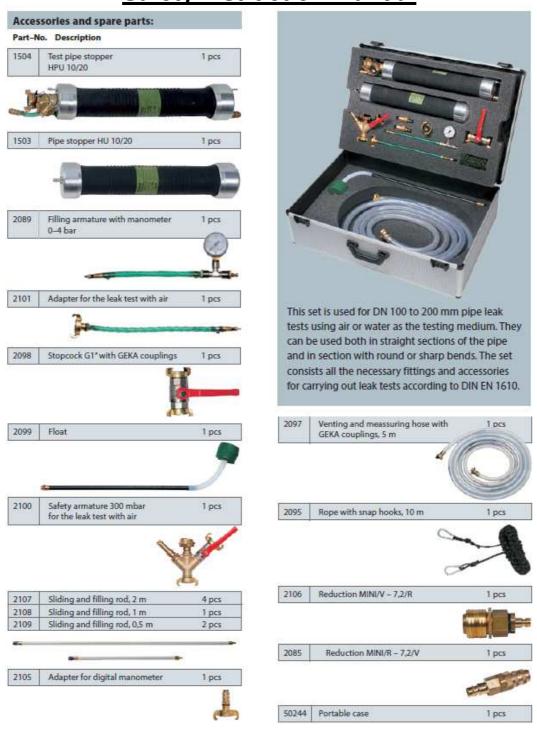
TESTING SET FOR HOUSE CONNECTIONS DS 10/20 Safety instruction manual



Please read and respect operating instructions mentioned below. Nonobservance of these instructions and unprofessional manipulation can endanger your safety and do material damages.

- 1) Get rid of any impurities, bumps, sharp protrusions etc. from the pipe. The pipe should be dry inside as much as possible.
- 2) Measure the inner diameter of the pipe and use the appropriate size of pipe stopper. It is never allowed to use a pipe stopper in a pipe of larger diameter than it is stated on the pipe stopper.
- 3) **Pipe stopper must be completely inserted into the pipe**. Then uniformly inflate this pipe stopper with compressed air. When the pipe stopper perfectly adheres to the pipe surface, secure it in the well against ejection. Then you can inflate the pipe stopper to the **maximum allowable operating pressure (2,5 bar)**.
- 4) Water pressure inside the pipe must not be greater than 0,05 MPa (it means 5 m of water column). During the air leak test the test pressure can be max. 0,02 MPa + 10%.
- 5) Relief the air from the pipe stopper before removing the pipe stopper from the pipe.
- 6) After the use clean the pipe stopper and check it whether it is not damaged. Preserve quick coupling of sliding rod with normal oil spray. Store the pipe stopper in a dark place. Prevent greater fluctuation of temperature.

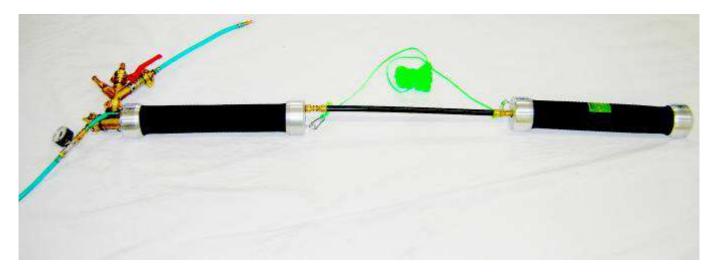
Pipe stopper and eventually its accessories should be regularly checked by specialist. Specialist is a person with relevant knowledge of pipe stopper operation based on his training and experience. This person is also familiar with relevant safety instructions.

Water leak test



- 1) Clean the pipe (where we will perform the leak test) with water.
- 2) Attach the float (p.n. 2099) to the back side of the test pipe stopper HPU 10/20 (p.n. 1504). Attention: Opening of the float must be aligned with the axis of the testing connection.
- 3) Connect sliding and filling rod (p.n. 2107-09) and rope with snap hooks (p.n. 2095) with pipe stopper HU 10/20 (p.n. 1503). Then insert it through cleaning well (eventually through cleaning hole) into the pipe.
- 4) When the pipe stopper HU 10/20 (p.n. 1503) is at the end of the tested pipe, connect the sliding and filling rod (p.n. 2107-09) and rope with snap hooks (p.n. 2095) and test pipe stopper HPU 10/20 (p.n. 1504) and place the pipe stopper into the pipe.
- 5) Using the filling armature with manometer 0-0,4 MPa (p.n. 2089) the pipe stoppers (p.n. 1504 and 1503) are inflated with the air to the stated operating pressure (0,25 MPa).
- 6) To the test pipe stopper HPU 10/20 (p.n. 1504) attach the stopcock G 1" with GEKA couplings (p.n. 2098) that is used for filling the pipe with water.
- 7) Attach venting and measuring hose with GEKA couplings, 5m (p.n. 2097) to the testing connection.
- 8) Using the stopcock fill the tested pipe with water. Close the stopcock when the water level reaches the end of the venting and measuring (p.n. 2097) and start the water leak test according to DIN EN 1610.
- 9) After the test you can relief the water air from the pipe through open stopcock, disassemble the whole set in the reverse order you assembled it, clean it and store it in a portable case.

Air leak test



- 1) Clean the pipe (where we will perform the leak test) with water.
- 2) Connect sliding and filling rod (p.n. 2107-09) and rope with snap hooks (p.n. 2095) with pipe stopper HU 10/20 (p.n. 1503). Then insert it through cleaning well (eventually through cleaning hole) into the pipe.
- 3) When the pipe stopper HU 10/20 (p.n. 1503) is at the end of the tested pipe, connect the sliding and filling rod (p.n. 2107-09) and rope with snap hooks (p.n. 2095) and test pipe stopper HPU 10/20 (p.n. 1504) and place the pipe stopper into the pipe.
- 4) Using the filling armature with manometer 0-0,4 MPa (p.n. 2089) the pipe stoppers (p.n. 1504 and 1503) are inflated with the air to the stated operating pressure (0,25 MPa).
- 5) Attach safety armature 300 mbar for the leak test with air (p.n. 2100) to the test connection and the other side of the test connection leave closed with cap.
- 6) To the safety armature 300 mbar for the leak test with air (p.n. 2100) attach the adapter for the leak test with air (p.n. 2101).
- 7) To the safety armature 300 mbar for the leak test with air (p.n. 2100) attach relevant measuring device or memory device (not included in the package).
- 8) Through the adapter for the leak test with air (p.n. 2101) inflate the tested pipe with air to test pressure according to DIN EN 1610, close the stopcock and start the leak test.
- 9) After the test you can relief the air from the pipe through open stopcock, disassemble the whole set in the reverse order you assembled it, clean it and store it in a portable case.