

# LK Mobile Pumping Unit FSB 30

## DESIGN

The LK Mobile pumping unit FSB 30 is a mobile unit for filling and de-aeration of heating, under floor heating, solar and cooling systems. The LK FSB 30 is also used for mixing anti-freeze of the ethylene or propylene glycol type. An additional 30 litre mixing vessel for preparation of extra glycol mixture is available as an accessory. The unit can also be used with filter bags (accessory) for flushing and cleaning heating and cooling systems.

## INTENDED USAGE



The product is intended for skilled personnel who are trained and specialised in installation of heating systems. Service and maintenance work may only be carried out by approved specialists.



The filling unit is designed to be used for filling, flushing and deaeration of heating and cooling systems with water or mixtures water and glycol.



Do not pump any liquids with a flash point below 55 °C. Do not pump petrol or solvents.



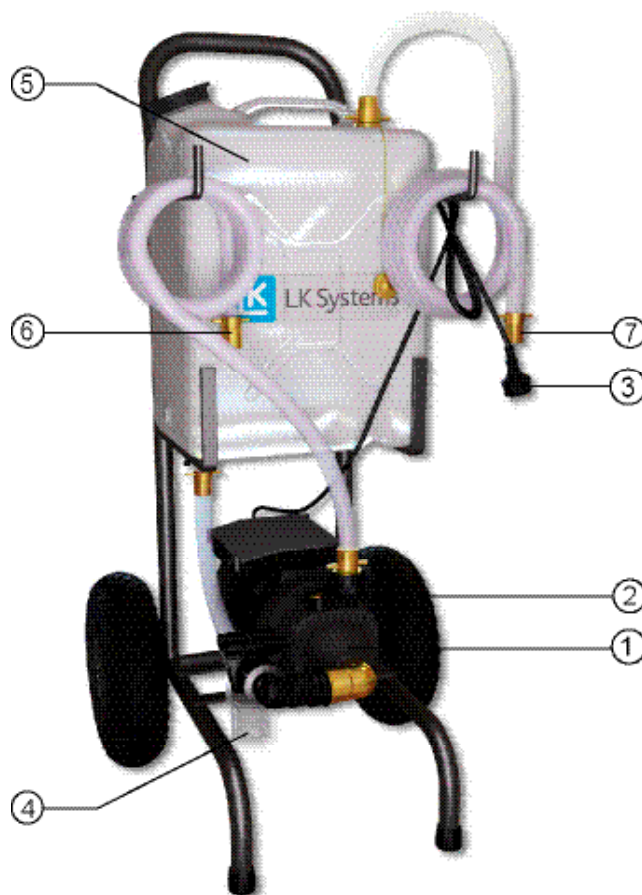
There can be a risk of scalding or burn injuries due to high liquid temperature. This applies particularly when working with solar heating systems or high temperature radiator systems. For solar systems, only fill the system when it is cold and if necessary cover the solar collectors.



Risk of burn injuries due to hot motor hood. Do not block the connecting tubes for more than 1 minute to avoid overheating the motor.



There can be a risk of injury due to splashing liquid, e.g. if the tubes are not properly connected.



## CONSTRUCTION

1. **Pressure pump, centrifugal pump**
2. **Vent screw, pump**
3. **Mains plug, pump 230V AC**
4. **Filter**
5. **Mixing vessel, 30 litres**
6. **Connection hose, supply 3 m**
7. **Connection hose, return 3 m**

## FUNCTION, FILLING UNDER FLOOR HEATING SYSTEMS



Before starting, ensure that the underlying surface is level and stable for the placement of the unit.

1. Fill the mixing vessel with liquid and any admixture of glycol. If necessary it can be useful to have an extra container ready, depending on the size of the system.
2. Connect the supply tube to the manifold's filling valve for supply.
3. Connect the return tube to the manifold's draining valve for return.
4. Open the isolation valve below the mixing vessel and bleed the pump via its vent screw.
5. Turn on the pump and start refilling the under floor heating system. Work methodically by filling one under floor heating circuit at a time. Proceed circuit by circuit. Reference can also be made to the instructions supplied with the manifold for refilling.
6. Keep the lid of the mixing vessel open while refilling in order to deaerate/allow air to circulate.
7. Check that there are no air bubbles left in the filter glass or through the lid in the tank before completing the filling/flushing



Monitor the liquid level in the tank and if necessary refill to avoid air entering into the under floor heating system (avoid letting the volume go below 10 litres). **Note!** The pump must never be run dry of liquid as it can be damaged.

