DYNASET

POWERED BY HYDRAULICS

GENSCO

USER MANUAL

HYDRAULIC PISTON COMPRESSORS

09/20
rev 1.5

HK 450 **HK 1000**

Congratulations!

You have just purchased DYNASET hydraulic equipment!

The equipment allows you to maximize the productivity and efficiency of your mobile machine. Read this User Manual before using your new equipment. It contains important information that will help you to take the full advance of the technical features avaible in your equipment.

Please contact us for any feedback you might have on our products. Your feedback is important to us for improving our products and customer service.

We are constantly developing and releasing new innovations. Please visit on our website and social media channels for the latest news and updates.

TABLE OF PICTURES

1. GENERAL

This manual contains general information about assembly, installation, operation and maintenance of the DYNASET HK hydraulic piston compressor.

⚠ ATTENTION!

Read this user manual before installation, use or maintenance of the HK compressor to ensure proper handling, operation and maintenance right from the beginning. Pay attention to warnings and safety instructions. READ CHAPTER "2. SAFETY" for more information.

1.1. PRODUCT INFORMATION

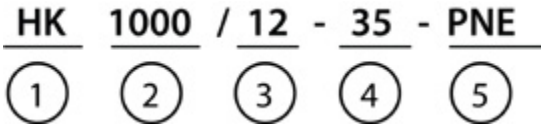
HK compressors are compact and integrated all-in-one units, especially designed for mobile installation. The only power source needed is a hydraulic system of base machine which provides compressor the required hydraulic flow and pressure.

HK compressor converts the hydraulic power into high quality compressed air and it can be installed in almost any working machine. HK compressors are used to power for example pneumatic tools, filling tires and cleaning equipment.

DYNASET HK compressors are designed to meet regular modern compressed air demands.

1.2. PRODUCT IDENTIFICATION KEY

The product identification key describes the characteristics of the DYNASET product. The product identification key is on the product type plate which is attached onto every DYNASET product.



Picture 1: Identification key for HK

1. Product group HK Hydraulic Piston Compressor

2. Maximum Discharge. It is the maximum amout of air flow (l/min) that HK hydraulic compressor can produce at discharge pressure of 6 bar (according to ISO1217(1996).)

3. Maximum Discharge Pressure. It is the maximum air pressure (bar) that HK hydraulic compressor can produce.

4. MAXIMUM hydraulic flow. It is the maximum hydraulic flow that HK hydraulic compressor is designed to run with. Do not exceed the maximum hydraulic flow.

5. Control options (listed below)

Basic model (-):

Basic models without (S) option are equipped with FLC-RPM valve cartridge. FLC cartridge provides proper hydraulic flow to the compressor and prevents compressor from running at overspeed. The compressor is equipped with a pneumatic unloader valve. When air pressure reaches the preset pressure level, the unloader valve opens and the compressor runs in unloaded mode while the air pressure remains available at maximum level in the air tank.

Pneumatic cut-off (PNE):

The compressor is equipped with a pilot operated FLC3-RPM valve cartridge. The FLC3 valve provides proper hydraulic flow to the compressor and prevents compressor from running at overspeed. When air pressure reaches the preset pressure level the compressor stops by going into by-pass mode on the hydraulic side. When air pressure decreases the compressor starts again. This is designed primarily for hydraulic systems with fixed displacement pump.

Electric pressure switch (E):

The compressor is equipped with an electric pressure switch. When the air pressure reaches the preset pressure level, the electric pressure switch stops compressor by cutting the electric feed to the hydraulic solenoid valve in the hydraulic system of the base machine. When air pressure decreases, the pressure switch energizes again the solenoid valve and the compressor starts. This is primarily designed for hydraulic systems with a solenoid ON/OFF -valve.

Flow limiter valve (S):

The compressor is equipped with a flow limiter valve on the compressor's hydraulic pressure port. The flow limiter provides proper hydraulic flow regulation to the compressor and the prevents compressor from running at overspeed. This is primarily designed for closed center hydraulic systems with a variable displacement pump and without other oil flow control systems.

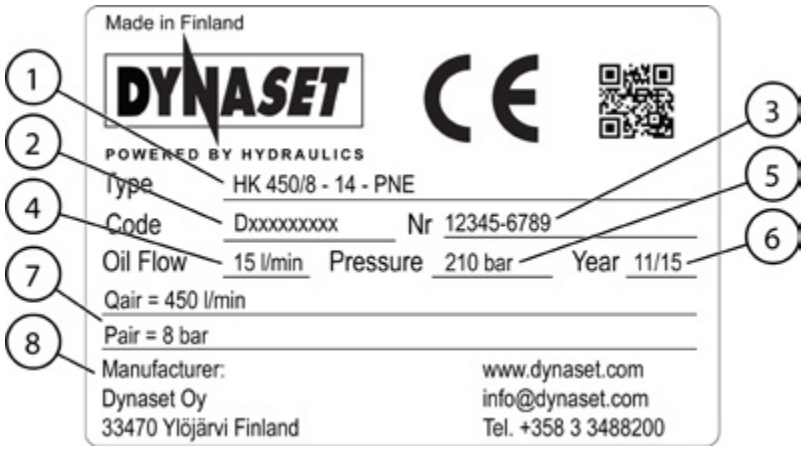
Cyclone filter (Y):

Offers increased intake air filtering capacity for extremely dusty conditions.

Electric solenoid valve (SV):

The compressor is equipped with an electric ON/OFF (NC – Normally Closed) -solenoid valve on the hydraulics pressure port. This (SV) -option requires the electric pressure switch (E) option in addition. The electric pressure switch sets the solenoid valve into OFF mode, when the preset air pressure level is reached and the compressor stops. When the air pressure decreases, the pressure switch sets the solenoid valve into ON mode and the compressor starts. This is primarily designed for hydraulic systems with a variable displacement pump.

1.3. TYPE PLATE

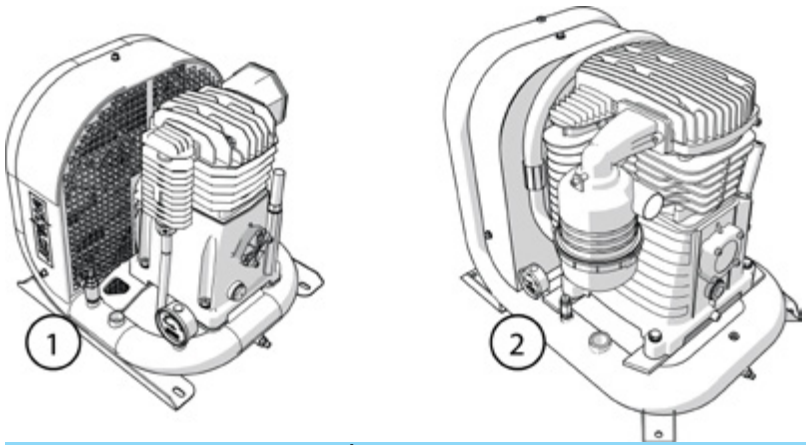


Picture 2: Type plate

The products type plate shows the following information.

1. Product identification key
2. Product code
3. Serial number
4. Maximum hydraulic flow
5. Maximum hydraulic pressure
6. Production month / year
7. Output air flow rate and pressure.
8. Manufacturer's contact information

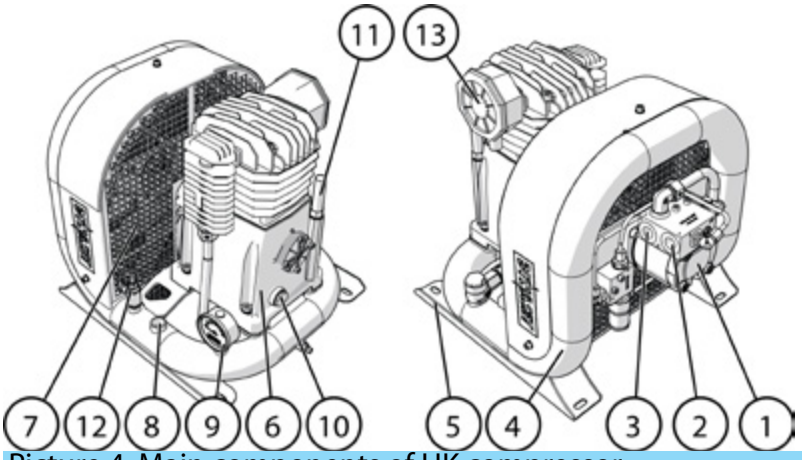
1.4. HK COMPRESSOR LINE-UP



Picture 3: HK compressor line-up

1. HK 450
2. HK 1000

1.5. MAIN COMPONENTS OF HK COMPRESSOR



Picture 4: Main components of HK compressor

1. Hydraulic motor
2. Hydraulic pressure line (**P**)
3. Hydraulic return line (**T**)
4. Frame reservoir
5. Support mount
6. Compressor block
7. Fan
8. Compressed air output (**AP**)
9. Pressure gauge
10. Oil level sight glass
11. Oil filler cap
12. Safety valve
13. Air intake filter

2. SAFETY

2.1. SAFETY PRECAUTIONS

⚠ ATTENTION!

Operators and maintenance personnel must always comply with local safety regulations and precautions in order to close out the possibility of damages and accidents.

The pressure in both hydraulic and compressed air circuits is considerably high. Keep the condition of your equipment and hydraulic system under constant observation.

⚠ WARNING

HIGH PRESSURE AIR AND OIL!

Can cause severe injuries.
Always wear appropriate clothing and safety equipment.

Couplings, valves and hoses need to be kept tight and clean to avoid possible leakages. Leaks in the hydraulic system must be repaired immediately to avoid injuries caused by high pressure bowouts.

In order to avoid possible accidents, it is not allowed to clean or inspect HK compressor or pneumatic tools when hydraulic or/and pneumatic circuit is pressurized. Prior to any cleaning, inspection and service, hydraulic system of your base machine must be stopped and both hydraulic and pneumatic circuits must be depressurized.

2.2. SAFETY EQUIPMENT

Always wear appropriate clothing and safety equipment such as safety goggles, safety shoes and ear protection when operating the compressor.

2.3. OPERATING SAFETY

When operating the compressor, beware of unit parts warmed by hot hydraulic oil.

⚠ WARNING

RISK OF BURNS!

Parts of the unit, oil, and oil filler cap can be hotter than 80 °C!

Wear personal safety equipment!

Never aim compressed air at a person.

⚠ WARNING

HIGH PRESSURE AIR!

Never aim compressed air at a person.
Can cause severe injuries.

⚠ ATTENTION!

Do not exceed the maximum pressure, temperature and load.

2.4. MAINTENANCE SAFETY

ATTENTION

Installation and service of both hydraulic and pneumatic equipment must be performed by qualified and experienced personnel only.

NOTE!

When carrying out any maintenance to HK compressor, keep the components of the system clean. This is important to ensure safe, reliable and longlife operation of your equipment.

Hydraulic system of a base machine should be maintained according to the service program.

2.5. WARNING LABELS

Warning labels are included with each main product.

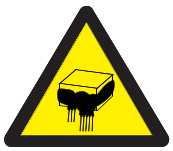
Product recipient is obligated to place warning labels on the DYNASET product. Attach labels to visible and appropriate place onto or close to DYNASET product where it's easily seen. Clean surface with solvent detergent before attaching labels.

READ OPERATING INSTRUCTIONS!

USE EAR PROTECTION AND SAFETY GOGGLES!

HIGH PRESSURE OIL AND WATER!

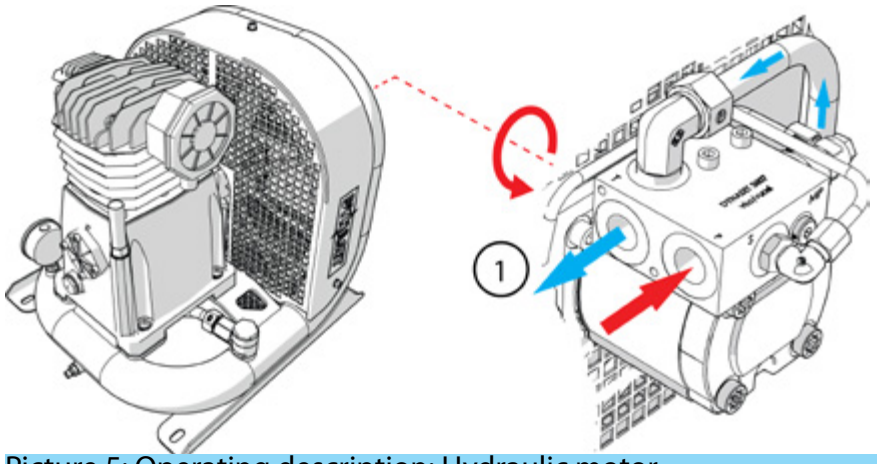
HOT SURFACE!



KEEP FROM FREEZING!

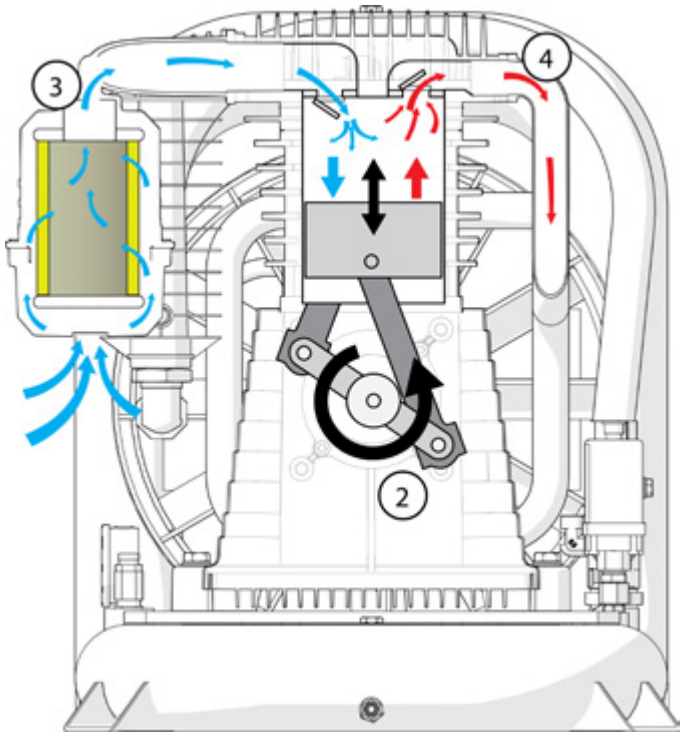
3. OPERATING PRINCIPLES

3.1. OPERATING DESCRIPTION



Picture 5: Operating description: Hydraulic motor

1. Hydraulic flow from the base machine rotates the hydraulic motor of the hydraulic compressor.



Picture 6: Operating description: Air compression

2. Hydraulic motor rotates the cranckshaft which turns the circular motion into reciprocating motion.

3. The reciprocating motion of the piston creates vacuum when the piston moves downwards. Air is sucked through air intake filter into the chamber to fill vacuum.

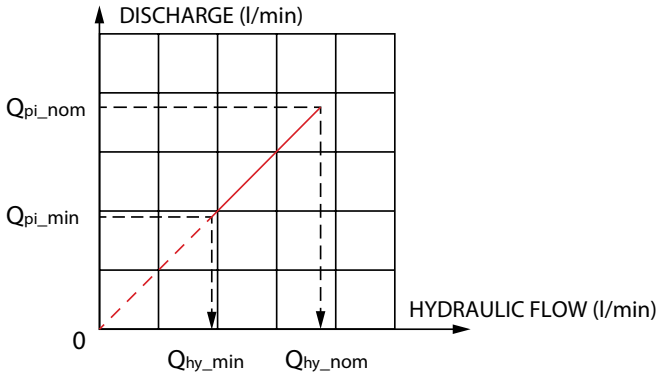
4. Air is compressed by the piston as it changes its direction of movement and starts to move up. The intake valve closes and the pressure in the cylinder builds up. When the certain pressure level is reached, the output valve is opened and compressed air rushes into the air tank.

Compressor's frame reservoir is equipped with an unloader valve, safety valve and pressure gauge.

If the compressed air is not used while compressor is running, air pressure in frame reservoir rises up. The unloader valve releases the air when preset maximum air pressure level is achieved.

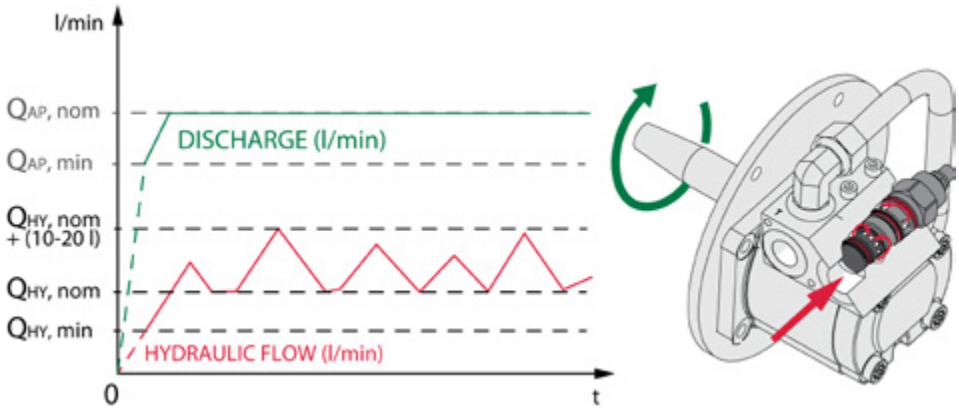
Safety valve protect compressor against internal overpressure. Frame reservoir's safety valve is adjusted at factory either to 9,5 bar (HK450) or 13,5 bar (HK 1000).

The nominal discharge is achieved when the compressor is rotated by hydraulic flow adequate to the nominal rotation speed.



Picture 7: The nominal discharge of HK compressor

3.2. AUTOMATIC RPM-CONTROL



Picture 8: Automatic RPM-control

Automatic RPM-control keeps rotation speed constant. Incoming hydraulic oil flow (Qhy) can vary from nominal demanded flow (Qhy, nom) up to value exceeding Qhy, nom by 10-20 l/min depending on compressors size.

