

STEELBEAST®



MANTIS BATTERY

CORDLESS DUAL TORCH WELDING TRACTOR



The **MANTIS Battery** is a specialised welding tractor engineered for precise and efficient welding of steel profiles used as reinforcement elements in various structures – including flat bars, angle profiles (L), T-bars, bulb flats, I-beams, H-beams, and channels (C-profiles).

It supports dual-torch operation in both continuous and intermittent welding modes. The integrated programming function enables precise setup of the welding path by defining weld length, skip length, and crater fill parameters at the start and end of welds. Powered by an 18 V DC LiHD Lithium-Ion battery, the **MANTIS Battery** provides long-lasting performance, sufficient for a full work shift – using the same CAS battery platform as our other cordless machines.

Features and benefits:

- **Battery-powered programmable welding tractor** for travel on steel profiles such as flats, angles, I-beams, T-beams, bulb flats, and irregular workpieces with radii down to 160 mm
- **Dual-sided operation** with two torches for continuous or intermittent welding
- **Ergonomic programming** of weld patterns and stitch parameters for simple setup
- **Multi-functional LED display** showing travel speed, units, welding settings, and diagnostic messages
- **18 V DC power supply** ensures safe use in harsh, wet, metallic, or confined environments such as shipyards
- **LiHD battery with intelligent management** delivers maximum power and extended runtime
- **Closed-loop speed control** maintains stable travel speed for uniform heat input and high weld quality
- **Compact, lightweight design** with a durable cast aluminium housing
- **Speed range:** 5–130 cm/min
- **Automatic high-speed travel between stitches** saves valuable welding time
- **Cordless operation:** no mains power required, reducing cables and setup time

MANTIS supports a wide range of applications:

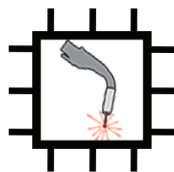
- Straight-line welding and cutting
- Fillet welding
- Flange welding
- Beam splitting
- Irregular shape welding and cutting
- Circular welding and cutting



