### TOOL DESCRIPTION

#### Tool function

The 4080 tool is intended to crimp RIVKLE® blind rivet nuts into previously drilled supports or punched holes in the parent material.

#### Stroke installation

This tool allows crimping RIVKLE® items according to the stroke installation method.

#### Features

- **Installation capacity:** RIVKLE® M3 to M12, steel (max. load: 21 kN at 6 bar)
- **Max. stroke:** 7 mm
- **Operating pressure:** 5.5 bar min. to 7 bar max.
- **Weight, equipped as M6:** 2.6 kg
- **Air consumption:** 8 L
- **Noise level:** < 70 dB (A)

#### Dimensions

<table>
<thead>
<tr>
<th>Standard rod</th>
<th>M3</th>
<th>M4</th>
<th>M5</th>
<th>M6</th>
<th>M8</th>
<th>M10</th>
<th>M12</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>68</td>
<td>68</td>
<td>68</td>
<td>68</td>
<td>68</td>
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<tr>
<td>L</td>
<td>32</td>
<td>31</td>
<td>41</td>
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<td>42</td>
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<table>
<thead>
<tr>
<th>Commercial screw</th>
<th>A</th>
<th>59</th>
<th>59</th>
<th>59</th>
<th>59</th>
<th>59</th>
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<tbody>
<tr>
<td>L</td>
<td>33</td>
<td>34</td>
<td>40</td>
<td>42</td>
<td>42</td>
<td>47</td>
<td>47</td>
</tr>
</tbody>
</table>

---

**SAFETY:** BEFORE ANY INTERVENTION ON THE 4068 TOOL, DISCONNECT THE COMPRESSED AIR FITTING

---

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800.236.3200
<table>
<thead>
<tr>
<th></th>
<th>1+2+3+4</th>
<th>1*</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>M3</td>
<td>236 803 03 000</td>
<td>CHC ISO4762 DIN912 : M3 x 60</td>
<td>236 113 03 030</td>
<td>236 803 03 040</td>
<td>236 803 03 010</td>
</tr>
<tr>
<td>M4</td>
<td>236 803 04 000</td>
<td>CHC ISO4762 DIN912 : M4 x 60</td>
<td>236 113 04 030</td>
<td>236 803 04 040</td>
<td>236 803 04 010</td>
</tr>
<tr>
<td>M5</td>
<td>236 803 05 000</td>
<td>CHC ISO4762 DIN912 : M5 x 70</td>
<td>236 113 05 030</td>
<td>236 803 05 040</td>
<td>236 803 05 010</td>
</tr>
<tr>
<td>M6</td>
<td>236 803 06 000</td>
<td>CHC ISO4762 DIN912 : M6 x 70</td>
<td>236 113 06 030</td>
<td>236 803 06 040</td>
<td>236 803 06 010</td>
</tr>
<tr>
<td>M8</td>
<td>236 803 08 000</td>
<td>CHC ISO4762 DIN912 : M8 x 70</td>
<td>236 113 08 030</td>
<td>236 803 08 040</td>
<td>236 803 08 010</td>
</tr>
</tbody>
</table>

*: 2368030X020 (10 screws)
No. 145 + 138 + 6 = 236 803 00 216
No. 5 = 236 153 00 043
II - ACCESSORIES

Tooling for RIVKLE® item installation with socket head cap screw mandrel (p. 12)

SOCKET HEAD CAP SCREW CHC DIN912

Screw replacement
- Loosen anvil locknut and unscrew anvil (2)
- Unscrew nose-piece (5)
- Fit screw (1) through washer (3), suitable for the required diameter (no washer for M8)
- Fit drive end piece (4) into screw (1) recess
- Slide the assembly into pull-out bush (7)
- Re-install nose-piece (5)
- Re-install anvil and locknut (2)

STANDARDS TOOLS

Setting tooling for RIVKLE® or RIVKLE® stud (with special female mandrel) (p. 12)
If you already use an OPEN tool, the existing female mandrel can be re-used.

Tooling replacement (with special female mandrel)
- Keep nose-piece (5) in place; loosen anvil locknut, then remove anvil (2) and locknut.
- Drive out pin (9) by means of a drift without damaging retaining ring (8) and release mandrel entirely (1).
- Re-install new mandrel (1) and fit pin (9) again, ensuring that it is retained by retaining ring (8).
- Screw in nose-piece (5) again and torque to 15 Nm.
- Screw in new anvil (2) again inside nose piece and lock by means of locknut.