3.3. PRESSURE AND COMPRESSION RATIO

The rated absolute intake pressure is 1 bar (1000 hPa).

NOTE!

The reference barometric pressure at sea level is 1,0135 bar, when at 1000 m above sea level it drops to 0,9 bar.

When the operational pressure of HK compressor is 8 bar, compression ratio is equal to:

$$\frac{\text{operational pressure + barometric pressure}}{\text{barometric pressure}} = \frac{8 + 1{,}0135}{1{,}0135} = 8{,}89$$

The compression ratio for unit of (x) bar is calculated in the same way.

4. INSTALLATION

4.1. BEFORE INSTALLATION

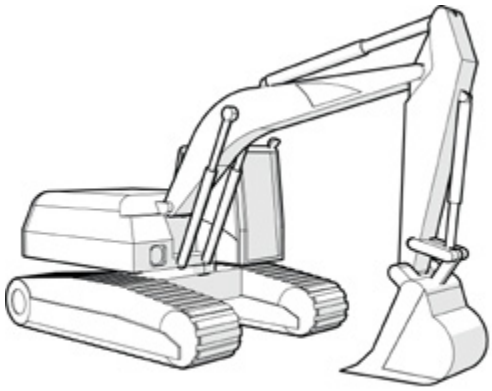
⚠ **ATTENTION!**
Read the instructions before installing the DYNASET product!

4.1.1. HYDRAULIC SYSTEM OF A BASE MACHINE

Base machines have different type of hydraulic systems. Most common hydraulic systems in mobile machinery are:

- Open centre hydraulic system with Load Sensing variable displacement pump
- Closed centre hydraulic system with Load Sensing variable displacement pump
- Hydraulic system with fixed displacement pump

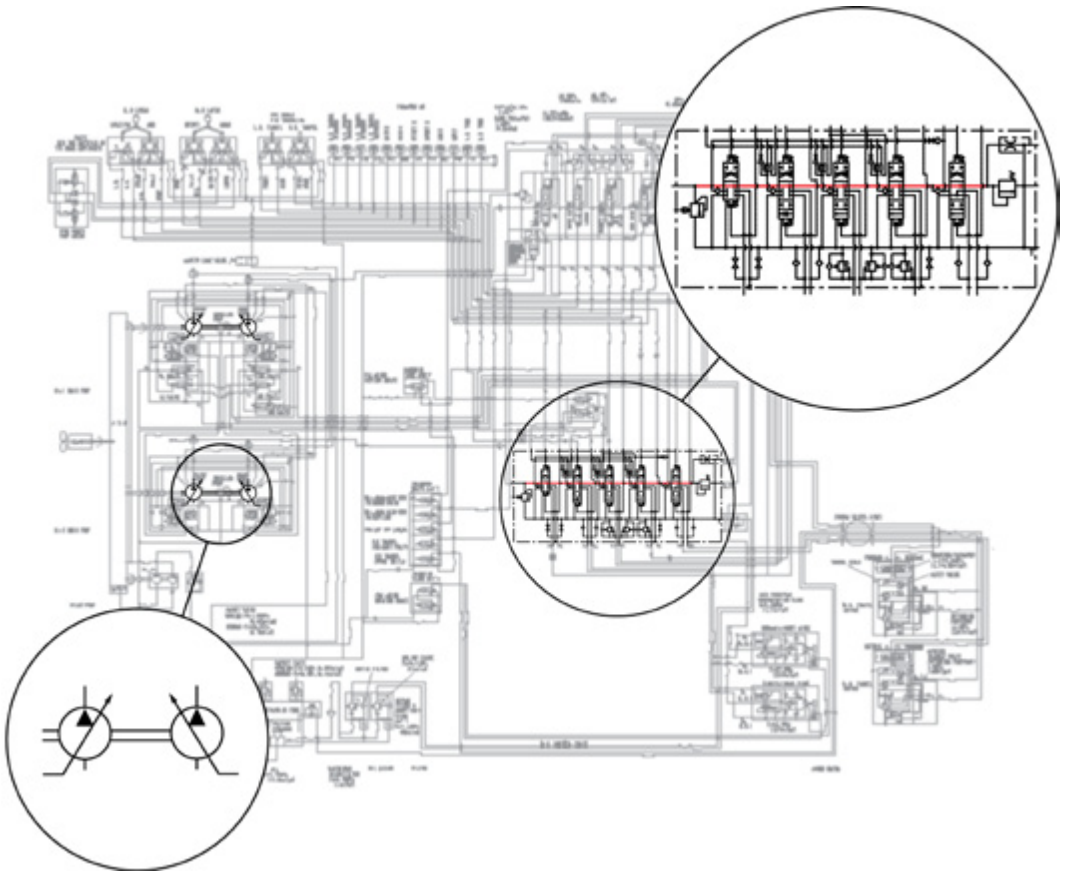
Before installing the DYNASET product, find out the type of the hydraulic system of your machine.



If you are unsure of the hydraulic system, please contact the base machine manufacturer.

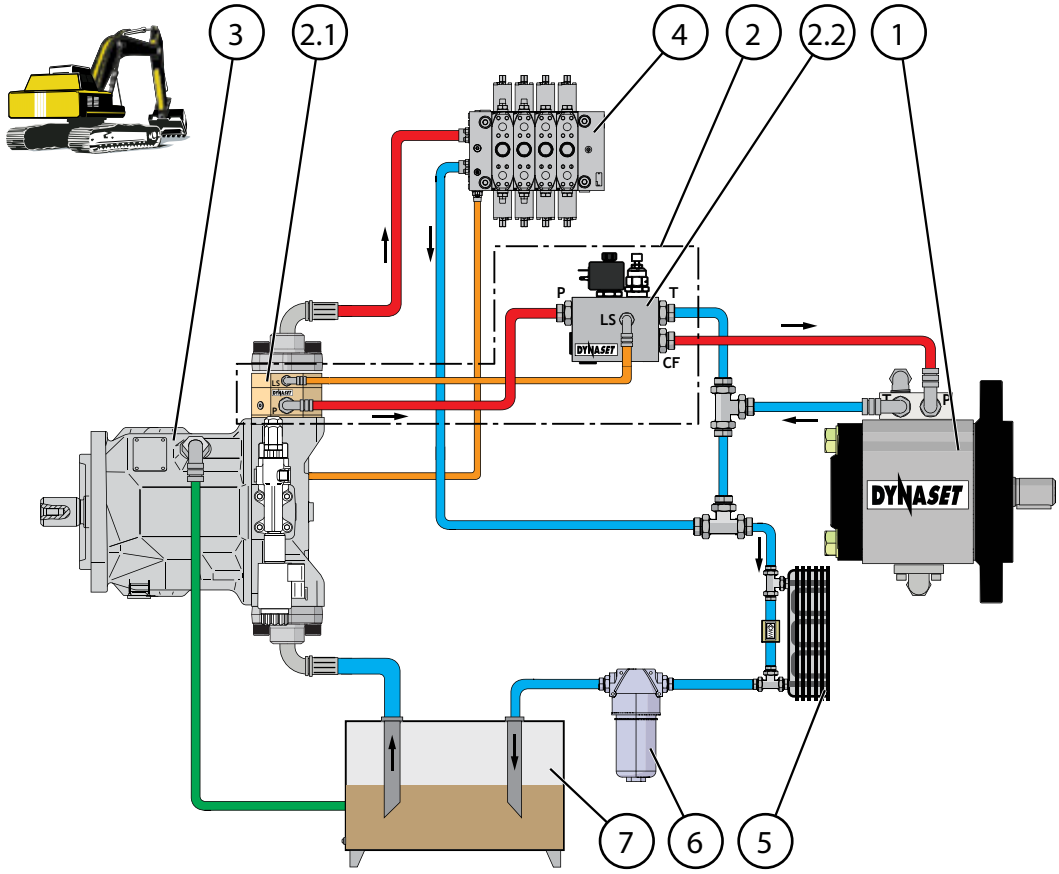
Next three paragraphs describe the hydraulic systems in more detail.

OPEN CENTRE HYDRAULIC SYSTEM WITH LOAD SENSING VARIABLE DISPLACEMENT PUMP



Picture 9: Open centre hydraulic system with Load Sensing variable displacement pump

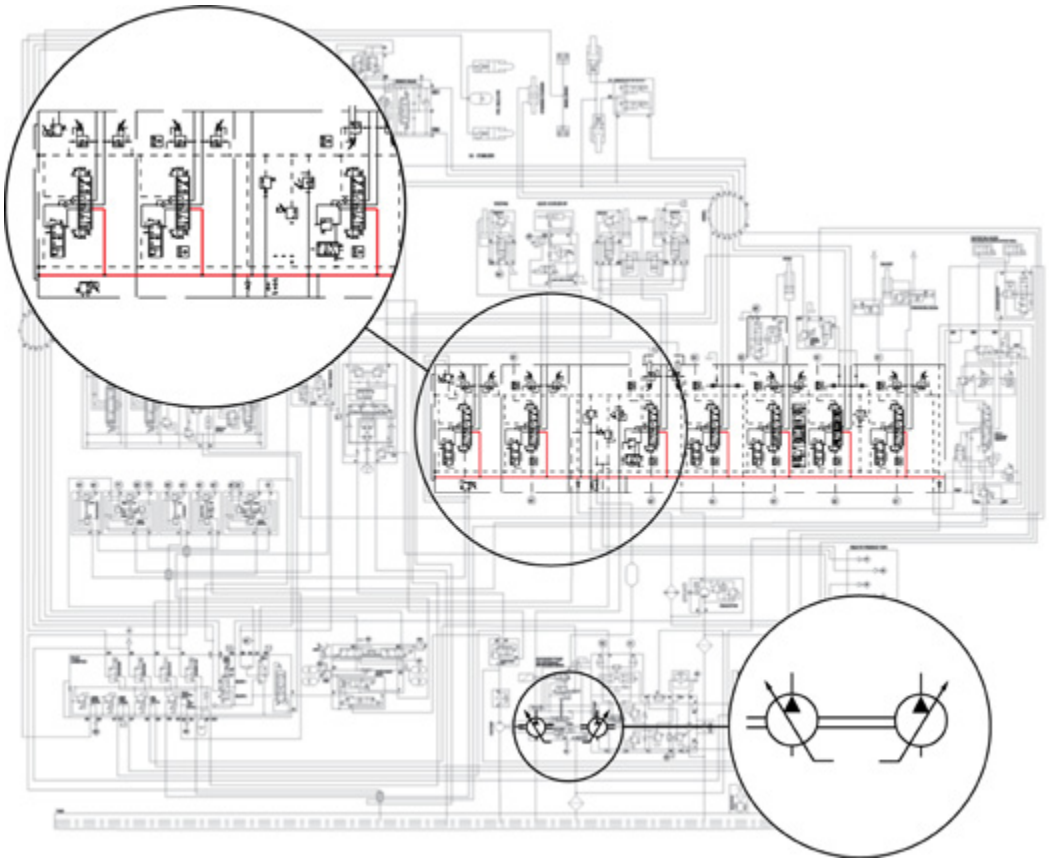
In open centre hydraulic system the flow is returned to tank through the control valves open centre; that is, when the control valve is centered. It provides an open return path to tank and the fluid is not pumped into a high pressure. In Load Sensing variable-displacement pump, the flow rate and output pressure adjusts automatically based on the load of the hydraulic system.



Picture 10: Connection figure for open centre hydraulic system with Load Sensing variable displacement pump

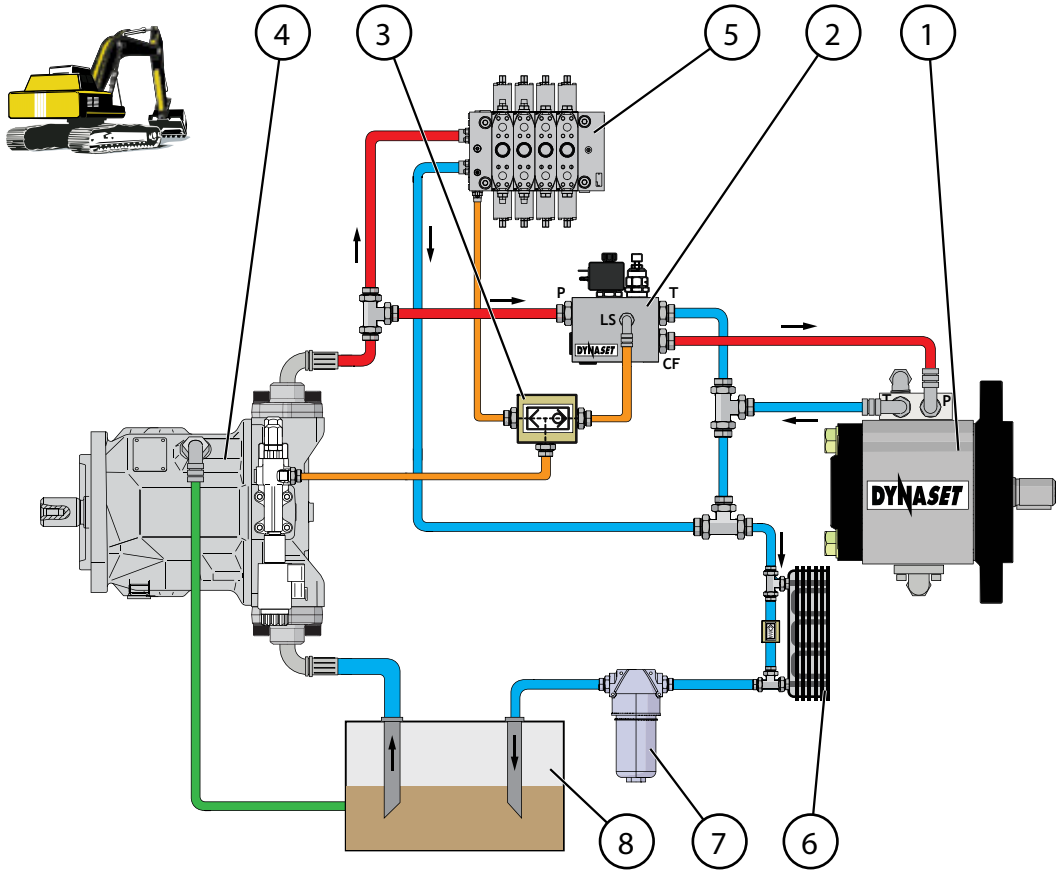
1. DYNASET hydraulic equipment
2. DYNASET Priority valve PV-SAE
   - 2.1. DYNASET PC-SAE pressure compensator
   - 2.2. DYNASET LSV Load sensing valve
3. Base machines variable displacement pump
4. Open centre directional control valves
5. Oil cooler
6. Oil filter
7. Oil tank

CLOSED CENTRE HYDRAULIC SYSTEM WITH LOAD SENSINGVARIABLE DISPLACEMENT PUMP



Picture 11: Closed centre hydraulic system with Load Sensing variable displacement pump

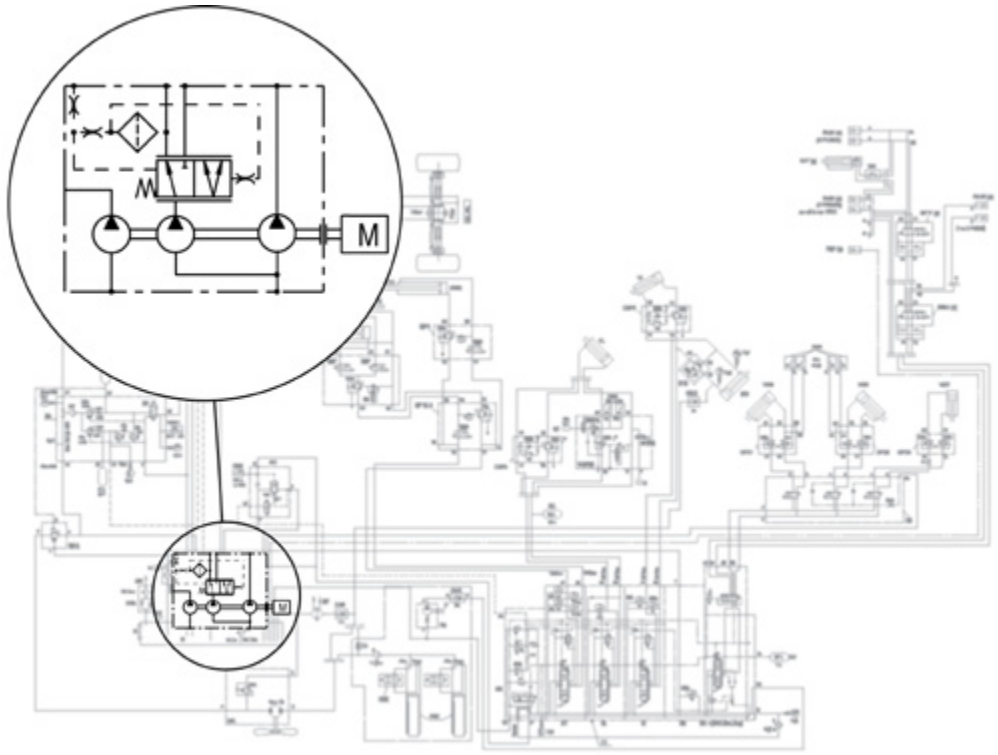
In a closed centre hydraulic system the oil flow is stopped from the pump when control valve is centered. The pump can rest when the oil is not required to operate a function. In Load Sensing variable-displacement pump, the flow rate and output pressure adjusts automatically based on the load of the hydraulic system.