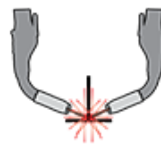
Continuous welding



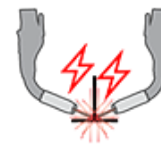
Stitch welding



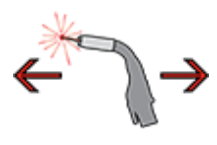
Welding path programming



Dual torch welding



Dual Arc Ignition



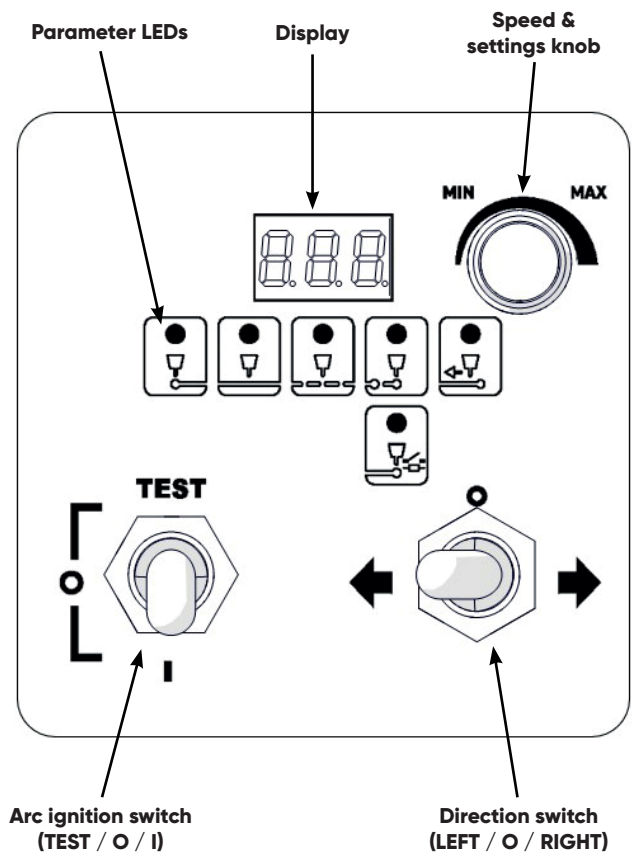
Horizontal speed
5–130 cm/
min

MANTIS BATTERY

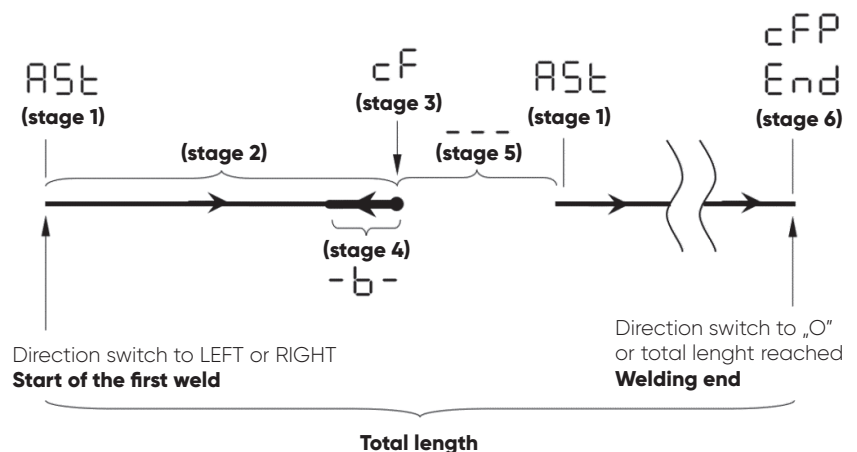
PROGRAMMABLE VARIABLES DIAGRAM

Simple and ergonomic programming of welding patterns and stitch welding by specifying parameters such as weld length, skip length, and crater filling at the beginning and the end of the welds.

	Crater fill time Arc stabilisation time	ASt	0–5.0 sec [step: 0.1] Crater filling time at the beginning of the weld
	Weld length	---	0.5–999 cm [step: 0.1] 0.5–40" [step: 0.1]
	Skip length	cF	0.5–999 cm [step: 0.1] 0.5–40" [step: 0.1]
	Crater fill	cFP	0–5.0 sec [step: 0.1] Crater filling time at the end of the weld
	Off (default)	oFF	Current curve set on Welding Source
	On	on	Full current from Welding Source
	Reverse filling length	-b-	0–2 cm [step: 0.1] 0–1" [step: 0.1]
All LEDs on	Total length		1–999 cm [step: 1] 1–400" [step: 1] INF



Stage 1	Arc stabilisation and crater filling at the beginning of the weld
Stage 2	Tractor moves with the set speed and creates the weld of a defined length
Stage 3	Crater filling at the end of the weld
Stage 4	Back weld (Reverse filling length)
Stage 5	Tractor skips between welds. Next steps 1, 2, 3, 4 and 5 are repeated until total length is reached
Stage 6	Final crater filling (the end of welding procedure)



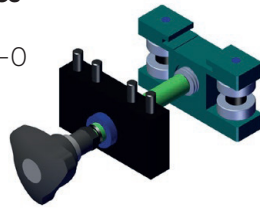
TYPES AND DIMENSIONS OF STEEL PROFILES SUITABLE FOR THE MANTIS

The **MANTIS Battery** is compatible with a variety of steel profiles. Four optional clamps are available, selected according to the type of profile being processed.

