Westermans International Ltd
welding and cutting solutions that don't cost the earth

USED & REFURBISHED EQUIPMENT

Swagelok® Orbital Welding Equipment

Specifications and buying notes for the used Swagelok power supplies, weld heads, fixtures, collets and tube preparation tools we buy and sell. Swagelok orbital systems are widely used for high-purity tube welding in semiconductor, biopharmaceutical, food and dairy, and analytical work, where every weld has to be repeatable and documented.

Power supplies
M200 and M100

Weld heads
Micro Series, 5H & 10H up to Series 40

Fixtures & accessories
Collets, side plates, gauges, purge

Tube preparation
TF facing tools, TC72 cutter



01 — POWER SUPPLIES

M200 Power Supply

The current Swagelok power supply for orbital GTAW (TIG). It has a touchscreen, monitors and logs every weld in real time, and controls OD shield gas automatically.

Key specifications	
Input	100–230 V AC, single phase
Output	2–200 A DC (200 A peak)
Duty cycle	100% at 95 A (100 V / 20 A input) 100% at 100 A (115 V / 20 A) 60% at 140 A (200 V / 20 A) 100% at 120 A (230 V / 16 A) 25% at 200 A (230 V / 16 A)
Display	12.1 in. colour touchscreen with nine languages built in, English included
Shield gas	Built-in mass flow controller sets OD shield gas flow, so you don't need a separate flowmeter
Weld records	Real-time monitoring of weld output. Records can be printed or saved electronically for QA
Connectivity	USB, Ethernet, VGA and serial ports, plus a general-purpose I/O for accessories
Dimensions	343 H × 579 W × 394 D mm (13.5 × 22.8 × 15.5 in.)
Weight	Approx. 22.5–23.3 kg (50–51 lb), depending on build
Approvals	CE, RoHS, CCC and Canadian standards
Compatible heads	All current Swagelok weld heads (Series 4, 8, 8HPH, 5, 10, 20, 40)

Duty cycle figures are Swagelok's current published ratings. Earlier production units were rated a little lower. For any machine, go by its rating plate.



Options you may find fitted

- **Automatic ID purge control.** Adjusts the purge flow automatically to keep the ID pressure right at the weld joint. It can be factory-fitted or added later (factory model code includes `-IDP`).
- **Manual TIG torch kit.** Lets you use the M200 for manual TIG work as well as orbital.
- **Calibration unit.** Used to check the output calibration.
- **Transport case.** New units shipped in a heavy-duty fitted case.

Every package we take into stock is different, so options vary. Please check with us exactly what's included before you buy.

> **Looking for a lower-cost system?** The earlier M100 is on the next page. We still regularly take M100s into stock and can support them.

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01 — POWER SUPPLIES

M100 Power Supply

The M100 came before the M200. It's a microprocessor-controlled 100 A orbital GTAW power supply with a built-in printer and on-board weld data logging, and it's well suited to thin-wall tube.

Discontinued by Swagelok, still supported by us

Swagelok no longer makes the M100, but plenty are still working in industry. We regularly take M100s into stock and we can support them, so it's a cost-effective way into Swagelok orbital welding, or a matching second unit for a shop already set up for M100 work.

Key specifications	
Input	115 V AC / 20 A or 230 V AC / 15 A, single phase, 50/60 Hz
Output	2–100 A DC (may be reduced on 100 V supplies)
Duty cycle	100 A at 30% 75 A at 60% 45 A at 100%
Controls	Microprocessor controller with 5.5 in. (140 mm) LCD
Weld programs	Generated automatically or entered manually, then stored for repeat jobs
Weld records	Real-time monitoring and recording of weld output. Built-in printer, data memory card and PC serial download for QA
Dimensions	229 H × 394 W × 493 D mm (9.0 × 15.5 × 19.4 in.)
Weight	19 kg (115 V model) / 20.4 kg (230 V model)
Models	`SWS-M100-1` (115 V) · `SWS-M100-2` (230 V)

Duty cycle figures are Swagelok's published ratings. For any machine, go by its rating plate.



Commonly supplied with (when new)

- Power cord, 12 ft (3.7 m)
- Data memory card and PC interface cable
- Roll of printer paper

Options you may find

- **Remote pendant.** Lets you operate the power supply by push-button from the weld head. Comes with a 15 ft (4.6 m) cable, with 10 ft and 35 ft extensions available.

These are the items an M100 was originally supplied with. Used packages vary, so they may not all be present. Please check with us what's included in the current package before you buy.

Weld head compatibility. Current-style weld heads plug straight into the M200. On an M100 they need an adapter cable (`SWS-M100-WH-ADPTR`). Please check compatibility with us before you buy.



M100 in its transport case

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02 — WELD HEADS

Weld Heads

Swagelok enclosed orbital weld heads cover tube from 1/16 in. (2 mm) up to 4 in. (114.3 mm) OD. Every current series uses optical speed control, so there's no tachometer to calibrate, and a polarised power connector that only fits the right way round.

