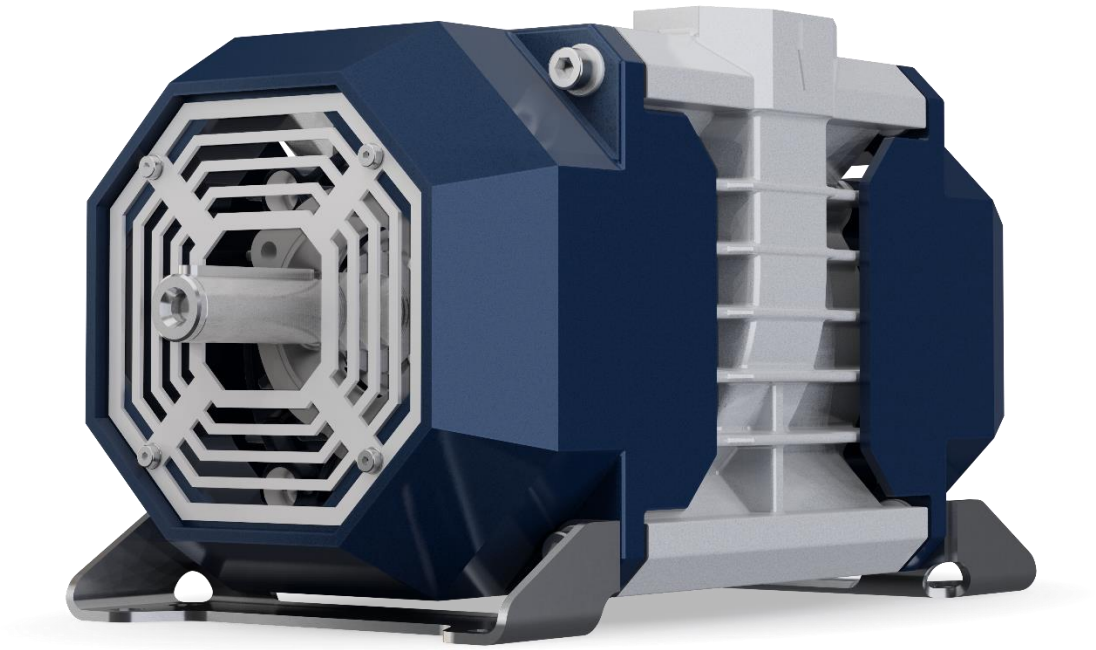
CVS ENG.
THINKING AHEAD

Mounting instructions

Multi-cell compressor
RKL 160



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Prior to installing the RKL 160 and putting it into operation you must have read and understood these instructions. These instructions are only valid together with the operating instructions, they do not replace them!

Translation of the Original Assembly Instructions

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1 General

1.1 Information on the assembly instructions

These assembly instructions provide important information about installation and start-up of the multi-cell compressor RKL 160 (hereinafter referred to as "RKL 160"). A precondition for safe operation is the observance of all specified safety and handling instructions.

Furthermore, all local accident prevention regulations and general safety regulations valid for the application area of the RKL 160 must be observed.

You must have read and understood the mounting instructions before you start installing the machine and put it into operation! It is a product component and must be kept in direct proximity of the RKL 160, well accessible to the personnel at all times. All safety instructions of the operating instructions must additionally be observed.

1.2 Pictogram explanation

Warning notes

Warning notes are characterised by pictograms in these mounting instructions. The warning notes are marked by signal words expressing the extent of the hazard.
It is absolutely essential to observe the notes and to proceed with caution in order to prevent accidents as well as bodily injuries and property damage.

DANGER!

points to an immediately dangerous situation, which can lead to death or serious injuries if it is not avoided.

WARNING!

... points to an immediately dangerous situation, which can lead to death or serious injuries if it is not avoided.

CAUTION!

... points to a potentially dangerous situation, which can lead to minor or light injuries if it is not avoided.

ATTENTION!

... points to a potentially dangerous situation, which may lead to property damage if it is not avoided.

Hints and recommendations

NOTE!

… highlights useful hints and recommendations as well as information for an efficient and trouble-free operation.

1.3 Limitation of Liability

See operating instructions "RKL 160" for information about limitation of liability.

1.4 Copyright protection

See operating instructions "RKL 160" for information about limitation of liability.

1.5 Spare parts

Information regarding the copyright protection can be found in the operating instructions "RKL 160".

1.6 Warranty conditions

The warranty conditions are included in the sales documentation as a separate document.

1.7 Customer Service

Our customer service can be contacted for any technical advice.

Information about the responsible contact person can be retrieved by telephone, fax, E-mail or via the Internet at any time, refer to manufacturer's address on page 2.

1.8 EC Declaration of Incorporation

Declaration of incorporation (pursuant to EC Machinery Directive 2006/42/EC and “The supply of Machinery (Safety) Regulations 2008”) see page 27.

2 Safety

2.1 Intended use

The multi-cell compressor RKL 160 is intended for the installation in a superior machine (upstream). The manufacturer of the overall system must assess the new risks resulting from the installation. These risks must be included in the operating instructions of the system.

The RKL 160 is intended exclusively for the compression of filtered air.

2.2 Acceptance and monitoring

The RKL 160 itself is not subject to any acceptance and monitoring obligation.

2.3 Operator's responsibility

See operating instructions "RKL 160" for information about the responsibility of the operating company.

