



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

Flexible

In addition to screw and plug-in connections, manual or hydraulic clamps and your own connection system can also be installed.

Quality and Safety

Completely closed test chamber.

Static pressure testing of other hydraulic devices such as valves, hydraulic cylinders, housings, quick-release couplings possible. It depends on the pressure.

Safety valve - when the cover is opened, the pressure is automatically reduced immediately.

Weight-relieved gas-sprung cover with polycarbonate safety panes.

Environmentally friendly water-oil emulsion as test medium.

Extremely simple and problem-free handling.

Extension element can be retrofitted.

Protocol software/printer can be retrofitted with UPP (P 160 / P 180) or IPC (P 180) option.

Compressed air filter including capacitor.

Ergonomic handling. (hood etc.)

Innovation and speed

Insertion and quick change of test pieces (hose line) without complex preparatory work or modifications to the tank, simply via our plug-in O-system and manual clamp optional for P 180.

Flood pump and blow-out function standard for P 180, 250, 260, 320, 350, 300.

Quick filling and automatic relief of the test pieces.

CE compliant

Weight-relieving gas-sprung cover.

Polycarbonate safety panes.

Safety valve in test chamber.

Redundant safety system for P 180, P 250, P 260, P 320.

Solenoid interlock for P 180, 250, 260, 320.

Quality and innovation as a guarantee

Completely closed test chamber.

Quick filling and automatic venting of the test pieces.

Effortless and Hassle-Free Operation.

Switching between automatic and manual setup mode.

High test capacity offers quick amortization.

Documentation management

Time-saving article storage.

Recording and controlling via test protocol possible.

CE-compliant

Weight-relieving gas-sprung cover hood.

Polycarbonate safety panes.

Safety valve in test chamber.

Lighting

Pneumatically operated hood on P 250, P 260.

Quality and innovation as a guarantee

Completely closed test chamber.

Quick filling and automatic venting of the test pieces.

Effortless and Hassle-Free Operation.

Switching between automatic and manual setup mode.

High test capacity offers quick amortization.

Documentation management

Recording and controlling possible via test protocol.

CE-compliant

Weight-relieving gas-sprung cover hood.

Polycarbonate safety panes.

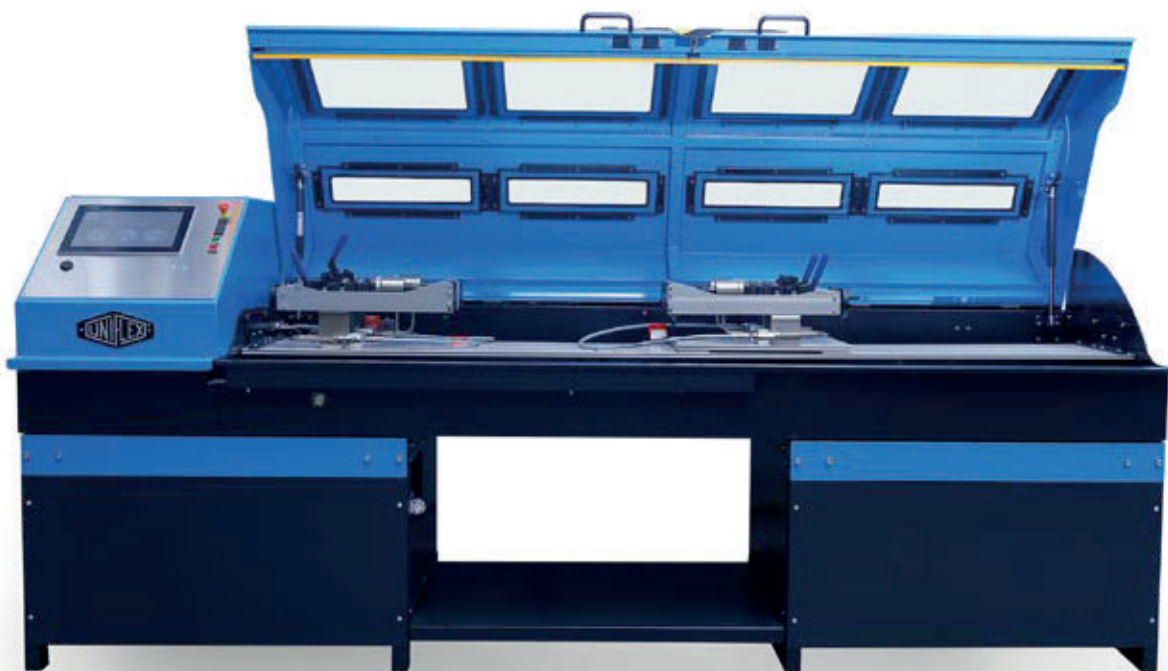
Safety valve in test chamber.

