

Test Benches & Cleaning Machines

Reliable, clean and eco-friendly.



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Test Benches & Cleaning Machines



Universal

- For all types of hoses and fittings



Ecoline

- Value driven solution for less frequent use



Integrated Tank

- Fast filling and automatic pressure release of tested parts

Special Features



P 160



P 180



P 250



P 260



P 320



P 350

Quality and Safety

Fully enclosed test chamber.

Also suitable for static pressure testing of various hydraulic components such as valves, hydraulic cylinders, housings, quick-release couplings, etc.

Safety switch - when the hood is opened, all pressure is automatically released within 1/10 second.

Hood with gas springs and transparent Makrolon® safety pane.

Environmentally friendly test medium (water-oil emulsion).

Easy and safe to operate.

Test bench can be retrofitted with extension element (P 160).

Logging software/printer available as optional equipment at UPP (P 160 / P 180) or IPC (P 180) Option.

Compressed air filter with condenser.

Innovative Technology for fast Processing

Parts to be tested (hose lines) can be inserted quickly by means of our Steck-O-System or hand clamping (P 180 optional) and without any time-consuming preparation or modifications to the tank.

Fast filling and automatic pressure release of tested parts.

CE compliant

Weight-loading gas-spring cover.

Makrolon safety screens.

Safety valve in test chamber.

Guard locking at P 180.

Quality and Safety

Fully enclosed test chamber.

Quick filling and automatic venting of the test pieces.

Simplest and trouble-free handling.

Change between automatic and manual setup mode.

High test capacity provides fast payback.

Innovative Technology for fast Processing

Time-saving product parameter memory.

Proper documentation and controlling.

CE compliant

Gas pressure spring at P 250.

Pneumatically operated door on P 260.

Quality and Safety

Fully enclosed test chamber.

Quick filling and automatic venting of the test pieces.

Simplest and trouble-free handling.

Change between automatic and manual setup mode.

High test capacity provides fast payback.

Innovative Technology for fast Processing

Proper documentation and controlling.

CE compliant

Guard locking at P 320 and safety sensor system at P 350.



Hose lines that cannot withstand the high pressure for which they are designed can cause serious damage, resulting in high costs - often higher than the price of a test bench. Why take a risk that can be easily avoided?

By testing the quality of your products, you opt for safety. The P 160 and P 180 workshop test benches allow for the efficient and safe final inspection and testing of hose lines. They are easy to operate and quickly become part of your routine procedures.



P 180 with pallets 1,200 x 800



P 160



P 180 IPC + hand clamping



P 160 Ecoline

P 160



P 180

Technical Data	P 160 Ecoline	P 160	P 180 NEW
Test pressure	150 - 1,300 bar / 2,175 - 18,850 psi	150 - 1,300 bar / 2,175 - 18,850 psi	150 - 1,500 bar / 2,175 - 21,750 psi
Drive	oscillating intensifier	oscillating intensifier	oscillating intensifier
Flow	1.1 l/min	1.1 l/min	3.5 l/min
Capacity	7 bar, 20 NI/min	7 bar, 20 NI/min	7.5 bar, 100 NI/min
Tank dimensions mm (inch)	1,200 x 600 x 250 (47 x 23.6 x 9.8)	1,590 x 795 x 370 (62.6 x 31.3 x 14.6)	2,395 x 825 x 400 (94 x 33 x 15.4)
Test bench dimensions mm (inch)	1,400 x 600 x 1,200 (55 x 23.6 x 47.2)	2,210 x 950 x 1,325 (87 x 37.4 x 52.2)	2,916 x 1,020 x 1,200 (113.6 x 43.7 x 47)
Reservoir capacity	33 l	100 l	180 l
Colour	RAL 5012 Blau	RAL 5012 Blau, RAL 7021 Grau	RAL 5012 Blau, RAL 7021 Grau
Weight	120 kg empty	210 kg empty	600 kg empty
Noise level	72 dBA	72 dBA	72 dBA
Test medium	Water-oil emulsion EM-CO 18kg	Water-oil emulsion EM-CO 18kg	Water-oil emulsion EM-CO 18kg
Accessories			
Suction filter	✓	✓	✓
Air preparation unit	✓	✓	✓
Steck-O-Adapter (s-series only)	DN 4/6/8/10/12/ G 1/2" 405.901	DN 4/6/8/10/12/ G 1/2" 405.901	DN 4/6/8/10/12/ G 1/2" 414.902
Steck-O-Adapter (s-series only)	R 1/4"/ 3/8"/ 1/2"/ 3/4"/ G 1/2" 405.902	R 1/4"/ 3/8"/ 1/2"/ 3/4"/ G 1/2" 405.902	R 1/4"/ 3/8"/ 1/2"/ 3/4"/ G 1/2" 405.902
Options			
Alternative drive only with pre filling pum 405.904/405.914	-	0.38 kW, 400V 50Hz 3Ph	-
High pressure * (Steck-O-System not available)	-	150 - 3,000 bar / 2,175 - 43,500 psi	150 - 3,000 bar / 2,175 - 43,500 psi
Low pressure *	-	20 - 1,300 bar / 290 - 18,850 psi	20 - 1,500 bar / 290 - 21,750 psi
IPC	-	-	✓
UPP	✓	✓	✓
Hand clamping	-	-	✓ (2 lines)

