



75  
1950  
2025

ANNIVERSARY

arc welding catalogue

2025

SINCE 1950



WELDING TOGETHER



CEA

# arc welding catalogue

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## 2025



[www.ceaweld.com](http://www.ceaweld.com)

PROUD OF  
OUR HISTORY



CEA, founded by Ezio Annettoni in 1950, is one of the worldwide leaders for the design and manufacture of Arc and Resistance welding machines and Plasma cutting equipment for the industrial market.

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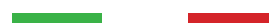
CEA is WELDING TOGETHER. Our mission is to stand side by side our customers, offering the best solutions to their needs in every moment by providing innovative welding and cutting equipment with excellent performances and an outstanding and functional design.

We believe that a sustainable approach with care for the environment and the people that work and weld with us always ensures a better product.

CEA has three divisions:



made in italy  
SINCE 1950



## CERTIFICATION AND STANDARDS



CEA has its quality management system ISO 9001 certified since 1994.



All CEA products are CE marked, therefore compliant with all EU Directives and Standards. In particular CE marking implies the conformity to the following main Directives:

2014/35/EU (LVD)  
2014/30/EU (EMC) - (CISPR 11) A Class.  
2011/65/EU (RoHS)  
2009/125/EU (Eco-Design)



CEA products have been designed and built according to the following harmonized standards:

IEC 60974-1	EN 60974-1	Welding power sources.
IEC 60974-2	EN 60974-2	Liquid cooling systems.
IEC 60974-3	EN 60974-3	Arc striking and stabilizing devices.
IEC 60974-5	EN 60974-5	Wire feeders.
IEC 60974-7	EN 60974-7	Torches.
IEC 60974-10	EN 60974-10	Electromagnetic compatibility (EMC).





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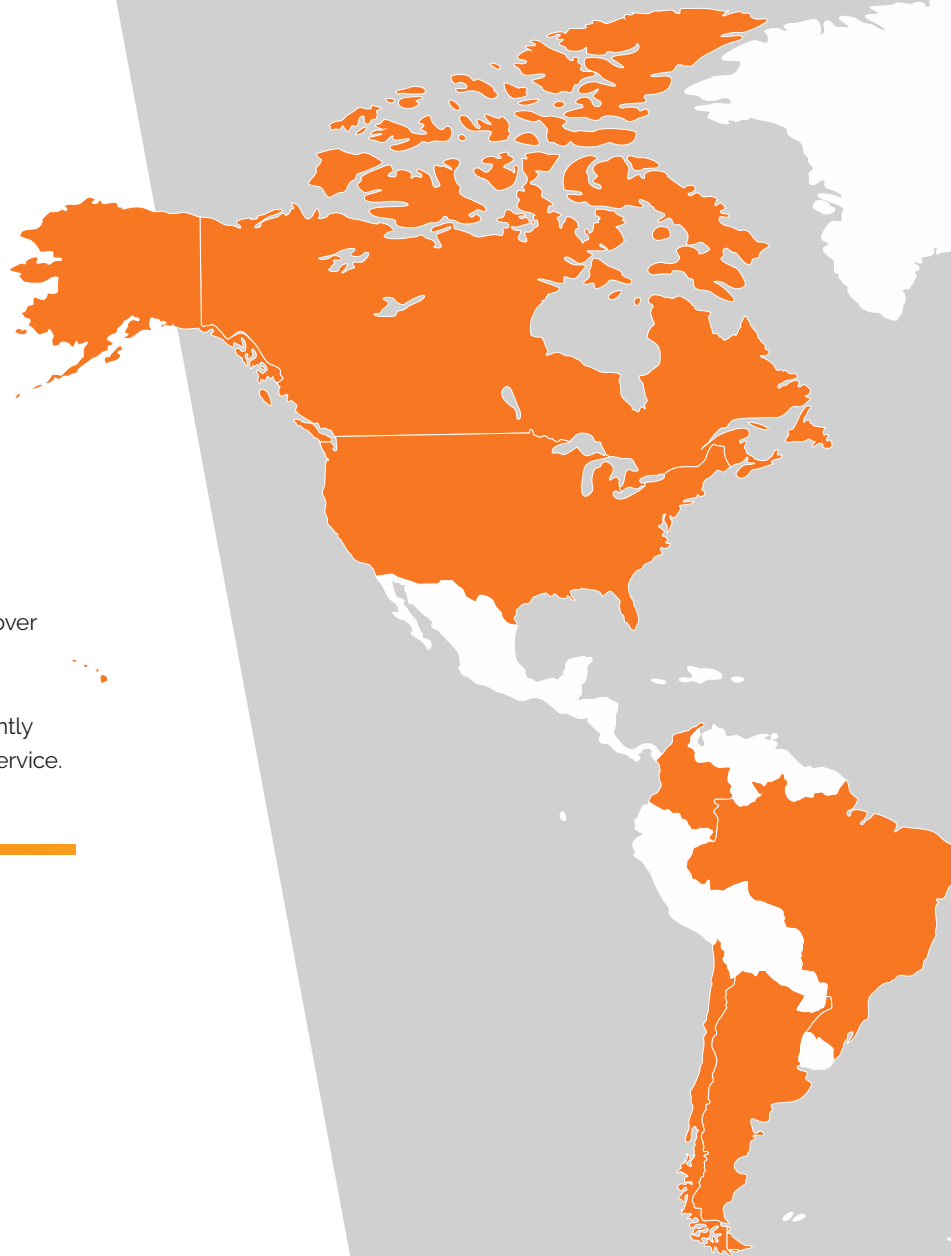
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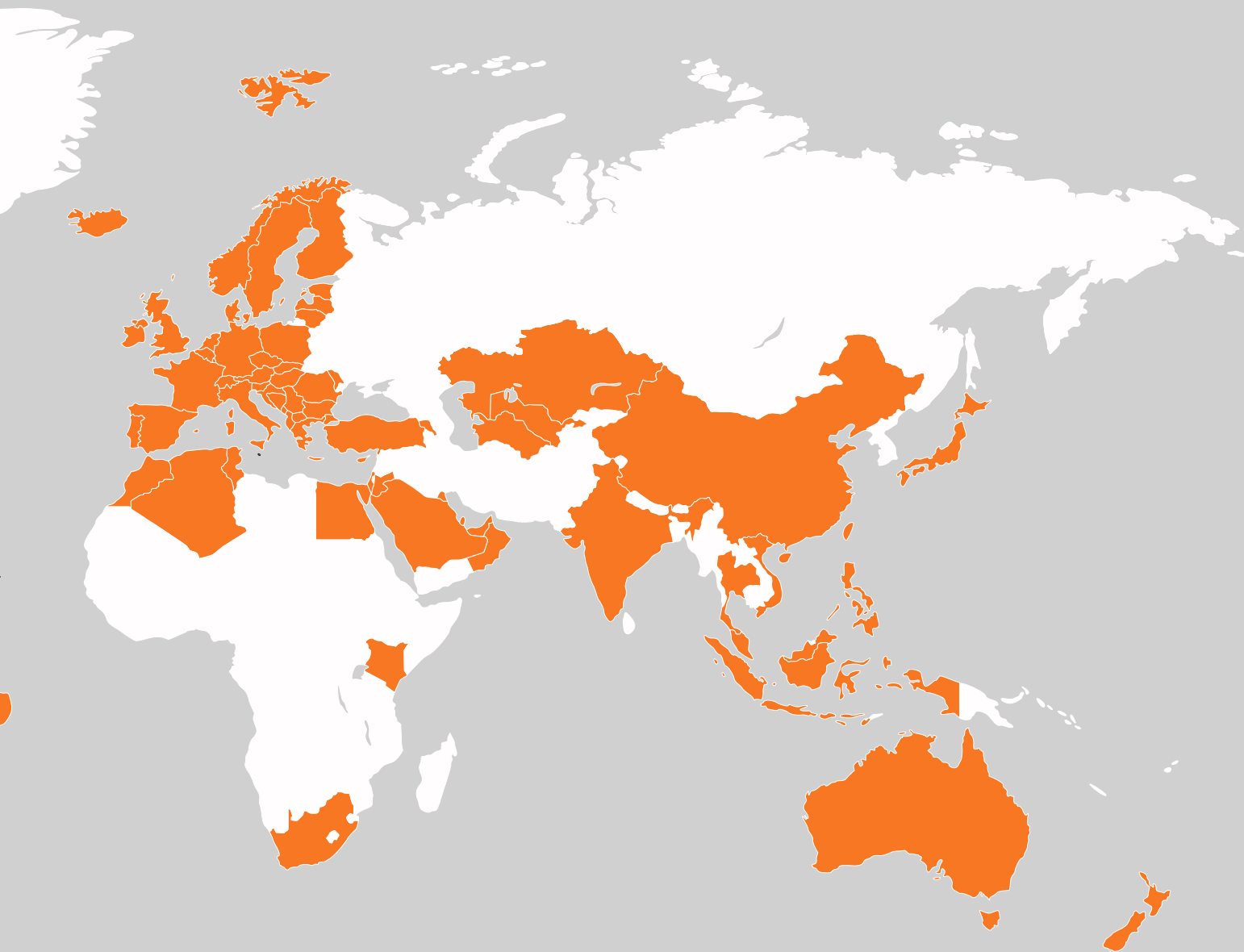
## A Global Presence

In over 70 years of history, CEA has built long lasting relationships with distributors and service centres in over 70 countries to satisfy the needs of all markets.

CEA's service centres are highly qualified and constantly updated to ensure a prompt and efficient after sale service.

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## A sustainable choice for the future

CEA GOES GREEN is not a mere slogan, but the hallmark that highlights the goal to create value for our customers through sustainable and innovative products.

Throughout its history, CEA has always put effort to reduce the environmental footprint of its activities and products thanks to the implementation of strategies to promote a more sustainable development.

- Focus on high-efficiency welding processes
- Renewable sources to produce electricity
- Eco-sustainable technologies for industrial production
- Use of recycled materials

## Carbon neutral

Thanks to investments in renewable sources, CEA is on the path to become carbon neutral; a goal that is partly already been achieved. A photovoltaic system of 350 kWp allows us to produce energy annually for 320 MWh, a value higher than our internal energy consumption, making CEA self-sufficient from an electric energy standpoint.

## High efficiency technology

The latest generation inverter technology and the development of new arc control software allows us to offer products with efficiencies that fully meet the energy-saving requirements of the ECODSIGN directive. In particular, the use of the new special welding processes "vision." enables welding to be carried out more quickly with lower heat input than traditional processes, guaranteeing energy savings often not considered.

CEA GOES GREEN identifies CEA products that meet our sustainability standards.

