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CEA

TIG

made in italy
SINCE 1950

MATRIX AC/DC

THE PERFECT SOLUTION FOR AC/DC TIG

TIG INVERTER WELDING EQUIPMENT

MATRIX AC/DC are highly technologically advanced TIG power sources with a complete and user friendly interface for the total control of all welding parameters.

MATRIX AC/DC

Excellent performance

MATRIX AC/DC grants excellent TIG welding performance with all metals, including aluminum and its alloys, in the toughest industry and in maintenance application.
TIG DC min current from 1A / TIG AC min Current from 3 A

Complete TIG and MMA feature

MATRIX AC/DC also offer excellent performance in MMA welding with the most difficult basic and cellulosic electrodes.

Other characteristics

- Standard equipped with pulse mode integrated into the control with available “EASY PULSE” features
- HF IGNITION – Intelligent HF ignition grants a more accurate and prompter arc striking in all conditions
- “Energy Saving” to operate the power source cooling fan and the torch water cooling only when necessary
- Reduced weight and size, easy-to-carry
- TIG AC: electrode polarity arc ignition
- MMA DC and MMA AC available

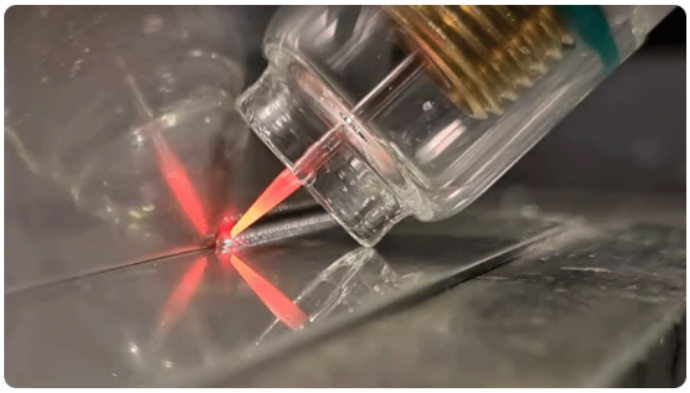
TECHNICAL FEATURES

CONTROL DISPLAY ACDC

- Digital Ammeter and Voltmeter with welding current presetting and Hold Function of the last read value
- Welding process selector: TIG AC, TIG DC, TIG DC “Lift”, MMA DC, MMA AC ICON
- Pulse TIG welding adjustable from 0,5 up to 2000 Hz with available “EASY PULSE” features
- AC square wave balance and Balance Plus
- AC square wave frequency adjustment
- Tungsten electrode diameter presetting for a better control of the arc striking and arc dynamics
- Wave Selector: Square, Mixed, Sinusoidal. Triangular

TIG RCT - RUNNING COLDTACK

RCT is the acronyms of Running cold.TACK; indeed, the TIG RCT process allows to benefit of all the cold.TACK advantages, by repeating the single cold.TACK point in a continuous way, in order to achieve a cold and perfect welding seam.
Using TIG RCT the welding seam is much colder in comparison to the one achievable with Pulse TIG and it represents the ideal solution to weld thin materials with a very low heat transfer. TIG RCT is a direct current process not available in AC welding.



COLDTACK

Innovative spot welding device to achieve precise and safe joining with a minimal thermal input.
Multi-cold.TACK function grants cold spotting in a rapid sequence, thus further widening the benefits of the single spot.
Thanks to Perfect-Point function, cold.TACK allows to obtain the most precise spot positioning.

CYCLE FUNCTION

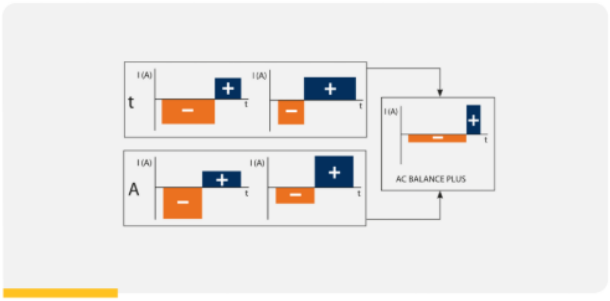
“CYCLE” function allows to continuously switch between two current values, by previously preselected simply pressing the torch trigger. This function is most suitable for welding different thickness profiles, requiring a continuous current adjustment change.

MMA FUNCTIONS

Adjustable Arc Force for choosing the best welding arc dynamics. Adjustable Hot Start to improve the arc striking with difficult electrodes Electrode Anti-sticking function.

BALANCE PLUS

Possibility of independently adjust both current time (t) and its amplitude (A) while staying in either positive or negative polarity, by offering a perfect control of penetration and arc cleaning with a drastic reduction in lateral undercuts.

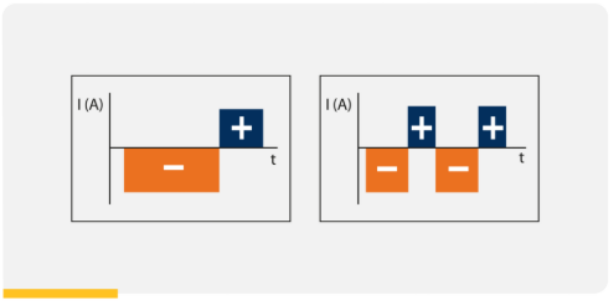


WAVE SHAPES SPECIAL TIG AC FUNCTIONS

DYNAMIC
Square wave: high arc dynamics for all applications
SOFT
Sinusoidal wave: smoother and softer arc with a reduced noise, ideal for medium thickness
SPEED
Mixed wave: optimal penetration at high welding speed and low consumption of the electrode
COLD
Triangular wave: low heat transfer with reduced deformation, ideal for small thickness

FREQUENCY CONTROL IN AC

Frequency adjustment of the various AC wave shapes for better directional control, reduction of the thermally altered area, deeper penetration and electrode lower wearing out.
High level frequency enables to weld very thin material with excellent results. Low frequency is ideal for medium thickness or whenever edge preparation is not accurate.



