

Test Bench

STARDEX® 0803/ STARDEX® 0803M

"Compact"



Safety rules for working with STARDEX 0803/ STARDEX 0803M.

Before using the device **STARDEX 0803/ STARDEX 0803M** (further “the test bench”), read this manual carefully.

The test bench should be plugged only in a three-phase circuit of alternative current 380 - 400 V with grounding. In order to power up the test bench, use only a supply cable from the delivery kit.

Getting the electrical charges on device body is strongly prohibited!

Ingress of moisture inside the device is strictly unacceptable!

Test bench body is constructed to protect its components from mechanical impact, while operating. Avoid the body damage, do not drop the test bench and do not put any heavy objects on its cover.

At any sign of the device defect as smoke, sparking or specific smell, unplug the test bench immediately and contact the nearest **STARDEX** service center.

All cables, connected to the test bench must be supplied with standard plugs without mechanical damage.

Opening operating test bench is strictly prohibited.

Store and use away from children and pets.

The test bench is designed to work with high pressure systems. A user must understand the structure and principle of operation of the high pressure injection systems.

Incorrect use of the test bench may lead to breakage of the equipment or user's injury.

While working on the bench with high pressure, it is necessary to use protective cover.

Initial bench connection to AC3 power should be done only by a qualified electrician.

Specifications and operation directions.

European version	
Dimensions	1250x800x1620 mm
AC power supply	AC3 380 - 400 V
Motor power	7.5 kW
Tank capacity	42 L
Maximum supply pressure	6 Bar
Power consumption in maximum load mode	Up to 7.5 kW
Operating temperature	from +10 ⁰ C to + 30 ⁰ C
Relative air humidity	No more than 90% at 25 ⁰ C

Purpose and range of application.

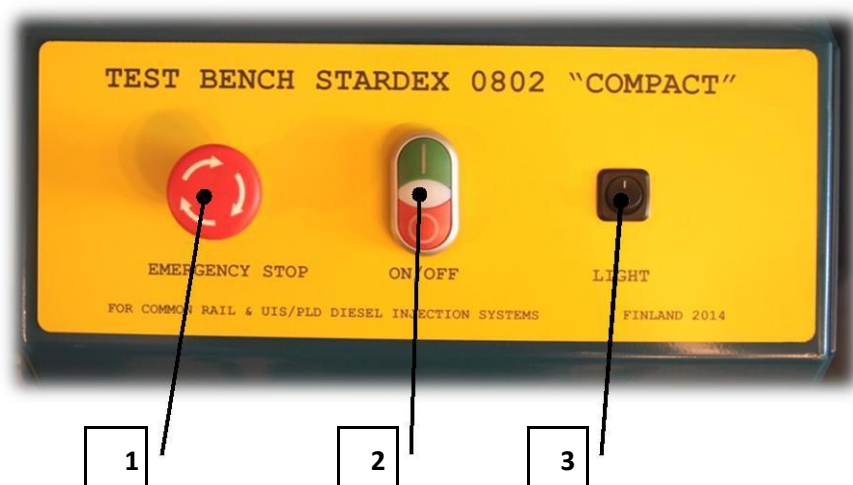
- **STARDEX 0803/ STARDEX 0803M** is a universal bench for testing elements of **Common Rail, Unit Injector** and **Unit Pump** systems by such manufacturers, as **Bosch, Delphi, Denso, Continental (Siemens), Detroit, Caterpillar, Cummins** and others.
- **STARDEX 0803** is designed to work with simulators **STARDEX 030x** or **STARDEX 100x**. Bench control is performed directly from the interface of **STARDEX** simulators.
- **STARDEX 0802M** is designed to work with third-party simulators and controlled by its own built-in computer.
- There are two types of **STARDEX 0803** configuration:
 - to test **Common Rail** system (pumps, injectors, high pressure rails, regulators and pressure sensors).
 - to test **Unit Injector** and **Unit Pump** systems.
- The complex to test **Common Rail** system consists of **STARDEX 0803**, pulse simulator **STARDEX 0304** and measuring unit **STARDEX 0104**.

