Technical Data Sheet
Swaging Tools
Installation of Multi Crimp Rings
Efficient, cordless installation of small Multi Crimp Rings
Lightweight, ergonomic design for easy handling
MCR also applicable for small batch series
LED-display to indicate battery capacity and service interval

Cordless Crimp Pincer
Oetiker CC 01

The cordless crimping pincer was developed especially for the field of Industry & Commerce, with the result that Oetiker multi crimp rings can be deployed economically in small series as well.

With this device, multi crimp rings in the 5–25 mm diameter range can be shrunk simply and quickly.

With the automatic return function, the pincer jaws automatically return to the original position after reaching the shearing point. The unit also features an over-travel stop which immediately stops the closing process of the pincer jaws after releasing the operating switch.

The pincer heads are rotatable 360°. This makes it easier to reach places which are difficult to access.

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Technical Data
External dimensions: approx. 480 x 56 x 80 mm
Weight: approx. 2500 g
Closing time: approx. 3–4 sec

Delivery scope Oetiker CC 01:
Cordless Crimp Tool CC 01 (with pincer head)
Battery
Operating Instructions (multi-lingual document)
Charger (compatible to local electrical supply voltage/plug configuration)
Transport case

Optional accessories and spare parts:
Battery for CC 01 (Item no: 14000972)
Additional pincer heads for specific sizes

Sets without pincer heads according to language/country (mains plug)
<table>
<thead>
<tr>
<th>Country</th>
<th>Item No</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC 01 (EU)</td>
<td>13900729</td>
</tr>
<tr>
<td>CC 01 (AUS)</td>
<td>13900730</td>
</tr>
<tr>
<td>CC 01 (US)</td>
<td>13900731</td>
</tr>
<tr>
<td>CC 01 (UK)</td>
<td>13900732</td>
</tr>
</tbody>
</table>
Installation of Multi Crimp Rings

Two-separable halves for optimum component access
Small size allows flexibility
Intermeshing swaging segments guarantee 360° compression of MCR
Interchangeable swaging jaws enhance quick-change features
Optional arrangement enables 2 rings to be installed only 45 mm apart

Two-Piece Swaging Tool
Oetiker Compact
For Multi Crimp Rings

Technical data

<table>
<thead>
<tr>
<th>External dimensions</th>
<th>316 x 268 x 58 mm (l x h x w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>ca. 22 kg (48 lbs)</td>
</tr>
<tr>
<td>MCR size range</td>
<td>Ring dimensions Ø 16 mm to Ø 60 mm outside diameter with 8 replaceable swaging jaws</td>
</tr>
<tr>
<td>Press stroke</td>
<td>Segment stroke Ø 8 mm</td>
</tr>
<tr>
<td>Minimal requirements for press</td>
<td>Press force: min. 5000 kg</td>
</tr>
</tbody>
</table>

Oetiker Multi Crimp Rings should be installed using the swaging tools developed for them. This ensures correct installation and the best possible product performance. The vertical-opening, Two-Piece Swaging Tools for Oetiker Multi Crimp Rings with its compact dimensions allows for the separation of the tool halves for optimum accessibility and automatic latching of the tool. Powered by an external force – for example a hydraulic press – the jaws interact to reduce the MCR diameter. Because the jaw segments overlap, optimum compression of the ring is achieved.

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Single hinge for optimum accessibility
Automatic locking when tool is activated
Minimal width for parallel operation, enabling multiple single-axis installations
Intermeshing swaging segments guarantee 360° compression of MCR
Interchangeable swaging jaws enhance quick-change features

