

# **WEL-HANDY MULTI II Series**

# Heavy-Duty Multi Purpose Mechanized Welding Carriage

#### **Features and Benefits**

- Two models:
  - WEL-HANDY MULTI-II TACK: Tack welding
  - WEL-HANDY MULTI-II WEAVING: Tack and Weaving welding
- NEW Crater fill function

Automatically switches to crater amperage and travel backwards to process high quality crater filling.

NEW - Limit switch function

Limit switch has dry-run function, which makes positioning of the carriage possible without lifting. (Patent pending)

- NEW Encoder drive motor and control
   Ensures precise speed control during welding.
- NEW Weaving control (only for weaving model)
  Weaving parameter is adjustable during welding. Easy operation with dial control.
- NEW Tack welding and Weaving at the same time.
- UNCHANGED Reliability, Robustness and Durability.

Light, compact, all wheel drive, magnetic force traction and a low center of gravity allows the **Wel-Handy Multi**-**II** to achieve the highest pulling power and stability in the marketplace today. are improved for the welder by reducing fatigue, fumes and sparks.



# Designed and built for heavy duty working environment

## Durable design, reliable performance

#### TACK welding is now standard

The all new advanced controller is easy to use and provides flexible welding experience with high quality results.

#### Compact and lightweight

L259 x W259 x H264mm, at weight only 7.5kg.

#### Excellent durability

Maintenance free, single piece aluminium die cast body provides excellent protection against spatter, fume and dust.

#### ■ 50kg permanent magnet

Ensures strong pulling power during horizontal and vertical welding. The magnet can easily be detached from the plate by a lever.

#### Low center of gravity

Provides stable performance even when climbing on a wall.

#### Durable roller and arm

Guide roller is made of single-piece cast aluminum for higher durability. Roller is protected against spatters.

#### ■ Heat resistant rubber 4-Wheel drive system

Provides strong traction, ensuring high quality weld.

#### Absolute dust measures

Mono-design die-cast body casing with stainless steel bottom plate provides complete dustproof structure.

#### 4-wheel drive system

Provides stable traction and transmits the power to the plate efficiently.

#### High stand off

6mm stand off enables crossing over welding beads.

#### Easy setup

No guide rails required. Wel-Handy Multi guide itself along the fillet plate.

#### Limit switches at each end of the carriage

Automatic Shutdown at the end of the weld. Limit switches can be used to adjust machine starting position.

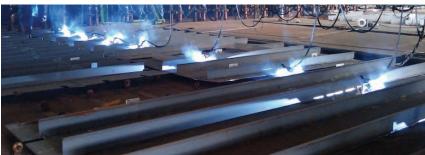


NEW : All-in-one Tack and Weaving controller



Dust resistant, single piece aluminium die cast body





Multiple Wel-Handy Multi's in simultaneous operation

#### The NEW Advanced tack controller

# Controllable tack welding distance

- Tack and dry-run distance can be controlled during welding just by simple click on a toggle switch.
- Equipped with encoder motor. WEL-HANDY MULTI -II TACK calculates travel distance by counting motor rotation, enabling accurate distance control.
- All parameter values are shown on the digital display for easier parameter management and repeatability.

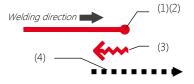
# Previous model - Tack and dry-run distances are fixed Overwrap Fixed welding and dry-run lengths WEL-HANDY MULTI - II TACK control - Controllable tack distance

# Avoid overwrap \_\_\_\_\_ Minimal weld with longer \_\_\_\_\_ dry-run distance

# Crater filling function(\*)

(\*) requires welding machine with crater function with matching control.

Automatically switches to crater amperage at the end of each weld for crater fill sequence.





- 1) At end of each weld, carriage gives signal to welding power source to switch to crater amperage.
- 2) Carriage stops for a set period of time
- 3) With crater amperage, carriage welds backwards at a set speed for a set distance
- 4) After crater sequence, carriage dry-runs to starting point of next tack weld (in tack welding mode)

# WU-5R Weaving Unit (Option for TACK, Standard with WEAVING model)

A Option for WEL-HANDY MULTI-II TACK to perform weaving welding. Includes mounting bracket. Weaving is controlled by encoder motor.

- Weaving speed (\*): 400 1500 mm/min
- Weaving widths:(\*) : 0 100.0 mm/min
- Stop timer (left/center/right): 0.0 10.0 seconds





# **Optional Accessories**



#### Twin torch option

- 2 torch fillet welding
- Upto 500mm fillet height
- Lightweight aluminum arms



#### **Tandem torch option**

- Productivity improvement with tandem torch.
- Fan-shaped bracket suitable for delicate torch setting loaded.



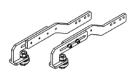
#### **Tubular follower guide**

- Traverse by vertical guidance of curved plate using bearings on both sides of plate.
- Suitable for welding short pipes onto a plate.



