MZK.1900 / MZK.8800 / MZK.190S / MZK.880S

Please keep a copy of the instruction leaflet.

The drilling head should only be used by trained personnel who have completely read and understood the instruction leaflet.
1.1 ... Locating pin

2.3 ... Driving pin for standard chuck (MZK.1120)
2.6 ... Spacer

3.4 ... Air Pipe
3.7 ... Air pipe connector

3.6 ... Location for Driving pin
3.3 ... Locking mechanism
3.1 ... Safety lever

3.5 ... Compressed air outlet
3.6 ... Location for drive pin
3.1 ... Safety lever
3.5 ... Compressed air outlet

3.3 ... Locking mechanism
3.1 ... Safety lever

2.3 ... Driving pin for standard chuck (MZK.1120)
2.6 ... Spacer

3.4 ... Air pipe
1.6 ... Cover cap for standard chucks
3.7 ... Air pipe connector
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The drilling head should only be used by trained personnel who have completely read and understood the instruction leaflet.

C.1 - How to use this instruction leaflet

• Please keep a copy of the operating instructions.
• Read the instruction leaflet and the safety information before operation.
• We recommend that you use the orientation diagram for easier identification of the parts being described.
• Individual sections are indicated by capital letters or numbers which makes it easier to navigate the instructions.

Safety information:
This exclamation point indicates important safety information that must be followed.

Note:
This exclamation point indicates a note. If this note is not followed, then drilling head parts as well as the work piece itself may be damaged or the drilling head may be rendered inoperable and/or the work piece unusable.

Component description codes correspond to the section where the component and its function is described. For example, 3.1 is described in section 3.

Dear valued Blum customer,

We realise that your time is valuable. However, you should carefully read this instruction leaflet before you set up and use the machine for the first time. In this way, you will best determine how to adjust the drilling head to your needs as well as protect yourself against injury.

At the time of printing, this instruction leaflet contained up-to-date information for this model. Small deviations due to continual development of the drilling head design cannot be ruled out entirely. This instruction leaflet is an important component to the drilling head and must be transferred to the new owner if the machine is sold.

For your own safety, you should only use Blum-approved replacement parts and accessories. Blum is not liable for any damages resulting from the use of unapproved products.

Blum GmbH retains the right to make changes to and/or cancel without replacement the technical design, equipment, technical information, colour, materials, services provided and similar without prior notice and without explanation as well as the right to discontinue production of a specific model also without prior notice.
D.1 - Remaining risks according to EN ISO 12100-2

- The drilling head complies with current safety standards. However, there are remaining risks.
- There are remaining risks due to the stroke movement of the drilling unit to the operator and secondary personnel if safety devices are removed or control elements should fail.
- Other remaining risks are indicated by the safety decals and the following safety information. It is therefore absolutely necessary to follow all safety instructions carefully.

D.2 - Safety decals

- Completely read the instruction leaflet and safety information before operating the machine.
- Wear proper eye and face protection when operating this machine.
- Only one person at a time should operate the machine.
- Disconnect electrical and pneumatic connections before making any repairs (plug / rapid hose coupling).
- Keep hands away from the drill or swing arm during the drilling or insertion process.
- Keep hands away from drill bits.
- Keep hands away from the danger zone of the hold down clamps - pinch danger.
- Do not remove safety devices - danger of injury.

D.3 - Intended use

- This drilling head is only intended for drilling holes in work pieces of wood, particle board or epoxy coated wood. The drilling head should only be used in commercial and industrial applications. It was designed exclusively for use with the Blum MINIPRESS M, MINIPRESS P and MINIDRILL. The manufacturer assumes no liability for uses not described in the instruction leaflet.
D.4 - Safety information

• Disconnect the MINIPRESS, MINIDRILL from electrical and pneumatic connections before retooling or performing any work on drill bits. (see MINIPRESS, MINIDRILL instruction leaflet).

• Only use sharp, clean drill bits.

• Particular care must be taken when working on sections that jut out over the work top. Attach a larger work table or use extensions.

• Secure the work piece during drilling/insertion.

• You should always check that all safety devices and machine parts are functioning properly before use. Replace damaged parts with original Blum parts.

• Make sure that no other tools or objects are on the work top aside from your work piece before turning on the MINIPRESS, MINIDRILL.

• When work is complete, disconnect the MINIPRESS, MINIDRILL from electrical and pneumatic connections.

• For your own safety, use only those accessories which are recommended or indicated in the instruction leaflet or Blum product catalogue.

• Do not make any alterations or modifications to the drilling head.

