

### Standard V-Series unit component description

<b>Capacity control</b>	4 solenoid valves control the hydraulic unloader slide valve for capacity control between 15% & 100%. Unloader indicator with 2 micro switches (0 and 100%) and potentiometer (0-1000 ohm).
<b>Oil separation</b>	Horizontal type oil separator with 2 separation stages, including: - frame for compressor and motor - oil heater (2000W; 400V) with thermostat - 2 oil level sight glasses Standard models are: HS6022V-160, HS6022V-200, HS7633V-250, HS10050V-320.
● Primary separation	Gravity based oil separation in the shell of the oil separator.
● Secondary separation	High efficiency fine filter & manual valves (in 5 ppm) are integrated in the second section of the oil separator. The number of elements is determined based on the compressor size and minimum & maximum operating conditions of the compressor.
<b>Oil circuit</b>	All necessary equipment & piping for lubrication, oil injection, oil draining and capacity regulation of the unit.
● Oil cooler	Standard with a thermo-siphon oil cooler. <del>Alternatively with a water cooled oil cooler shell &amp; tube type. Selection based on max. EG 30% refrigerant; Tin/Tout +35/40 °C. For different refrigerants and temperatures, consult the Mayekawa sales department.</del>
● Oil filter	Double OFC-50 Mycom oil filter set with nylon filter elements (Rating: $\beta_{20} > 150$ ; Mesh: 15-20 $\mu\text{m}$ ). Both can be isolated with a stop valve allowing filters to be changed when the unit is in operation. A triple oil filter set will be used if the total oil flow exceeds 300 l/min.
● Oil pump	Mayekawa F50P/F60P type double helical gear oil pump with relief valve. Flanged motor for oil pump and flexible coupling type. M80P or M100P open type oil pump when required oil flow exceeds F50P/F60P capacity.
<b>Suction side</b>	SSD suction strainer housing with check valve to prevent backspin & gas flow back, counter flange on gas inlet.
● Suction filter	SSD Stainless steel strainer element (filtration grade 200 mesh, maximum particle size: 74 micron)
● Suction check valve	Duo check valve with steel seat.
<b>Discharge side</b>	Stop valve & safety valve dimensions based on the operating conditions of the compressor.
● Discharge check valve	Valve with stop & check function with counter flange on the gas outlet.
● Safety valve	Single (back pressure independent) safety valve on the oil separator.
<del><b>Controls</b></del>	<del>MAYEKAWA Mypro-Touch microprocessor control panel.</del>
● Control Panel	<del>Mypro-touch controller offering a complete control and protection of the unit, easy parameter setting via simple keypad, monitoring on a 5,7" LCD display, alarm functions with logging, communication functions with other Mypro-Ri, Mypro-Touch control panels or PLC/PC. (Optionally available are 7,5" and 12,1" displays)</del>
● Gauges	63 mm gauges for suction, discharge and oil pressure mounted on the unit.
<del><b>Main drive motor</b></del>	<del>Main drive motors are not included in the scope of supply of our SCV type units</del>
● Motor	2 pole direct drive method, B3 frame. The terminal box of the motor has an undrilled cable gland plate.
● Motor make	Mayekawa Europe cooperates with the following motor suppliers; ABB, Nidec, Siemens and WEG.
● Coupling	Rexnord type coupling with flexible elements absorbing minor coupling misalignments and vibrations.
● Alignment	Easy alignment is guaranteed on the non-flanged motors by means of adjustable

P & ID indicates scope. This sheet can not be modified

Cannot be changed due to STD unit and design.

please consider 240 microns as total paint thickness

	motor support elements, pre-alignment done in MAYEKAWA EUROPE, final alignment to be done after installation at site.	
<b>Painting</b>	RAL 7035 epoxy painting on the unit (excluding motor). Average thickness: 120 microns.	
<b>Economizer (option)</b> <b>See also section 5.2)</b>	<u>Open flash type</u>	<u>DX type</u>
• Heat exchanger	N.A.	Shell & tube heat exchanger with expansion set.
• Gauges	N.A.	In addition to the standard gauges (see above), a 63mm gauge for the intermediate pressure is mounted on the control panel.
• Control	Motor valve controlled by the Mypro-Touch control panel (if applicable).	Expansion set controlled by the Mypro-Touch control panel (if applicable).
• Gas return	Mayekawa standard open flash equipment according ME-SLS-I-17.	Via intermediate check valve and gas strainer with connection to the compressor.
<b>Included in delivery</b>	The scope of delivery includes: Unit fully assembled - Unit with complete cabling on the compressor unit - Pressure vessels with CE-PED approval according EN378: 2001 - Hydraulic pressure tested components - Pneumatic pressure tested unit - MAYEKAWA quality inspection - 1 year guarantee on manufacturing mistakes - Unit manual on CD	
<b>Excluded from delivery</b>	The following items are not included: - Motor starter / frequency converter - Oil heater - Cable glands on the main motor and the pump motor - Marking for partial unit assembly acc. PED 2014/68 EU - Final motor alignment - Oil charge - Refrigerant charge - Thermal insulation - Commissioning at site - Spare parts recommended for commissioning / maintenance - Anchor bolts, lifting material (lifting lugs / spreader bars) - Unit packaging (shrink packaging / wooden crate)	
<b>Quality inspection</b>	Quality inspection according to Mayekawa standard. The design and certificates based on CE & DMT/P	

Reports of test to be provided for our MRB book

STD documentation is included. same as earlier PO.