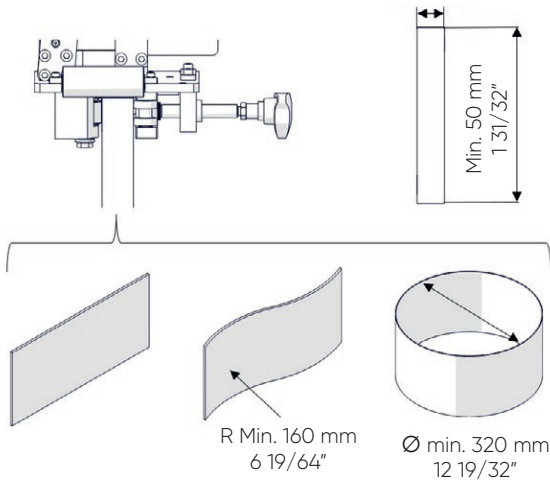
Note: Optional clamps are sold separately and are not included in the standard shipping set.

Clamp for flat profiles (option)

DCS-0824-0037-00-0

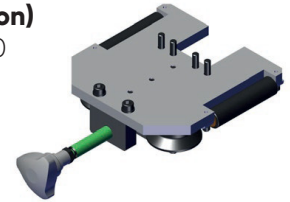


MAX. 50 mm
1 31/32"

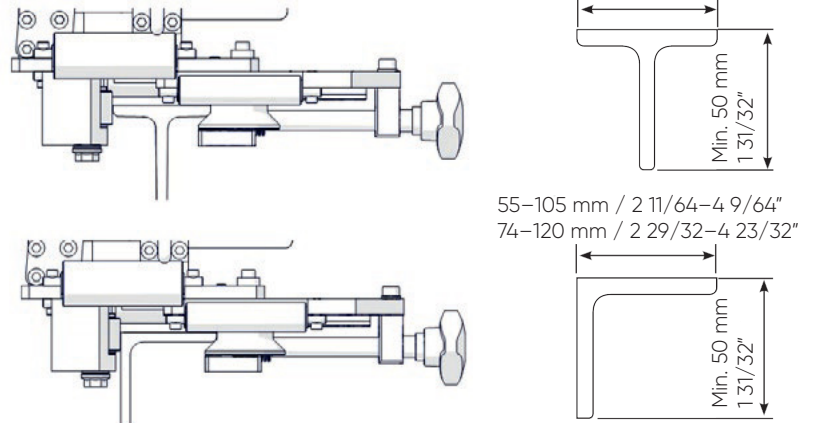


Clamp for T profiles and angle profiles (option)

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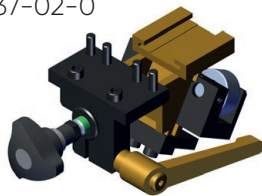


55–105 mm / 2 11/64–4 9/64"
74–120 mm / 2 29/32–4 23/32"

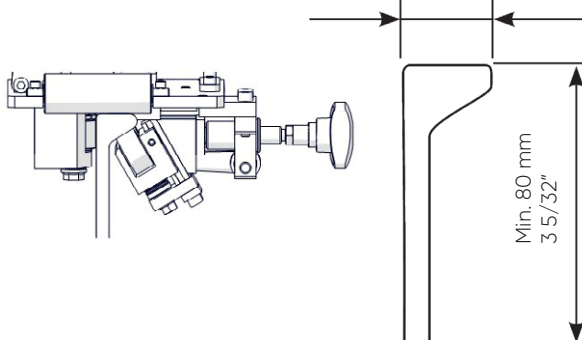


Small clamp for bulb profiles 50 – 180 mm (option)

DCS-0824-0037-02-0



50–100 mm / 1 31/32–3 15/16"
100–180 mm / 3 15/16–7 3/32"

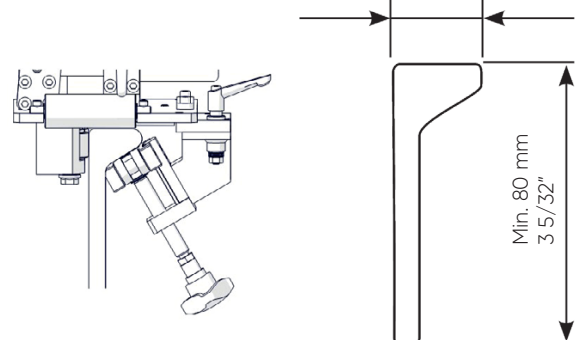


Large clamp for bulb profiles 200 – 340 mm (option)

