

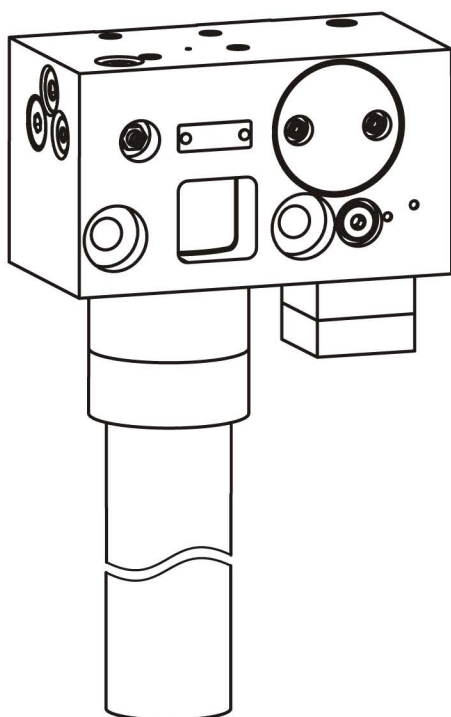
# Hydraulic Pump **BEKAHAMAX2** SYSTEM

## General description

The hydraulically actuated grease pump BEKA HAMAX System 2 is mainly used to lubricate hydraulic hammers or other construction machinery accessories.

Due to its compact design, it can be mounted directly at the accessory unit.

BEKAHAMAX System 2



For supply, the grease pump is connected with a bypass line to the supply and return lines of the hydraulic system of its carrier. This can be done at choice via the hose lines or via direct flange connection.

As the drive is effected via a hydraulic motor, continuous supply of lubricant is ensured. The delivery rate can be varied with a throttle on the hydraulic motor. In case of minor lubricant requirements, a pumping element with adjustable delivery rate is optionally available.

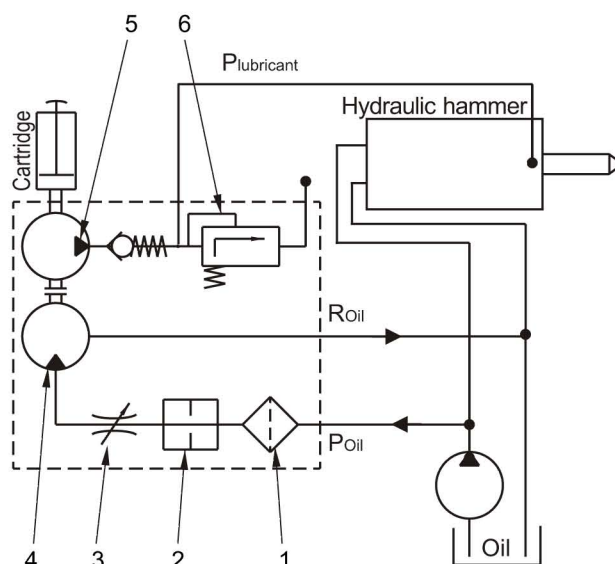
PE 120FH  
 PE 120FVH

Ref.No.: 2576GE0001  
 Ref. No.: 2576GE0002

The connection of the lubricant line to the pump housing is possible in 4 positions. To protect the lubricant system, the pump comprises a pressure limiting valve which opens as soon as 280 bar have been reached. The outlet opening of the pressure limiting valve is placed opposite of the cartridge holder.

BEKA HAMAX System 2 uses transparent plastic cartridges. These consist due to a adapter system of different types. Cartridge type S is to prefer. The grease level is checked optically by the position of the visible follower piston. To be able to check the grease level when the cartridges are almost empty, the pump housing is equipped with an inspection window. The function is checked with the visible eccentric shaft which rotates during operation.

