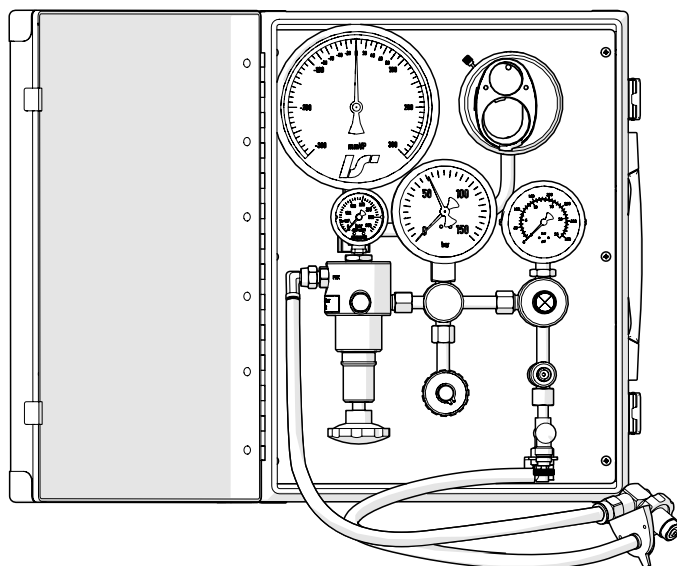




Keeps You Breathing



Spiromatic test

User Manual

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Important information

Only holder of a valid Interspiro Service Certificate for the equipment in question may carry out service and repairs on Interspiro breathing equipment. Unauthorized service may result in malfunction and users relying there on could sustain severe respiratory injury or death.

Whenever the equipment has been dismantled and assembled, it's operation must be checked in accordance with the Interspiro test instructions. Failure to conform to this requirement may result in equipment malfunctions and cause serious injury or death.

Changes to this document – necessitated by typographical errors, inaccuracies of current information or improvements and changes of equipment – may be made at any time without prior notice. Always refer to www.interspiro.com for product or document updates and for service bulletins.

The chapter "Important information" must be read completely and the regulations described there must be followed when doing any kind of service, tests or repair on the apparatus. Failure to comply to this instructions may lead to serious damage to the equipment, serious injury or death.



WARNING

Pressurized systems must always be handled with caution. In extreme cases, fractures can occur in high pressure parts which can be a danger to life.

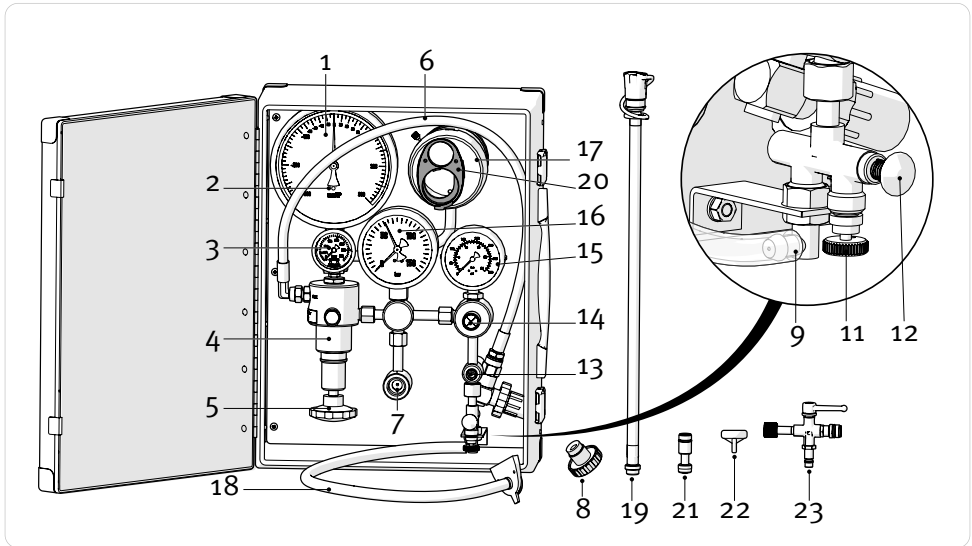


CAUTION

In a number of the function tests, blowing sounds will occur which can damage hearing. Always use hearing protection.