* Only one of the two options possible.

Description



P 160 / P 180 are also available in stainless steel.

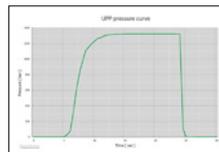


P 160 extension element
407.3150:
total chamber length
3,600 mm (141.7")

407.3250:
total chamber length
4,400 mm (173.22")



UPP Pressure Sensor for test benches.



UPP Pressure graph



4 Steck-O-Adapter 405.6.



The P 250 / P 260 Test Bench with Control IPC are new modular test benches that can be adapted to your needs. They offer the possibility to test with the Steck-o, Hand or Hydraulic quick cone system. You can also install a Euro Pallet inside for the P 250 / P 260. The Chamber also accepts a non-end extension if you prefer to test a hose lengthwise (only P 250). The controller offers all parameters for a fully automatic test, with visualization of the pressure and may other features but also connectivity to your server or other machine in line with industry 4.0. or IoT.



P 250 with one hand clamping



P 260 with four hand clampings



P 250



P 260

Technical Data	P 250	P 260 NEW
Test pressure	150 - 1,500 bar / 2,175 - 21,750 psi	150 - 1,500 bar / 2,175 - 21,750 psi
Control	IPC	IPC
Drive	oscillating intensifier	oscillating intensifier
Flow (effective)	7.5 l/min	7.5 l/min
Capacity	7 bar, 100 NI/min	7 bar, 100 NI/min
Anticorrosion additive	Water-oil emulsion EM-CO 18kg	Water-oil emulsion EM-CO 18kg
Tank dimensions mm (inch)	2,194 x 890 x 470 mm (86" x 35" x 18.5")	2,194 x 890 x 1,100 mm (86" x 35" x 43.3")
Test bench dimensions mm (inch)	2,700 x 1,450 x 1,550 mm (106" x 57" x 61")	2,700 x 1,450 x 2,100 mm (106" x 57" x 82.7")
Reservoir capacity	120 l	120 l
Loading	250 kg	250 kg
Weight	570 kg	900 kg
Noise level	75 dBA	75 dBA
Capacity electric	3 VAC	3 VAC
Steck-O	✓	✓
Options		
High pressure	150 - 3,000 bar / 2,175 - 43,500 psi	150 - 4,500 bar / 2,175 - 65,250 psi
Low pressure	20 - 1,500 bar / 290 - 21,750 psi	20 - 1,500 bar / 290 - 21,750 psi
Stainless steel tank optional	✓ Standard no VA	–
Extended version on request L x W x H mm (inch)	2,220 x 1,000 x 1,400 (87.4" x 39.4" x 55.11")	–
Weight	420 kg	–
VA	✓	✓
Hand clamping	4 Lines	4 Lines

Steck-O up to 1.500 bar / Hand or hydraulic clamping up to 3.000 bar

P 250:

Steck-O adapter and screw connection:

