

SEILER

VAKUUMTECHNIK GMBH

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worldwide...

Technical data

Sensitivity

Measuring range MLTS1, integral	$1E^{-1} \dots 1E^{-8}$ mbar l/s
Measuring range MLTS1, sniffing mode	$\geq 1E^{-7}$ mbar l/s
Measuring range Helium Spectrometer	$1E^{-0} \dots 5E^{-11}$ mbar l/s

Remark: The detection sensitivity depends directly on the chamber volume and pumping down time. The system will be adjusted to your request in accordance with the leak test fixture.

Pressure and vacuum sensors

Pirani sensor, chamber vacuum	0.001.....1000mbar
Pressure transmitter, inside vacuum	1.....1000mbar
Pressure transmitter, test pressure	0-60bar / 0-870psi

Vacuum pump

Chamber evacuation pump	33m ³ /h, double stage
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Control engineering

Display	TP170B, bluemode
PLC	CPU314
Interfaces	MPI
Option	RS232 / Ethernet

General

Dimensions (W x D x H)	1200 x 1200 x 1600mm
Weight	approx. 450 Kg

Supply lines

Electrical	380-460V, 50/60Hz, 3KW
Air	min. 5 bar / min. 72psi

Remark: Additional exhaust lines to the system (the exhaust line for used helium and the line from chamber evacuation pump) will be required. Those are located centrally on top of the system.

Options

Special fixtures, test gas mixing unit, pressure increasing station, test gas recovery system, air condition unit, sniffing unit, barcode connection, database, pressure adjustment by proportional valve, test pressure up to 200 bar/2900 psi.

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MLTS 1

MODULAR HELIUM LEAK TEST SYSTEM

$$I_R = \frac{V_K}{S_{eff}} \cdot \ln \frac{q_A + q_U}{q_U}$$
$$\tau_{63\%} = \frac{V_K}{S_{eff}}$$
$$F_R = F = R^2 \cdot \pi \cdot \Delta P = \frac{8 \cdot \eta \cdot l \cdot V}{R^2 \cdot t}$$

MLTS 1

The new **Modular Helium Leak Test System MLTS1** from Seiler Vakuumtechnik GmbH has been developed with the intention to combine quality and reliability in a flexible test system. The system sets new standards for series and single production worldwide. Short change-overs between different test specimen will be possible by application of special fixtures. In addition, short cycle times can be reached by optimizing the internal volume of the vacuum chamber. Only reliable components of high quality are installed in the test system. Using the MLTS1 enables you to optimize your product quality to the maximum.



General test cycle

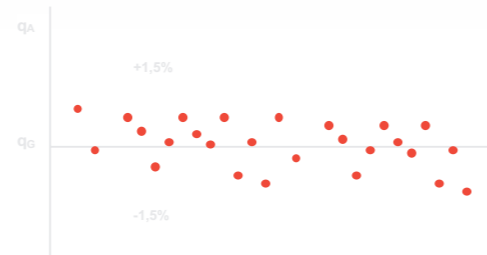
- Manual load and adaption of test specimen in the fixture
- Manual close of vacuum chamber
- Evacuation of vacuum chamber
- Parallel to the chamber evacuation step we perform a gross leak test by pressure decay with inside evacuation afterwards
- Helium background measurement
- Helium filling
- Venting of vacuum chamber and pressure release to atmosphere
- After evacuation of test specimen



Features

The MLTS1 combines the following features:

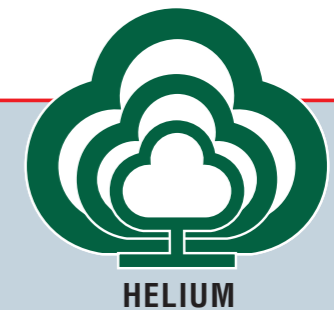
- Stand-alone unit with integrated PLC, vacuum system and gas supply
- Helium mass spectrometer type ASI20MD and vacuum pumps from ADIXEN
- Base plate for installation of special fixtures
- Test pressure max 60bar (870psi), switch points are free adjustable
- Automatic internal calibration of the helium mass spectrometer (temperature compensated)
- Automatic calibration cycle for definition of the machine factor
- Automatic parameter change-over for up to 7 different fixtures (binary code)
- Analogue manometers to display test pressure and inside vacuum
- PLC system S7/300, CPU314 with TP170B bluemode
- Online languages: German, English, Spanish
- Manual load and connection



Integrated testing modes

On the operating panel you can select the following testing modes:

- Integral leak test with gas supply
- Integral leak test for pre-filled test specimen
- Sniffing mode with gas supply
- Sniffing mode without gas supply



For the sake of the environment

