








Blum MINIDRILL MSP



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Understanding this Manual

A

- **Read the manual and the Safety Rules completely before you start operating!**
- To better identify the machine components, fold out the front section of this manual.
- Each section is marked with a capital letter and a symbol that corresponds to the Table of Contents.

Symbols and their descriptions:



Indicates important safety rules which must be followed!



Indicates an important comment.

(G1) Component description code found throughout the manual and on the fold-out pages. The letter corresponds to the section where the component and its function is described.

Example:
G1 is described in section G.

A

This capital letter indicates the section and is shown on the outer edge of the section. It is intended to aid in searching through the machine manual.








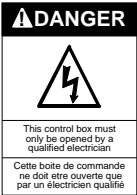


Safety Rules

Read BEFORE you start operating!

Failure to properly follow all safety rules and procedures in this manual, and all warnings and instructions on the machine, may result in serious personal injury or property damage.

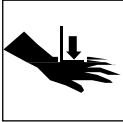




B

Safety decals

	for USA and Canada only	
		<ul style="list-style-type: none">Before connecting your machine to a power source, be sure to read ALL Safety Rules and the instruction manual!
		<ul style="list-style-type: none">Wear proper eye and face protection when operating this machine.
		<ul style="list-style-type: none">Keep unauthorized people away from the machine. Only one person at a time must operate the machine.
		<ul style="list-style-type: none">Electrical connections and maintenance must be performed by a qualified electrician. An electrical diagram is included in the instructions.Disconnect electrical and pneumatic connections before making any repairs.
		<ul style="list-style-type: none">Keep hands away from drill bits.Never attempt to operate machine without the guards in place.



Safety Rules

	for USA and Canada only	
B		 <ul style="list-style-type: none"> Never move your hands in the area of pinch points.
		 <div> <div>Max. load 10 lbs. (5 kg)</div> <div>Charge maximale 10 lbs. (5 kg)</div> </div> <ul style="list-style-type: none"> Maximum load onto control box is 5 kg or 10 lbs. DO NOT OVERLOAD!
		<ul style="list-style-type: none"> Maximum air supply pressure to regulator not to exceed 10 bar (150 psi). Air pressure above this level may result in serious bodily injury or property damage.

Safety rules

- This machine is designed for commercial and industrial applications and should be used by fully trained professionals only.
The machine is only intended for the drilling into panels of wood, particle board, or laminated particle board, but not intended for use by consumers
- Always place Main switch to position-0 before performing any work on drill heads, fences or stops.
- Keep work area clean. Cluttered areas and work stations increase the chance of accidents.
- Protect yourself from electrical shock. Do not use this machine in damp or wet locations, or expose it to rain.
- Consider environmental factors and local laws when setting-up and operating the machine.
- Do not operate this machine beyond it's capacity. It will work more effectively and safer at reasonable power ranges and speeds.
- Observe the location of the control switches and become familiar with their operation.
- Wear proper clothing. Do not wear shirts with bulky sleeves and ties that could be caught in moving parts.
- Do not wear jewelry when operating this machine. Individuals with long hair should wear a hairnet to protect their hair from moving parts.



- Do not use cables and pneumatic lines for purposes other than those originally intended.
- Protect electrical and pneumatic lines from heat, oil, traffic, sharp edges, etc.
- Maintain tools with care. Keep tools sharp, clean and organized for the best and safest performance. Follow instructions for lubricating and changing accessories.
- Do not overreach. Keep proper footing and balance at all times.
- Before every use of the machine, make sure, that all safety devices and parts of the machine function properly.
- Any defective safety devices and accessories must be repaired or exchanged by a qualified service technician only.
- All accessories and attachments must be installed as described in the manual to assure a proper and safe operation of the machine.
- CAUTION: For your own safety, use only those accessories which are recommended or indicated in the manual or Blum Sales literature.
- Noise emission levels as per EN 31202(31204), resp. ISO 7960 are: Work place noise level is 80 dB(A). (measured at 1.5m above and 0.5m

forward of the work table edge, measuring uncertainty constant K3 is 4 dB(A))

Emission levels were measured with one 35mm dia. drill bit at 3,000 rpm and two 8mm dia. drill bits at 6,000 rpm.

