

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

Please keep a copy of the instruction leaflet.



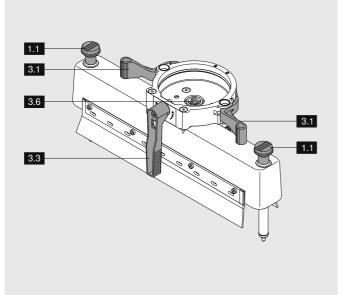
The drilling head should only be used by trained personnel who have completely read and understood the instruction leaflet.



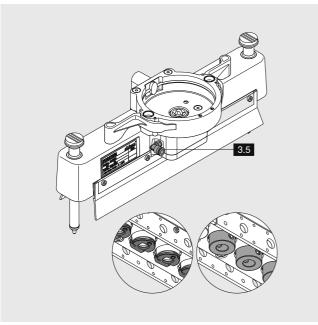
BA-092/0EN MZK.1900/8800

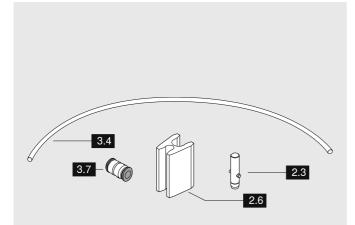


## A - Orientation diagram MZK.1900 / MZK.190S



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



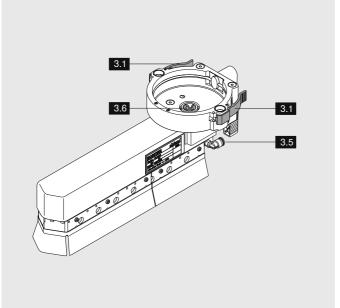


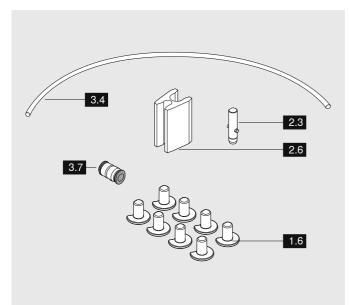
3.5 ... Compressed air outlet

- Driving pin for standard chuck (MZK.1120) 2.3 ...
- 2.6 Spacer ....
- 3.4 ...
- Air Pipe Air pipe connector 3.7 ...



## A - Orientation diagram MZK.8800 / MZK.880S





- 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



## B - Contents

А	Orientation diagram MZK.1900 / MZK.190S	2
А	Orientation diagram MZK.8800 / MZK.880S	2
В	Contents	4
С	How to use this instruction leaflet	5
D	Safety information	6
Е	Technical data	7
1	Drilling head preparation	8
2	MINIPRESS / MINIDRILL preparation	10
3	Drilling head assembly	11
4	Working with the drilling head	12
5	Maintenance and service	16
6	Troubleshooting	17
7	Spare parts MZK.1900 / MZK.190S	18
7	Spare parts MZK.8800 / MZK.880S	19



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.

(3.1)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

i	Completely read the instruction leaflet and safety information before operating the machine.
	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.
4	<ul> <li>Disconnect electrical and pneumatic connections before making any repairs (plug / rapid hose coupling).</li> </ul>
	<ul> <li>Keep hands away from the drill or swing arm during the drilling or insertion process.</li> </ul>
	• Keep hands away from drill bits.
	Keep hands away from the danger zone of the hold down clamps - pinch danger.
TTT TTT	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.

## a**blum**®

## D - Safety information

## 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.

# **Ablum**°

## E - Technical data

### E.1 - Dimensions and weights

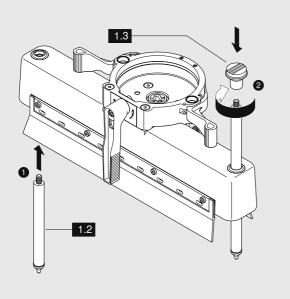
	MZK.1900 / MZK.190S	MZK.8800 / MZK.880S
• Weight:	3.7 kg / 8.2 lbs	3 kg / 6.6 lbs
Dimensions:	H = 153 mm / 6-1/64" W = 355 mm / 13-31/32" D = 135 mm / 5-5/16"	H = 120 mm / 4-23/32" W = 130 mm / 5-7/64" D = 355 mm / 13-31/32"
E.2 - Drilling dimensions		
Max. work piece thickness:	40 mm 1-9/16" • Do not use hinge bo	ss drills / Forster-drills larger than 10 mm
<ul> <li>Max. drilling distance:</li> <li>Max. drilling diameter:</li> <li>min. drilling diameter::</li> </ul>	102 mm 4-1/64" 10 mm 3/8" 2 mm 5/64"	