Pneumatically operated hood on P 320, 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 IPC + hand clamping



P 160



P 180 with pallets 1,200 x 800



P 160 Ecoline

P 160



P 180

Technical Data	P 160 Ecoline	P 160	P 180
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
Control	Control A	Control A	Control A
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
Test chamber 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 Blue	RAL 5012 Blue, RAL 7021 Grey	RAL 5012 Blue, RAL 7021 Grey
Weight (kg)	120 empty	210 empty	600 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" 414.901
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" 414.902
Options			
Alternative drive only with pre filling pum 414.902/405.914	-	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	-	-	✓ (up to 2 lines)

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 available as an option. Laptop incl. software license included.



4 Steck-O-Adapter 405.6.



Steck-O Adapter-kit: 405.7



For Hand clamping system.
 414.356 Hose retaining disc up to 1,500 bar.
 414.366 Hose retaining disc up to 3,000 bar.



The P 250 / P 260 Test Benches 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. Can fit 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 many other features including connectivity to your server or other machines in line with industry 4.0. or IoT.



P 250 with one hand clamp line



P 260 with four hand clamp lines



P 250



P 260

Technical Data	P 250	P 260
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
Test chamber mm (inch)	2,194 x 890 x 470 (86" x 35" x 18.5")	2,194 x 890 x 1,100 (86" x 35" x 43.3")
Test bench dimensions mm (inch)	2,700 x 1,450 x 1,550 (106" x 57" x 61")	2,700 x 1,450 x 2,100 (106" x 57" x 82.7")
Reservoir capacity	120 l	120 l
Loading (kg)	250	250
Weight (kg)	570	900
Noise level	75 dBA	75 dBA
Capacity electric	3~VAC	3~VAC
Options		
High pressure	150 - 3,000 bar / 2,175 - 43,500 psi	150 - 4,500 bar (only with screw connection) / 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	✓	✓
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 (kg)	420	
Hand Clamps	up to 3 Lines	up to 4 Lines
Hydraulic clamping	up to 3 Lines	up to 4 Lines
Steck-O	up to 3 Lines	up to 4 Lines
Screw connection	✓	✓

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



406.903 – Sealing tips for hand clamping.



Optionally two quick system lines. Can be ordered on customer request.



Barcode Scanner BCR Ctrl-BT



The P 320 and P 350 test benches are specially designed for precise testing of hose lines with a test pressure of up to 1,500 bar. With the P 320, a test pressure of up to 4,500 bar is optionally possible.

Both models have an extra-large test chamber that offers enough space for every challenge. Pallets of hoses as well as large and heavy hose reels can be easily brought into the test chamber by forklift. The test pieces are simply connected using an adapter hose, with the P 320 optionally also using a quick-clamping system.



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	Control A	IPC
Drive	Diaphragm pump + intensifier	Diaphragm pump + intensifier
Flow (effective)	7.5 l/min	12.5 l/min
Test chamber 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 (mm)	– (integrated)	850 x 1,390 x 810
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 (kg)	P 320 Container: 2,400	P 350 Container: 650
Weight of power unit (kg)	–	210
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 Line)	–
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	–
Hydraulic clamping	✓	

P 320: Steck-O 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: Hand clamping:

