotors, tilting pad thrust bearings, vibration and displacement probes, bearing temperature sensors, etc., to fit any customers’ requirements.

In oil-flooded screw compressors, lube oil is injected during the gas compression process to provide lubrication for the rotors and casing, minimize gas leakage, and to cool the gas. Therefore, discharge temperatures are lower than those that occur with dry screw compressors, and higher volumetric efficiency is achieved from low compression ratios to high compression ratios.

All MYCOM screw compressors go through Hydrostatic Test and Pneumatic Test to ensure their excellent pressure resistance and airtight sealing. Only the compressors that satisfy the performance, vibration, noise and function standard after Mechanical Running Test are shipped from the factory. Other tests, including tests for third party certifications, such as DNV, GL, and BV, can be arranged.

For capacity and control monitoring, Mayekawa provides slide valve position sensors with indicators (without indicators on GH series models). Explosion proof indicator is available as an option.
The oil flooded type screw compressors require only one shaft seal, unlike the dry type compressors. In order to ensure high reliability and durability under all operating conditions, various kinds of shaft seals are available. The balance type single mechanical seal is used most often but a double seal, bellows seal, gas seal, etc. are also available.

Unlike conventional reciprocating compressors, screw compressors have no reciprocal motion, so that the noise and vibration are far lower. Also, unlike centrifugal or dry type compressors, high rotation speeds are not required and no high frequency noise will be generated.
Swept Volumes

<table>
<thead>
<tr>
<th>Design Pressure</th>
<th>Single Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>870PSIG (60barG)</td>
<td></td>
</tr>
<tr>
<td>377PSIG (26barG)</td>
<td></td>
</tr>
<tr>
<td>507PSIG (33barG)</td>
<td></td>
</tr>
</tbody>
</table>

*VR-series is engine driven and has an integral gear box.

<table>
<thead>
<tr>
<th>Design Pressure</th>
<th>Compound Two-Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>377PSIG (26barG)</td>
<td></td>
</tr>
</tbody>
</table>

CFM (m³/hr)
Refrigeration Capacity Reference for Commonly Used Compressors (with Propane)

<table>
<thead>
<tr>
<th>Te (°F/°C)</th>
<th>Refrigeration Capacity (TR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+41.0°F / +5°C</td>
<td>400XL to LLUD</td>
</tr>
<tr>
<td>+14.0°F / -10°C</td>
<td>432XL to XLCC</td>
</tr>
<tr>
<td>-13.0°F / -25°C</td>
<td>400XL to LLUD</td>
</tr>
<tr>
<td>-40.0°F / -40°C</td>
<td>400XL to LLUD</td>
</tr>
</tbody>
</table>

For reference use only. Capacity is dependent on refrigerants and other details in operating conditions. Please contact Mayekawa for capacity for specific requirements.

Compressor speed @ 2950 & 3550 rpm

Tc=+104°F (+40°C) with and without intercooler.

400XL is available for applications with lower discharge pressure.
Screw Compressor
[Single Stage] Open Type
UD SERIES

Long-seller models with cast steel casing as standard. Acclaimed 4x6 rotor lobes ensure optimal performance.

Wide-Capacity Range
A lineup of high-capacity compressors with a displacement from 116 ~ 9182 CFM*, which is not available in the SCV series.

* With a 2 pole direct drive motor.

Operating Pressure Range

API619
Cast steel casing with ductile iron rotors (125 to 400LUD models) is the standard. Forged steel rotors, tilting pad thrust bearings and other API619 compliant options are available.

* Cast iron casings are available for 125 and 400 UD models. Please consult Mayekawa for ductile iron casings option.

Specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>125</th>
<th>160</th>
<th>200</th>
<th>250</th>
<th>320</th>
<th>400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working Fluid</td>
<td>Hydrocarbons and other gas Propane, Propylene / HFCs / Ammonia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum rotation speed rpm</td>
<td>1450*2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum rotation speed rpm</td>
<td>4500*2</td>
<td>3600*2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rotation direction</td>
<td>CCW, viewed from motor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacity control %</td>
<td>100-10*3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gas inlet port</td>
<td>ANSI #300 4&quot;*4 ANSI #300 5&quot; ANSI #300 6&quot; ANSI #300 10&quot; ANSI #300 14&quot; ANSI #300 16&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gas outlet port</td>
<td>ANSI #300 3&quot; ANSI #300 5&quot; ANSI #300 6&quot; ANSI #300 8&quot; ANSI #300 12&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 1. Please contact us separately for 125 models with a designation ending with G (downward discharge).
* 2. The range of rotation speed varies by operating conditions. Please refer to the ranges of use stated in the operating instructions.
* 3. The minimum value of capacity control varies by operating conditions and models.
* 4. MYCOM flanges are not for iron casing models. * 5. Please contact us for information on 400XXLUD.
## Swept Volumes, Dimensions & Weight

* The outer dimension drawings illustrate the model 400LUD.

