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Pneumatische Tischprüfpumpe P160.T

Pneumatic Table Top Test Pump P160.T



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0 About This Operating Manual

- Read carefully before use!
- Retain for later reference!

Symbols used:



IMPORTANT

Failure to do so may result in damage to property and the environment.

If you have any problems or questions, please contact your supplier or contact us directly at:

SIKA Dr. Siebert & Kühn GmbH & Co. KG

Struthweg 7–9
34260 Kaufungen / Germany

 +49 5605 803-0
 +49 5605 803-555

info@sika.net
www.sika.net

Exclusion of liability

We accept no liability for any damage or malfunctions resulting from incorrect installation, in-appropriate use of the device or failure to follow the instructions in this operating manual.

1 Safety Instructions

Read the operating manual carefully. Follow all instructions to avoid personal injury and property damage.

Intended use

The pneumatic table top test pump P160.T may only be used to generate pressure or vacuum in air (-0.95...160 bar). Operation with other media, especially hydraulic oil, will damage the device.

The device must not be connected to external pressure sources.

Qualified personnel

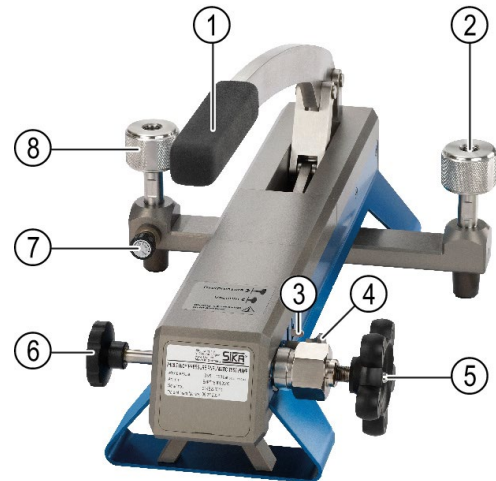
- The personnel entrusted with the operation and maintenance of the device must be appropriately qualified. This can be done by training or instruction.

General safety instructions

- Clean devices under test with impurities before starting the test procedure.
- Completely clean devices under test used with highly corrosive media before installation in the test connection.
- A test port with a damaged thread may leak. Always use suitable adapters and seals.
- Do not use the test pump with other devices.
- Do not dismantle any connected components (device under test, reference manometer) when the test pump is under pressure or vacuum.
- Do not use Teflon tape to seal the pressure connections. Penetrating residues of Teflon tape can damage the test pump.
- Unpressurised storage: Only store the table top test pump with the pressure release valve open. This prevents pressure build-up due to unintentional pump movements.
- Only operate the device when it is in perfect condition. Damaged or defective devices must be checked immediately and replaced if necessary.
In the event of unrecoverable faults, immediately put the device out of operation and secure it against unintentional operation.
- Do not remove type plates or other information on the device or make them illegible, as this will invalidate the warranty and manufacturer's liability.

2 Operation

- ① Lever
- ② Test connection of reference pressure gauge
- ③ Safety pin
- ④ Pressure switch
- ⑤ Fine adjustment valve
- ⑥ Shut-off valve
- ⑦ Pressure release valve
- ⑧ Test connection of device under test



2.1 Connect Device Under Test and Reference Pressure Gauge

- ↪ 1. Open the pressure release valve ⑦ anticlockwise.
- ↪ 2. Open the shut-off valve ⑥ anticlockwise.
- ↪ 3. Mount the device under test on the test connection ⑧.
- ↪ 4. Mount the reference pressure gauge on the test connection ②.

2.2 Generate Overpressure

- ↪ 1. Turn the fine adjustment valve ⑤ to the centre position.
- ↪ 2. Pull back the safety pin ③, pull out the pressure switch ④ and release the safety pin ③.

i IMPORTANT

Only operate the pressure switch ④ when the pressure release valve is open.

- ↪ 3. Calibrate the zero point.
- ↪ 4. Close the pressure release valve ⑦ clockwise.
- ↪ 5. Operate the lever ① until the pressure almost reaches the test point.
- ↪ 6. Close the shut-off valve ⑥ clockwise.
- ↪ 7. Adjust the pressure to the exact value with the fine adjustment valve ⑤.
- ↪ 8. Read the values on the reference pressure gauge and the device under test.
- ↪ 9. Open the shut-off valve ⑥ anticlockwise.
- ↪ 10. Repeat steps 5 to 9 until the maximum permissible pressure is reached.