Product description

Product overview



1. **Vacuum gauge ± 300 mmwc** for reading the specific performance of the breathing valve and the flow performance of the complete breathing apparatus.
2. **Adjustment screw** for adjusting the pressure gauge to zero.
3. **Air supply pressure gauge** for reading the pressure from the air supply through the pressure regulator (4).
4. **Pressure regulator** for a maximum permitted primary pressure of 300 bar (4351 psi). Fitted with a safety valve that opens when the secondary pressure rises above 150 - 160 bar (2175 - 2320 psi).
5. **Regulating screw** for setting the pressure to the pressure regulator to be tested.
 - To increase pressure - Turn inwards (clockwise)
 - To decrease pressure - Turn outwards (counterclockwise)
6. **Supply hose** to air supply.
7. **Connecting piece** for regulator unit to be tested.
8. **Protective plug** to assemble in the Connecting piece (7) when storing and / or transporting the test equipment.

Spiromatic test

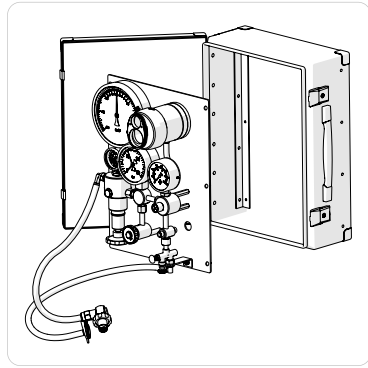
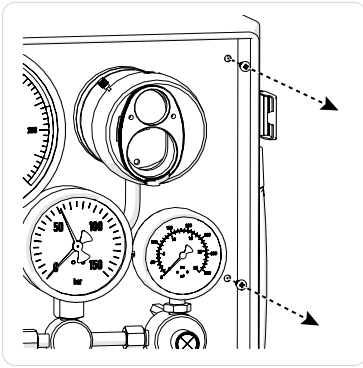
9. **Hose nipple** The nozzle gives approximately 160 l/min constant flow at 7,5 bar (94 psi) pressure. Press in the Selector valve (12) to start the flow.
10. Not used.
11. **Shutting-off screw** with a outlet that gives a constant flow of 7 l/min at 2 bar (29 psi).
12. **Selector valve** press in to start the flow to the hose nipple (9) and stopping the flow to the shutting-off screw (11).
13. **Medium pressure connection** to connect the breathing valve hose of the regulator unit that is tested. Fitted with a safety valve that opens at 25 bar (363 psi).
14. **Needle valve**
15. **Secondary pressure gauge** for reading the secondary pressure from the tested pressure regulator.
16. **Primary pressure gauge** for reading the secondary pressure of the pressure regulator (4).
17. **Test adapter housing** to connect the test adapter in.
18. **Hose with cover** for connection between the hose nipple and the test adapter.
19. **Adapter hose** to connect between the 3-way adapter and the medium pressure connection.
20. **Test adapter Spiromatic** to connect the breathing valve to the measurement housing.
21. **Adapter** for connecting the breathing hose from the regulator unit to the medium pressure connection.
22. **Key for drag pointer** to set the primary pressure gauge to zero.
23. **3-way adapter** for testing breathing valves.

The Spiromatic test is used to do performance tests of Interspiro breathing apparatuses.

The Spiromatic test is mounted on a mounting plate in an aluminium transport box. The mounting plate with the test equipment can be removed and secured to the wall of the workspace if desired.

Remove the six screws to remove the plate.