#### E.3 - Accessories

For accessories see Blum complete catalogue

## **Ablum**<sup>®</sup>

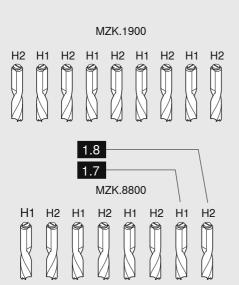
## 1 - Drilling head preparation

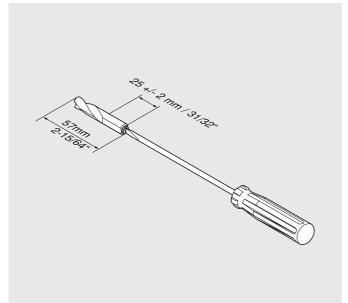


1.1 - Locating pin installation (only for MZK.1900 / MZK.190S)

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."

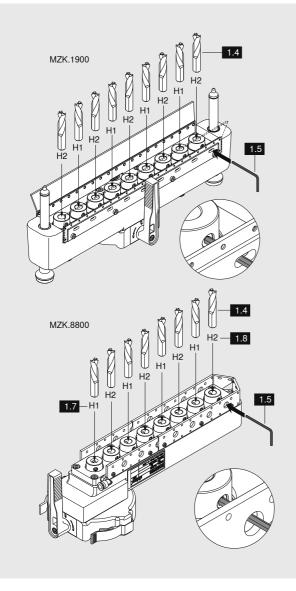
To correct the drill bit length, adjust the screw accordingly using a screwdriver.

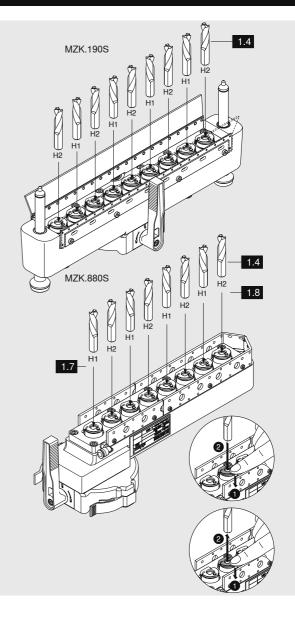
#### Important

All drill bits must be the same length.



## 1 - Drilling head preparation





## 1.4 - Inserting drill bits into the chuck

## Attention

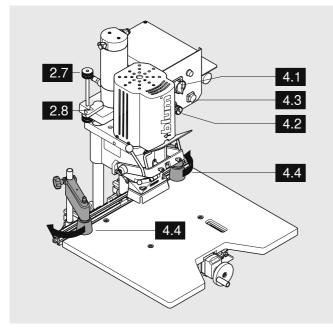


### Do not touch, danger of being

- cutAlways remove the drilling head from the assembly
  - machineWork 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

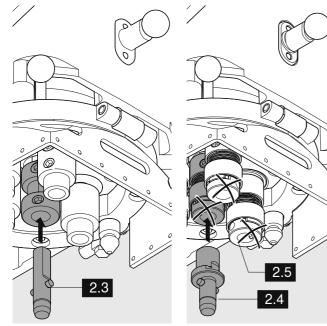
# **Ablum**

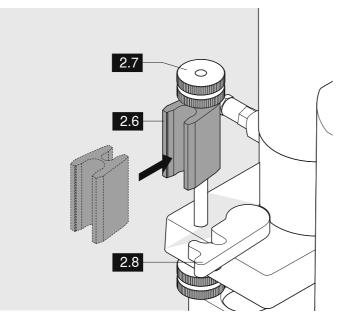
## 2 - MINIPRESS preparation



## 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.

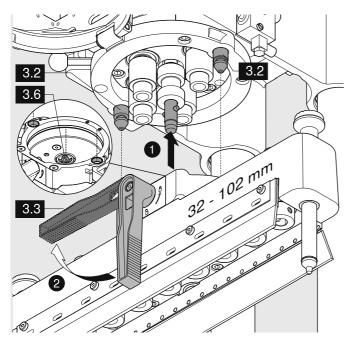


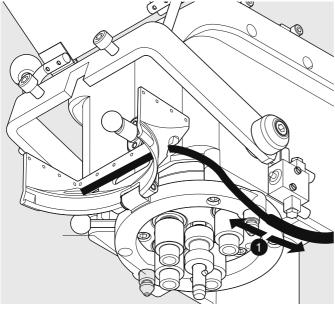
### ATTENTION

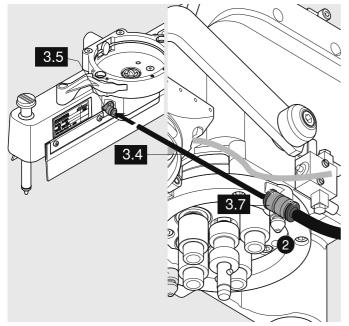
The spacers must be flush with the knurled screw (2.7) and completely engaged.