B

- Dust emission:
The TRK-value for wooddust, specified by DIN ENT 33893-Part 1, at the dust chute is less than required, when the dust chute tube minimum air speed of 20 m/s (60 feet per second) and vacuum pressure of 1060 Pa is created by the dust collector.
- The machine must be connected to a dust exhaust system! (The exhaust system connection must be flexible and hardly inflammable)

These are measurements from test conditions. The actual noise/dust levels in your work area may vary.

Appropriate hearing/dust protection may be necessary. This determination must be made by the user with consideration for the entire working environment and any applicable regulation.

- For any question or problem with the machine, contact the Blum Customer Service Department:

(The telephone numbers are Listed in the front section of this manual)



Description of Parts

A 1 ... Hex-cap screw
(Fencing system)

A 2 ... Fencing system

A 3 ... Base ruler

E1 ... Depth adjustment screw

E2 ... Clamping lever
(Fencing system)

C

C 1 ... Label with motor connection
data

C 2 ... motor fan

C 3 ... Rotation direction arrow

H 1 ... Air filter

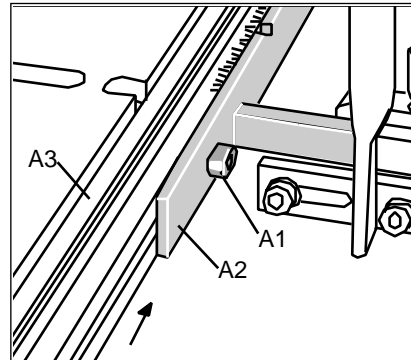
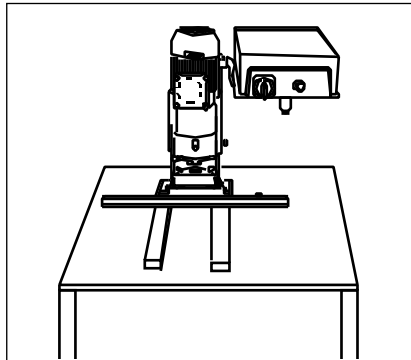
H 2 ... Drain screw

H 3 ... Guide shafts

H 4 ... Lubrication fittings



Unpacking and assembly of machine



D



Important:

Fold out the first page at the front of the instruction manual for easier identification of the described parts.

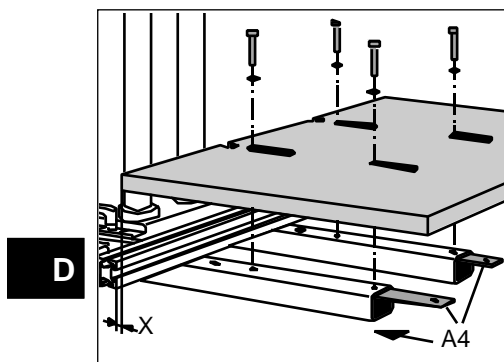
1. Fasten machine firm onto a rigid worktable

2. Installation of base Ruler (A3)

- Loosen both hex-cap screws (A1) on the Fencing System (A2).
- Set base ruler to the Zero-Position
- Retighten hex-cap screws (A1)

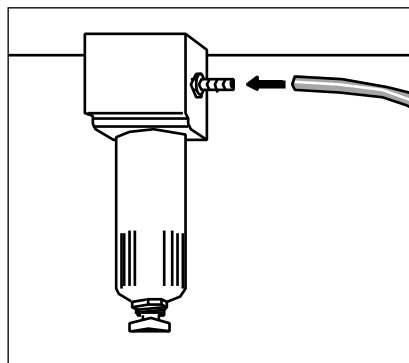


Connection of air supply



3. Attach worktable

- a) worktable MZA.1000.01 (not included with machine)
 - b) How to build your own work table is explained on page 15
- Place worktable on bottom rails of machine with cutouts facing the fence. Leave a gap (X) of 28 mm (1") between table and ruler. Position support brackets (A4) in bottom rails. Pass bolts with washers through table and attach to support brackets.



Warning!
When turning on the air supply, drillhead will move up.

1. Connection of air supply

- Attach a 6mm (1/4") I.D. flexible hose, not furnished, onto air filter unit
- Turn on air supply



Important:

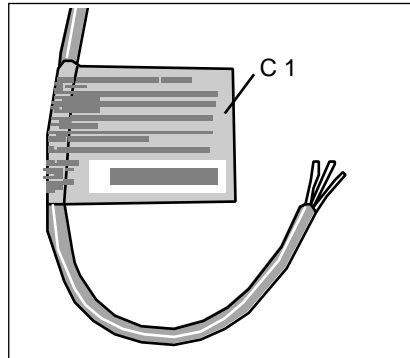
Air supply has to be between 5-7 bar (75-100psi) at 4 CFM, oil-free and dry.

