

A close-up photograph of a high-pressure dilatometer cell. A vertical sample rod is positioned in the center, passing through a circular flange with multiple holes. The flange is mounted on a larger base plate, also featuring several holes. The entire assembly is housed within a metallic chamber, with vertical support rails visible on the sides. The lighting is bright, highlighting the metallic surfaces and the precision of the equipment.

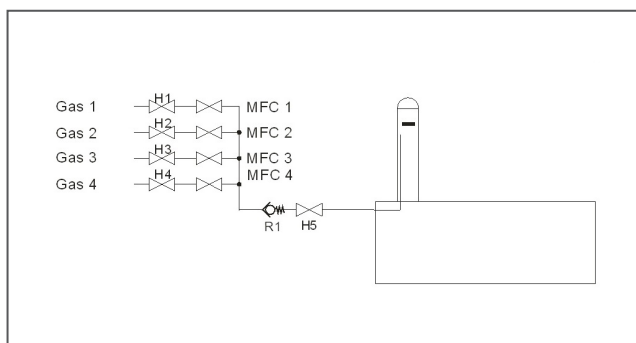
Dilatometer

L 75 High Pressure

LINSEIS

General

The LINSEIS high-pressure dilatometer L75/HP enables completely new applications in thermal analysis. The system can measure expansions (length changes) in the temperature range from RT up to 1100/1400/1800°C (customized systems on request) and in the pressure range up to 500 bar. This device is the world's only available high-pressure dilatometer. A steam generator and complex gas control system are optional available.



An get even more informations and extend your measeurement, an analysis of the effluent gases can be done by using a QMS or FTIR system at any time. But the coupling is more than only the sum of the separate parts. You can benefit from LINSEIS coupling knowledge and integrated hard- and software concept. For the interpretation of the results, different libraries are available.



Software

All LINSEIS thermo analytical instruments are PC controlled. The individual software modules exclusively run under Microsoft® Windows® operating systems. The complete software consists of 3 modules: temperature control, data acquisition and data evaluation. The 32 bit software incorporates all essential features for measurement preparation, execution, and evaluation of a Dilatometer measurement. Thanks to our specialists and application experts, LINSEIS was able to develop comprehensive easy to understand user friendly application software.