• This ensures the same drilling depth as before without a drilling head.

# **blum**°







## 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

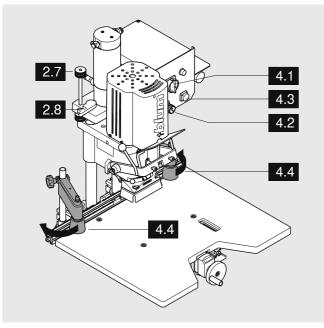
The drilling head has an offset of 32 mm.

### 3.2 - Connecting the compressed air outlet

#### 3.2.1) Connecting the compressed air outlet

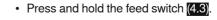
- Connect the air pipe (3.4) to the compressed air outlet (3.5) of the drilling head.
- Connect the other end of the air pipe to the connector (3.7) and the compressed air supply (3.4).

## **Ablum**

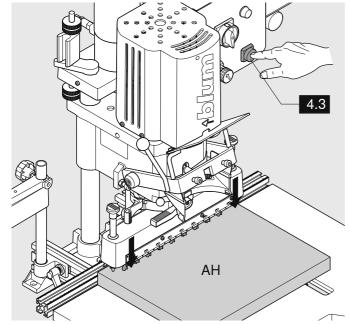


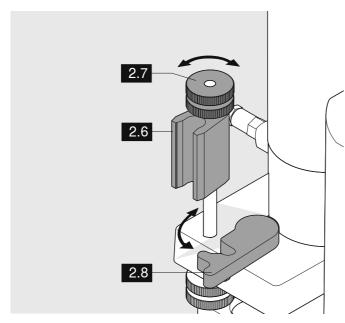
## 4.1 - Checking the drilling depth setting

- 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).



- 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.)		

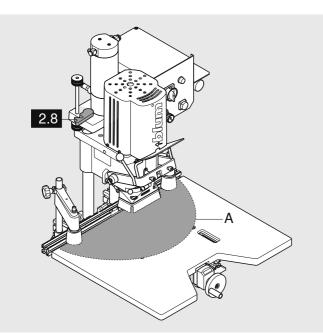
- Tighten and lock the knurled screw (2.7).
- Re-trigger test cam and check the setting.

#### Important

Swivel out the drilling depth setting template (2.8) to achieve a drilling depth of 13 mm.

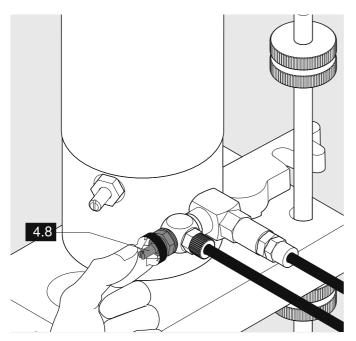
# **Ablum**<sup>®</sup>

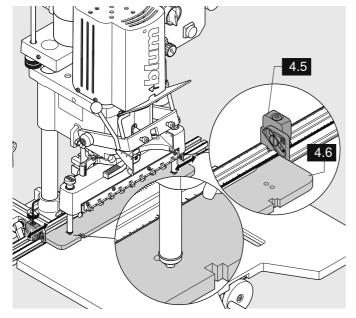
## 4 - Working with the drilling head



## 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:
  - 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

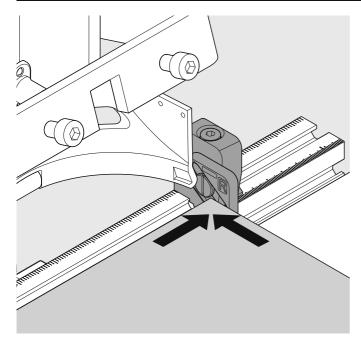
Set a swivel stop (4.5) to the desired start dimension and tighten. (Indicator edge is on the inside of the swivel part.)

