JEI DRILLING & CUTTING SOLUTIONS LTD

OPERATOR'S MANUAL

STEELBEAST BM2-A

BEVELLING MACHINE

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1. SAFETY PRECAUTIONS

1. Before beginning, read this Operator's Manual and complete proper occupational safety and health training.
2. Use the machine only in applications specified in this Operator's Manual.
3. The machine must be complete and all parts must be genuine and fully operational.
4. The specifications of the power source must conform to those specified on the rating plate.
5. Untrained bystanders must not be present near the machine.
6. Before beginning, make sure that the correct is the condition of the machine, power source, power cord, plug, control components, and milling tools.
7. Keep the machine dry, and never expose it to rain, snow, or frost.
8. Keep the work area well lit, clean, and free of obstacles.
9. Never use near flammable liquids or gases, or in explosive environments.
10. Use only tools specified in this Operator's Manual.
11. Never use tools that are dull or damaged.
12. Install the cutting inserts and milling head securely. Remove adjusting keys and wrenches from the work area before connecting the machine to the power source.
13. Never use the machine in upside down position with the milling head facing up.
14. If the cutting edge of the insert is worn, rotate the insert in the socket by 90° or, if all edges are worn, replace with a new insert specified in this Operator's Manual.
15. Before every use, inspect the machine to ensure it is not damaged. Check whether any part is cracked or improperly fitted. Make sure to maintain proper conditions that may affect the operation of the machine.
16. Always use eye and hearing protection, non-skid footwear, and protective clothing during operation. Do not wear loose clothing.
17. Do not touch moving parts or metal chips formed during milling. Prevent anything from being caught in moving parts.
18. After every use, remove metal chips from the machine, especially from the milling head. Never remove chips with bare hands. Clean the machine with a cotton cloth without using any agents.
19. Cover steel parts with a thin anti-corrosion coating to protect the machine from rust when not in use for any extended period.

20. Maintain the machine and install/remove parts and tools only when the machine is unplugged from the power source.
21. Repair only in a service center appointed by the seller.
22. If the machine falls from any height, is wet, or has any other damage that could affect the technical state of the machine, stop the operation and immediately send the machine to the service center for inspection and repair.
23. Remove from the worksite and store in a secure and dry location when not in use.
24. The pressure hose and air connectors are to be regularly checked.
25. The BM2A has a lower exhaust system via the cutting device. This solution has the advantage of cooling the device and expulsion of chips, it is however necessary to pay attention and have awareness of the chips and ensure you are wearing protective glasses.
26. When connecting machine to pressurized air line ensure that the release valve on the machine is in the off position
27. The material being machined must always be in a horizonal position, the optimal height of the workpiece is 900mm above the ground
28. Watch the intake hose while working, it should always freely lay on the floor away from the material being worked on and away from sharp objects.
29. Always disconnect from input of pressurized air when finished.
30. Hold the machine firmly in hand/palm while working
31. Beware of hot metal chips.

2. General Information

This manual contains all the instructions for installation, adjusting, operating and maintaining the machine, BM2A.

Do not perform any operation with the machine before you have read the safety instructions in this operator's manual.

3. Description of the BM2A

A compact, portable pneumatic tool designed to deburr and round off steel edges.

The SteelBeast BM2A is a pneumatic bevelling solution designed for producing a smooth, deburred edge on steel plates and profiles.

The BM2A is also available as a paint-ready radius edge plate bevelling solution, with an ability to produce an r1.5 radius.

The new EN 1090 & EN-ISO 12944 Part 2 applications directive demands a soft or radius edge applying to all steel sections before painting to prevent rust build up on sharp edges. This quick, simple-to-use system with a three tip cutting head, creates a perfect radius in just one pass, saving time and money over conventional grinding methods.

4. Identifying Data

Identifying data of the BM2A can be found on the label attached to the body of the machine

5. Warranties

The BM2A hand held deburring machine provides the seller with a guarantee that the goods will be free of defects for a period of 12 months from the day of receipt.

If any warranty issues arise please contact service@jeisolutions.co.uk to arrange collection and inspection/repair of the machine.

Warranty can be invalid if:

- Wrongful use of machine
- Incorrect installation
- Flawed connection to compressed air or poor-quality supply
- Serious shortcoming in upkeep
- Unauthorized modifications or interventions
- Using other than original supplier approved spare parts and accessories for given model
- Full or partial non-compliance with the instructions of this manual
- Extraordinary events, natural calamities or other events.