#### **Compact Submerged Arc option**

- Makes Wel-Handy Multi an ultra compact carriage for submerged welding.
- Contact Koike for details.



#### Plate edge guide roller

- Roller adjustable by 50mm forward/backward
- Plate need to be 10mm thickness



#### Magnet lifting handle

Makes magnet release much easier



#### Straight guide rail

- For butt welding in straight line.
- 2m long, 2x magnets included.



#### **Guide roller extension plate**

Extends guide roller by 45mm.



#### Two-point torch holder (curved)

- Secures the torch tightly with 2 clamps.
- Torch compatibility need to be checked.



#### Weaving Unit WU-5R

- Add to WEL-HANDY MULTI-II TACK to enable weaving welding.
- Tack and weaving can be performed simultaneously with WEL-HANDY MULTI-II controller.



#### Torch holder extension bar

- Extends the torch by 140-220mm.
- Suitable for butt welding using guide rail.



#### **Clamp lever**

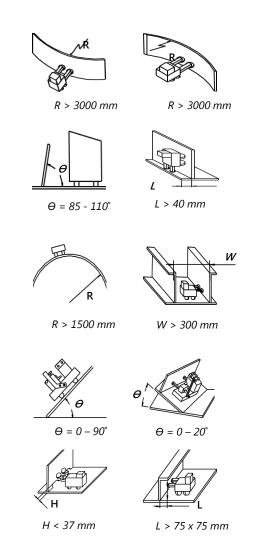
Faster torch angle and position adjustment

Accessory	Stock #
Twin torch option	90216
Tubular follower guide	1115-1095-00
Plate edge guide roller	T61004332
Straight guide rail	61002282
Two-point torch holder (curved)	61000865
Torch holder extension bar	T61001223

Accessory	Stock #
Tandem torch option	on request
Compact Submerged Arc option	on request
Magnet lifting handle	T61001636
Guide roller extension plate	T61002102
Weaving unit WU-5R	90255
Clamp lever	T64000044
Transformer PR 100-240V-SEC 24V 65W	222.002.256

# **Application guide**

Model	TACK	TACK+WEAVING
Stock No.	90245	90246
Fillet weld	•	•
Butt weld	Guide rail option	Guide rail option
Tack / Stich weld	-	•
Vertical weld	•	•
Horizontal position	Guide rail option	Guide rail option
1 run 2 pass	Tandem torch option	Tandem torch option
Contour weld	Tubular follower guide option	Tubular follower guide option
Pendulum Oscillation	-	•
Dual pass	Twin torch option	Twin torch option
Overhanging weld	•	-
Sub-Arc	Compact SAW option	Compact SAW option







Vertical up butt welding using guide rail





Twin torch option



# **Type and Specification**

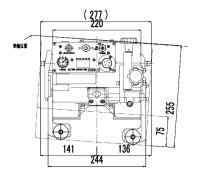
# Specifications

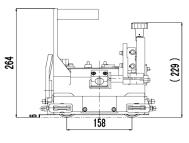
		WEL-HANDY MULTI-II TACK	WEL-HANDY MULTI-II WEAVING
Machine weight		7.5 kg	9.1 kg
Traction Force		16 kg	12 kg
Travel speed		50 ~ 1500 mm/min	
Tracking system		Fillet tracking guide roller	
Standoff (plate to base plate)		6 mm	
Magnet up/down mechanism		Magnet release lever	
Driving method		4-wheel Driving Rubber Roller (Chain Transmission)	
Magnet type		50 kg Permanent Magnet	
	Torch angle	40 ~ 55°	
Torch adjustment	Up/down	45 mm	
	Forward/backward	45 mm	
Torch holder diamet	ter	16 ~ 20 mm	
Automatic stop fund	ction	Limit switch on each end of carriage	
Unwelded lengths (s	start & end total)	approx. 270 mm	approx. 305 mm
Weaving unit		-	included
Welding method	Continuous	Yes	Yes
	Tack / Stitch	Yes	Yes
	Weaving / Oscillation	Optional	Standard
Power & signal cabl	e	Power and Signal integrated Y-branch cable (Carriage-branch: 6 m, Branch-Power: 10 m, Branch-feeder:0.5 m)	
Torch holder diamet	ter	16 ~ 20 mm	
Position adjustment	by limit switch	Yes	
Encoder motor for p	precise speed control	Yes	
Digital display		Yes	
Crater fill function		Yes	
Input power		DC 24V	

## Types

Carriage Model		Stock #
WEL-HANDY MULTI-II TACK	DC24V	90245
WEL-HANDY MULTI-II WEAVING	DC24V	90246

#### Dimension: WEL-HANDY MULTI-II TACK

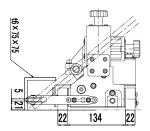




# Machine body Weaving unit (WEAVING model only) Power & signal cable Allen keys (2pcs) Operation manual

Scope of delivery

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