## COMPLETING THE REFILLING PROCESS

1. Turn off the pump and disconnect the power supply.
2. Close the valve below the mixing vessel.
3. Close the filling/drain valve on the manifold.
4. Release the water pressure in the filling tube by opening the filter on the pump's inlet. This facilitates removal of the connecting tubes.
5. Undo the filter housing and wash out residual liquid.
6. Remove the tubes from the filling/drain valves on the manifold.
7. Screw the ends of the tubes together with the barrel nipple supplied to avoid spillage of liquid during transportation.



**Note!** Collect outflowing liquid in a vessel so that it can be dealt with in an environmentally correct manner.

## MAINTENANCE



Always disconnect the power supply prior to undertaking any servicing that the pump might require.



**Note!** Always collect residual liquid so that it can be dealt with in an environmentally correct manner.

### Connections

Check regularly that the tube connections are properly tightened.

### Cleaning the filter

There is a built-in fine filter on the suction side of the pump that must be checked and cleaned regularly. Undo the filter housing and remove the filter sieve. Clean the filter sieve with rinsing water or compressed air.



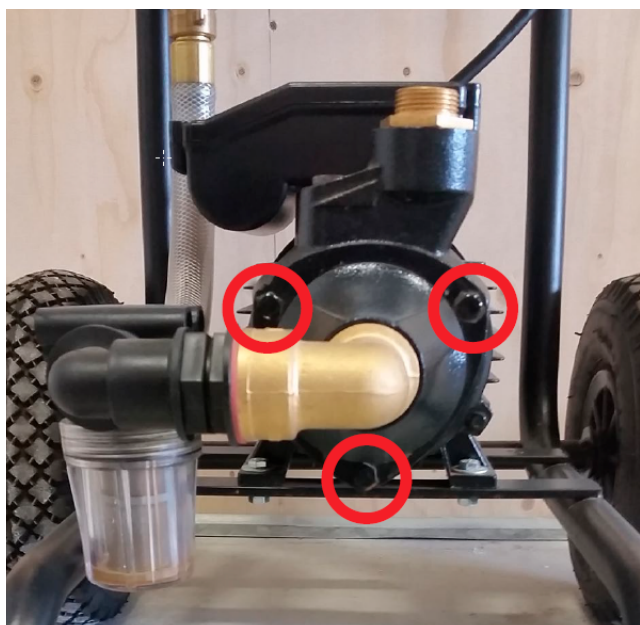
## STORAGE

When storing for lengthy periods the pump housing must be emptied and cleaned to prevent the impeller jamming. The unit must always be stored in a frost-free location.

## TIP

It is possible to help the pump to restart if the impeller becomes stuck. Try first to carefully tap the pump housing with a rubber mallet at the same time as repeatedly starting/stopping the pump. If this does not help, dismantle the pump housing by undoing the three bolts. Use a 10 mm spanner. This is easier if the mobile pump is placed on its back.

When the pump housing has been dismantled you turn the pump wheel back and forth until it becomes loose. Clean/blow away any foreign matter from the pump wheel and pump housing before reassembling the housing. Ensure that the O ring is not damaged.



## TECHNICAL DATA

Article no.	624 68 09
Pump	Centrifugal pump
Flow	Max. 31 l/min
Max. drive pressure	5,9 bar
Motor	230 V, with on/off button. Cable connection 1,7 m with plug contact (schuko).
Output	750 W
Protection class	IP 44
Hoses	2 filling tubes, length 3 m
Max. working temp.	60°C
Mixing vessel	30 litres
Weight	23 kg
Dimensions (W x H x D)	465 x 985 x 555 mm

## ACCESSORIES

LK FSB Filter set, consisting of 10 filter bags. Note! To be used together with "LK FSB Filter cover for mixing vessel".	Art.no. 624 68 08
LK FSB Filter cover for mixing vessel	Art.no. 624 68 07
LK FSB Mixing vessel 30 litres	Art.no. 624 68 06