- Energy-efficient products
- Compliance with regulations for environmental protection.
- Care in the choice of components
- Use of paints with low environmental impact
- Low weights and dimensions for low shipping, disposal and recycling costs
- Use of recycled or recyclable material in all our packaging systems





The new European Directive 2009/125/EC, better known as the ECODESIGN Directive, implements new standards of efficiency and eco-compatibility of welding machines. All CEA products market with the logos CEA GOES GREEN and ECODESIGN meet these requirements and thanks to their high efficiency, they perfectly comply the request of efficiency of the ECODESIGN directive.

ECODESIGN 2023	MINIMUM POWER SOURCE EFFICIENCY	MAXIMUM Idle STATE POWER CONSUMPTION
Welding equipment powered by three-phase power sources with direct current (DC) output	85 %	50 W
Welding equipment powered by single-phase power sources with direct current (DC) output	80 %	50 W
Welding equipment powered by single-phase and three-phase power sources with alternating current (AC) output	80%	50 W



# Innovation and Technology

Unique for its extensive range, CEA is always ahead in technological innovation, being large resources constantly invested in research and development. Excellent welding characteristics, continuous innovation, reliability, design and care for the industry's needs are the secrets of CEA's growing worldwide success.





# Bridge 4 Companies

A COMMON SPIRIT



Welding machines. Robotics. Sawing machines. Metal sheet working. Apparently different sectors and distinct commercial networks, but they share many similarities. The companies that make up **Bridge4Companies** are above all united by the same passion and the same attention to the customer.

**B4C** is an aggregate of companies linked by the same spirit whose common denominator is the Annettoni family, historical owner and founder of **CEA**.

Through great synergy, **B4C** has been able to create and grow over the years an aggregate of companies that now boasts important numbers.



The 4 companies are: **CEA**, worldwide brand focused on industrial welding and plasma cutting, **TECNOROBOT**, specialized in customised welding robotic systems, **IMET**, bandsaws, circular saws and innovative systems for metal cutting, and **LAMETEC**, metal sheet working.

**Bridge4Companies** counts more than 250 employees and sales in over 100 countries.

**B4C** is proof of the 4 companies' great attachment to the territory overlooking the edge of Lake Lecco and along Adda River's course, which, through great passion for their work and continuous research of quality, have managed to assert themselves on all major world markets.

[www.bridge4companies.com](http://www.bridge4companies.com)











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# ARC CONTROL SOFTWARE

## VISION.ARC

**vision.COLD**  
**vision.ULTRASPEED**  
**vision.POWER**  
**vision.PIPE**

vision.ARC is the innovative arc control which ensures outstanding welding performances with greater wire deposit, higher speed and reduced thermal dilatation.

74 years of experience in welding technology allowed CEA to develop this software for controlling arc dynamics and guarantee excellent performances in all MIG-MAG and MIG pulsed applications (vision.PULSE and dual.PULSE).

With the vision.ARC, the electric arc is monitored continuously by the microprocessor which manages the welding process in real time: all the parameters are processed and modified

in a few microseconds, by the control that digitally manages the short circuits typical of MIG-MAG welding, keeping the arc stable and precise in despite of any change of the external conditions.

In this way, torch movement, irregularities of parts to be welded and other factors do not influence the final result at all.

The welding process is always under control from arc striking, by Wire Start Control (WSC), to when the arc is interrupted by Burn-Back Control.

vision.ARC is the support basis for special welding processes vision.MIG.

## vision.ARC

## VISION.ARC2

**vision.COLD**  
**vision.ULTRASPEED**  
**vision.POWER**  
**vision.PIPE**  
  
**vision.PULSE-POWER**  
**vision.PULSE-RUN**  
**vision.PULSE-UP**

vision.ARC2 is the evolution of the vision.ARC software for the arc control, developed by CEA to achieve a more perfect and stable arc, together with a superior correction in the control of the impulse in the PULSE welding application.

vision.ARC2 allows the power source control to operate in a more precise and faster way, thus granting an absolute constant arc and a perfect detachment of the droplet, mostly in MIG pulsed and dual pulsed.

vision.ARC2, not only supports perfectly all vision.MIG special welding processes, but also it is the software platform, which enabled the development of the new special vision.PULSE-MIG processes.

The main advantages of vision.ARC2 versus the previous version are the following:

- improved arc stability
- optimization of the impulse characteristics
- quick and precise control of the short-circuits, whenever welding with a very short arc
- faster welding speed
- further reduced heat input



### vision.PULSE

## vision.PULSE

vision.PULSE allows a constantly controlled short arc pulse welding, by optimizing the results of traditional pulse welding.

This enables to reduce the high heat input, typical in pulse welding, with a consequent reduction in distortions, an improvement off the puddle and considerable increase in welding speed too.

### dual.PULSE

## dual.PULSE

dual.PULSE favours a further reduction in the heat transfer to the workpiece by minimizing its deformation and it produces premium quality aesthetic beads similar to TIG finishing. dual.PULSE is extremely useful when welding Aluminium and stainless steel.

# SPECIAL WELDING PROCESSES

## MIG/MAG WELDING



**vision.COLD**  
for low heat  
transfer MIG/MAG  
welding



**vision.ULTRASPEED**  
to weld small and  
medium thickness  
at a far higher  
speed



**vision.PIPE**  
for more accurate  
welding in pipe  
first root pass



**vision.POWER**  
to obtain deeper  
penetration on  
medium and large  
thickness material

## PULSED MIG WELDING



**vision.PULSE-POWER**  
for a deeper and  
more flattened  
welding bead on  
medium large  
thickness



**vision.PULSE-RUN**  
for a faster and  
colder pulse  
welding



**vision.PULSE-UP**  
for a faster and  
more precise  
vertical up welding



# vision.COLD

## LOW HEAT TRANSFER MIG/MAG WELDING

vision.COLD is an innovative low heat transfer MIG/MAG process, developed by CEA for welding thin thickness lamination sheets and for MIG brazing in all welding positions.

Thanks to supplied synergic programs, vision.COLD allows very high quality welding of thin sheets and its optimized arc ensures no deformation with minimal modification of the metallurgical characteristics of the joints.

vision.COLD software is also an excellent solution for welding open gap joints.

### ADVANTAGES

- Welding of high carbon and highly alloyed steel thin sheets
- High speed in welding joints versus traditional short arc MIG/MAG
- Very contained damage to zinc coated layer in Mig Brazing
- Significant reduction of heat input in welding joints with minimal deformation of the workpieces
- Lack of spatters and projections during the short circuit phase
- Vertical up or vertical down welding with perfect edge joints

### APPLICATIONS

- Welding of thin thickness laminations with low heat transfer
- Open gap joints in all positions
- MIG brazing with low heat transfer
- Welding of stainless steel



# vision.ULTRASPEED

## HIGH SPEED MIG/MAG WELDING

vision.ULTRASPEED is an innovative MIG/MAG process developed by CEA for welding steel and non ferrous materials which, thanks to the arc increased magnetic strength and a narrower arc cone, allows a remarkable increase in welding speed.

This process grants an inferior overheating of the base material with less shrinkage tension and consequently less workpiece reworking and finishing job.

vision.ULTRASPEED allows to replace short-arc and mixed-arc MIG/MAG with a remarkable increase in the welding job completion.

### ADVANTAGES

- Very high welding speed
- Welding of medium thickness carbon steel, stainless and Aluminium
- Narrower welding beads with less filler material and shielding gas
- Reduction of heat input in the welding puddle
- Lack of spatters and projections in wire deposition

### APPLICATIONS

- Light and medium fabrication work
- Manufacture of mild and stainless steel and Aluminium
- Automotive industry
- Petrochemical industry
- Food industry
- Railway wagon manufacturing
- Small medium size tank and container construction







# vision.PIPE

## PIPE FIRST ROOT PASS AND OPEN GAP MIG/MAG WELDING

vision.PIPE is the innovative MIG/MAG process developed by CEA for first root pass whenever butt-joining pipes in all positions. The supplied vision.PIPE synergic programs grant extremely high quality performance with an optimized arc for welding pipes in a precise and safe way also whenever having to deal with larger size open gap joints. vision.PIPE process enables to replace MMA and TIG processes with a far shorter welding time. vision.PIPE package is also an ideal solution for welding laminations with open gap joints.

### ADVANTAGES

- Perfect and safe welding in first root pass
- Far higher welding performance speed versus TIG & MMA processes
- Precise arc control in welding pipes and laminations with any thickness and in all positions
- Significant reduction of heat input in welding joints
- Possibility of first root pass welding without any backing
- Less care in edge beveling preparation prior to welding
- Easy welding process, easy to learn and use
- No longer obligation of employing highly qualified personnel as imposed by TIG and MMA processes
- Welding process continuity
- Vertical up or vertical down welding with perfect edge joints

### APPLICATIONS

- Pipe first root pass
- Welding open gap laminations on all positions.



# vision.POWER

## HIGH PENETRATION MIG/MAG WELDING

vision.POWER is the innovative MIG/MAG process developed by CEA for welding medium large thickness steel and non ferrous materials (Aluminium, copper, etc.), whenever high penetration is required. By means of this special welding process, the arc cone becomes narrower, therefore its pressure is concentrated on a smaller area of the workpiece, thus heavily increasing the penetration. vision.POWER more concentrated arc is ideal for fillet welding and to enter into very narrow joints requiring a very long stick-out. vision.POWER enables to replace MIG/MAG spray arc welding with a remarkable increase in penetration and faster welding execution too.

### ADVANTAGES

- Deeper penetration at same welding current being used
- Far higher welding speed versus spray-arc MIG/MAG process
- Less consumption of filler material and shielded gas
- Heat transfers heavy reduction to eliminate hot cracking in the workpiece material
- Less welding passes thanks to reduced angle sizes in the edge beveling
- Far less risk of different solid material inclusion into the welding bead
- Lack of porosity and blow holes
- No filler material over depositing in butt joints
- Total lack of spatters and metallic projections

### APPLICATIONS

- Medium and heavy fabrication work
- Mild steel, stainless large erection works
- Ideal for welding in narrow gaps, where longer stick out is necessary
- "T" fillet welding
- Manufacture of heavy duty trucks and vehicles





# vision.PULSE-UP

## VERTICAL UP PULSED WELDING

vision.PULSE-UP is the newly developed special process dedicated to vertical up welding. Thanks to the fine-tuned and well-balanced combination between MIG Pulse and a special MIG process it is now possible to affect this type of welding in an easy and economical way too, with a far greater travel speed if compared to the traditional and typical triangular welding up technique, the so called "Christmas tree". By using vision.PULSE-UP special process, MIG Pulse grants the perfect melting of the material without any spatter or short circuits, whilst MIG process, thanks to its low heat input, allows to properly solidify and smoothly shape deposited material. Final result consists of a narrower, well-dimensioned and defect-free bead.