<table>
<thead>
<tr>
<th>Theoretical Displacement</th>
<th>Dimensions</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50Hz</td>
<td>60Hz</td>
</tr>
<tr>
<td>125SUD</td>
<td>CFM</td>
<td>m³/h</td>
</tr>
<tr>
<td>125LUD</td>
<td>CFM</td>
<td>m³/h</td>
</tr>
<tr>
<td>160SUD</td>
<td>CFM</td>
<td>m³/h</td>
</tr>
<tr>
<td>160MUD</td>
<td>CFM</td>
<td>m³/h</td>
</tr>
<tr>
<td>160LUD</td>
<td>CFM</td>
<td>m³/h</td>
</tr>
<tr>
<td>200SUD</td>
<td>CFM</td>
<td>m³/h</td>
</tr>
<tr>
<td>200MUD</td>
<td>CFM</td>
<td>m³/h</td>
</tr>
<tr>
<td>200LUD</td>
<td>CFM</td>
<td>m³/h</td>
</tr>
<tr>
<td>250SUD</td>
<td>CFM</td>
<td>m³/h</td>
</tr>
<tr>
<td>250MUD</td>
<td>CFM</td>
<td>m³/h</td>
</tr>
<tr>
<td>250LUD</td>
<td>CFM</td>
<td>m³/h</td>
</tr>
<tr>
<td>320SUD</td>
<td>CFM</td>
<td>m³/h</td>
</tr>
<tr>
<td>320MUD</td>
<td>CFM</td>
<td>m³/h</td>
</tr>
<tr>
<td>320LUD</td>
<td>CFM</td>
<td>m³/h</td>
</tr>
<tr>
<td>320LLUD</td>
<td>CFM</td>
<td>m³/h</td>
</tr>
<tr>
<td>400SUD</td>
<td>CFM</td>
<td>m³/h</td>
</tr>
<tr>
<td>400MUD</td>
<td>CFM</td>
<td>m³/h</td>
</tr>
<tr>
<td>400LUD</td>
<td>CFM</td>
<td>m³/h</td>
</tr>
<tr>
<td>400LLUD</td>
<td>CFM</td>
<td>m³/h</td>
</tr>
<tr>
<td>400XLUD</td>
<td>CFM</td>
<td>m³/h</td>
</tr>
<tr>
<td>400XXLUD **</td>
<td>CFM</td>
<td>m³/h</td>
</tr>
</tbody>
</table>

* Please contact us separately for 125 models with a designation ending with G (downward discharge). ** Cast steel casing is not available for 250LLUD. 
*** Please consult us for further details. **** Please contact us for information on 400XXLUD.
Wide-range models with standard cast iron casing. Variable Vi allows one machine to cover different pressure conditions.

Screw Compressor [Single Stage] Open Type

SCV SERIES

Variable Vi Mechanism (2.63-5.80 range) to Efficiently Cover Wide Temperature Range

Offers Wide Range of Capacities

Available in 13 models, the SCV series covers a wide displacement range from 244 CFM to 3355 CFM*.

* With a 2 pole direct drive motor.

Operating Pressure Range

Longtime Seller

With a proven 4:6 rotor configuration, the SCV series offers optimal performance to customers.

Specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>160V SD</th>
<th>160V MD</th>
<th>160V LD</th>
<th>200V SD</th>
<th>200V MD</th>
<th>200V LD</th>
<th>250V SD</th>
<th>250V MD</th>
<th>250V LD</th>
<th>320V SD</th>
<th>320V MD</th>
<th>320V LD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working Fluid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Hydrocarbons and other gas / Propane, Propylene / HFCs / Ammonia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum rotation speed</td>
<td>rpm</td>
<td>1450**2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum rotation speed</td>
<td>rpm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4500**2</td>
<td></td>
<td>3600**2</td>
</tr>
<tr>
<td>Rotation direction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CCW viewed from motor</td>
</tr>
<tr>
<td>Capacity control</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100-30**3</td>
</tr>
<tr>
<td>Gas inlet port</td>
<td>MYCOM 125A**4</td>
<td>MYCOM 150A**4</td>
<td>MYCOM 250A**4</td>
<td>MYCOM 350A**4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gas outlet port</td>
<td>MYCOM 100CD**4</td>
<td>MYCOM 125CD**4</td>
<td>MYCOM 150CD**4</td>
<td>MYCOM 200CD**4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 1. Please contact us separately for models with a designation ending with G (downward discharge).
* 2. The range of rotation speed varies by operating conditions. Please refer to the ranges of use stated in the operating instructions.
* 3. The minimum value of capacity control varies by operating conditions and models.
* 4. Ranges with a designation starting with MYCOM are in-house products of MYCOM.

* For reference only. ** Greyed areas indicate pressure ranges of other models.
### Swept Volumes, Dimensions & Weight

*The outer dimension drawings illustrate the model 200VLD.*

<table>
<thead>
<tr>
<th></th>
<th>Theoretical Displacement</th>
<th>Dimensions</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50Hz CFM(m³/h)</td>
<td>60Hz CFM(m³/h)</td>
<td>W_in (mm)</td>
</tr>
<tr>
<td>160VSD</td>
<td>244</td>
<td>294</td>
<td>19 (470)</td>
</tr>
<tr>
<td>160VMD</td>
<td>305</td>
<td>367</td>
<td>19 (470)</td>
</tr>
<tr>
<td>160VLD</td>
<td>366</td>
<td>441</td>
<td>19 (470)</td>
</tr>
<tr>
<td>200VSD</td>
<td>477</td>
<td>574</td>
<td>26 (657)</td>
</tr>
<tr>
<td>200VMD</td>
<td>600</td>
<td>718</td>
<td>26 (657)</td>
</tr>
<tr>
<td>200VLD</td>
<td>712</td>
<td>859</td>
<td>26 (657)</td>
</tr>
<tr>
<td>250VSD</td>
<td>930</td>
<td>1118</td>
<td>31 (789)</td>
</tr>
<tr>
<td>250VMD</td>
<td>1165</td>
<td>1401</td>
<td>31 (789)</td>
</tr>
<tr>
<td>250VLD</td>
<td>1389</td>
<td>1672</td>
<td>31 (789)</td>
</tr>
<tr>
<td>250VLLD</td>
<td>1648</td>
<td>1984</td>
<td>31 (789)</td>
</tr>
<tr>
<td>320VSD</td>
<td>1866</td>
<td>2248</td>
<td>39 (996)</td>
</tr>
<tr>
<td>320VMD</td>
<td>2331</td>
<td>2802</td>
<td>39 (996)</td>
</tr>
<tr>
<td>320VLD</td>
<td>2790</td>
<td>3355</td>
<td>39 (996)</td>
</tr>
</tbody>
</table>

*Please consult us for further details.*
High-pressure models that meet API619 requirement

Screw Compressor [Single Stage] Open Type
GH SERIES

High-Pressure
The design pressure (MAWP) at 870PSI.

High Efficiency
The newly developed 5:7 rotor lobe configuration gives high rigidity, high efficiency for rigorous operating conditions.

Operating Pressure Range

Standard API619
Cast steel casings, forged steel rotors, tilting pad thrust bearings are standard features of GH series models. Other materials are optional.

Specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>GH250S</th>
<th>GH250L</th>
<th>GH320S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working Fluid</td>
<td>Hydrocarbon, Helium, Hydrogen and other gases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum rotation speed</td>
<td>rpm</td>
<td>1400 **</td>
<td>2950 **</td>
</tr>
<tr>
<td>Maximum rotation speed</td>
<td>rpm</td>
<td>4500 **</td>
<td>3600 **</td>
</tr>
<tr>
<td>Rotation direction</td>
<td></td>
<td>CW, viewed from motor ** 2</td>
<td></td>
</tr>
<tr>
<td>Capacity control</td>
<td>%</td>
<td>100-30</td>
<td></td>
</tr>
<tr>
<td>Gas inlet port</td>
<td>ANSI #600 6”</td>
<td>ANSI #600 6”</td>
<td>ANSI #600 10”</td>
</tr>
<tr>
<td>Gas outlet port</td>
<td>ANSI #600 6”</td>
<td>ANSI #600 6”</td>
<td>ANSI #600 10”</td>
</tr>
</tbody>
</table>

* 1. The range of rotation speed varies by operating conditions. Please refer to the ranges of use stated in the operating instructions.
* 2. The minimum value of capacity control varies by operating conditions and models.
* The outer dimension drawings illustrate the model GH250L.