Hydraulic Swaging Tool
Oetiker Flex
For Multi Crimp Rings

Technical data

<table>
<thead>
<tr>
<th>External dimensions</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete system including mobile bench:</td>
<td>Including mobile bench and hydraulic unit: ca. 220 kg</td>
</tr>
<tr>
<td>1550 x 1450 x 700 mm (l x h x w)</td>
<td>1270 x 660 x 80 mm (l x h x w)</td>
</tr>
<tr>
<td>Swaging press: 1270 x 660 x 80 mm (l x h x w)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MCR size range</th>
<th>Press stroke</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ring dimensions 16 mm to 120 mm outside diameter with 8 replaceable swaging jaws</td>
<td>Segment stroke 8 mm</td>
</tr>
<tr>
<td>Ring dimensions 121 mm to 132 mm outside diameter with special slides and jaws</td>
<td></td>
</tr>
</tbody>
</table>

Oetiker Multi Crimp Rings should be installed using the swaging tools developed for them. This ensures correct installation and the best possible product performance.

The hydraulic swaging tool Oetiker Flex has many advantages for industrial applications: For example, the tool can be opened for unrestricted accessibility with automatic latching and a very compact width. Powered by the integrated hydraulic drive, the jaws interact to reduce the MCR diameter. Because the jaw segments overlap, optimum compression of the ring is achieved.

<table>
<thead>
<tr>
<th>Tool type</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swaging tool Flex</td>
<td>13401010</td>
</tr>
</tbody>
</table>
Process reliable installation with electronic monitoring of all specified parameters
Tool hinged for optimum accessibility
Fully automatic locking when tool is operated
Can be installed parallel for simultaneous closure of several MCRs
Intermeshing swaging segments guarantee 360° compression of MCR
Interchangeable swaging jaws enhance quick-change features

Electronically Controlled Hydraulic Swaging Tool Oetiker ELS 01
For Multi Crimp Rings

Technical Data

External dimensions
Complete system including mobile bench:
1550 x 1800 x 700 mm (l x h x w)
Swaging press: 1270 x 660 x 80 mm (l x h x w)

Weight
including mobile bench and hydraulic unit: ca. 240 kg

MCR size range
Ring dimensions 16 mm to 120 mm outside diameter with
8 replaceable swaging jaws
Ring dimensions 121 mm to 132 mm outside diameter with
special slides and jaws

Press stroke
Segment stroke 8 mm

Oetiker Multi Crimp Rings should be installed using the swaging tools developed for them. This ensures correct installation and the best possible product performance.

The electronically controlled Swaging Tool Oetiker ELS 01 is an innovative closing concept providing reliable installation with electronic monitoring of all specified parameters. This tool offers many advantages for automotive and industrial applications, e.g. integration in automated processes, convenient programming using a PC, optimum component accessibility, automatic locking of the tool mechanism and low width. Powered by the integrated hydraulic drive, the jaws interact to reduce the MCR diameter.

Because the jaw segments overlap, optimum compression of the ring is achieved. Swaging can be carried out with either force or diameter priority. When using the force-priority method, the installation of Oetiker Multi Crimp Rings can compensate for variations in component tolerances. In addition, 100% documentation of closures is available by using the optional “Clamp Process Monitoring” software.

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The thrust force of the hydraulic cylinder is set by changing the parameters at the ELS 01 control unit. This is accomplished by means of a PC, programming the specifications of a sequence of consecutive installations, or, optionally, using an external control signal. Specially adapted Test and Calibrating Equipment, based on the Calibrator CAL 01, is employed to calibrate the thrust force.

Example of an arrangement of swaging tools. Rings can be closed simultaneously.

<table>
<thead>
<tr>
<th>Tool type</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swaging tool ELS 01</td>
<td></td>
</tr>
<tr>
<td>With 3 x 400V/50–60Hz mains voltage</td>
<td>13401011</td>
</tr>
<tr>
<td>For other voltages</td>
<td>on request</td>
</tr>
<tr>
<td>CPM Clamp Process Monitoring Software</td>
<td>13600121</td>
</tr>
<tr>
<td>Calibrating Equipment for ELS 01</td>
<td>on request</td>
</tr>
<tr>
<td>Calibration gauges</td>
<td>on request</td>
</tr>
</tbody>
</table>