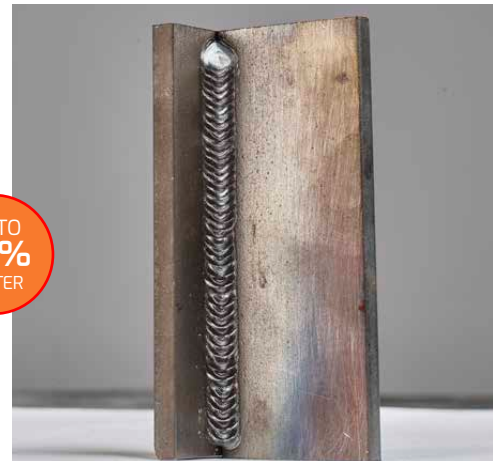
### ADVANTAGES

- Faster welding speed and excellent performances in vertical up
- Straightforward welding instead of the "Christmas tree" technique
- Perfect melting of the top edge
- Low heat transfer on low thickness material
- Faster welding speed versus TIG welding for first root passes

### APPLICATIONS

- Vertical up welding of all metals
- Positional welding of medium-small thickness material
- Large gap joint welding
- MIG brazing with low heat transfer
- Stainless steel welding

UP TO  
**40%**  
FASTER



# vision.PULSE-RUN

## HIGH SPEED PULSED WELDING

vision.PULSE-RUN is the new special process appositely conceived in order to combine the advantages of pulse welding together with a faster travel speed while welding alloyed or low alloyed steel and Aluminium. The fine-tuned and well-balanced combination between MIG Pulse and vision.ULTRASPEED processes now enables to greatly increase welding job completion, while maintaining unchanged both aesthetic and metallurgical characteristics of pulse welding. By using vision.PULSE-RUN special process, MIG Pulse grants the perfect melting of the material without any spatter or short circuits, whilst the combined use of vision.ULTRASPEED allows to reduce the heat input and to increase welding speed, thus resulting into a well-dimensioned defect-free bead obtained in a far quicker time versus traditional pulse welding.

### ADVANTAGES

- Faster welding speed (40% more versus traditional MIG pulse)
- Better control of the puddle at high-speed welding
- Low heat transfer to the workpiece
- Better penetration

### APPLICATIONS

- Steel, stainless and Aluminium component welding
- Fabrication work
- Steel erection
- Petrochemical
- Food industry
- Railway wagon manufacture
- Small dimension tanks and containers





# vision.PULSE-POWER

## HIGH PENETRATION PULSED WELDING

vision.PULSE-POWER is the new special process developed for welding medium-large thickness steel and non-ferrous materials, whenever high penetration, coupled with a very smooth bead, is required.

The fine-tuned and well-balanced combination between MIG Pulse and vision.POWER processes now allows to perform the welding operation in a simple and quick way with a substantial reduction of any melting defects in the puddle and even the heat affected area is greatly reduced to the minimum.

By utilizing vision.PULSE-POWER special process, MIG Pulse grants the perfect melting of the material without any spatter or short circuits, whilst vision.POWER favours a greater penetration and an increase in the welding speed, coupled with a minor heat input and an easier control on the deposited material.

The result is a very smooth, well-penetrated and defect-free bead.

Besides, by using this new process, the operator will be able to simply weld straightforward, i.e. without any torch manipulation at all.

### ADVANTAGES

- Deeper penetration
- Wide and smoothly shaped welding bead
- Faster welding speed
- Low heat transfer and less deformation of the workpiece material
- No undercut at all and improved edge finishing
- Straightforward welding technique without any torch manipulation
- Less consumption of both filler materials and shielding gas
- Less fume emission

### APPLICATIONS

- Positional welding of medium-large thickness material
- "T" fillet welding
- Medium and large fabrication work
- Heavy duty truck and vehicle manufacture
- Shipyards
- Railway wagon fabrication
- Large size tank and container manufacture



## SPECIAL WELDING CURVES



# EXTRA CURVE PACKAGE

E.C.P. is the acronym for EXTRA CURVE PACKAGE and it is a MIG special package created by CEA's welding experience in real welding scenario. This interesting solution makes available a group of additional synergic programs not included in CEA MIG synergic standard equipments. Thanks to E.C.P. it is possible to take advantage of dedicated curves for your special application and wires.



# TREO / TREOSTAR PULSE

WELDING PERFORMANCE OVER THE EXPECTATION



**TREO**



**TREOSTAR PULSE**

**TREO** is high performance multiprocess (MIG/MAG, MMA and TIG "Lift") single phase synergic inverter equipment.

**TREOSTAR PULSE** additionally enables to weld also with PULSE and DUAL PULSE.

**TREO**, with a simpler interface **TREOSTAR PULSE** offer high quality welding characteristics on all materials and mostly on stainless steel, Aluminium and zinc coated steel, by really minimizing any reworking job caused by spatters.

Versatile, light, easy-to-carry and user friendly, **TREO** and **TREOSTAR PULSE** power sources, because of their high technological conception, are unique in any external and internal maintenance application, car body repair, agriculture and light fabrication work.



vision.PULSE

dual.PULSE

- Multi-process synergic equipment
- High welding performance
- Great flexibility in use and portability

## TREO / TREOSTAR PULSE FEATURES

- Digital control of the welding parameters with synergic curves preset according to used type of material, gas and wire diameter
- User friendly and easy-to-use selection and recalling of the parameters and welding programs
- Built-in polarity changeover facility for most common gas and gasless wires
- Control rack protection cover
- Smart "PROGRAM" key for quickly selecting any program
- Professional wire feeding mechanism with Ø 37 mm large rolls
- Double groove rolls replaceable without any tool
- "Energy saving" function to operate the power source cooling fan only when necessary ( Treostar Pulse )
- Possibility of using Ø 300 mm coils by means of the Retrofit Kit (optional)



TREOSTAR PULSE





TECHNICAL DATA		TREO 181			TREOSTAR 2000 PULSE		
		MIG/MAG	TIG	MMA	MIG/MAG	TIG	MMA
Single phase input 50/60 Hz	V +10% -10%		230			230	
Input Power @ I <sub>2</sub> Max	kVA	8,2	6,4	7,4	10,1	6,3	9,4
Delayed Fuse (I eff)	A		16			16	
Power Factor / cos Φ			0,67/0,99			0,64/0,99	
Efficiency Degree			0,82			0,80	
Open circuit voltage	V		80			60	
Current range	A	15 - 180	10 - 180	10 - 160	10 - 200	5 - 175	10 - 175
Duty cycle at (40°C)	A 100 %	75	75	75	100	100	90
	A 60 %	100	100	100	115	115	110
	A X %	180 (15%)	180 (15%)	150 (15%)	200 (15%)	175 (20%)	175 (10%)
Wires	Ø mm	0,6 - 1,2	-	-	0,6 - 1,2	-	-
Coil	Ø mm	200max (300*)	-	-	200max (300*)	-	-
Standards		EN 60974-1 • EN 60974-5 • EN 60974-10 • [S]			EN 60974-1 • EN 60974-5 • EN 60974-10 • [S]		
Protection Class	IP	23 S			23 S		
Dimensions (L x W x H)	mm	500 X 220 X 425			500 X 220 X 425		
Weight	Kg	14,5			16		

\* optional



031162 + 420430 - Retrofit kit adaptor for Ø 300 mm wire spool kg 15



234929 - Trolley VT 101 for power source and cylinder



TREO 181



TREOSTAR PULSE

## ORDER INFORMATION

CODE	DESCRIPTION	TREO 181	TREOSTAR 2000 PULSE
POWER SOURCES WITH TORCH			
003852	Power Source <b>TREO 181</b> 230V-1 ph for Ø 200 mm wire spool; interchangeable polarity; complete with: C 15 3m CEA torch, 16 mm <sup>2</sup> / 3 m Ground cable and rolls for wire Ø 0,6/0,8 mm	●	
003876	Power Source <b>TREOSTAR 2000 PULSE</b> 230V-1 ph for Ø 200 mm wire spool; interchangeable polarity; complete with: C 25 3m CEA torch, 16 mm <sup>2</sup> /3 m Ground cable and roll for wire Ø 0,6/0,8 mm		●
POWER SOURCES WITHOUT TORCH			
003851	Power Source <b>TREO 181</b> 230V-1 ph for Ø 200 mm wire spool; interchangeable polarity; 16 mm <sup>2</sup> / 3 m Ground cable and rolls for wire Ø 0,6/0,8 mm		
003875	Power Source <b>TREOSTAR 2000 PULSE</b> 230V-1 ph for Ø 200 mm wire spool; interchangeable polarity; 16 mm <sup>2</sup> / 3 m Ground cable and rolls for wire Ø 0,6/0,8 mm		
ALUMINIUM KIT			
031145	<b>Aluminium Welding Kit</b> for C 25 3m composed by Carbon-Teflon Liner - 1 roll for wire Ø 0,8-1,0		
MIG MAG WELDING TORCHES			
020458	CEA Torch <b>CX 251/3</b> 3 m wire Ø 0,6/1,0 CO2 260A @60% / Mix 200A @60%		
020459	CEA Torch <b>CX 251/4</b> 4 m wire Ø 0,6/1,0 CO2 260A @60% / Mix 200A @60%		
020421	CEA Torch <b>C 25/3</b> 3 m wire Ø 0,6/1,0		
TIG TORCH WITH BUILT-IN GAS VALVE FOR TOUCH-START TECHNIQUE ( For other torches see mig/mag torches)			
020558	Torch <b>RTX 17.4</b> 4 m - 140 A 35%		
TROLLEY			
234929	Trolley <b>VT 101</b> for power source and cylinder		
GAS REDUCERS			
020855	Reducer with 2 manometers	●	●
RETROFIT FOR Ø 300 MM WIRE SPOOL			
031162	Retrofit kit adaptor for Ø 300 mm wire spool		
420430	Complete spool cover		
236590	Metallic spool adaptor		
OTHER OPTION[S]			
460281	3+2m 16 mm <sup>2</sup> cables with electrodeholder pincer, ground clamp, 50mm <sup>2</sup> connections brush/hammer, shield with lens		
201752	Kit of 2 male 50 mm <sup>2</sup> safety connections		
	TREO 181 Suggested air cooled version with torch	●	
	TREOSTAR 2000 PULSE Suggested air cooled version with torch		●

# SMART / SMARTCAR PULSE

SPECIAL DESIGN FOR AN INNOVATIVE  
COMPACT EQUIPMENT



SMART



SMARTCAR PULSE

**SMART** are a new MIG/MAG compact power source with conventional manual adjustment of the parameters, while **SMARTCAR PULSE** are a new multiprocess synergic power sources for welding in MIG/MAG, MMA and TIG with "Lift" mode characterized by an innovative user-friendly design.