<table>
<thead>
<tr>
<th>Model</th>
<th>Theoretical Displacement</th>
<th>Dimensions</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50Hz</td>
<td>60Hz</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CFM</td>
<td>m³/h</td>
<td>CFM</td>
</tr>
<tr>
<td>GH250S</td>
<td>912</td>
<td>1550</td>
<td>1101</td>
</tr>
<tr>
<td>GH250L</td>
<td>1383</td>
<td>2350</td>
<td>1660</td>
</tr>
<tr>
<td>GH320S</td>
<td>1890</td>
<td>3210</td>
<td>2272</td>
</tr>
</tbody>
</table>

* Please consult us for further details.
**Screw Compressor [Single Stage] Open Type J SERIES**

- **Adoption of New-Type Rotor**
  The newly developed J-profile rotor design consisting of a 5:6 lobe configuration enables achieving high-performance.

- **Low Vibration and Low Noise**
  The noise level has been reduced by 5 dB compared to a conventional models.

- **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**
  *Not applicable on APJ280

- **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.
  * Size 280 models have no built-in check valve and thus does not support flange motors.

- **Rich in Variation**
  Natural refrigerants (e.g. ammonia, CO₂, propane) and fluorocarbon refrigerants can be used. Flexible setup of applications is possible.

**Specifications**

<table>
<thead>
<tr>
<th>Item</th>
<th>Model</th>
<th>170J</th>
<th>220J</th>
<th>280J</th>
<th>280APJ</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>S-V</td>
<td>M-V</td>
<td>L-V</td>
<td>S-V</td>
</tr>
<tr>
<td>Working Fluid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Propane, Propylene / HFCs / Ammonia / CO₂, etc.</td>
</tr>
<tr>
<td>Minimum rotation speed</td>
<td>rpm</td>
<td></td>
<td></td>
<td></td>
<td>1450 <strong>1</strong></td>
</tr>
<tr>
<td>Maximum rotation speed</td>
<td>rpm</td>
<td>4500 <strong>1</strong></td>
<td></td>
<td>3600 <strong>1</strong></td>
<td></td>
</tr>
<tr>
<td>Rotation direction</td>
<td></td>
<td>CCW, viewed from motor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacity control</td>
<td>%</td>
<td>100-25 <strong>2</strong></td>
<td></td>
<td>100-30 <strong>2</strong></td>
<td></td>
</tr>
<tr>
<td>Gas inlet port</td>
<td></td>
<td>ANSI #300 5*</td>
<td>ANSI #300 8*</td>
<td>ANSI #300 12*</td>
<td></td>
</tr>
<tr>
<td>Gas outlet port</td>
<td></td>
<td>ANSI #300 3*</td>
<td>ANSI #300 5*</td>
<td>ANSI #300 8*</td>
<td></td>
</tr>
<tr>
<td>Flange motor connection</td>
<td></td>
<td>44&quot;D / 50&quot;D</td>
<td>44&quot;D / 50&quot;D</td>
<td>Not compatible</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NEMA</td>
<td>IEC</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 1. The range of rotation speed varies by operating conditions. Please refer to the ranges of use stated in the operating instructions.

* 2. The minimum value of capacity control varies by operating conditions and models.

**API619 Compliant Model : 280APJ**

J-series offer API619 compliant models in 280 size class; 280APJ. Cast steel casings, forged steel rotors, tilting pad thrust bearings are standard options on 280APJ models.
The theoretical displacement, dimensions, and weight of the compressors are as follows:

<table>
<thead>
<tr>
<th>Model</th>
<th>CFM</th>
<th>m³/h</th>
<th>CFM</th>
<th>m³/h</th>
<th>W in (mm)</th>
<th>L in (mm)</th>
<th>H in (mm)</th>
<th>Weight lbs (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>170JS</td>
<td>230</td>
<td>390</td>
<td>276</td>
<td>469</td>
<td>26 (669)</td>
<td>63 (1599)</td>
<td>26 (660)</td>
<td>1929 (875)</td>
</tr>
<tr>
<td>170JM</td>
<td>298</td>
<td>507</td>
<td>359</td>
<td>610</td>
<td>26 (669)</td>
<td>65 (1654)</td>
<td>26 (660)</td>
<td>1996 (905)</td>
</tr>
<tr>
<td>170JL</td>
<td>388</td>
<td>659</td>
<td>467</td>
<td>793</td>
<td>26.25 (669)</td>
<td>68 (1726)</td>
<td>26 (660)</td>
<td>2095 (950)</td>
</tr>
<tr>
<td>220JS</td>
<td>504</td>
<td>856</td>
<td>606</td>
<td>1030</td>
<td>34 (859)</td>
<td>76 (1935)</td>
<td>32 (810)</td>
<td>3308 (1500)</td>
</tr>
<tr>
<td>220JM</td>
<td>656</td>
<td>1114</td>
<td>789</td>
<td>1340</td>
<td>34 (859)</td>
<td>79 (2007)</td>
<td>32 (810)</td>
<td>3440 (1560)</td>
</tr>
<tr>
<td>220JL</td>
<td>852</td>
<td>1447</td>
<td>1025</td>
<td>1741</td>
<td>34 (859)</td>
<td>83 (2100)</td>
<td>32 (810)</td>
<td>3594 (1630)</td>
</tr>
<tr>
<td>280JS</td>
<td>1110</td>
<td>1886</td>
<td>1335</td>
<td>2269</td>
<td>35 (896)</td>
<td>83 (2112)</td>
<td>32 (812)</td>
<td>5072 (2300)</td>
</tr>
<tr>
<td>280JM</td>
<td>1443</td>
<td>2451</td>
<td>1736</td>
<td>2949</td>
<td>35 (896)</td>
<td>87 (2205)</td>
<td>32 (812)</td>
<td>5402 (2450)</td>
</tr>
<tr>
<td>280JL</td>
<td>1878</td>
<td>3190</td>
<td>2260</td>
<td>3839</td>
<td>35 (896)</td>
<td>92 (2328)</td>
<td>32 (812)</td>
<td>5733 (2600)</td>
</tr>
<tr>
<td>280APJS</td>
<td>1110</td>
<td>1886</td>
<td>1335</td>
<td>2269</td>
<td>35 (896)</td>
<td>83 (2112)</td>
<td>32 (812)</td>
<td>5684 (2578)</td>
</tr>
<tr>
<td>280APJM</td>
<td>1443</td>
<td>2451</td>
<td>1736</td>
<td>2949</td>
<td>35 (896)</td>
<td>87 (2205)</td>
<td>32 (812)</td>
<td>6020 (2730)</td>
</tr>
<tr>
<td>280APJL</td>
<td>1878</td>
<td>3190</td>
<td>2260</td>
<td>3839</td>
<td>35 (896)</td>
<td>92 (2328)</td>
<td>32 (812)</td>
<td>6458 (2929)</td>
</tr>
</tbody>
</table>


J PROFILE ROTOR developed for higher efficiency

Mayekawa has a history of developing original rotor profiles in order to provide the best performance in given requirements. “J profile” rotors allow more proficient meshing between the lobes that give the J-series compressors superior performance in terms of efficiency and compression.
Facilitates Design of Packaged Systems

Featuring a built-in suction strainer and check valve, the i-series screw compressor supports flange motors and facilitates the design of packaged systems.

Differential Oil Feed Eliminates Need of an Oil Pump

The newly adopted ball bearings enable the i-series screw compressor to deliver high performance without the need of an oil pump.

Space-Saving Design

Using a flange motor, the small-footprint compressor can be installed in a confined space.

Easily Maintainable

Designed to facilitate the replacement of consumables.

### Specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>12Si</th>
<th>160i</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S</td>
<td>L</td>
</tr>
<tr>
<td>Working Fluid</td>
<td>Ammonia / HFCs</td>
<td></td>
</tr>
<tr>
<td>Minimum rotation speed</td>
<td>rpm</td>
<td></td>
</tr>
<tr>
<td>Maximum rotation speed</td>
<td>rpm</td>
<td></td>
</tr>
<tr>
<td>Rotation direction</td>
<td>CW, viewed from motor</td>
<td></td>
</tr>
<tr>
<td>Capacity control</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Connected pipe size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suction flange</td>
<td>MYCOM 100A 4*</td>
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<tr>
<td>Discharge flange</td>
<td>MYCOM 65ACD</td>
<td></td>
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<tr>
<td>Oil inlet port</td>
<td>Rc1/2</td>
<td></td>
</tr>
<tr>
<td>Intermediate gas</td>
<td>Rc3/8</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 1. The range of rotation speed varies by operating conditions. Please refer to the ranges of use stated in the operating instructions.
* 2. Numerical values are calculated values. The actual rate of change in air volume varies depending on operating conditions.
**Theoretical Displacement**