• If there are any questions and/or problems, please contact the BLUM Customer Service Department - www.blum.com.

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E.1 - Dimensions and weights

<table>
<thead>
<tr>
<th>Model</th>
<th>Weight</th>
<th>Dimensions</th>
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<tr>
<td>MZK.1900 / MZK.190S</td>
<td>3.7 kg / 8.2 lbs</td>
<td>H = 153 mm / 6-1/64&quot;</td>
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<td></td>
<td></td>
<td>W = 355 mm / 13-31/32&quot;</td>
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<td></td>
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<td>D = 135 mm / 5-5/16&quot;</td>
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<tr>
<td>MZK.8800 / MZK.880S</td>
<td>3 kg / 6.6 lbs</td>
<td>H = 120 mm / 4-23/32&quot;</td>
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<td></td>
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<td>W = 130 mm / 5-7/64&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D = 355 mm / 13-31/32&quot;</td>
</tr>
</tbody>
</table>

E.2 - Drilling dimensions

- Max. work piece thickness: 40 mm 1-9/16"  • Do not use hinge boss drills / Forster-drills larger than 10 mm
- Max. drilling distance: 102 mm 4-1/64"
- Max. drilling diameter: 10 mm 3/8"
- min. drilling diameter: 2 mm 5/64"

E.3 - Accessories

For accessories see Blum complete catalogue
1. Drilling head preparation

1.1 - Locating pin installation (only for MZK.1900 / MZK.190S)

The following work steps are only required for the MZK.1900 / MZK.190S drilling head:

- Slide Locating pin 1.2 into the drilling head from below
- Screw handle 1.3 on to Locating pin

1.2 - Required drill bits

- Drill bits:
  - 4 x ø XX mm clockwise 1.7 (marked in black)
  - 5 x ø XX mm counter clockwise 1.8 (marked in red)
- Cover caps
  (only required if a drill bit is not inserted into the chuck)

Quick connect chuck:
When using the quick connect chuck only use Blum-approved drills

1.3 Setting the drilling length

The total length of the drill bit (from bit-tip to adjustment screw) should be 57 mm / 2-15/64”.

To correct the drill bit length, adjust the screw accordingly using a screwdriver.

Important
All drill bits must be the same length.
1.4 - Inserting drill bits into the chuck

Attention
Do not touch, danger of being cut

- Always remove the drilling head from the assembly machine
- Work gloves should be worn

- Push drill bits [1.4] all the way into the chuck. (The flat on the drill shank must be aligned with the fixing screw)

- Use a hex wrench [1.5] to tighten the fixing screws.

- Insert cover caps [1.6] into the unused chucks. This will keep the chucks clean.

- Colour coded bits:
  Clockwise - Right Hand [1.7] > black
  Counter clockwise - Left Hand [1.8] > red
2.1 - MINIPRESS preparation

- Main switch [4.1] off
- Disconnect machine from compressed air and power supply.
- Swivel out hold down clamp [4.4].
- Remove all drill bits from the assembly machine.
- Remove all drilling depth stops.

2.2 - Inserting the driving pin

There are two types of locking devices:

a) Driving pin for standard chuck MZK.1120 [2.3] enclosed

b) Driving pin for quick connect chucks MZK.1130 [2.4] must be ordered separately

- The corresponding driving pin [2.3-2.4] is inserted (like a drill bit) into the centre spindle
- Remove drill sleeve [2.5]
- Remove cover cap [1.6]

2.3 - Attaching the spacer

- To ensure that the drilling depth with the attached drilling head does not have to be re-set with the drilling depth screw, a spacer [2.6] attached.
- Attach the spacer [2.6] to the drilling depth setting screw.

ATTENTION
The spacers must be flush with the knurled screw [2.7] and completely engaged.

- This ensures the same drilling depth as before without a drilling head.
3.1 - Attaching the drilling head

The drilling head can be attached in two settings:

a) Range 32 - 102 mm
   Drilling centre can be set 32mm min 102mm max

b) Range 0 - 38 mm
   Drilling centre can be set 0mm min 38mm max

- Swivel up perspex guard.
- Insert retainer bolts [3.2] into drilling head.
- Switch locking lever [3.3] to the "closed" position

The drilling head has an offset of 32 mm.