Series	Tube OD capacity	Factory code	Best suited to
Series 4 (micro)	1/16–1/4 in. / 2–6 mm	`SWS-4MRH / 4MFH`	Very small tube in tight spaces. Available as rigid-drive or flexible-drive. Uses a detachable motor module
Series 8 (micro)	1/8–1/2 in. / 3–12 mm	`SWS-8MRH`	Compact rigid-drive head for small instrumentation tube. Uses a detachable motor module
Series 8HPH	1/8–1/2 in. / 3–12 mm	`SWS-8HPH`	High-volume bench work. Around 60 welds/hour at 1/4 in. and 30 at 1/2 in. Rated for about 10,000 welds between maintenance at 1/4 in. (3,000 at 1/2 in.). Bench-mounted fixture
Series 5	1/8–5/8 in. / 3–17.3 mm	`SWS-5H`	General workhorse for small-bore tube, including heavier-wall work. Fixture blocks are separate from the head, so you can set up the next joint while welding the current one
Series 10	1/4–1 in. / 6–25 mm	`SWS-10H`	Mid-range tube work with the same modular fixture-block system as Series 5
Series 20	1/2–2 in. / 12–52 mm	`SWS-20H`	Larger process and hygienic tubing. Takes pipe collets, thin collets and sanitary ferrule mandrels
Series 40	Tube 1 1/2–4 in. / 38.1–114.3 mm Pipe 1 1/4–4 in. / 42.2–114.3 mm	`SWS-40H`	Large-bore tube and pipe

Commonly supplied with (when new)

- Arc gap gauge, tool kit and tungsten electrodes
- Micro heads (Series 4/8) also come with a centring gauge and micro fixture tool
- Integral power/control cable. New heads came with 15 ft (4.6 m), 35 ft (10.7 m) or 50 ft (15.2 m) cables

These are the items a head was originally supplied with. Used packages vary, so they may not all be present. Please check with us what's included in the current package before you buy.

Working further from the power supply

Weld head extension cables let you weld well away from the power supply, which is useful on site or in cleanrooms. One extension cable type covers every series from 4 to 40.



Series 8 micro weld head


Weld head


Weld head with integral cable


Weld head and fixture block

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03 — FIXTURES, COLLETS & ACCESSORIES

Fixtures, Collets & Accessories

We regularly have fixtures, collets and smaller accessories in stock, either with a system or sold separately. Tell us your tube sizes and we'll match the parts you need.

Fixture blocks

Series	Capacity	Code
Series 5	1/8–5/8 in. / 3–16 mm	CWS-5TFB
Series 10	1/4–1 in. / 6–25 mm	CWS-10TFB
Series 20	1/2–2 in. / 12–52 mm	SWS-20TFB

Micro heads (Series 4/8) use size-specific micro fixtures, one for each tube OD.

Collets

- **Standard tube collets (UCI).** Sized to each tube OD for Series 5, 10 and 20. They allow for ±0.005 in. (0.13 mm) variation in tube OD
- **Pipe collets.** For Series 20 and 40. Two halves are needed per side plate
- **Thin collets.** For Series 20, used with thin side plates
- **Micro-Fit® collets.** For miniature butt-weld fittings

Side plates

Standard tube side plates, plus fitting side plates for VCR® and VCO® fittings and valve side plates that hold valve bodies during welding.

Gauges & electrodes

Arc gap and centring gauges for every series. 2% ceriated tungsten electrodes ground to suit each head.

Purge & extras

Internal purge kits, M200 automatic ID purge kit, remote pendants, bench brackets and carry cases.

04 — TUBE PREPARATION

Tube Facing & Cutting Tools

A good orbital weld needs a square, burr-free tube end. Swagelok's facing tools machine the tube end flat and square ready for welding. The TC72 cuts thin-wall tube and elbows to length. All of them handle walls up to 3 mm (0.118 in.).

Tool	Tube OD range	Notes
TF16	1/8–1 in. / 3–25 mm	Corded or cordless. Small instrumentation tube
TF24	1/8–1 1/2 in. / 3–38 mm	Corded or cordless
TF40 (earlier) / **TF48** (current)	TF40: 1/4–2 1/2 in. / 6.35–63.5 mm TF48: 1/4–3 in. / 6–76 mm	Corded or cordless. Bench bracket included. TF40 needs a collet adapter for smaller sizes
TF72	1/2–4 1/2 in. / 12–114.3 mm	Corded. Large-bore tube, bench-mountable
TC72 cutter	Tube 1/4–4 1/2 in. / 6–120 mm Elbows 30–120 mm	Saw-type cutter with a laser pointer to mark the cut line. Approx. 23.6 kg. Optional tripod stand

Facing tools take collet sets sized to each tube OD. Collets supplied vary from package to package, so please check with us what's included before you buy.

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05 — BUYING & SELLING WITH WESTERMANS

Buying Used Swagelok Equipment

Westermans has specialised in used and refurbished welding equipment for more than 50 years. Our team is on hand for after-sales support.



Swagelok M200 system ready for dispatch

Complete systems or parts

Buy a complete system (power supply, head, fixtures and collets) or add heads and accessories to equipment you already run.

Ask about compatibility

Tell us your power supply, heads and tube sizes and we'll advise on what works together. Please check before you order.

Worldwide delivery

We regularly ship Swagelok equipment to customers overseas. Ask us for a delivery quote to your country with your enquiry.

We buy too

Have surplus Swagelok equipment? We buy power supplies, heads, fixtures and tube prep tools.

What's included

Every package we take into stock is different. A system or head may or may not come with fixtures, collets, cables, cases or accessories. It's the buyer's responsibility to check with us exactly what's included before buying. Some items are available sold as seen, and that will be clear on your quote.

Manuals and documentation

If the original manufacturer's manual came with a machine, we include that printed copy when we ship it to you. We don't reproduce or distribute Swagelok's manuals or catalogues. For current documentation, contact Swagelok or your local authorised Swagelok sales and service centre.

About these specifications

This sheet was put together by Westermans from published manufacturer information and is a general reference only. Used machines can differ by revision, software, options fitted and condition. Check each machine's rating plate and our listing. VCR®, VCO® and Micro-Fit® are also trademarks of Swagelok Company. Product names are used only to identify genuine equipment that Westermans resells.

Talk to us about Swagelok equipment

To check current stock, ask for a price, or arrange for us to buy your equipment:

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