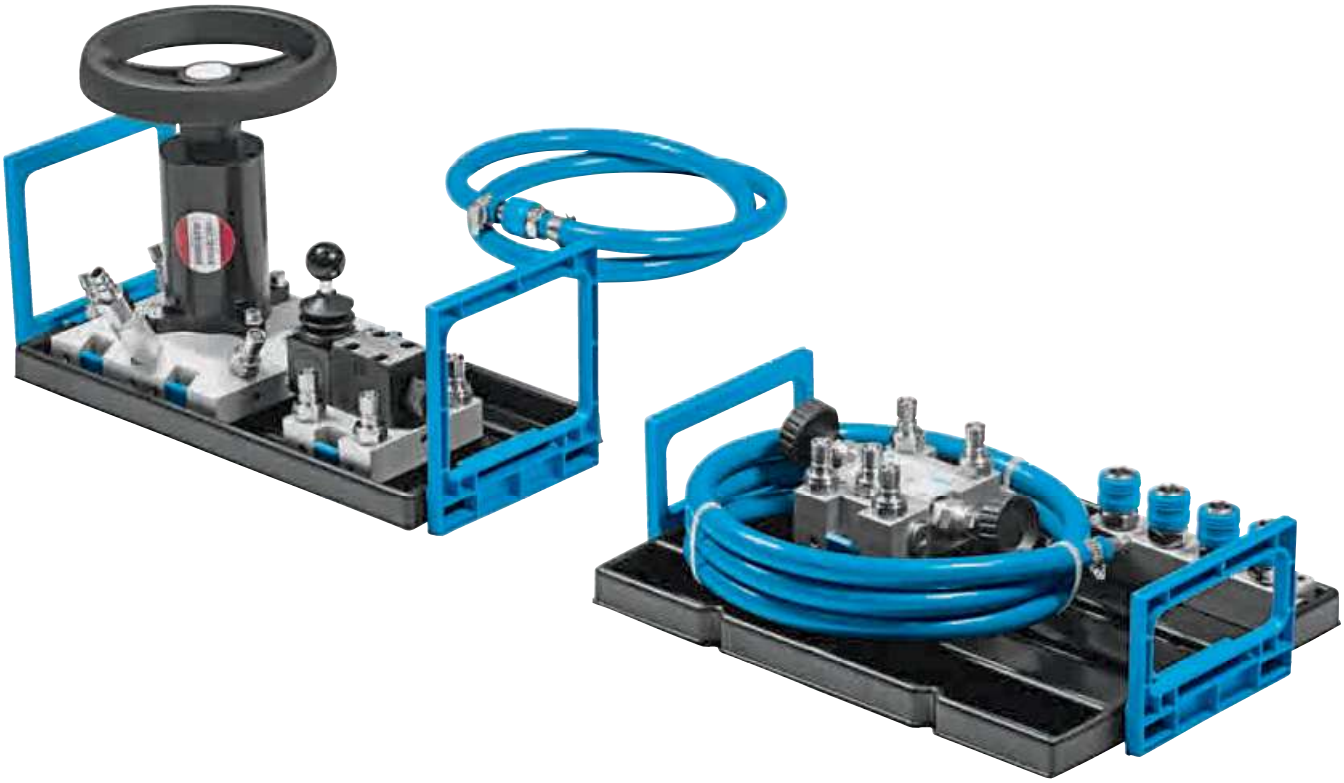
Equipment set TP 802 – Advanced level

Mobile hydraulics – Hydrostatic steering system



Hydrostatic steering system

Hydrostatic steering is an essential subsystem in many mobile machines and is especially well-suited to managing high steering forces.

The number and design of the components are specifically adapted to the projects in the workbook. This ensures a maximum return on the training with minimum effort.

For multiple use

As with all Festo Didactic training packages, including mobile hydraulics, all components are designed to be used as parts of a single, compatible system. This means that many parts at basic level can also be used for experiments at advanced levels. Long-term maintenance of the interfaces is also an important part of the design, whether mechanical with Quick-Fix, hydraulic with low-leakage couplings, or electrical with safety plug technology.

Components and accessories from the equipment set TP 801 are required to carry out the projects.

Safety first!

Safety in the use of our training system is top priority. Many mobile hydraulics elements are not designed to be pressure resistant. This is why our oil return ports use an open coupling system. Students should nonetheless be made fully aware of safety matters. Making sure connections are correct will minimize impact on resources and the environment.

TP 802 – training content

TP 802 promotes the practical testing and technical measurement of the structure and method of operation of a hydrostatic steering system, comprising a steering valve, anti-shock and anti-cavitation valves, steering cylinder(s), constant-displacement pump, and (if needed) secondary loads.

The basics include the structure of different steering systems with through-rod and differential cylinders, and determining the displacement and the torque dependencies of the steering unit. In addition, emergency steering characteristics are explored and tested. An overload is applied to the system, its behavior is analyzed and anti-shock valves are set accordingly. The steering system's priority over a secondary load also forms part of this training package.

Complete equipment set TP 802 in equipment tray		**574162**

The most important components at a glance:

1	1x	Steering unit (Orbitrol)	572146
2	1x	Shock and anti-cavitation valve	572148
3	1x	4/3-way hand lever valve, relieving mid-position (AB –› T), detenting	544344
4	1x	Tubing line for unpressurized return	573024
5	1x	4-way return header, unpressurized	573026

Necessary accessories, also order:

9x	Hose line with quick release couplings, 600 mm	152960
4x	Hose line with quick release couplings, 1000 mm	152970
3x	Hose line with quick release couplings, 1500 mm	159386
2x	Digital multimeter	8040005
	4 mm Safety laboratory cables ➔ Page 155	
	Hydraulic power pack ➔ Pages 148 – 149	
	Power supply unit for mounting frame ➔ Page 155	

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The media on offer for TP 802
– Workbook for mobile hydraulics TP 800
– Diagnostic system TP 810 with FluidLab®-M
– Designing and simulating with FluidSIM®
– WBT Hydraulics
– WBT Electrohydraulics
– Hydraulics poster set

The workstation system
Learnline has a modular design and offers an almost unlimited range of configuration possibilities for the Learnline workstation, such as the table extension for PC-assisted measurement with TP 810 and FluidLab®.

Learnline has a profile surface area of 1400 x 700 mm per side – lots of room for large components and complex circuits.

Quality isn't compromised, as its construction and functionality are the very best. The torsionally rigid design and the high-quality coating on the work surface and frame guarantee a long service life despite high loads. Learnline can handle the hard daily lesson routine, as well as a vibrational load during the hydraulic position control.