

OPERATOR'S SAFETY AND SERVICE MANUAL



Red Band MB Masonry Bridge Saw



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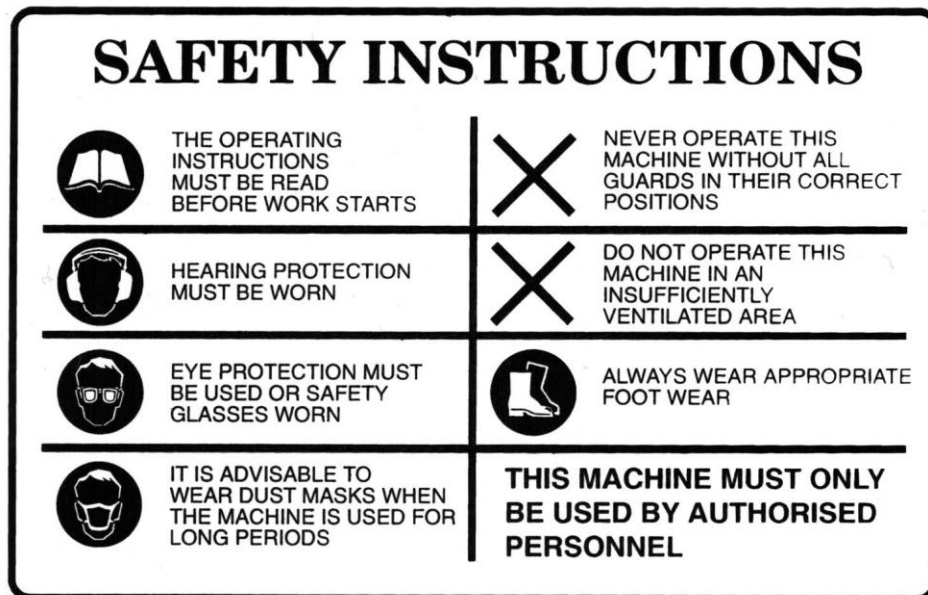
Basic Safety Instructions

The Red Band MB range of Masonry Bridge Saws is exclusively designed for the cutting of construction products mainly on construction sites.

Uses other than the manufacturer's instructions shall be considered as contravening the regulations. The manufacturer shall not be held responsible for any resulting damage. Any risk shall be borne entirely by the user. Observing the operating instructions and compliance with inspection and servicing requirements shall also be considered as included under use in accordance with the regulations.

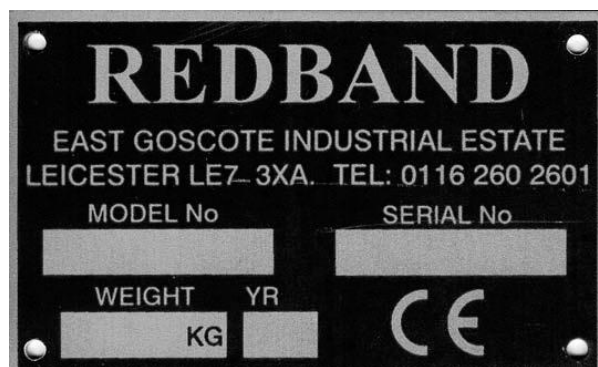
Symbols

Important warnings and pieces of advice are indicated on the machine using symbols. The following symbols are used on the machine:



Machine plate

Important data can be found on the following plate located on the machine:



Before commencing work

- Before commencing work, make yourself familiar with the working environment at the place of use. The working environment includes: obstacles in the area of work and manoeuvre, the firmness of the floor, necessary protection at the site relating to public thoroughfares and the availability of help in the event of accidents.
- Site the machine on an even, firm and stable base!
- Check for correct mounting of the blade regularly.
- Immediately remove damaged or badly worn blades, as they endanger the operator whilst rotating.
- The material to be cut must be held securely in place on the table to allow no movement during cutting operation.
- Always cut with the blade guard in position and closed.
- Only fit suitable diamond blades to the machine! The use of other tools can damage the machine!
- Read the blades' specifications carefully to choose the correct tool for your application.
- Attention is drawn to the use of BS2092 safety goggles in conformity with specified Processes No.8 of the Protection of Eyes Regulation 1974, Regulation 2(2) Part 1.