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200–340 mm / 7 7/8–13 25/64"

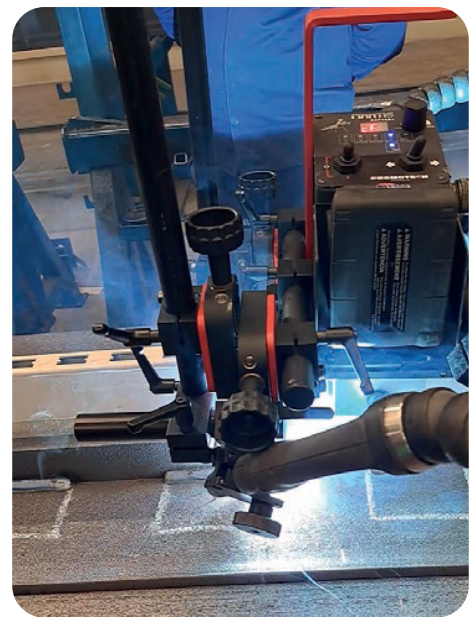
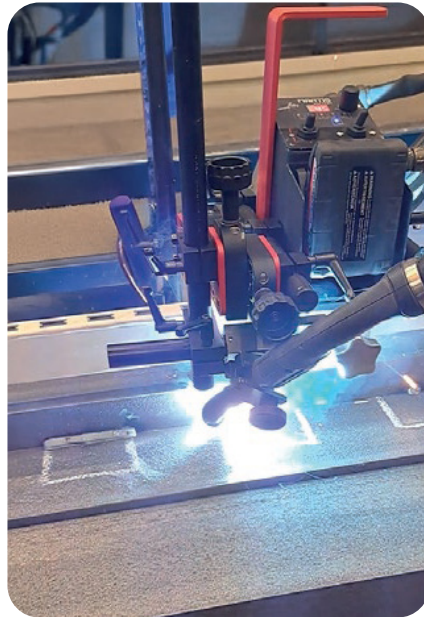


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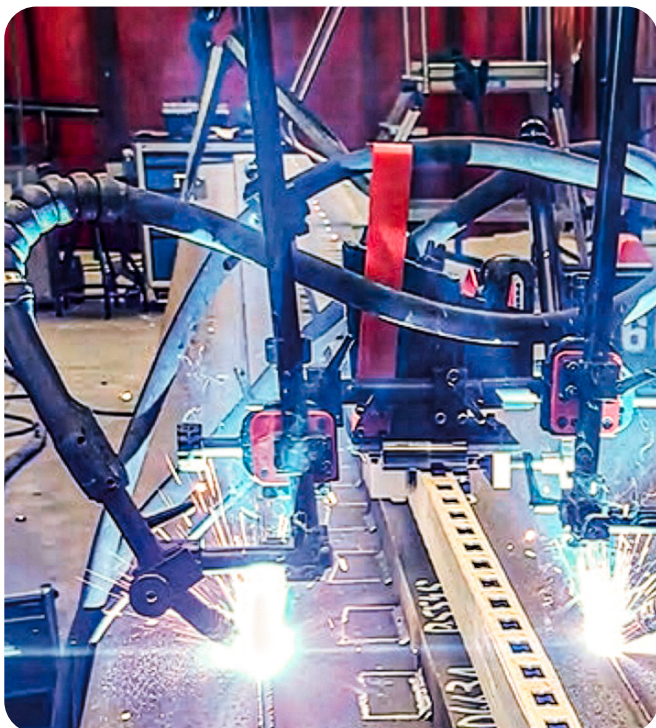
MANTIS WELDING MODES

I. Intermittent Welding

During intermittent welding, weld and pause lengths are programmed based on distance. The operator can adjust the welding speed at any time without affecting the programmed section lengths. The carriage control system automatically recalculates lengths in real time to account for any speed adjustments, ensuring consistent weld quality.



