

# **Operating Instructions**

## **Sealing Press**

**6.240.10-80**

## Information

In the design of your instrument, we endeavor to take individual solutions into account and to include these in the documentation.

However, in order to keep the scope of the technical documentation at a reasonable level, we must limit the description to a standard model.

We ask for your understanding, if additional information particular to your instrument is not included within the scope of the standard instructions.

This additional information can always be found on the corresponding information sheets.

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All technical data, instrument features and other information described in these operating instructions are presented to the best of our knowledge and in accordance with the technical standards of the instrument at the time of printing.

We welcome any comments, suggestions or new ideas concerning the instrument and these operating instructions. Please address them to:

NETZSCH-Gerätebau GmbH  
Wittelsbacherstraße 42  
**D - 95100 SELB**  
Telephone: +49 (0) 9287 881- 0  
Telefax: +49 (0) 9287 881- 505  
E-Mail: at@netzsch.com  
Internet: <http://www.netzsch-thermal-analysis.com>

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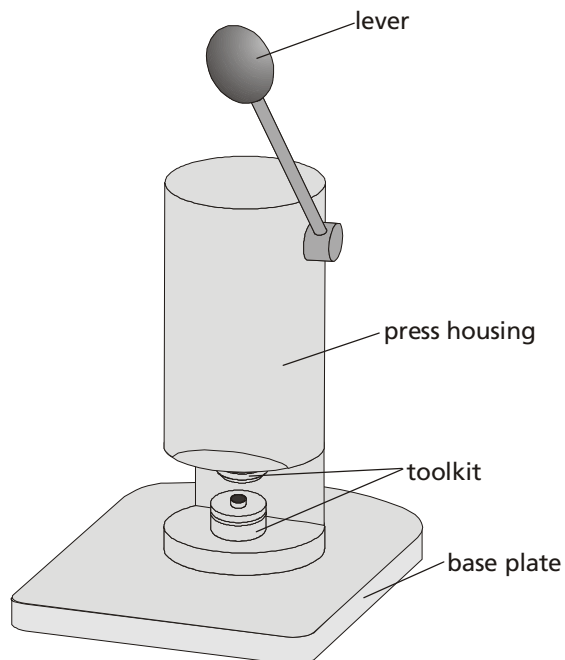
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### General

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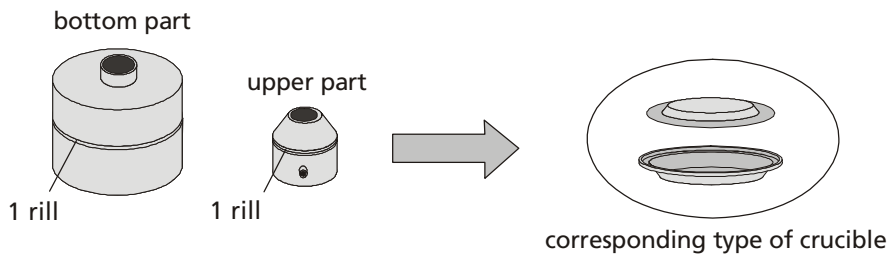
The sealing press 6.240.10-80 is used for sealing different types of crucibles. For each type of crucible there is a different toolkit (see page 4). In order to seal a crucible it must be placed with the corresponding lid on the lower part of the toolkit. The lever must be pressed down with a continuous motion and the crucible is closed respectively cold welded. The necessary force is defined by a spring in the press housing.