Use an air pressure regulator unit, preset to a max. air pressure of 7 bar (100psi), not furnished.

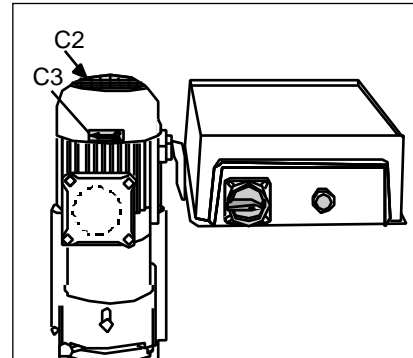
A quick disconnect coupling must be in easy reach within 3m (10 feet) of the machine for safety!



Connection of power supply



Warning!
The electrical connection must be performed by a qualified electrician.



Warning:
To avoid serious injury stay clear of drilling area and all pinch points!

D

1. Electrical connection

- Set Main switch to position 0 (off)
- Connect power cord to the appropriate supply



Important!
The machine is pre-wired for the power indicated on label (C1) attached to the power cord.

Installation must comply with local laws.

2. Check motor direction

- Remove all tools and objects from worktable
- Set Main switch to position 1
- Press and release illuminated Stroke Button. Compare rotation direction of motor fan (C2) with arrow (C3)
- If the motor direction is not correct, see section F.

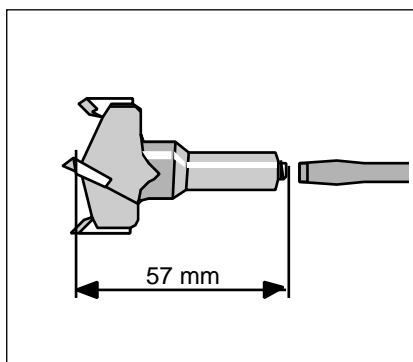


Note:
If motor direction is correct, the red chucks are turning left hand and the black center chuck is turning right hand.



Drilling of hinge pattern

E



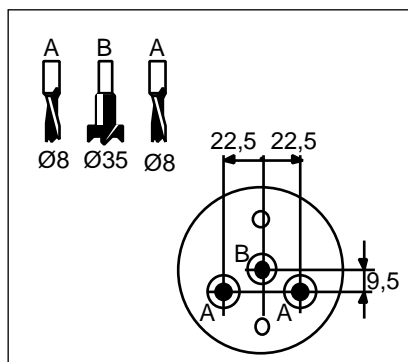
1. Drill-bit length

- The total length of the drill-bits (from bit-tip to adjustment screw) must be 2-1/4 " (57 mm)
- To correct drill-bit length, adjust screw accordingly



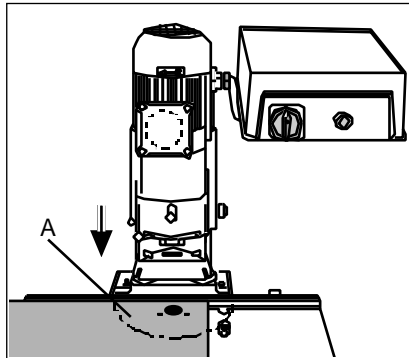
Important:

All drill-bits have to be the same length !



2. Install drill-bits

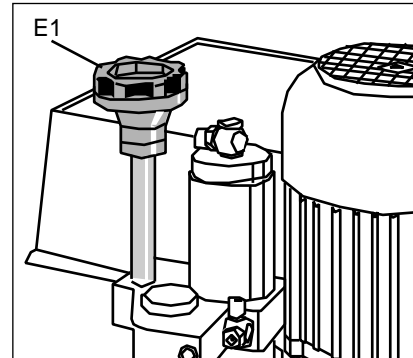
- Set Main switch to position 0
- Push drill bits all the way into the chucks. Tighten Set screw on flat spot of drill-bit shanks only



Warning:
To avoid serious injury stay
clear of drilling area and all
pinch points!