III - TOOL OPERATION

Anvil position adjustment versus mandrel (3)
- Anvil position depends on RIVKLE® length before crimping.
- Adjust anvil position as indicated in figure 3.
- After adjustment, lock anvil locknut (2) to 10 Nm torque..

OPEN RIVKLE®  
Flush-mounted mandrel at RIVKLE® end

BLIND RIVKLE®  
Mandrel at 1 turn from thread bottom
Connection to compressed air system
All tools are air-driven, at an optimum pressure of 6 bar. We recommend the use of air treatment units including lubrication, filtering and pressure control on the compressed air supply system. These devices must be installed at maximum 3 metres from the tool in order to ensure optimum tool service life and minimum maintenance.

All air hoses MUST MANDATORILY FEATURE AN INNER DIAMETER OF AT LEAST 6.4 mm

Operating method
The tool can be operated in all positions, either carried in hand or suspended.

Operating procedure
- Connect the air supply to the tool.
- Offer up the RIVKLE® onto the mandrel. A slight pressure will start the motor and automatically initiate RIVKLE® screwing in onto the nose-piece, then motor shutdown (Push-Pull system).
- Introduce the RIVKLE® into the hole in intended application.
- Press the trigger and keep depressed until the device is fully released. This action both crimps the RIVKLE® into the intended application and releases it from the mandrel (by unscrewing).

CAUTION: THE TRIGGER MUST BE KEPT DEPRESSED FOR THE ENTIRE CYCLE. RELEASING THE TRIGGER WOULD RESULT IN FAULTY CRIMPING.

Crimping pressure adjustment
- Check that air system pressure is set between 5,5 and 7 bar.
- Before crimping, adjust stroke to 0 by turning the adjustment ring to minimum position in (-) direction.
- Gradually increase crimping stroke by turning the adjustment ring towards (+). This adjustment ring features 3 index marks. 1/3 turn corresponds to 0.5 mm (1 complete turn = 1.5 mm).
- At each step, test RIVKLE® crimping quality, until obtaining optimum crimping.
- Optimum crimping (dimension s) is indicated in your RIVKLE® catalogue

CAUTION: WHEN DELIVERED, THE TOOL IS DELIBERATELY SET TO 0 MM STROKE. THEREFORE, IT IS MANDATORY TO ADJUST THE DEVICE WHEN PUTTING INTO SERVICE. EXCESSIVE STROKE CAN DAMAGE RIVKLE® TAPPED THREADS, AS WELL AS THE MANDREL, OR PREVENT MANDREL UNSCREWING. WHEN CORRECT CRIMPING IS OBTAINED, RECORD THE POSITION OF THE INDEX MARK ON THE ADJUSTMENT RING, FOR REFERENCE.

Unscrewing button
In case of unscrewing problem, the 4080 tool is equipped with an unscrewing control button on top of the crimping trigger. To start unscrewing, press unscrewing button (1), then press crimping trigger 2 at the same time.
IV - MAINTENANCE

General maintenance

<table>
<thead>
<tr>
<th>OPERATION</th>
<th>FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check that the installed tool corresponds to your RIVCLE®</td>
<td>At each adjustment</td>
</tr>
<tr>
<td>Check that tool crimping stroke is suitable for the selected RIVCLE® (see pressure adjustment)</td>
<td>Once daily</td>
</tr>
<tr>
<td>Check mandrel condition; replace as required.</td>
<td>Once daily</td>
</tr>
<tr>
<td>Check that “screwing - crimping - unscrewing” operations are controlled by pressure exercised on the mandrel and the trigger, without RIVCLE® loaded.</td>
<td>Once daily</td>
</tr>
<tr>
<td>Check that first RIVCLE® is screwed in down to the anvil.</td>
<td>/</td>
</tr>
<tr>
<td>Always keep mandrel perpendicular to parent material.</td>
<td>/</td>
</tr>
<tr>
<td>Lightly oil mandrel.</td>
<td>Every 50 RIVCLE® crimped</td>
</tr>
<tr>
<td>After use, protect mandrel with a RIVCLE®</td>
<td>/</td>
</tr>
</tbody>
</table>

Occasional maintenance

IMPORTANT NOTE: TOOL MAINTENANCE MUST BE ENSURED BY COMPETENT TECHNICIANS. THE OPERATOR MUST NOT CARRY OUT TOOL MAINTENANCE OR REPAIR, UNLESS SUITABLY TRAINED FOR THIS PURPOSE.

