



SMG 650NM Electric Tube and Pipe Notching Machine

Operation Manual



Table of Contents

Operation Manual	1
Safety Warnings and Precautions	3
General Safety Instructions	3
Introduction	4
1. Usage	4
2. Operating Site Requirements	4
3. Connecting to Power	4
4. Features	4
Operation	4
Parts List	5
Exploded Drawing	6

Safety Warnings and Precautions

WARNING: Failure to follow these instructions may result in serious personal injury.

As with all machinery, hazards exist when operating the machine. Using the machine with care and respect significantly reduces the risk of injury. Ignoring safety precautions may result in serious harm.

This machine is designed for cold metal cutting, such as cutting steel tubes. Do not modify the machine or use it for purposes other than those intended. If in doubt, contact the manufacturer before use.

Always read and understand all instructions before using this tool.

General Safety Instructions

1. **Keep work area clean.** Clutter increases the risk of accidents.
2. Observe work area conditions. **Do not use in damp or wet locations. Keep area well-lit. Avoid use** near flammable gases or liquids.
3. **Keep children away.** Never allow children to handle the machine, tools, or extension cords.
4. **Store idle equipment safely.** Tools not in use should be stored in a dry location and locked away from children.
5. **Do not force the tool.** Use the machine at its intended rate and capacity.
6. **Use the correct tool for the job.** Do not force smaller tools to perform larger tasks.
7. **Dress properly.** Avoid loose clothing or jewellery. Wear non-conductive, protective clothing and non-slip footwear. Tie back long hair.
8. **Wear eye and ear protection.** Use ISO-approved safety goggles and, if producing metal filings, a full-face shield. Wear a respirator when working with metal or chemical dusts.
9. **Do not overreach.** Maintain balance and footing at all times.
10. **Maintain tools with care.** Keep tools sharp, clean, and lubricated. Handles must be clean and free of oil or grease.
11. **Stay alert.** Never operate the machine when tired, under the influence of alcohol, or drugs that affect reflexes.
12. **Check for damaged parts.** Inspect moving parts, mounting fixtures, and other components. Repair or replace damaged parts before use.
13. **Guard against electric shock.** Avoid contact with grounded surfaces such as pipes, radiators, and appliances.
14. **Use only approved replacement parts and accessories.** Using unapproved parts will void the warranty.
15. **Disconnect power before maintenance.** Ensure the machine is fully stopped before servicing or changing accessories.
16. Keep hands away from the blade at all times.
17. **Avoid accidental starting.** Ensure the switch is in the OFF position before plugging in.
18. **Ground the machine properly.** Connect the PE conductor firmly to the earth.
19. **Do not use in dangerous environments.** Avoid damp, wet, or poorly-lit areas.
20. **Stop the machine before servicing.** Always turn off before changing blades or attachments.

Introduction

1. Usage

The SMG 650NM Electric Tube and Pipe Notching Machine is designed for general metal cutting within its specified capacity.

2. Operating Site Requirements

- Height above sea level: ≤ 1000 m
- Air temperature: $5^{\circ}\text{C} - 40^{\circ}\text{C}$
- Relative humidity: $\leq 50\%$ at $\leq 40^{\circ}\text{C}$
 - Higher humidity is permissible at lower temperatures (e.g., 90% at 20°C)
- Work zone lighting: ≥ 500 lux

3. Connecting to Power

- Electrical rating: 230 V or 400 V, 50 Hz or 110 V, 60 Hz
- Ensure motor rating matches power supply.
- Recommended cable: H07RN-F 3G 1.5 mm²
- Provide an overcurrent protector rated at 5 A in the supply circuit.
- PE conductor must be firmly connected to the earth.

4. Features

1. Cuts steel tubes with wall thickness up to 3 mm
2. Designed for 90° tube joints
3. Accommodates multiple tube diameters in one device
4. Can operate horizontally or vertically
5. Suitable for double connections

Operation

The SMG 650NM Electric Tube and Pipe Notching Machine is designed to cut tube ends into a radius for welding or joining.

1. Clean all parts before use and assemble according to the assembly diagram.
2. Secure the machine horizontally or vertically on a stable table to allow smooth movement of the cutting block.
3. The machine has holes for different tube diameters:
 - $1/4"$, $3/8"$, $1/2"$, $3/4"$, $1"$, $1-1/4"$, $1-1/2"$, $2"$
4. Insert the pipe into the correct diameter hole.
5. Complete the cut by turning the handle.

Attention:

- Only one pipe size may be cut at a time.
- Remove any scraps from the holes during operation to avoid jamming.

Parts List

Part #	Description	Qty	Part #	Description	Qty
1	Stand I	1	14	Body II	1
2	Clamp Screw	6	15	Bolt M12x60	2
3	Adapter Washer	12	16	Blade II	1
4	Stand II	1	17	Pin	2
5	Bolt M10x20	5	18	Pin	1
6	Bolt M10x35	5	19	Blade III	1
7	Bolt M10x40	5	20	Body III	1
8	Pin	2	21	Blade I	1
9	Pin	2	22	Spring	1
10	Cover	1	23	Spring	2
11	Joint Plate I	1	24	Motor	1
12	Body I	1	25	Bolt M10x50	4
13	Eccentric Shaft	1	26	Key	1