Spiromatic test



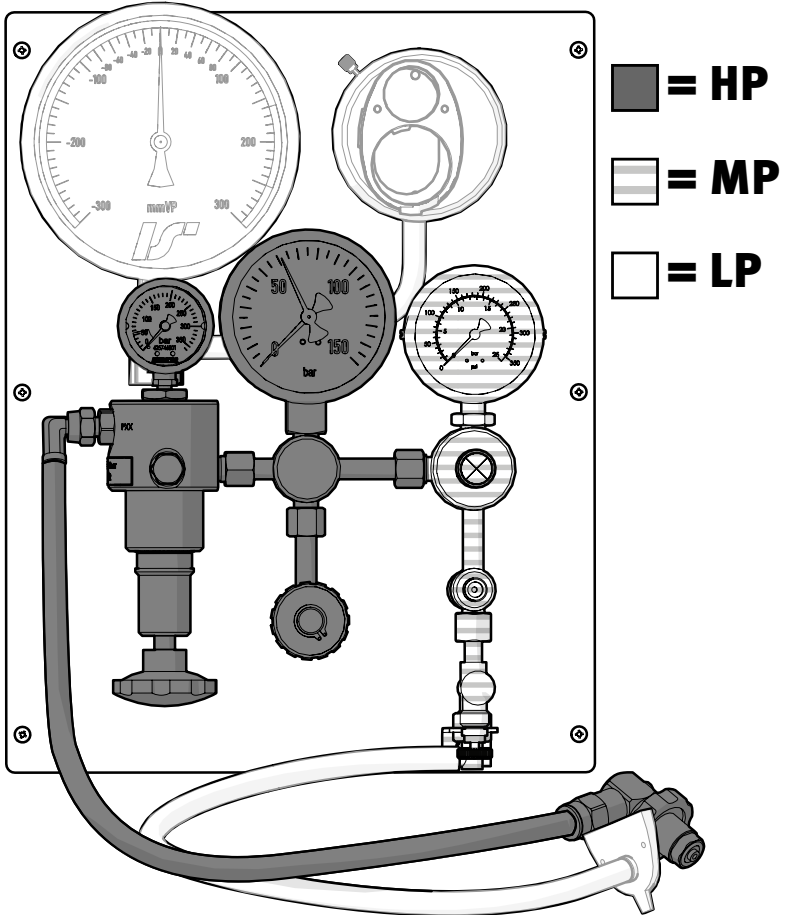
Important! All components of the test equipment must be secured and protected from impact during transportation.

The Spiromatic test is marked with part number, serial number and calibration date.

Technical data

Material	Aluminium, anodized, brass chromated, plastic, stainless steel
Weight	12 kg
Dimensions	
Length	475 mm
Width	355 mm
Height	175 mm
Pressure (maximum connecting pressure)	300 bar (4351 psi)
Safety valve 1	150 - 160 bar (2175 - 2320 psi)
Safety valve 2	25 bar \pm 1 bar (363 \pm 14 psi)
Color	Aluminium
Calibration interval	1 year

Spiromatic test



1. HP = High pressure area
2. MP = Medium pressure area
3. LP = Low pressure area

Maintenance

If the Spiromatic test needs to be repaired, it has to be sent to Interspiro for reparation.

The Spiromatic test must be sent to Interspiro for service and calibration every year.

If the Spiromatic test has not been calibrated by Interspiro for over a year, it must not be used.

Strikes and/or impacts can damage:

- unprotected threads - which can make it impossible to assemble parts
- plastic components - which will reduce the performance of the equipment
- hoses - which can cause the hose to fracture

Before use

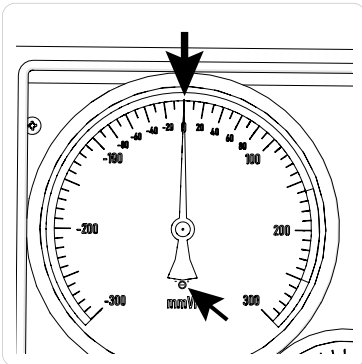
The Spiromatic test must only be used with air from a cylinder or a distributed high pressure network.

Only use breathing air according to EN 12021.

