



TIG CLADDING TORCHES TTHW / TTW

FOR USE WITH

- / CCC, CONVENTIONAL, ETR-S
CLADDING SYSTEMS WITH
FPA 9000 OR **HMI-T10**
CONTROLLER
- / CUSTOMIZED CLADDING
SYSTEMS



/ Cladding torches for use with Compact Cladding Cell, Conventional Cladding, ETR-S with **FPA 9000** / **HMI-T10** system controller and customized cladding systems.

The robust design provides a stable torch movement. Work pieces from inner diameter 25 mm (1 in) can be welded with the smallest torch. All torches are prepared for water cooling, which allows longer duty cycles.



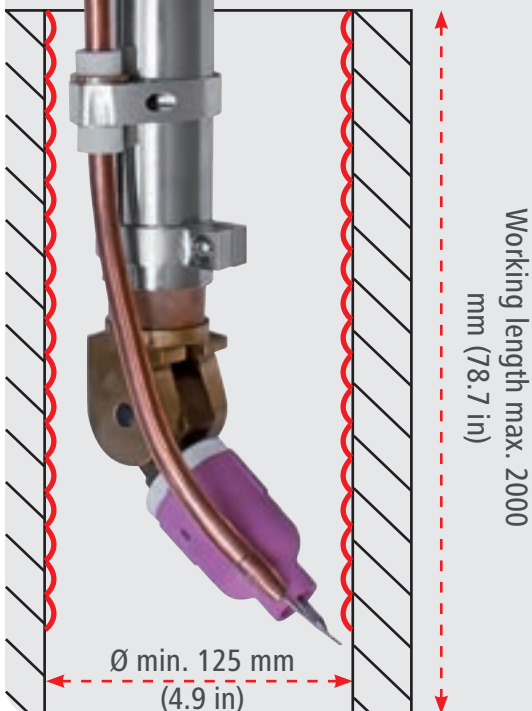
TTHW5000M Ø125

/ The TTHW5000M Ø125 is the most powerful TTHW single torch allowing welding currents up to 400 A. The minimum required inner work piece diameter is 125 mm (4.9 in). Various extensions provide a wide range of use. An optional Twin upgrade offers an additional wire feed. Depending on the application different working lengths are available 1,0/1,5/1,8/2,0 m (39.4/59.1/70.9/78.7 in).

HW-READY

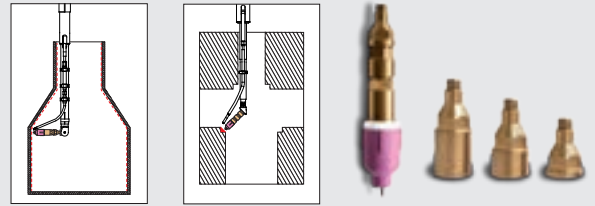
FEATURES

- / POWERFUL 400 A
- / TORCH HEAD 0-90°
- / WATER COOLING SYSTEM
- / HOTWIRE READY
- / ROBUST AND MODULAR DESIGN
- / 100% DUTY CYCLE
- / OPTION TWIN



ACCESSORIES

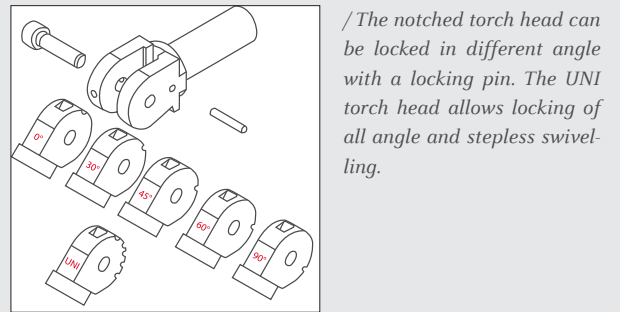
/ EXTENSIONS 15/25/38 MM (0.6/1/1.5 IN)



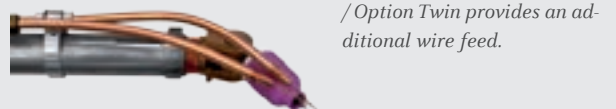
/ EXTENSIONS WITH ELBOW 30/64/124 MM (1.2/2.5/4.9 IN)