Electrical powered machine

- Always turn off the machine and separate it from the main source of electricity before any work on the machine is done.
- Make all electrical connections securely to eliminate contact of live wires with spray water or dampness.
- When the machine is used with water, it is IMPERATIVE that you earth the machine properly. Let a qualified electrician check in case of doubt.
- In the event of the machine breaking down or stopping for no apparent reason, switch off the main electricity supply. Only a qualified electrician is allowed to investigate the trouble and remedy the fault.
- In case of emergency, you can stop the machine by pushing on the front cover of the switch.

Machine description

Any modification, which could lead to a change in the original characteristics of the machine, may be done only by Red Band UK Ltd who shall confirm that the machine is still in conformity with the safety regulations.

Short description

The MB Bridge Saw is designed for durability and high performance for onsite wet and dry cutting operations of a wide range of masonry, refractory and natural stone products.

As with all other Red Band products, the operator will immediately appreciate the attention given to detail and quality of materials used in construction. The machine and its component parts are assembled to high standards assuring long life and minimum maintenance.

Purpose of use

The machine is designed for cutting a large range of building and refractory materials like tiles, stair step or window sill. It is not designed for cutting wood or metals.

Technical Data

	MB65	MB100	MB120	MB150
Blade Diameter	350 mm	350 mm	350 mm	350 mm
Bore	25.4mm / 1"	25.4mm / 1"	25.4mm / 1"	25.4mm / 1"
Max. Cutting Depth (90°)	110 mm	110 mm	110 mm	110 mm
Max Cutting Depth (45°)	45 mm	45 mm	45 mm	45 mm
Rotation Speed	2800 min ⁻¹	2800 min ⁻¹	2800 min ⁻¹	2800 min ⁻¹
Cutting Length	650 mm	1000 mm	1200 mm	1500 mm
Max. Height of Material	130 mm	130 mm	130 mm	130 mm
Length	1060 mm	1420 mm	1520 mm	1820 mm
Height (with feet)	1350 mm	1350 mm	1350 mm	1350 mm
Height (without feet)	780 mm	780 mm	780 mm	780 mm
Weight (without blade)	90 KG	105 KG	115 KG	130 KG
Sound Pressure Level	74 dB	74 dB	74 dB	74 dB
Sound Energy Level	89dB	89dB	89dB	89dB
Vibration	<2.5m/s ²	<2.5m/s ²	<2.5m/s ²	<2.5m/s ²

Assembly and Commissioning

The machine is delivered fully equipped (although without diamond blade) and is ready for operation after assembly of the blade and the legs, to assemble the legs, they have to be placed at the four corners of the water tray in the brackets and fixed with two bolts and nuts each. Finally connect to the appropriate power supply.

Tool assembly

Only diamond blades with a maximum diameter of 350 mm can be used with the MB Bridge Saw. All tools used must be selected with regard to their maximum permitted cutting speed for the machine's maximum permitted rotation speed.

Before mounting a new blade into the machine, switch off the machine and isolate it from the main source of electricity.

To mount a new blade, follow these steps:

- Open the outside cover of blade guard by loosening the three locking screws on the side of the guard.
- Loosen the hexagonal nut (Caution: left-threaded) on the blade shaft, which holds the removable outer flange.
- Remove the outer flange.
- Clean the flanges and blade shaft and inspect for wear.
- Mount the blade on arbor ensuring that direction of rotation is correct. Wrong direction of rotation blunts the blade quickly.
- Replace outer blade flange.
- Tighten hexagonal nut with spanner supplied for this purpose.
- Replace blade guard cover and tighten the three locking screws.

The blade bore must correspond exactly to the diameter of the blade shaft. Cracked or damaged bore is dangerous for the operator and for the machine.

Electrical Connections

Check that,

- the voltage/phase supply corresponds to the information indicated on the motor plate.
- Available power supply must have ground connection in conformity with safety regulations.
- The connecting cables should have at least a 2.5mm²-section per phase.

Starting and Stopping the machine

110V or 220V Motor

Press the green button to start the machine. To stop press the red button.

400V Motor

Press the green button to start the machine. To stop press the red button.

The direction of rotation is indicated on the blade guard. If the direction of rotation does not correspond to the direction shown by the arrow, then reverse the motor polarity by turning the phase inverter inside the male plug.