3.2 - Connecting the compressed air outlet

3.2.1) Connecting the compressed air outlet

- Connect the air pipe [3.4] to the compressed air outlet [3.5] of the drilling head.
- Connect the other end of the air pipe to the connector [3.7] and the compressed air supply [3.4].
4.1 - Checking the drilling depth setting

- Main switch {4.1} off
- Connect the air supply to the air filter unit of the assembly machine
- Hold down clamp {4.2} at Pos "OFF."
- Place the cabinet side outside of work area (drilling/insertion machine) on to the work top and secure.
- Swivel in drilling depth template {2.8}
- Swivel out hold down clamp {4.4}

- Press and hold the feed switch {4.3}
- Slide the cabinet side to the drill and check whether or not the drills touch the top side of the workpiece (AH).
- Release the feed switch {4.3}

4.2 - Correcting the drilling depth setting

- If the drilling tips do not reach the top face of the workpiece (AH), correct the setting.
- Turn the knurled screw {2.7}

 Decrease the depth: Turn knurled screw {2.7} to the right
 Increase the depth: Turn knurled screw {2.7} to the left
(one turn equals a 1.5 mm depth setting.)

- Tighten and lock the knurled screw {2.7}
- Re-trigger test cam and check the setting.

Important
Swivel out the drilling depth setting template {2.8}
to achieve a drilling depth of 13 mm.
4.3 - Checking the head stroke speed

- Remove the workpiece from the work top
- Swivel out drilling depth setting template [2.8].
- Keep the machine’s work area [A] free.
- Press the feed switch [4.3] and observe the head stroke movement.

4.4 - Setting the head stroke speed

The brake is set by turning the screw [4.8].

- **Hard wood:** Turn screw [4.8] to the right: Drilling is carried out slowly.
- **Soft wood:** Turn screw [4.8] to the left: Drilling is carried out quickly.

This extends the life of the drill and ensures tear-free drilling.

4.5 - Setting swivel stops

Set a swivel stop [4.5] to the desired start dimension and tighten. (Indicator edge is on the inside of the swivel part.)

**Important**

If long system drillings are to be made, then use several stops to ensure a higher degree of accuracy over the long length.

A setting template [4.6] can also be used to set several stops. The prescribed distance is 9 x 32 mm.
4 - Working with the drilling head

4.6 - Sliding the workpiece to the stop

• Loosen clamping screw [4.7].
• Set the clamps so that the distance x between the workpiece side (AH) and the clamp guard is a max. of 3 mm.
• Leave a min. of 1 cm distance between hold down clamp and drilling head (y).
• Secure clamping screw [4.7].

4.7 - Setting clamps to the material thickness

• Main switch [4.1] on
• Hold down clamp [4.2] at Pos "ON."
• Hold down work piece outside of danger area and press against the stop.
• Press feed switch [4.3] until drilling depth is reached.
• During drilling, locating pin [4.1] is again moved to the starting position.

4.8 - Drilling

ATTENTION
Be sure to remove any objects from the work area (A) of the machine, except the work piece!
Keep your hands out of work area (A).

• Main switch [4.1] on
• Hold down clamp [4.2] at Pos "ON."
• Hold down work piece outside of danger area and press against the stop.
• Press feed switch [4.3] until drilling depth is reached.
• During drilling, locating pin [4.1] is again moved to the starting position.
4.9 - Using the locating pins to send to the next cycle

- Move locating pins (1.1) downwards and centre in the last drilling of the previously made system drilling.
- Drilling see point 4.8.

Recommendation:
Use locating pins (1.1) for short system drillings for sending to the next cycle. If long system drillings are used, then use several stops and position them using the setting template (MZK.1906 EINSTLE) (4.6). This will ensure a higher degree of accuracy over the long length.

4.10 - Using the setting template to send to the next cycle

- Attach extension ruler
- Position setting template on the swivel stop (4.5).
- Position swivel stop (4.5) on the extension ruler. The distance is provided by the setting template (4.6).
- The template (MZK.1906 EINSTLE) (4.6) is optional and not included as a standard part when the drilling heads are delivered.
5 - Maintenance and service

5.1 - Maintenance

• Clean drilling dust from machine and drilling head on a regular basis to ensure optimal functionality and/or durability of devices.

• Regularly remove drilling dust from the sensor.

• Regularly remove drilling dust from the quick connect chuck.

• Replace broken or damaged parts immediately.

