HAFCO

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Instruction Manual

MANUAL BAR BENDER
UB-100

Order Code: (B043)

INTRODUCTION

The HAFCO Universal Hand Bar Bender features an assortment of bending dies for round, square and angle profiles. This item is an absolute essential addition for any metal workshop. Built of high quality cast iron with a powder coated base and all working parts treated with a corrosion resistant black phosphate finish. With a comfortable long handle offering plenty of leverage, easy set angle stops and a wide range of bending dies its hard to go past this universal bender. This universal bender is capable of bending up to a piece of 100mm wide by 5mm thick steel cold or 16 x 16mm square steel.

SPECIFICATIONS

Order Code	B043
MODEL	**UB-100**
Flat Bar Capacity - Mild Steel (mm)	100 x 5 60 x 6 25 x 7
Square Bar Capacity - Mild Steel (mm)	16 x 16
Round Bar Capacity - Mild Steel (mm)	Ø18
Bending Lever Length (mm)	690
Nett Weight (kg)	30

FEATURES

- Manufactured from cast iron
- Easy and precise operation
- 600mm long leverage handle
- Can be used with hot & cold metals
- Includes 4 bending dies
- All working components black phosphate treated
- Powder coated base
- Bending angle up to 120°
- Wide supporting face ensuring safe and reliable operation
- Bending angle of various radius by changing and/or turning around die plate
- Using bending eccentric block instead of bracket

CAUTION!

It must be determined by the operator that the materials being processed through the machine are NOT potentially hazardous to operator or personnel working nearby.

BENDER DIES

Bending Die Plate

Eccentric Bending Seat

Die Plate (Fillet Radius 20~25)

Die Plate (Fillet Radius 10~15)

Die Plate For Diamond Section

SAFETY

Pre-Start

1. Complete pre-start check of equipment.
2. Confirm machine has the capacity for the job.
3. Inspect area for hazards.
4. Keep bystanders clear and warn others of your intention to use equipment.
5. Ensure no slip/trip hazards are present in the workspace and work surface.
6. Display this SOI adjacent to equipment.

Operation

1. Wear appropriate PPE.
2. Use equipment only for its intended purpose.
3. Do not exceed the capacity of the equipment.
4. Clamp work piece securely.
5. Beware of sharp edges on metal work pieces.
6. Keep fingers clear of crush points.
7. Beware of strains from over exertion.
8. Ensure work area is dry and uncluttered to prevent slip/trips.
9. Do not attempt to bend objects that could shatter.

Finish

1. Clean work area up.
2. Return tools and equipment to the designated storage place.

CAUTION!

A prepared list of safety guidelines can never be complete. Every workshop environment is different. Always consider Safety first, as it applies to your individual working conditions. Use this machine and other machinery with caution and respect. Failure to do so could result in serious Personal injury, damage to the equipment, or poor work results.

OPERATION

To use a manual bar bender, secure the tool to a sturdy surface, install the correct size rollers, and adjust the bending plate to fit the work piece. Insert the metal bar, clamp it securely using the eccentric block, and pull the handle smoothly to achieve the desired bend angle.

KEY OPERATING PROCEDURES:

Setup: Secure the base to a workbench. Use the correct sized centre roller and outside bending pin for the bar diameter.

Adjustment: Adjust the clamping block (eccentric block) to hold the bar tightly against the centre roller.

Bending: The bending arm is then rotated, forcing the material around the centre die to create precise bends.

Safety: Wear protective equipment and ensure the area is clear of bystanders.

COMMON TIPS:

Marking: Use a marker to indicate the bending point on the work piece.

Accuracy: Bend a little at a time, check, and adjust, rather than over-bending.

Maintenance: Lubricate the central swivel casting (grease nipple) regularly.

Capacity: Do not exceed the rated capacity (e.g., maximum thickness) of the tool.

To Make A Bend:

1. Select the die plate required for the bend and secure it to the bender
2. Clamp the work piece in the bender using the clamp handle by moving the edge of the eccentric block close to the work-piece. (Fig. 1)
3. Set the angle stop at the desired angle on the angle stop scale. (Fig. 2, 3)
4. Use consistent force to move the handle clockwise to bend the material, until the desired angle is reached.
5. Adjust the die screw to increase or decrease the radius of the bend. (Fig. 1)