Water cooling system

Fill the water pan with clean water to approximately 2cm from top (ensure that bottom of pump is fully immersed in water). Use the pump switch so you can use the pump.

Open water-tap at blade guard (note that handle on water-tap should be in line with water-flow).

Ensure that water is flowing freely in the circuit and is delivered adequately to both sides of the blade, as insufficient water supply may result in premature failure of the diamond blade.

The water pump must never run without water. Always make sure that there is enough water in the pan and refill if necessary.

In case of frost, empty the water cooling system from its water.

Transport & Storage

Securing for transport

Before transporting or lifting the machine, always remove the blade and empty the water pan. Also lock the cutting head on the axles.

Long period of inactivity

If the machine is not going to be used for a long period, please take the following measures:

- Completely clean the machine
- Empty the water system
- Take the water pump out of the slurry and clean it thoroughly.

The storage site must be clean, dry and at a constant temperature.

Operating the Machine

Site of work

Siting the machine

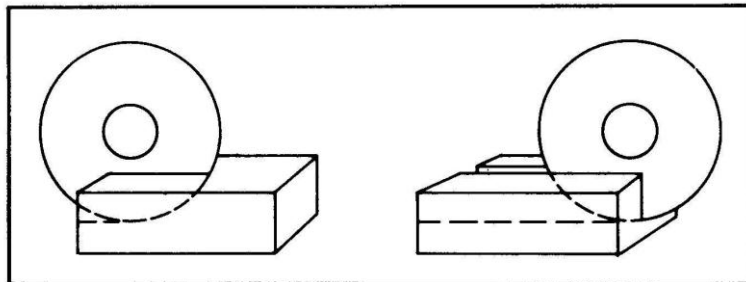
- Remove from the site anything, which might hinder the working procedure!
- Make sure the site is sufficiently well lit!
- Observe manufacturer's conditions for connecting to power supplies!
- Place electric cables in such a way that damage by the device is excluded!
- Make sure you have a continual adequate view of the working area so you can intervene in the working process at any time!
- Keep other staff out of the area, so you can work securely.

Space required for operation and maintenance

Leave 2 m around the machine for usage and maintenance of the CST.

Cutting material

To use the machine correctly, you must face it with one hand on the handle of the cutting head, and the other ready to shut the machine down in case of emergency. Always keep your hands away from the moving blade.



- Lower the cutting head to the desired cutting depth (in “through cutting”, lower cutting head until blade periphery reaches max. 3mm under the surface of the conveyor cart) by means of the handle over the cutting head
- Fix position by tightening the clamping device over the blade guard
- Put material on the table
- Push the cutting head slowly and without undue pressure towards the material and cut the material as shown on the picture.
- You can also cut thicker material by reversing the material on the table.

NOTE: While recommended, it is not absolutely necessary to lock the cutting head into a given depth position when jam cutting. The desired cutting depth can be maintained by holding firmly the depth feed handle on the blade guard. If the full depth of cut requires excessive pressure (on very dense material e.g.) make 2 or 3 shallow cuts.

General advice for the cutting

- Before commencing work make sure tools are firmly seated!
- Select the right tools as recommended by the manufacturer depending on the material to be worked, the working procedure (dry or wet cut) to be carried out and the required efficiency.
- Apply cooling water continuously whilst cutting and in good time! Make sure the water pan contains enough water.
- When dry cutting, ensure sufficient dust extraction and wear a dust protection mask!
- When cutting work is finished, switch the water pump off so you can remove the cut pieces from the conveyor cart without getting wet.
- If the thermal protection trips, allow the thermal protection to cool down. Wait a few minutes to allow the motor to cool down before restarting the machine.

Maintenance and Servicing

To ensure a long-term quality from the cutting with the MB, please follow the maintenance plan below:

		Begin of the day	During the changing of tool	End of the day or more often if required	Every week	After a fault	After a damage
Whole machine	Visual control (general aspect, watertightness)						
	Clean						
Flange and blade fixing devices	Clean						
Motor cooling fans	Clean						
Water pump	Clean						
Water pan	Clean						
Cutting table	Clean						
Water hoses and nozzles	Clean						
Water pump filter	Clean						
Cart guiding bars	Clean						
Motor housing	Clean						
Reachable nuts and screws	Tighten up						

Maintenance of the motor

Always perform the maintenance of the motor with the machine isolated from the electrical supply.