2.4 Requirements placed upon the specialised staff

The mounting instructions specify the following qualification requirements for the different fields of activity:

- **Specialists**
  are due to their technical training, knowledge and experience and their knowledge of the pertinent regulations able to carry out the work assigned to them and to independently recognize potential hazards.
- **Electrical specialists**
  are, due to their technical training, knowledge and experiences and their knowledge of the relevant standards and regulations, able to work on electrical systems and to independently recognize possible hazards.

2.5 Personal protective equipment

Information regarding the personal protection can be found in the operating instructions "RKL 160".

2.6 Occupational safety and special risks

Please observe all safety instructions as per the operating instructions "RKL 160", Chapter "Occupational safety and special danger".

3 Technical data

3.1 Dimensions

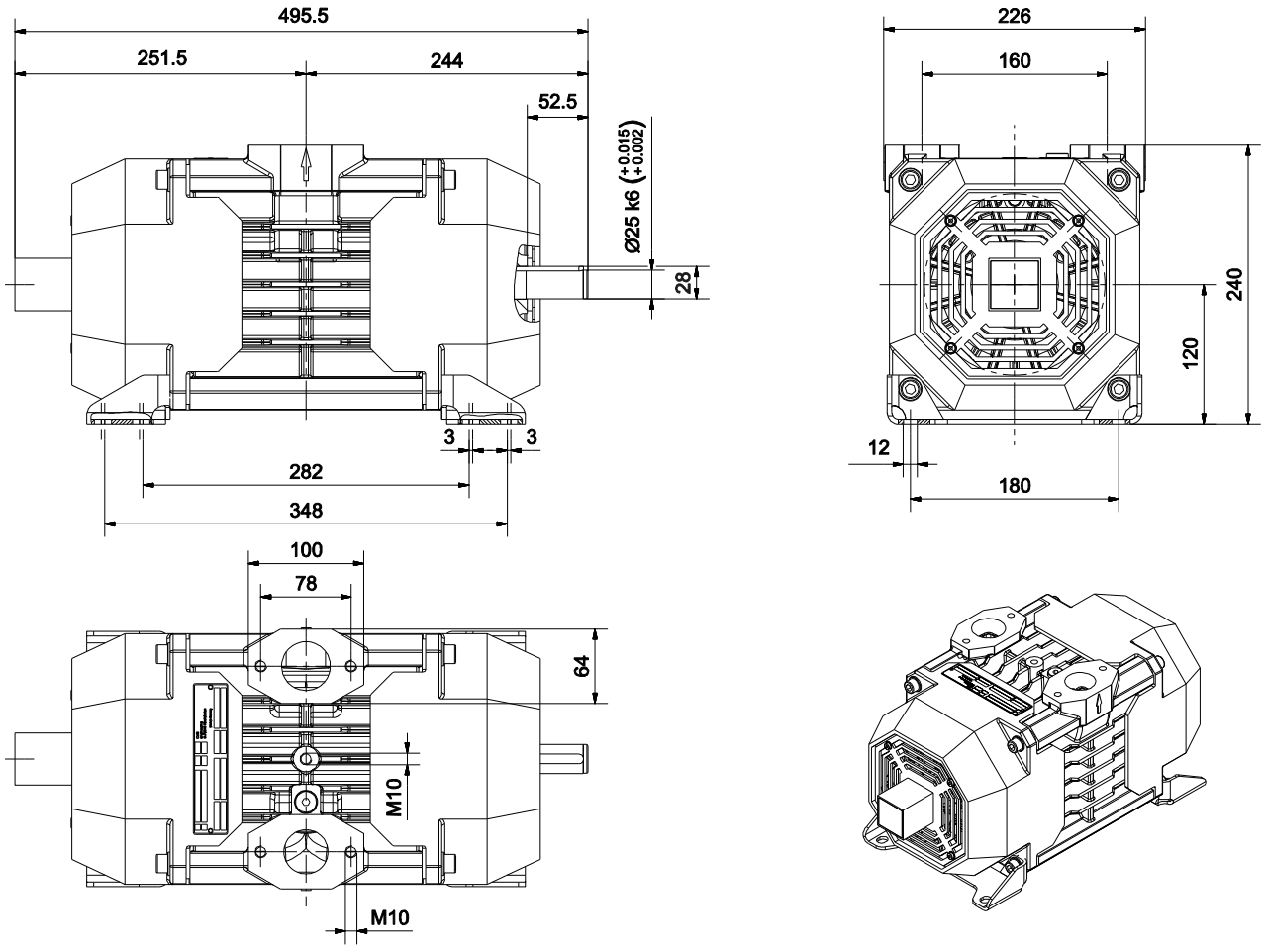

Fig. 1: Dimensions RKL 160

3.2 Technical data

General data	Unit	RKL 160
Angular momentum on the drive shaft	[kgm^2]	0.034
Weight RKL 160	[kg]	33
Rated speed	[1/min]	1500
Sound pressure level at final overpressure = 2.0 bar [1)]	[dB(A)]	75

1) Distance to RKL 160 = 7 m

Tab. 1: General data

Permissible working range	Unit	RKL 160
Speed range	[1/min]	1200…1600
Suction temperature [1)]	[°C]	-10…+40
Geodetic height [1)]	[m]	0…1000
Vacuum suction side	[mbar]	0…65
Maximum final overpressure at the pressure flange [2)]	[bar]	2.5

1) Consult CVS for suction temperature and/or altitudes outside the permissible working range.