- The complex to test **Unit Injector** and **Pump Unit** systems consists of **STARDEX 0803**, **STARDEX 1002** and **CAMBOX**.
- Conversion of the bench from one configuration to another takes about 10 - 15 minutes
- Using the **STARDEX 0803** has several advantages against the "usual" classical benches. Firstly, it is fully compatible with **STARDEX**simulators. Secondly, it has test automation. Thirdly, it has small size and weight.

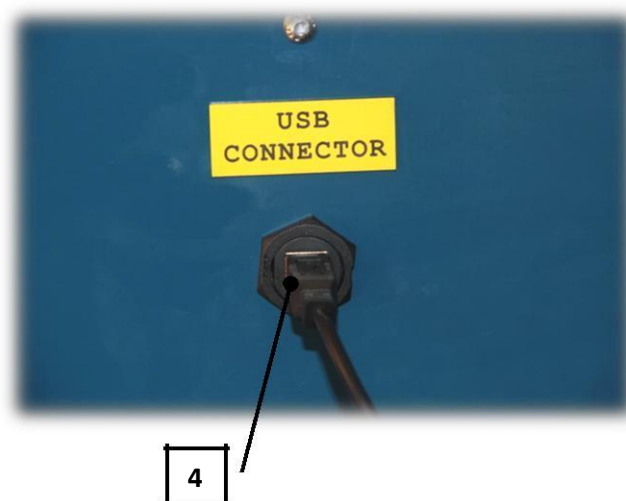
Installing and connecting

- Unpack the test bench and install it on antivibration mountings.
- Distance between the wall and the back panel must not be less, than 0,3 m for free work of the cooling fans.
- The front and back panels must be opened, in order to make sure there are no damages of the equipment, wiring and fuel lines, which may be caused by incorrect transporting.
- Pour a calibration fluid into the mouth of the tank and open its ventilation by turning a special valve on the cover of the tank.
- Install the front and rear panels of the bench, back to the bench.
- Plug into a three-phase circuit of alternative current 380 - 400 V with grounding with the power cable (Pin description of a power connector is in the next chapter).
- Install on the bench additional necessary equipment.
- The test bench is ready to be used.

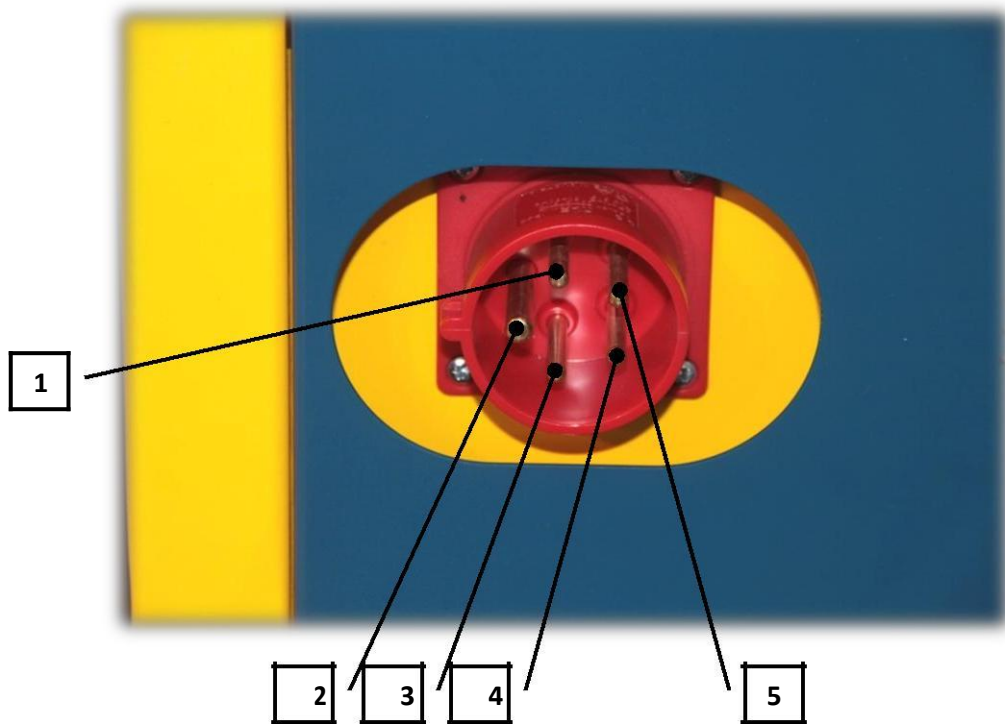
Buttons and connectors.