<table>
<thead>
<tr>
<th></th>
<th>50Hz CFM</th>
<th>m³/h</th>
<th>60Hz CFM</th>
<th>m³/h</th>
<th>W (in mm)</th>
<th>L (in mm)</th>
<th>H1 (in mm)</th>
<th>H2 (in mm)</th>
<th>Weight (lbs/ kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>i125S</strong></td>
<td>116</td>
<td>197</td>
<td>139</td>
<td>237</td>
<td>19</td>
<td>26</td>
<td>11</td>
<td>20</td>
<td>728/330</td>
</tr>
<tr>
<td><strong>i125L</strong></td>
<td>174</td>
<td>296</td>
<td>210</td>
<td>356</td>
<td>19</td>
<td>29</td>
<td>11</td>
<td>20</td>
<td>772/350</td>
</tr>
<tr>
<td><strong>i160S</strong></td>
<td>244</td>
<td>415</td>
<td>294</td>
<td>499</td>
<td>24</td>
<td>30</td>
<td>12</td>
<td>17</td>
<td>1080/490</td>
</tr>
<tr>
<td><strong>i160M</strong></td>
<td>305</td>
<td>519</td>
<td>367</td>
<td>624</td>
<td>24</td>
<td>32</td>
<td>12</td>
<td>17</td>
<td>1168/530</td>
</tr>
<tr>
<td><strong>i160L</strong></td>
<td>366</td>
<td>622</td>
<td>441</td>
<td>749</td>
<td>24</td>
<td>34</td>
<td>12</td>
<td>17</td>
<td>1257/570</td>
</tr>
</tbody>
</table>

*Please consult us for further details.

*Dimensions are for reference only. Please contact MYCOM for more detailed drawings.*
Designed specifically for engine driven field gas application with integral gear box

Screw Compressor
[Single Stage] Open Type

VR SERIES

Standard Features That Are Perfect for Natural Gas Field
- ASTM A48M (equiv) -45B cast iron casing, MAWP 350psig
- ASTM A-536 80-55-06 (equiv) ductile iron rotors
- single oil flooded mechanical seal
- engine or motor driven with gears for more capacity
- viton O-rings
- 10~100% hydraulically actuated slide valve
- position indicator and potentiometer
- hydrodynamic API 619 / NACE compliant journal bearings
- dynamically balanced integral gear with internal lube system
- manually adjustable volume ratio 2.63~5.8
- operating suction pressor to 85psig

Optional Features
- integral oil pump
- manual slide valve adjuster
- double balanced, dual, dry mechanical seals

Gear Change, Regardless of Engine Speed
With multiple gear ratios, there is more capacity available with a simple gear change regardless of your engine speed.

Specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>Model</th>
<th>160VR</th>
<th>200VR</th>
<th>250VR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>S</td>
<td>L</td>
<td>S</td>
</tr>
<tr>
<td>Working Fluid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum rotation speed</td>
<td>rpm</td>
<td>973 **1</td>
<td>859 **1</td>
<td>776 **1</td>
</tr>
<tr>
<td>Maximum rotation speed</td>
<td>rpm</td>
<td>3018 **1</td>
<td>2664 **1</td>
<td>2409 **1</td>
</tr>
<tr>
<td>Rotation direction</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Capacity control</td>
<td>%</td>
<td></td>
<td></td>
<td>100-30 **2</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Gas inlet adaptor flange</td>
<td>ANSI #300 5*</td>
<td>ANSI #300 6*</td>
<td>ANSI #300 10*</td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td>Gas outlet bearing head</td>
<td>ANSI #300 3*</td>
<td>ANSI #300 5*</td>
<td>ANSI #300 6*</td>
<td></td>
</tr>
</tbody>
</table>

*1: The rotation speeds shown here are that of commonly used VR models. Please consult us for details.
*2: The minimum value of capacity control varies by operating conditions and models.