2) Intake pressure at the suction flange = 1 bar, suction and ambient temperature = 20 °C

Tab. 2: Permissible working range

Performance characteristics at rated speed		Unit	RKL 160
Suction volume flow at final overpressure	0.0 bar	[m^3/h]	145
	2.0 bar		115
Coupling output at final overpressure	0.0 bar	[kW]	4.5
	2.0 bar		8.1

1) Intake pressure at the suction flange = 1 bar, suction and ambient temperature = 20 °C

Tab. 3: Performance characteristics at rated speed

4 Design

4.1 Design

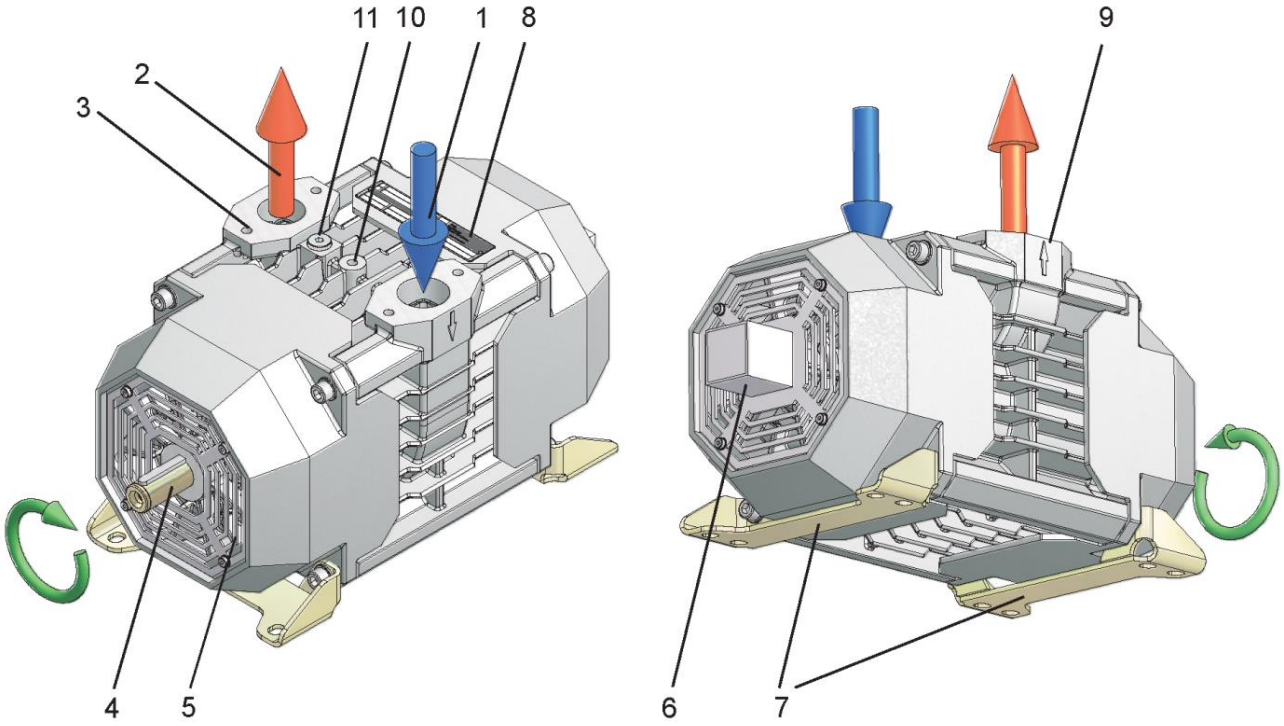

Fig. 2: Design

1 Suction flange – air entry DN 40
2 Pressure flange – air exit DN 32
3 Attachment thread for flanges
4 Drive shaft
5 Shaft protection grid drive side
6 Shaft protection grid counter-side
7 Fixing feet
8 Rating plate
9 Rotation arrow
10 Thread for eye bolt M10
11 Connection for pressure or temperature monitoring G ¼“

4.2 Function

Functional principle

In the working area, self-lubricating sliders in conjunction with the impeller and the casing form cells that are separated from each other and steadily grow (sucking) or shrink (compressing) with each revolution.

Lubrication

Lubrication of the rotor bearing is warranted by a permanent grease fill.

Cooling

The RKL 160 is air-cooled.

Heat removal is performed by casing ribs on the entire casing surface with targeted cooling air guidance, via a ventilation wheels.

Drives

The RKL 160 can be driven via:

- Articulated shaft
- V-belt
- Flexible coupling

See chapter 6.10, page 22.

4.3 Sense of rotation

The RKL 160 has a continuous drive shaft. It can be driven from either side. The sense of rotation therefore may be chosen either clockwise or counter-clockwise (see page 17). The standard sense of rotation at delivery is clockwise with view of the drive shaft.

5 Transport and storage

5.1 Safety notes for transport

Improper transport

DANGER!
Danger by falling down or tilting of the RKL 160!

The weight of the RKL 160 may injure a person and cause serious bruising!

Therefore:

– Use a pallet on which the RKL 160 can be moved by means of a fork lift.
– For lifting the RKL 160, use suitable lifting gear (slings, etc.) that is designed for the weight of the RKL 160.
– When putting the slings in position, take care to avoid putting stress on individual components.
– Only use the provided attachment points with eye bolts.

Please also observe the safety notes in the operating instructions "RKL 160"!

5.2 Transport

The RKL 160 fastened on a pallet must be transported by means of a fork lift or suitable lifting gear. The lifting gear must be designed for the weight of the RKL 160.