- 1 x Steck-O up to 1500 bar: 414.1000
- 4 x Steck-O up to 1500 bar: 414.1012
- 1 x Screw connection up to 3000 bar: 414.1008
- 4 x Screw connection up to 3000 bar: 414.1013

P 250:

Fast clamping system:

- 1 x Hand clamping up to 1500 bar: 414.1002
- 3 x Hand clamping up to 1500 bar: 414.1032
- 1 x Hand clamping up to 3000 bar: 414.1005
- 3 x Hand clamping up to 3000 bar: 414.1035

P 260:

Steck-O adapter and screw connection:

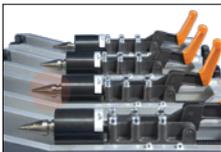
- 1 x Steck-O up to 1500 bar: 415.1100
- 4 x Steck-O up to 1500 bar: 415.1104
- 1 x Screw connection up to 4500 bar: 415.1181
- 4 x Screw connection up to 4500 bar: 415.1184

P 260:

Fast clamping system:

- 1 x Hand clamping up to 1500 bar: 415.1121
- 4 x Hand clamping up to 1500 bar: 415.1124
- 1 x Hand clamping up to 3000 bar: 415.1151
- 4 x Hand clamping up to 3000 bar: 415.1154

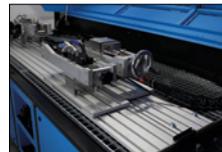
Description



Axially adjustable quick-change system with adjustable rotating head.



Sealing tips for hand clamping.



Extension of quick system to 2 lines.



Barcode Scanner BCR CTR2C-Kit



With the P 320 and P 350, you can perform precision tests of hoses of up to 2 500 mm in length and with pressures up to 1 000 bar. For the P 320, you can choose between automated and manual setup mode with a pressure up to 4 500 bar as an option. Our P 320 and P 350 have an extra-large test chamber that offers you the space you need to meet any challenge.

Pallets with hoses as well as large, heavy hose coils can be easily supplied to the chamber by forklift. Hose samples are connected easily with adapter hose and quick connection to pressure ports. The P 320 also has a hand clamping option.



P 320



P 320



P 320 with UPP



P 350 with Container



P 320



P 350

Technical Data	P 320	P 350
Test pressure	150 - 1,500 bar / 2,175 - 21,750 psi	150 - 1,000 bar / 2,175 - 14,500 psi
Control	Manual	IPC
Drive	Diaphragm pump + intensifier	Diaphragm pump + intensifier
Flow (effective)	12.5 l/min	12.5 l/min
Tank dimensions closed (L x W x H) mm (inch)	External: 2,270 x 1,420 x 2,525 (63.3" x 49.6" x 83.8") Internal: 1,607 x 1,260 x 2,130 (89.4" x 55.9" x 99.4")	P 350 Container: External: 2,100 x 2,170 x 2,650 mm (76.8" x 76.8" x 86.6") Internal: 1,950 x 1,950 x 2,200 mm (82.7" x 85.4" x 104.3")
Aggregate dimensions	– (integrated)	850 x 1,390 x 810 mm
Reservoir capacity	150 l	P 350 Container: 1,040 l
Colour	RAL 5012 blue/RAL 7021 grey	RAL 5012 blue/RAL 7021 grey/RAL 9002 rey-white
Weight of tank	P 350 Container: 650 kg	P 350 Container: 650 kg
Weight of power unit	–	210 kg
Noise level	75 dBA	75 dBA
Max. hose length	depending on Ø, several meters on coil possible	depending on Ø, several meters on coil possible
Test medium	Water-oil emulsion EM-CO 18kg	Water-oil emulsion EM-CO 18kg
Accessories		
Pressure + return filter	✓	✓
Air preparation unit	✓	✓
Hand clamping	✓ (1 piece)	–
Options		
Second chambers are possible	–	–
IPC	✓	Standard
Low pressure	20 - 1,500 bar / 290 - 21,750 psi	20 - 1,000 bar / 290 - 14,500 psi
High pressure	150 - 4,500 bar / 2,175 - 65,250 psi	–

P 320:

Steck-o Adapter and Screw Connection:

- 1 x Steck-O up to 1,500 bar: 416.1101
- 1 x Screw connection up to 4,500 bar: 416.1181