MMA AVAILABLE IN DC AND AC

Thanks to CEA inverter technology it's possible to perform a great MMA welding not only in DC, but also in AC. This specific feature is standard available and it's the perfect solution to avoid magnetization during the welding process.

NEGATIVE TIG IGNITION

Compared to the traditional positive ignition, it is possible to take advantage of the special negative ignition mode. With this function, possible inclusions can be further reduced during the ignition phase.

Available accessories

DISCOVER ALL AVAILABLE ACCESSORIES

HR 22
032065

HR 23
032060

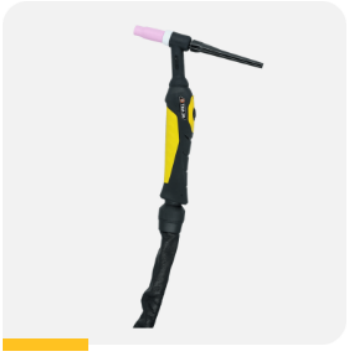
CEA CL-1100
402275A

TROLLEY VT 101
234929

TROLLEY CT 401
234931

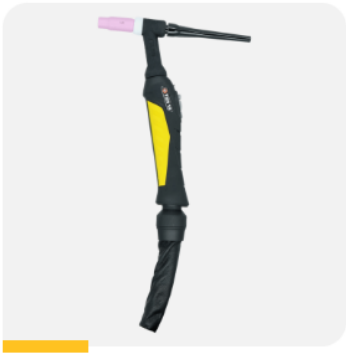
TROLLEY CT 70
234914

TROLLEY CT 75
234928

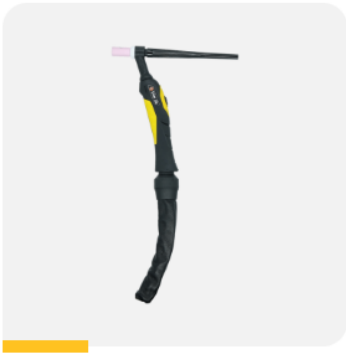


CEA TORCH TXA 26.4
020562

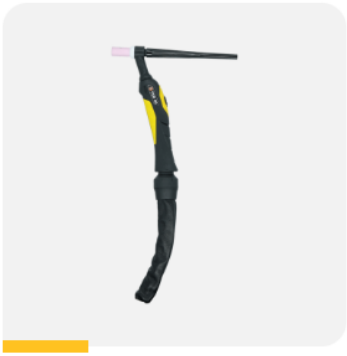
CEA TORCH TXH 18.4
020672



CEA TORCH TXH 18.4 "UP/DOWN"
020677



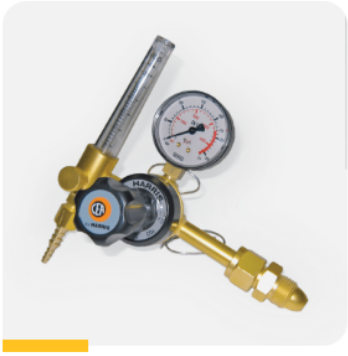
CEA TORCH MINI TXH 20.4
020667



CEA TORCH MINI TXH 20.4 "UP/DOWN"
020680

35 MM² / 4 M GROUND CABLE WITH CLAMP
239601

70 MM² / 4 M GROUND CABLE WITH CLAMP
239607



REDUCER WITH FLOWMETER AND 1 MANOMETER
020916

CD 6/8
236243

PSR7
020919

ADAPTER FOR TORCH AND PSR 7
460056

A6 KIT
460005

Datasheet

MATRIX AC/DC: TECHNICAL FEATURES

TECHNICAL DATA			MATRIX 2200 AC/DC		MATRIX 3000 AC/DC	
			TIG	MMA	TIG	MMA
Single phase input 50/60 Hz	V	+20% -20%	230		–	
Three phase input 50/60 Hz	V	+15% -20%	–		400 (+/- 20%)	
Input power @ I_2 max	kVA		5,6	6,2	9,0	9,6
Delayed Fuse (I_2 @ 100%)	A		16	16	10	10
Power factor / cos φ			0,99/0,99	0,99/0,99	0,93/0,99	0,94/0,99
Efficiency Degree			0,81		0,83	
Open circuit voltage	V		85		85	
Current range	A		1-220	10-180	1-300	10-250
Duty cycle at (40°C)	A 100%		140	120	210	190
	A 60%		180	150	250	220
	A 30%		220	180	300(35%)	250 (40%)
Standards			EN 60974-1 • EN 60974-3 • EN 60974-10			
			S			
Protection Class	IP		23 S		23 S	23 S
Dimensions (LxWxH)	mm		465 x 185 x 390		495 x 185 x 390	
Weight	kg		15,5		19	

WELDING TOGETHER

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BRIDGE 4 COMPANIES
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