Picture 12: Connection figure for closed centre hydraulic system with Load Sensing variable displacement pump

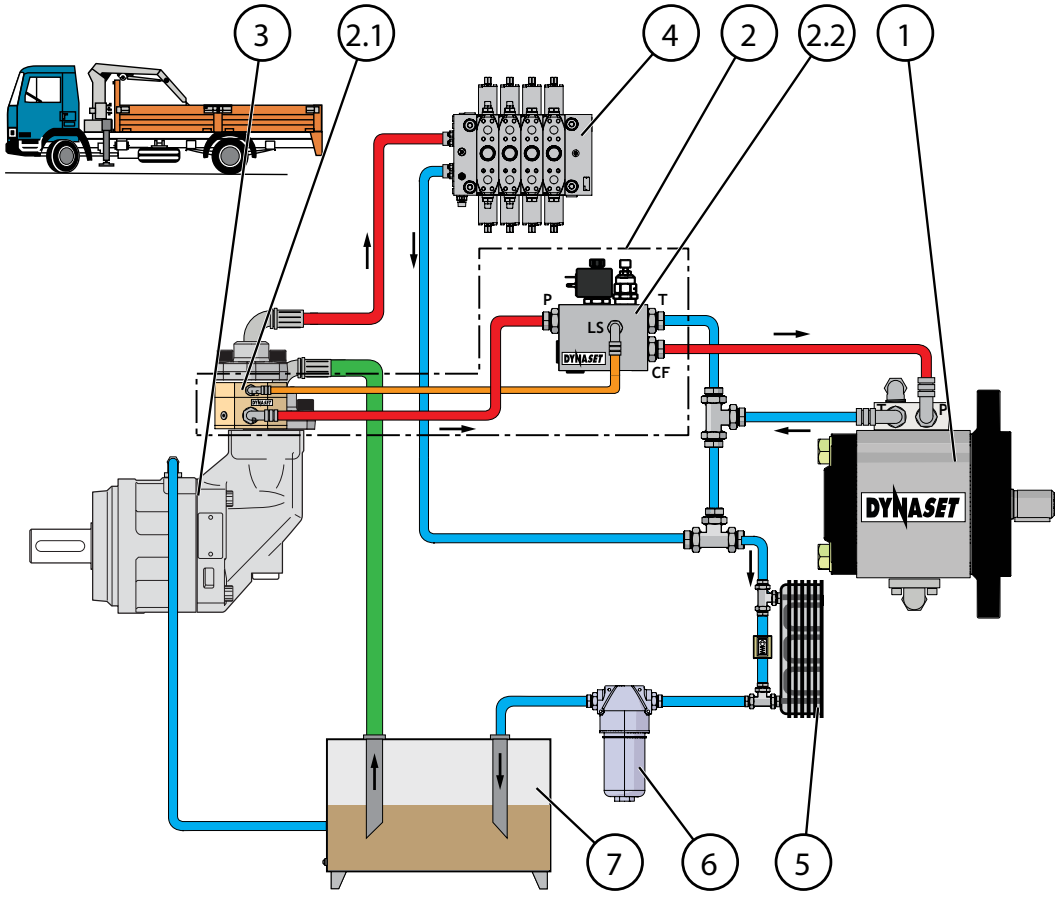
1. DYNASET hydraulic equipment
2. DYNASET LSV Load sensing valve
3. DYNASET Shuttle valve
4. Base machines variable displacement pump
5. Closed centre directional control valves
6. Oil cooler
7. Oil filter
8. Oil tank

HYDRAULIC SYSTEM WITH FIXED DISPLACEMENT PUMP



Picture 13: Hydraulic system with fixed displacement pump

In hydraulic system which has the fixed displacement pump, the oil flow from the pump is fixed. Every stroke of the hydraulic motor moves the same amount of oil. The output flow is function of the motor's rpm and pump's displacement.



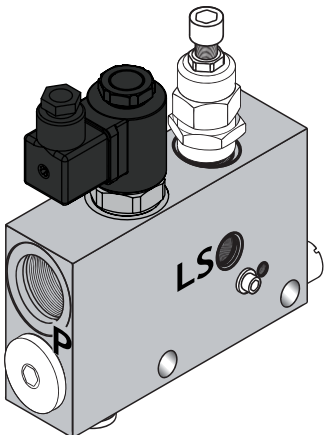
Picture 14: Connection figure for hydraulic system with fixed discplacement pump

1. DYNASET hydraulic equipment
2. DYNASET Priority valve PV-SAE
   - 2.1. DYNASET PC-SAE pressure compensator
   - 2.2. DYNASET LSV Load sensing valve
3. Base machines fixed displacement pump
4. Open centre directional control valves
5. Oil cooler
6. Oil filter
7. Oil tank

4.1.2. DYNASET VALVES

DYNASET valves are designed to enable easy installation of your DYNASET hydraulic product.

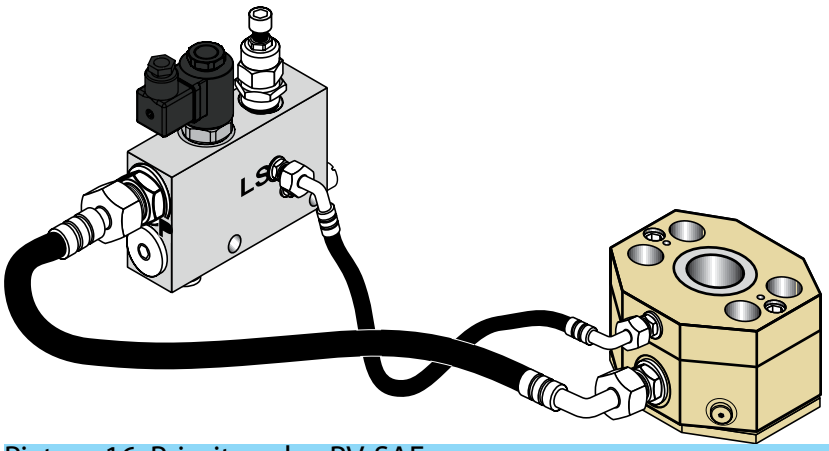
DYNASET LOAD SENSING VALVE



Picture 15: Load Sensing valve LSV

DYNASET LSV load sensing valves are made for installations in a closed centre hydraulic systems.

DYNASET PRIORITY VALVE



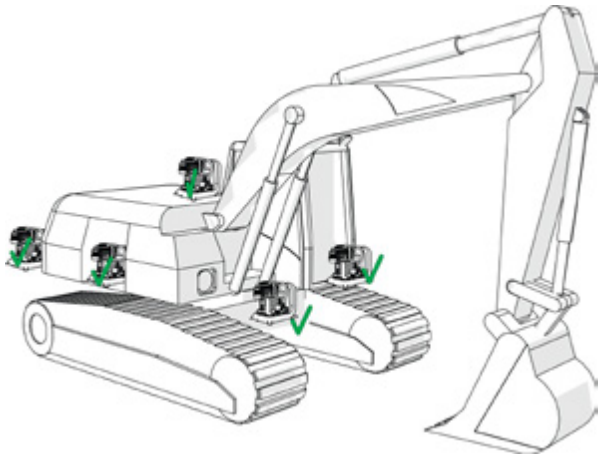
Picture 16: Priority valve PV-SAE

DYNASET PV- SAE priority valve enables the installations of the DYNASET products into any hydraulic system.

4.2. INSTALLING DYNASET HYDRAULIC PRODUCT

4.2.1. PLACING DYNASET HYDRAULIC PRODUCT

Place DYNASET hydraulic product where there is an easy access to the unit. Ensure proper ventilation.



Picture 17: Placing the compressor

NOTE!

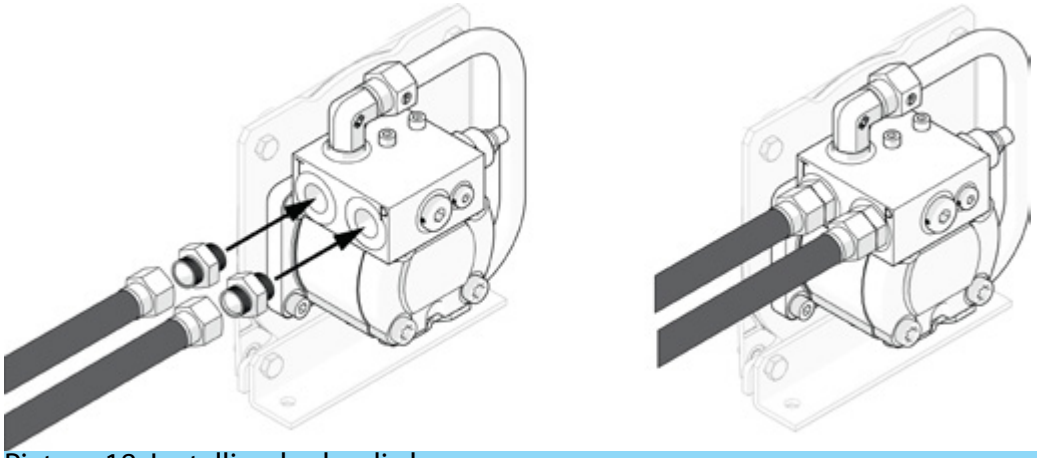
When positioning the HK compressor note the maximum inclinations and ensure that required oil cooling capacity of hydraulic system is sufficient. READ CHAPTER "10. TECHNICAL SPECIFICATIONS" for specific cooling capcities.

4.2.2. INSTALLING DYNASET VALVES

Installation instructions can be found in DYNASET LSV or DYNASET PV SAE installation manual.

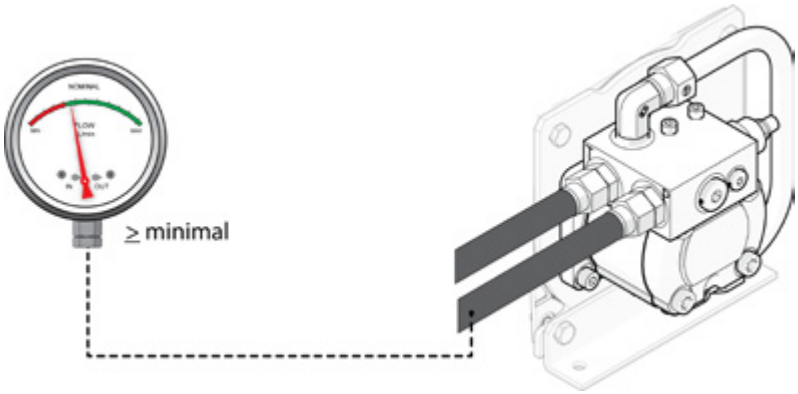
4.2.3. CONNECTING HYDRAULIC HOSES

Connect pressure- (P) and return (T) lines of a hydraulic system to the corresponding hydraulic ports of the DYNASET unit.



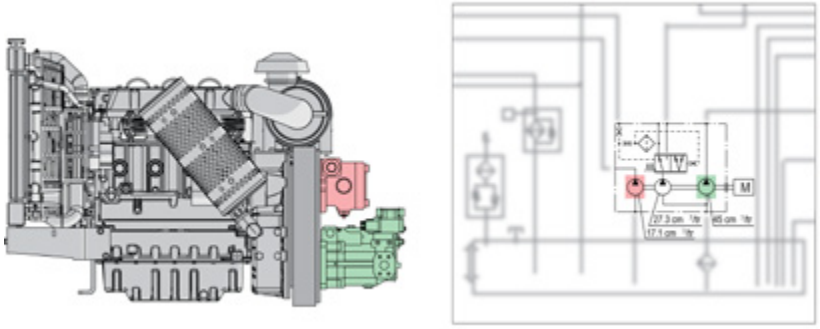
Picture 18: Installing hydraulic hoses

Ensure that the hydraulic flow of the base machine is sufficient to run the unit. At least the minimal flow must be available. READ CHAPTER ”10. TECHNICAL SPECIFICATIONS”” for hydraulic flow requirements of your HK compressor.



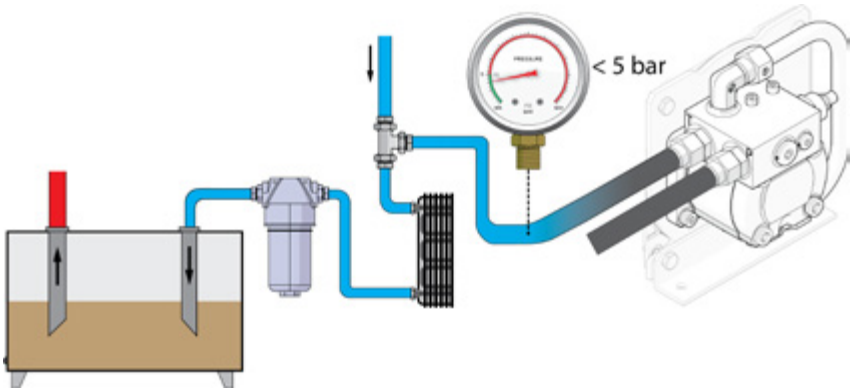
Picture 19: P-line operational hydraulic flow

In case of hydraulic flow being too high. The flow must be reduced either by dropping down the rotation speed of base machine’s hydraulic pump or using flow limiter valve. DYNASET PV-SAE priority valve is recommended.



Picture 20: Base machine’s hydraulic pumps

Return line must be connected to a hydraulic oil tank in the shortest possible line in order to keep the return hydraulic pressure under 5 bar in the tank line. Generally DYNASETs T-line is to be connected directly to the return line of a hydraulic system.



Picture 21: Return line connection

ATTENTION!

Ensure that the filtering degree and cooling capacity of the hydraulic system are sufficient. READ CHAPTER "10. TECHNICAL SPECIFICATIONS" for more information.

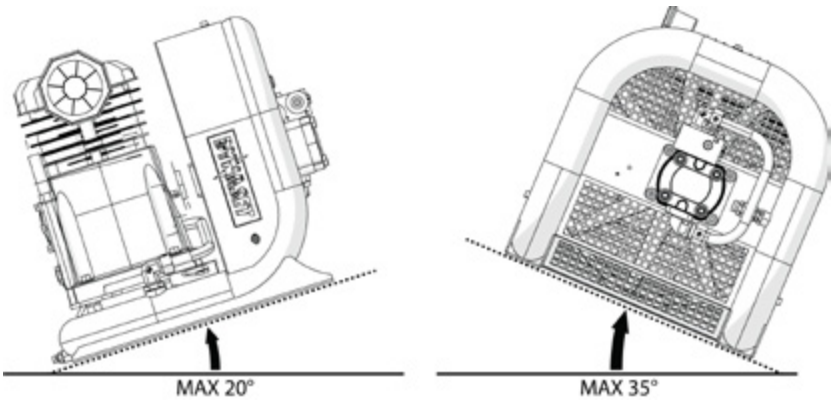
4.2.4. HYDRAULIC FLUIDS

To use proper hydraulic fluid READ CHAPTER "6.2. Hydraulic fluids" for more information.

4.3. INSTALLING HK COMPRESSOR

4.3.1. MAXIMUM INCLINATIONS

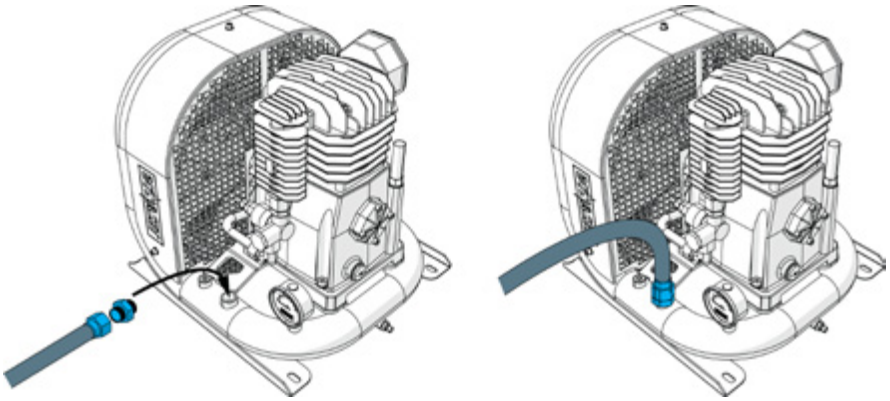
Maximum inclination angle of DYNASET Hydraulic compressor is 20° in front-to-rear direction and 35° in side-to-side direction.



Picture 22: Maximum inclination angle of HK compressor

4.3.2. CONNECTION TO THE AIR SUPPLY SYSTEM

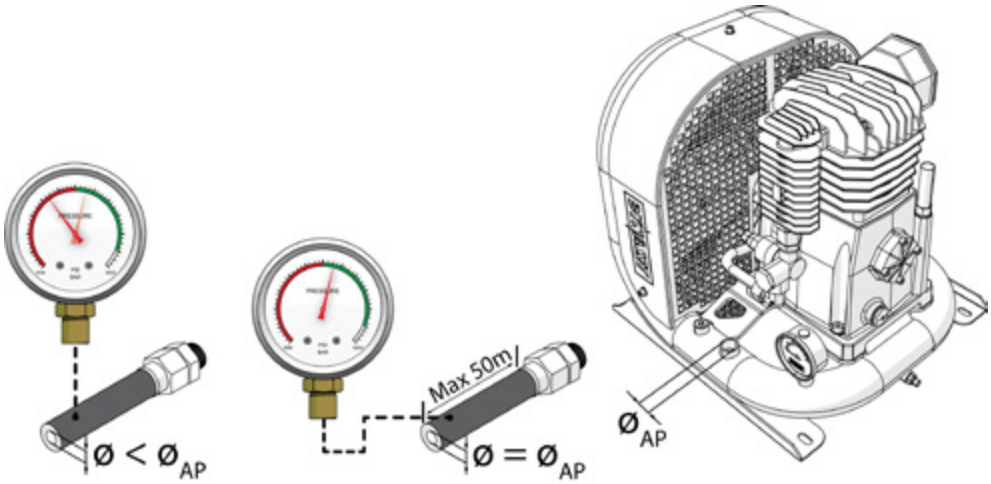
Compressor can be connected to the air supply system (or consumer) with a proper fitting and cut-off valve (option).



Picture 23: Air supply system connection

The inner diameter of pipe / hose used for compressor's connection should be at least equal to AP-port to keep the pressure drop minimal.

The length of a pipeline, with the pipe of same diameter as AP-port, can be 50 m as maximum. For longer lines use larger diameter.