II. Continuous welding



ACCESSORIES

Standard Accessories:



Battery 4.0 Ah
AKM-0738-10-00-01-0



Cross slide
UKL-0824-0698-00-0



Short rod torch holder with clamp 16-22 mm
UCW-0754-07-00-00-0
(2 Pcs)



Cable anchor
UCW-0466-55-03-00-0
(2 Pcs)



Dual arc ignition cable (6.5 m)
KBL-0466-17-00-00-0



Rod 300 mm (2 Pcs)
WSP-0523-16-00-00-0



Rod 450 mm (2 Pcs)
WSP-0824-0816-01-0



Clamping block with levers (4 pcs included)
KST-0525-11-00-0

Optional accessories for a variety of applications:



Torch clamp 16-22 mm
ZRZ-0752-07-01-00-0



Torch clip 16-22 mm
ZCS-0476-06-01-00-0



Torch clamp 22-35 mm
ZRZ-0466-19-00-00-0



Short Rod Clamp
WLK-0476-20-01-00-0



Short rod torch holder
UCW-0476-27-00-00-0



Long Rod Clamp
WLK-0466-04-10-00-0



Long rod torch holder with clip 16-22 mm
UCW-0466-22-00-00-0



Long rod torch holder with clamp 16-22 mm
UCW-0752-07-00-00-0



Torch Extension Arm
PRD-0466-43-00-00-0



Torch Holder Lower Rod Clamp Assembly
UCW-0476-06-00-00-0



Battery Charger
LDW-0738-04-00-30-0



Fall arrester device
URZ-000001



Standard Torch Holder
28–35 mm (1.10"–1.38")
ZCS-0475-28-10-00-0



Precise Torch Holder with angle and height adjustment
UCW-0753-08-00-00-0



Standard Torch Holder with angle adjustment
UCW-0475-28-00-00-0



540 mm (21") Geared Rack
RAM-0753-07-00-00-0



1000 mm (39.4") Geared Rack
RAM-0753-13-00-00-0



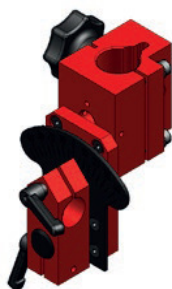
Counterweight 1.3 kg
PWG-0833-05-00-00-0



Large Counterweight 2,6 kg
PWG-0833-06-00-00-0



Machine Barrel Torch Holder
• Ø 30 mm (1.18")
UCW-0475-61-00-00-0
• Ø 35 mm (1.38")
UCW-0475-29-00-00-1



Precise Machine Torch Holder
• Ø 30 mm (1.18")
UCW-0753-22-00-00-0
• Ø 35 mm (1.38")
UCW-0753-24-00-00-0

Standard shipping set:

- MANTIS Battery tractor without any clamps
- Accessories to mount two welding torches
- Battery 4.0 Ah
- Dual arc ignition cable of 6.5 m
- Set of Hex wrenches
- Plastic Box
- Operator's manual

TECHNICAL SPECIFICATIONS MANTIS BATTERY		
Voltage		18 V DC, 4.0 Ah
Power		18 W
Welding position (according to EN ISO 6947 and AWS/ASME)	Horizontal	PA / 1F / 1G PB / 2F
Torch type		MIG / MAG
Torch diameter		16–22 mm (5/8"–55/64") up to 35 mm (1.38") option
Horizontal pulling force		150 N
Cross slide adjustment range		0–35 mm (0–1.38") up-down, left-right
Horizontal speed		5–130 cm/min
Weight (without battery)		7 kg