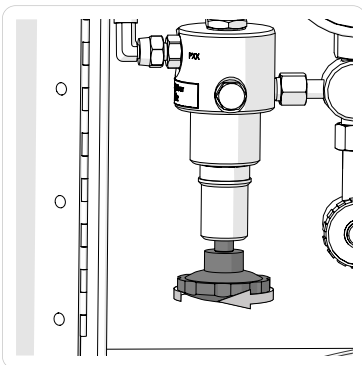
Preparation

Before doing any tests with the Spiromatic test it has to be prepared and it's functions tested.

1. Make sure that the pressure gauge is on zero. If needed, turn the adjusting screw with a slotted screwdriver until it is.

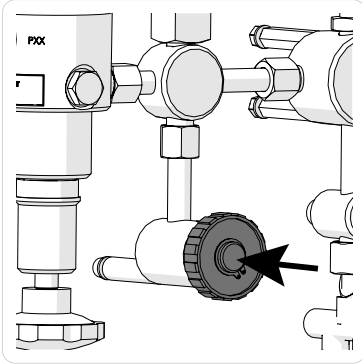


2. Turn out the regulating screw until it feels loose (counterclockwise). Stop before it falls out.

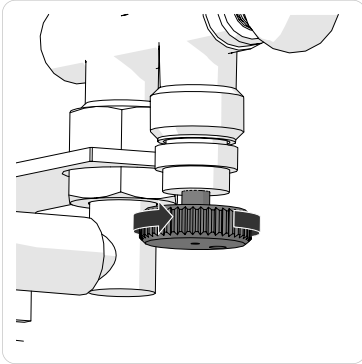


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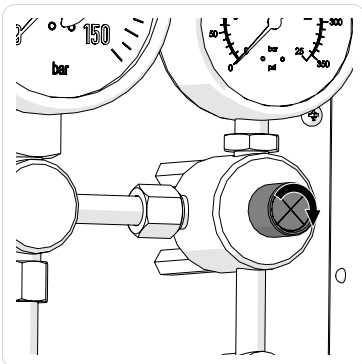
3. Make sure that the protective plug is mounted in the connecting piece.



4. Turn the shutting-off screw clockwise until it is closed. This will stop the flow to the hose nipple.

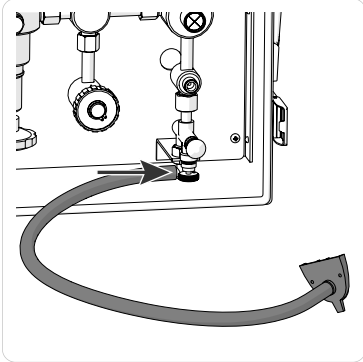


5. Make sure that the needle valve is closed. If needed, turn clockwise until it is closed.

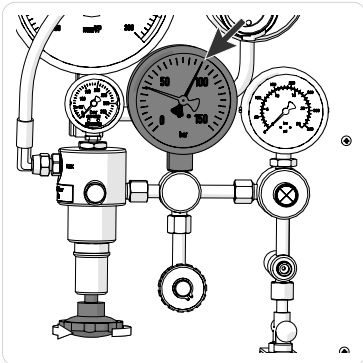


Spiromatic test

6. Assemble the hose with cover.



7. Connect a pressure source of maximum 300 bar to the Spiromatic test. Testing can proceed to a pressure of 100 bar.
8. Slowly open the air supply.
9. Turn the regulating screw in (clockwise) until the primary pressure gauge shows 80 bar.

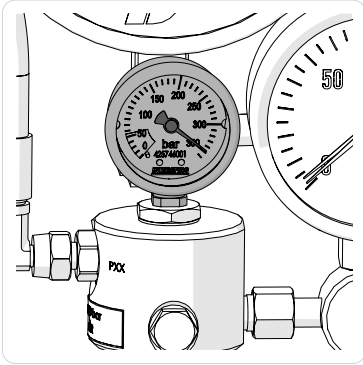


NOTE: If the pressure rises after the adjustment, open the needle valve and close the air supply.

If this happens, the Spiromatic test is defect and must be repaired by Interspiro.