Cleaning of the machine

Your machine will last longer if you clean it thoroughly after each day of work, especially water pump, water pan, cutting head axles, motor and blade flange.

Never use acid-based cleaning products, as the aluminium parts (water tray, axles, motor housing, frame) can be corroded by these cleaning products. Always clean the machine when any cutting dust and debris is still fresh, never allow the deposits to solidify.

Lubrication

The MB uses life-lubricated bearings. Therefore, you don't need to lubricate the machine at all.

Faults: Causes and Cures

Fault-finding procedures

Should any fault occur during the use of the machine, turn it off, and isolate it from the electrical supply. Any works dealing with the electrical system or supply of the machine can only be carried out by a qualified electrician.

Trouble-shooting guide

Trouble	Possible source	Resolution
Motor is not running	No electricity	Check the electrical supply (fuse for example)
	Connection cable section too small	Change connection cable
	Defective connection cable	Change connection cable
	Defective switch	CAUTION : can only be solved by qualified electrician
	Defective motor	Change motor or contact motor manufacturer
Motor stops during the cutting, but can be restarted after a short period (overload protection)	Cutting advance too quick	Cut slowly
	Blade is blunt or glazed	Sharpen the blade in calcareous stone
	Defective blade	Change blade
	Wrong blade specification for the application	Change blade
No water on the blade	Water pump switched off	Switch on the water pump
	Not enough water in the pan	Refill the water pan
	Water tap is closed	Open tap on blade guard
	Water supply system is blocked up	Clean water supply system
	Water pump is not working	Change the pump

Spare Parts

When ordering spare parts, please mention:

- The code of the part.
- The exact denomination.
- The number of parts required.
- The delivery address.

Clear instructions will avoid problems and faulty deliveries.

If not sure, please send us the defective part.

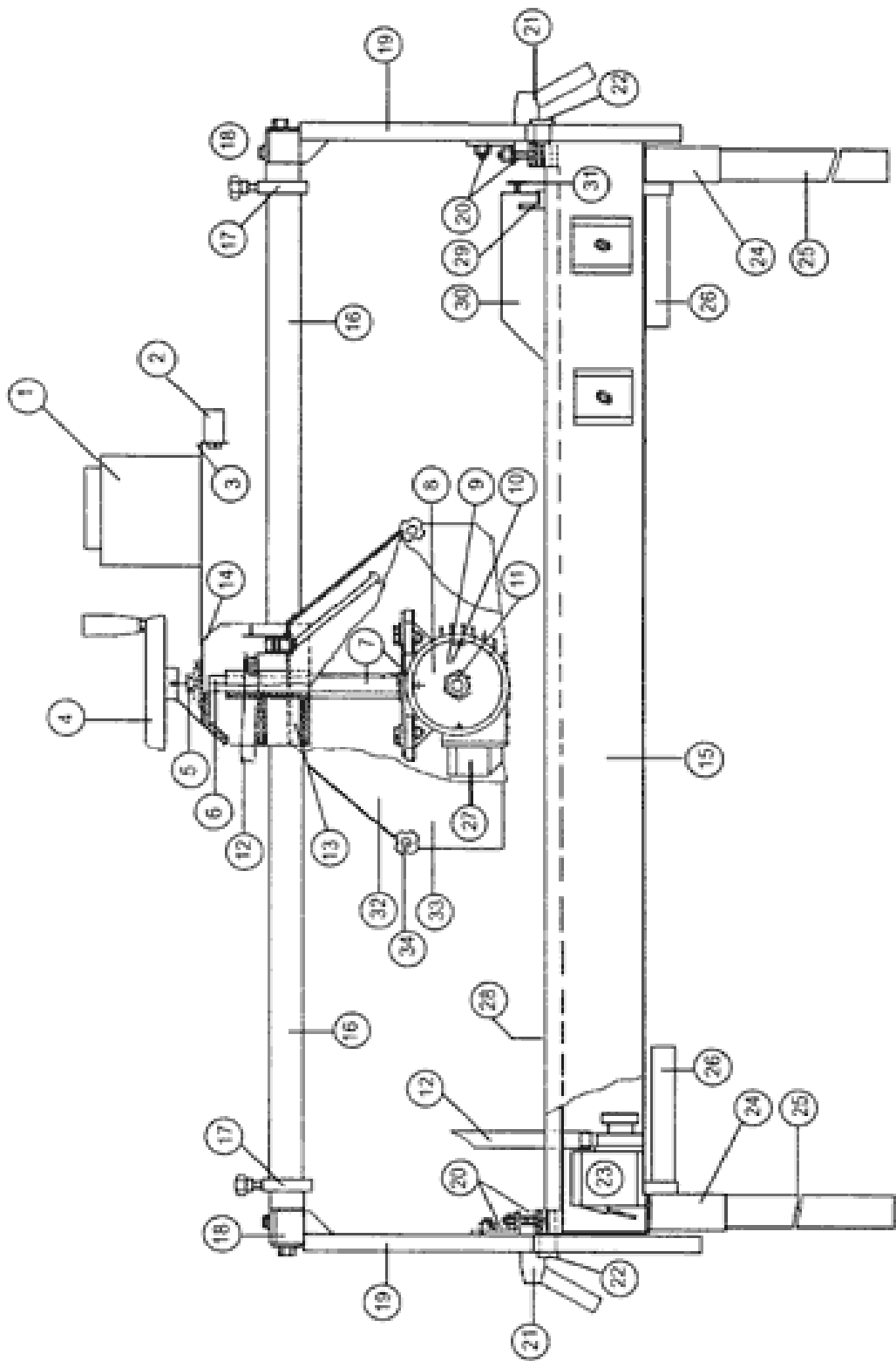
In the case of a warranty claim, the part must always be returned for evaluation.