### Design

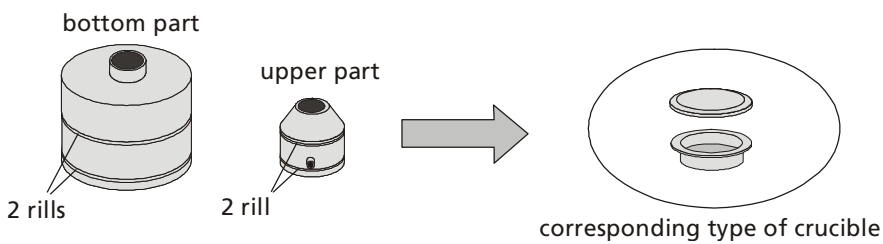


**Sealing press 6.240.10-80**

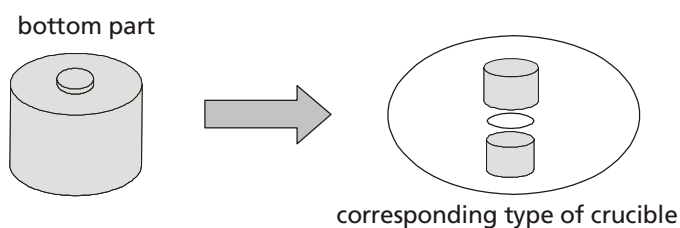
## Toolkit



- toolkit for pressure-tight cold welding of Al crucibles, Ø 6 mm (series 6.239.2-64.5xx) → 6.240.10-81



- toolkit for low pressure crucibles for pressure-tight cold welding of Al crucibles, Ø 6 mm (series 6.240.10-65.1xx) → 6.240.10-82



- toolkit for pressure-tight sealing of the medium pressure crucibles 6.240.1-68.1 → 6.240.10-83

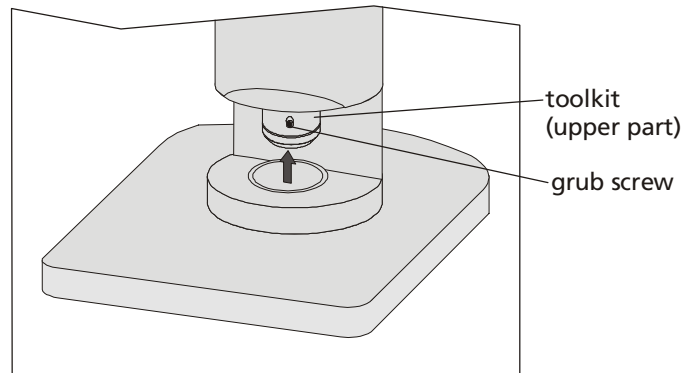


### Attention!

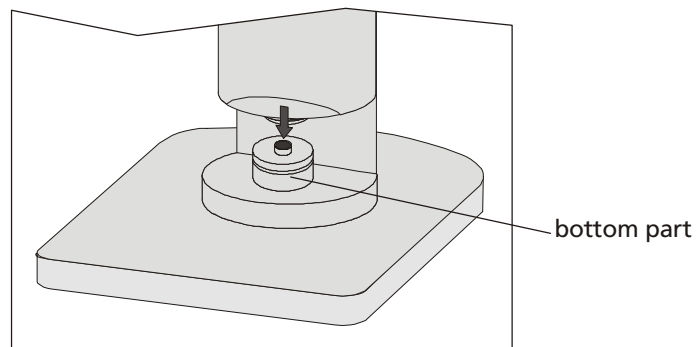
For using this toolkit no upper part is provided.

## Installation of the toolkit

- Insert the **upper part** (from below) and fix it with the grub screw at first.



- Then insert the **bottom part**



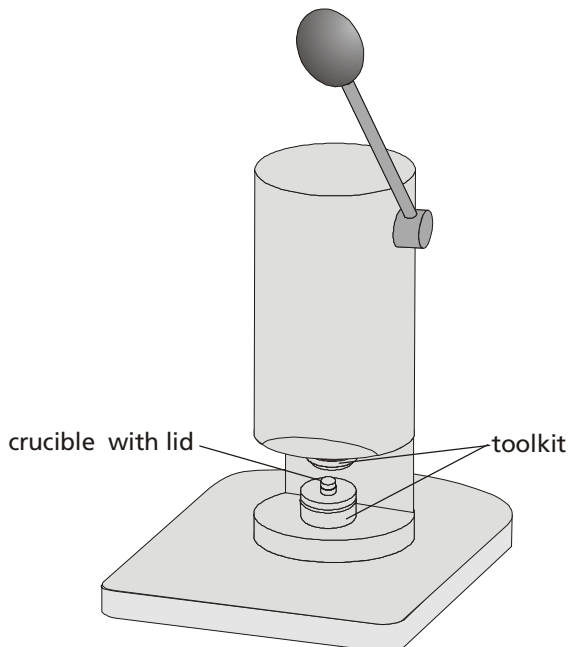
**Operation of the sealing press**

- **Place** the lid on the crucible.