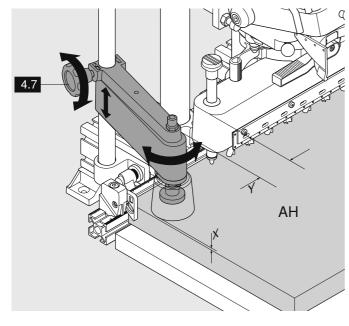
#### Important

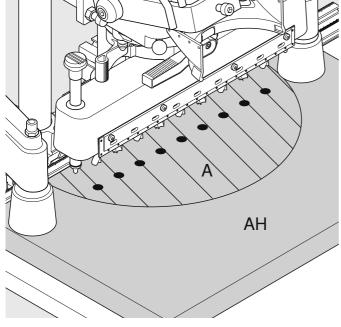
If long system drillings are to be made, then use several stops to ensure a higher degree of accuracy over the long length.

A setting template (4.6) can also be used to set several stops. The prescribed distance is 9 x 32 mm.

## **Ablum**







## 4.6 - Sliding the workpiece to the stop

## 4.7 - Setting clamps to the material thickness

- 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).

## 4.8 - Drilling



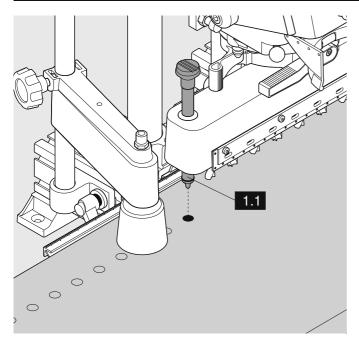
#### ATTENTION

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 (1.1) is again moved to the starting position

## **Ablum**<sup>®</sup>

## 4 - Working with the drilling head

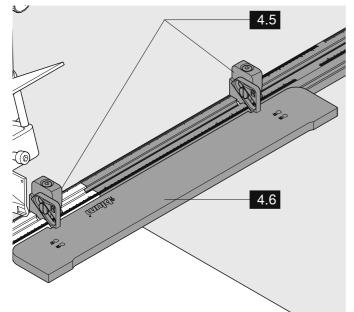


### 4.9 - Using the locating pins to send to the next cycle

- 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 (11) 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.

## **Ablum**®

## 5 - Maintenance and service

## 5.1 - Maintenance

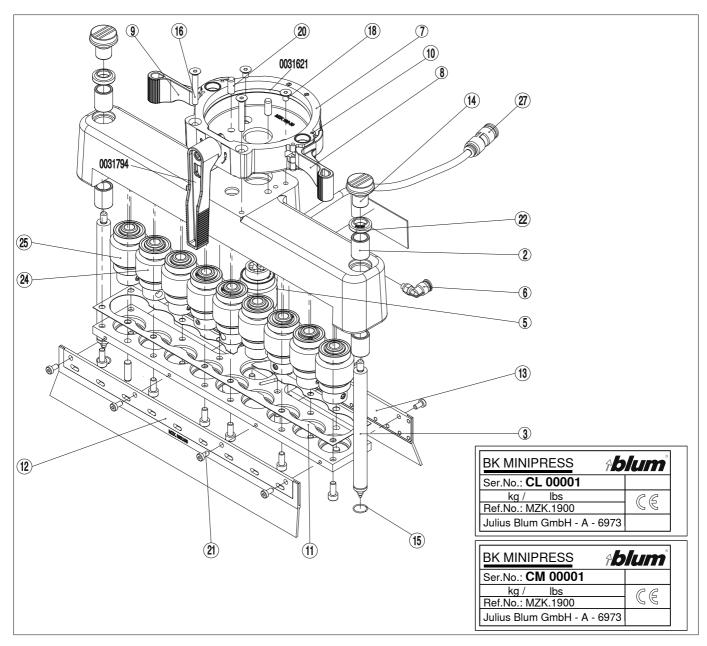
- Clean drilling dust from machine and drilling head on a regular basis to ensure optimal functionality and/or durability of devices.
- Regularly remove drilling dust from the sensor.
- Regularly remove drilling dust from the quick connect chuck.
- Replace broken or damaged parts immediately.
- Only use BLUM original parts.