- ① Emergency stop.
- ② The bench on/off.
- ③ Internal bench lightning.



- ④ USB connector for **STARDEX 030x** or **STARDEX 100x**



① N

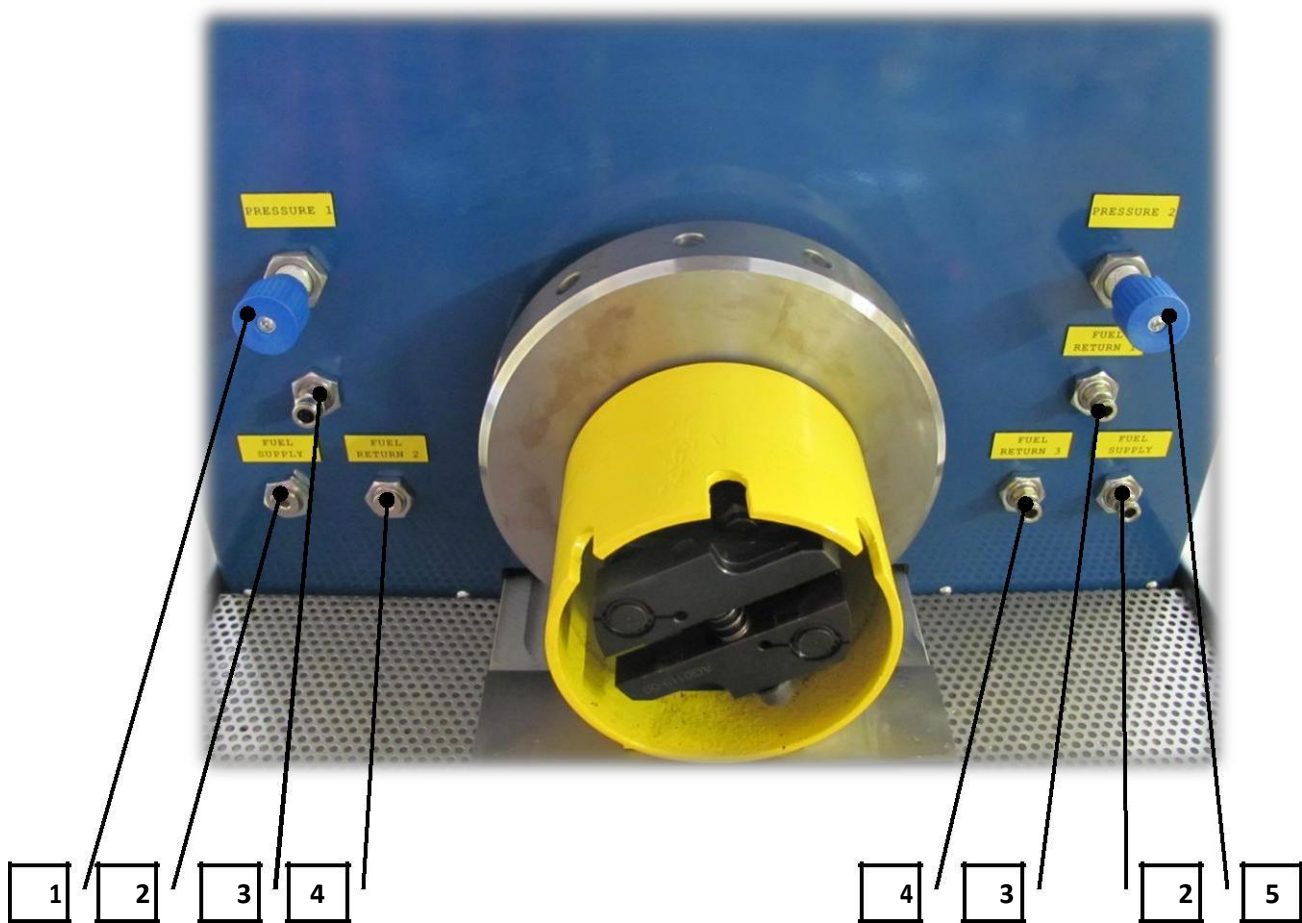
② Ground

③ L1

④ L2

⑤ L3

Low pressure lines.



- ① Pressure regulator for the line ②
- ② Fuel supply from the feed pump
- ③ Return flow into the tank
- ④ Return flow into the tank through the regulator ⑤
- ⑤ Return flow pressure regulator

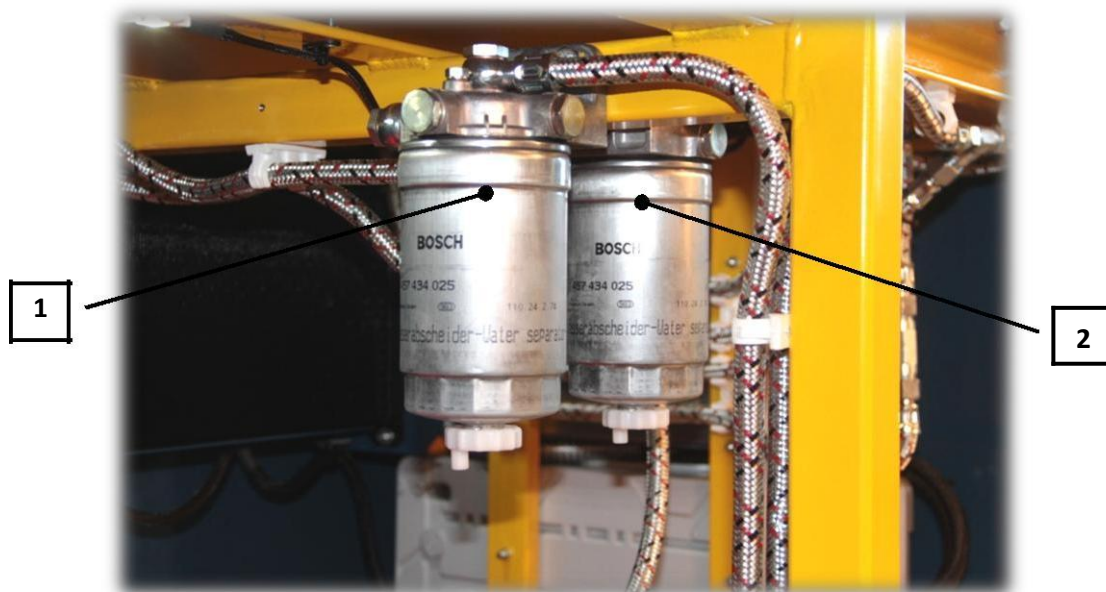
Unused lines must be closed by special plugs!

The test bench service procedures.

It is important to monitor the condition of the test fluid in the tank of the bench and if necessary replace the filter elements in a timely manner.

Sludge storage tank should be drained as required. For this purpose, it is necessary to remove, drain and set it in its place.

In case of leakage of compounds, due to normal wear, it is necessary to timely replace the worn parts.