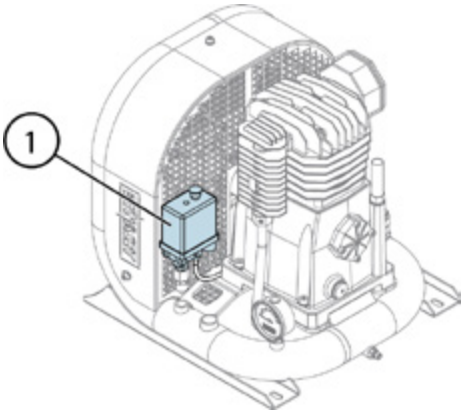


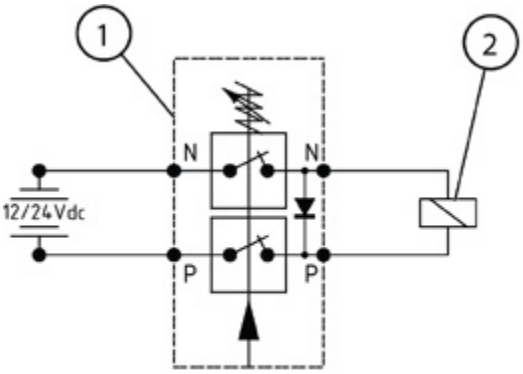
Picture 24: Air supply line hose diameter and length

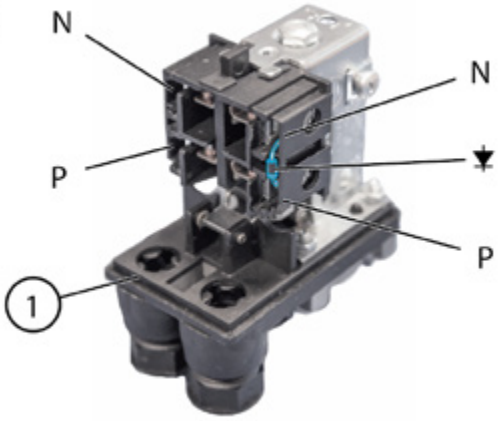
4.3.3. CONNECTING ELECTRIC PRESSURE SWITCH (HK-E MODELS)

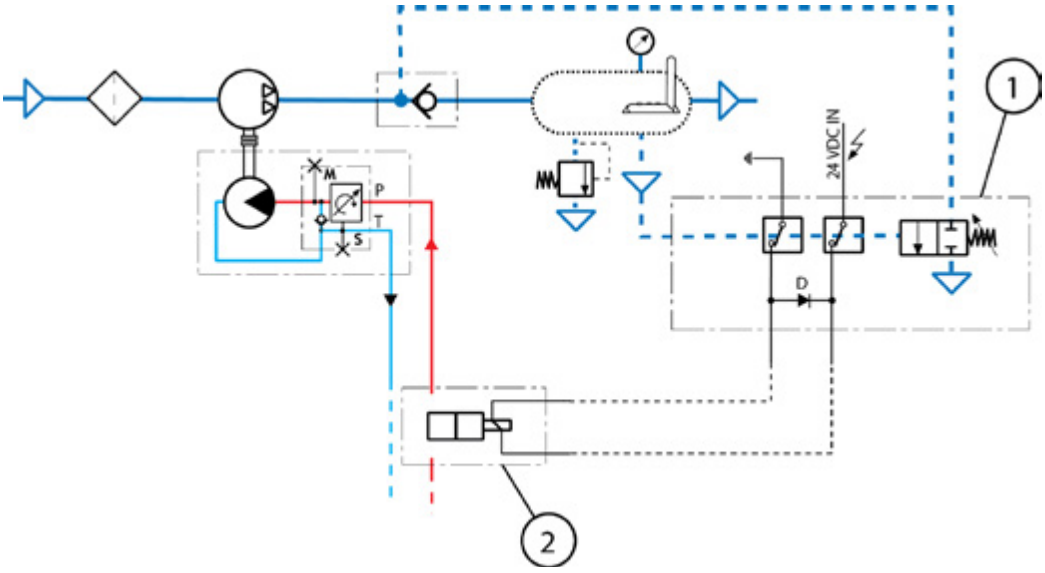
1.Electric pressure switch

2.Solenoid valve









5. OPERATION

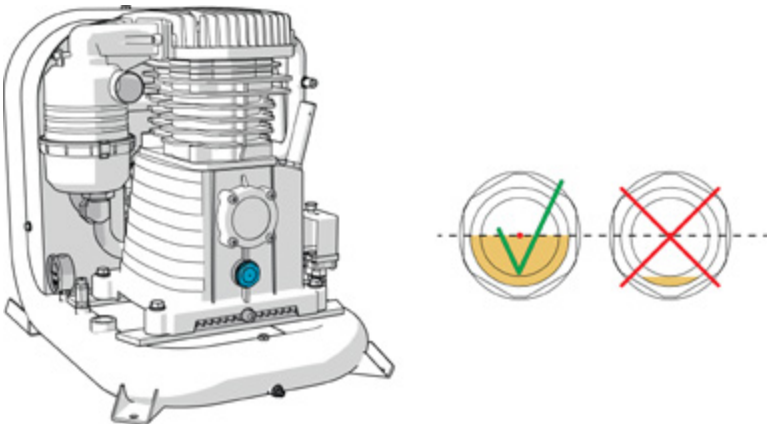
5.1. BEFORE STARTING THE COMPRESSOR

ATTENTION!

Before starting the compressor first time, make sure that the unit is filled with oil.

The compressor is delivered with lubrication oil. Only in special cases compressor is delivered without lubrication oil.

The oil level must be at the mid level of a sight glass when standing still. Make sure that the compressor is in a horizontal position when checking the oil level.



Picture 25: Oil level of the HK compressor

NOTE!

Check the lubrication oil fill periodically

ATTENTION!

Never remove the oil filler cap when the compressor is running!

WARNING

RISK OF BURNS!

Parts of the unit, oil, and oil filler cap can be hotter than 80 °C!

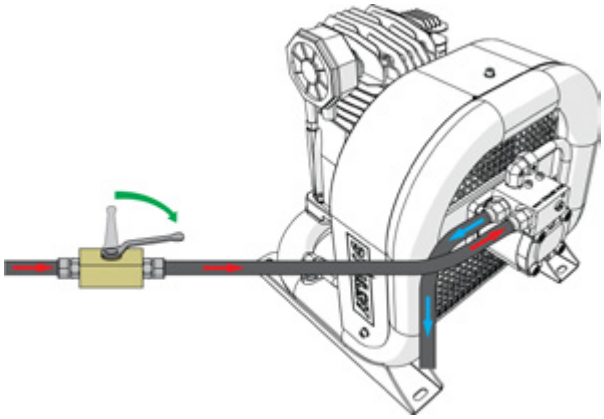
Wear personal safety equipment!

5.2. STARTING THE COMPRESSOR

⚠ ATTENTION!

When starting the compressor, ensure that the unit is decompressed.

When the engine of base machine is running and hydraulic flow is available, the HK compressor can be started by opening the hydraulic control valve.



Picture 26: Starting the compressor

Compressor starts to produce usable compressed air when hydraulic flow achieves the functional minimum rate, which is approx. a half of the nominal value.

The nominal discharge is achieved when the compressor is rotated by hydraulic flow adequate to the nominal rotation speed.

⚠ ATTENTION !

Compressor's maximum hydraulic pressure must not be exceeded in any circumstances.

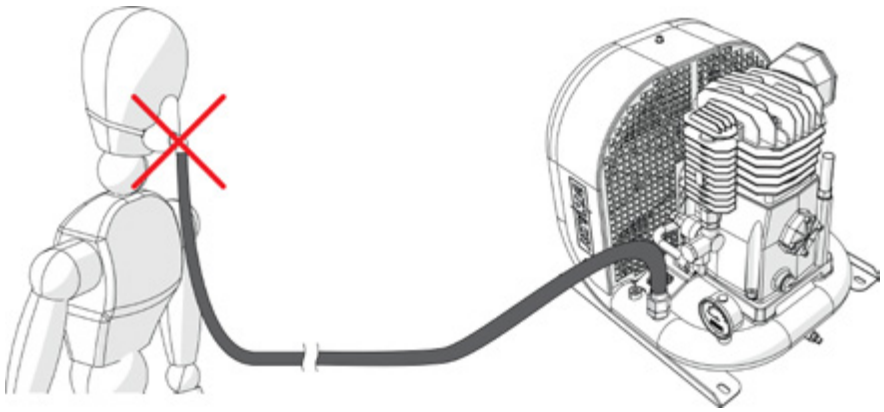
Hydraulic flow and pressure values marked on the compressor's type plate are maximum and should not be exceeded in any circumstances. Exceeding the maximum hydraulic flow causes compressor to overspeed and may damage it. READ CHAPTER "10. TECHNICAL SPECIFICATIONS" for correct pressure and flow rates.

⚠ ATTENTION !

The compressor must not be operated in smoky or in conditions where toxic or flammable vapors could be aspirated.

The compressor is not allowed to use to compress toxic, corrosive, explosive or noxious gases.

Compressed air delivered by a HK-compressor must not be used as the breathing air, even if purified and filtered.



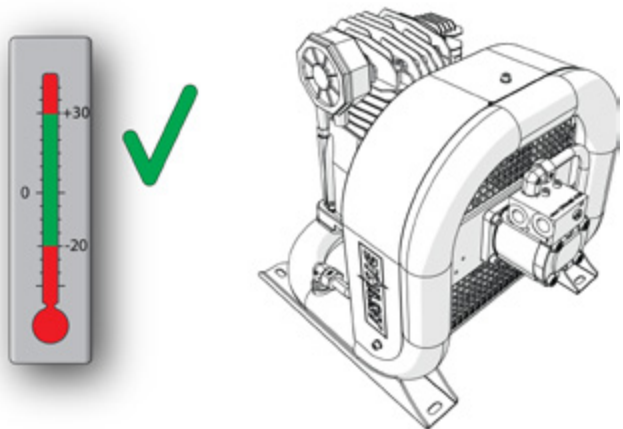
HK-compressor is designed to compress athmospheric air only and must not be used with any other gas.

If the compressor is connected to the distribution network or consumer with a flexible hose, ensure that the hose is of proper diameter and pressure class.

Damaged or worn hose should be replaced immediately.

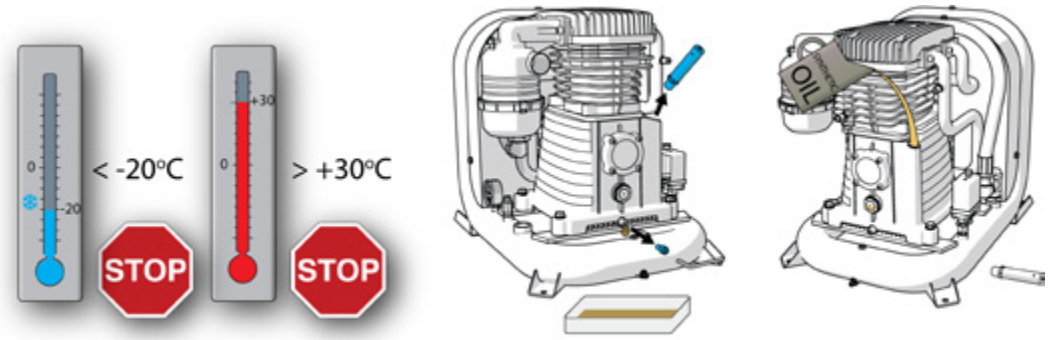
5.3. AIR AND OIL TEMPERATURES

Normal operating within ambient temperature range -20 °C... + 30 °C.



Picture 27: Normal operating ambient temperature

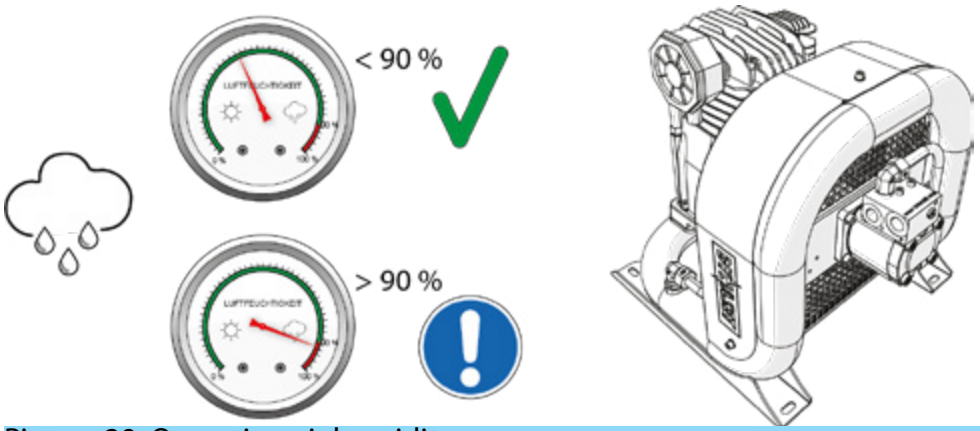
If ambient temperature drops below -20 ºC or raises over + 30 ºC, make sure that compressor is filled with synthetic oil. READ CHAPTER "6.2. Hydraulic fluids" for corresponding oils.



Picture 28: Operating in extreme ambient temperatures

5.4. AIR HUMIDITY

When operating compressor in high humidity ambient conditions, the water condensation must be taken account. Condensate water can cause malfunctions on operation.



Picture 29: Operating air humidity

⚠ ATTENTION!

When using HK compressor on high ambient humidities, water can be condensed in the compressor chamber. Condensed water may increase the risk of saturation in air-oil separator element.

5.5. COLD STARTS

When starting the compressor in cold conditions it may start slowly due to oil viscosity.

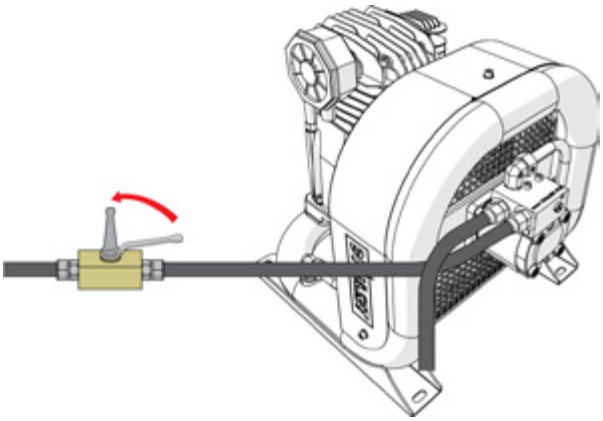
5.6. OFF-LOAD MODE

In standard compressor when the air supply line is closed and preset maximum air pressure in the frame reservoir is reached, unloader valve lets off the air and keeps the air pressure below maximum level.

When the compressed air is requested (i.e. delivery line is open), pressure in frame reservoir decreases, unloader valve closes and re-directs the air into delivery line.

5.7. STOPPING THE COMPRESSOR

To stop the compressor, shut off the hydraulic flow.



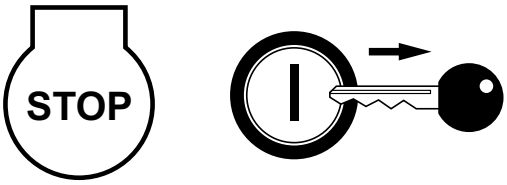
Picture 30: Stopping the compressor

6. MAINTENANCE

DYNASET HK hydraulic compressors are low-maintenance units. Only normally wearing parts and materials should be replaced either when necessary or in accordance with a service program.

ATTENTION!

Before beginning any maintenance or repair, ensure that the system is stopped and depressurized. Make sure that the system can not start accidentally.



6.1. MAINTENANCE INTERVALS

ATTENTION!

All maintenance must be complied as they are scheduled in this manual.

The following table provides maintenance schedule for DYNASET HK hydraulic compressor.

CHECK POINTS	Daily	Weekly	Monthly or every 100 h	Every 6 months or 1000 h	Every 12 months or 2500 h
Check oil level	x				
Clean compressor block and fan guards	x				
Check system for leaks	x				
Drain the condensate water from the frame reservoir *		x			
Change air intake filter			o	x	
Change oil					x

* At the ambient temperature below 0 °C the frame reservoir must be drained after each work shift.

o = Check / change if necessary
x = Change

NOTE!

All installation and service of both hydraulics and electric equipment must be performing experienced personnel only.

6.2. HYDRAULIC FLUIDS

Wide range of standard hydraulic fluids can be used with DYNASET hydraulic equipment. Depending on the operating temperature, following mineral hydraulic oils are recommended:

Mineral hydraulic oil	Operation temperature up to
ISO VG 32S	60 °C
ISO VG 46S	70 °C
ISO VG 68S	80 °C

NOTE!

Recommended oil viscosity is between 10 to 35 cSt when operating at normal operating temperature.

Synthetic and bio-oils can also be used if their viscosity characteristics and lubricating efficiency are similar to the mineral oils.

Automatic transmission fluids and even engine oils can be used, provided that they are allowed to be used in hydraulic system of your base machine.

For the hydraulic fluid change interval follow the base machine's maintenance instructions.

To use special hydraulic fluids with DYNASET equipment, please contact the nearest DYNASET representative for more information.

6.3. LUBRICATION OILS

Compressor is delivered with lubrication oil. Factory-fill oil must be changed after very first 150 operation hours !

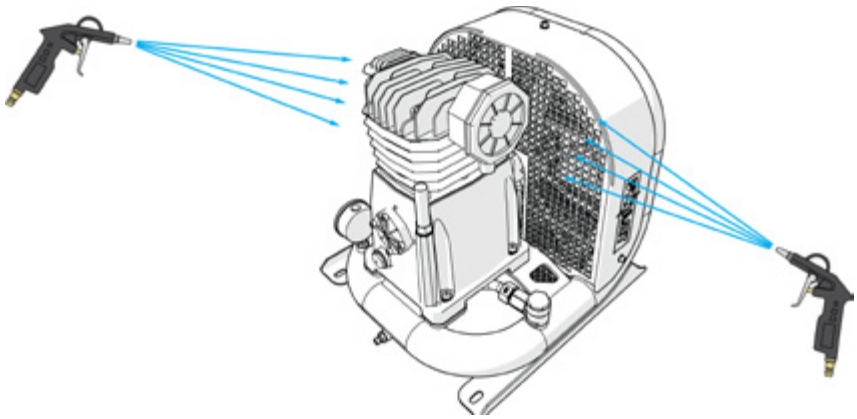
Quality	Ambient temperature	Change interval	Oil fill	
			HK 450	HK 1000
SAE 10W-30	- 20 °C ... + 30 °C	500 h / 12 months	0,9 l	3,5 l

6.4. CLEANING THE COMPRESSOR

⚠ ATTENTION!

