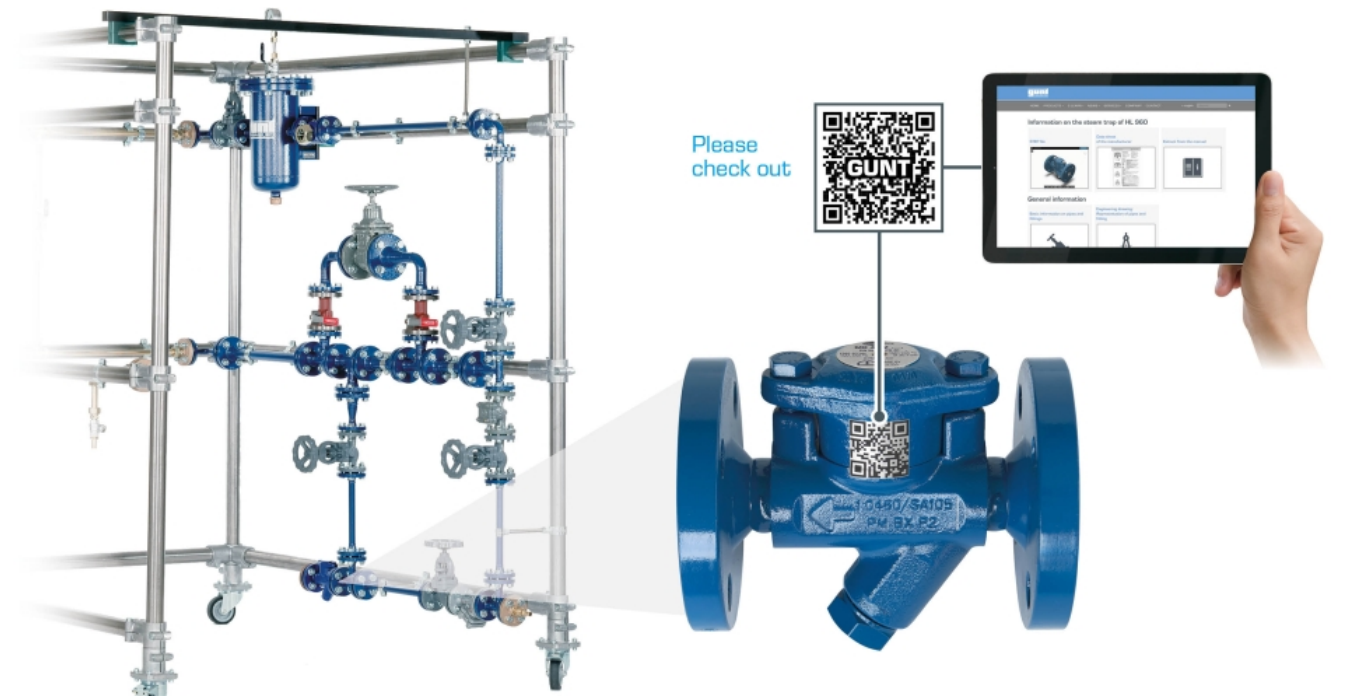
HL 960

Assembly station pipes and valves and fittings



Additional information on the fittings via QR code. 3D STEP files, data sheets, manuals of the manufacturers. Please scan QR code and try.

Description

- **practically oriented assembly of real piping and system installations**
- **detailed, practically-based familiarisation with system components**
- **online access via QR code to digital information on the valves and fittings**

HL 960 is a practical exercise and training system which provides an entirely authentic introduction to industrial pipes and valves and fittings. The assembly kit comprises a wide variety of valves and fittings, piping elements and one pressure tank, as well as sealing and fastening components. A sturdy U-shaped mounting frame permits assembly of a variety of piping systems, plant components and functional units. The piping elements are prepared ready for assembly, and matched to installation lengths and flange connections. The components permit multiple assembly and disassembly.

The training system is designed for students to work together in a learning group. The complete process of constructing a system may take several days if all the steps are followed: obtaining information, planning, deciding, executing, checking and assessing.

The detailed instructional material assists in creating an effective and ordered learning process. It contains technical descriptions of all the system components as well as various specimen systems and installations. Additional information on the valves and fittings is available online via QR code.

Finished setups can be subjected to real testing with water. The pump system HL 960.01 (closed circuit) is available for this purpose.

Learning objectives/experiments

- design and function of valves and fittings, piping elements and system components
- planning of piping and system installations according to specification, e.g. a process schematic
- selection of components and drafting of requirement lists
- technically correct preparation and execution of system assembly
- reading and understanding engineering drawings and technical documentation
- operational testing of the constructed systems (in conjunction with suitable water supply and disposal)
- digital learning: preparation via QR code with digital information on the valves and fittings

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1 mobile frame, 2 DN15 pipe, 3 connection for HL 960.01 (outlet), 4 DN25 pipe, 5 connection for HL 960.01 (inlet), 6 various valves and fittings, 7 pressure vessel with manometer

1 non-return valve, 2 strainer, 3 3-way ball valve, 4 Wedge gate valve, 5 steam trap, 6 sight glass, 7 shut-off valve

The picture shows HL 960 with a completed specimen installation, in the foreground HL 960.01

Specification

[1] assembly exercise for engineering training
[2] piping network comprising pipe bends, elbows, T-pieces and transitions in nominal widths DN15, 25, 40
[3] pipe connections via flanges or cutting ring screw fittings
[4] standard commercially available flanged fittings: shut-off valve, non-return valve, strainer, condensation drain, inspection glass, ball valve, gate valve
[5] ball valve with cutting ring screw fitting
[6] pressure vessel with manometer, connection via DN15 flanges
[7] connection to water supply via hose with coupling
[8] optional water supply via HL 960.01
[9] mobile frame for mounting of pipe network
[10] the kit forms part of the GUNT assembly, maintenance and repair practice line
[11] online access via QR code with digital information on the valves and fittings

Technical data

Pipe network
- 9x tube with steel flange
- 9x tube with cutting ring screw fitting
- 5x pipe bend, 90°
- 6x T-piece
- 1x enlargement

Flange fittings
- non-return valve, strainer, 3-way ball valve, wedge gate valve, steam trap, sight glass, shut-off valve
- grey cast iron
- nominal pressure: PN16 for DN15, 25 / PN10 for DN40

Ball valve with cutting ring screw fitting
- brass, nickel-plated
- nominal pressure: PN25
- nominal size: G1/2”

Pressure vessel
- manometer: 0...4bar
- steel flange: DN15

LxWxH: 1540x1840x2020mm
Weight: approx. 300kg

Required for operation

Water connection and drain via hoses with couplings

Scope of delivery

1 frame
1 set of valves and fittings, pipes, piping elements with sealing and fastening material
1 set of tools
1 set of instructions, comprising drawing set and instructional material

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Optional accessories

HL 960.01	Assembly and alignment of pumps and drives