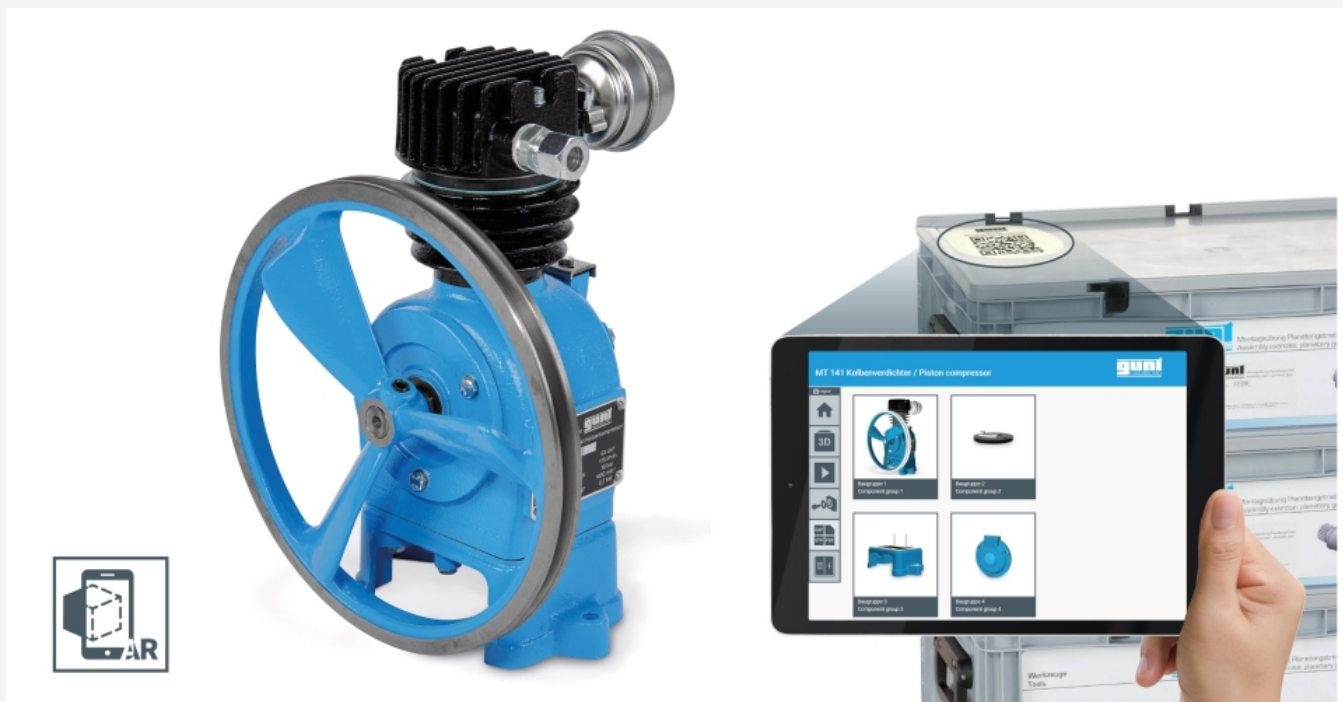


MT 141

Assembly exercise: piston compressor



The illustration shows the assembled piston compressor and the GUNT Media Center, tablet not included

Description

- **assembly exercise supported by augmented reality**
- **multimedia teaching material on USB stick and online in the GUNT Media Center: 3D PDF, DXF/STEP files, videos**

Piston compressors are a type of driven positive displacement machines, which transfer energy from the compressor to the fluid via a variable volume. The MT 141 device is an air-cooled piston compressor that sucks in ambient air and from this generates compressed air.

The MT 141 assembly kit is part of the GUNT Practice Line for assembly, maintenance and repair, which is designed for training at vocational schools and company training centres. The assembly and disassembly processes can easily be completed within standard lesson times. Only basic tools, all supplied with the kit, are required for assembly. The fit seats of the compressor are designed so that the entire assembly can be carried out by hand.

Using the optionally available MT 140.01 unit, the assembled compressor can be subjected to a functional test.

The contemporary didactic multimedia teaching materials provide extensive technical information as a basis for lesson design. The core element of the teaching materials is a complete set of drawings in file format with parts lists, individual part designations, exploded view and assembly drawings and 3D drawings. All drawings are to standard and dimensioned in accordance with production requirements. The set of drawings consists of DXF, STEP and PDF files. The assembly videos are also very useful. The files are also available free of charge online in the GUNT Media Center. An augmented reality interface (Vuforia View) for mobile devices is available for visualising the processes and functions in a piston compressor.