Keep the HK compressor clean to enable its safe and longlife operation. Check and clean your HK compressor after every work shift.

The compressor block and fan guards should be checked on a daily basis and cleaned when necessary. To clean the unit use blow gun. Clogged and dirty cooling ribs result compressor's overheating.



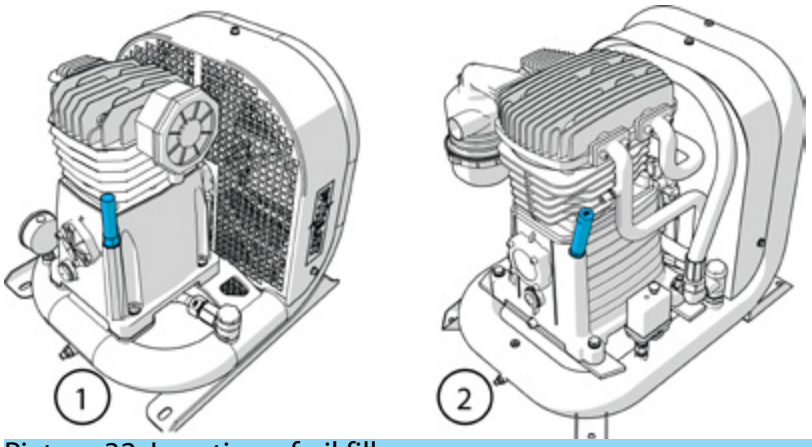
Picture 31: Cleaning the compressor

⚠ ATTENTION!

Use safety glasses when cleaning equipement with blow gun.

6.5. OIL LEVEL CHECK

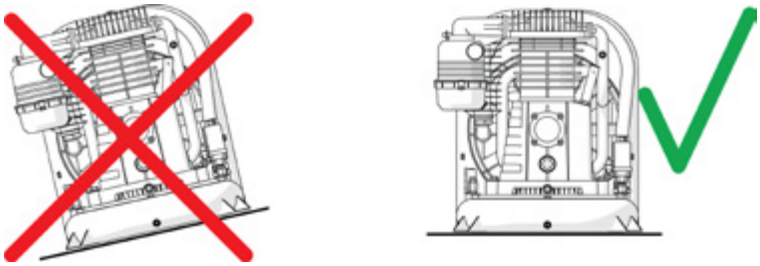
Location of oil filler cap.



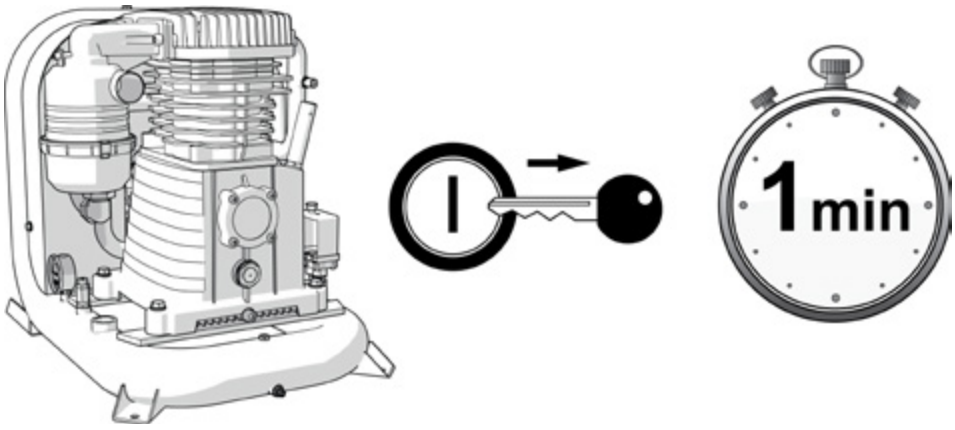
Picture 32: Location of oil filler cap

1. HK 450
2. HK 1000

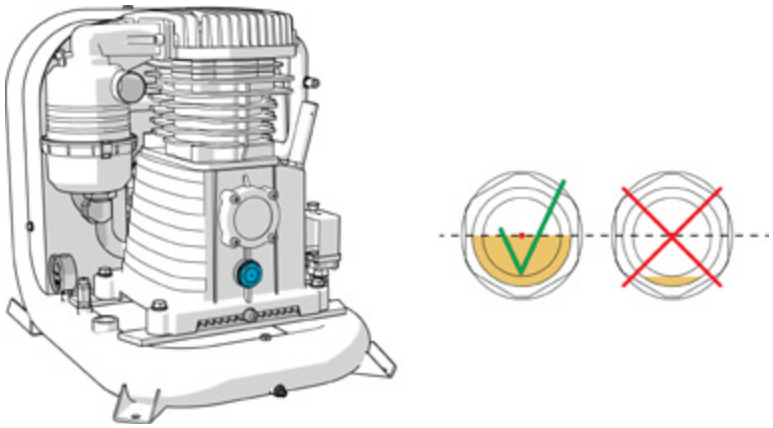
1. Make sure that the compressor is in a horizontal position.



2. Stop the compressor and wait for one minute at standstill.

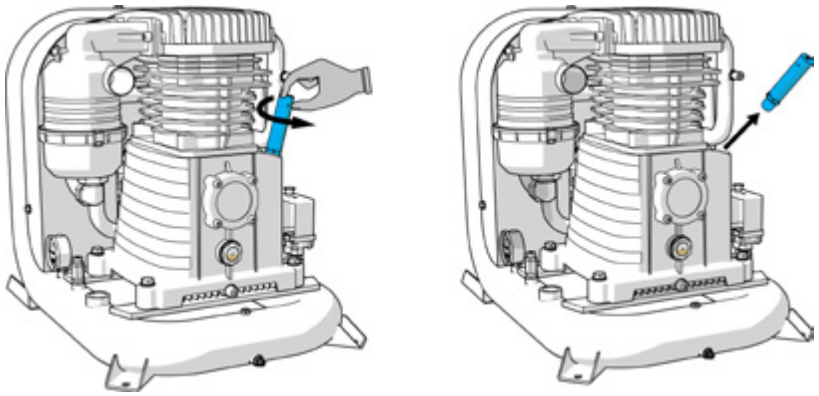


3. Check the oil level from the oil level sight glass. The oil level must be at the mid level of a sight glass when standing still.

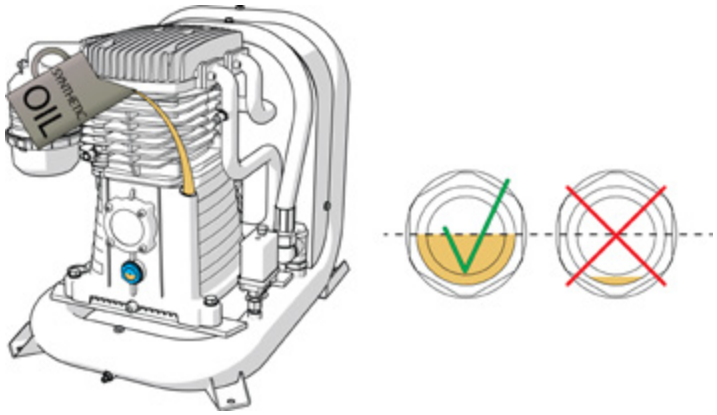


Picture 33: Oil level of the hydraulic compressor

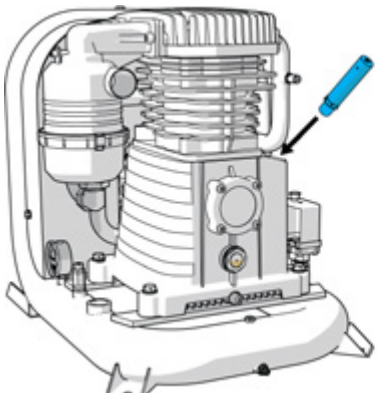
4.If the compressor requires oil fill up, open oil filler cap.

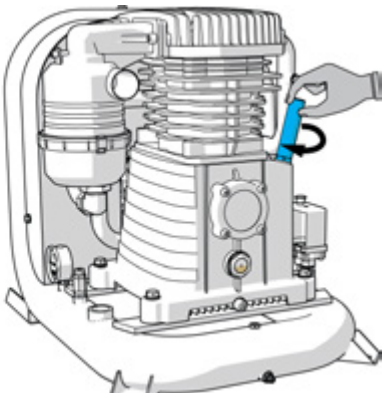


5.Fill up with the same oil as in the HK compressor, up to the maximum level.



6. Close the oil filler cap.





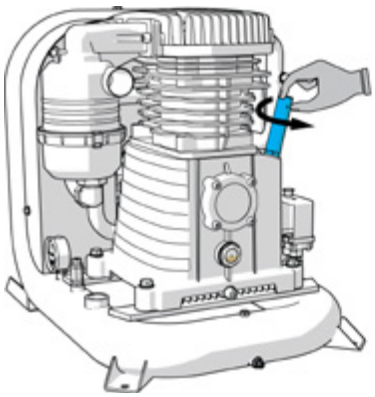
6.6. OIL CHANGE

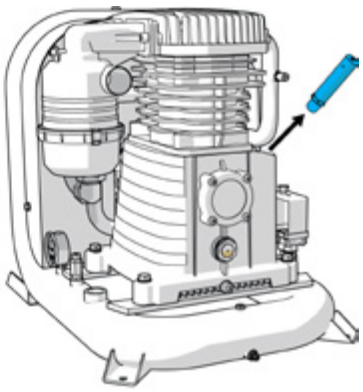
The HK compressor must be at operating temperature when changing the oil. It helps oil draining from the drain hole. Compressor must be stopped during oil change.

Oil fills of HK compressor.

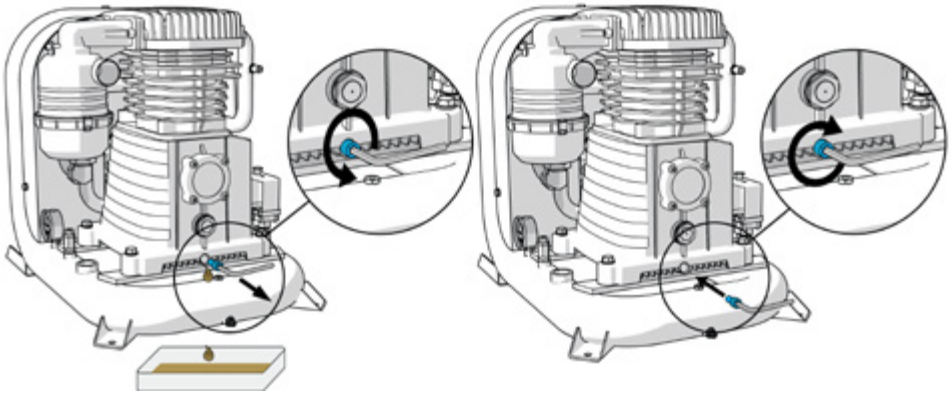
Model	Oil fill (litre)
HK 450	0,9
HK 1000	3,5

1. Open oil filler cap.

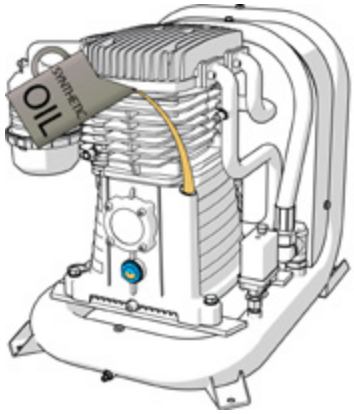


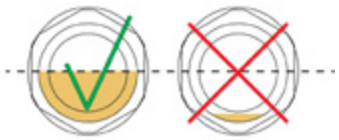


2.Place suitable container under oil drain plug, open the plug and drain oil into container. After all oil is drained, close the oil drain plug.

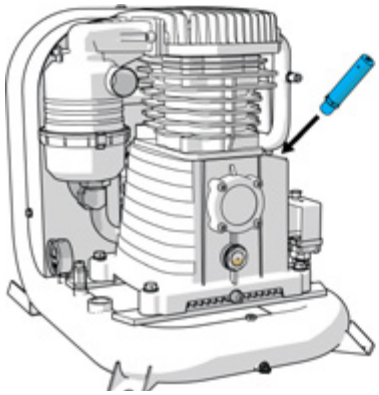


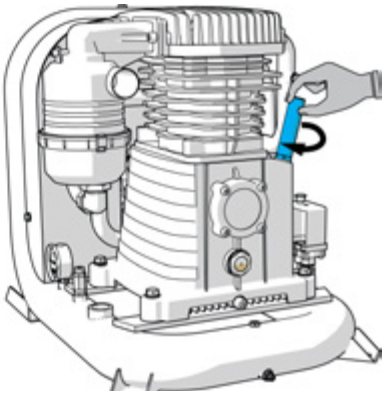
3. Add oil up to maximum level.





4. Close the oil filler cap

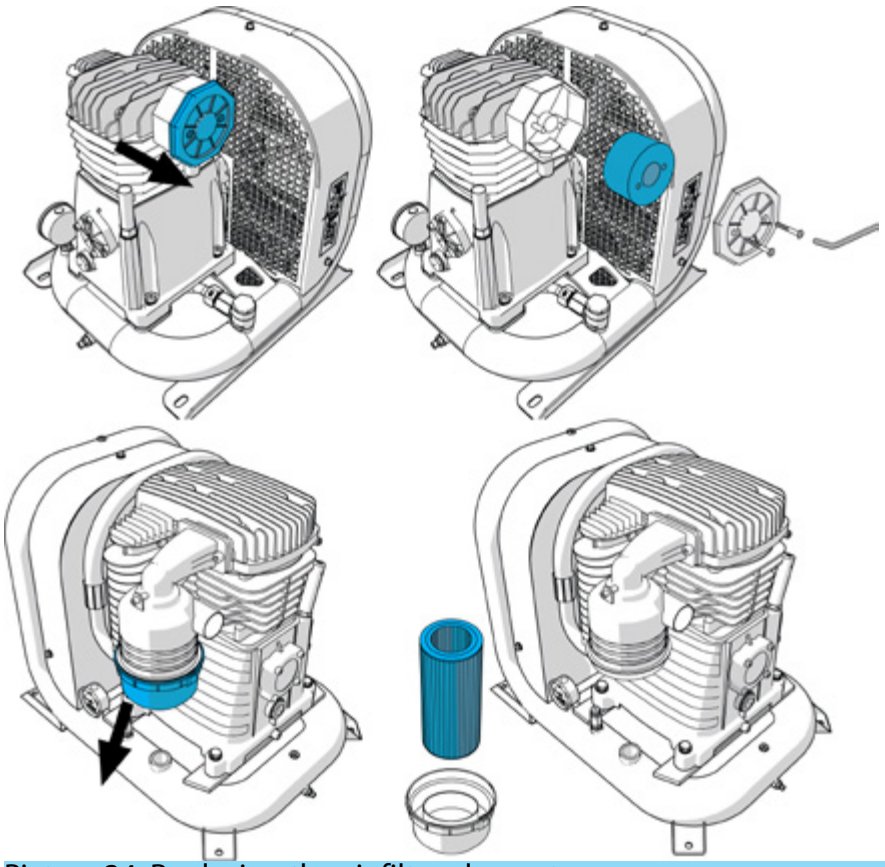




6.7. REPLACING THE AIR FILTER ELEMENT

⚠ ATTENTION!
Prevent dirt and dust particles to get into the air inlet of the compressor.

1. Remove air filter element.



Picture 34: Replacing the air filter element

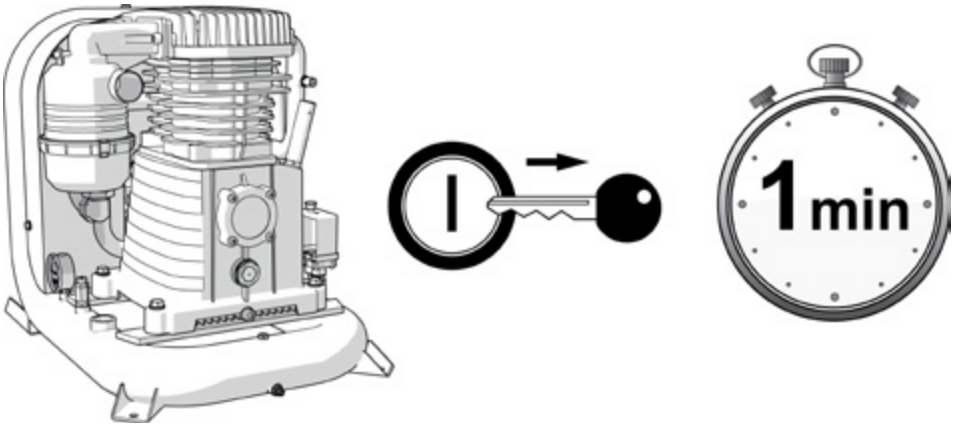
2. Clean or replace the filter element if necessary.

3. Install new air filter element into filter housing.

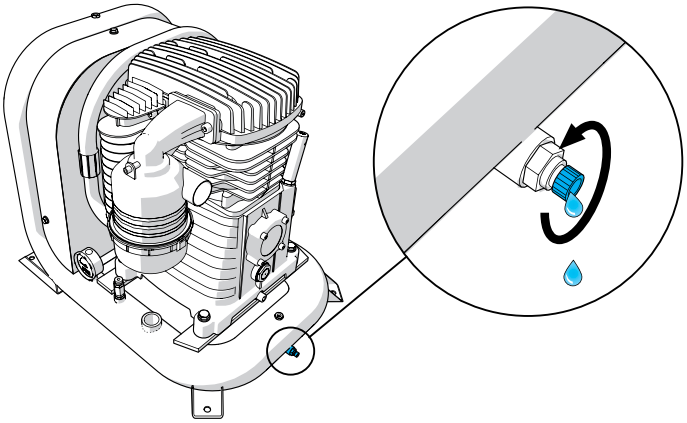
⚠ ATTENTION!
Dispose of the old air filter element according to the applicable regulations.