For future transports:

- Seal all open connections with protective caps (prevents penetration of dirt and water)
- Secure against vibrations
- Securely fasten the RKL 160 prior to transport (e.g. screw it onto a pallet)
- Transport and put down the RKL 160 with a fork lift or secure with straps and lift with suitable lifting gear.

5.3 Storage

Storage of packages

Store packages under the following conditions:

- Do not store outdoors.
- Store dry and dust free.
- Do not expose to aggressive media.
- Protect against solar irradiation.
- Avoid mechanical vibrations.
- Storage temperature: −10…+60 °C
- Relative humidity: max. 95%, non-condensing
- If storage lasts longer than 3 months, regularly check the general condition of all parts and of the packaging. If necessary, brush up or recondition the preservation.

6 Installation and assembly

6.1 Safety

Electrical system

DANGER!
Mortal danger due to electric current!

There is mortal danger in case of contact with live components.

Activated electrically driven components can start to move uncontrolled and cause severest injuries. Therefore:

– Switch off the electric power supply before commencing any work and secure against restarting.
– Only skilled electricians are allowed to carry out any work on the electric systems, on electric components and connections.

Dirt and lying about items

CAUTION!
Risk of tripping from dirt and objects lying around!

Contamination and discarded items can lead to slipping and tripping, resulting in substantial injuries.

Therefore:

– Always keep the working area clean.
– Remove objects that are not required.
– Mark tripping points with yellow-and-black tape.

Please also observe the safety notes in the operating instructions "RKL 160"!

6.2 Setup example

The figure gives a schematic illustration of the RKL 160 with accessories and drive variants.

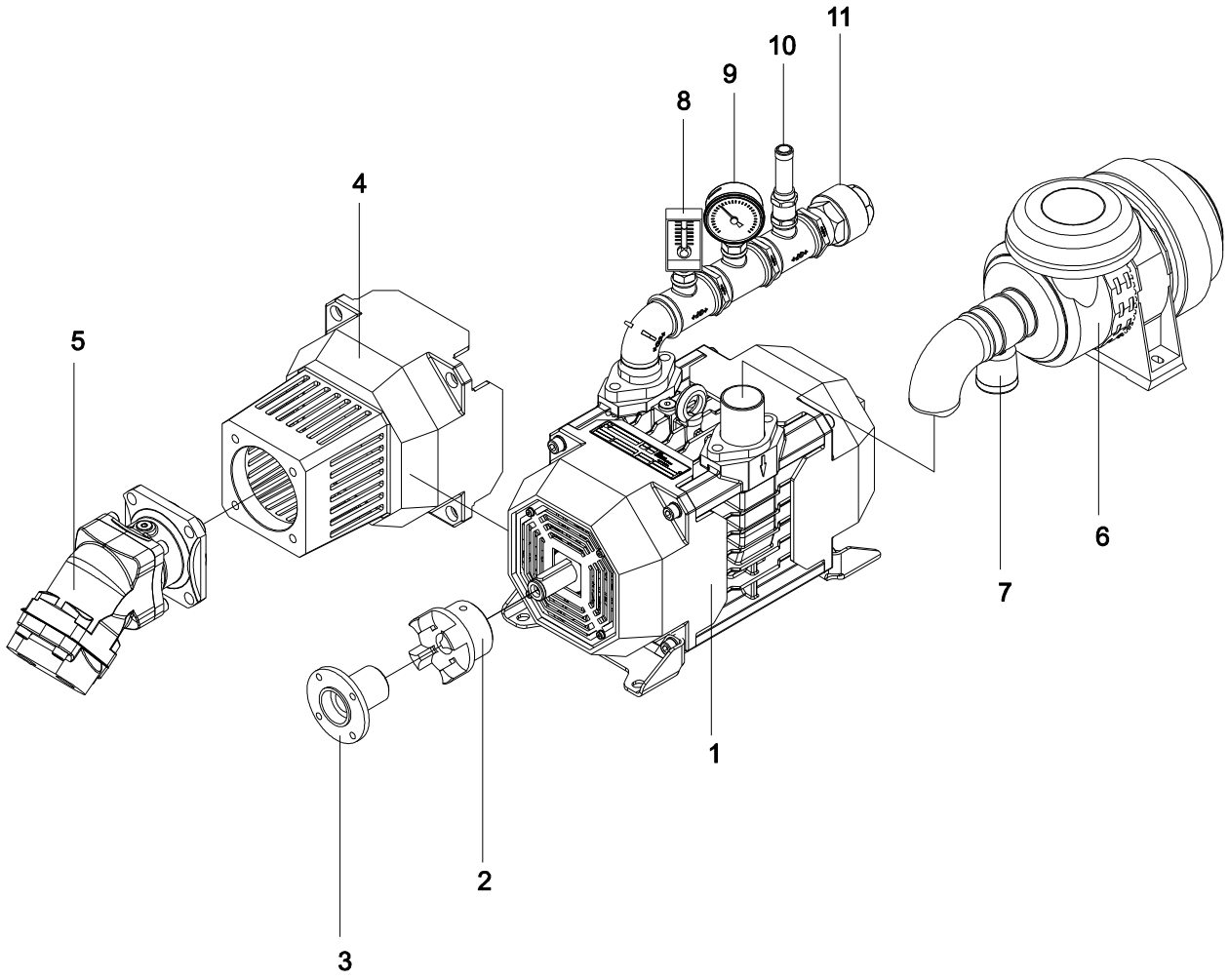

Fig. 3: Setup with accessories and drive variants

1	RKL 160	5	Hydraulic motor	9	Manometer installation point
2	Flexible coupling	6	Suction air filter	10	Safety valve
3	Articulated shaft mounting flange	7	Vacuum display	11	Non-return valve
4	Intermediate flange for hydraulic motor installation	8	Thermometer installation point		

6.3 Necessary work

The following work is necessary to install the RKL 160:

- Connecting the RKL 160 with suction and pressure lines.
- Installing safety and monitoring equipment.
- Installing accessories.
- Connecting the drive with RKL 160. Here, observe the correct sense of rotation (rotation direction arrow) and the speed range.