Spare parts for the motor can be ordered with the manufacturer of the motor or with their dealer, which is often quicker and cheaper.

Pos	Code	Description
1	GM01	STARTER ASSY - 110V
	GM01A	STARTER ASSY - 220V
	GM01B	STARTER ASSY - 415V
2	GM02	HANDLE
3	GM03	STARTER PLATE
4	GM04	HANDWHEEL
5	GM05	BEARING
6	GM06	FEED SCREW
7	GM07	MOTOR CONSOLE
8	GM08	MOTOR - 110V
	GM08A	MOTOR - 220V
	GM08B	MOTOR - 415V
9	GM09	INNER COLLAR
10	GM10	OUTER COLLAR
11	GM11	BLADE SHAFT NUT
12	GM12	WATER HOSE
13	GM13	LINEAR BEARING
	GM13A	SEAL
14	GM14	HEAD CONSOLE
15	GM15	FRAME
16	GM16	BEAM
17	GM17	STOP RING
18	GM18	BEAM HOLDER
19	GM19	BRACKET - L/H

	GM19A	BRACKET - R/H
20	GM20	ANGLE ADJUSTER
21	GM21	LOCKING HANDLE
22	GM22	PIVOT AXLE
23	GM23	WATER PUMP - 110 or 220V
24	GM24	LOCKING SCREW
25	GM25	LEG
26	GM26	HANDLE
27	GM27	CAPACITOR - 110V
28	GM28	TABLE TOP
29	GM29	BACK GUIDE
30	GM30	GUIDE A CUT
31	GM31	LOCK SCREW
32	GM32	BLADE GUARD ASSY
33	GM33	BLADE GUARD - COVER
34	GM34	BLADE GUARD - LOCKING SCREW
35	GM35	WATER FEED
36	GM36	WATER TAP
37	GM37	FAN COVER

Wear parts are worn out through normal use of the machine. The wear period depends a lot on the intensity of use of the machine. Wear parts must be serviced, used and eventually changed following the indications of the manufacturer. Any wear due to normal use of the machine will not be considered as a case of warranty.



Conformity Notice

RED BAND UK LTD



DECLARATION OF CONFORMITY

The Undersigned Manufacturer :

*Red Band UK Ltd
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East Goscote Industrial Estate
East Goscote
Leicester
LE7 3XA*

Declare that the product :

MB Masonry Bridge Saw

Is in conformity with the European Machine Directive 98/37/EC
And BS EN 12418 : 2000

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Alan Newton
Director

01/03/2008