The compressed air supply must be disconnected before any maintenance or removal operation.

Every 500,000 cycles, the tool must be entirely dismantled and all worn or damaged items replaced. It is also recommended to replace all items contained in the repair kits.

Any removal operation should be performed in good cleanliness conditions.

Maintenance kit

In order to facilitate maintenance, we recommend the use of special maintenance tools in order not to damage your tool.

<table>
<thead>
<tr>
<th>Repair kit</th>
<th>N° 236 155 00 220</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special maintenance tools</td>
<td>Upon request</td>
</tr>
</tbody>
</table>

Oil level filling

EXCLUSIVELY USE HYDROLUB H68 CONDAT OIL OR SIMILAR.

- Disconnect compressed air supply.
- Remove upper oil filling threaded plug, It. 9, and screw It. 54.
- Using a mandrel, push back pneumatic piston It. 37 down to tank bottom, It. 36.
- Check oil level through port (It. 9), and fill as required, to reach the lower section of the tapped port.
- Re-install threaded plug It. 9 with seal It. 10 & screw It. 54.
- Reconnect the compressed air supply and check the crimping pressure after several cycles of the trigger.
- In case of insufficient stroke, repeat the operations.
<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>Qt.</th>
<th>P/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring *</td>
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<td>236 153 65 030</td>
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<tr>
<td>Receiver piston</td>
<td>1</td>
<td>236 153 65 002</td>
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<tr>
<td>Guide bush *</td>
<td>1</td>
<td>236 153 00 390</td>
</tr>
<tr>
<td>Ring</td>
<td>1</td>
<td>236 803 00 014</td>
</tr>
<tr>
<td>Anti-extrusion ring *</td>
<td>1</td>
<td>236 153 65 112</td>
</tr>
<tr>
<td>Seal *</td>
<td>1</td>
<td>236 153 65 107</td>
</tr>
<tr>
<td>M6 screw</td>
<td>1</td>
<td>236 153 65 116</td>
</tr>
<tr>
<td>BS ring, 8 DIA. *</td>
<td>1</td>
<td>236 153 65 113</td>
</tr>
<tr>
<td>Thrust washer</td>
<td>1</td>
<td>236 153 65 104</td>
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<tr>
<td>Seal *</td>
<td>1</td>
<td>236 153 65 034</td>
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<tr>
<td>Anti-extrusion ring *</td>
<td>1</td>
<td>236 153 65 111</td>
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<tr>
<td>Stroke stop</td>
<td>1</td>
<td>236 155 00 014</td>
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<tr>
<td>Pin, Ø4</td>
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<td>236 155 00 015</td>
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<tr>
<td>Ring</td>
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<tr>
<td>Drive</td>
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<td>M10 screw</td>
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<td>C95 101 51 010</td>
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<tr>
<td>Pull-out pin</td>
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<td>C25 110 10 100</td>
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<tr>
<td>Retaining ring</td>
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<td>C25 110 10 410</td>
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<tr>
<td>Pull-out bush</td>
<td>1</td>
<td>236 155 00 021</td>
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<tr>
<td>Nose-piece</td>
<td>1</td>
<td>236 155 00 022</td>
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<tr>
<td>Rear cover seal</td>
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<td>236 155 00 23</td>
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<tr>
<td>Circlips ring, 44 mm DIA.</td>
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<td>236 153 65 101</td>
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<tr>
<td>Spring washer</td>
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<td>Hose</td>
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<td>M4 screw</td>
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<td>Transmitter piston bearing</td>
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<tr>
<td>Tank</td>
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<tr>
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<td>Tank protection</td>
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<td>Tank plug</td>
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<td>Filter</td>
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<tr>
<td>Push-pull rod *</td>
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<tr>
<td>Plastic grip</td>
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<td>236 155 00 074</td>
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<tr>
<td>Seal *</td>
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<td>236 155 00 075</td>
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<tr>
<td>Seal *</td>
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<tr>
<td>Seal *</td>
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<tr>
<td>Indexing bush</td>
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<tr>
<td>Body</td>
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<tr>
<td>Cycle start trigger</td>
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<td>236 155 00 202</td>
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<tr>
<td>Unscrewing button</td>
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<tr>
<td>Air union</td>
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<td>236 155 00 204</td>
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<tr>
<td>Distributor valve</td>
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<td>236 153 65 806</td>
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<tr>
<td>Push-pull *</td>
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<td>236 153 65 807</td>
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<tr>
<td>Motor</td>
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<td>236 153 65 800</td>
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<tr>
<td>Cycle distributor valve</td>
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<tr>
<td>Air piston</td>
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<tr>
<td>Stroke adjustment ring</td>
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<td>236 155 00 211</td>
</tr>
<tr>
<td>Rear cover</td>
<td>1</td>
<td>236 155 00 212</td>
</tr>
<tr>
<td>Repair kit</td>
<td>1</td>
<td>236 155 00 220</td>
</tr>
</tbody>
</table>