6.4 Changing the sense of rotation of the RKL 160

The standard rotating direction at delivery is clockwise with view of the drive shaft.

To change the sense of rotation, swap the shaft protection grids (see Fig. 2, pos. 5 and pos. 6). Tightening torque of the 4 attachment screws: 4.5 Nm.

6.5 Attachment and installation space

Attachment of the feet at the RKL 160

Attachment of the RKL 160 to the vehicle takes place by two feet connected to the RKL 160; connection takes place right to the chassis or the traverses.

- The feet can be installed at all 4 longitudinal sides (right, left, top, bottom) of the RKL 160.
  If the feet position must be changed, the attachment screws must be coated with installation paste again and tightened with 34 Nm.

Requirements placed upon installation point and attachment

- The attachment points on the vehicle must feature a sufficient load capacity and rigidness.
- The attachment points must be on the same level.
- The fastening screws must feature a sufficient clamping length.

Installation and assembly

Requirements on the installation location

The installation location must fulfil the following requirements:

- Protect from dirt, falling rocks and spray water.
- Offer sufficient space for accidental contact protection.
- Offer sufficient space for the connections of the suction and pressure lines.
- Ensure good legibility of the instruments.
- Accessible for maintenance and repair work (e.g. for replacing the air filter, or for checking the safety and non-return valve).
- The RKL 160 must not be installed on a closed ground plate. There must be sufficient free space for discharge of cooling air.

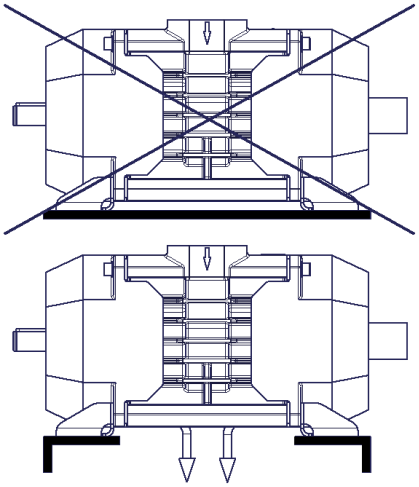

Fig. 4: Installation position
Top: Impermissible installation position, cooling air exit covered.
Bottom: Intended installation position, cooling air exit open.

Installation position of the RKL 160

- Pressure and suction flange may point up, right or left. Setup with pressure and suction flange pointing down is not recommended due to thermal reasons.
- Install the RKL 160 horizontally or with tilt matching the inclination of the auxiliary drive. But do not incline by more than ±5° degrees for a horizontal vehicle.

Installation at the vehicle

Attach the feet of the RKL 160 free from distortion with screws according to Tab. 4.

Use the following screws for securing the RKL 160:

Screw	Solidity	Torque
M10	8.8	40 Nm

Tab. 4: Fastening screws

6.6 Suction and pressure flanges

Assembly

1. Coat all threads with anti-fretting paste.
2. Install flanges with stud bolts M10-8.8 with a tightening torque of 40 Nm for the hexagon nut.

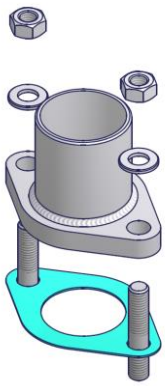

Fig. 5: Assembly example for suction flange

6.7 Suction and pressure lines

Requirements

- Corrosion-proof
- Pressure and temperature resistance (up to 240 °C)
- Minimum inside diameter:
  - Suction side: 40 mm
  - Pressure side: 35 mm

Installation

Install the lines as follows:

- The connected lines must not have any reaction force on the RKL 160. Support the lines, if necessary.
- Place suction lines rising towards the RKL 160; place pressure line falling away from the RKL 160. Provide a condensate sack with drain outlet at the lowest point.
- Check for tightness when using aplastic hose on the suction side
- Install a sieve in front of the suction flange if initial contamination is expected on the suction side (recommended mesh width 1 mm)

6.8 Safety equipment

The following safety equipment must be installed:

- Suction filter
- Safety valve
- Non-return valve
- Protection against contact

6.8.1 Safety valve

Risk of explosions

DANGER!
Risk of injury by explosions!

Explosions can cause severe injuries!

Therefore:

– Install the safety valve as instructed. Observe the manufacturer's instructions.
– Only use the safety valve for its intended purpose.
– Never block the safety valve.

The German accident prevention regulations require a non-lockable safety valve to be installed after the RKL 160 at the pressure side. This valve must be selected such that it prevents the pressure to exceed the highest permissible operating pressure by more than 10 %. It must be identified with a TÜV component test number and be equipped with a manual venting element.

ATTENTION!

The safety valve (overpressure protection) must be chosen to match the maximum permitted operating pressure, the volume flow and the temperature range.

Assembly

- Install the safety valve directly downstream of the RKL 160.
- The nominal opening pressure may not exceed the maximum permissible final overpressure (refer to Tab. 2) or the permissible system pressure, provided the latter is lower.
- Protect the settings against unauthorised or erroneous changes.