P 320:

Fast clamping system:

- 1 x Hand clamping up to 1500 bar: 416.1121
- 1 x Hand clamping up to 3000 bar: 416.1151

Description



P 320 Laptop (UPP)



P 320 Interior

CONTROL IPC.P



Industrial PC with 12" touch panel interfaces:
 Ethernet RJ45
 USB 3.1
 serial port (COM)
 Profinet
 ProfiBus
 CAN bus

START SCREEN



- Individual Test
- First time set-up
- Serial test

INDIVIDUAL TEST

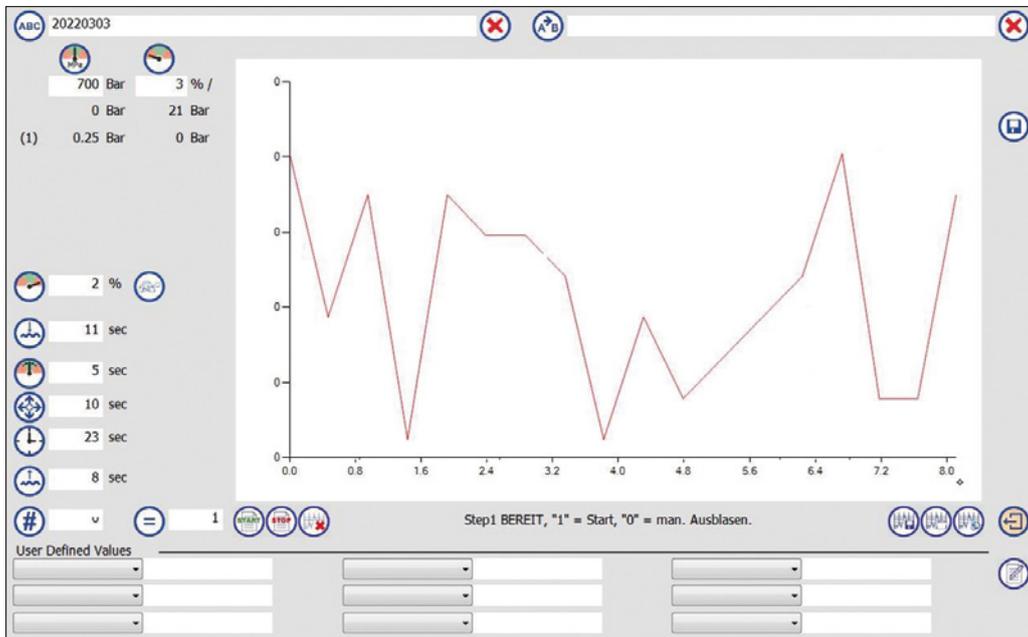


This screen is activated to specify the settings for a hose test in the "Individual test" mode. In this operation mode, the log files are always saved automatically, the complete test is continuously logged.

FIRST TIME SET-UP



In the set-up mode, the required settings for a new type of test object can be identified by not specifying any times but individually switching over to each individual step and recording the duration of the steps.



In the menu you can step the following parameters:

- Pressure (Bar/ PSI)** – the test pressure is the basis for the pressure adjusted by the test stand during the test.
- Test tolerance (%)** – the maximum permissible pressure drop in percent of the test pressure.
- Filling time (sec)** – when a test is started, the entire system is flooded with the test medium for the time entered.
- Residual time (sec)** – the time during which the test stand will stabilise pressure control.
- Test time (sec)** – the test time is the duration of the test.
- Blowing time (sec)** – the test medium is discharged from the system using compressed air for the time entered for the entire system.

SERIAL TEST



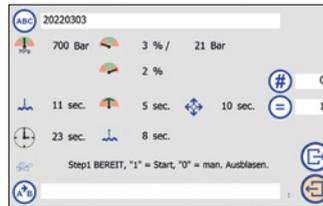
The series test is used for testing of hoses from the database and is particularly advantageous for large quantities. Series testing can be performed in simple mode with reduced setting options or in detail mode with full functionality.