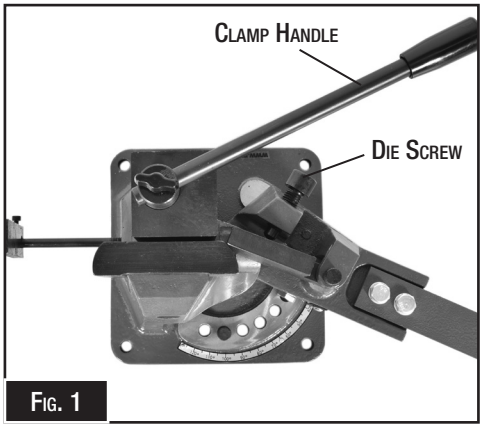


Fig. 1

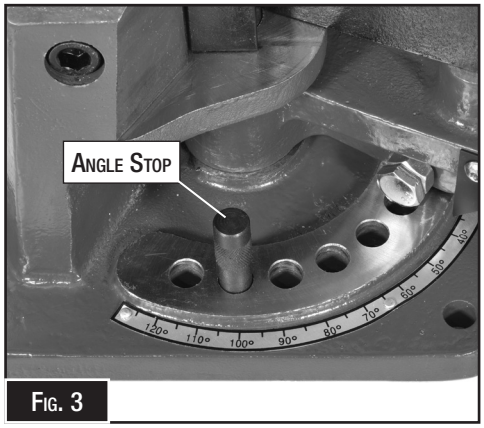


Fig. 3

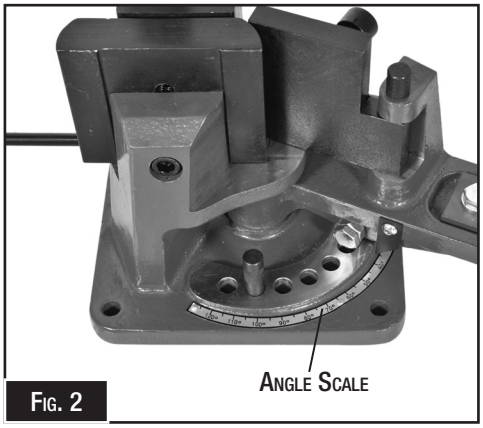
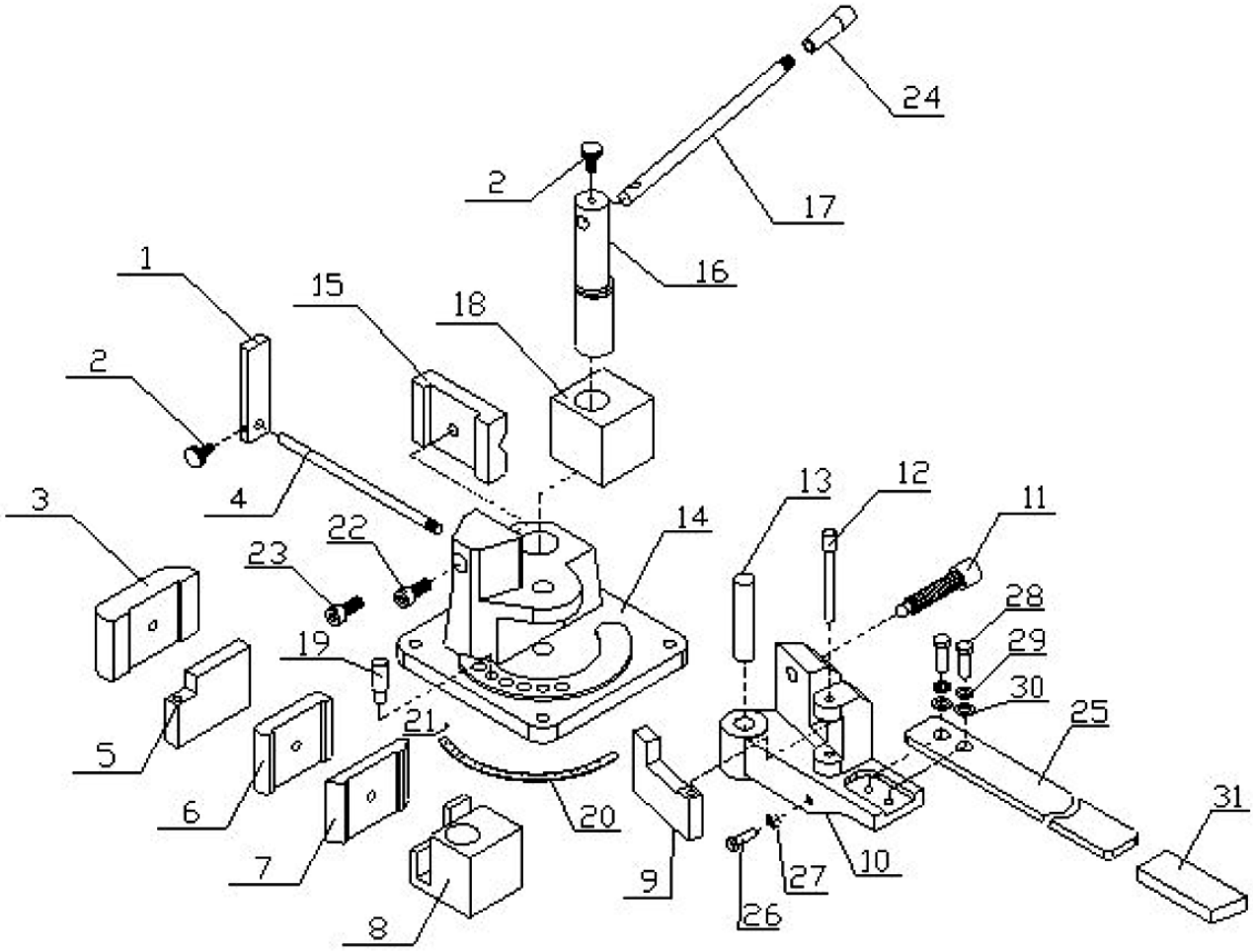