* items included in repair kit 23615500220
**V - TROUBLESHOOTING AND SOLUTIONS**

Before any intervention, check oil level and air supply pressure (between 5.5 and 7 bar)

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>PROBABLE CAUSE</th>
<th>SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Damaged mandrel threads. Difficult screwing/unscrewing actions.</td>
<td>1 - Thickness to be crimped incompatible with RIVKLE®. 2 - Excessive crimping stroke. 3 - Device positioning incorrect during crimping. 4 - Damaged pull-out rod threads.</td>
<td>1 - Check crimping stroke range in RIVKLE® catalogue. 2 - Repeat crimping test according to instructions. 3 - Keep mandrel/tool perpendicular to parent material. 4 - Replace mandrel as per instructions.</td>
</tr>
<tr>
<td>RIVKLE® threads defective after installation.</td>
<td>1 - Damaged mandrel threads. 2 - RIVKLE® incompletely screwed on mandrel. 3 - Excessive crimping stroke. 4 - Thickness to be crimped incompatible with RIVKLE®.</td>
<td>1 - Replace mandrel as per instructions. 2 - Adjust anvil position as per instructions. 3 - Repeat crimping tests as per instructions. 4 - Check crimping stroke according to RIVKLE® catalogue.</td>
</tr>
<tr>
<td>RIVKLE® turns in the hole.</td>
<td>1 - Thickness to be crimped incompatible with RIVKLE®. 2 - RIVKLE® head not bearing on anvil at the time of crimping. 3 - Insufficient crimping stroke.</td>
<td>1 - Check crimping stroke according to RIVKLE® catalogue. 2 - Ensure that head is correctly bearing, when screwing. 3 - Repeat crimping test as per instructions.</td>
</tr>
<tr>
<td>Device does not unscrew at end of crimping stroke.</td>
<td>1 - Low compressed air pressure. 2 - Low oil level. 3 - Motor problem.</td>
<td>1 - Check air supply pressure. 2 - Fill oil level as per instructions in § 5. 3 - Check motor rotation at no load.</td>
</tr>
<tr>
<td>Screwing function inoperative.</td>
<td>1 - No air supply to device. 2 - Push-Pull valve out of adjustment.</td>
<td>1 - Check that compressed air supply to device is ensured. 2 - Adjust Push-Pull valve per instruction item.</td>
</tr>
<tr>
<td>No crimping stroke.</td>
<td>1 - Adjustment ring at minimum position. 2 - Low oil level in tool.</td>
<td>1 - Adjust crimping stroke. 2 - Fill oil level.</td>
</tr>
<tr>
<td>Tool mandrel spins continuously.</td>
<td>1 - Push-Pull valve out of adjustment.</td>
<td>1 - Adjust Push-Pull valve per instruction item.</td>
</tr>
<tr>
<td>Unscrewing function inoperative (device blocked on the part). Tool stuck in the RIVKLE®.</td>
<td>1 - RIVKLE® tapped threads or mandrel threads damaged. 2 - Low oil level. 3 - Insufficient air pressure.</td>
<td>1 - To release the tool:  - position pin (9) to match an aperture in nose-piece (5) and drive pin out,  - unscrew anvil (2),  - release the tool. 2 - Fill oil level as per instructions in § 5. 3 - Check air pressure.</td>
</tr>
</tbody>
</table>