Manual hydraulic / pneumatic blind riveting tools
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1 General

1.1 This manual
This manual describes the daily use of the tools. Carefully read this manual. Every user must be acquainted with the contents of this manual. Strictly follow the instructions in this manual. Always carry out the activities in the correct order. Keep this manual at a fixed place. If the manual gets lost, you can download it from www.masterfix.com.

1.2 Icons in this manual
The following icons and symbols have been used in this manual:

- **CAUTION!**
  Procedures requiring extra attention.

- **Read the manual**
- **Use safety goggles**
- **Use hearing protection**
- **Use safety gloves**
- **Use spanner**
- **Manometer**

1.3 Discarding and the environment
Discarded tools are to be disposed of in accordance with the local regulations.

1.4 Service and maintenance
Masterfix Products bv does not accept any liability for damage that results from non-observance of the mentioned safety instructions (EEC directive 85/374).

1.5 Guarantee conditions
See the Masterfix Products bv guarantee conditions attached.
2 Safety

2.1 Safety instructions

A Nose piece/front sleeve
B Mandrel collector
C Trigger
D Safety valve
E Air supply closing valve
F Air connection

2.2 Persons

- Use safety goggles. This also applies to persons in the immediate surroundings.
- Use hearing protection when the sound level exceeds 85 dB(A).
- Use safety gloves, certain blind rivets can become very warm at some places.
- Keep your fingers away from the front when connecting the compressed air.
- Do not look straight into the tool (front and rear).
- Never direct the tool at persons.
2.3 Work environment

- Keep the work environment clean and neat.
- Use dry, filtered and with anti-corrosive oil lubricated air. If not available, put 0.1 ml (approximately 5 drops) of anti-corrosive lubricating oil in air connection of tool three times each operating day.
- Work in a frost-free environment.
- The connection to the tools is G¼”.
  A connection nipple has not been included. Provide an appropriate solution yourself.

⚠️ Set a constant air pressure to 5 - 7 bars (maximum 7 bars).

2.4 Tools

⚠️ Never use the tools
- when the nose piece/front sleeve (A) is missing;
- when the mandrel collector (B) has not been positioned

- Check the tools for damage before connecting the air pressure.
- Keep the tools in an optimum condition.
- Switch off the closing valve (C) when the tools are not used.
- Make sure that the flexible connection hose (D) is not pressurised when disconnecting.
- Do not modify the tools in any way.
- Only use the device for appropriate purposes.

2.5 Serial number

This is the place of the serial number (A) of the tools.

2.6 Type identification

This is the place of the type identification (B) of the tools.
3 Main components

3.1 Components

A Nose pieces**
B Front sleeve
C Hydraulic body
D Mandrel collector
E Trigger
F Pneumatic body
G Safety valve
H Air connection
J Manual
K CE and guarantee form
L CD with manual in various languages

3.2 Nose pieces

The delivered box contains various nose pieces.

** EZM 1000: 3.0 – 5.0 mm
** EZM 2000: 4.0 – 6.4 mm
A Bracket
B Mandrel collector
C Air outlet
D Trigger
E 360° Revolvable air supply unit
F Air supply closing valve
4.2 Mandrel collector
The purpose of the mandrel collector is to collect the rest mandrel. The collector can be placed in three positions.
A Position/remove.
B Lock – without extraction. Tilting the tools will make sure that the mandrel will end up in the collector.
C Lock – with extraction. The rest mandrel is automatically blown into the collector.

4.3 Revolvable air outlet
The escaping airflow can be set using the revolvable air outlet (A) such, that people experience a minimum of discomfort during work.

⚠️ Do not remove this air outlet from the mandrel collector.

4.4 360° Revolvable air supply unit
When the air hose (A) causes discomfort during work, turn off closing valve (B). After this the 360° revolvable unit (C) can be turned into any required position.
5 Use

1. Position the nipple (G1/4").

2. Position the mandrel collector.

3. Set the mandrel collector (see 4.2).

4. Set the revolvable air outlet (see 4.3).

5. Mount the correct nose piece.

6. Set the correct air pressure (see 2.3).
Turn on the closing valve.

Position the blind rivet.

Position the tools.

Press the trigger.

Turn off the closing valve.

Empty the mandrel collector after use.
6 Maintenance

Use safety goggles
Use hearing protection
Use safety gloves

6.1 Front sleeve
Turn off the closing valve (A) and disconnect the air supply (B).

- Remove the front sleeve (A).
- Pay attention to the o-ring (B).

Clean the inside using an air blow gun.
6.2 Clamping jaws
Remove the front sleeve, see 6.1. Remove the clamping sleeve (A) and the Teflon ring (B), the 2 clamping jaws (C) and the jaw pusher (D). Clean the clamping jaws and the jaw pusher or replace them.

Make sure that the spanner does not slip off the locking nut (E). This may damage the hydraulic piston rod (F).