6.8. REMOVING CONDENSATE WATER

1. Stop the compressor.



2. Open water drain valve slowly in order to maintain controlled discharge of the reservoir. After the pressure is released, open the valve completely and drain off the condensate water.



6.9. TROUBLESHOOTING

Performing the maintenance tasks requires a qualified hydraulic mechanic. Please, contact DYNASET authorized workshop or dealer for more maintenance information.

FAILURE	REASON	CORRECTIVE ACTION
Compressor does not start while carrier's engine is running and hydraulic system is on.	Malfunction on compressor's hyrdaulic control valve.	Check and repair.
	Compressor's excessive internal pressure.	Release the frame tank's pressure, for intance, by means of 3-way valve installed to the delivery line. In case of intermittent / cyclic duty, either electric pressure switch (-E) or pneumatic cut-off (-PNE) is recommended.
	Failure in hydraulic system.	Check that the hyraulic flow and pressure are sufficient. Adjust when necessary.
		Check the hydraulic motor for possible leakage. Replace damaged parts if necessary.
	Air pressure in delivery line disrupts compressor's start.	Depressurize the system line prior to starting the compressor. It is recommended to install solenoid control valve for off-load valve, especially if the pneumatic system is provided with an air reservoir.

FAILURE	REASON	CORRECTIVE ACTION
Compressor starts hardly.	Failure in hydraulic system.	Check that the hyraulic flow and pressure are sufficient. Adjust when necessary.
		Check the hydraulic motor for possible leakage. Replace damaged parts if necessary.
	Air pressure in delivery line disrupts compressor's start.	Depressurize the system line prior to starting the compressor. It is recommended to install solenoid control valve for off-load valve, especially if the pneumatic system is provided with an air reservoir.
	Cold ambient temperature.	Change lubrication oil. READ CHAPTER "6.3. Lubrication oils"

FAILURE	REASON	CORRECTIVE ACTION
Air pressure does not achieve requested rate.	Safety valve opens due to either failure or incorrect setting.	Check and adjust safety valve.
	Failure in hydraulic system.	Check that the hydraulic flow and pressure are sufficient. Adjust when necessary.
		Check the hydraulic motor for possible leakage. Replace damaged parts if necessary.
	Air intake filter is clogged.	Check and replace.

FAILURE	REASON	CORRECTIVE ACTION
Compressor does not produce compressed air.	Delivery line is closed or possible malfunction in pneumatic executor.	Check and repair.
	Unloader valve's failure or incorrect setting.	Check and repair.
	Cogged air intake filter.	Check and clean or replace the air filer.

FAILURE	REASON	CORRECTIVE ACTION
Excessive oil consumption.	Worn piston rings.	Check and replace piston rings.
	Compressor block filled with improper oil.	Fill the compressor block with approved oil.

FAILURE	REASON	CORRECTIVE ACTION
Compressor is overheating	Dirty compressor block, clogged cooling fan's guard.	Check and clean.
	High ambient temperature.	Arrange sufficient ventilation to the operating environment.
	Low oil level.	Add lubrication oil to the required level.
	Compressor block filled with improper oil.	Fill the compressor block with approved oil.

7. MANUFACTURER'S LIMITED WARRANTY

1. Warranty coverage
All hydraulic accessories manufactured by DYNASET OY are subject to the terms and conditions of this limited warranty. Products are warranted to the original purchaser to be free from defects in materials or workmanship. Exclusions from warranty are explained in item Exclusions from warranty.

2. Beginning of warranty period
Warranty period begins from the delivery date of the product. Delivery is considered to be done on the date when installation has been accomplished or purchaser has taken the product in use. Product is considered as taken in use at the date when DYNASET OY has delivered the product to purchaser, unless separately agreed otherwise by written agreement.

3. Warranty period
Warranty period is twenty four (24) months based on maximum of 2000 hours usage during this time period. In cases where the system is provided complete with certain special components (e.g. drive unit), those components are considered as a subject to their manufacturer's warranty.

4. Warranty procedures
Immediately upon identifying a problem which purchaser believes to be a failure subject to the product's limited warranty, purchaser must contact primary to the seller of the product. Contact must be made as soon as possible, latest thirty (30) days after the problem was identified. Seller and/or manufacturer technical staff determines the nature of the problem primarily by phone or e-mail. Purchaser commits to give necessary information and to perform routine diagnostic procedures in order to determine the nature of the problem and necessary procedures.

5. Warranty repairs
If the product is found to be defective during the warranty period, DYNASET OY will, at its option, either repair the product, author it to be repaired at its authorized workshop or exchange the defective product. If the product must be repaired elsewhere than premises of DYNASET OY or authorized workshop, all costs excluded from this warranty (traveling and waiting hours, daily allowance, traveling expenses and uninstallation/reinstallation costs) will be charged from the purchaser. If the problem is not covered by this limited warranty, DYNASET OY has the right to charge purchaser of troubleshooting and repairing.

6. Delivery terms of warranty repair
If the product is found possible to be defective under this limited warranty and it needs to be repaired, DYNASET OY gives Warranty Return Number (WRN). Items being returned must be shipped, at the purchaser's cost, adequately packed for shipment, to the DYNASET OY or to other location authored by DYNASET OY.
Shipment documents must contain:

- Purchaser's name and contact information
- Receipt of original purchase
- WRN code
- Problem description

7. Warranty of repaired product
Warranty period of the product repaired under this limited warranty continues to the end of original warranty period.

8. Exclusions from warranty
This warranty shall not apply to:

- Failures due to normal wear and tear, improper installation, misuse, abuse, negligence, purchaser selection of improper product to intended use, accident, improper filtration of hydraulic oil or intake water or lack of maintenance.
- Cost of maintenance, adjustments, installation or startup.
- Coating, hydraulic oil, quick couplings and interconnection hoses (internal or external to system assemblies).
- Products altered or modified in a manner not authorized by DYNASET OY in writing.
- Products which have been repaired during warranty period by others than DYNASET OY or its authorized workshop.
- Costs of any other damage or loss, whether direct, indirect, incidental, special or consequential, arising out of the use of, or the inability to use, the product.
- Telephone or other communications expense.
- Product that is used in exceptional conditions, considered to cause excessive wear and tear.
- Faults caused by nature phenomenon's like flood, thunder, etc.

8. PRODUCT DISPOSAL

Dispose and recycle all DYNASET products and their packaging environmentally responsible way.

Do not dispose used oils, electrical components, batteries or any other hazardous waste with normal waste. They are harmful for the environment and can be recycled for re-use.

Contact your local waste recycling facility for more information about recycling hazardous waste.

NOTE!

Always act according to the waste legislation, regulations and recommendations in waste disposal and waste recycling issued by your local authorities.

9. DECLARATION OF CONFORMITY

We hereby declare that the design and manufacture of the product stated below are in conformity with the provisions of the European Parliament and Councils on the harmonization of the laws of Member States on the safety of machines.

Machine directive 2006/42/EC

LVD directive 2014/35/EU

EMC directive 2014/30/EU

RoHS directive 2015/863

PED directive 2014/68/EU

Applied conformity standards:

CEN EN ISO 4413: EN ISO 4413:2010 Hydraulic fluid power - General rules and safety requirements for systems and their components.

EN60204-1 Safety of machinery – Electrical equipment of machines.

Manufacturer: **DYNASET Oy**
Menotie 3, FI-33470 Ylöjärvi, Finland

Product group: HYDRAULIC COMPRESSORS

Product: HK Hydraulic piston compressors

If the device has been modified by someone other than the manufacturer or without the manufacturer's permission, this declaration is not valid.

Timo Nieminen
R&D Manager
Menotie 3, 33470
Ylöjärvi, Suomi, 01.07.2019

10. TECHNICAL SPECIFICATIONS

		HK 450 /8-14	HK 1000 /12-35
DISCHARGE CHARACTERISTICS			
Flow rate at ref. conditions *	**l/min (cfm)**	450 (16)	1000 (36)
Pressure max.	**bar (psi)**	8 (116)	12 (174)
Compressed air connection	**AP**	BSP 1/2"	BSP 1"
Frame reservoir	**l (gal)**	4,27 (1.13)	14 (3.70)
HYDRAULIC CONNECTIONS			
Pressure line	**P**	BSP 1/2"	BSP 1/2"
Return line	**T**	BSP 1/2"	BSP 1/2"
HYDRAULIC POWER REQUIREMENTS			
Oil flow min.	**l/min (gpm)**	10 (2.64)	12 (3.17)
Oil flow nom.	**l/min (gpm)**	14 (3.70)	35 (9.25)
Oil flow max.	**l/min (gpm)**	21 (5.54)	50 (13.20)
Pressure at nominal flow	**bar (psi)**	130 (1885)	210 (3046)
Pressure max.	**bar (psi)**	210 (3046)	230 (3336)
Pressure when unloaded	**bar (psi)**	67 (972)	100 (1450)
HYDRAULIC FLUID REQUIREMENTS			
Viscocity	**cSt**	10-200 / optimum 25-35	
Temperature **	**° C (° F)**	max. 70 (158)	
Filter ratio	**µm**	25 or better	
Cooling capacity ***	**kW**	2	4
LUBRICATION OIL			
Oil fill	**l (gal)**	0,9 (0.24)	3,5 (0.92)
OVERALL DIMENSIONS			
Length	**mm (in)**	530 (20.9)	725 (28.5)
Width	**mm (in)**	430 (16.9)	490 (19.3)
Height	**mm (in)**	460 (18.1)	600 (23.6)
Weight	**kg (lbs)**	35 (77.2)	80 (176.4)

Gallons are U.S. liquid gallons

* According to ISO 1217 (1.96) at discharge pressure of 6 bar.
** READ CHAPTER "6.2. Hydraulic fluids".
*** Minimum oil cooling capacity for HK compressor on base machine.

DYNASET

POWERED BY HYDRAULICS

ELECTRICITY
HG Hydraulic Generator
HGV POWER BOX Variable Hydraulic Generator System
HGV Variable Hydraulic Generator System
HWG Hydraulic Welding Generator
HGG Hydraulic Ground Power Generator

HIGH PRESSURE WATER
HPW Hydraulic High Pressure Water Pump
HPW Hydraulic Power Washer
KPL High Pressure Street Washing Unit
HPW-DUST High Pressure Dust Suppression System
PPL High Pressure Pipe Cleaning Unit
HPW-FIRE High Pressure Firefighting System
FP Fire Fighting Piercing Kit
HDF Hydraulic Drilling Fluid Pump
JPL High Pressure Bin Washing System
HSP Hydraulic Submersible Pump

COMPRESSED AIR
HK Hydraulic Piston Compressor
HKL Hydraulic Rotary Vane Compressor
HKR Hydraulic Screw Compressor

MAGNET POWER
HMG PRO Hydraulic Magnet Generator
MAG Lift Magnet
HMAG PRO Hydraulic Magnet

VIBRATION
HVB Hydraulic Vibration Pump
HVD Hydraulic Directional Vibra
HRC Hydraulic Reversal Cylinder

POWER BOOSTING
HPI Hydraulic Pressure Intensifier
HPI-C Hydraulic Pressure Intensifier for Cylinder

KNOW-HOW
Hydraulic Power Take-off (PTO)
Hydraulic Power Unit Technology
HEU Hydraulic Expansion Unit
HRU Hydraulic Rescue Unis
De-Icing Technology
Installation Valves
HHK Hydraulic Grinder
HV/HVY Hydraulic Winch / Winch Unit

DYNASET

POWERED BY HYDRAULICS

GENSCO

SPARE PARTS

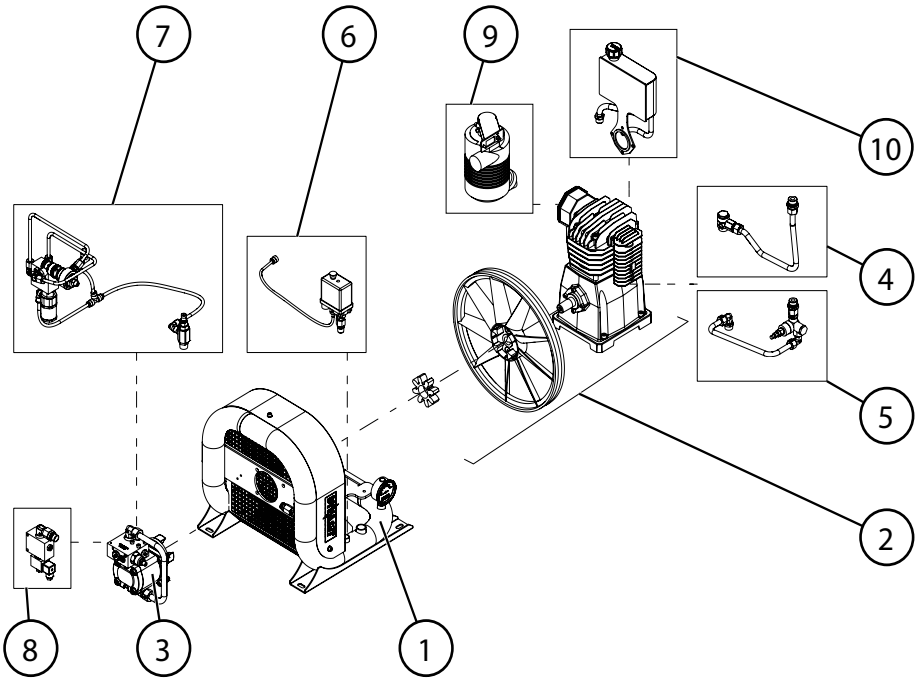
HYDRAULIC PISTON COMPRESSORS

rev 1.1

HK 450/14-8
HK 450/20-8

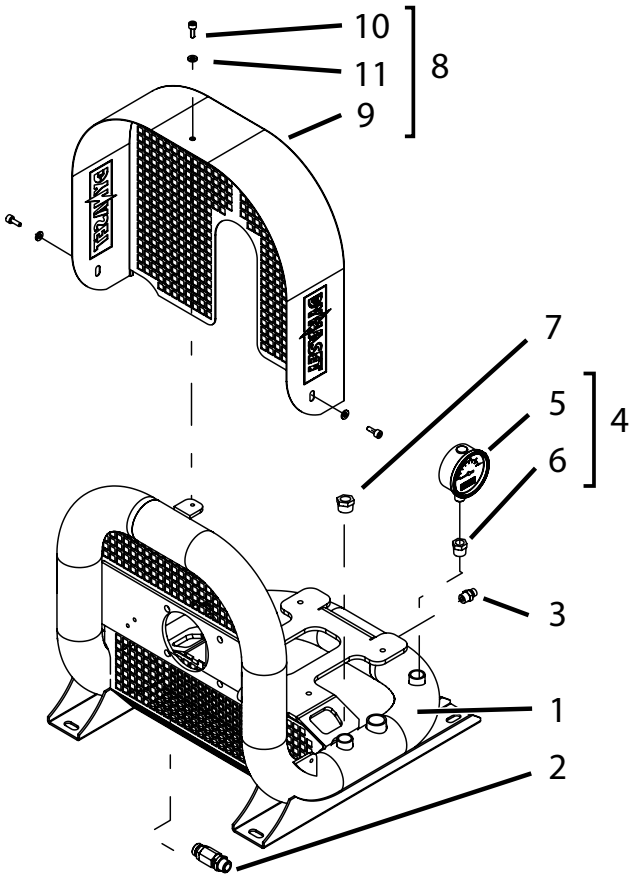
SPARE PARTS

MAIN COMPONENTS



POS.	PART NUMBER	QTY	DESCRIPTION	DETAILS 1	DETAILS 2
1			COMPRESSOR FRAMEWORK		Sep. part list
2			COMPRESSOR BLOCK		Sep. part list
3			DRIVE KIT	HK450/8-14 & HK450/8-20	Sep. part list
4			CHECK VALVE ASSEMBLY	Models with -E, -PNE, -Y, -SV	Sep. part list
5			UNDER LOADER VALVE ASSEMBLY	Models with -S, -Y, -H	Sep. part list
6			ELECTRIC PRESSURE SWITCH ASSEMBLY (E)	E- Models	Sep. part list
7			PNEUMATIC CUT OFF ASSEMBLY (PNE)	PNE -Models	Sep. part list
8			ELECTRIC VALVE ASSEMBLY (SV)	SV -Models	Sep. part list
9			CYCLON FILTER (Y)	Y -Models	Sep. part list
10			BREATHER TANK (H)	H -Models	Sep. part list