① Filter

② Filter



③ Tank filler cap with ventilation valve

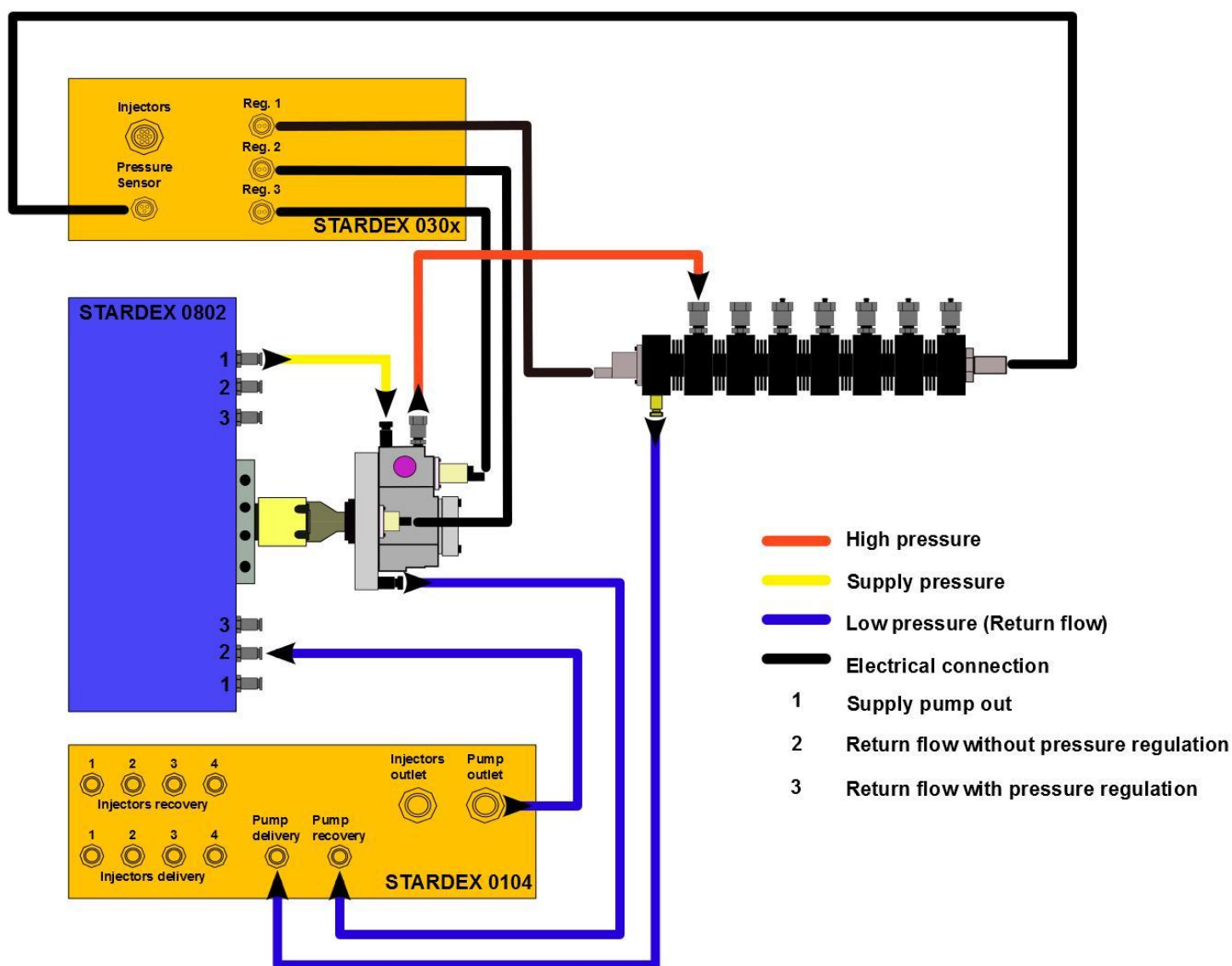


④ Sludge storage tank

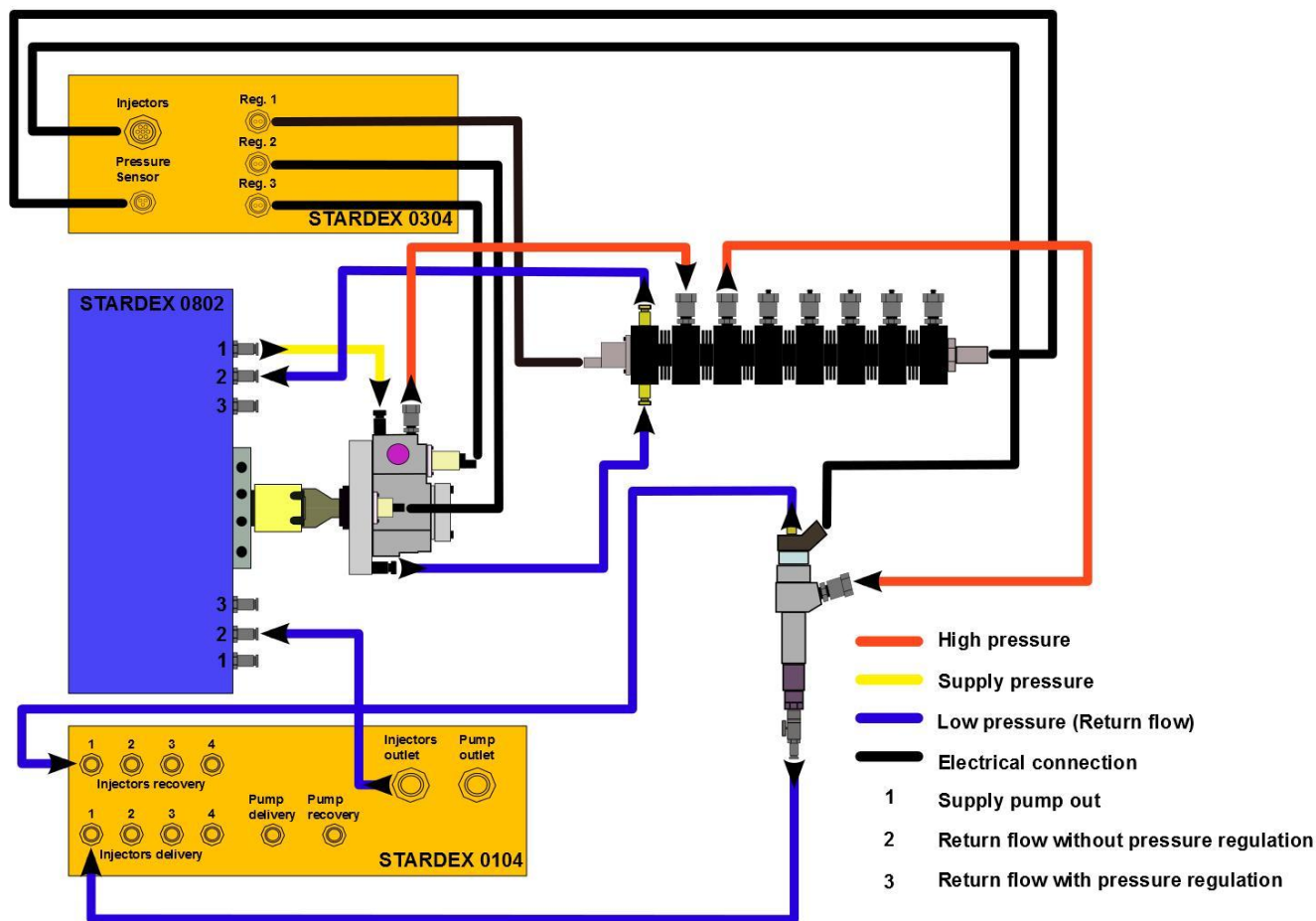
Bench control.

Additional menus for speed control and direction of rotation of the motor will automatically appear in the program interface of **STARDEX 030x** or **STARDEX 100x**. Turning on and off the feed pump is also performed with these devices. Pressure control of the feed pump and pressure in the return flow is performed by mechanical valves and electronic pressure sensors, mounted on the bench. Detailed descriptions of the testing procedures of **CommonRail** system contained in the **STARDEX 0304** user's manual. Detailed descriptions of the testing procedures of **UIS** and **UPS** systems contained in the **STARDEX 1002** user's manual.