**SMART** and **SMARTCAR PULSE** combine ergonomics and ease of use with an incredible welding quality with a precise and stable arc in all situations, which makes them perfect for all qualified welding applications, especially in metal sheet working, car body repair sector, agriculture and maintenance.

**SMARTCAR PULSE** because of its additional Synergic control and Pulse and Dual Pulse function, grants high quality performance on all materials and in particular on stainless steel, zinc coated and aluminium, by greatly minimizing any reworking job caused by spatters.

NEW



- Innovative smart design
- New ergonomic level
- Excellent welding quality

## SMART / SMARTCAR PULSE FEATURES

- Wire spool holder and feeding assembly placed in the upper part of the generator in an ergonomic position
- Lodging for wire spools up to Ø 300 mm
- Inspection window in the spool cover
- Professional double groove feeding mechanism with 4 rolls of large diameter
- "Energy saving" function to operate the power source cooling fan only when necessary
- Digital control with synergic curves preset according to used type of material, gas and wire (\*)
- Easy-to-use selection and recalling of the parameters and welding programs (\*)
- Interface panel duly protected by a cover (\*)

(\*) Only for SMARTCAR PULSE

### SPECIAL WELDING PROCESS

Standard included in  
SMARTCAR 305 PULSE



**vision.COLD**  
To weld thin  
thickness  
laminations with  
low heat transfer



SMARTCAR PULSE



TECHNICAL DATA		SMART		SMARTCAR PULSE					
		200 MIG/MAG	300 MIG/MAG	MIG/MAG	205 TIG	MMA	MIG/MAG	305 TIG	MMA
Single phase input 50/60 Hz	V +10% -10%	230	-		230			-	
Three phase input 50/60 Hz	V +15% -15%	-	400		-			400	
Input Power @ I <sub>L</sub> Max	kVA	10,1	13,3	10,1	6,3	9,4	13,3 / 11,9 PULSE	11,6	11,9
Delayed Fuse (I <sub>eff</sub> )	A	16	16		16			16	
Power Factor / cos φ		0,64/0,99	0,75/0,99	0,64/0,99	0,64/0,99	0,64/0,99	0,75/0,99 0,73/0,99 PULSE	0,69/0,99	0,75/0,99
Efficiency Degree		0,80	0,86		0,80			0,86	
Open circuit voltage	V	60	60	60	60	60	60	60	60
Current range	A	10 - 200	10 - 300	10 - 200	5 - 175	10 - 175	10 - 300 10 - 270 PULSE	5 - 300	10 - 250
Duty cycle at (40°C)	A 100 %	100	180	100	100	90	180	180	180
	A 60 %	115	200	115	115	110	200	200	200
	A X %	200 (15%)	300 (30%)	200 (15%)	175 (20%)	175 (10%)	300 (30%) 270 (30%) PULSE	300 (30%)	250 (35%)
Wires	Ø mm	0,6 - 1,2	0,6 - 1,2	0,6 - 1,2	-	-	0,6 - 1,2	-	-
Coil	Ø mm	300	300	300	-	-	300	-	-
Standards		EN 60974-1 • EN 60974-5 • EN 60974-10- [S]							
Protection Class	IP	23 S	23 S		23 S			23 S	
Dimensions (L x W x H)	mm	960 x 420 x 885			960 x 420 x 885			960 x 420 x 885	
Weight	Kg	38,5			38,5			40	



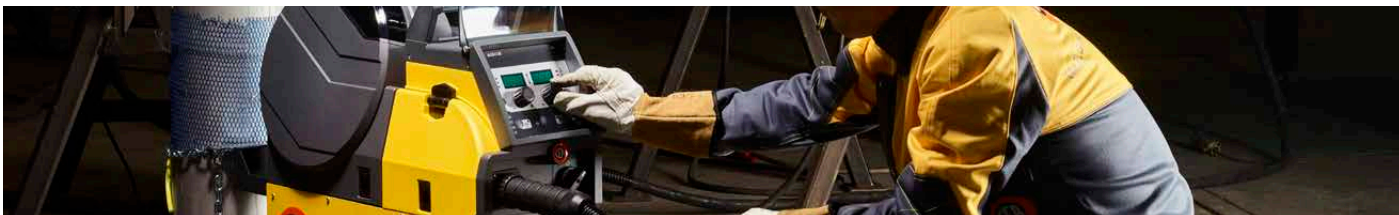
SMART



SMARTCAR PULSE



Professional double groove feeding mechanism with 4 rolls



## ORDER INFORMATION

CODE		DESCRIPTION		SMART		SMARTCAR PULSE	
				200	300	205	305
POWER SOURCES							
007251	Power Source <b>SMART 200</b>	230V - 1 ph	4 rolls for Ø 300 mm wire spool	●			
007260	Power Source <b>SMART 300</b>	400V - 3 ph	4 rolls for Ø 300 mm wire spool		●		
007253	Power Source <b>SMARTCAR 205 PULSE</b>	230V - 1 ph	4 rolls for Ø 300 mm wire spool			●	
007265	Power Source <b>SMARTCAR 305 PULSE</b>	400V - 3 ph	4 rolls for Ø 300 mm wire spool (*)				●
(*) Vision.COLD process and ECP integrated as a standard in the SMARTCAR 305 PULSE							
All SMARTCAR are supplied with 4 rolls for wire Ø 0,8/1,0 mm							
MIG MAG WELDING TORCHES							
020458	CEA Torch <b>CX 251/3</b>	3 m	wire Ø 0,6/1,0 CO2 260A @60% / Mix 200A @60%	●	●	●	●
020459	CEA Torch <b>CX 251/4</b>	4 m	wire Ø 0,6/1,0 CO2 260A @60% / Mix 200A @60%				
021016	CEA <b>Digitorch DX 353/4-D</b>	4 m	wire Ø 0,8/1,2 CO2 340A @60% / Mix 290A @60%				
For other torches see mig/mag accessories page							
TIG TORCH WITH BUILT-IN GAS VALVE FOR TOUCH-START TECHNIQUE							
020568	Torch <b>RTX 26.4</b>	4 m - 180 A 35%	( suitable for 50 / 70 mm <sup>2</sup> safety connections )				
GROUND CABLES							
239618	25 mm <sup>2</sup> / 3 m <b>Ground cable</b> with clamp			●		●	
239601	35 mm <sup>2</sup> / 4 m <b>Ground cable</b> with clamp				●		●
GAS REDUCERS							
020855	Reducer with 2 manometers			●	●	●	●
OTHER OPTION[S]							
236590	Metallic spool adaptor						
031124	TS1 - Torch support KIT						
460286	4+3 m 25 mm <sup>2</sup> cables, electrodeholder pincer, ground clamp 50mm <sup>2</sup> safety connections - brush/hammer - shield with lens						
460292	4+3 m 35 mm <sup>2</sup> cables, electrodeholder pincer, ground clamp 50mm <sup>2</sup> safety connections - brush/hammer - shield with lens						
	SMART 200	Suggested air cooled version with torch		●			
	SMART 300	Suggested air cooled version with torch			●		
	SMARTCAR 205 PULSE	Suggested air cooled version with torch				●	
	SMARTCAR 305 PULSE	Suggested air cooled version with torch					●



# CONVEX MOBILE / CONVEX MOBILE PULSE

THE ALL-ROUNDER THAT EXCEEDS YOUR WELDING LIMITS



**CONVEX MOBILE**



**CONVEX MOBILE PULSE**

Powerful welding equipment in the size of just one wire feeder unit: this is the main peculiarity of **CONVEX MOBILE** series, innovative multiprocess synergic power sources for welding in MIG/MAG, MMA and TIG with "Lift" mode.

Versatile, easy-to-carry and user friendly, **CONVEX MOBILE** equipment are greatly appreciated, also thanks to their high technological conception, high quality welding wherever it is required and are ideal for on-site work, maintenance job, car body repair and light fabrication work.

**CONVEX MOBILE PULSE**, because of its additional Pulse and Dual Pulse processes, grants high quality performance on all materials and particularly on stainless steel, zinc coated and Aluminium, by greatly minimizing any reworking job caused by spatters.

**CONVEX MOBILE 201** and **205 PULSE**, with single phase input power, have PFC facility which optimizes the amount of energy consumption by allowing their use, at maximum power, on 16 A fuse mains and with power generator sets without any problems.



- Ultra-compact, light and powerful
- Excellent welding performance
- Multi-process and synergic control

## CONVEX MOBILE / CONVEX MOBILE PULSE FEATURES

- Digital control with synergic curves preset according to used type of material, gas and wire
- User friendly and easy-to-use selection and recalling of the parameters and welding programs
- Built-in polarity changeover feature for most common gas and gasless wires
- Suitable for Ø 300 mm wire spools
- Professional double groove feeding mechanism with 4 rolls of Ø 37 mm.
- "Energy saving" function to operate the power source cooling fan only when necessary
- Initial and final crater control
- Possibility to use Up/Down torches





TECHNICAL DATA		CONVEX MOBILE 201 / CONVEX MOBILE 205 PULSE			CONVEX MOBILE 251 / CONVEX MOBILE 255 PULSE		
		MIG/MAG	TIG	MMA	MIG/MAG	TIG	MMA
Single phase input 50/60 Hz	V +15% -15%	-	230	-	-	-	-
Three phase input 50/60 Hz	V +15% -15%	-	-	-	-	400	-
Input Power @ I <sub>2</sub> Max	kVA	6	4,6	7,1	10	8,5	11
Delayed Fuse (I <sub>eff</sub> )	A	16	16	16	16	10	16
Power Factor / cos φ		0,95/0,99	0,95/0,99	0,95/0,99	0,74/0,99	0,69/0,99	0,77/0,99
Efficiency Degree			0,84			0,89	
Open circuit voltage	V	45	45	45	60	60	60
Current range	A	10 - 200	5 - 200	10 - 200	10 - 250	5 - 250	10 - 250
Duty cycle at (40°C)	A 100 %	105	105	105	180	180	180
	A 60 %	140	140	140	200	200	200
	A X %	200 (25%)	200 (25%)	200 (25%)	250 (35%)	250 (35%)	250 (35%)
Wires	Ø mm	0,6 - 1,2	-	-	0,6 - 1,2	-	-
Coil	Ø mm	300	-	-	300	-	-
Standards		EN 60974-1 • EN 60974-5 • EN 60974-10- [S]					
Protection Class	IP		23 S			23 S	
Dimensions (L x W x H)	mm		650 x 300 x 388			650 x 300 x 388	
Weight	Kg		20			21	