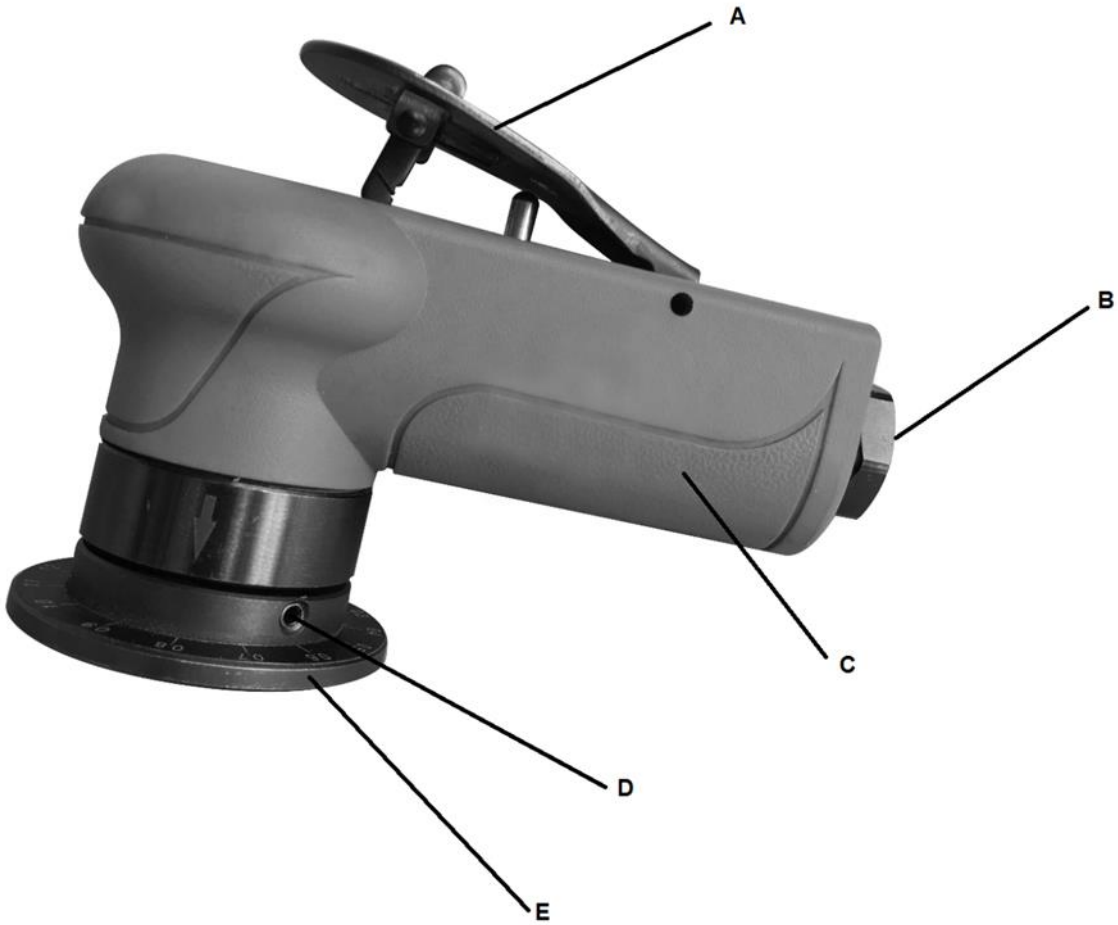
6. Technical Specifications

Standard Angle	45 Degree
Width of Cut	0 to 2mm < 400N/mm2 0 to 1mm > 400N/mm2
Radius	R 1.5mm
Motor	Pneumatic
Revolutions	23 000 RPM
Air Consumption **Air Inlet Size**	320L/min ¼" NPT
Working Pressure	6.3bar (5.5bar)
Weight	0.4kg
Number of Cutters	3
Dimensions	112x60x48mm
Feed	Manual
Vibration Level	1.55m/s2
Sound/Noise Level	90dB(A)

7. Accessories

BMB2IS(S)	STANDARD INSERTS B2 AIR SINGLE (3 PER HEAD)
BMB2IS-C(S)	COATED INSERTS B2 AIR SINGLE (3 PER HEAD)
BMB2IR-1.5(S)	RADIUS 1.5MM INSERTS B2 AIR SINGLE (3 PER HEAD)

8. Control Features of BM2A



A. Startup valve
B. Connecting pressurized air
C. Body of the motor
D. Arresting screw of the socket of the pressure plate – securing the setting of the cut
E. Pressure plate with socket

9. Use

For best results always use original supplier inserts, as listed above.

10. Setting size of cut

Caution when adjusting always use work gloves and additional means of personal protection. Operations must be performed with the machine disconnected from the pressurized airline.

- Disconnect the machine from pressurized air line
- Loosen the arresting screw setting (position D in picture)
- Turn the guide plate (position E in picture) for setting the size of the cut. The current setting can be subtracted from the integrated scale. The scale is only a guide and the resulting cut may differ.
- Upon setting, again tighten the screw (position D in picture)

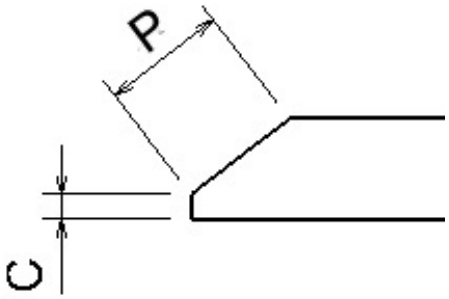
Important

The maximum cut is 2mm wide (the spot height in picture 11.1.1). This cut must be attained via several steps, it also depends of the material type and strength, we recommend always performing a test.