/ TORCH HEAD FIXING 0°/30°/45°/60°/90°/UNI



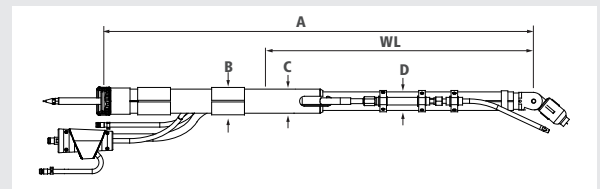
/ TWIN – ADDITIONAL WIRE FEED



TECHNICAL DATA

TTHW5000M Ø125

Inner work piece diameter	from 125 mm (4.9 in)
Welding current	max. 400 A
Wire diameter	1,0/1,2/1,6 mm (0.039/0,047/0.063 in)
Electrode diameter	1,6/2,4/3,2/4,0 mm (0.063/0.094/0.126/0.157 in)
Flow rate water cooling system	min. 1,0 l/min
WL (working length)	1000/1500/1800/2000 mm (39.4/59.1/70.9/78.7 in)
A	1440/1940/2240/2518 mm (56.7/76.4/88.2/99.1 in)
B (fixing sleeve)	50 mm (2 in)
C	44 mm (1.7 in)
D	34 mm (1.3 in)



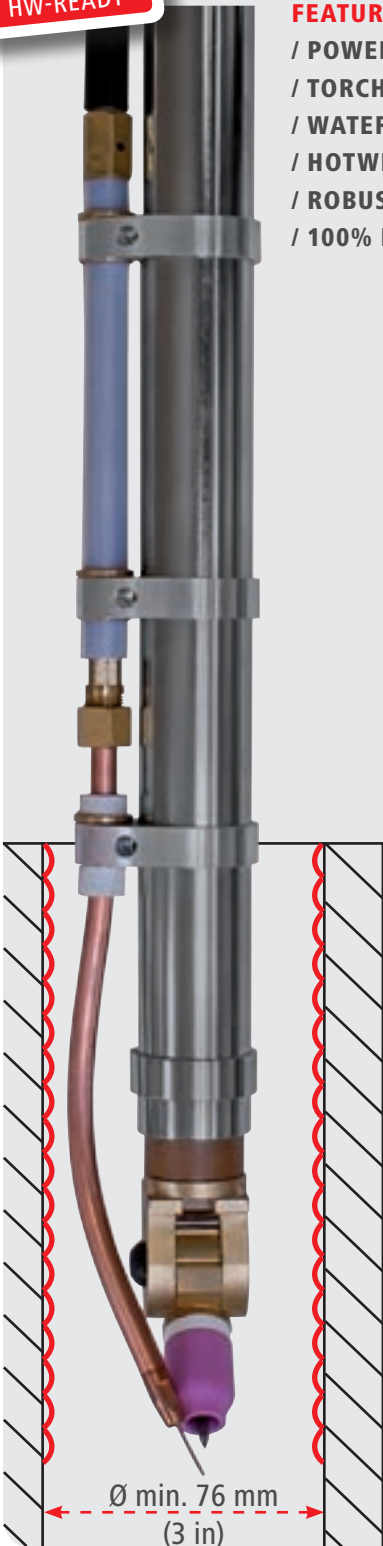
TTHW4000M Ø76

/ The TTHW4000M Ø76 allows welding currents up to 350 A. The minimum required inner work piece diameter is 76 mm (3 in). Depending on the application different working lengths are available 1,0/1,5/1,8 m (39.4/59.1/70.9 in).

HW-READY

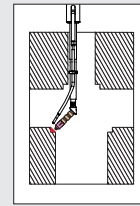
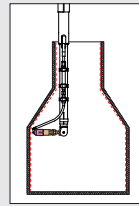
FEATURES

- / POWERFUL 350 A
- / TORCH HEAD 0-90°
- / WATER COOLING SYSTEM
- / HOTWIRE READY
- / ROBUST AND MODULAR DESIGN
- / 100% DUTY CYCLE

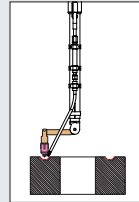


ACCESSORIES

/ EXTENSIONS 15 MM (0.6 IN)

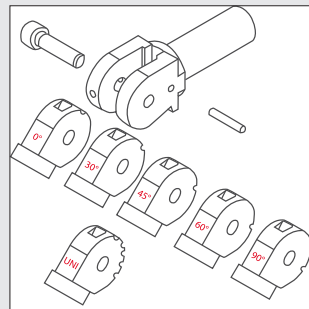


/ EXTENSIONS WITH ELBOW 30/64/124 MM (1.2/2.5/4.9 IN)



/ Those Extensions are exclusively used with ETR systems for extending the diameter range.

