



OPERATION & MAINTENANCE MANUAL

SMG 2000XA

Multi-Functional Busbar Processing Station



Model covered: SMG 2000XA (also references SMG 2000 for comparison). Document issued by Capital Machinery Sales Pty Ltd

Issue date: 24/08/2026

Contents

1. Introduction
2. Safety Information
3. Product Overview and Specifications
4. Operation
5. Maintenance

1. Introduction

The SMG 2000XA is a multi-functional busbar processing station designed to cut, punch, and bend copper and steel busbar in a single, compact hydraulic unit. It is intended for use by trained personnel in industrial electrical fabrication and switchboard manufacturing environments.

This manual covers safe operation, correct use of the cutting, punching, and bending stations, and the maintenance procedures required to keep the machine in good working order. Read this manual in full before operating the machine.

Key Features

- Ergonomic design reduces setup time and labour requirements.
- Solid construction with a professional-grade finish.
- Fitted with a pedal locking set for stable operation and ease of transport.
- Vibration-proof pressure gauge — always operate within the rated pressure and never overload the machine.
- Compatible with both a magnetic valve pedal switch and a hand switch.

2. Safety Information

The following signal words are used throughout this manual to indicate the severity of a hazard:

- **WARNING** — indicates a hazard that could result in serious injury if not avoided.
- **CAUTION** — indicates a hazard that could result in minor injury or equipment damage if not avoided.
- **NOTE** — provides additional information to help operate the machine correctly.

WARNING

- ⚠ Only qualified and trained operators are permitted to operate this machine.
- ⚠ The pressure gauge must never be locked or obstructed while the machine is running.
- ⚠ Do not assemble or disassemble any part of the machine except under the direct supervision of a qualified technician.
- ⚠ Always operate at the rated pressure of 70 MPa. Do not exceed this limit.
- ⚠ Keep hands and body clear of all cutting, punching, and bending stations during operation.
- ⚠ Do not operate the machine if any damage to the hydraulic lines, dies, or electrical components is observed.

3. Product Overview and Specifications

The SMG 2000XA shares its core specifications with the SMG 2000 but is built to a heavier-duty frame. Refer to the table below for full specifications of both models.

Model	Width (mm)	Max Thickness Steel (mm)	Max Thickness Copper (mm)	Diameter Range (mm / in)	Weight (kg)	Dimensions (cm, L×W×H)
SMG 2000	200	8	12	9.5–19.1 (3/8"–3/4")	220	103 × 83 × 14
SMG 2000XA	200	8	12	9.5–19.1 (3/8"–3/4")	270	116 × 83 × 134

Note: the SMG 2000XA's larger footprint and additional weight reflect its reinforced frame; rated processing capacity (width and thickness) is the same as the SMG 2000.

4. Operation

4.1 Power Connection

Check the condition of the power source and electrical cable before connecting. The supply cable must be copper with a minimum cross-section of 0.5 mm². Connect the machine to an appropriate, correctly earthed power source.

Turn the power switch on — green indicates ON, red indicates OFF. The switch does not need to be turned off between individual tasks during a single working session; always isolate the power source when the machine is left unattended or is not in use.

General note: cutting and punching dimensions can be pre-set using the STOP BLOCK on the worktable. Once the STOP BLOCK is positioned, place the workpiece firmly against it to ensure consistent, repeatable dimensional accuracy for both cutting and punching operations.

4.2 Cutting Guide

1. Align the indicator needle to the cutting station.
2. Position the busbar firmly against the STOP BLOCK.
3. Activate the cutting station using the foot pedal or hand switch.

Cutting range: 150 mm × 10 mm.

4.3 Punching Guide

1. Align the indicator needle to the punching station.
2. Select the appropriate die for the required hole size.
3. Position the busbar firmly against the STOP BLOCK.
4. Activate the punching station using the foot pedal or hand switch.
5. If the workpiece is difficult to retract after punching, use the returning mat to assist removal.

Punching thickness range: 12 mm. Dies offered: ø10.5 mm, ø13.8 mm, ø17.5 mm, ø20.5 mm.

4.4 Bending Guide

1. Align the indicator needle to the bending station.
2. Position the busbar according to the required bend angle. Bending can be performed in both vertical and horizontal directions.
3. Activate the bending station using the foot pedal or hand switch.

Bending range: 125 mm × 12 mm.

5. Maintenance

5.1 General

Keep the machine clean. Wipe down the dies, work area and exposed ram surfaces at the end of each shift to prevent debris build-up.

5.2 Periodic Maintenance

1. Check the hydraulic oil level before each use and top up as required.
2. Use ISO VG 46 or ISO VG 68 anti-wear hydraulic oil. ISO VG 32 may be used in consistently cold conditions.
3. Change the hydraulic oil every 3 to 5 years or 2,000 operating hours, whichever comes first. Under continuous or heavy-duty operation, reduce this to 1,000 operating hours. Change sooner if the oil appears discoloured, cloudy or contaminated.
4. Inspect hydraulic lines and fittings periodically for leaks or wear.
5. Check dies regularly and replace any that are worn or damaged.

Read this manual in full before operating the machine. A correct understanding of all instructions is required prior to use. Improper operation may result in equipment damage or personal injury.