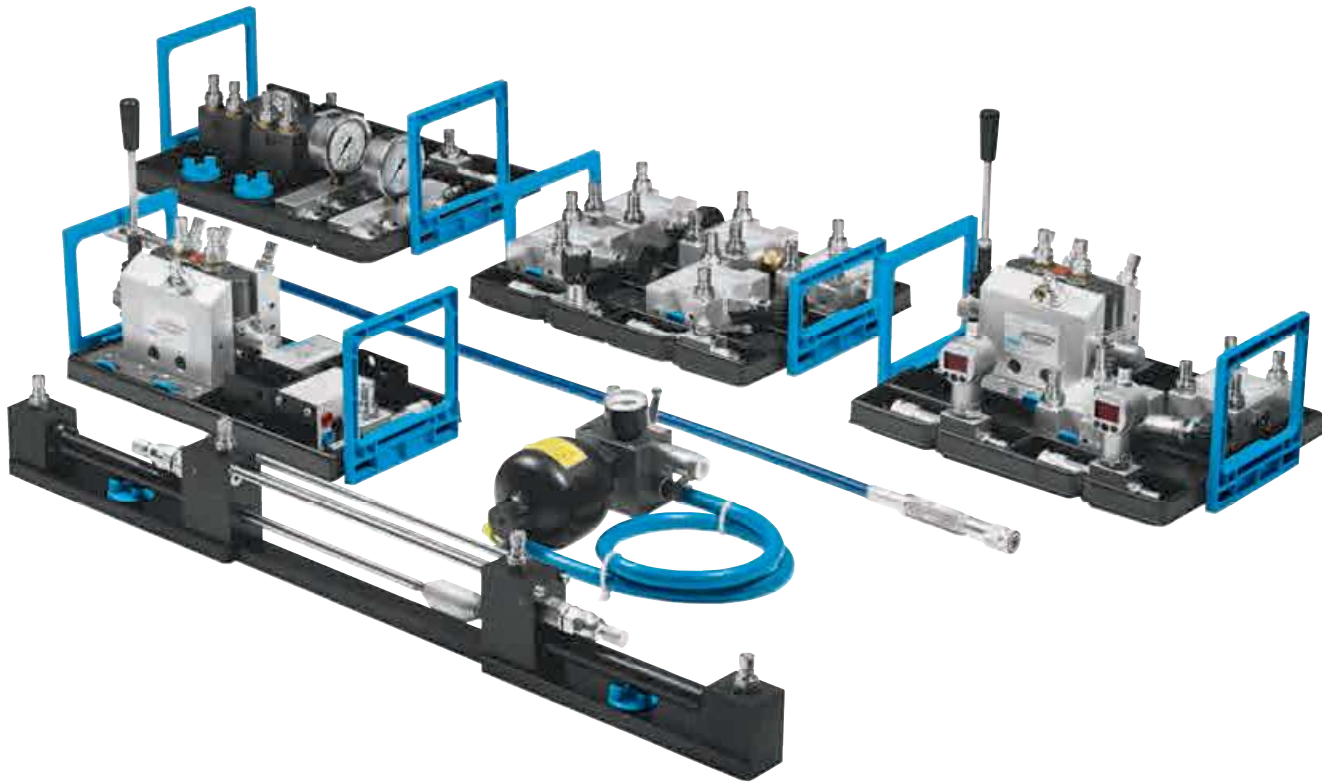


Equipment set TP 801 – Basic level

Mobile hydraulics – Working hydraulics 1



Mobile hydraulics from Festo Didactic

Mobile hydraulics has a range of specific features compared to conventional industrial hydraulics. Training content is therefore usually explained and demonstrated directly on the vehicle.

But what if the hydraulic components being explained or the vehicle are not accessible or the system is too complex for teaching purposes?

Festo Didactic's new training system closes the gap between the basic principles of hydraulics and the hydraulic systems on a vehicle.

Complexity clarified

The new training packages for mobile hydraulics take components which often appear in vehicles as highly integrated, functional modules and present them as separate, individual elements with unique symbols and clear terminal identification codes.

The teaching principle behind this is that of guiding students step-by-step from a simple component to a complex, complete picture, with practical demonstrations. The universal compatibility of the single elements allows them to be used for other function units, making this equipment set highly flexible.

Fully compatible

With uniform interfaces and a modular structure, it is possible to put together even quite complex, entire systems. All mobile hydraulics elements are compatible with the current Festo Didactic equipment sets for hydraulics fundamentals, electrohydraulics, proportional, and closed-loop hydraulics.

However, it is the double pump power unit with a pressure-limited constant displacement pump, and variable displacement pump with load sensing control, which forms the basis for the perfect training station and workstation. It also allows assembly of the load sensing system with TP 803.

Alternatively, it is possible to use a hydraulic power unit with a constant displacement pump and a volumetric flow rate of about 4 l/min for TP 801 and TP 802.

TP 801 – training content

Many vehicles and applications make use of constant displacement pumps which continue to provide volumetric flow even when no hydraulic power is required. In TP 801, the energy usage of different systems – also when under load – is compared and assessed. Systems with multiple consuming devices are set up, connected in parallel, tandem, and series, and examined in terms of characteristics, such as priority, flow rate distribution, and pressure dependency.

The training also looks into the basics of holding the load with poppet valves and lowering the load with counter pressure and a counterbalancing valve.

Complete equipment set TP 801 in equipment tray

574161

The most important components at a glance:

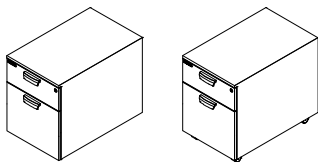
1	1x Counterbalance valve	572149
2	1x Pressure compensator for open center load sensing	572123
3	1x 3-way pressure reducing valve	544337
4	2x Pressure relief valve	544335
5	1x Flow control valve	152842
6	1x Non-return valve, 0.6 MPa opening pressure	548618
7	1x Shuttle valve	572122
8	1x Double non-return valve, delockable	572151
9	1x Shut-off valve	152844
10	2x 6/3-way proportional hand lever valve	572141
11	1x Loading unit/cylinder load simulator	572145
12	1x Diaphragm accumulator with shut-off block	152859
13	2x Hydraulic motor	152858
14	2x 4-way distributor with pressure gauge	159395
15	3x T-distributor	152847
16	2x Pressure switch, electronic	548612
17	2x Flow sensor	567191

Necessary accessories, also order:

10x Hose line with quick release couplings, 600 mm	152960
4x Hose line with quick release couplings, 1000 mm	152970
2x 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	

The equipment tray

The training package is supplied with an equipment tray, which also fits in the drawers of the workstations. A fixed drawer unit for mobile hydraulics with two drawers is recommended for particularly large components.



Fixed drawer unit for mobile hydraulics
(2 drawers)

Order no. 574153

Wheeled drawer unit for mobile hydraulics
(2 drawers)

Order no. 574152

The media on offer for TP 801

- 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