Professional double groove feeding mechanism with 4 rolls



CT 401 trolley for power source (only CONVEX MOBILE 3ph), gas cylinder, watercooling equipment and storage



#### SPECIAL WELDING PROCESS

Standard included in  
CONVEX MOBILE 205 PULSE  
CONVEX MOBILE 251  
CONVEX MOBILE 255 PULSE



**vision.COLD**  
To weld thin thickness laminations with low heat transfer

#### ORDER INFORMATION

CODE		DESCRIPTION	201 AIR	205 PULSE AIR	CONVEX MOBILE 251 AIR    WATER		255 PULSE AIR    WATER
POWER SOURCES							
005000	Power Source <b>CONVEX MOBILE 201</b>	230V-1 ph for Ø 300 mm wire spool (ECP)	●				
005005	Power Source <b>CONVEX MOBILE 205 PULSE</b>	230V-1 ph for Ø 300 mm wire spool (*)		●			
004785	Power Source <b>CONVEX MOBILE 251</b>	400V-3 ph for Ø 300 mm wire spool (*)			●	≈	
004780	Power Source <b>CONVEX MOBILE 255 PULSE</b>	400V-3 ph for Ø 300 mm wire spool (*)					●    ≈
(*) vision.COLD process and ECP integrated as a standard							
ALUMINIUM ROLL KIT							
030866	<b>Aluminium Kit</b> of Single grooved TWIN rolls (Ø: 1,0)						
030867	<b>Aluminium Kit</b> of Single grooved TWIN rolls (Ø: 1,2)						
MIG MAG WELDING TORCHES							
020458	CEA Torch <b>CX 251/3</b>	3 m    wire Ø 0,6/1,2    CO2 260A @60% / Mix 200A @60%	●	●	●		●
020472	CEA Torch <b>CXH 302/4</b>	4 m    wire Ø 0,8/1,2 water cooled    CO2 300A @100% / Mix 250A @100%				≈	
For other torches see mig/mag accessories page							
TIG TORCH WITH BUILT-IN GAS VALVE FOR TOUCH-START TECHNIQUE							
020568	Torch <b>RTX 26.4</b>	4 m - 180 A 35%    ( suitable for 50 / 70 mm² safety connections )					
WATER COOLING							
032098	Water cooling equipment <b>HR 32</b> 400 V					≈	
402275A	Cea <b>CL-1100</b> cooling liquid - 5 l Tank					≈	
TROLLEY							
234931	Trolley <b>CT 401</b> for power source and cylinder		●	●	●	≈	●    ≈
449478	<b>Adaptor support</b> plate for CONVEX MOBILE mounted on CT 401		●	●	●	≈	●    ≈
344013	Accessory BOX kit ( to be ordered only with HR 32/30 )						
031007	<b>WK 2</b> extra-large wheels kit						
GROUND CABLES							
239601	35 mm² / 4 m <b>Ground cable</b> with clamp		●	●	●	≈	●    ≈
GAS REDUCERS							
020855	Reducer with 2 manometers		●	●	●	≈	●    ≈
020916	Reducer with flowmeter and 1 manometer						
OTHER OPTION[S]							
460292	4+3 m 35 mm² cables, electrodeholder pincer, ground clamp 50mm² safety connections - brush/hammer - shield with lens						
236590	Metallic spool adaptor						
201752	Kit of 2 male 50 mm² safety connections						
	CONVEX MOBILE 201	Suggested air cooled version with torch	●				
	CONVEX MOBILE 205 Pulse	Suggested air cooled version with torch		●			
	CONVEX MOBILE 251	Suggested air cooled version with torch			●		
	CONVEX MOBILE 251	Suggested water cooled version with torch				≈	
	CONVEX MOBILE 255 Pulse	Suggested air cooled version with torch					●
	CONVEX MOBILE 255 Pulse	Suggested water cooled version with torch					≈



# CONVEX / CONVEX PULSE

GREAT WELDING EQUIPMENT FOR PROFESSIONAL WELDERS



**CONVEX**



**CONVEX PULSE**

**CONVEX** and **CONVEX PULSE** are multiprocess compact power sources for welding in MIG/MAG, MMA and TIG with "Lift" mode. Technologically ahead, robust and easy-to-use, they offer excellent welding quality in MIG/MAG and, only for CONVEX PULSE models, also in PULSED MIG and in DUAL PULSE.

The **CONVEX** and **CONVEX PULSE** equipment allow also less experienced operators to easily adjust all welding parameters in an intuitive way. Once the wished program is selected, the welding control automatically determines the best parameters based on the material type, wire diameter and gas.

These power sources represent the best choice in all industrial fields for all qualified applications requiring high precision and repeatability of the welding results especially in light fabrication work and car body repair.



vision.PULSE

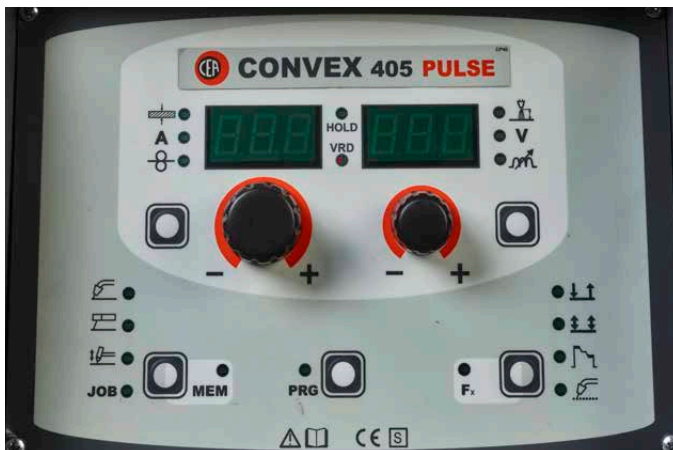
dual.PULSE

- Simple, powerful and compact
- Multi-process with great performance
- Special mig welding process possibility



## CONVEX / CONVEX PULSE FEATURES

- Multiprocess power sources: MMA - TIG LIFT - MIG/MAG Synergic & Manual and for CONVEX PULSE: PULSED MIG and DUAL PULSE
- Digital control of the welding parameters with preset synergic curves
- Smart PROGRAM key for quickly selecting any program
- Lodging for wire spools up to Ø 300 mm
- Feeding mechanism with 4 rolls of large diameter for a precise and constant wire driving
- Double groove rolls replaceable without any tool
- "Energy saving" function to operate the power source cooling fan and torch water cooling only when necessary
- Excellent arc striking always precise and efficient
- Ability to partially or totally lock the equipment with access key by password
- Control rack protection cover
- Initial and final crater control



### BURN-BACK CONTROL

At the end of each weld, in any condition and with any metal, the digital control ensures a perfect wire cut thus avoiding the formation of the typical "wire globule" by ensuring the subsequent best arc striking.



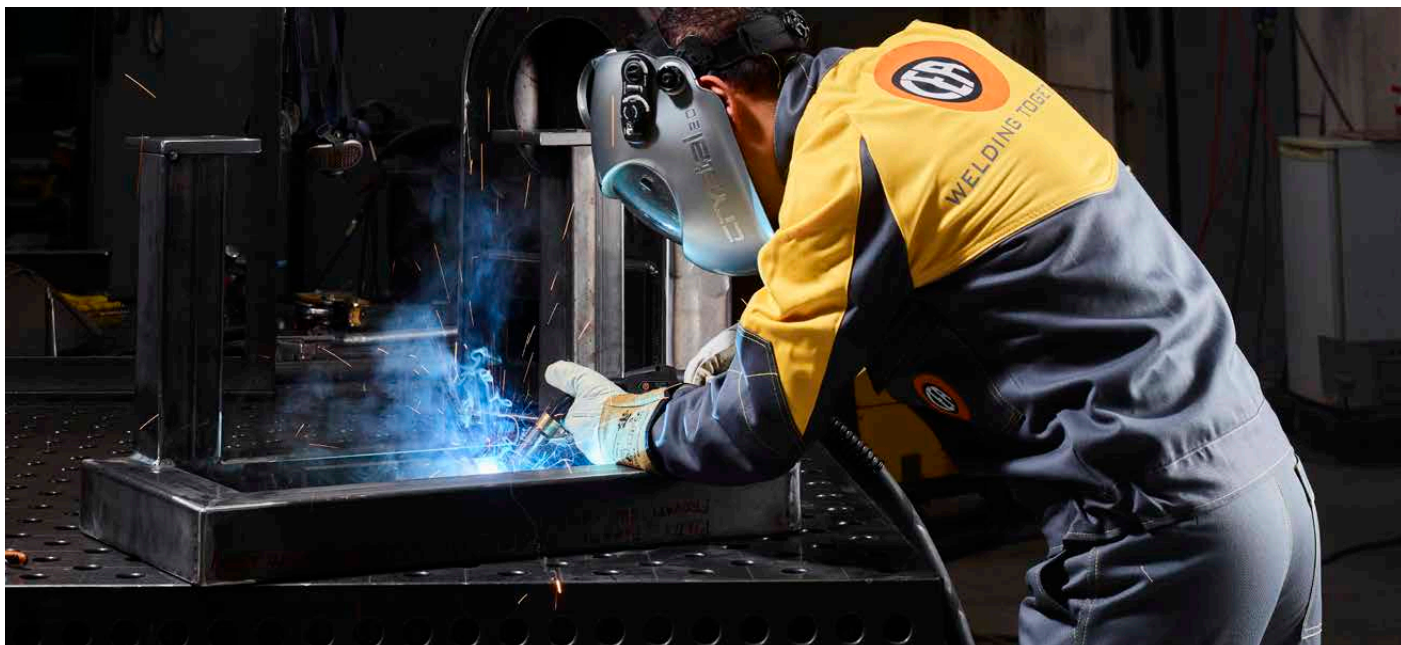
### WSC - WIRE START CONTROL

WSC wire start control prevents any possible wire sticking to the workpiece or torch nozzle, by always ensuring a precise and "soft" arc striking.

### DUAL-PULSED (CONVEX PULSE)

Dual Pulse favours a further reduction in the heat transfer to the workpiece by minimizing its deformation and produces premium quality aesthetic beads similar to TIG finishing. Dual Pulse is extremely useful mostly when welding Aluminium and stainless steel.