• Only use BLUM original parts.
## 6 - Troubleshooting

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<tr>
<th>Error</th>
<th>Cause</th>
<th>Solution</th>
<th>Note</th>
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<tbody>
<tr>
<td>Drilling head cannot be attached</td>
<td>Incorrect retainer is attached</td>
<td>Attach correct retainer (see retrofit kit M30.1313.UMBO-K)</td>
<td>none</td>
</tr>
<tr>
<td></td>
<td>Incorrect driving pin used</td>
<td>Use correct driving pin</td>
<td>See point 2.2</td>
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<tr>
<td></td>
<td>Chips between retainer, drilling head and drilling head attachment</td>
<td>Remove chips</td>
<td>none</td>
</tr>
<tr>
<td></td>
<td>Locking mechanism 3.3 is closed</td>
<td>Set locking mechanism to open</td>
<td>See point 3.1</td>
</tr>
<tr>
<td>Drill bit cannot be tightened or removed</td>
<td>Drill bit surface for tightening too large</td>
<td>Only use Blum-approved drill bits. See Blum product catalogue or <a href="http://www.blum.com">www.blum.com</a></td>
<td>See chapter 1</td>
</tr>
<tr>
<td></td>
<td>Dimension (9.3 mm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bit interior fouled by chips</td>
<td>Blow out drilling head and bits, remove bit coverings</td>
<td>See chapter 1</td>
</tr>
<tr>
<td></td>
<td>Dirt and dust between locking ring and bits</td>
<td>Blow out drilling head and bits, remove bit coverings</td>
<td>See chapter 1</td>
</tr>
<tr>
<td></td>
<td>You are using not Blum-approved drills.</td>
<td>Use Blum-approved drills. See Blum product catalogue or <a href="http://www.blum.com">www.blum.com</a></td>
<td>See chapter 1</td>
</tr>
<tr>
<td>System drilling not parallel to ruler</td>
<td>Drilling head turns out of position</td>
<td>Retighten screws</td>
<td>See instructions MA-454</td>
</tr>
<tr>
<td></td>
<td>Retainer and gearbox casing are not screwed in correctly</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Drilling head is not secured correctly</td>
<td>Close locking mechanism 3.3</td>
<td>See instructions MA-454</td>
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<tr>
<td></td>
<td>(loose)</td>
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<tr>
<td>Longer system drillings are uneven</td>
<td>The system drilling has been drilled using the locating pins, the range of locating pins 1.1 is too wide.</td>
<td>Drill longer system drillings using stops</td>
<td>See chapter 4</td>
</tr>
<tr>
<td></td>
<td>Stops are not set correctly</td>
<td>Check stop settings</td>
<td>See chapter 4</td>
</tr>
<tr>
<td></td>
<td>locating pins were not centred cleanly</td>
<td>locating pins must be reset</td>
<td>See chapter 4</td>
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<tr>
<td>Drilled through into the work table</td>
<td>Drilling depth spacing was not attached</td>
<td>Attach drilling depth spacing</td>
<td>See chapter 2</td>
</tr>
<tr>
<td>Drilling depth does not match</td>
<td>Incorrect drill bit used</td>
<td>Only use Blum-approved drill bits. See Blum product catalogue or <a href="http://www.blum.com">www.blum.com</a></td>
<td>See chapter 1</td>
</tr>
<tr>
<td></td>
<td>Drill bit not tightened correctly</td>
<td>Soiling</td>
<td>See chapter 1</td>
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<tr>
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<td>Drill bit length is not set properly</td>
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7 - Spare parts MZK.1900

2  0022191  MZK.1904   LAGERSATZ
3  0031934  MZK.1940   TASTER       S
5  0030634  MZK.1305.01ANT-WELLE NCSO
6  0032093  L-STECKVERSCHR M5-6 QSM
7  0031554  MZK.1930   AD+ZUT    R91M
8  0031864  MZK.1936   SI-HE R+L    S
9  0031864  MZK.1936   SI-HE R+L    S
10 0031864  MZK.1936   SI-HE R+L    S
11 0022260  MZK.1915   DICHT+BZ
12 0031481  MZK.1967   SCHUTZ V+H  NA
13 0031481  MZK.1967   SCHUTZ V+H  NA
14 0031934  MZK.1940   TASTER       S
15 0031934  MZK.1940   TASTER       S
16 0031554  MZK.1930   AD+ZUT    R91M
18 0031554  MZK.1930   AD+ZUT    R91M
20 0031554  MZK.1930   AD+ZUT    R91M
21 0031481  MZK.1967   SCHUTZ V+H NA
22 0022191  MZK.1904   LAGERSATZ
24  0030704  MZK.1306   WELLE R NCSO
25  0030874  MZK.190MS6   WELLE NCSO
27  0032169  STECKVERSCHR-GER 8-6 QS

BA-092/0EN MZK.1900/8800
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