3. Drilling depth adjustment

- Test-drill hole in a sample panel with the same thickness as the door to be drilled
- Set Main switch to position 1
- Place door on the worktable clear of drillhead path (A)
- Push and hold illuminated Stroke button until depth is reached
- Release Stroke button
- Check drilling depth and correct if necessary



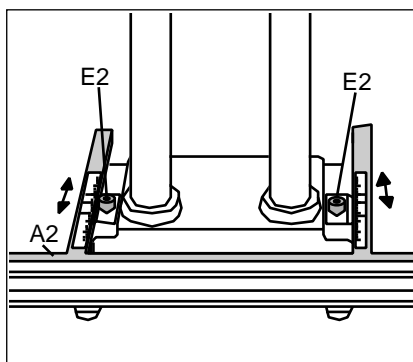
4. Correcting drilling depth

- The drilling depth is adjusted by turning the depth adjustment screw (E1)
- Turning screw (E1) clockwise means less drilling depth
- Turning screw (E1) counterclockwise means more drilling depth

(One turn on the Depth Adjustment screw (E1) equals 2 mm adjustment)

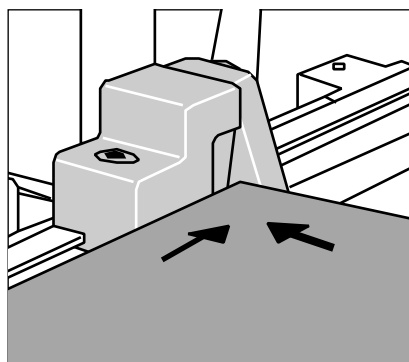


E



5. Adjustment of fencing system (A2)

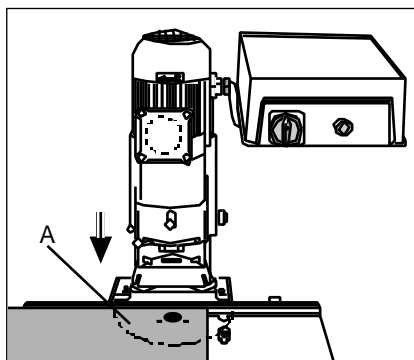
- Loosen set screw (E2)
- Adjust fencing system (A2) to required measurement
- Retighten set screws



6. Adjust positioning stops

- Adjust Positioning Stops to the desired position on the Base Ruler and tighten with set screw

7. Push door against the fence and slide until it is positioned against the stop.



E



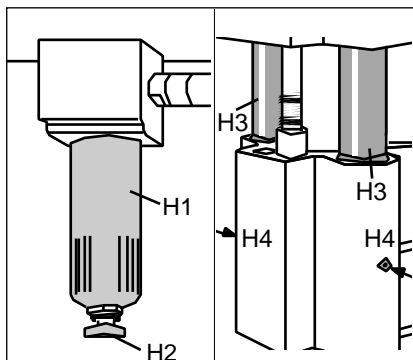
Warning!
To avoid serious injury stay clear of drilling area and all pinch points. Make sure that no objects are on the worktable, except panel to be drilled!

8. Drilling

- Set Main switch to position 1
- Hold panel outside of the drillhead path (A) and position panel against Fence and Positioning Stop
- Press illuminated Stroke button until drill-bits penetrate the panel and depth is reached
- Release Stroke button



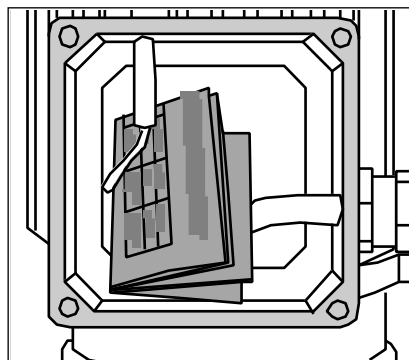
Maintenance



F Maintenance:

- Clean machine periodically to assure proper performance
- Check Air Filter (H1) weekly (approx. 40 hrs. of operation).
Drain Filter by opening screw (H2)
- Lubricate Guide Shafts (H3) weekly (approx. 40 hrs. of operation) through the Lubrication Fittings (H4) (use Shell T68 or standard duty machine oil)
- Make sure cables, pneumatic lines, and pneumatic connections are free of defects

Trouble-Shooting



1. Wrong motor direction



Warning!
This correction must only be done by a qualified electrician!

