

In order to use this instrument better, please be sure to read this manual before use

Ultra High Pressure Gauge Calibrator



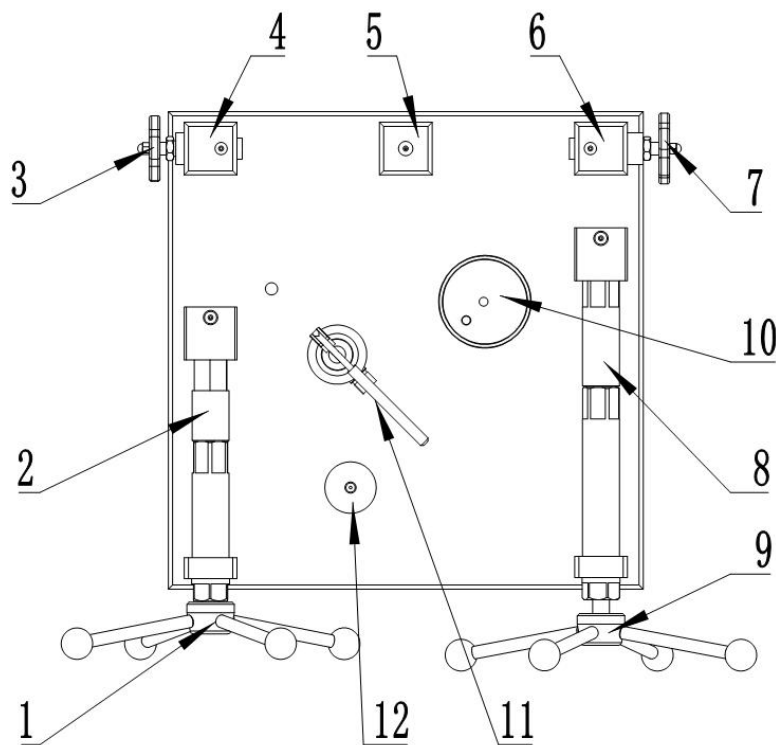
Operating Instruction

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Introduction

The ultra-high pressure desktop hydraulic pump (pressure gauge calibrator) is composed of a pre-pressure pump, a pressure regulator, a stop valve, a pressure relief valve and an output interface. Stable, long service life, easy to operate, suitable for laboratory use.

Appearance Structure



- | | |
|------------------------------------|---------------------------|
| 1. Low pressure adjustment handle | 2. Low pressure cylinder |
| 3. Low pressure shut-off valve | 4~6. Outlet |
| 7. Pressure relief valve | 8. High pressure cylinder |
| 9. High pressure adjustment handle | 10. Oil cup |
| 11. Preload valve | 12. Preload stop valve |

Technical Parameters

1. Measuring range: 0MPa~250MPa
2. Medium: castor oil or sebacate
3. Minimum controllable adjustment degree: 10KPa
4. Interface size: M20×1.5 (3 output ports)
5. Dimensions: 520×450×220MM
6. Weight: 20KG

Instructions:

Boost process inspection:

1. Connect the instrument to be tested and the standard instrument to the output port (4-6) of this equipment. It can be lightly tightened below 60MPa without using a wrench or any other tools; above 60MPa, a wrench is required to tighten the instrument and the output port.
2. Open the shut-off valve (12) counterclockwise, open the pressure relief valve (7) counterclockwise, and open the low-pressure shut-off valve (3) counterclockwise; turn the low-pressure adjustment handle (1) and high-pressure adjustment handle (9) counterclockwise to adjust to Working position (generally unscrew half way).
3. Close the pressure relief valve (7) clockwise, press the preload valve up and down to perform oil suction, and close the stop valve of the preload valve.
4. Turn the low-pressure adjustment handle (1) clockwise according to the pressure gauge calibration procedure to start increasing the pressure (up to

100MPa), adjust to the required pressure, and then record the data. If the required pressure exceeds 100MPa, it needs to be closed clockwise Low-pressure cut-off valve (3) (remember, this valve must be closed at 100MPa, otherwise the low-pressure cylinder will be damaged), and then turn the high-pressure adjustment handle (9) clockwise to adjust to your desired pressure and record data.

Step-down process verification:

1. Rotate the high-pressure adjustment handle (9) counterclockwise, when the pressure drops to the first detection point, record the data until it drops to 100MPa, open the low-pressure cut-off valve (3), and adjust the low-pressure adjustment handle (1) until it reaches 0 point;
2. After the verification, wipe off the dirt at the output port, and plug the output port with the screw plug that comes with it to prevent dirt from entering.

Precautions:

1. When verifying the pressure gauge above 100MPa, remember to close the low-pressure stop valve (3) or the low-pressure cylinder will be damaged).
2. It is forbidden to use this pressure source for calibration of dirty instruments. If verification is necessary, it is recommended to configure our company's separator.
3. The rotating part of the instrument should be lubricated in time.

Important statement:

1. It is strictly forbidden to connect this pressure source with other external pressure-making equipment.

2. It is strictly forbidden to exceed the rated pressure of this pressure source. If the rated pressure is exceeded, the company will not be responsible for any accidents.

Attachment: Common problems and solutions

Question	Reason	Solution
Difficulty creating pressure	1.The pressure relief valve is not closed	Close the relief valve
	2.The low pressure shut-off valve is not open	Open the low pressure shut-off valve
	3.The instrument under test is not tightened	Tighten the standard and tested instrument
	4.The seal is damaged	Replacement seal (ϕ 12 (outer diameter) X2.4)
	5.The pre-pressure pump creates pressure with back pressure	Remove the inner hexagonal plug and clean the one-way ball valve
	6.The lifting and lowering handle falls off	Tighten the handle clockwise
Pressure source leak	1.The end surface of the connection thread of the instrument under test is uneven (straight thread)	Connect with a transition joint, add a PTFE flat pad on the end face and tighten it with the meter under test with the help of tools
	2.The seal at the outlet of the pressure source is damaged	Replacement seal (ϕ 12 (outer diameter) X2.4)
	3.When the instrument under test is tapered thread	It must be tightened with the help of tools with the corresponding transition joint and raw material tape
	4.There are foreign objects in the system, and there are stolen goods on the sealing surface of the stop valve	Boost the pressure multiple times, quickly release the pressure and wash the sealing surface, and return it to the manufacturer for repair if necessary
	5.There is leakage in the instrument under test	Replace another meter and try again to determine if the meter is leaking
	6.Internal leakage of the pressure source	Connect the standard instrument to the pressure source, tighten the other output ports with random plugs, and test its tightness under pressure. If there is no such phenomenon, it means that the internal components of the machine are damaged, and return it to the manufacturer for disposal if necessary
	1.There is abnormal sound from the moving parts	Regularly add a little grease to the rotating parts
	2.The seal is aging	Rubber seals have an aging period, it is best to replace them once a year