Fig. 2

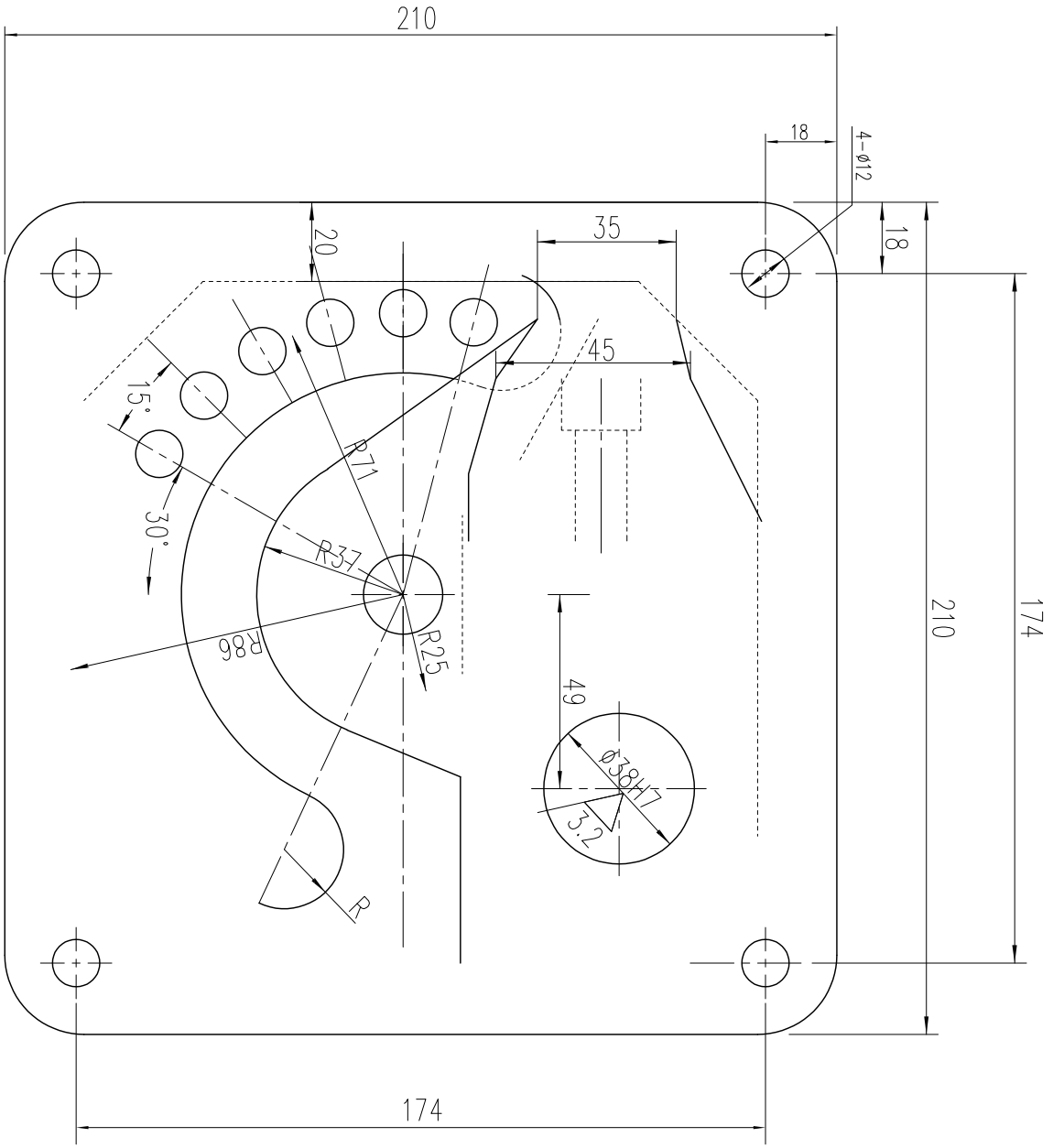
SPARE PARTS



ITEM	DESCRIPTION	QTY	ITEM	DESCRIPTION	QTY.
1	Support plate	1	17	Crank rod	1
2	Screw	2	18	Eccentric block	1
3	Forming board	1	19	Pin	1
4	Bolt	1	20	Scale	1
5	Plate	1	21	Rivets 2X5	3
6	Forming board	1	22	Screw M12X35	1
7	Forming board	1	23	Screw M12X30	1
8	Eccentric block	1	24	Grip M12	1
9	Plate	1	25	Handle	1
10	Rotating body	1	26	Bolt M8X25	1
11	Bolt	1	27	Nut M8	1
12	Pin	1	28	Bolt M10X25	2
13	Shaft	1	29	Spring washer 10	2
14	Base	1	30	Washer 10	2
15	Forming board	1	31	Rubber grip	1
16	Eccentric shaft	1			

NOTE: SOME INDIVIDUAL PARTS MAY ONLY BE AVAILABLE AS AN ASSEMBLY

BASE DIMENSIONS



NOTES:

ENVIRONMENT PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.

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