LOAD DATA RECORD USING A SCANNER (OPTION)



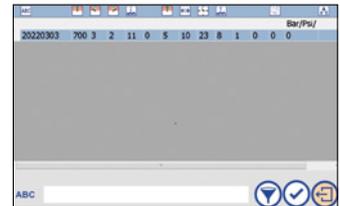
Scan the barcode using the scanner, or enter the barcode text manually. The scanned barcode is interpreted as the name of a data record.

OPERATIONAL MODE



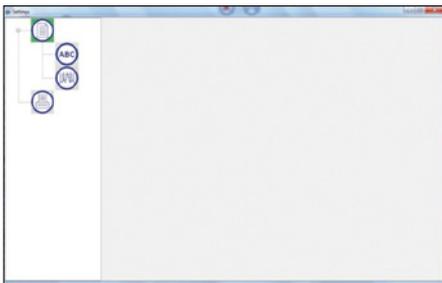
In the simple mode, an item can be uploaded from the database and the quantity can be selected; other settings cannot be made. The log file is recorded and, if selected, saved automatically.

DATA BANK MODE



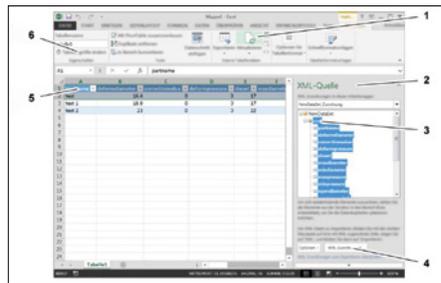
The user interface shows the database as a list of data records including names and test data. The requested data record is selected by a touch and is then highlighted blue.

LOG SETTINGS



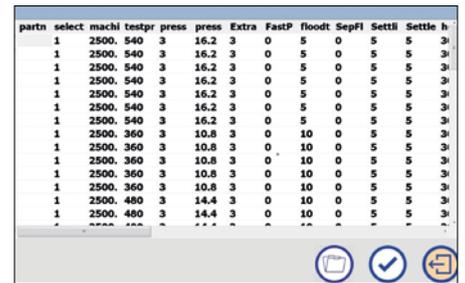
The relevant settings may be selected here in the tree menu.

ARTICLE DATABASE



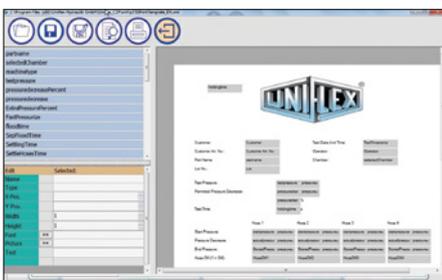
The data records of the article database can be edited externally and then transferred back onto the control. To do this, first load the data from the control onto a USB storage medium and, after processing, load them back onto the control.

ACTIVATE SAVED LOG FILES



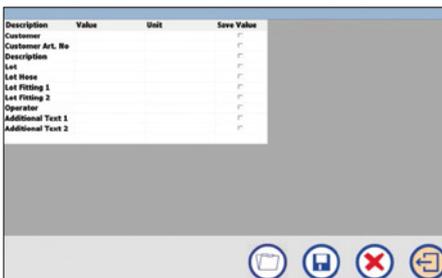
Displays the currently set log file overview. A log file may be selected and loaded to display or print it. The table lists all logs saved at the set storage location. All test-relevant data is shown. By scrolling to the right, other columns may be displayed. A log file is marked for opening by touching any cell in the line.