/ TORCH HEAD FIXING 0°/30°/45°/60°/90°/UNI

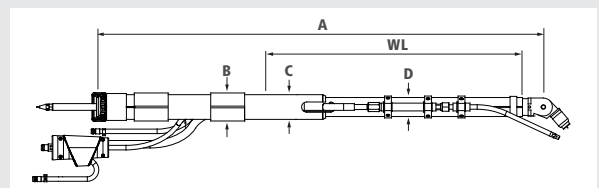


/ The notched torch head can be locked in different angle with a locking pin. The UNI torch head allows locking of all angle and stepless swiveling.

TECHNICAL DATA

TTHW4000M Ø76

Inner work piece diameter	from 76 mm (3 in)
Welding current	max. 350 A
Wire diameter	1,0/1,2/1,6 mm (0.039/0,047/0.063 in)
Electrode diameter	1,6/2,4/3,2 mm (0.063/0.094/0.126 in)
Flow rate water cooling system	min. 1,0 l/min
WL (working length)	1000/1500/1800 mm (39.4/59.1/70.9 in)
A	1440/1940/2240 mm (56.7/76.4/88.2 in)
B (fixing sleeve)	50 mm (2 in)
C	44 mm (1.7 in)
D	34 mm (1.3 in)



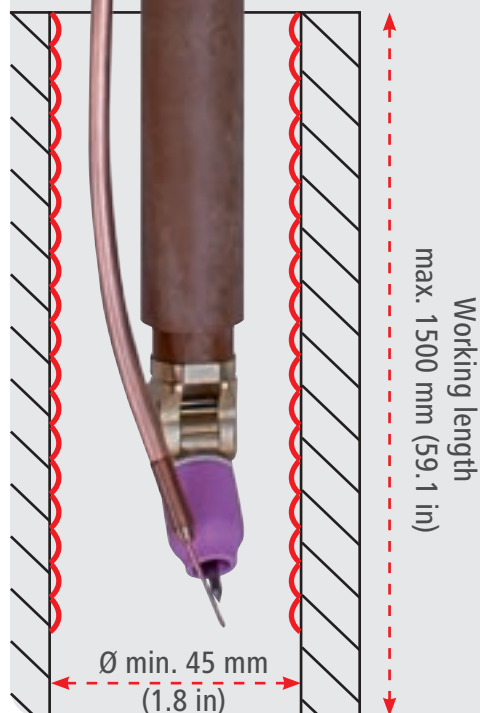
TTHW3000M Ø45

/ The TTHW3000M Ø45 allows welding currents up to 300 A. The minimum required inner work piece diameter is 45 mm (1.8 in). Depending on the application different working lengths are available 0,6/1,0/1,5 m (23.6/39.4/59.1/in).

HW-READY

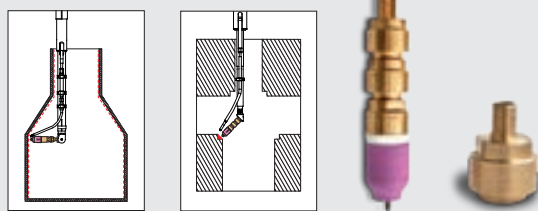
FEATURES

- / POWERFUL 300 A
- / TORCH HEAD 0-90°
- / WATER COOLING SYSTEM
- / HOTWIRE READY
- / ROBUST AND MODULAR DESIGN
- / 100% DUTY CYCLE

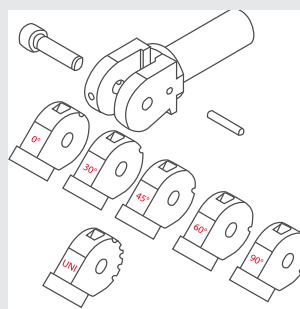


ACCESSORIES

/ EXTENSIONS 15 MM (0.6 IN)



/ TORCH HEAD FIXING 0°/30°/45°/60°/90°/UNI

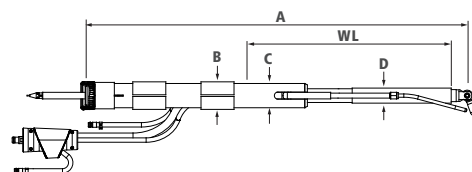


/ The notched torch head can be locked in different angle with a locking pin. The UNI torch head allows locking of all angle and stepless swivelling.