# **Ablum**®

Error	Cause	Solution	Note
Drilling head can- not be attached	Incorrect retainer is attached	Attach correct retainer (see retrofit kit M30.1313.UMBO-K)	
	Incorrect driving pin used	Use correct driving pin	See point 2.2
	Chips between retainer, drilling head and drilling head attachment	Remove chips	none
	Locking mechanism 3.3 is closed	Set locking mechanism to open	See point 3.1
Drill bit cannot be tightened or removed	Drill bit surface for tightening too large Dimension (9.3 mm)	Only use Blum-approved drill bits. See Blum product catalogue or www.blum.com	See chapter 1
	Bit interior fouled by chips	Blow out drilling head and bits, remove bit coverings	See chapter 1
	Dirt and dust between locking ring and bits	Blow out drilling head and bits, remove bit coverings	See chapter 1
	You are using not Blum-approved drills.	Use Blum-approved drills. See Blum product catalogue or www.blum.com	See chapter 1
System drilling not parallel to ruler	Drilling head turns out of position Retainer and gearbox casing are not screwed in correctly	Retighten screws	See instructions MA-456
	Drilling head is not secured correctly (loose)	Close locking mechanism (3.3)	See instructions MA-456
Longer system drill- ings are uneven	The system drilling has been drilled using the locating pins, the range of locating pins (1.1) is too wide.	Drill longer system drillings using stops	See chapter 4
	Stops are not set correctly	Check stop settings	See chapter 4
	locating pins were not centred cleanly	locating pins must be reset	See chapter 4
Drilled through into the work table	Drilling depth spacing was not attached	Attach drilling depth spacing	See chapter 2
Drilling depth does not match	Incorrect drill bit used	Only use Blum-approved drill bits. See Blum product catalogue or www.blum.com	See chapter 1
	Drill bit not tightened correctly	Soiling	See chapter 1
	Drill bit length is not set properly		See chapter 1

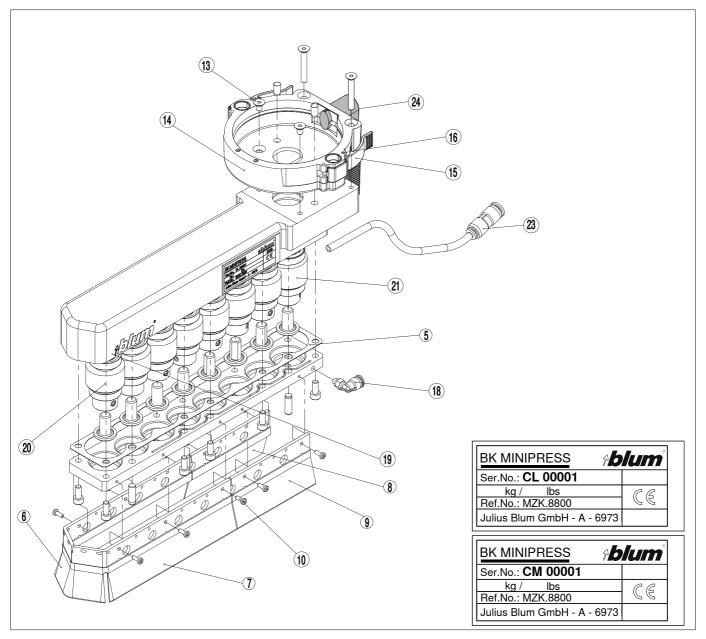
# **Ablum**°

## 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	Ser.No: CL	0030704	MZK.1306 WELLE R NCSO
	Ser.No: CM	9141288	MZK.190MS6 WELLE NCSO
25	Ser.No: CL	0030874	MZK.1306.03WELLE LNCSO
	Ser.No: CM	3080183	MZK.190MS6.03WELLE NCSO
27		0032169	STECKVERSCHR-GER 8-6 QS





5		0032300	MZK.8108 DICHT 8 SP
6		0032231	MZK.8107 SCHUTZ R+L NA
7		0032231	MZK.8107 SCHUTZ R+L NA
8		0032231	MZK.8107 SCHUTZ R+L NA
9		0032231	MZK.8107 SCHUTZ R+L NA
10		0032231	MZK.8107 SCHUTZ R+L NA
13		0031554	MZK.1930 AD+ZUT R91M
14		0031554	MZK.1930 AD+ZUT R91M
15		0032784	MZK.8836 SI-HE R+L S
16		0032784	MZK.8836 SI-HE R+L S
18		0032093	L-STECKVERSCHR M5-6 QSM
19	Ser.No: CL	0030704	MZK.1306 WELLE R NCSO
	Ser.No: CM	9141288	MZK.190MS6 WELLE NCSO
20	Ser.No: CL	0030874	MZK.1306.03WELLE LNCSO
	Ser.No: CM	3080183	MZK.190MS6.03WELLE NCSO
21	Ser.No: CL	0032544	MZK.1305 ANT-WEL NCSO
	Ser.No: CM	3899355	MZK.880MS5.10ANT-WEL NCSO
23		0032169	STECKVERSCHR-GER 8-6 QS
24		0031794	MZK.1931 HEBEL+SR S

Julius Blum GmbH Beschlägefabrik 6973 Höchst, Austria Tel.: +43 5578 705-0 Fax: +43 5578 705-44 E-Mail: info@blum.com www.blum.com