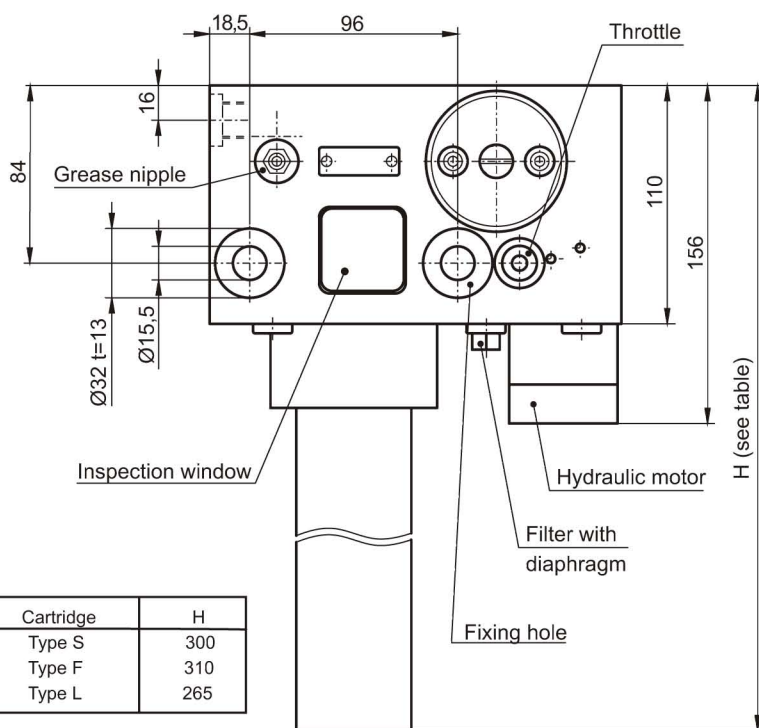
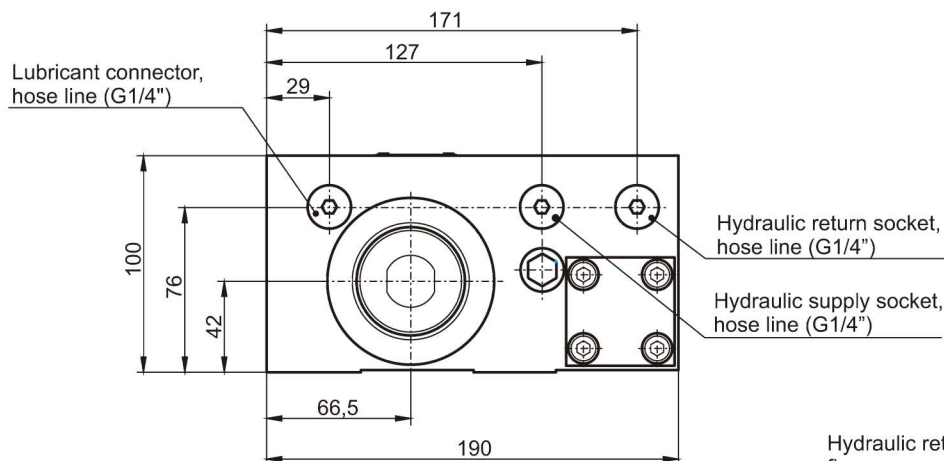
## Hydraulic circuit diagram



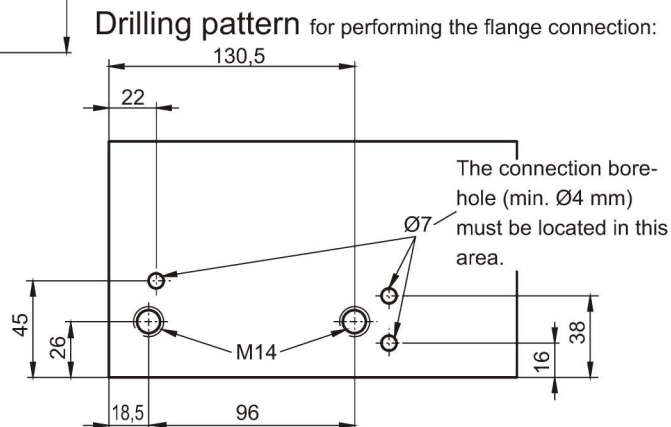
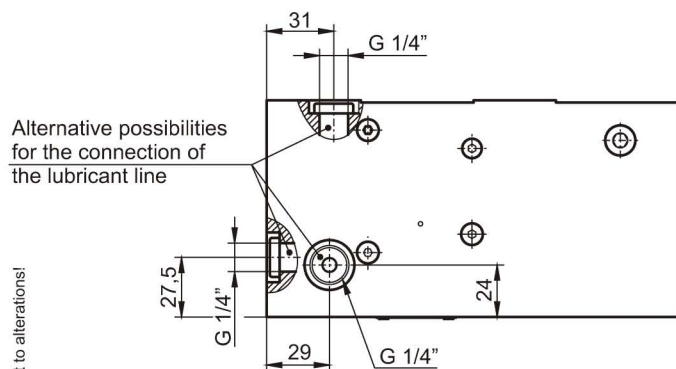
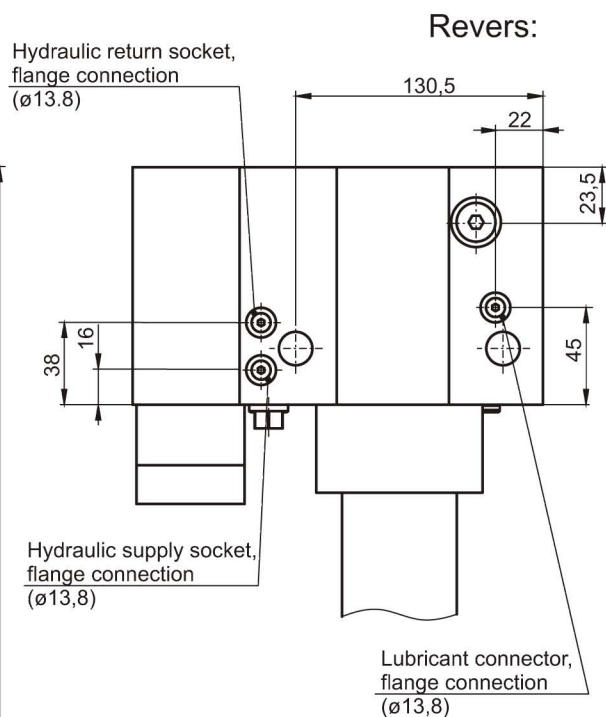
- |              |                            |
|--------------|----------------------------|
| 1: Filter    | 4: Hydraulic motor         |
| 2: Diaphragm | 5: Pumping element         |
| 3: Throttle  | 6: Pressure limiting valve |