The disassembled piston compressor is delivered in a stable storage system with foam inlay. The MT 120.02 Transport roller or the MT 120.01 Trolley are suitable for convenient transport of the assembly exercise.

Learning objectives/experiments

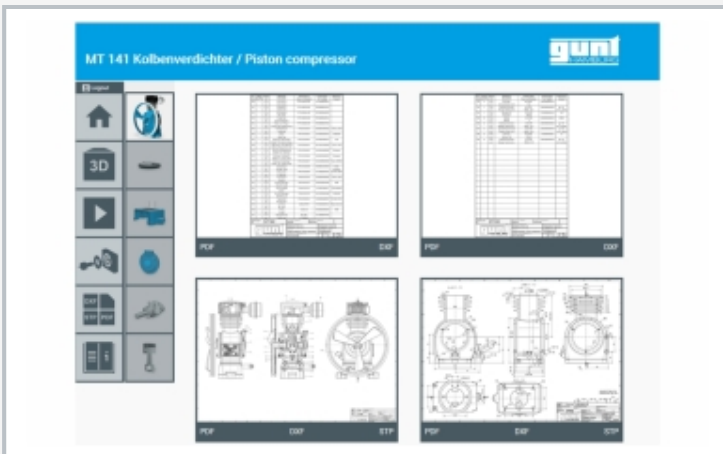
- function and design of a piston compressor
- planning and presentation of the assembly process, supported by augmented reality
- assembly and disassembly, also for maintenance and repair purposes
- read and understand technical drawings (PDF, DXF and STEP files)
- familiarisation with various machine elements: piston, crankshaft
- familiarisation with assembly aids and devices
- create programmes for 3D printing and CNC machining
- together with MT 140.01
 - ▶ functional testing of a piston compressor
 - ▶ professional installation of the compressor in the test device, including setting and alignment

MT 141

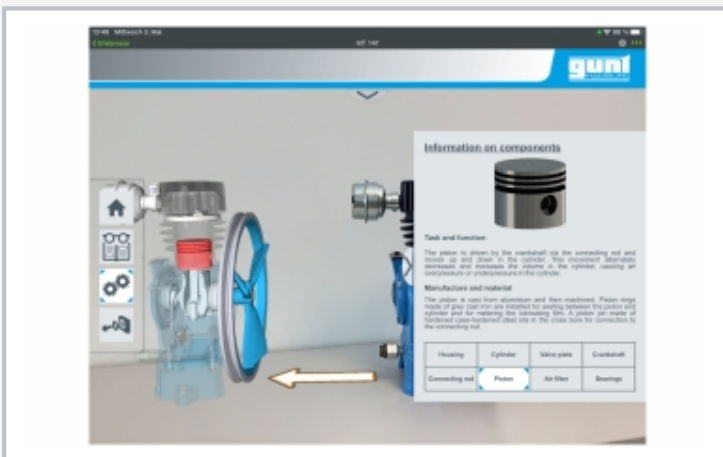
Assembly exercise: piston compressor



Transparent view of the assembled piston compressor



Screenshot of the GUNT Media Center



Augmented reality interface

Specification

- [1] single-stage piston compressor assembly kit, air-cooled, with fan flywheel and intake filter
- [2] part of the GUNT Practice Line for assembly, maintenance and repair
- [3] disassembled piston compressor with small parts kit and 4 assembly devices, delivered in stable storage system with foam inlay
- [4] compressor consisting of crankcase with cylinder, piston and rod, cylinder head and valve plate
- [5] augmented reality: visualisation of machine elements, display of exploded views, functions
- [6] multimedia instructional materials: PDF, CAD files, STEP files, videos
- [7] online access to the GUNT Media Center

Technical data

Single-stage piston compressor, air-cooled

- cylinder bore: 50mm
- stroke: 32mm
- displaced volume: 63cm³
- speed: 1850min⁻¹
- max. pressure: 10bar
- intake capacity: 115L/min
- drive power: 0,75kW

Dimensions, assembled, LxWxH: 223x256x314mm

LxWxH: 600x400x760mm (storage system)

Weight: approx. 27kg

Required for operation

PC or online access recommended

Scope of delivery

- 1 kit
- 1 set of tools
- 1 set of assembly jigs
- 1 set of spare parts
- 4x storage system with foam inlay
- 1 set of instructional material, bestehend aus: technical description of system, complete set of drawings with lists of parts (PDF, DXF, STEP), description of assembly and disassembly sequences, assembly videos, online access to the GUNT Media Center

MT 141

Assembly exercise: piston compressor

Optional accessories

051.12001	MT 120.01	Trolley
051.12002	MT 120.02	Transport roller
051.14001	MT 140.01	Assembly exercise piston compressor: functional test