PRINTER AND LOG TEMPLATE EDITOR

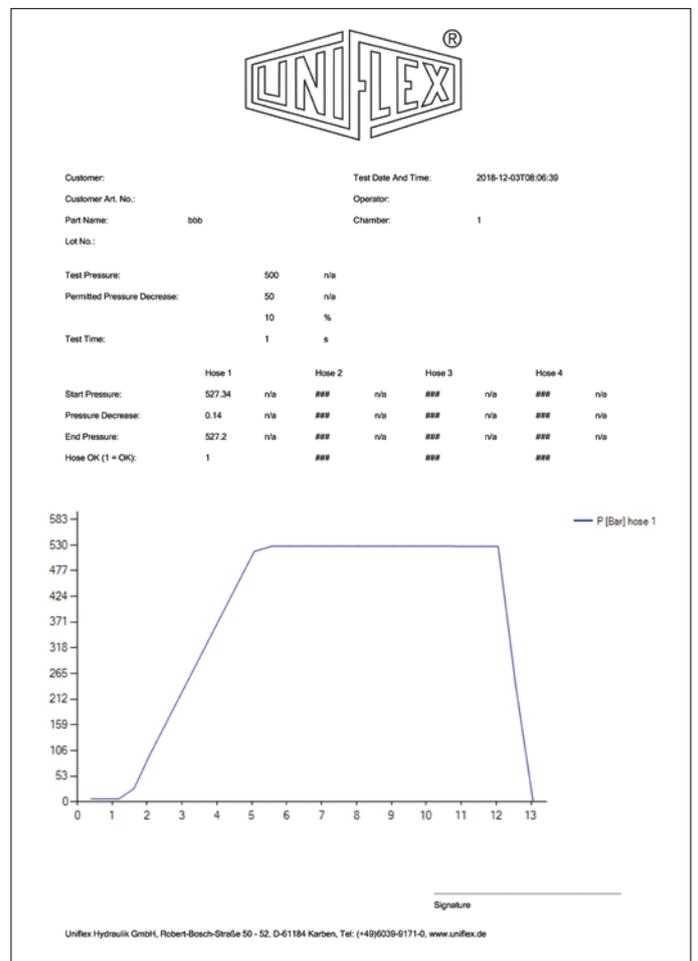


New log templates may be created or existing log templates may be edited here. The log template editor is opened by using the pre-set log template and the current user-defined values.

USER-DEFINED VALUES



User-defined values may be created and saved for each item specifically and in any number. These values are not used by the control unit, but saved in the log file and may be printed in the record as well as shown and edited in the detail view. Examples for possible user-defined values are: Operator, Charge, Customer Item Number, etc.

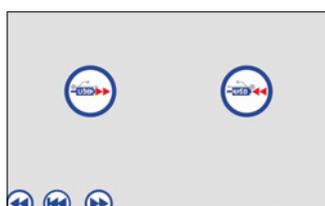


MACHINE SETTINGS



The machine settings area is password protected. After the user has logged in, all screens may be opened one after the other.

USB STORAGE MEDIUM



The USB sockets are located in the test stand casing and are marked appropriately. The precise location is shown in the operating instructions of the relevant unit and/or test stand.

UNITS



The currently set unit is shown at the top. Select the appropriate unit by touching the button

LANGUAGE



The currently set language is shown at the top. Select the appropriate language by touching the flag.



UNIFLEX cleaning machines effectively remove residue and scale from hose cutting, crimping and press fitting.



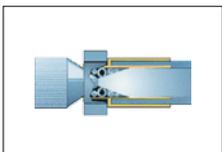
RG 2



RG 10

Technical Data	RG 2	RG 10
Drive	Diaphragm pump, 7 bar Air	Diaphragm pump, 7 bar Air
Maximum flow rate	25 l/min	180 l/min
Pressure filter	3 µm	10 µm
Air filter	5 µm	5 µm
Max. air consumption	100 NI/min	250 NI/min
Working range	up to 1¼" ID	up to 2" ID
Max. length, depending on bore size	2,5 m/8 feet	20 m/65 feet
Tank capacity	38 l	215 l
Working area	350 x 750	800 x 1,600
Cleaning agent	Non-toxic and corrosion-free emulsion, water based.	Non-toxic and corrosion-free emulsion, water based.
L x W x H (mm)	960 x 435 x 940	2000 x 840 x 1,050
Weight (empty)	55 kg	160 kg
Accessories		
Hakupur 21,5 l - RG 2 + RG 10 - concentrated cleaning agent		
PJ_30.10.76 - RG 10 - Pressure filter cartridge 5 µm		
PJ_30.10.60 - RG 10 - Pressure filter cartridge 10 µm		
600.4 - RG 2 - Filter cartridge 5 µm		
Options		
VA	-	✓

Description



UNIFLEX cleaning machines effectively remove residue and scale from hose cutting, crimping and press fitting.



Accessories



Roller kit 408.2