The lid must be centered between the toolkit.

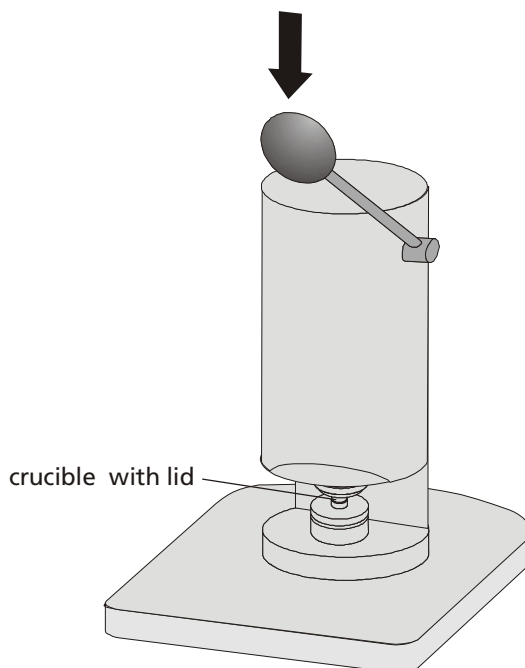
- **Use** tweezers to **set** the crucible with lid **on** the toolkit (bottom part)



- **Press** the lever down with a continuous motion.

- **Release** the sealing lever.

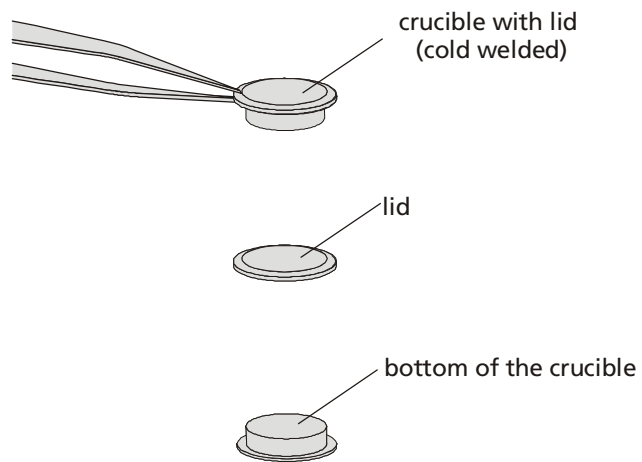
The crucible is now cold-sealed.



- **Use** tweezers to **remove** the sealed crucible from the press.
- **Check** the bottom of the crucible for deformities.



The bottom of the crucible must be flat.





**Technical Data****crucible set 6.239.2-64.5xx**

The sealing press 6.240.10-80 with the toolkit 6.240.10-81 is used for the pressure-tight sealing of Al crucibles (6.239.2-64.5xx). The lid of the crucible is designed so that it can be placed optionally with the bulged area upwards or downwards and can be welded. In the first case with the bulged lid upwards it results in a sample volume of 40 µl and in the second case with the bulged lid downwards it results in a sample volume of 15 µl. The reduced dead volume provides special advantages both for small sample quantities and for the contact pressure of foil samples because the lid is bulged towards the crucible bottom. The cold welding of the crucibles warrants a high reproducibility of the measuring results which is important for samples with volatile components. The cold welded crucible is tight up to an internal pressure of 6 bar at temperatures < 160°C. At higher temperatures the pressure load decreases as a deformation (bulging of crucible and lid) results because of the softening of the aluminium and the internal pressure.

<b>material:</b>	aluminium 99.5%
<b>sample volume:</b>	
lid bulge outwards:	max. 40 µl
lid bulge inwards:	15 µl
liquid or powdery samples:	25 µl
<b>max. temperature:</b>	600°C
<b>diameter:</b>	
crucible area (inside):	5.0 mm
crucible area (outside):	7.6 mm
<b>height:</b>	
(crucible with lid)	
lid bulge outwards:	2.5 mm
lid bulge inwards:	2.0 mm
<b>pressure:</b>	
pressure load to 160°C (typical value):	4.5 bar
max. reachable pressure:	6 bar
<b>delivery form:</b>	nealed, washed packaged 100 pcs., each

**crucible set 6.240.10-65.1xx**

The sealing press 6.240.10-80 with the toolkit 6.240.10-82 is used for the pressure-tight sealing of low pressure Al crucibles (6.240.10-65.1xx). Due to the bulged lid it results in an effective sample volume of 35  $\mu\text{l}$ . The cold welding of the crucibles warrants a high reproducibility of the measuring results which is important for samples with volatile components. The cold welded crucible is tight up to an internal pressure of 6 bar at temperatures < 160°C. The crucible bottom is dimensionally stable up to 3 bar. At higher temperatures the pressure load decreases as a deformation (bulging of crucible and lid) results because of the softening of the aluminium and the internal pressure.