*1. The rotation speeds shown here are that of commonly used VR models. Please consult us for details.
*2. The minimum value of capacity control varies by operating conditions and models.
## Swept Volumes, Dimensions & Weight

<table>
<thead>
<tr>
<th>Theoretical Displacement with engine @1800 rpm</th>
<th>L</th>
<th>W</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFM</td>
<td>m³/h</td>
<td>in (mm)</td>
<td>in (mm)</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
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</tr>
<tr>
<td>160VSR-1.491</td>
<td>222</td>
<td>378</td>
<td>20 (511)</td>
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<tr>
<td>160VSR-1.809</td>
<td>270</td>
<td>458</td>
<td>20 (511)</td>
</tr>
<tr>
<td>160VSR-2.220</td>
<td>331</td>
<td>562</td>
<td>20 (511)</td>
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<tr>
<td>160VLR-1.491</td>
<td>333</td>
<td>566</td>
<td>20 (511)</td>
</tr>
<tr>
<td>160VLR-1.809</td>
<td>404</td>
<td>687</td>
<td>20 (511)</td>
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<tr>
<td>160VLR-2.220</td>
<td>496</td>
<td>843</td>
<td>20 (511)</td>
</tr>
<tr>
<td>200VSR-1.689</td>
<td>491</td>
<td>835</td>
<td>25 (631)</td>
</tr>
<tr>
<td>200VSR-1.929</td>
<td>562</td>
<td>954</td>
<td>25 (631)</td>
</tr>
<tr>
<td>200VSR-2.216</td>
<td>647</td>
<td>1100</td>
<td>25 (631)</td>
</tr>
<tr>
<td>200VLR-1.689</td>
<td>736</td>
<td>1250</td>
<td>25 (631)</td>
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<tr>
<td>200VLR-1.929</td>
<td>842</td>
<td>1430</td>
<td>25 (631)</td>
</tr>
<tr>
<td>200VLR-2.216</td>
<td>965</td>
<td>1640</td>
<td>25 (631)</td>
</tr>
<tr>
<td>250VSR-1.868</td>
<td>1060</td>
<td>1800</td>
<td>31 (789)</td>
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<tr>
<td>250VSR-2.167</td>
<td>1220</td>
<td>2080</td>
<td>31 (789)</td>
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<tr>
<td>250VSR-2.455</td>
<td>1390</td>
<td>2360</td>
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<td>250VLR-1.868</td>
<td>1580</td>
<td>2690</td>
<td>31 (789)</td>
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<tr>
<td>250VLR-2.167</td>
<td>1840</td>
<td>3130</td>
<td>31 (789)</td>
</tr>
<tr>
<td>250VLR-2.455</td>
<td>2080</td>
<td>3540</td>
<td>31 (789)</td>
</tr>
</tbody>
</table>

* Please consult us for the weight information and other details.
** Please note some VR models are no longer in production. Consult us for further details and alternative models.
Two-stage compressors compounded in one casing for single driver and single lube system to cut down space requirement and cost.

**Screw Compressor [Two Stage] Open Type**

**C SERIES**

- **API619**
  - Cast steel casings, forged steel rotors, tilting pad thrust bearings and other API619 compliant options are available.

---

**Specifications**

<table>
<thead>
<tr>
<th>Items</th>
<th>1610SLC-52</th>
<th>1612LSC</th>
<th>2016LSC</th>
<th>2520LSC</th>
<th>3225LSC</th>
<th>4032LSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Models</td>
<td>High Stage</td>
<td>High Stage</td>
<td>High Stage</td>
<td>High Stage</td>
<td>High Stage</td>
<td>High Stage</td>
</tr>
<tr>
<td>Working Fluid</td>
<td>Hydrocarbons and other gas / Propane, Propylene / HFCs / Ammonia</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Minimum rotation speed rpm</td>
<td>1450 *2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum rotation speed rpm</td>
<td>1750 *2, 4500 *2, 4000 *2, 3600 *2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rotation direction</td>
<td>CW when viewed from motor side, CCW, viewed from motor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacity control %</td>
<td>100-30 *1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gas inlet port</td>
<td>MYCOM 125A *4, MYCOM 125A *4, JIS20K 150A, JIS20K 250A, JIS20K 350A, ANSI#300 16</td>
<td></td>
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<tr>
<td>Gas outlet port</td>
<td>JIS20K 50A, MYCOM 65A *4, JIS20K 80A, JIS20K 100A, JIS20K 150A, ANSI#300 8 *</td>
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<td></td>
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</tr>
</tbody>
</table>

---

**Efficient Two-Stage Compression Done in Single Compressor for High Compression Ratio**

**Wide-Range Lineup**

Wide range of models* with a variety of high-stage x booster stage rotors combinations is available to cover swept volume from 216 CFM to 9182 CFM**.