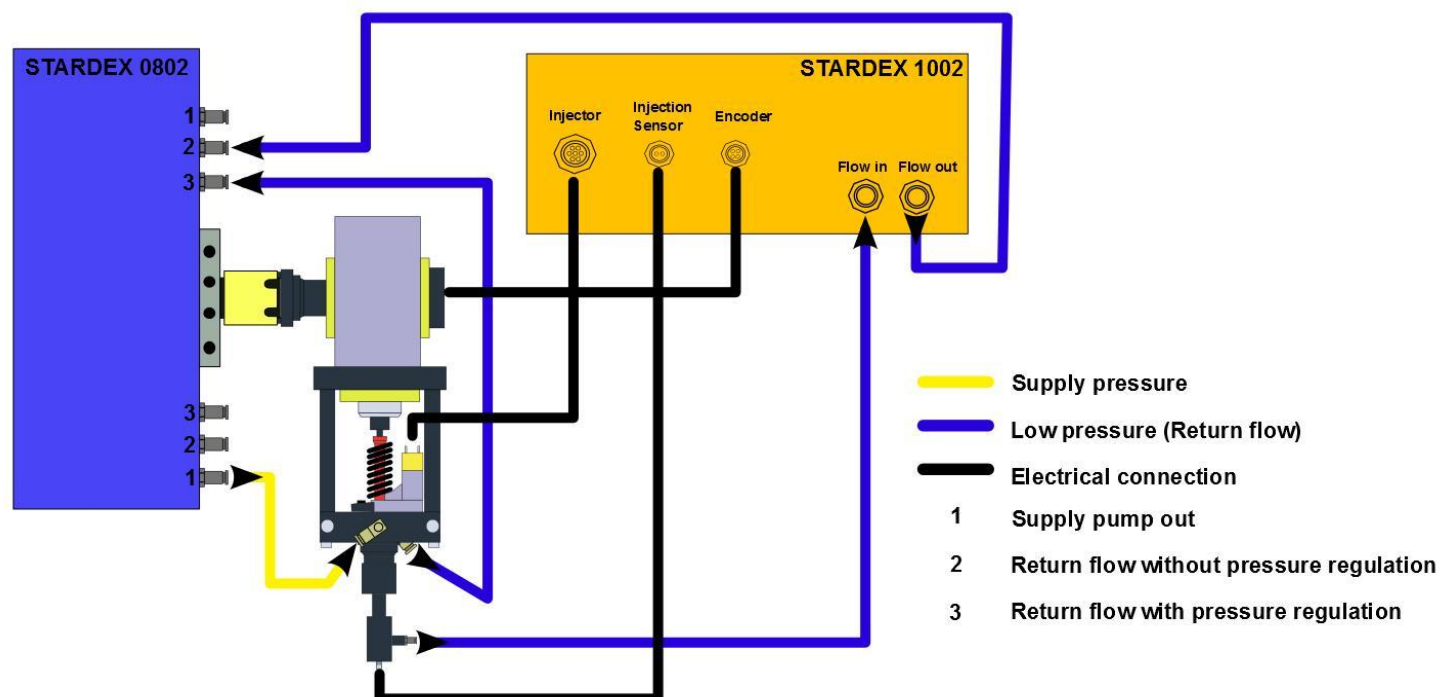
Connection pattern for Common Rail pump test.



Connection pattern for Common Rail injectors test.



Connection pattern for UIS test



Supply kit.

Basic	
STARDEX 0803assembled	1 шт.
Power cable	1 шт.
USB cable	1 шт.
Users manual	1 шт.
Warranty card	1 шт.

The additional test equipment for testing **Common Rail** system, **UIS** and **UPS** (simulators, flow meter, mounting kits, protective cover, trolley, etc.) is not included in the supply kit and should be purchased separately.

Warranty and technical support.

The equipment has 1 year warranty. The manufacturer is not responsible for the damage, due to violation of the operation terms, misuse including unskillful or mistaken personnel actions and if there are traces of mechanical impact. Post-warranty service of device is performed at cost components and the work. The manufacturer reserves the right to design modifications, equipment and the warranty period without advance notice. Details of warranty described in the warranty card.

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