- 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

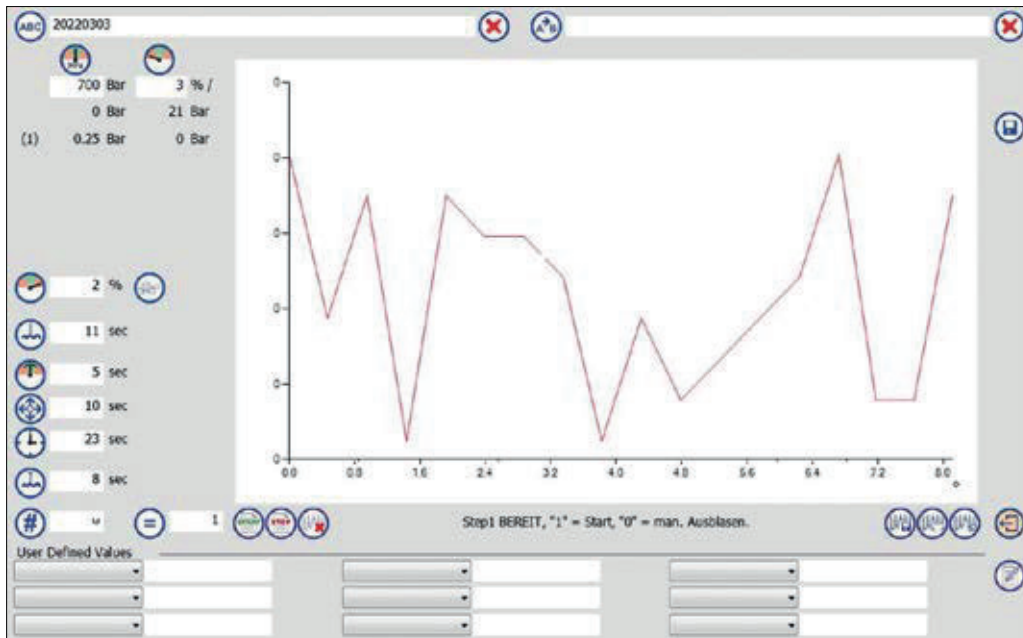


This screen is activated to specify the settings for a hose test in the "Individual test" mode. In this operation mode, the log files are always saved automatically, the complete test is continuously logged.

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 set the following parameters:

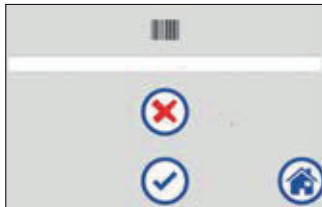
- Pressure (Bar/ PSI)** – the test pressure is the basis for the pressure adjusted by the test stand during the test.
- Test tolerance (%)** – the maximum permissible pressure drop in percent of the test pressure.
- Filling time (sec)** – when a test starts, the entire system is filled with the test medium for the specified duration.
- 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 serial test is used for testing hoses from the article database and is particularly advantageous for large quantities. The serial test can be performed in the simple mode with significantly reduced setting options or in the detail mode with full functionality.

LOAD DATA RECORD USING A SCANNER (OPTION)



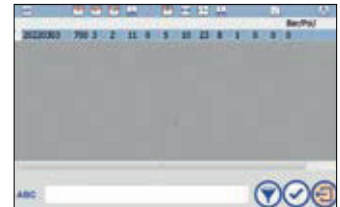
Scan the barcode using the scanner, or enter the barcode text manually. The scanned barcode is interpreted as the name of a data record.

OPERATIONAL MODE



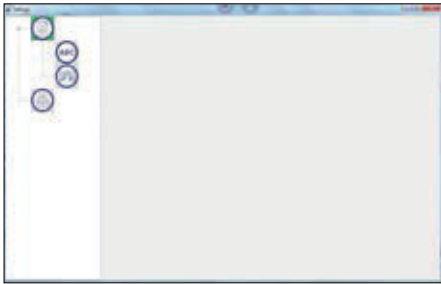
In the simple mode, an item can be uploaded from the database and the quantity can be selected; other settings cannot be made. The log file is recorded and, if selected, saved automatically.