TECHNICAL DATA

TTHW3000M Ø45

Inner work piece diameter	from 45 mm (1.8 in)
Welding current	max. 300 A
Wire diameter	0,8/1,0/1,2 mm (0.031/0.039/0.047 in)
Electrode diameter	1,6/2,4/3,2 mm (0.063/0.094/0.126 in)
Flow rate water cooling system	min. 1,0 l/min
WL (working length)	600/1000/1500 mm (23.6/39.4/59.1 in)
A	1033/1433/1933 mm (40.7/56.4/76.1 in)
B (fixing sleeve)	50 mm (2 in)
C	44 mm (1.7 in)
D	27,4 mm (1.1 in)



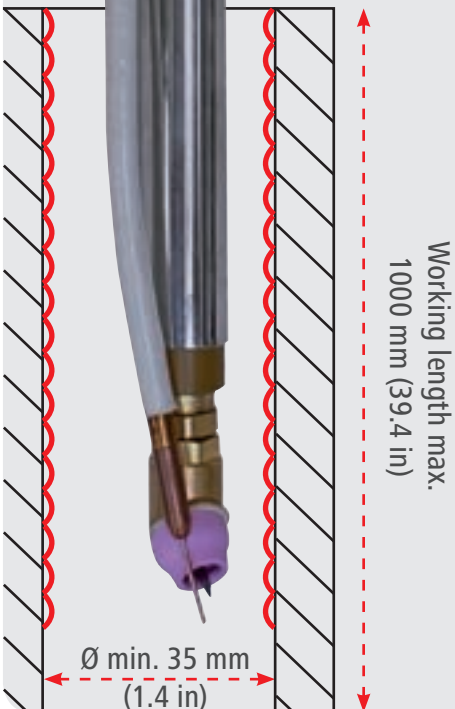
TTHW3000M Ø35

/ The TTHW3000M Ø35 allows welding currents up to 300 A. The minimum required inner work piece diameter is 35 mm (1.4 in). Different screwable torch heads can be mounted. Depending on the application different working lengths are available 0,6/1,0 m (24.6/39.4 in).

HW-READY

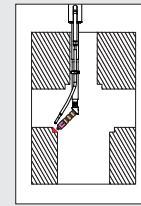
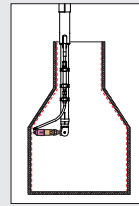
FEATURES

- / POWERFUL 300 A
- / DIFFERENT SCREWABLE TORCH HEADS
- / WATER COOLING SYSTEM
- / HOTWIRE READY
- / ROBUST AND MODULAR DESIGN
- / 100% DUTY CYCLE



ACCESSORIES

/ EXTENSIONS 15 MM (0.6 IN)



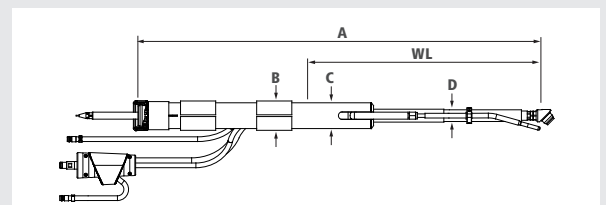
/ TORCH HEADS WITH 0°/15°/30°/45°/66°/75°/90°



TECHNICAL DATA

TTHW3000M Ø35

Inner work piece diameter	from 35 mm (1.4 in)
Welding current	max. 300 A
Wire diameter	0,8/1,0/1,2 mm (0.031/0.039/0.047 in)
Electrode diameter	1,6/2,4 mm (0.063/0.094 in)
Flow rate water cooling system	min. 1,0 l/min
WL (working length)	600/1000 mm (23.6/39.4 in)
A	1094/1494 mm (43.1/58.8 in)
B (fixing sleeve)	50 mm (2 in)
C	44 mm (1.7 in)
D	20 mm (0.8 in)



TTHW3000M Ø25

/ The smallest TTHW torch allows welding currents up to 250 A. The minimum required inner work piece diameter is 25 mm (1 in). This torch can only be used in combination with the TTHW3000M Ø35 or with an optional adapter for TTHW5000M Ø125.