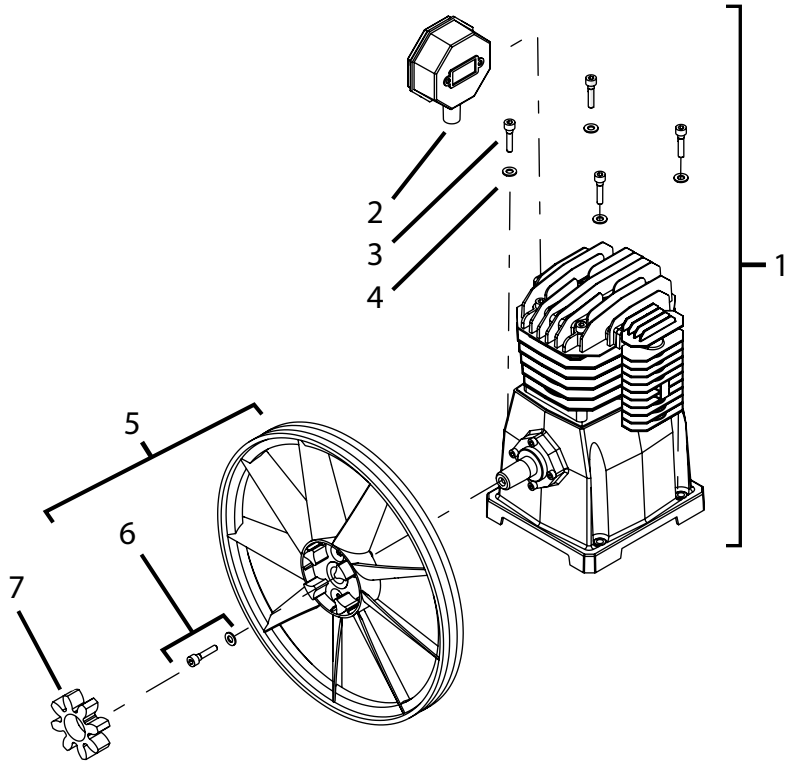
1. COMPRESSOR FRAMEWORK



POS.	PART NUMBER	QTY	DESCRIPTION	DETAILS 1	DETAILS 2
			COMPRESSOR FRAMEWORK		
1	V100450725	1	FRAME TANK		
2	V100450575	1	SAFETY VALVE	3/8s	
3	V100450684	1	DRAIN VALVE	1/4u	
4	V100450415		PRESSURE GAUGE KIT		Includes pos. 5-6
5	*	1	PRESSURE GAUGE	16 bar RK1/4	
6	*	1	REDUCER	RK3/8u-1/4s	
7	V100450745	1	PLUG		
8	V100450374		FAN WHEEL COVER KIT		Includes pos. 9-11
9	*	1	FAN WHEEL COVER		
10	*	3	SCREW	M6x16	Available in Screw kit C
11	*	3	WASHER	6,4x15	Available in Screw kit C
	V100450420		SCREW KIT C	3x M6x16 3x 6,4x15	Includes pos. 10-11

*Not sold separately. Available only in kit or assembly described above or presented in separate part list. Read Details 2

2. COMPRESSOR BLOCK ASSEMBLY

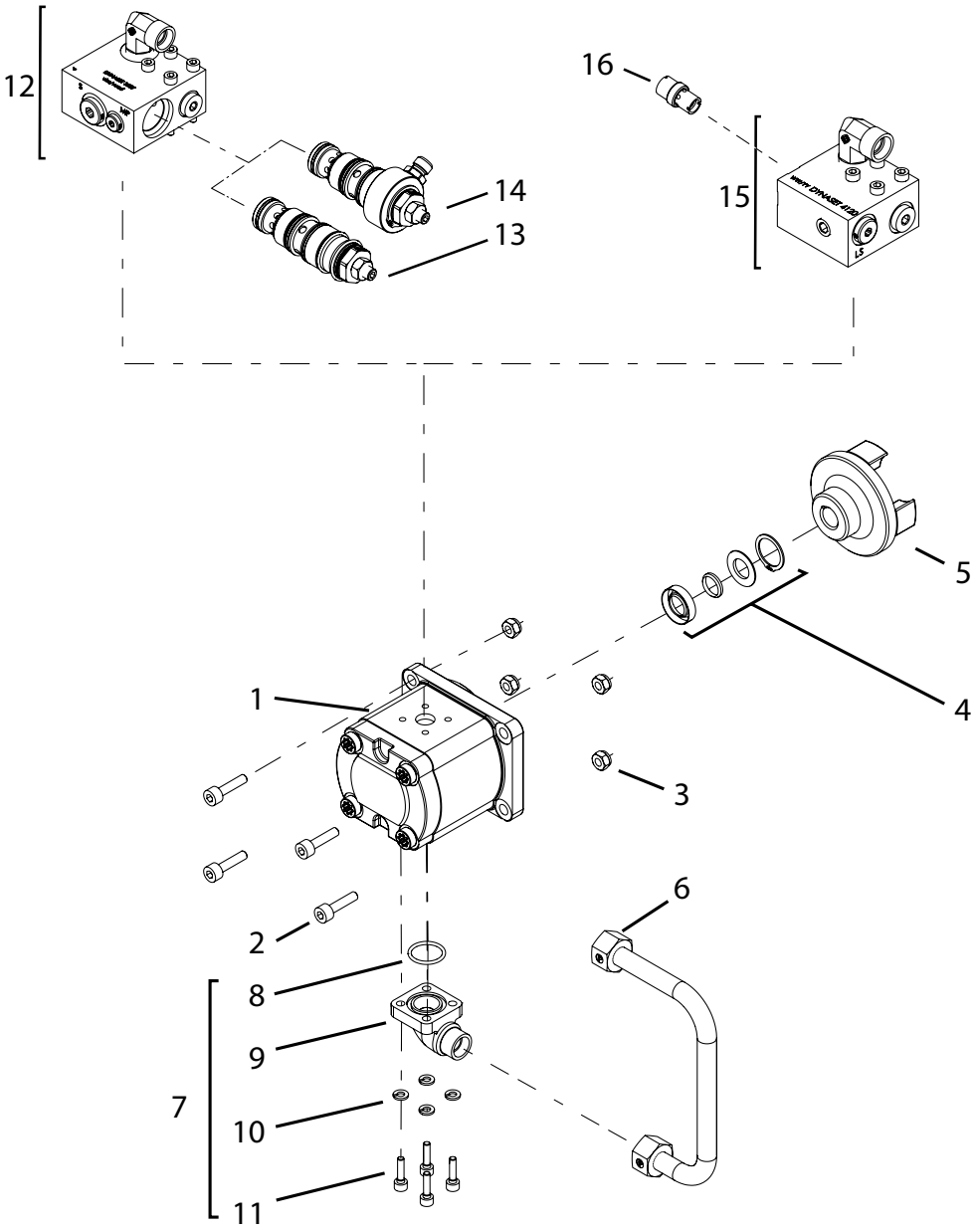


POS.	PART NUMBER	QTY	DESCRIPTION	DETAILS 1	DETAILS 2
			COMPRESSOR BLOCK ASSEMBLY		
1	V100450300	1	COMPRESSOR BLOCK		Includes pos. 2-4
2	V100450305	1	INTAKE FILTER		
3	*	4	SCREW	M8x35	Available in Screw kit A
4	*	4	WASHER	8,4x16	Available in Screw kit A
5	V100450351	1	FAN WHEEL		Includes pos. 6
6	V100450380	1	FAN WHEEL MOUNTING KIT	Includes screw and washer	
7	V100450410	1	SPIDER		
	V100450420		SCREW KIT A	4x M8x35 4x 8,4x16	Includes pos. 3 - 4

*Not sold separately. Available only in kit or assembly described above or presented in separate part list. Read Details 2

Compressor block maintenance spareparts, e.g. seal kits, are available on chapter 11 page 18.

3. DRIVE KIT

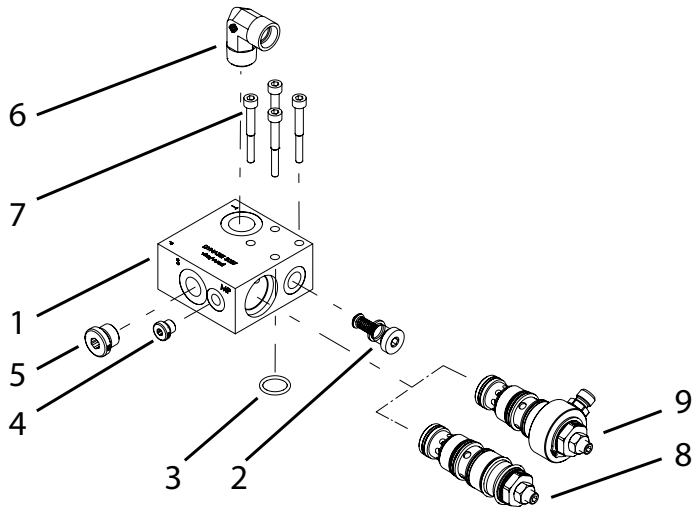


SPARE PARTS

POS.	PART NUMBER	QTY	DESCRIPTION	DETAILS 1	DETAILS 2
	V100450685		DRIVE KIT	HK450/8-14	Includes pos. 1-13
	V100450690		DRIVE KIT	HK450/8-20	Includes pos. 1-13
	V100450695		DRIVE KIT	HK450/8-14-S	Includes pos. 1-11,15-16
	V100450700		DRIVE KIT	HK450/8-20-S	Includes pos. 1-11,15-16
	V100450705		DRIVE KIT	HK450/8-14-PNE	Includes pos. 1-12,14
	V100450710		DRIVE KIT	HK450/8-20-PNE	Includes pos. 1-12,14
	V100450780		DRIVE KIT	HK450/8-14-D	Includes pos. 1-13
	V100450785		DRIVE KIT	HK450/8-20-D	Includes pos. 1-13
	V100450790		DRIVE KIT	HK450/8-14-S-D	Includes pos. 1-11,15-16
	V100450795		DRIVE KIT	HK450/8-20-S-D	Includes pos. 1-11,15-16
	V100450800		DRIVE KIT	HK450/8-14-PNE-D	Includes pos. 1-12,14
	V100450805		DRIVE KIT	HK450/8-20-PNE-D	Includes pos. 1-12,14
1	V100450680		HYDRAULIC MOTOR	HK450/8-14	Includes pos. 2-3
1	V100450681		HYDRAULIC MOTOR	HK450/8-20	Includes pos. 2-3
1	V100450770		HYDRAULIC MOTOR	HK450/8-14-D	Includes pos. 2-3
1	V100450775		HYDRAULIC MOTOR	HK450/8-20-D	Includes pos. 2-3
2	*	4	SCREW	M8x30	Available in Screw kit B
3	*	4	NUT	M8	Available in Screw kit B
4	V100103160		SHAFT SEAL KIT	17x30	
5	V100450405	1	COUPLING		
6	V100450735	1	BYPASS PIPE ASSEMBLY		
7	V101011010	1	FLANGE ADAPTER		Includes pos. 8-11
8	*	1	O-RING	25,07x2,62	Available in O-Ring kit A
9	*	1	FLANGE FITTING	15L	
10	*	4	WASHER		Available in Screw kit B
11	*	4	SCREW	M6x20	Available in Screw kit B
12	V100450400		RPM-BLOCK KIT		Sep. part list
13	V100450403	1	RPM-CARTRIDGE	HK450/8-14	
13	V100450404	1	RPM-CARTRIDGE	HK450/8-20	
14	V100450715	1	RPM-CARTRIDGE	HK 450/8-PNE -14 lpm	
14	V100450720	1	RPM-CARTRIDGE	HK 450/8-PNE -20 lpm	
15	V100450530		CHECK VALVE BLOCK KIT	with S- models	Sep. part list
16	V100450540	1	FLOW LIMITER CARTRIDGE	HK450/8-14-S	
16	V100450545	1	FLOW LIMITER CARTRIDGE	HK450/8-20-S	
	V100450425		SCREW KIT B	4x M8x30 4x M6x50 4x M6x20 4x washers 4x nuts	Includes pos. 2, 3, 10, 11
	V100450480		O-RING KIT A	1x 15,30x2,40 1x 25,07x2,62	Includes pos. 8

*Not sold separately. Available only in kit or assembly described above or presented in separate part list. Read Details 2.

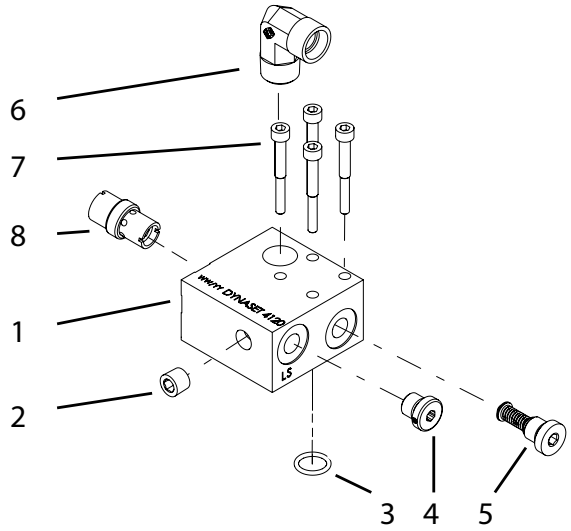
3.1. RPM-BLOCK KIT BASIC & PNE



POS	PART NUMBER	QTY	DESCRIPTION	DETAILS 1	DETAILS 2
	V100450400		RPM-BLOCK KIT		Includes pos. 1-7
1	*	1	RPM-VALVE BLOCK		
2	V100450535	1	CHECK VALVE CARTRIDGE	R1/4	
3	*	1	O-RING	15,30x2,40	Available in O-Ring kit A
4	*	1	PLUG HF	R1/8	
5	*	1	PLUG HF	R3/8	
6	*	1	ELBOW FITTING	15L RK1/2 DIN	
7	*	4	SCREW	M6x50	Available in Screw kit B
8	V100450403	1	RPM-CARTRIDGE	HK450/8-14	
8	V100450404	1	RPM-CARTRIDGE	HK450/8-20	
9	V100450715	1	RPM-CARTRIDGE	HK 450/8-PNE -14 lpm	
9	V100450720	1	RPM-CARTRIDGE	HK 450/8-PNE -20 lpm	
	V101050500	1	RPM-CARTRIDGE SEAL KIT		
	V100450425		SCREW KIT B	4x M8x30 4x M6x50 4x M6x20 4x washers 4x nuts	Includes pos. 7
	V100450480		O-RING KIT A	1x 15,30x2,40 1x 25,07x2,62	Includes pos. 3

*Not sold separately. Available only in kit or assembly described above or presented in separate part list.
Read Details 2

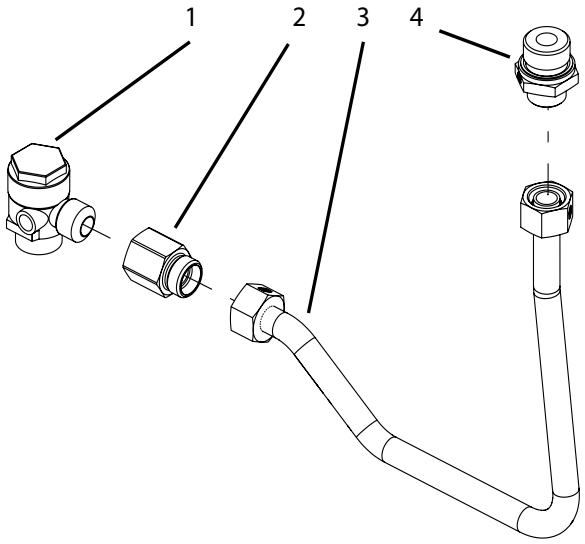
3.2. CHECK VALVE BLOCK KIT



POS	PART NUMBER	QTY	DESCRIPTION	DETAILS 1	DETAILS 2
	V100450530		CHECK VALVE BLOCK KIT		Includes pos. 1-7
1	*	1	RPM-VALVE BLOCK		
2	*	1	PLUG	RK 1/8	
3	*	1	O-RING	15,30x2,40	Available in O-Ring kit A
4	*	1	PLUG HF	R3/8	
5	V100450535	1	CHECK VALVE CARTRIDGE	R1/4	
6	*	1	ELBOW FITTING	15L RK1/2 DIN	
7	*	4	SCREW	M6x50	Available in Screw kit B
8	V100450540	1	FLOW LIMITER CARTRIDGE	HK450/8-14-S	
8	V100450545	1	FLOW LIMITER CARTRIDGE	HK450/8-20-S	
	V100450425		SCREW KIT B	4x M8x30 4x M6x50 4x M6x20 4x washers 4x nuts	Includes pos 7
	V100450480		O-RING KIT A	1x 15,30x2,40 1x 25,07x2,62	Includes pos. 3

*Not sold separately. Available only in kit or assembly described above or presented in separate part list. Read Details 2

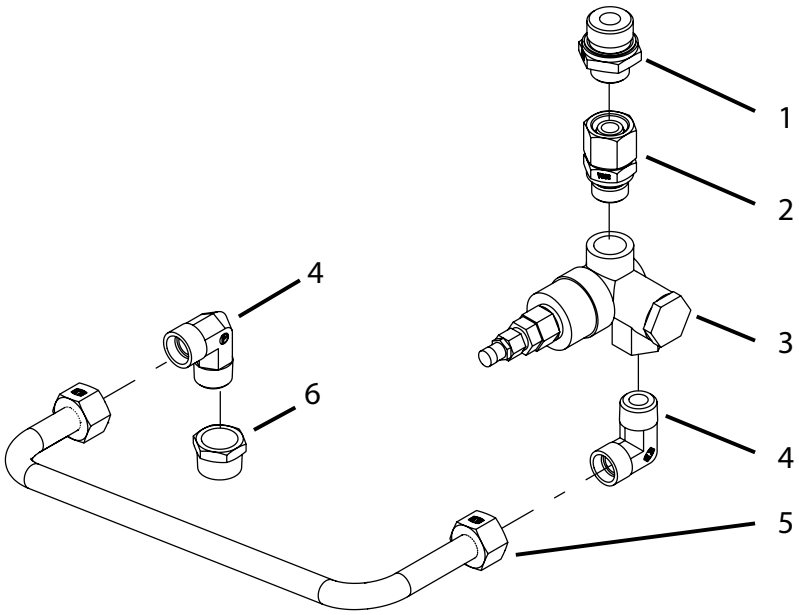
4. NON-RETURN VALVE



POS.	PART NUMBER	QTY	DESCRIPTION	DETAILS 1	DETAILS 2
	V100450370		NON-RETURN VALVE ASSEMBLY		Includes pos. 1- 4
1	V100450371	1	NON-RETURN VALVE		
2	*	1	FITTING	15L R1/2	
3	V100450366	1	PIPE ASSEMBLY		
4	*	1	FITTING	15L R3/4	

*Not sold separately. Available only in kit or assembly described above or presented in separate part list. Read Details 2