## BEKA HAMAX System 2, installation dimensions

To minimize the risk of pollution while changing the cartridge, the pump has to be placed with the cartridge in horizontally or vertically suspended position.



| Cartridge | H   |
|-----------|-----|
| Type S    | 300 |
| Type F    | 310 |
| Type L    | 265 |



Subject to alterations!

## Assembly and operation

The pump is fixed to the accessory unit by means of two securing bolts which are prevented from being loosened by specific lock washers. Depending on the required design, minor assembly work on the pump is required prior to commissioning:

- When performing the hose connection, the enclosed screw couplings must be mounted. To be able to use one of the other outlets, the plug screw with copper sealing ring located on this outlet must be replaced by the inlet screw coupling. Subsequently the grease pump's supply and return lines must be connected to the carrier's hydraulic system with a bypass line. G 1/4" screw couplings are required for the connection of the oil and lubricant lines.
- When performing the flange connection, the G1/4" threads must be closed by the enclosed plug screws and sealing rings. The enclosed o-rings are used to seal the flange connections.

The pump's supply connector comprises a filter and a diaphragm to limit the supply flow.

The return socket may be subject to a max. back pressure of 20 bar. This value should not be exceeded, as otherwise the pump can't work optimally.

On delivery, the lubricant line is connected to the screw coupling next to the cartridge guide. To be able to use the other outlets, make sure that the plug screw which is located at the closed outlets and provided with a copper sealing ring is exchanged against the inlet screw coupling.

Lubricant circulation:

- Maximum admissible back pressure: 250 bar
- Temperature range: -20 up to +70°C
- Lubricants which can be delivered: up to NLGI grade 2
- Lubricant reservoir: cartridges

For manual greasing in case of failure of the hydraulic system, a grease nipple has been integrated.

## Technical data:

### Hydraulic motor:

|                                     |                                      |
|-------------------------------------|--------------------------------------|
| Supply:                             | Hydraulic hammer circuit, 90-250 bar |
| Difference pressure in operation:   | min. 70 bar                          |
| Admissible return pressure:         | max. 20 bar                          |
| Displacement:                       | max. 2 l/min                         |
| Default speed                       |                                      |
| of the eccentric                    | 14 rpm-                              |
| with oil ISO VG 46 at 20° C         | at 1,8 l/min.                        |
| Hydraulic oil:                      | ISO VG 46-100                        |
| Temperature range:                  | 0 up to +70°C                        |
| Speed can be adjusted with throttle |                                      |

### Pumping elements:

|                                 |               |
|---------------------------------|---------------|
| Pressure limiting valve:        | 280 bar       |
| Delivery rate/ stroke PE120FH   | 0,12 cm³      |
| Delivery rate / stroke PE120FVH | 0,04-0,12 cm³ |
| Delivery rate regulation:       |               |

sixfold notches per ½ revolution

Reduction: 0,013 cm³ per notch

Default stroke number: 14 strokes/min.

Stroke number can be adjusted with throttle

In case of minor lubricant requirements a pump element with adjustable delivery rate is optionally available.