HW-READY

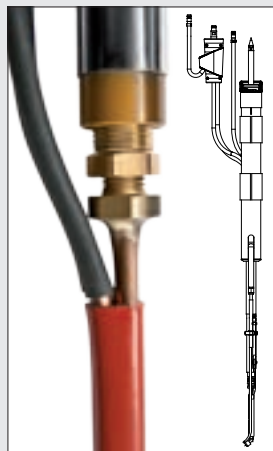
FEATURES

- / POWERFUL 250 A
- / 45° TORCH HEAD ANGLE
- / WATER COOLING SYSTEM
- / HOTWIRE READY
- / ROBUST AND MODULAR DESIGN
- / 100% DUTY CYCLE

Working length max. 250 mm (9.8 in)

Ø min. 25 mm (1 in)

/ JOINING BOTH TORCHES



/ A TTHW3000M Ø35 is necessary for using the TTHW3000M Ø25. Both torches have to be screwed together.

ACCESSORIES

/ ADAPTER FOR TTHW5000M Ø125

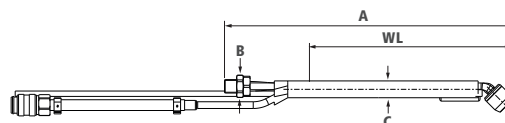


/ This adaptor allows to mount this torch on the TTHW5000M Ø125.

TECHNICAL DATA

TTHW3000M Ø25

Inner work piece diameter	from 25 mm (1 in)
Welding current	max. 250 A
Wire diameter	0,8/1,0/1,2 mm (0.031/0.039/0.047 in)
Electrode diameter	2,4/3,2 mm (0.094/0.126 in)
Flow rate water cooling system	min. 1,0 l/min
WL (working length)	250 mm (9.8 in)
A	294 mm (11.6 in)
B	16,5 mm (0.6 in)
C	12,5 mm (0.5 in)

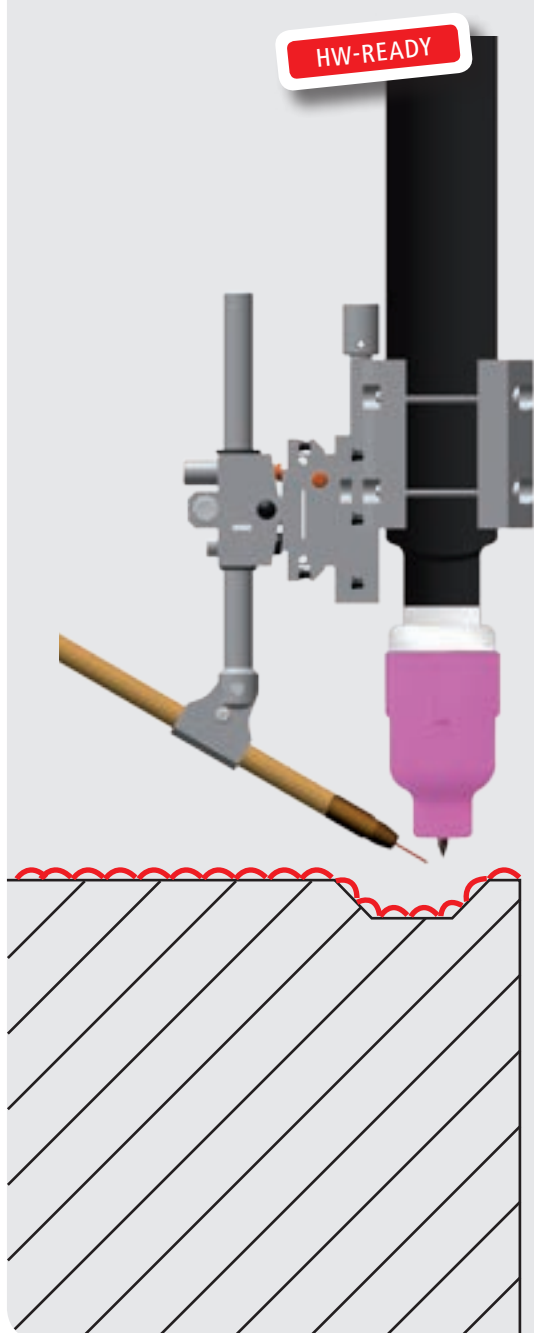


TTW4000P-M

/ The standard machine torch with fixed torch head 0° is used for joint and overlay welding. A Twin upgrade provides an additional wire feed. Different torch holders allow a wide range of use.