Start with a smaller cut and gradually raise the value up to the moment that the work with the machine still feels comfortable, and the plates retain the ability of a smooth cut without increased vibrations.

We would always recommend keeping notes in which is possible to record measured values and your own procedure for machine use.

pic. 11.1.1



Important:

The machine was made for manual de-burring. Precision machining depends on the corresponding preparation of machined edges. Unfortunately, the material is often so-called underburned or undercut. This imprecision will also certainly appear in the results of the machining.

Important:

If it is difficult to cut a workpiece in one step, we recommend dividing the process into several chips. The reason may be excessive wear of the Cutting Inserts or more difficult machine-ability of the material.

11. Machining

- Connect the machine to the lines of pressurized air and set the value on the pressure regulator to 5 - 6bar. Upon setting the optimal values we recommend conducting a test.
- Set the complementary greasing the the middle setting.
- Upon careful setting of the first cut, see section 11.1, firmly grip the equipment, release the safety on the release valve and commission the machine.
- Set the machine upon the material so that the pressure/contact plate (pic. 10.0.1 position E) is in contact with the material in the maximal possible surface area.
- Slowly move the machine to the material, and you will feel that the milling cutter is coming into the range of the cut. Caution!!! At this moment a jerking motion may occur, so be careful.
- Move the machine further in the direction towards the material up to the point when the milling cutter is sunken into the material at the full profile of the set chipper. The contact sheave must now touch the edge of the workpiece. The pressure plate´s surface must lie on the material.
- Now you must initiate machining in the direction from left to right. Slide the machine gradually and only at such speed as for the milling cutter to be able to smoothly remove the material in the set profile of the chipper. Otherwise the milling cutter will be pushed from the material and the cut will be uneven.

Important:

The slide, while machining, is always from left to right.

Caution:

The operator of the equipment must always hold the equipment firmly in hand.

12. Replacing the Milling Cutter Head

Replacing the head is only possible by using special tools.
For more information, contact your supplier.

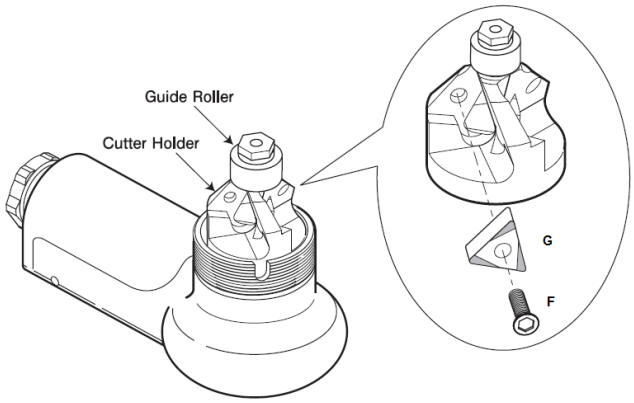
13. Replacing the Cutting Inserts

Important:

Work only with sharp and undamaged Cutting Inserts. You will thereby avoid damaging the machine.
If the blade plates are worn or broken, replace them.

- Securing the wrench loosen the screws (pic. 11.3.1 position F) by which the blade plates are attached.
- Blade plates (pic. 11.3.1 position G) are to be replaced by new, others or just turned so that all cutting edges are utilized. Caution! Keeping in mind their specific shapes, pay special attention to this process.
- Again thoroughly tighten the screws of the blade plates (pic. 11.3.1 position F).
- Mount the set of guide plates according to section 11.2

pic. 11.3.1



14. Maintenance and Operation

The BM2 AIR machine is equipped with a pneumatic drive. For problem-free operation it is necessary to ensure sufficient quality of pressurized air.
Filtration and supplementary grease units serve this purpose.
For the correct choice of a unit of air preparation consult JEI Drilling & Cutting Solutions Ltd, to find your nearest stockist.
Choose the appropriate oil for greasing pneumatic drives during supplementary greasing. Set the greasing cycle to the middle setting.

15. Spare Parts

Spare parts diagrams and parts numbers can be found at www.steelbeast.co.uk or email sales@steelbeast.co.uk and one of our team can email them to you.

16. DECLARATION OF CONFORMITY

EC Declaration of Conformity

We

ANSA Group LTD
Unit 21 Empire Business Park,
Enterprise Way,
Burnley, Lancs, UK, BB4 6HR

declare with full responsibility that product:

BM2A MACHINE

which the declaration applies to is in accordance with the following standards:

- EN 292
- ISO 8662, EN/TC 255N

and satisfies safety regulations of the guidelines: 2004/108/EC, 2006/95/EC, 2006/42/EC.

Burnley, October 2019

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David McFadden
Managing Director