## TWO AVAILABLE VERSIONS: STANDARD and PREMIUM

CONVEX PULSE models are available in either STANDARD configurations, designed for the most common welding applications, or PREMIUM configurations, also providing the innovative vision.COLD and vision.ULTRASPEED processes, dedicated to anyone looking for a higher performance welding equipment with maximum flexibility on different materials.

### STANDARD PACKAGE

Standard fitted with:  
SYNERGIC PROGRAMS Fe - CrNi - AlMg - AlSi

### PREMIUM PACKAGE

Standard fitted with:  
SYNERGIC PROGRAMS Fe - CrNi - AlMg - AlSi - CuSi3 - AlBz8 - FCW (Rutil - Basic - Metal) Duplex - Super Duplex



vision.COLD  
for low heat transfer  
MIG/MAG welding



vision.ULTRASPEED  
to weld small and medium  
thickness at a far higher speed



ECP  
Extra Curve Package

TECHNICAL DATA		CONVEX		CONVEX PULSE	
		321	401	325	405
Three Phase input 50/60 Hz	V +10% -10%	400	400	400	400
Input Power @ I <sub>2</sub> Max	kVA	13	17,8	17	23,7
Delayed Fuse (I eff)	A	20	25	20	25
Power Factor / cos φ		0,87/0,99	0,90/0,99	0,70/0,99	0,70/0,99
Efficiency Degree		0,87	0,87	0,87	0,87
Open circuit voltage	V	63	63	63	63
Current range	A	10 - 320	10 - 400	10 - 320	10 - 400
Duty cycle at (40°C)	A 100 %	280	300	280	300
	A 60 %	300	350	300	350
	A X %	320 (40%)	400 (40%)	320 (40%)	400 (40%)
Wires	Ø mm	0,6 - 1,2	0,6 - 1,2	0,6 - 1,2	0,6 - 1,2
Coil	Ø mm	300	300	300	300
Standards		EN 60974-1 • EN 60974-5 • EN 60974-10			
Protection Class	IP	23 S	23 S	23 S	23 S
Dimensions (L x W x H)	mm	660 x 290 x 515	660 x 290 x 515	660 x 290 x 515	660 x 290 x 515
Weight	Kg	41	42	42	43



## ORDER INFORMATION

CODE	DESCRIPTION	CONVEX 321		CONVEX 325 PULSE		CONVEX 401		CONVEX 405 PULSE	
		AIR	WATER	AIR	WATER	AIR	WATER	AIR	WATER
	POWER SOURCES								
004640	Power Source <b>CONVEX 321</b> 400V (4 rolls for wire Ø 0,8/1,0 mm)	●	≈						
004645	Power Source <b>CONVEX 401</b> 400V (4 rolls for wire Ø 1,0/1,2 mm)					●	≈		
004825	Power Source <b>CONVEX 325 PULSE</b> 400V (4 rolls for wire Ø 0,8/1,0 mm)			●	≈				
004830	Power Source <b>CONVEX 405 PULSE</b> 400V (4 rolls for wire Ø 1,0/1,2 mm)							●	≈
STANDARD MODELS include Programs for Fe - CrNi - Al and TIG / MMA functions									
PREMIUM VERSION - POWER SOURCES									
004825PR	Power source <b>CONVEX 325 PULSE PREMIUM</b> 400V (4 rolls for wire Ø 0,8/1,0 mm)								
004830PR	Power source <b>CONVEX 405 PULSE PREMIUM</b> 400V (4 rolls for wire Ø 1,0/1,2 mm)								
PREMIUM MODELS include already install vision.COLD - vision.ULTRASPEED and ECP									
Aluminium ROLL KIT									
030866	<b>Aluminium Kit</b> of Single grooved TWIN rolls (Ø: 1,0)								
030867	<b>Aluminium Kit</b> of Single grooved TWIN rolls (Ø: 1,2)								
MIG MAG WELDING TORCHES									
020466	CEA Torch <b>CX 353/4</b> 4 m wire Ø 0,8/1,2 C02 340A@60%/Mix 290A @60%	●		●		●		●	
021006	CEA Torch <b>CX 353/4</b> Up/Down-17p 4 m wire Ø 0,8/1,2 C02 340A @60%/Mix 290A @60%								
020472	CEA Torch <b>CXH 302/4</b> 4 m wire Ø 0,8/1,2 water cooled C02 300A@100%/Mix 250A @100%		≈		≈		≈		
020479	CEA Torch <b>CXH 402/4</b> 4 m wire Ø 0,8/1,6 water cooled C02 500A@100%/Mix 450A @100%								≈
021005	CEA Torch <b>CXH 302/4</b> Up/Down-17p 4 m wire Ø 0,8/1,2 C02 300A @100%/Mix 250A @100%								
For other torches see mig/mag accessories page									
TIG TORCHES WITH BUILT-IN GAS VALVE FOR TOUCH-START TECHNIQUE									
020568	Torch <b>RTX 26.4</b> 4 m - 180 A 35%								
WATER COOLING									
032098	Water cooling equipment <b>HR 32</b> 400 V		≈		≈		≈		≈
402275A	Cea <b>CL-1100</b> cooling liquid - 5 l Tank		≈		≈		≈		≈
TROLLEY									
234909	Trolley <b>CT 45</b> for power source, cylinder	●	≈	●	≈	●	≈	●	≈
234914	Trolley <b>CT 70</b> with 4 rolls for power source, cooling equipment and cylinder (and autotransformer)								
GROUND CABLE									
239603	50 mm² / 4 m <b>Ground cable</b> with clamp	●	≈	●	≈	●	≈	●	≈
GAS REDUCERS									
020855	Reducer with 2 manometers	●	≈	●	≈	●	≈	●	≈
020916	Reducer with flowmeter and 1 manometer								
OTHER OPTION[S]									
236590	Metallic spool adaptor								
020340	Autotransformer A 13-H 220V/400V-50/60Hz - 3 Phase (to be ordered with CT 70)								
460262	4+3 m 50 mm² cables with electrodeholder pincer, ground clamp and 50 mm² safety connections brush/hammer - shield with lens								
	CONVEX 321 Suggested air cooled version with torch	●							
	CONVEX 321 Suggested water cooled version with torch		≈						
	CONVEX 325 PULSE Suggested air cooled version with torch			●					
	CONVEX 325 PULSE Suggested water cooled version with torch				≈				
	CONVEX 401 Suggested air cooled version with torch					●			
	CONVEX 401 Suggested water cooled version with torch						≈		
	CONVEX 405 PULSE Suggested air cooled version with torch							●	
	CONVEX 405 PULSE Suggested water cooled version with torch								≈



# DOGMA / DOGMA PULSE

THE FIRST - THE GAME CHANGER



**DOGMA**



**DOGMA PULSE**

**DOGMA** is an innovative welding equipment that barges into the multi-process compact MIG market for the first time in the world.

**DOGMA's** concept breaks from tradition with its game changing design.

**DOGMA** is born with the welder's comfort at the centre of its development, keeping CEA's distinctive quality: every feature is aimed to reduce and simplify the operator's preparation time and tasks for a better satisfaction which leads to greater results.

**DOGMA** is unique and unparalleled in its ability to combine an ergonomic design, together with excellent welding characteristics thanks to its precise and stable arc control. This makes **DOGMA** perfect for all qualified welding applications in all industrial sectors.

**DOGMA** are standard equipped with the new X VISION interface, simple and complete, for the total control and monitoring of all the welding parameters.

**DOGMA** offers the possibility to weld in synergic MIG/MAG, TIG Lift and MMA; in addition, **DOGMA** are also available in the **DOGMA PULSE** version with Pulse and Dual-Pulse welding processes.

NEW



vision.PULSE

dual.PULSE

- Innovative, unique, unparalleled
- Exceptional welding quality
- New level of Ergonomics



**PATENT PENDING:**  
PA102974IT01



## DOGMA INNOVATIVE DESIGN

- Easy-to-load wire coil thanks to the spool holder's top frontal ergonomic position
- Easy to control and insert welding wire into the feeding mechanism thanks to its high frontal position
- Great frontal visibility of the wire feeder compartment and control interface at first glance
- Interface control panel in an inclined frontal position
- The equipment's vertical development saves space and floor area
- High position of the torch connector with inclined exit to optimize the welding wire's flow
- Feeding rolls compartment next to the wire feeding mechanism for quick replacement
- Water cooling equipment integrated in the power source (W version)



**EASY-TO-LOAD  
WIRE COIL**



**INCLINED TORCH  
CONNECTION**



**GREAT FRONTAL  
VISIBILITY**

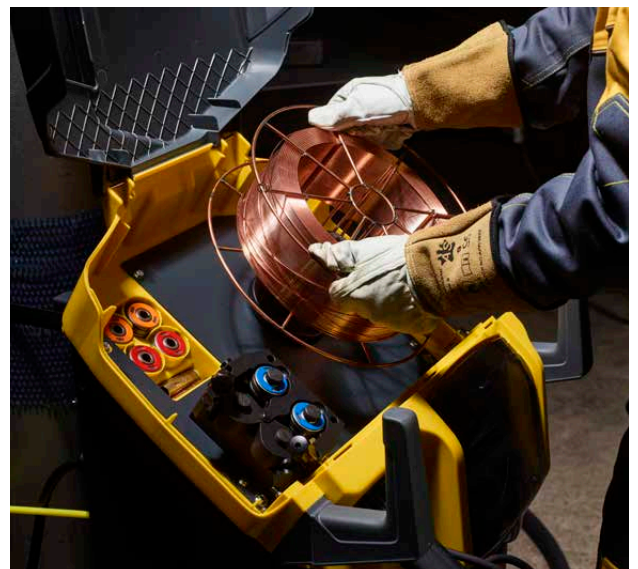


**REDUCED FLOOR  
OCCUPATION**

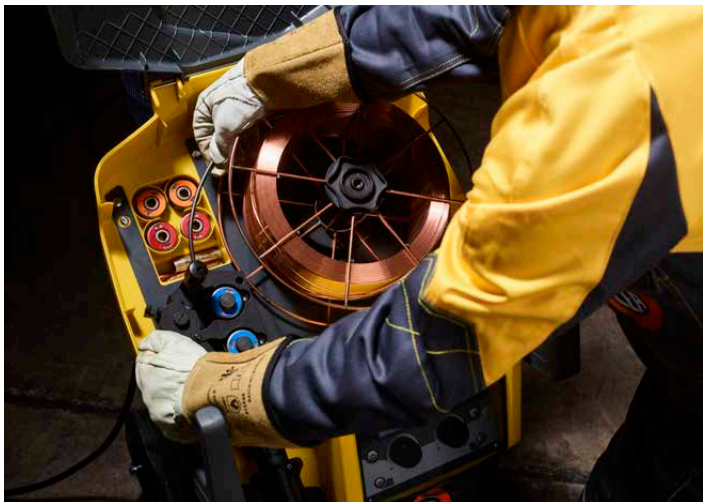


## DOGMA FEATURES

- Multi-process power sources: MMA - TIG LIFT - MIG/MAG Synergic & Manual and for DOGMA PULSE: PULSED MIG and DUAL PULSE
- Digital control of the welding parameters with preset synergic curves
- Feeding mechanism with 4 rolls of large diameter for a precise and constant wire driving
- Double groove rolls replaceable without any tool
- "Energy saving" function to operate the power source cooling fan and torch water cooling only when necessary
- Excellent arc striking always precise and efficient
- Ability to partially or totally lock the equipment with access key by password
- Built-in polarity changeover feature for most common gas and gasless wires (DOGMA 272 /276)