FEATURES

- / POWERFUL 400 A
- / WATER COOLING SYSTEM
- / HOTWIRE READY
- / ROBUST AND MODULAR DESIGN
- / 100% DUTY CYCLE
- / OPTION TWIN



ACCESSORIES

/ FWH 3 WIRE FEED HOSE HOLDER



/ 4 axis allow individual adjusting of wire feeding.

/ FWH 3 TWIN – ADDITIONAL WIRE FEED

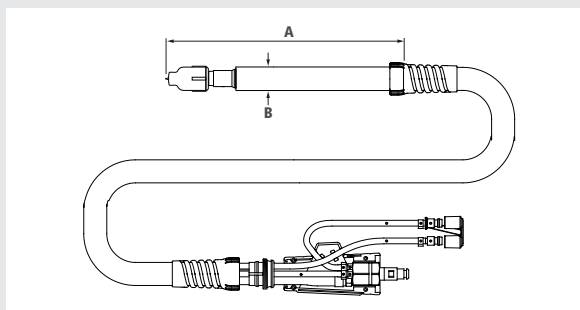


/ Option Twin provides an additional wire feed.

TECHNICAL DATA

TTW4000P-M

Welding current DC 10 min / 40° C	100 %	310 A
	60 %	400 A
Welding current AC 10 min / 40° C	100 %	220 A
	60 %	280 A
Wire diameter	1,0/1,2 mm (0.039/0.047 in)	
Electrode diameter	1,0/1,2/1,6/2,4/3,2/4,0 mm (0.039/0.047/0.063/0.094/0.126/0.157 in)	
Flow rate water cooling system	min. 1,0 l/min	
Hose pack length	1,5/4/8 m (59.1/157.5/315 in)	
A	350 mm (13.8 in)	
B	32 mm (1.3 in)	



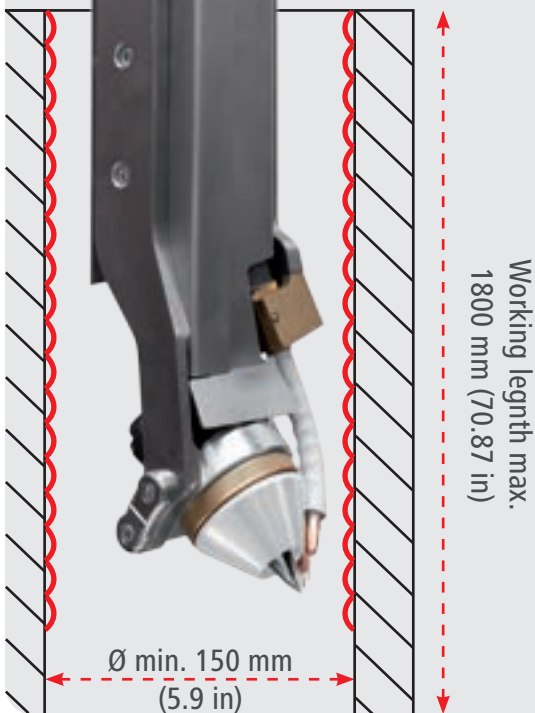
TTHW6000M SPEEDCLAD ETR Ø150

/ The TTHW6000M SpeedClad TWIN torch-system is the most powerful TTHW torch allowing welding currents up to 2x 300 A. The minimum required inner work piece diameter is 150 mm (5.90 in) and the torch head is horizontally (15°) and vertically (45°) adjustable. Depending on the application different working lengths are available: 1,0/1,5/1,8 m (39.37/59.05/70.86 in).