Mounting is done in reverse order.

When mounting, lightly spray the inside of the clamping sleeve with Teflon spray.

Make sure that the locking nut is positioned between 19-20 mm from the hydraulic body.
## Trouble shooting

<table>
<thead>
<tr>
<th>Problem</th>
<th>Cause</th>
<th>Corrective action</th>
</tr>
</thead>
<tbody>
<tr>
<td>The tool does not work</td>
<td>The tool has not been connected to the air connection&lt;br&gt;The air supply closing valve is still closed&lt;br&gt;There is insufficient air pressure</td>
<td>Connect the tool to the air connection&lt;br&gt;Open the air supply closing valve&lt;br&gt;Use the correct air pressure 5-7 bar</td>
</tr>
<tr>
<td>Air is coming out of the safety valve</td>
<td>The air pressure is too high</td>
<td>Use the correct air pressure 5-7 bar</td>
</tr>
<tr>
<td>There is no or insufficient extraction</td>
<td>The extraction has not been turned on&lt;br&gt;There is insufficient air pressure&lt;br&gt;The mandrel collector is full&lt;br&gt;The tool is blocked by rest mandrels</td>
<td>Check the position of the mandrel collector&lt;br&gt;Use the correct air pressure 5-7 bar&lt;br&gt;Empty the mandrel collector&lt;br&gt;Remove the rest mandrel</td>
</tr>
<tr>
<td>The trigger does not work</td>
<td>There is insufficient air pressure</td>
<td>Use the correct air pressure 5-7 bar</td>
</tr>
<tr>
<td>The blind rivet cannot be placed into the nose piece</td>
<td>The incorrect nose piece has been mounted&lt;br&gt;The tool is blocked by rest mandrels</td>
<td>Mount the correct nose piece&lt;br&gt;Remove the rest mandrel</td>
</tr>
<tr>
<td>The blind rivet is not set correctly</td>
<td>Contaminated or worn clamping jaws&lt;br&gt;There is insufficient air pressure&lt;br&gt;The capacity of the tool has been exceeded</td>
<td>Clear or replace the clamping jaws&lt;br&gt;Use the correct air pressure&lt;br&gt;Use the correct tool</td>
</tr>
<tr>
<td>The rest mandrel does not release from the nose piece</td>
<td>The incorrect nose piece has been mounted&lt;br&gt;The tool is blocked by rest mandrels</td>
<td>Mount the correct nose piece&lt;br&gt;Remove the rest mandrel</td>
</tr>
<tr>
<td>During setting the rivet mandrel does not break</td>
<td>There is insufficient air pressure&lt;br&gt;The capacity of the tool has been exceeded</td>
<td>Use the correct air pressure&lt;br&gt;Use the correct tool</td>
</tr>
<tr>
<td>The rest mandrel is not extracted into the mandrel collector</td>
<td>The incorrect nose piece has been mounted&lt;br&gt;The tool is blocked by rest mandrels&lt;br&gt;The mandrel collector is full</td>
<td>Mount the correct nose piece&lt;br&gt;Remove the rest mandrel&lt;br&gt;Empty the mandrel collector</td>
</tr>
<tr>
<td>The air supply unit cannot be turned 360°</td>
<td>The tool is still under air pressure</td>
<td>Close the air supply closing valve and depressurize the tool by turning on the extraction or by operating the trigger</td>
</tr>
<tr>
<td>The tool does not perform well consistently</td>
<td></td>
<td>Contact a service centre</td>
</tr>
</tbody>
</table>
### Technical data

<table>
<thead>
<tr>
<th></th>
<th>EZM 1000</th>
<th>EZM 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>264 mm</td>
<td>275 mm</td>
</tr>
<tr>
<td>L</td>
<td>272 mm</td>
<td>272 mm</td>
</tr>
<tr>
<td>ø D</td>
<td>102 mm</td>
<td>125 mm</td>
</tr>
<tr>
<td>P</td>
<td>70 mm</td>
<td>70 mm</td>
</tr>
<tr>
<td>ø S</td>
<td>23 mm</td>
<td>23 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>1.25 kg</td>
<td>1.65 kg</td>
</tr>
<tr>
<td>Air pressure</td>
<td>5-7 bars</td>
<td>5-7 bars</td>
</tr>
<tr>
<td>Pull force (6 bars)</td>
<td>7.3 kN</td>
<td>12.5 kN</td>
</tr>
<tr>
<td>Air consumption (per stroke)</td>
<td>1.5 l</td>
<td>2.0 l</td>
</tr>
<tr>
<td>Stroke</td>
<td>17 mm</td>
<td>21 mm</td>
</tr>
<tr>
<td>Capacity (standard blind rivet)</td>
<td>ø 3.0 – 5.0 mm (stainless steel)</td>
<td>ø 4.0 – 6.4 mm (stainless steel)</td>
</tr>
</tbody>
</table>
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