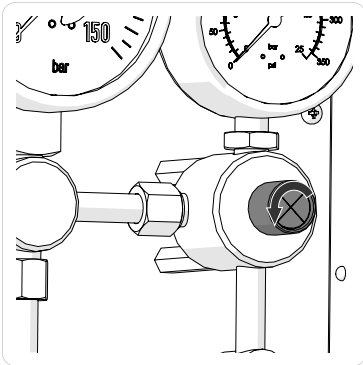
Spiromatic test

10. Close the air supply and make sure that the air supply pressure gauge does not show any decrease in pressure during 60 seconds.

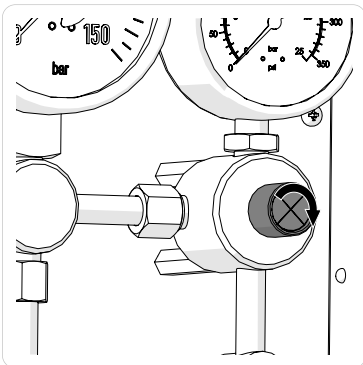


If the pressure drops, the Spiromatic test is defect and must be repaired by Interspiro.

11. Open the needle valve to vent the system.

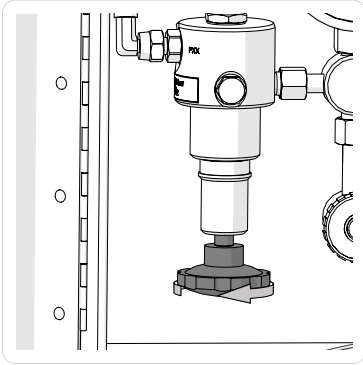


12. Close the needle valve.



Spiromatic test

13. Turn out the regulating screw until it feels loose (counterclockwise). Stop before it falls out.

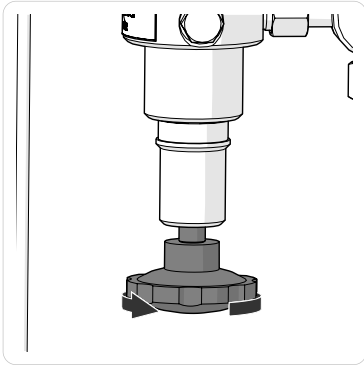


14. Follow the test instructions for testing each apparatus.

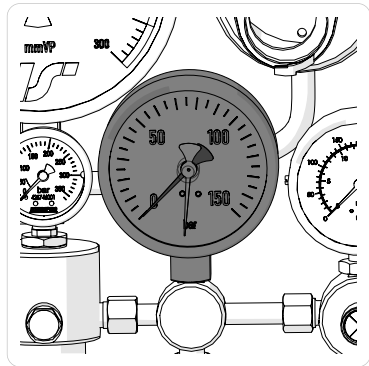
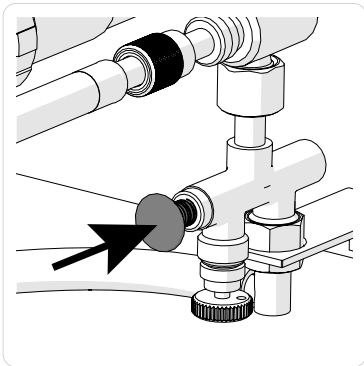
After use

Depressurize the test equipment

1. Close the air supply.
2. Turn out the regulating screw until it feels loose (counterclockwise). Stop before it falls out.



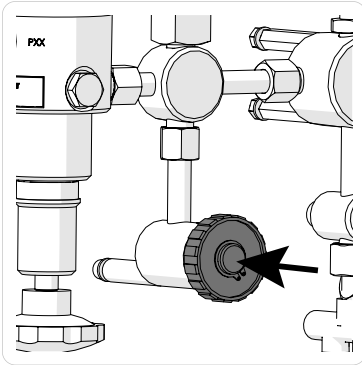
3. Press in the selector valve until the system is depressurized.



Storage

Store in a cool, dry and dust-free environment. Protect against direct sunlight, UV radiation and direct heat.

1. Make sure the system is depressurized.
2. Assemble the protective plug.









Keeps You Breathing