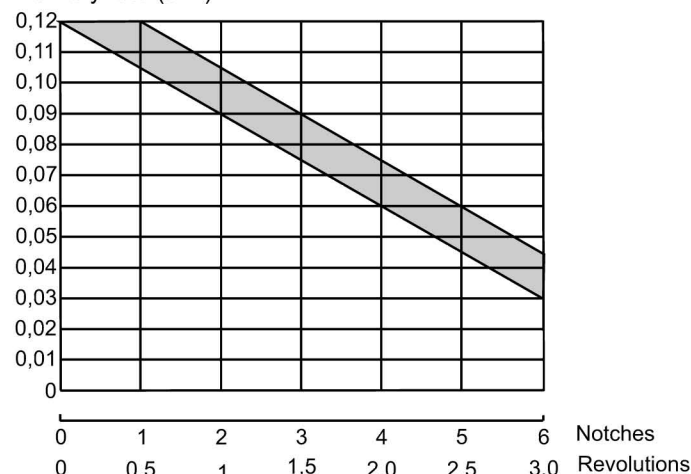
### General:

|                                             |                               |
|---------------------------------------------|-------------------------------|
| Lubricant:                                  | EP2 grease or Cu paste        |
| Grease supply:                              | different types of cartridges |
| Type of cartridge:                          | dependant of cartridge sleeve |
| Weight:                                     | approx. 6,7 kg                |
| Grease nipple for manual greasing available |                               |
| Four different lubricant outlets possible   |                               |

## Delivery rate diagram:

PE-120FVH

Delivery rate (cm³)





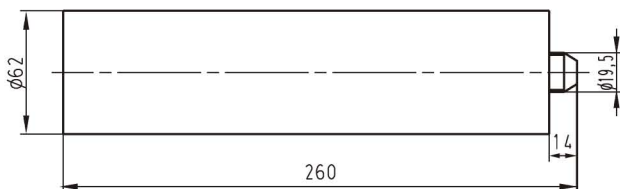
## Cartridge system

The grease pump BEKA HAMAX System 2 features an adapter system which enables the use of three cartridge types.

Type S - BEKA standard:



Type F:



Type L:

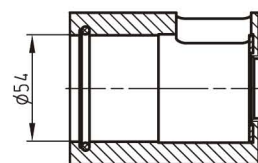


Adapter and cartridge ref-No.:

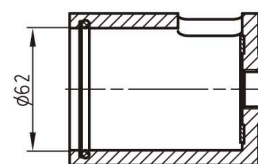
| Type | Grease qty. | Fluid     | Cartridge | Adapter    |
|------|-------------|-----------|-----------|------------|
| S    | 400g        | EP2 - Gr. | 0320092   | 2576GK0001 |
|      |             | Cu-Paste  | 0320091   |            |
| F    | 500g        | EP2 - Gr. | 0320089   | 2576GK0002 |
|      |             | Cu-Paste  | 0320090   |            |
| L    | 400g        | --        | --        | 2576GK0003 |
|      |             | --        | --        |            |

## Cartridge adapter

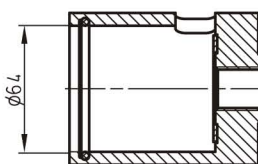
Adapter 2576GK0001 - for cartridge Type S:



Adapter 2576GK0002 - for cartridge Type F:

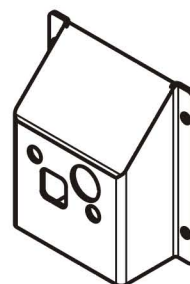


Adapter 2576GK0003 - for cartridge Type L:



## Accessories

To protect the pump, you can order a protective casing. The pump can be filled as before via integrated bore-holes, and the level checked via inspection windows. Moreover, the throttle valve regulating the delivery flow is still accessible.



Pump protection incl. fasteners:

order no.  
25760002

Pump protection without fasteners:

0800801461

## Ordering key **BEKAHMAX2** SYSTEM

|                                                   |                              |  |  |  |  |
|---------------------------------------------------|------------------------------|--|--|--|--|
| Construction type:                                | 2576 . 0 . 01 . 02 . 02 . 00 |  |  |  |  |
| Pumping element                                   | Code                         |  |  |  |  |
| PE 120 FH                                         | 0                            |  |  |  |  |
| PE 120 FVH                                        | 1                            |  |  |  |  |
| Cartridge                                         | Code                         |  |  |  |  |
| Type S-Cu Paste                                   | 01                           |  |  |  |  |
| Type S-EP2 Grease                                 | 11                           |  |  |  |  |
| Type F-Cu Paste                                   | 02                           |  |  |  |  |
| Type F-EP2 Grease                                 | 12                           |  |  |  |  |
| Type L                                            | 03                           |  |  |  |  |
| Hydraulic connection                              | Code                         |  |  |  |  |
| Internal thread G1/4", ø8<br>or flange connection | 02                           |  |  |  |  |
| Lubricant connection                              | Code                         |  |  |  |  |
| Internal thread G1/4", ø8<br>or flange connection | 02                           |  |  |  |  |
| Special variants                                  | Code                         |  |  |  |  |
| Standard                                          | 00                           |  |  |  |  |

Subject to alterations!

