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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.



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



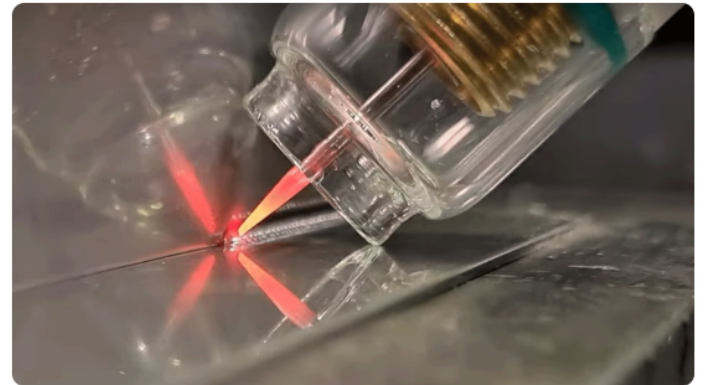
CONTROL DISPLAY ACDC

- 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 acronym 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.





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.

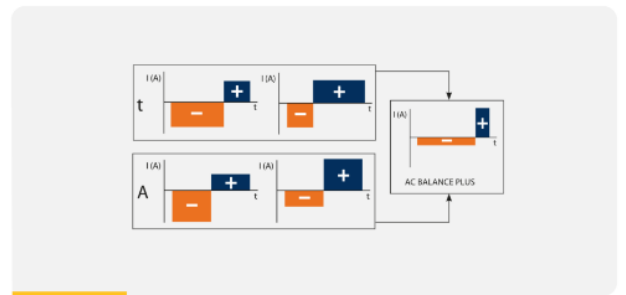


FREQUENCY CONTROL IN AC

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 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.



WAVE SHAPES SPECIAL TIG AC FUNCTIONS

DYNAMIC

Square wave: high arc dynamics for all applications

SOFT

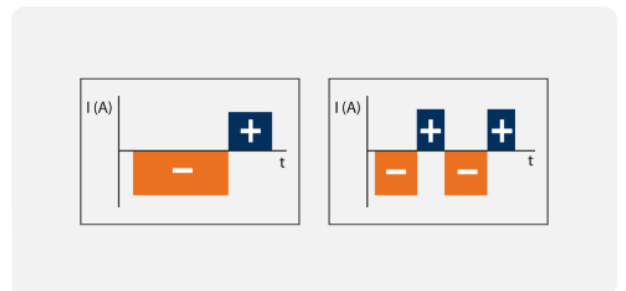
Sinusoidal wave: smoother and softer arc with a reduced noise, ideal for medium thickness

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





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



HR 32
032098



CEA CL-1100
10005A



TROLLEY VT
104929



TROLLEY CT
104931



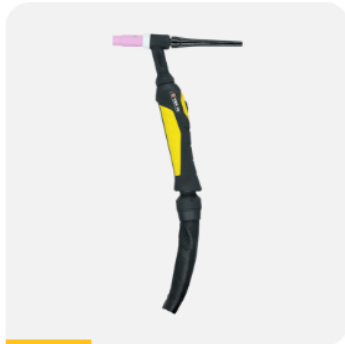
TROLLEY CT
704914



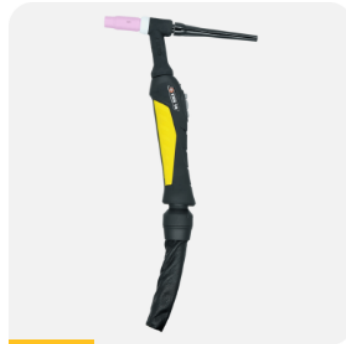
TROLLEY CT
754928



CEA TORCH TXA
20062



CEA TORCH TXH
18062



CEA TORCH TXH 18.4
"UP/DOWN"
020677



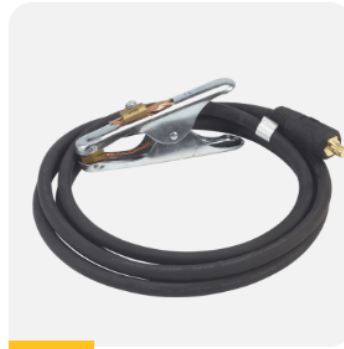
CEA TORCH MINI TXH
20.4
020667



**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
020243



PSR7
020919



**ADAPTER FOR TORCH
AND PSR 7**
460056



**A6
KIT**
460005

MATRIX AC/DC: TECHNICAL FEATURES

TECHNICAL DATA			MATRIX 2200 AC/DC		MATRIX 3000 AC/DC		MATRIX 4100 AC/DC		MATRIX 5100 AC/DC	
			TIG	MMA	TIG	MMA	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%)		400		400	
Input power @ I ₂ max	kVA		5,6	6,2	9,0	9,6	19,0	24,7	26,0	31,0
Delayed Fuse (I ₂ @ 100%)	A		16	16	10	10	32	32	40	50
Power factor / cos φ			0,99/0,99	0,99/0,99	0,93/0,99	0,94/0,99	0,65/0,99	0,67/0,99	0,73/0,99	0,73/0,99
Efficiency Degree			0,81		0,83		0,86		0,87	
Open circuit voltage	V		85		85		85		85	
Current range	A		1-220	10-180	1-300	10-250	1-400	10-400	1-500	10-500
Duty cycle at (40°C)	A 100%		140	120	210	190	350	350	400	400
	A 60%		180	150	250	220	400	400	500	500
	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	23 S	23 S	23 S	23 S
Dimensions (LxWxH)	mm		465 x 185 x 390		495 x 185 x 390		660 x 290 x 515		660 x 290 x 515	



WELDING TOGETHER

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