<b>material:</b>	aluminium 99.5%
<b>sample volume:</b>	max. 35 $\mu\text{l}$
<b>max. temperature:</b>	600°C
<b>diameter:</b>	
crucible area (inside):	5 mm
crucible area (outside):	8.7 mm
<b>height :</b>	
crucible:	1.9 mm
crucible with lid:	3 mm
<b>pressure:</b>	
pressure load up to 160°C (typical value)	
dimensionally stable crucible bottom:	up to 3 bar
max. reachable	6 bar
<b>delivery form</b>	nealed, washed packaged 100 pcs., each

**crucible set 6.240.1-68.1**

The sealing press 6.240.10-80 with the toolkit 6.240.10-83 is used for the pressure-tight sealing of medium pressure Al crucibles (6.240.1-68.1). For sealing the crucible insert the sealing ring into the lid and push it onto the crucible. The necessary force is defined by a spring in the lower part of the toolkit. For sealing the crucibles no upper part of the toolkit is necessary. The lid is pressed directly by the press plunger.

<b>material:</b>	stainless steel X5CrNi1810
<b>sample volume:</b>	max. 120 µl
<b>max. temperature:</b>	
with elastomer sealing ring:	200°C
with PCTFE sealing ring:	250°C
<b>diameter:</b>	
crucible area (inside):	5 mm
<b>height:</b>	6 mm
<b>pressure</b>	
pressure load:	max. 20 bar
<b>delivery form</b>	set 25 pcs., with elastomer sealing rings
<b>accessories</b>	PCTFE-sealing ring order No. 801 765

## Stamping tool kit 6.240.10-84.0.00 for aluminum crucibles NGB810405 for SFI-measurements (Solid Fat Index)

### Tool kit

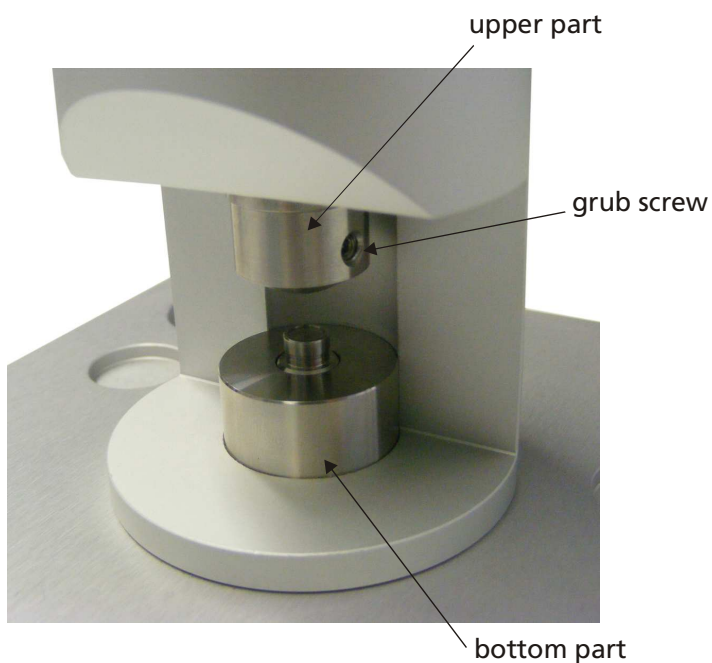


upper part

bottom part

### Installation

Insert the upper part (from below) and fix it with the grub screw at first. Then insert the bottom part.



## Sealing Press 6.240.10-80

### Operation

Place the crucible head first onto the bottom part so that the bottom of the crucible shows upwards. Press the lever down with a continuous motion. Release the sealing lever. The crucible bottom is now formed.