DATA BANK MODE



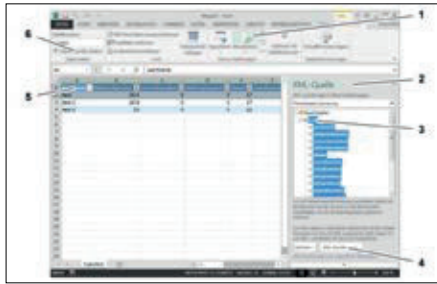
The user interface shows the database as a list of data records including names and test data. The requested data record is selected by a touch and is then highlighted blue.

LOG SETTINGS



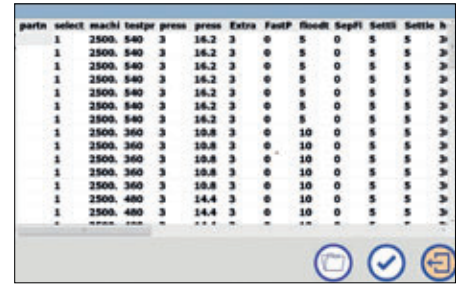
The relevant settings may be selected here in the tree menu.

ARTICLE DATABASE



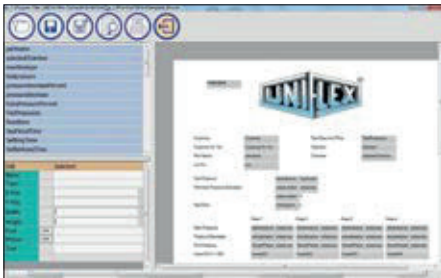
The data records of the article database can be edited externally and then transferred back onto the control. To do this, first load the data from the control onto a USB storage medium and, after processing, load them back onto the control.

ACTIVATE SAVED LOG FILES



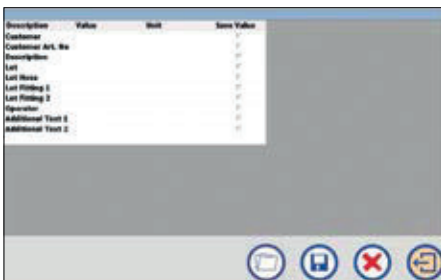
Displays the currently set log file overview. A log file may be selected and loaded to display or print it. The table lists all logs saved at the set storage location. All test-relevant data is shown. By scrolling to the right, other columns may be displayed. A log file is marked for opening by touching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

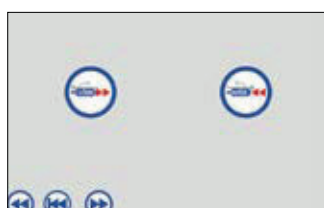


MACHINE SETTINGS



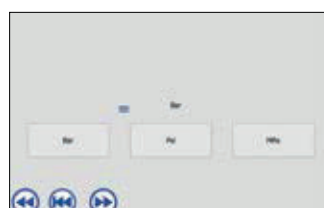
The machine settings area is password protected. After the user has logged in, all screens may be opened one after the other.

USB STORAGE MEDIUM



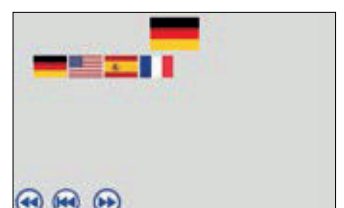
The USB sockets are located in the test stand casing and are marked appropriately. The precise location is shown in the operating instructions of the relevant unit and/or test stand.

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	2,000 x 840 x 1,050
Weight (empty) (kg)	55	160

Accessories

Hakupur 21,5 l - RG 2 + RG 10 - concentrated cleaning agent

PJ_30.10.76 - RG 10 - Pressure filter cartridge 5 µm

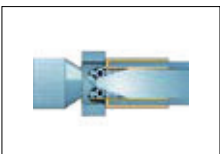
PJ_30.10.60 - RG 10 - Pressure filter cartridge 10 µm

600.4 - RG 2 - Filter cartridge 5 µm

Options

VA	-	✓
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Description



Special nozzle for a powerful cleaning effect



Fixed spray head



Pistol

Accessories



Roller kit 408.2