*The models (rotor combinations) shown herein are only those that are typically used. Contact us for other models and rotor combinations.

**With a 2 pole direct drive motor.**

**Operating Pressure Range**

- *For reference only.*

---

*1. The model 1610SLC-52 includes an internal step-up gear.
*2. The range of rotation speed varies by operating conditions. Please refer to the ranges of use stated in the operating instructions.
*3. The minimum value of capacity control varies by operating conditions and models.
*4. Ranges with a designation starting with MYCOM are in-house products of MYCOM.
### Swept Volumes, Dimensions & Weight

* Dimensions of the model 1610SLC-52 include an internal step-up gear.

* The outer dimension drawings illustrate the model 2520LSC.

<table>
<thead>
<tr>
<th>Theoretical Displacement</th>
<th>Dimension</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50Hz</td>
<td>60Hz</td>
</tr>
<tr>
<td></td>
<td>CFM</td>
<td>m³/h</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>L</td>
</tr>
<tr>
<td>1612SSC</td>
<td>244</td>
<td>415</td>
</tr>
<tr>
<td>1612MSC</td>
<td>305</td>
<td>519</td>
</tr>
<tr>
<td>1612LSC</td>
<td>366</td>
<td>622</td>
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<tr>
<td>2016SSC</td>
<td>477</td>
<td>810</td>
</tr>
<tr>
<td>2016MSC</td>
<td>600</td>
<td>1020</td>
</tr>
<tr>
<td>2016LSC</td>
<td>712</td>
<td>1210</td>
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<tr>
<td>2520SSC</td>
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<td>1580</td>
</tr>
<tr>
<td>2520MSC</td>
<td>1165</td>
<td>1980</td>
</tr>
<tr>
<td>2520LSC</td>
<td>1389</td>
<td>2360</td>
</tr>
<tr>
<td>3225SSC</td>
<td>1866</td>
<td>3170</td>
</tr>
<tr>
<td>3225MSC</td>
<td>2331</td>
<td>3960</td>
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<tr>
<td>3225LSC</td>
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<td>4740</td>
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<tr>
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<td>5600</td>
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<td>4032SSC</td>
<td>3814</td>
<td>6480</td>
</tr>
<tr>
<td>4032MSC</td>
<td>4791</td>
<td>8140</td>
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<tr>
<td>4032LSC</td>
<td>5709</td>
<td>9700</td>
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<td>6769</td>
<td>11500</td>
</tr>
<tr>
<td>4032XLLLC</td>
<td>7593</td>
<td>12900</td>
</tr>
</tbody>
</table>
MYCOM Screw Compressors Features

SPECIAL SEALS
Various kinds of shaft seals are available. Double seal, bellows seal, gas seal, and seals for Plan-52, 53, 72 and 74 that are specified in API 682 are also available options.
Available models: Ask Mayekawa.

EXPLOSION PROOF INDICATORS
The slide valve position indicator installed on the compressors meet the criteria of several certifications that are trusted worldwide and required in some of the toughest applications in industry. IEC, ATEX, cCSAus or TiS compliant indicators are offered options for explosion proof.
Available models: All models. *GH series models provide slide valve position sensors.

TILTING PAD THRUST BEARINGS
GH series models come equipped with tilting pad thrust bearings as a standard feature. Tilting pad thrust bearings are suitable under severe loads, with process gas such as H2 rich gas, and/or per API requirements.
Available models: Standard on GH models. Ask Mayekawa about other models.

RADIAL BEARINGS
Sleeve type hydrodynamic radial bearings, as specified in API standards, are the standard feature of MYCOM screw compressors to provide long operational life as well as to apply to severe conditions in which rolling element bearings can hardly withstand. Special design bearings using non-standard materials, such as Babbitt metal, are also offered according to process conditions.
Available models: Standard on all models.

CAPACITY CONTROL by SLIDE VALVE
Capacity control is accomplished by a slide valve which moves parallel to the rotor axis and changes the area of the opening in the bottom of the rotor casing. This, in effect, lengthens or shortens the region of compression of the rotor and further acts to return gas to the suction side, while bypassing compressed gas. Appropriate control signals can be used to operate the slide valve hydraulically activated by/with the compressor lube oil system or a separate oil system.
Available models: Standard on all models.

Slide Valve Mechanism & Capacity Control

Information herein are for reference only. Subject to change without notice.