SPEEDCLAD TWIN-WIRE

FEATURES

- / POWERFUL 2X 300A
- / TWIN-WIRE APPLICATION
- / WATER COOLED HOTWIRE FEEDINGS (2x)
- / WEAR OPTIMIZED WIRE FEED
- / ADJUSTABLE TORCH HEAD ANGLE
- / ROBUST AND MODULAR DESIGN
- / 100% DUTY CYCLE

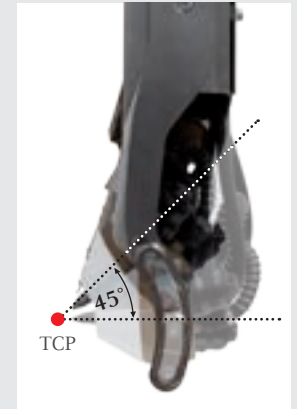
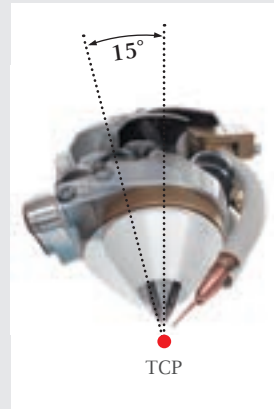


TWIN-WIRE BY DEFAULT



/ The TTHW6000 M SpeedClad torch is equipped with two wire feedings by default.

ADJUSTABLE TORCH HEAD ANGLE

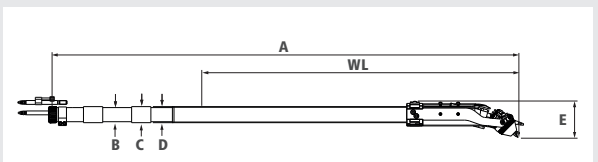


/ The torch head is horizontally and vertically adjustable. The TCP (Tool Centre Point) stays unchanged.

TECHNICAL DATA

TTHW6000M SPEEDCLAD Ø150 ETR

Inner work piece diameter	150 mm (5.90 in)
Welding current	2x 300 A
Wire diameter	0,8/1,0/1,2 mm (0.031/0.039/0.047 in)
Electrode diameter	4,0 mm (0.16 in)
Cooling system torch body	1,2 l/min
Cooling system Twin-Wire	1,4 l/min
WL (3 versions for decision)	1000/1500/1800 m (39.4/59.1/70.9 in)
A	1516 mm (59.69 in)
B (Fixing sleeve)	44 mm (1.73 in)
C	50 mm (1.96 in)
D (Shaped tube)	50x50 mm (1.96 in)
E	115 mm (4.53 in)



APPLICATION AREA



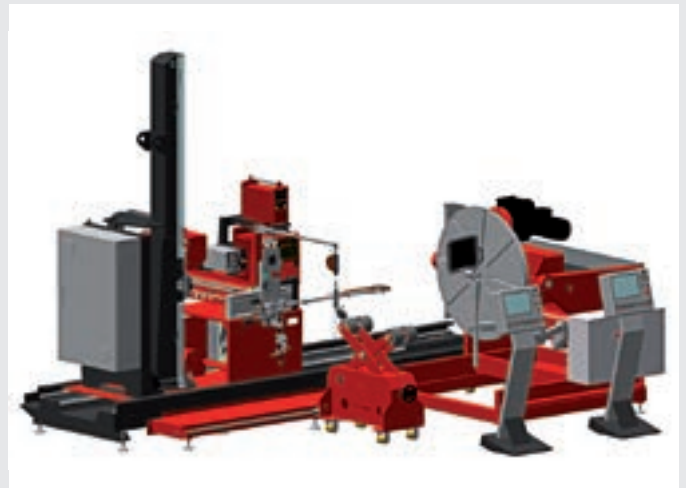
/ Customized Cladding System



/ ETR-S Endless Torch Rotating System



/ Conventional Cladding System



/ Inside Cladding System

/ Perfect Welding / Solar Energy / Perfect Charging

THREE BUSINESS UNITS, ONE GOAL: TO SET THE STANDARD THROUGH TECHNOLOGICAL ADVANCEMENT.

What began in 1945 as a one-man operation now sets technological standards in the fields of welding technology, photovoltaics and battery charging. Today, the company has around 5,440 employees worldwide and 1,264 patents for product development show the innovative spirit within the company. Sustainable development means for us to implement environmentally relevant and social aspects equally with economic factors. Our goal has remained constant throughout: to be the innovation leader.

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