As control panel is excluded cabling to be terminated on skid with suitable means.

Alignment to be verified in ME as motor will be sent to ME shop.

This is final alignment and shall be done at site during commissioning.

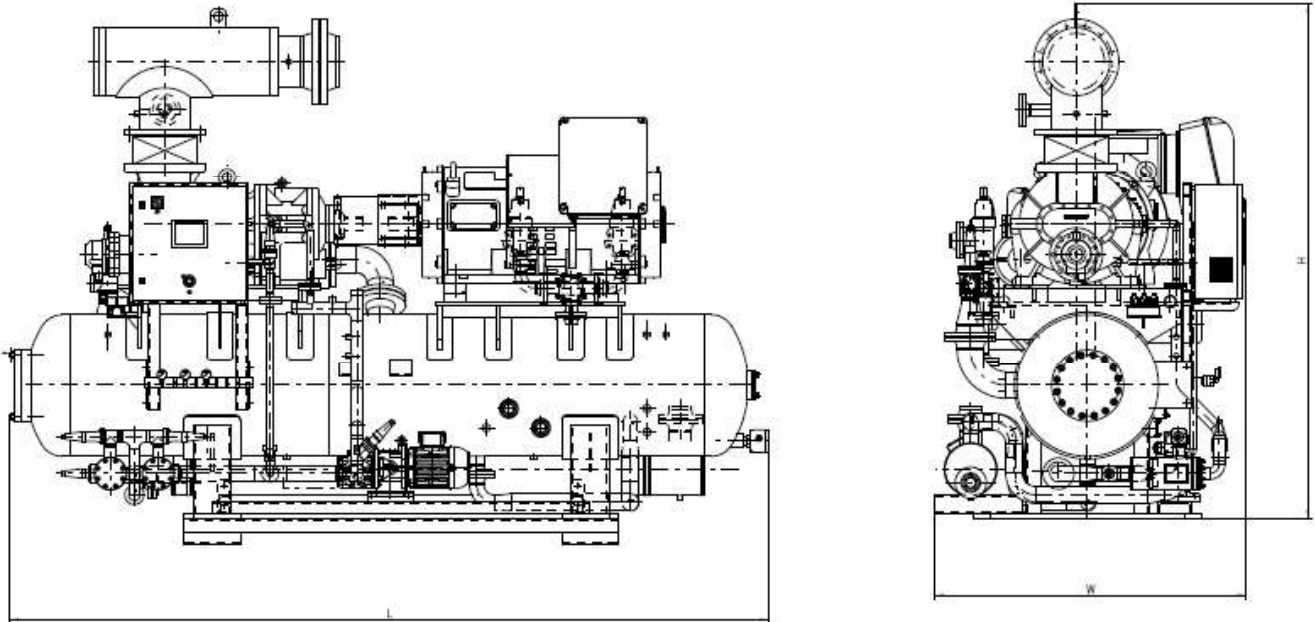
lifting lugs welded to skid to be included in scope

Additional Exclusions,  
1. Main Compressor Motor  
2. MYPRO Touch Control Panel  
3. Oil Pump Motor  
4. Oil Heater  
5. Instruments

The scope of supply is subject to change without prior notice

1. Tubing to included for slide valve operation along with solenoid valve.
2. Tubing for instruments not required but root valve for instrument required.
3. Provide size for instrument connection as customer will replace instrument with Exi.

**V-Series compressor unit dimensions**



V-Series Models	Provisional Length (mm)	Width (mm)	Height (mm)	Provisional Weight (kg)
160VSD-STD	3000	1400	2200	3200
160VMD-STD	3000	1400	2200	3300
160VLD-STD	3000	1400	2200	3400
200VSD-STD	3000	1500	2400	3800
200VMD-STD	3000	1500	2400	3900
200VLD-STD	3000	1500	2400	4000
250VSD-STD	4100	2000	2800	6200
250VMD-STD	4100	2000	2800	6500
250VLD-STD	4100	2000	2800	6900
320VSD-STD	5700	2300	3700	10600
320VMD-STD	5700	2300	3700	11300
320VLD-STD	5700	2300	3700	11800

Notes:

- Heights are without transport profiles and with the suction strainers so that sufficient space is left for transport profiles which allow forklifts to be used prior to shipping.
- The weight includes a typical size IP23 drive motor as reference.

Please consider one connection on oil separator for oil level switch for Low Low level(trip low oil level)

Noted.

The data can change depending on execution of the unit. The above data is an approximation based on reference units.

**OPTIONAL OIL LEVEL SWITCH (mounted)**

Code	Description
ELE-HBSO-1-PNP-3/4"BSPT-STD-MNT	OIL LEVEL SWITCH ON NEW DESIGN OIL SEPARATOR INCL. MOUNTING & WIRING

Notes:

- Low: alarm low oil level
- Lowlow: unit trip low oil level
- Normal: stop filling (automatic oil return system)