

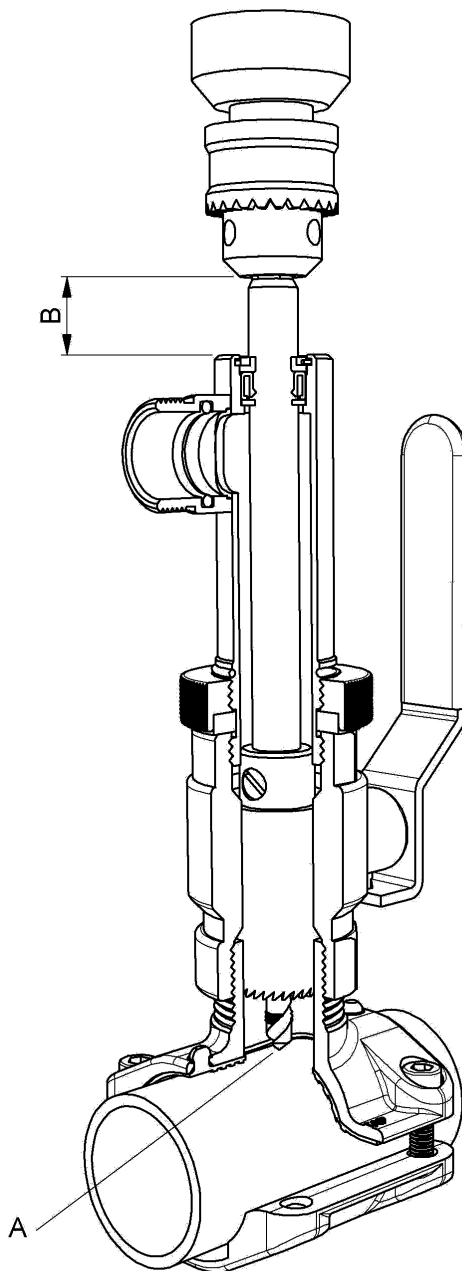
Drilling - Series K1 clamps without non-return valve

For branch connections (T-pipe junctions) between DN 20 (Fe 3/4", Cu 1") and DN150 (Fe 6")

See separate instruction in clamp packaging for installation of clamp.

There are two hole saws diameter 19 and 24 mm for the K1 drilling unit. Use the 19 mm hole saw to drill into copper piping from 28 mm and steel piping from DN20. Use the 24 mm hole to drill into copper piping from 42 mm and steel piping from DN32.

IMPORTANT! When drilling dimensions CU42, CU54 as well as steel DN32 and DN40, there is a risk of drilling through back side of the pipe. To avoid this, pay special attention to points 2, 3 and 6 below



1. Seal the clamp neck with flax and screw on a 1" ball valve. To make sure that the ball valve is of the right size, put the 24 mm (0.94 in) hole saw through the ball valve. The overall dimensions of the valve should be 67-78 mm (0.75-0.94 in). Put the valve in an open position.
2. Screw the drilling unit onto the ball valve (hand-tight is sufficient). Adjust the position of the flushing hose connector with the drilling unit nut and feed in the drilling element until the centre bit is in contact with the pipe (point A in the illustration). Clamp the drill shank in the drilling machine chuck.
3. Measure the distance between the drill housing and chuck face (dimension B in the illustration). Subtract 25 mm (1") and note the result. This is the clearance referred to in point 6.
4. Connect the flushing hose and place the open end in a drain or collecting vessel.
5. Drill at low speed of appr. 200 rpm. The drilling operation consists of three stages:
 - a) The centre bit will first penetrate the pipe wall creating a flow of water through the flushing hose. The pressure in the system will flush away chips through the flushing hose.
 - b) When the centre bit has penetrated the pipe wall, the thread tap further up the bit will 'thread' itself into the pipe. The threaded part of the centre bit will enable it to withdraw the sawed part of the pipe and not be flushed into the system.
 - c) When the centre bit has penetrated the pipe, the hole saw will start penetrating the pipe as well.
6. The hole saw will have penetrated the wall completely when the clearance calculated in point 3 above has been reached.
7. Stop the drill and withdraw the drilling element sufficiently through the ball valve to enable the valve to be closed. **Note that the hole saw and drill must be withdrawn fully past the ball in the valve**, otherwise the centre bit may be damaged.
8. Unscrew the drilling tool from the ball valve.
9. Loosen the set screw that secures the centre bit, withdraw the bit and remove the cut out section of pipe wall. Retighten the centre bit in place tightening the set screw against the flat face on the shank. **NB! It is essential that the centre bit is tightened securely in position against the flat face on the shank. If not securely positioned, the centre bit will spin or even come loose.**