

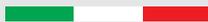


MATRIX X AC/DC

WELDING TOGETHER



WARRANTY
UP TO
5
YEARS

SINCE 1950

MADE IN ITALY



MATRIX X AC/DC

THE ULTIMATE TIG SOLUTION

X VISION INTERFACE

EXCELLENT WELDING PERFORMANCE

FAST ARC CONTROL

AC/DC TIG INVERTER WELDING EQUIPMENT

MATRIX X AC/DC's are high efficiency TIG AC/DC inverter power sources, studied to satisfy the most advance and sophisticate request in the TIG welding market.

MATRIX X AC/DC's are standard equipped with the new X VISION interface, simple and complete, for the total control and monitoring of all the welding parameters.

Their excellent characteristics, coupled with the high technology of the digital control, allow a perfect stability of the welding arc, granting high performance TIG welding in the more sophisticated industrial applications and maintenance.

MATRIX X AC/DC's enable TIG welding of all metals including Aluminium and its alloys and they also offer excellent performance in MMA welding with the most difficult basic and cellulosic electrodes.

The single phase **MATRIX X220 AC/DC**, thanks to the PFC, optimizes the amount of energy consumption by allowing the use of this powerful power source, without problems, with 16 A fuse mains and power generator sets.



CC

Inverter

AC
DC

LCD



VRD
12V



TIG RCT - Running coldTACK

RCT is the acronym of **Running coldTACK**; indeed the TIG RCT process allows to benefit of all the coldTACK advantages, by repeating the single coldTACK 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-coldTACK"** function grants cold spotting in a rapid sequence, thus further widening the benefits of the single spot. Thanks to **"Perfect-Point"** function, coldTACK allows to obtain the most precise spot positioning.



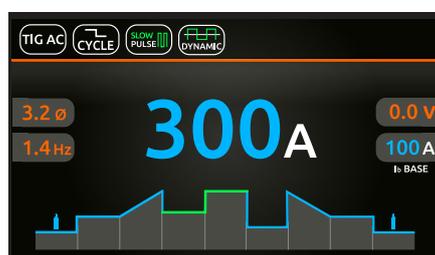
FEAATURES:

- ▶ TIG DC – TIG AC – TIG RCT– MMA DC – MMA AC
- ▶ TIG DC minimum current from 1A and TIG AC starting from 3A
- ▶ Digital adjustment of all welding parameters
- ▶ Excellent welding characteristics in TIG with all material and MMA with any type of electrodes, cellulosic included
- ▶ Smart HF IGNITION to grant more accurate and prompter Arc Striking in all conditions
- ▶ LIFT ARC CURRENT - with possibility to set the value of the starting current in LIFT.
- ▶ Possibility of memorizing welding parameters (99 JOBS)
- ▶ Use of up/down TIG torches will enable to adjust directly from the torch both welding parameters and memorized JOBS
- ▶ Reduced weight and size, easy-to-carry
- ▶ Metallic main structure with shock-proof fibre compound front and rear panel
- ▶ Control panel protected against accidental impact
- ▶ Control rack protection cover
- ▶ Compact water cooling equipment integrable with the power source (optional)
- ▶ Simple automation: TSA1 TIG KIT

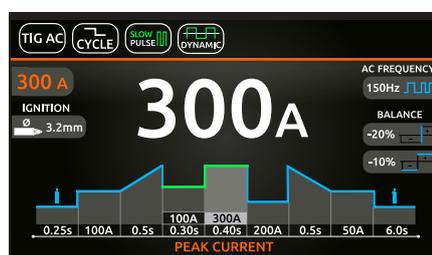
X VISION CONTROL DISPLAY

X vision control display with “ONE CLICK KNOB” encoder for the pre-setting and monitoring of all the welding parameters:

- User friendly interface
- Digital Ammeter and Voltmeter with welding current pre-setting and Hold Function of the last read value
- Welding mode “cycle”
- Personalised welding program storing and recalling
- Possibility of easy copy job/s from one machine to another via USB
- Advance setting infographic



WELDING MODE



WELDING SETTING MODE

Job ID	Current	Mode	HF	IFT	OFF PULSE
J-01	80A	TIG DC	HF	1 2T	OFF PULSE
J-02	150A	TIG AC	4T AUTO	SLOW PULSE	DYNAMIC
J-03	100A	RCT COGTACK	COGTACK	OFF PULSE	OFF PULSE
J-04	125A	TIG AC	4T AUTO	SLOW PULSE	SOFT

ADVANCE JOB MANAGEMENT

PULSE DC MODE

SYN PULSE
SYN PULSE will synergially generate pulse frequency and base current

FAST PULSE
Adjust frequency from 0,5 Hz to 500 Hz

ULTRA FAST - HIGH PULSE FREQUENCY IN DC
Adjust frequency up to 2000 Hz

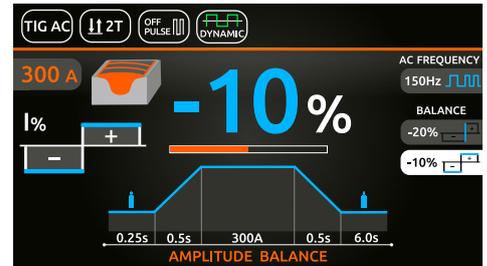
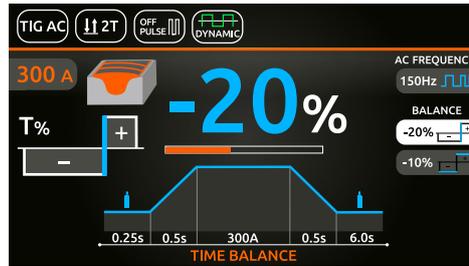
PULSE DC AND AC/DC MODE

SLOW PULSE
Adjust separately current/time of peak and base



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



SPEED

Mixed wave: optimal penetration at high welding speed and low consumption of the electrode



SOFT

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



COLD

Triangular wave: low heat transfer with reduced deformation, ideal for small thickness

ACCESSORIES

- VT 101 trolley for lodging gas cylinder and water cooling equipment
- CT 401 trolley for lodging gas cylinder and water cooling equipment
- HRX 20 - HRX 30 water cooling equipment
- DFX1 Dust Filter
- Up/Down torches
- CD 6 remote control
- PSR 7 foot remote control
- TSA1 TIG Simple Automation KIT

TECHNICAL DATA		MATRIX X AC/DC	
		220	300
Single phase input 50/60 Hz	V	230 +20% -20%	
Three phase input 50/60 Hz	V		400 +20% -20%
Input Power @ I ₂ Max		6,5	9,6
Delayed Fuse (I _{eff})	A	16	10
Power Factor / cos φ		0,99/0,99	0,95/0,99
Efficiency Degree		0,80	0,82
Open circuit voltage	V	85	85
Current range	A	1 - 220	1 - 300
Duty cycle at (40°C)	A 100%	140	210
	A 60%	180	250
	A X%	220 (30%)	300 (35%)
Standards		EN 60974-1 • EN 60974-3 • EN 60974-10	
Protection Class	IP	23 S	23 S
Insulation Class		F	F
Dimensions	↗ mm	530	
	→ mm	215	
	↑ mm	410	
Weight	kg	20,0	21,5



VT 101



CT 401



HRX 20 - HRX 30



DFX1



Up/Down torches



CD 6



PSR 7



TSA1