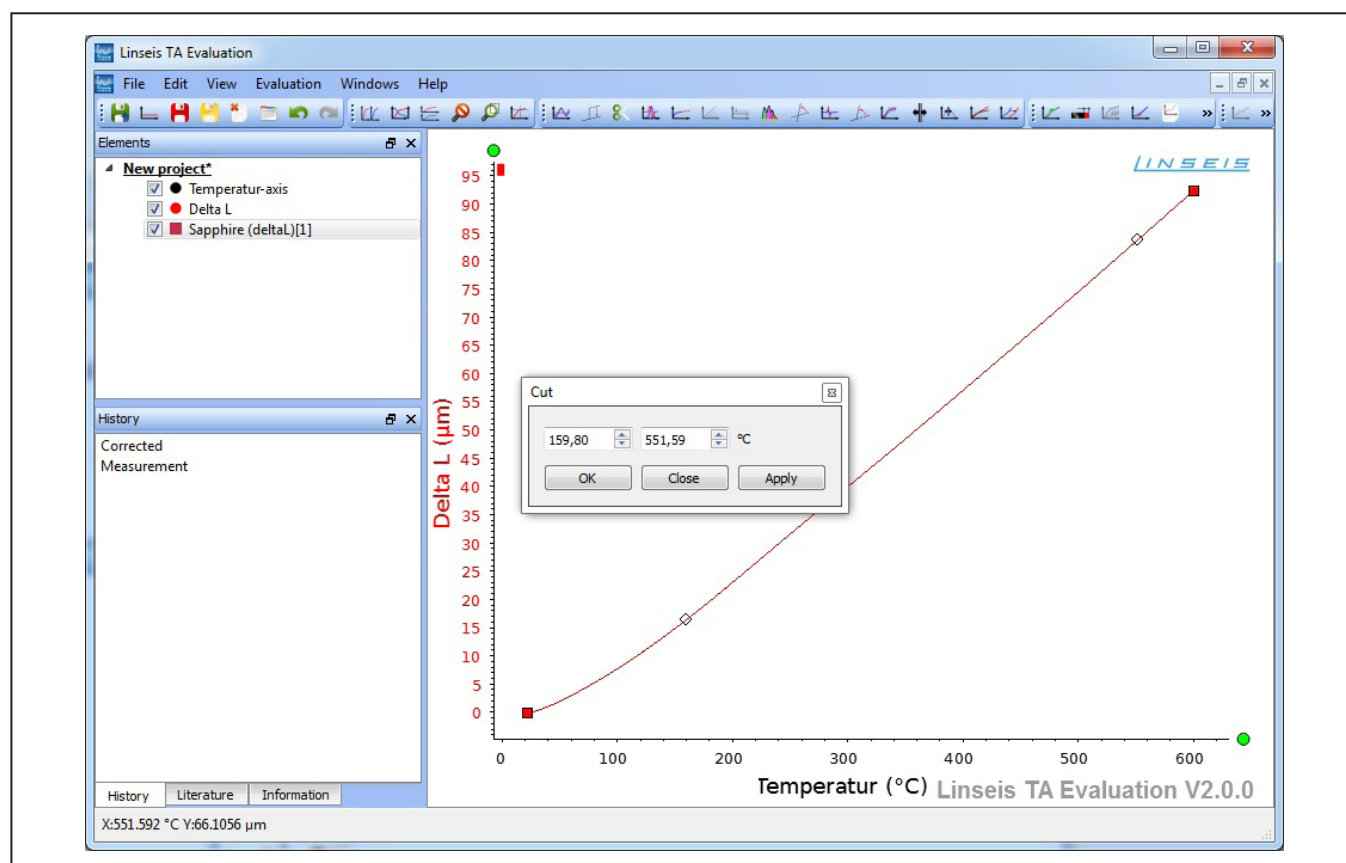
General features:

- Program capable of text editing
- Data security in case of power failure
- Thermocouple break protection
- Repetition measurements with minimum parameter input
- Evaluation of current measurement
- Curve comparison up to 32 curves
- Storage and export of evaluations
- Export and import of data ASCII
- Data export to MS Excel
- Multi-methods analysis (DSC TG, TMA, DIL, etc.)

- Zoom function
- 1 and 2 derivation
- Programmable gas control
- Statistical evaluation package
- Free scaling

DIL-features

- Glass transition and softening point evaluation
- Softening point detection with automatic software controlled system shut down
- Display of relative/absolute shrinkage or expansion curves
- Presentation and calculation of technical / physical expansion coefficient
- Rate Controlled Sintering (RCS) Software
- Sinter process evaluation
- Semiautomatic evaluation functions
- Several system correction features
- Automatic zero point adjustment
- Automatic software controlled sample pressure adjustment



Technical Specifications

	DIL L75 HP / 1	DIL L75 HP/2
Temperature range*	RT up to 1100°C	RT up to 1400/1800°C
Max. pressure	150 bar	100 bar
Vacuum	10 ⁻⁴ mbar	10 ⁻⁴ mbar
Sample holder	fused silica < 1100°C Al ₂ O ₃ < 1750°C	fused silica < 1100°C Al ₂ O ₃ < 1750°C
Max. sample length	50 mm	50 mm
Sample diameter	7/12/20 mm	7/12/20 mm
Adjustable sample pressure	up to 1000 mN	up to 1000 mN
Measuring range	500 / 5000 µm	500 / 5000 µm
Resolution	0.125 nm	0.125 nm
Options	Pressure controllable Gas Mixing System (MFC's)	Pressure controllable Gas Mixing System (MFC's)
Atmosphere	inert, oxid.**, red., vac.	inert, oxid.**, red., vac.

* different furnace

** not possible with graphite heater



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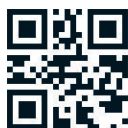
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Products: DIL, TG, STA, DSC, HDSC, DTA, TMA, MS/FTIR, In-Situ EGA, Laser Flash, Seebeck Effect, Thin Film Analyzer, Hall-Effect

Services: Service Lab, Calibration Service



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