6.8.2 Non-return valve

The non-return valve prevents the reverse operation of the RKL 160 after it has been switched off when the pressure tank is not relieved. The valve is not suitable for retaining material to be conveyed.

Assembly

- Install non-return valve right behind the safety valve.
- Install a second non-return valve at the transfer to the consumer to securely avoid any material to be conveyed in the pressure line.

6.8.3 Suction filter

Liquids and solids may not be sucked in.

Requirements

- Provide combination filter with integrated cyclone
- Filter mesh < 5 Micron
- Filter resistance when it is new < 15 mbar
- Use filter with dust extraction valve, control flap and maintenance display.

Installation

- Connect filter via stiff line or hose at the inlet.
- Protect the filter from spray water, e.g. from wheels, exhaust gases and heat.
- Observe the flow direction.
- Mount the filter horizontally.
- Provide removal space for filter insert.

6.8.4 Protection against contact

Rotating or hot parts of the system must be equipped with a protection against contact.

Please note that the German accident prevention regulations do not allow a maximum surface temperature of 80 °C to be exceeded.

Observe DIN EN ISO 13857, for example, for the distances and the layout of the protective grid.

6.8.5 Display and monitoring equipment

Pressure gauge, maintenance display and thermometer must be provided to ensure smooth and trouble-free operation.

We also recommend the installation of a speed counter.

Designation	Monitoring parameters	Place of installation (s. Fig. 3)	Measuring range
Pressure gauge	Positive working pressure	Pressure line, right after outlet	According to the operating pressure to be ensured
Maintenance display	Degree of contamination of the suction filter	Between suction filter and RKL 160	0…65 mbars
Thermometer	Compression end temperature	Pressure line, right after outlet	0…250 °C
Speed counter (option)	Speed	Drive shaft	1200…1600 min^{-1}

Tab. 5: Display and monitoring equipment

6.9 Cooling

The RKL 160 is air-cooled. Ensure at installation that no heat accumulation results and that the cooling air can circulate freely. The front cooling air entry openings must not be covered; see Fig. 6.

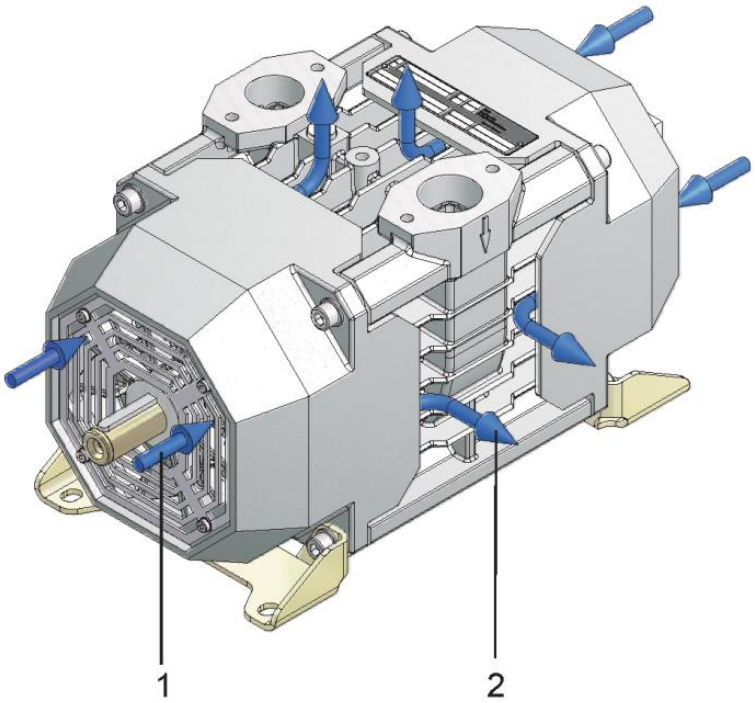

Fig. 6: Cooling air guide

1 Cooling air entry
2 Cooling air exit

6.10 Drive

ATTENTION!

- Selection and design are within the responsibility of the system builder.
- Do not route axial forces into the RKL 160 shaft when installing drive components.
- Do not tap couplings or other connection components onto the shaft, but slide them on.
- Always slide couplings or other connection components as far onto the shaft of the RKL 160 as possible.
- Check the torque and the sense of rotation.

Drive types

The RKL 160 is driven via:

- V-belt
- Articulated shaft
- Flexible coupling

Where drives such as lorry P.T.O, electric motors, hydraulic motors or diesel engine are possible.

6.10.1 V belt drive

ATTENTION!

V-belt drive only in connection with a layshaft via elastic coupling. Assembly of the V-belt pulley on the shaft of the RKL 160 is not permitted. No radial forces must be introduced into the shaft of the RKL 160.

Observe the design, installation and inspection instructions of the manufacturer.

6.10.2 Articulated shaft drive

ATTENTION!

Observe the design, installation and inspection instructions of the manufacturer.

Requirement articulated shaft

- Select the bending angle of the joint shaft at max. 15 degrees.
- Articulated shaft must be a spline shaft and balanced.
- The central axles of the articulated shafts must be parallel to each other.

Components that match the RKL 160 can be ordered from CVS.

Installing the articulated shaft flange

1. Coat all threads with anti-fretting paste.
2. Install articulated shaft flange with attachment screw M10-8.8 with a tightening torque of 40 Nm.

