



MATRIX X HF

THE ULTIMATE SOLUTION FOR DC TIG



MATRIX X HF are high efficiency TIG HF inverter power sources, studied to satisfy the most advanced and sophisticated request in the TIG welding market.

MATRIX X HF 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 HF enable TIG welding of mild and stainless steel, copper and its alloys and they also offer excellent performance in MMA welding with the most difficult basic and cellulosic electrodes.

Thanks to PFC the single phase **MATRIX X 220 HF** optimizes the amount of energy consumption by allowing the use of this powerful power source with 16 A fuse mains and power generator sets.



- X Vision interface
- Excellent welding performance
- Fast arc control



MATRIX X HF FEATURES

- TIG DC minimum current from 1A
- 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.
- 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
- Control rack protection cover
- Compact water cooling equipment integrable with the power source (optional)
- Simple automation: TSA1 TIG KIT (Optional)

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.



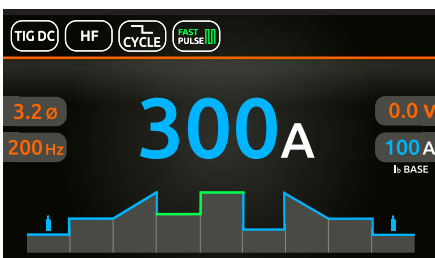
X VISION CONTROL DISPLAY

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

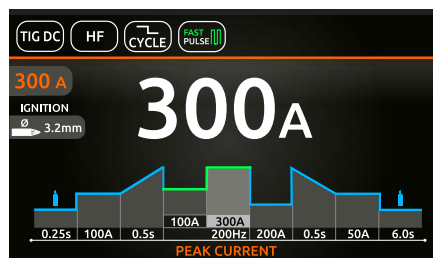
- User friendly interface
- Digital Ammeter and Voltmeter with welding current pre-setting and Hold Function of the last read value
- Welding mode "cycle"
- Personalised welding program storing and recalling
- Possibility of copying job/s easily from one machine to another via USB
- Advance setting infographic



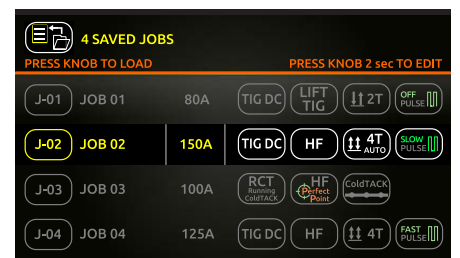
WELDING MODE



WELDING SETTING MODE



ADVANCE JOB MANAGEMENT



PULSE 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

Adjust frequency up to 2000 Hz



SLOW PULSE

Adjust separately current/time of peak and base



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.

CYCLE FUNCTION

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

TECHNICAL DATA		MATRIX X 220 HF		MATRIX X 300 HF	
		TIG	MMA	TIG	MMA
Single phase input 50/60 Hz	V +/- 20%	230		-	
Three phase input 50/60 Hz	V +/- 20%	-		400	
Input Power @ I ² Max	kVA	5,2	6,0	8,5	8,5
Delayed Fuse (I eff)	A	16	16	10	10
Power Factor / cos φ		0,99/0,99	0,99/0,99	0,96/0,99	0,95/0,99
Efficiency Degree		0,84		0,87	
Open circuit voltage	V	85		85	
Current range	A	1 - 220	10 - 180	1 - 300	10 - 270
Duty cycle at (40°C)	A 100 %	160	120	210	200
	A 60 %	190	150	250	230
	A X %	220 (30%)	180 (30%)	300 (35%)	270 (35%)
Standards		EN 60974-1 • EN 60974-3 • EN 60974-10			
Protection Class	IP	23 S		23 S	
Dimensions (L x W x H)	mm	530 x 215 x 410		530 x 215 x 410	
Weight	Kg	18		20	

ORDER INFORMATION

CODE	DESCRIPTION	MATRIX X			
		220 HF		300 HF	
		AIR	WATER	AIR	WATER
POWER SOURCE					
004507	Power source MATRIX X 220 HF 230V 1 Phase X Vision control	●	≈		
004560	Power source MATRIX X 300 HF 400V 3 Phase X Vision control			●	≈
TIG TORCH					
020562	CEA Torch TXA 26.4 4 m - 250 A 60% (DC)	●		●	
020662	CEA Torch TXA 26.4 "UP/DOWN" 4 m - 250 A 60% (DC)				
020667	CEA Torch Mini TXH 20.4 4 m - 250 A 100% (DC) - water cooled		≈		≈
020680	CEA Torch Mini TXH 20.4 "UP/DOWN" 4 m - 250 A 100% (DC) - water cooled				
020672	CEA Torch TXH 18.4 4 m - 320 A 100% (DC) - water cooled				
020677	CEA Torch TXH 18.4 "UP/DOWN" 4 m - 320 A 100% (DC) - water cooled				
<i>For torches with 8 m long cable see tig accessories</i>					
TROLLEY					
234929	Trolley VT 101 with 2 rolls for power source, cooling equipment and cylinder	●	≈	●	≈
234931	Trolley CT 401 with 4 rolls for power source, cooling equipment and cylinder				
WATER COOLING					
032120	Water cooling equipment HRX 20 230 V		≈		
032115	Water cooling equipment HRX 30 400 V				≈
402275A	Cea CL-1100 cooling liquid - 5 l Tank		≈		≈
GROUND CABLES					
239601	35 mm ² / 4 m Ground cable with clamp	●	≈	●	≈
GAS REDUCERS					
020916	Reducer with flowmeter and 1 manometer	●	≈	●	≈
OPTIONAL					
031118	TSA1 TIG Simple Automation KIT - (Torch trigger - Arc On - Current Adj. 0-10V)				
353485	DFX1 Dust Filter for MATRIX X				
236243	CD 6/8 8 m remote control with geared down potentiometer				
020919	PSR 7 5 m foot remote control				
460056	Adapter for simultaneous connection of Torch and PSR 7				
460005	A6 Connection kit for non-standard Torch				
	MATRIX X 220 HF Suggested air cooled version with torch	●			
	MATRIX X 220 HF Suggested water cooled version with torch		≈		
	MATRIX X 300 HF Suggested air cooled version with torch			●	
	MATRIX X 300 HF Suggested water cooled version with torch				≈



VT 101 trolley for lodging gas cylinder and water cooling equipment



CT 401 trolley for lodging gas cylinder and water cooling equipment



PSR 7 5 m foot remote control



CD6/8 8m remote control with geared down potentiometer