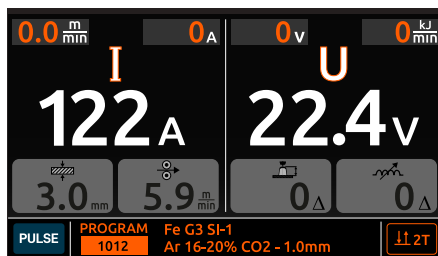
## X VISION CONTROL DISPLAY

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

- User friendly interface
- Welding mode "cycle"
- Personalized 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

MATERIAL	Fe G3 SI-1
DIAMETER	1.2 mm
GAS	Ar 16-20% CO2
PROCESS	MIG PULSE
PROGRAM	013
PULSE	PROGRAM Fe G3 SI-1 1013 Ar 16-20% CO2 - 1.2mm
PRG	MODE FX JOB MENU

### ADVANCE JOB MANAGEMENT

COPY JOB	J01   SYNERGIC 1   0.5 s   122A
J01   DOUBLE PULSE	0.3 s   155A
DOUBLE PULSE	PROGRAM Fe G3 SI-1 2011 Ar 16-20% CO2 - 0.8mm
J07   MANUAL	0.0 s   12.0 m/min

## DOGMA PACKAGE

**DOGMA XV** and **DOGMA XV PREMIUM** are available with the innovative vision.COLD and vision.ULTRASPEED processes, dedicated to anyone looking for a higher performance welding equipment with maximum flexibility on different materials.

### DOGMA PULSE XV

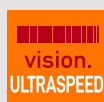
Standard fitted with:  
SYNERGIC PROGRAMS Fe - CrNi - AlMg - AlSi

### DOGMA XV / DOGMA PULSE XV PREMIUM

Standard fitted with:  
SYNERGIC PROGRAMS Fe - CrNi - AlMg - AlSi - CuSi3 - AlBz8 - FCW (Rutil - Basic - Metal) Duplex - Super Duplex



vision.COLD  
for low heat transfer  
MIG/MAG welding



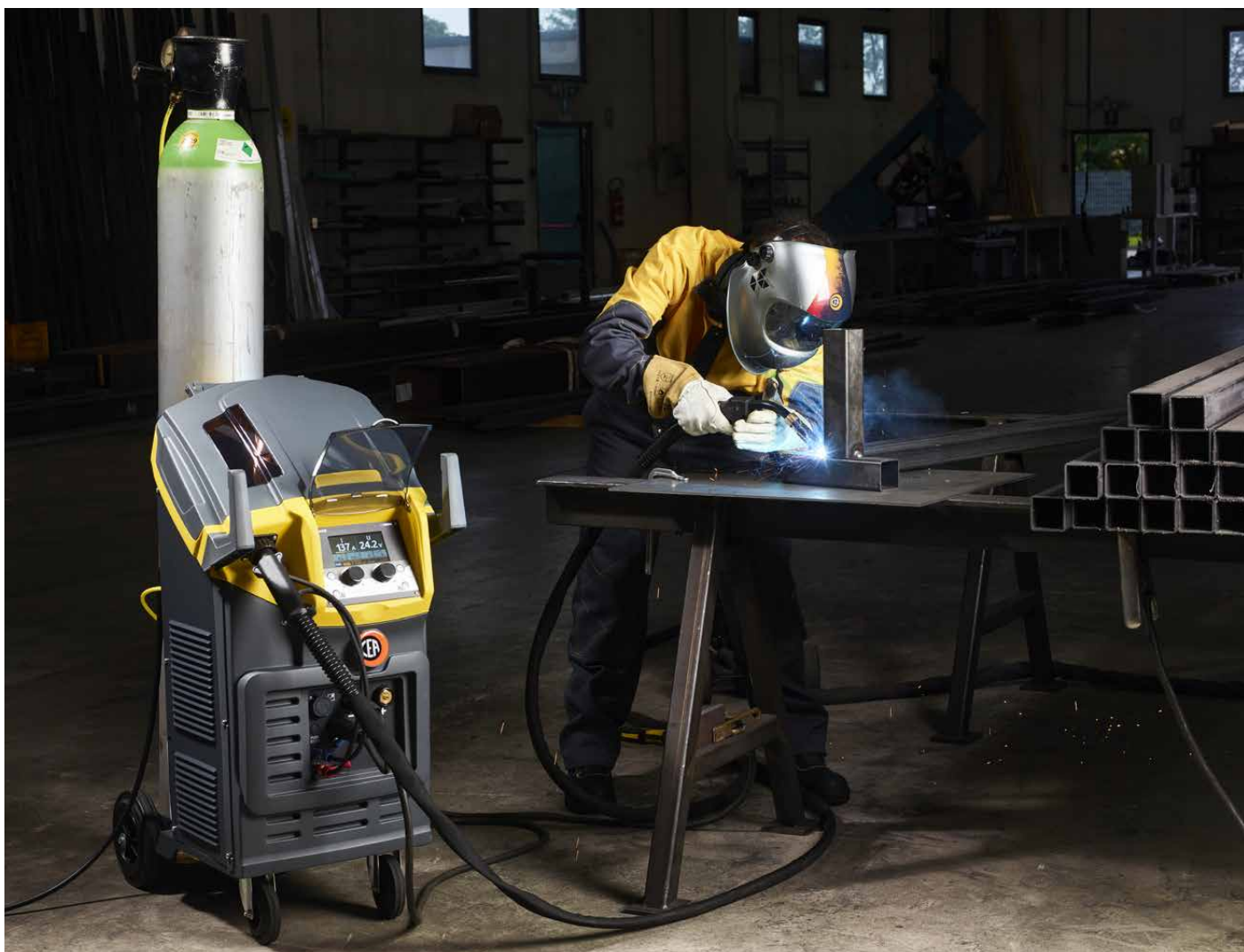
vision.ULTRASPEED  
to weld small and medium  
thickness at a far higher speed



ECP  
Extra Curve Package



TECHNICAL DATA		DOGMA XV			DOGMA PULSE XV		
		272 / 272 W	322 / 322 W	402 / 402 W	276 / 276 W	326 / 326 W	406 / 406 W
Three phase input 50/60 Hz	V +/- 20%	400	400	400	400	400	400
Input Power @ I <sub>2</sub> Max	kVA	12,8	16,1	22,5	12,8	16,1	22,5
Delayed Fuse (I eff)	A	16	20	25	16	20	25
Power Factor / cos $\phi$		0,74/0,99	0,67/0,99	0,69/0,99	0,74/0,99	0,67/0,99	0,69/0,99
Efficiency Degree		0,89	0,88	0,88	0,89	0,88	0,88
Open circuit voltage	V	60	63	63	60	63	63
Current range	A	10 - 270	10 - 320	10 - 400	10 - 270	10 - 320	10 - 400
Duty cycle at (40°C)	A 100 %	180	240	300	180	240	300
	A 60 %	200	270	340	200	270	340
	A X %	270 (30%)	320 (35%)	400 (35%)	270 (30%)	320 (35%)	400 (35%)
Wire	Ø mm	0,6 - 1,6	0,6 - 1,6	0,6 - 1,6	0,6 - 1,6	0,6 - 1,6	0,6 - 1,6
Standards		EN 60974-1 • EN 60974-5 • EN 60974-10 • <b>[S]</b>					
Protection Class	IP	21 S	21 S	21 S	21 S	21 S	21 S
Dimensions (L x W x H)	mm	792 x 463 x 1047	792 x 463 x 1047	792 x 463 x 1047	792 x 463 x 1047	792 x 463 x 1047	792 x 463 x 1047
Weight	Kg	49 / 58 (W)	54 / 63 (W)	57 / 66 (W)	49 / 58 (W)	54 / 63 (W)	57 / 66 (W)