- Set Main switch to position-0
- Disconnect machine from power supply
- a) On three-phase models, the wires must be switched on the power cord, not inside the machine!
- b) On single-phase models the wiring must be checked and changed at the motor.
(Diagram is inside the motor terminal)

2. Other defects and errors

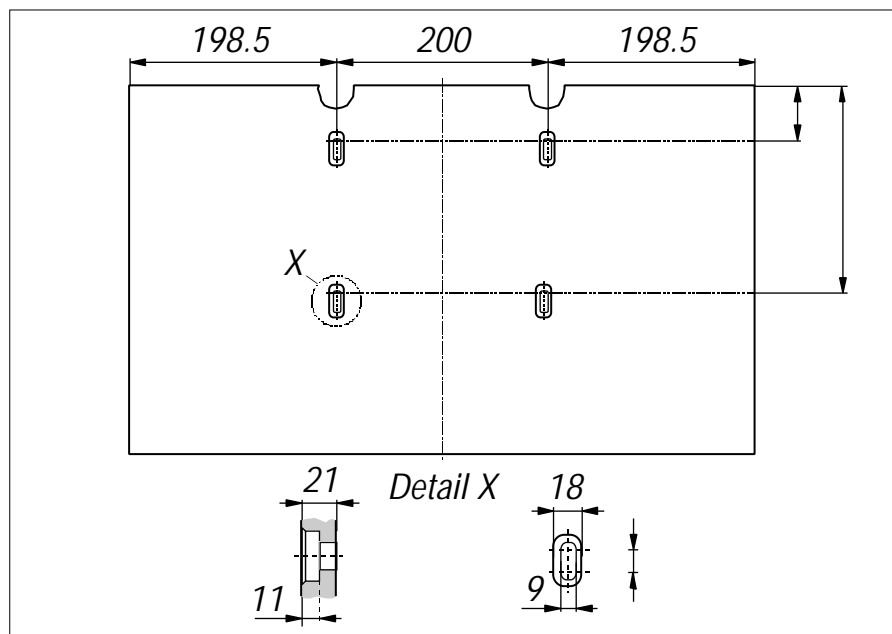
- For all other defects please call the BLUM Customer Service Department

(The telephone numbers are listed in the front section of this manual)

Technical Data

Voltage:	see serial number tag	Weight:	41kg (90 lbs) without table
Power:	3-phase 1,2kW	Measurements:	
	single-phase 1,2kW	height =	650mm (26")
		width =	800mm (32")
		depth =	800mm (32")
RPM:	see motor tag	Pressure requirements:	
			5-7bar (75-100 psi) at 4 cfm

How to build your own work table

F

- Use plywood or laminated wood for the fabrication of the worktable (measurements are in mm)



Limited warranty

The Blum MINIDRILL has been manufactured using the highest quality materials to provide long lasting performance.

Rigorous quality controls and a final inspection ensures that each machine is delivered in good working condition. These quality control measures enable Blum to offer this one year limited warranty on the machine, starting with the date of delivery. (Please return the enclosed "Warranty Reply Card" to our address).

The Blum MINIDRILL is warranted to be free of defects in materials and workmanship for a period of one year from the date of purchase. This warranty is in lieu of any other warranties expressed or implied.

F

This warranty does not include any implied warranties of fitness or merchantability, such warranties are specifically excluded.

In no event shall Blum be liable for any incidental or consequential damages, damage in transportation, damage from misuse or improper handling of machine, lost production time or materials, parts which are subject to normal wear (such as drill bits), or for any other damages directly or indirectly arising from the sale, except as provided specifically in this warranty.

Some portions of this warranty may not be applicable due to provisions of State Law. The non-applicability of any portion of this warranty shall not affect the remaining terms and conditions of the warranty.

Any damages under this warranty shall be limited to a maximum of the purchase price of the machine.

Should any defect be found in the machine, please submit to Blum, in writing, the reference number, the serial number, and the name of the distributor from whom the machine was purchased. Replacement parts included under this warranty will be furnished, free-of-charge.



EC-Declaration of conformity

according to EC-Guideline 89/392/EWG

We, Julius Blum GmbH
Industriestr. 1
A6973 Höchst

declare, at our sole responsibility, that the product

MINIDRILL (M51N10XX.50)

fulfills the general safety- and health requirements of the European Community -
Guideline 89/392/EWG.

The following standards have been used to build the machine in conformance to the
above EC-Guideline:

EN 292 part1 and part2, EN 60 204 part1, EN 31202(31204), EN 294, EN 349

Höchst, 20.12.94

Blum Lothar Quality Assurance Manager

ppa. Blum Egon Technical Director



Addendum

Notice



Addendum



Notice





Addendum

Notice



Subject to change without notice!

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