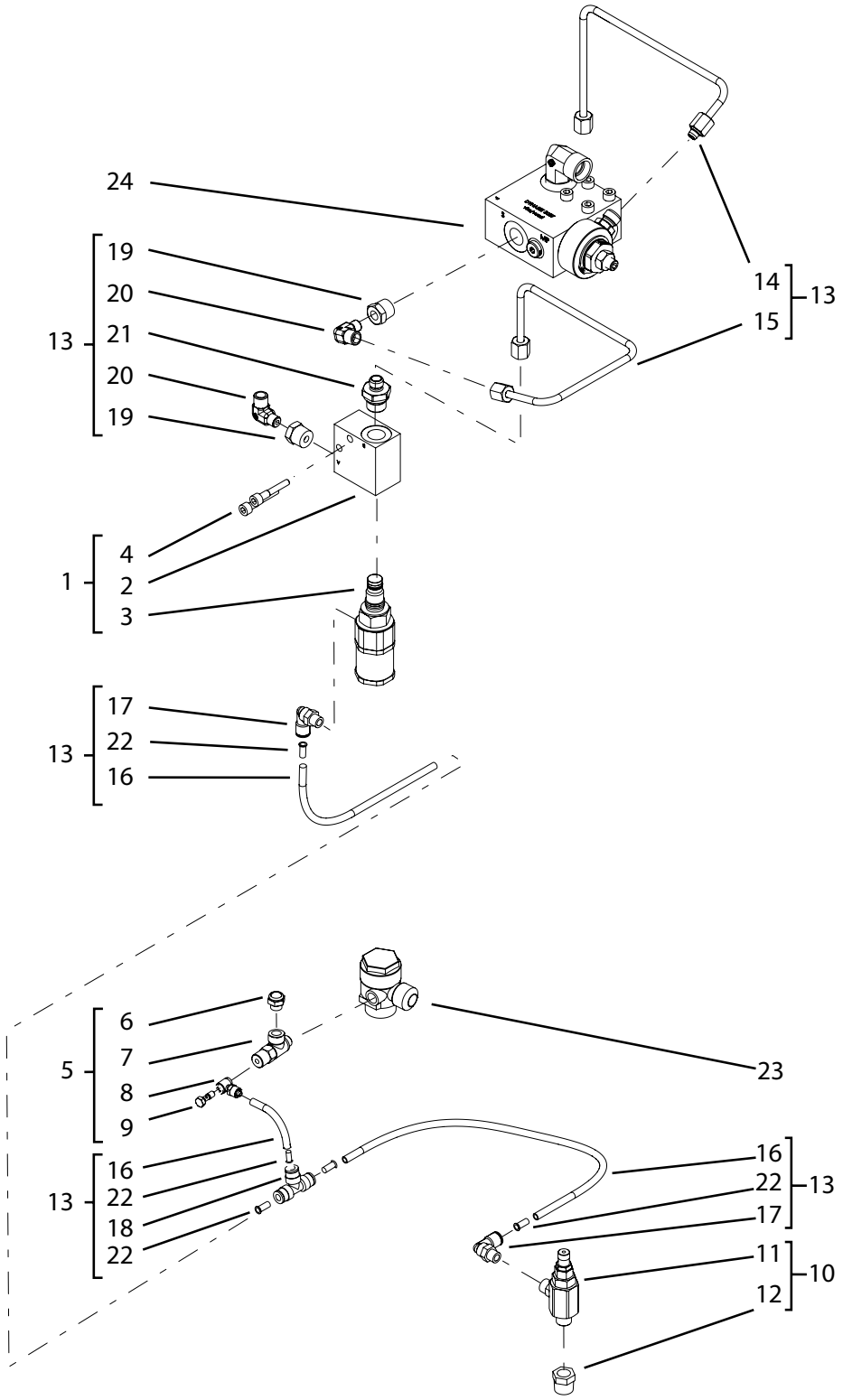
5. UNDER LOADER VALVE ASSEMBLY



POS.	PART NUMBER	QTY	DESCRIPTION	DETAILS	DETAILS 2
	V100450372	1	UNLOADER VALVE KIT		Includes pos. 1-6
1	*	1	FITTING	15L R3/4	
2	*	1	PIPE FITTING	15L R1/2	
3	V100450373	1	UNDERLOADER VALVE		
4	*	1	ELBOW FITTING	15L RK1/2	
5	V100450368	1	PIPE ASSEMBLY		
6	*	1	REDUCER	RK3/4u- 1/2s	

*Not sold separately. Available only in kit or assembly described above or presented in separate part list. Read Details 2

6. PNEUMATIC CUT OFF ASSEMBLY (PNE)

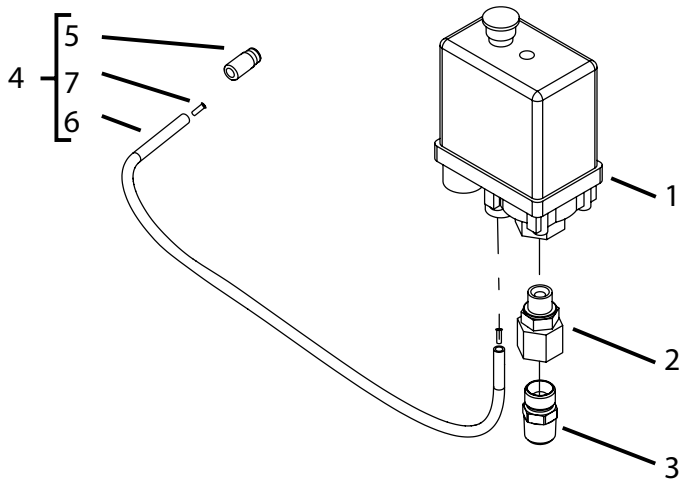


SPARE PARTS

POS	PART NUMBER	QTY	DESCRIPTION	DETAILS	DETAILS 2
			PNEUMATIC CUT OFF ASSEMBLY (PNE)		
1	V100450550	1	CONTROL VALVE		Includes pos. 2-4
2	V100450555	1	CONTROL VALVE BODY		
3	V100450560	1	CONTROL VALVE CARTRIDGE		
4	*	2	SCREW	M6x40	Available in Screw kit D
5	V100450597		PILOT OPERATED CHECK VALVE		Includes pos. 6-9
6	*	1	SILENCER	R1/8	
7	*	1	CHECK VALVE	1/8	
8	*	1	PNE L-BANJO FITTING	6/4-M5	
9	*	1	PNE BANJO SCREW	M5	
10	V100450570		PILOT VALVE KIT		Includes pos. 11-12
11	*	1	PILOT VALVE		
12	*	1	REDUCER	RK3/8u-1/4s	
13	V100450595		CONTROL VALVE PIPE KIT		Includes pos. 14-22
14	*	1	PIPE PILOT 1		
15	*	1	PIPE PILOT 1		
16	*	3	PNEUMATIC TUBE	6/4	0,52m+0,09m+0,21m
17	*	2	SWIVEL ELBOW FITTING	6/4-R1/8	
18	*	1	T-FITTING	6/4	
19	*	2	REDUCER	RK3/8u-1/8s	
20	*	2	ELBOW FITTING	06L RK1/8	
21	*	1	FITTING	06L RK1/8	
22	*	5	FERRULE	6/4	
23	*	1	NON-RETURN VALVE	For reference	Read page 10
24	*	1	RPM-VALVE BLOCK (PNE)	For reference	Read page 8
	V100450435		SCREW KIT D	2x M6x40	Includes pos. 4

*Not sold separately. Available only in kit or assembly described above or presented in separate part list.
Read Details 2

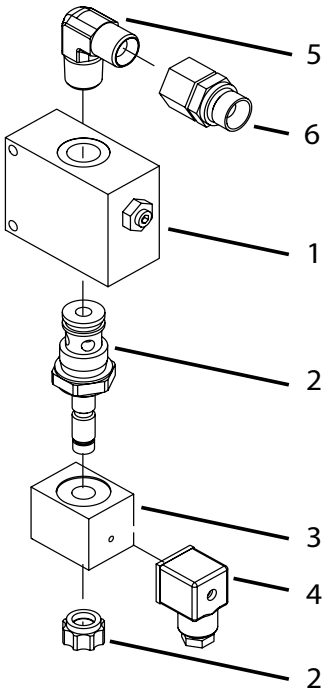
7. ELECTRIC PRESSURE SWITCH ASSEMBLY (E)



POS.	PART NUMBER	QTY	DESCRIPTION	DETAILS	DETAILS 2
	V100450376		ELECTRIC PRRESSURE SWITCH ASSEMBLY		Includes pos. 1- 7
1	*	1	ELECTRIC PRESSURE SWITCH		
2	*	1	UNION FITTING	R1/4u-R3/8s	
3	*	1	MALE STUD CONNECTOR	RK/R3/8	
4	V100450375	1	PIPE KIT	Pipe, ferrules, fittings	Includes pos. 5 - 7
5	*	1	FITTING	6/4-R1/8	
6	*	1	PIPE	410mm	
7	*	2	FERRULE	6/4	

*Not sold separately. Available only in kit or assembly described above or presented in separate part list. Read Details 2

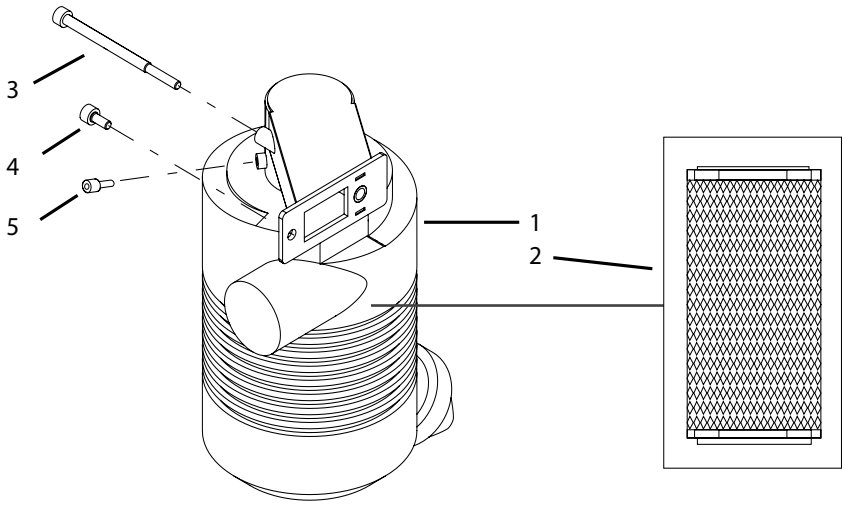
8. SOLENOID VALVE ASSEMBLY (SV)



POS.	PART NUMBER	QTY	DESCRIPTION	DETAILS	DETAILS 2
	V100450377 V100450378		SOLENOID VALVE ASSEMBLY	12 VDC 24 VDC	Includes pos. 1- 6
1	*	1	CARTRIDGE BODY		
2	V100450587		CARTRIDGE VALVE		
3	V100450580 V100450585	1	COIL	12 VDC 24 VDC	
4	*	1	PLUG DIN 43650 + SEAL		
5	*	1	ELBOW FITTING		
6	*	1	SWIVEL CONNECTOR		

*Not sold separately. Available only in kit or assembly described above or presented in separate part list.
Read Details 2

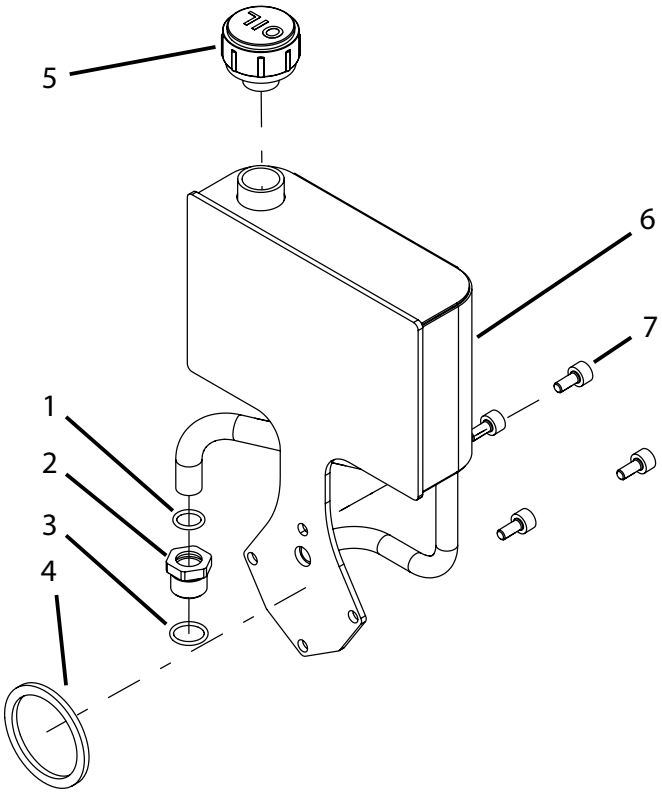
9. CYCLONE FILTER (Y)



POS.	PART NUMBER	QTY	DESCRIPTION	DETAILS	DETAILS 2
	V100450390		CYCLONE FILTER ASSEMBLY		Includes pos. 1-5
1	V100450392		INTAKE FILTER		
2	V100450395		INTAKE FILTER ELEMENT		
3	*	1	SCREW	M6x90	Available in screw kit F
4	*	1	SCREW	M6x12	Available in screw kit F
5	*	2	SCREW	M5x10	Available in screw kit F
	V100450445		SCREW KIT F	2x M5x10 1x M6x12 1x M6x90	Includes pos. 3-5

*Not sold separately. Available only in kit or assembly described above or presented in separate part list. Read Details 2

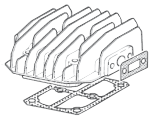
10. BREATHER TANK ASSEMBLY (H)



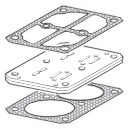
POS.	PART NUMBER	QTY	DESCRIPTION	DETAILS	DETAILS 2
	V100450385		BREATHER TANK ASSEMBLY		Includes pos. 1-7
1	*	1	O-RING	14,00x1,78	Available in O-Ring kit B
2	*	1	ADAPTER	R3/8	
3	*	1	O-RING	11,10x17,8	Available in O-Ring kit B
4	*	1	BEARING SUPPORT FLANGE		
5	V100450387	1	OIL FILLER CAP		
6	*		BREATHER TANK		
7	*	4	ALLEN SCREW	M6x16	Available in Screw kit E
	V100450440		SCREW KIT E	4x M6x16	Includes pos. 6
	V100450485		O-RING KIT B	1x 11,10x17,8 1x 14,00x1,78	Includes pos. 1, 3

*Not sold separately. Available only in kit or assembly described above or presented in separate part list.
Read Details 2

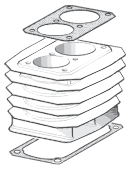
11. COMPRESSOR BLOCK MAINTENANCE PARTS



1

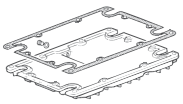


2

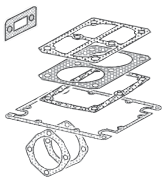


3

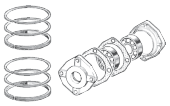
4



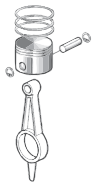
5



6



7



8

9

POS.	PART NUMBER	QTY	DESCRIPTION	DETAILS	DETAILS 2
1	V100450310	1	CYLINDER HEAD	Includes seals	
2	V100450325	1	VALVE PLATE KIT	Includes seals	
3	V100450345	1	CYLINDER BLOCK	Includes seals	
4	V100450340	1	AFTER COOLER	Includes seals	
5	V100450365	1	CRANK CASE BOTTOM COVER	Includes seals	
6	V100450335	1	SEAL KIT	All compressor block seals	
7	V100450330	1	BEARING AND SEAL KIT		
8	V100450355	1	PISTON KIT		
9	V100450360	1	OIL LEVEL KIT	Includes Oil sight glass and cab	
	V100450450		SCREW KIT G	All compressor block screws	
	*	6	CYLINDER HEAD SCREWS	M8x45	Available in screw kit G
	*	2	AFTER COOLER SCREWS	M6x20	Available in screw kit G
	*	4	FRONT PLATE SCREWS	M6x14	Available in screw kit G
	*	4	BACK PLATE SCREWS	M6x14	Available in screw kit G
	*	12	CRANK CASE BOTTOM COVER SCREWS	M5x16	Available in screw kit G
	*	6	CYLINDER BLOCK SCREWS	M8x25	Available in screw kit G
	*	1+1	DRAIN SCREW + USIT	M8x16 + M8	Available in screw kit G

DYNASET

POWERED BY HYDRAULICS

Menotie 3
FI-33470 Ylöjärvi, Finland
tel: +358 3 3488 200
info@dynaset.com

ELECTRICITY
HG Hydraulic Generator
HGV POWER BOX Variable Hydraulic Generator System
HGV Variable Hydraulic Generator System
HWG Hydraulic Welding Generator
HGG Hydraulic Ground Power Generator

HIGH PRESSURE WATER
HPW Hydraulic High Pressure Water Pump
HPW Hydraulic Power Washer
KPL High Pressure Street Washing Unit
HPW-DUST High Pressure Dust Suppression System
PPL High Pressure Pipe Cleaning Unit
HPW-FIRE High Pressure Firefighting System
FP Fire Fighting Piercing Kit
HDF Hydraulic Drilling Fluid Pump
JPL High Pressure Bin Washing System
HSP Hydraulic Submersible Pump

COMPRESSED AIR
HK Hydraulic Piston Compressor
HKL Hydraulic Rotary Vane Compressor
HKR Hydraulic Screw Compressor

MAGNET POWER
HMG PRO Hydraulic Magnet Generator
MAG Lift Magnet
HMAG PRO Hydraulic Magnet

VIBRATION
HVB Hydraulic Vibration Pump
HVD Hydraulic Directional Vibra
HVC Hydraulic Vibration Compactor
HRC Hydraulic Reversal Cylinder

POWER BOOSTING
HPI Hydraulic Pressure Intensifier
HPI-C Hydraulic Pressure Intensifier for Cylinder

KNOW-HOW
Hydraulic Power Take-off (PTO)
Hydraulic Power Unit Technology
HEU Hydraulic Expansion Unit
HRU Hydraulic Rescue Unis
De-Icing Technology
Installation Valves
HHK Hydraulic Grinder
HV/HVY Hydraulic Winch / Winch Unit