2.3 Reduce Overpressure

- ↪ 1. Close the shut-off valve ⑥ clockwise.
- ↪ 2. Slowly open the pressure release valve ⑦ anticlockwise until the pressure has almost reached the test point, and then quickly close it clockwise.
- ↪ 3. Adjust the pressure to the exact value with the fine adjustment valve ⑤.
- ↪ 4. Read the values on the reference pressure gauge and the device under test.
- ↪ 5. Repeat steps 2 to 4 until the pressure is zero.

2.4 Generate Negative Pressure

- ↪ 1. Open the pressure release valve ⑦ anticlockwise.
- ↪ 2. Open the shut-off valve ⑥ anticlockwise.
- ↪ 3. Turn the fine adjustment ⑤ valve to the centre position.
- ↪ 4. Pull back the safety pin ③, press in the pressure switch ④ and release the safety pin ③.

i IMPORTANT

Only operate the pressure switch ④ when the pressure release valve is open.

- ↪ 5. Calibrate the zero point.
- ↪ 6. Close the pressure release valve ⑦ clockwise.
- ↪ 7. Operate the lever ① until the pressure almost reaches the test point.
- ↪ 8. Close the shut-off valve ⑥ clockwise.
- ↪ 9. Adjust the pressure to the exact value with the fine adjustment valve ⑤.
- ↪ 10. Read off the values on the reference pressure gauge and the device under test.
- ↪ 11. Open the shut-off valve ⑥ anticlockwise.
- ↪ 12. Repeat steps 7 to 11 until the pressure is -950 mbar.

2.5 Reduce Negative Pressure

- ↪ 1. Close the shut-off valve ⑥ clockwise.
- ↪ 2. Slowly open the pressure release valve ⑦ anticlockwise until the pressure has almost reached the test point, and then quickly close it clockwise.
- ↪ 3. Adjust the pressure to the exact value with the fine adjustment valve ⑤.
- ↪ 4. Read the values on the reference pressure gauge and the device under test.
- ↪ 5. Repeat steps 2 to 4 until the pressure is zero.

3 Troubleshooting and Return Shipment



IMPORTANT

The device cannot be repaired by the user. In the event of a defect, the device must be sent to the manufacturer for repair.

⚠ Never open the device or repair it yourself.

Problem	Possible Cause	Remedy
Pressure generation.	The shut-off valve is not open.	• Open the shut-off valve.
	The pressure release valve is not closed.	• Close the pressure release valve.
	Device under test or reference pressure gauge is not tightened.	• Tighten the device under test and the reference manometer.
	Seals are damaged.	• Replace seals.
	Incorrect position of the pressure/vacuum switch.	• Check the position of the pressure/vacuum switch.
	The device under test is leaking.	• Carry out the test with another device under test.
	The lever for generating pressure is sluggish.	• Lubricate the two running surfaces under the lever.
Pressure is escaping.	The seals of the test connection are damaged.	• Replace the 14 × 3.1 seals.
	The seals of the pressure switch are damaged.	• Replace the 10 × 1 seals. Replacement seals are supplied.
	The device under test has a conical thread.	• Make connection with suitable adapter, use correct seals and tighten device under test with tool.
	The system contains foreign bodies and the surface of the shut-off valve is dirty.	• Build up the pressure several times and release it quickly through the pressure release valve. • Clean the sealing surface. • Return to the manufacturer for maintenance.
	Internal parts of the pump housing are leaking.	• Mount the reference pressure gauge. • Connect and tighten all other pressure connections and valves. • Increase pressure and check for leaks. • If the pressure drops sharply, the pump must be sent in.

Problem	Possible Cause	Remedy
Other problems.	There is a lot of oil circulating in the system.	• Build up the pressure several times and quickly release it through the pressure release valve. • Repeat this procedure several times to remove the oil-water mixture from the test ports.
	Moving parts cause unusual noises.	• Lubricate rotating parts regularly with a little grease.
	Seals are ageing..	• All rubber seals age and must be replaced from time to time.
	The pressure/vacuum switch is leaking.	• Only switch in a depressurised state. • If the pressure switch leaks, replace the seals.

If you cannot remedy an issue, please contact SIKA.

Return Shipment

Please observe the instructions for the return procedure on our website (www.sika.net).

4 Disposal



NO HOUSEHOLD WASTE

The device is made of various materials. It must not be disposed of together with household waste.

👉 Take the device to your local recycling plant

or

👉 return the device to your supplier or to SIKA.



SIKA Dr. Siebert & Kühn GmbH & Co. KG

Struthweg 7–9

34260 Kaufungen / Germany

☎ +49 5605 803-0

☎ +49 5605 803-555

info@sika.net

www.sika.net

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