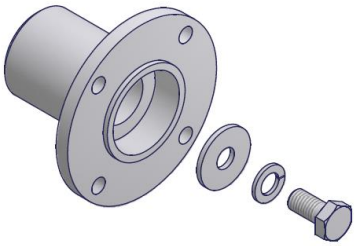

Fig. 7: Installing the articulated shaft flange

6.10.3 Drive via flexible coupling and hydraulic motor

ATTENTION!

Observe the design, installation and inspection instructions of the manufacturer.

The hydraulic motor is installed to the RKL 160 via an intermediate flange. The power is transmitted via a flexible coupling.

Components that match the RKL 160 can be ordered from CVS.

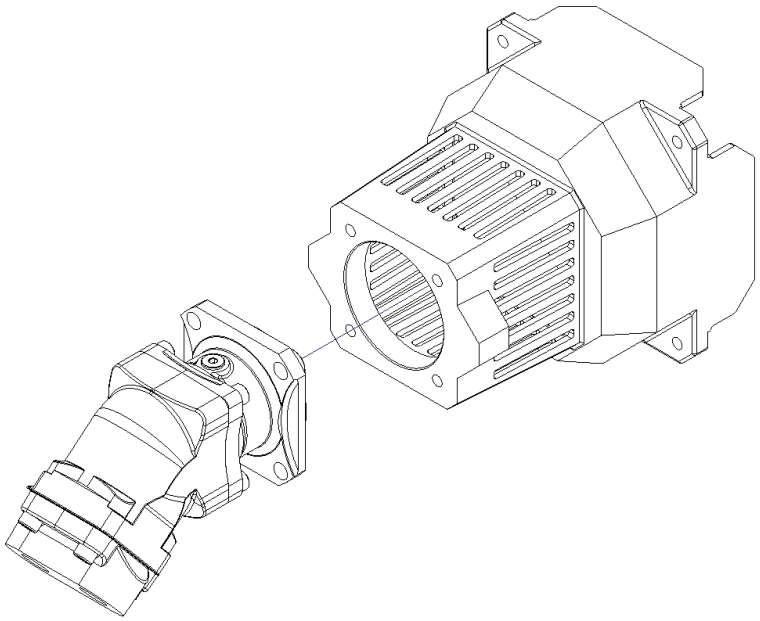

Fig. 8: Installing the hydraulic motor

7 Start-up

7.1 Safety notes for start-up

Start-up, operation

WARNING!
Risk of injury due to improper start-up and operation

Improper start-up and operation can lead to serious bodily injuries or property damage.

Therefore:

– Have all work during initial operation exclusively performed by the manufacturer's employees or by his authorised representatives or by trained personnel.
– Start-up and operation may only be performed by adequately qualified personnel that has been authorised and instructed by the operator.
– Before the start of any work, ensure that all covers and protective devices are correctly installed and function correctly.
– Never override any protective equipment during operation.
– Pay attention to tidiness and cleanliness in the working area! Loosely stacked or scattered components and tools are accident sources.

Please observe all safety instructions as per the operating instructions "RKL 160", Chapter "Occupational safety and special danger".

7.2 Start-up

Inspection prior to initial start-up

The following points must be checked prior to initial start-up:

- Inspect the RKL 160 and the entire system
- Check the pipes for leaks, continuity and residues
- Check the operating data on the rating plate.
- Check whether the rotor shaft can be rotated by hand.
- Check the sense of rotation (switch briefly on/off). Observe the rotation direction arrow on the casing.
- Check the installation direction and the positioning of the non-return valve (see page 20, chapter 6.8.2).
- Check the function of the safety valve (see page 20 ff, chapter 6.8.1.).
- Check the attachment screws.
  (see page 18, chapter 6.5.)

Start-up

Proceed as follows during start-up:

- Pay attention to permissible inclination of the RKL 160
- Open shut-off devices (if available)
- Start the RKL 160 drive (engage gently).
- Check operating data

Inspections during operation

The following inspections have to be carried out during operation:

- Pay attention to abnormal noises and leaks during operation. If necessary, switch off RKL 160.

Checking the operating data:

- The speed must be between 1200…1600 min^{-1}.
- Check positive working pressure at the pressure gauge (permissible pressure refer to rating plate).

7.3 Switching off

Switching of the RKL 160:

- Switch off drive for the RKL 160.
- Close the shut-off valves (if installed)
- Drain the safety tank. Tank may not be under pressure then.

8 Declaration of Incorporation

Einbauerklärung im Sinne der Maschinenrichtlinie 2006/42/EG Anhang II 1B - Orginaleinbauerklärung
Declaration of Incorporation according to the EC Machinery Directive 2006/42/EC Annex II 1B
– Original Declaration of Incorporation

Hersteller / Manufacturer	CVS engineering GmbH Großmattstraße 14 D-79618 Rheinfelden
Bevollmächtigter für die Zusammenstellung der relevanten technischen Unterlagen / Authorised person for compilation of the relevant technical documents:	Fabian Blum Großmattstraße 14 D-79618 Rheinfelden
Kurzbeschreibung & Produkt **Short description & Products:**	Flüssigkeitsring-Kompressor-Vakuumpumpe für Druck- und Vakuumbetrieb Liquid-ring compressor vacuum pump for pressure and vacuum operation VacuStar WR 2500*, WR 3100*, WR 4000 Schraubenkompressor für den Druckbetrieb Screw compressor for pressure operation SKL 700, SKL 1100, SKL 700 LS, SKL 1100 LS, SKL 1200 C, SKL 1500 Drehschieberkompressor für Druck- und Vakuumbetrieb Rotary vane compressor for pressure and vacuum operation VacuStar W900*, W1300*, W1600* Drehschieberkompressor für Druckbetrieb Rotary vane compressor for pressure operation RKL 160 Drehschieberkompressor für Druck- und Vakuumbetrieb Rotary vane compressor for pressure and vacuum operation VacuStar L400
Seriennummer/ Serial number	siehe Typenschild / see type plate

Der Hersteller erklärt, dass das oben genannte Produkt eine unvollständige Maschine im Sinne der Maschinenrichtlinie ist. Das Produkt ist ausschließlich zum Einbau in eine Maschine oder unvollständige Maschine vorgesehen und entspricht daher noch nicht allen Anforderungen der Maschinenrichtlinie. Folgende grundlegenden Anforderungen der Maschinenrichtlinie für dieses Produkt sind angewandt und eingehalten: 1.1.2, 1.1.3, 1.1.5, 1.3.1, 1.3.2, 1.3.4, 1.3.7, 1.5.5, 1.5.7, 1.5.8, 1.5.9, 1.6.1, 1.7.1, 1.7.2, 1.7.3, 1.7.4
Die speziellen technischen Unterlagen gemäß Anhang VII Teil B wurden erstellt. Der Bevollmächtigte für das Zusammenstellen der technischen Unterlagen verpflichtet sich, die Unterlagen auf begründetes Verlangen an die einzelstaatlichen Stellen zu übermitteln. Die Übermittlung erfolgt postalisch in Papierform oder in elektronischer Form.
Die Inbetriebnahme des Produkts ist so lange untersagt, bis festgestellt wurde, dass die Maschine, in die das oben genannte Produkt eingebaut wird, allen grundlegenden Anforderungen der Maschinenrichtlinie entspricht.
Die oben mit "*" markierten Produkte erfüllen die Anforderungen der folgenden einschlägigen Richtlinien:

- ATEX-Richtlinie 2014/34/EU des Europäischen Parlaments und Rates

Rheinfelden, 10.02.2023

i.V. F. Blum

Fabian Blum

Leiter Konstruktion & Entwicklung
Head of Design & Engineering

The manufacturer declares that the above product is an incomplete machine in the meaning of the machinery directive. The product is only intended for installation in a machine or an incomplete machine and therefore does not meet all requirements of the machinery directive yet. The following basic requirements of the machinery directive for this product have been applied and complied with: 1.1.2, 1.1.3, 1.1.5, 1.3.1, 1.3.2, 1.3.4, 1.3.7, 1.5.5, 1.5.7, 1.5.8, 1.5.9, 1.6.1, 1.7.1, 1.7.2, 1.7.3, 1.7.4
The special technical documents have been created according to Annex VII, part B. The person authorised to compile the technical documents commits to submitting the documents to the national offices upon justified request. The submission shall take place on paper in the email or on electronic data carrier.
Commissioning of the product is forbidden until it has been determined that the machine into which the above product is installed meets all basic requirements of the machinery directive.
The products marked with "*" comply with the requirements of the following directives:
ATEX directive 2014/34/EU of the European parliament and council

Declaration of Incorporation

Declaration of Incorporation according to
The Supply of Machinery (Safety) Regulations 2008 Annex II 1B
- Original Declaration of Incorporation

Manufacturer:	CVS engineering GmbH Großmattstraße 14 D-79618 Rheinfelden
Importer:	CompVac Ltd. Mr. Lee Benton 25, Wharfedale Road Euroway Industrial Estate BD4 6SG Bradford
Authorised person for compilation of the relevant technical documents:	Fabian Blum Großmattstraße 14 D-79618 Rheinfelden
Short description & Products:	Liquid-ring compressor vacuum pump for pressure and vacuum operation VacuStar WR 2500*, WR 3100*, WR 4000** Screw compressor for pressure operation SKL 700, SKL 1100, SKL 700 LS, SKL 1100 LS, SKL 1200 C, SKL 1500 Rotary vane compressor for pressure and vacuum operation VacuStar W900*, W1300*, W1600** Rotary vane compressor for pressure operation RKL 160 Rotary vane compressor for pressure and vacuum operation VacuStar L400
Serial numbers:	See type plate

The manufacturer declares that the above product is an incomplete machine in the meaning of 'The Supply of Machinery (Safety) Regulations 2008'. The product is only intended for installation in a machine or an incomplete machine and therefore does not meet all requirements of 'The Supply of Machinery (Safety) Regulations 2008' yet.

The following basic requirements of 'The Supply of Machinery (Safety) Regulations 2008' for this product have been applied and complied with: 1.1.2, 1.1.3, 1.1.5, 1.3.1, 1.3.2, 1.3.4, 1.3.7, 1.5.5, 1.5.7, 1.5.8, 1.5.9, 1.6.1, 1.7.1, 1.7.2, 1.7.3, 1.7.4

The special technical documents have been created according to Annex VII, part B. The person authorised to compile the technical documents commits to submitting the documents to the national offices upon justified request. The submission shall take place on paper in the email or on electronic data carrier.

Commissioning of the product is forbidden until it has been determined that the machine into which the above product is installed meets all basic requirements of 'The Supply of Machinery (Safety) Regulations 2008'.

The products marked with **"*"** comply with the requirements of the following directives:
- Equipment and Protective Systems Intended for use in Potentially Explosive Atmospheres Regulations 2016

Rheinfelden, 10.02.2023

i.V. F. Blum

Fabian Blum
Head of Design & Engineering
CVS engineering GmbH

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