# ORDER INFORMATION

CODE	DESCRIPTION	DOGMA XV					
		272 AIR	272 W WATER	322 AIR	322 W WATER	402 AIR	402 W WATER
POWER SOURCES							
004621	Power Source <b>DOGMA 272 XV</b> 400V (4 rolls for wire Ø 0,8/1,0 mm)	●					
004622	Power Source <b>DOGMA 322 XV</b> 400V (4 rolls for wire Ø 0,8/1,0 mm)			●			
004623	Power Source <b>DOGMA 402 XV</b> 400V (4 rolls for wire Ø 1,0/1,2 mm)					●	
004626	Power Source <b>DOGMA 272 W XV</b> water cooled 400V (4 rolls for wire Ø 0,8/1,0 mm)		≈				
004627	Power Source <b>DOGMA 322 W XV</b> water cooled 400V (4 rolls for wire Ø 0,8/1,0 mm)				≈		
004628	Power Source <b>DOGMA 402 W XV</b> water cooled 400V (4 rolls for wire Ø 1,0/1,2 mm)						≈
<b>PREMIUM</b> (vision.COLD, vision.ULTRASPEED and ECP) integrated as a standard in all DOGMA 272/322/402							
ALUMINIUM KIT							
030866	<b>Aluminium Kit</b> of Single grooved TWIN rolls (Ø: 1,0)						
030867	<b>Aluminium Kit</b> of Single grooved TWIN rolls (Ø: 1,2)						
MIG MAG WELDING TORCHES							
020458	CEA Torch <b>CX 251/3</b> 3m - wire: Ø 0,6/1,0 C02 260A @60% / Mix 200A @60%	●					
020466	CEA Torch <b>CX 353/4</b> 4m - wire: Ø 0,8/1,2 C02 340A @60% / Mix 290A @60%			●		●	
021006	CEA Torch <b>CX 353/4 Up/Down-17p</b> 4m - wire: Ø 0,8/1,2 C02 340A @60% / Mix 290A @60%						
020472	CEA Torch <b>CXH 302/4</b> 4m - wire: Ø 0,8/1,2 water cooled C02 300A @100% / Mix 250A @100%		≈		≈		
020479	CEA Torch <b>CXH 402/4</b> 4m - wire: Ø 0,8/1,6 water cooled C02 500A @100% / Mix 450A @100%						≈
021005	CEA Torch <b>CXH 302/4 Up/Down-17p</b> 4m - wire: Ø 0,8/1,2 C02 300A @100% / Mix 250A @ 100%						
021007	CEA Torch <b>CXH 402/4 Up/Down-17p</b> 4m - wire: Ø 0,8/1,6 C02 500A @100% / Mix 450A @ 100%						
021016	CEA <b>Digitorch DX 353/4-D</b> 4m - wire: Ø 0,8/1,2 C02 340A @60% / Mix 290A @60%						
021015	CEA <b>Digitorch DXH 302/4-D</b> 4m - wire: Ø 0,8/1,2 C02 300A @100% / Mix 250A @ 100%						
021017	CEA <b>Digitorch DXH 402/4-D</b> 4m - wire: Ø 0,8/1,6 C02 500A @100% / Mix 450A @ 100%						
020488	Push Pull Torch <b>PP 401 D</b> 8 m 24 V - wire Ø 0,8/1,2 water cooled (to be ordered with 031123)						
031123	Push Pull Synchronizer PC Board KIT 24/42 V (to be ordered with Push Pull torch) <i>For other torches see mig/mag accessories page</i>						
TIG TORCHES WITH BUILT-IN GAS VALVE FOR TOUCH-START TECHNIQUE							
020568	Torch <b>RTX 26.4</b> 4 m - 180 A 35%						
GROUND CABLES							
239601	<b>35 mm² / 4 m Ground cable</b> with clamp	●	≈				
239603	<b>50 mm² / 4 m Ground cable</b> with clamp			●	≈	●	≈
GAS REDUCERS							
020916	Reducer with flowmeter and 1 manometer	●	≈	●	≈	●	≈
OTHER OPTION[S]							
236590	Metallic spool adaptor						
460369	WPE 1 Water Hoses Extension Kit for non-standard water cooled CEA Torch						
402275A	Cea <b>CL-1100</b> cooling liquid - 5 l Tank		≈		≈		≈
	DOGMA 272 XV Suggested air cooled version with torch	●					
	DOGMA 272 W XV Suggested water cooled version with torch		≈				
	DOGMA 322 XV Suggested air cooled version with torch			●			
	DOGMA 322 W XV Suggested water cooled version with torch				≈		
	DOGMA 402 XV Suggested air cooled version with torch					●	
	DOGMA 402 W XV Suggested water cooled version with torch						≈

# ORDER INFORMATION

CODE	DESCRIPTION	DOGMA PULSE XV					
		276 AIR	276 W WATER	326 AIR	326 W WATER	406 AIR	406 W WATER
POWER SOURCES							
004855	Power Source <b>DOGMA 276 PULSE XV</b> 400V (4 rolls for wire Ø 0,8/1,0 mm)	●					
004860	Power Source <b>DOGMA 326 PULSE XV</b> 400V (4 rolls for wire Ø 0,8/1,0 mm)			●			
004865	Power Source <b>DOGMA 406 PULSE XV</b> 400V (4 rolls for wire Ø 1,0/1,2 mm)					●	
004870	Power Source <b>DOGMA 276 W PULSE XV</b> water cooled 400V (4 rolls for wire Ø 0,8/1,0 mm)		≈				
004875	Power Source <b>DOGMA 326 W PULSE XV</b> water cooled 400V (4 rolls for wire Ø 0,8/1,0 mm)				≈		
004880	Power Source <b>DOGMA 406 W PULSE XV</b> water cooled 400V (4 rolls for wire Ø 1,0/1,2 mm)						≈
<b>STANDARD MODELS</b> include Programs for Fe - CrNi - Al and TIG / MMA functions							
PREMIUM VERSION - POWER SOURCES							
004855PR	Power Source <b>DOGMA 276 PULSE XV</b> <b>PREMIUM</b> 400V (4 rolls for wire Ø 0,8/1,0 mm)						
004860PR	Power Source <b>DOGMA 326 PULSE XV</b> <b>PREMIUM</b> 400V (4 rolls for wire Ø 0,8/1,0 mm)						
004865PR	Power Source <b>DOGMA 406 PULSE XV</b> <b>PREMIUM</b> 400V (4 rolls for wire Ø 1,0/1,2 mm)						
004870PR	Power Source <b>DOGMA 276 W PULSE XV</b> <b>PREMIUM</b> water cooled 400V (4 rolls for wire Ø 0,8/1,0 mm)						
004875PR	Power Source <b>DOGMA 326 W PULSE XV</b> <b>PREMIUM</b> water cooled 400V (4 rolls for wire Ø 0,8/1,0 mm)						
004880PR	Power Source <b>DOGMA 406 W PULSE XV</b> <b>PREMIUM</b> water cooled 400V (4 rolls for wire Ø 1,0/1,2 mm)						
<b>PREMIUM MODELS</b> included already install - vision.COLD, vision.ULTRASPEED process and ECP							
ALUMINIUM KIT							
030866	<b>Aluminium Kit</b> of Single grooved TWIN rolls (Ø: 1,0)						
030867	<b>Aluminium Kit</b> of Single grooved TWIN rolls (Ø: 1,2)						
MIG MAG WELDING TORCHES							
020458	CEA Torch <b>CX 251/3</b> 3m - wire: Ø 0,6/1,0 CO2 260A @60% / Mix 200A @60%	●					
020466	CEA Torch <b>CX 353/4</b> 4m - wire: Ø 0,8/1,2 CO2 340A @60% / Mix 290A @60%			●		●	
021006	CEA Torch <b>CX 353/4 Up/Down-17p</b> 4m - wire: Ø 0,8/1,2 CO2 340A @60% / Mix 290A @60%						
020472	CEA Torch <b>CXH 302/4</b> 4m - wire: Ø 0,8/1,2 water cooled CO2 300A @100% / Mix 250A @100%		≈		≈		
020479	CEA Torch <b>CXH 402/4</b> 4m - wire: Ø 0,8/1,6 water cooled CO2 500A @100% / Mix 450A @100%						≈
021005	CEA Torch <b>CXH 302/4 Up/Down-17p</b> 4m - wire: Ø 0,8/1,2 CO2 300A @100% / Mix 250A @ 100%						
021007	CEA Torch <b>CXH 402/4 Up/Down-17p</b> 4m - wire: Ø 0,8/1,6 CO2 500A @100% / Mix 450A @ 100%						
021016	CEA <b>Digitorch DX 353/4-D</b> 4m - wire: Ø 0,8/1,2 CO2 340A @60% / Mix 290A @60%						
021015	CEA <b>Digitorch DXH 302/4-D</b> 4m - wire: Ø 0,8/1,2 CO2 300A @100% / Mix 250A @ 100%						
021017	CEA <b>Digitorch DXH 402/4-D</b> 4m - wire: Ø 0,8/1,6 CO2 500A @100% / Mix 450A @ 100%						
020488	Push Pull Torch <b>PP 401 D</b> 8 m 24 V - wire Ø 0,8/1,2 water cooled (to be ordered with 031123)						
031123	Push Pull Synchronizer PC Board KIT 24/42 V (to be ordered with Push Pull torch)						
<i>For other torches see mig/mag accessories page</i>							
TIG TORCHES WITH BUILT-IN GAS VALVE FOR TOUCH-START TECHNIQUE							
020568	Torch <b>RTX 26.4</b> 4 m - 180 A 35%						
GROUND CABLES							
239601	35 mm <sup>2</sup> / 4 m <b>Ground cable</b> with clamp	●	≈				
239603	50 mm <sup>2</sup> / 4 m <b>Ground cable</b> with clamp			●	≈	●	≈
GAS REDUCERS							
020916	Reducer with flowmeter and 1 manometer	●	≈	●	≈	●	≈
OTHER OPTION[S]							
236590	Metallic spool adaptor						
460369	WPE 1 Water Hoses Extension Kit for non-standard water cooled CEA						
402275A	Cea <b>CL-1100</b> cooling liquid - 5 l Tank		≈		≈		≈
	DOGMA 276 PULSE XV Suggested air cooled version with torch	●					
	DOGMA 276 W PULSE XV Suggested water cooled version with torch		≈				
	DOGMA 326 PULSE XV Suggested air cooled version with torch			●			
	DOGMA 326 W PULSE XV Suggested water cooled version with torch				≈		
	DOGMA 406 PULSE XV Suggested air cooled version with torch					●	
	DOGMA 406 W PULSE XV Suggested water cooled version with torch						≈





# MAXI i

THE BEST SOLUTION FOR THE MOST COMMON WELDING CHALLENGES



**MAXI i** inverters represent the evolution of the conventional step adjustment MIG equipment, with a modern inverter integrated into a sturdy metallic structure and a simple control, which always grants good welding performances.

**MAXI i** keep exactly the adjustment simplicity of the conventional MIG equipment, with two single knobs to set Voltage and Wire speed offering the pleasure to set welding parameters as wished.

**MAXI i** represent an optimal choice for industrial applications, medium and large fabrication work where a simple, strong and easy-to-use equipment is needed for replacement of the old step adjustment MIG equipment with a much higher energy efficiency.

NEW



- Simple, strong, and reliable
- Good welding performance
- Higher energy efficiency



## MAXI i FEATURES

- Very good arc characteristics, optimized for most common materials.
- Great robustness due to solid metallic main structure
- "Energy saving" function to operate the power source cooling fan and torch water cooling only when necessary
- Excellent arc striking always precise and efficient
- Reduced energy consumption
- Digital ammeter/voltmeter with hold function of the last welding parameters
- MAXI i W's are fitted with an integrated water cooling unit for the torch
- Long interconnecting cable are available for MAXIi equipment in the air cooled version over 50 m



## WIRE FEEDER WF 6 / WF 7

- **PROFESSIONAL WIRE FEEDING** mechanism for a precise and constant wire driving
- **DOUBLE GROOVE ROLLS** of large diameter replaceable without any tool
- **WIRE SPOOLS** up to Ø 300 mm
- **INSPECTION WINDOW** in the spool cover
- **HK2** Hanging Kit
- **2/4 STROKE** selector switch
- **BURN-BACK** and **MOTOR RAMP** adjustments for a precise arc striking



## WF 7 FEATURES

- Voltage electronic adjustment



## SWF STRONG FEEDER

SWF feeders, with robust suitcase, ideal for site jobs and harshest environments. They can be used for wires spools up to Ø 300 mm.

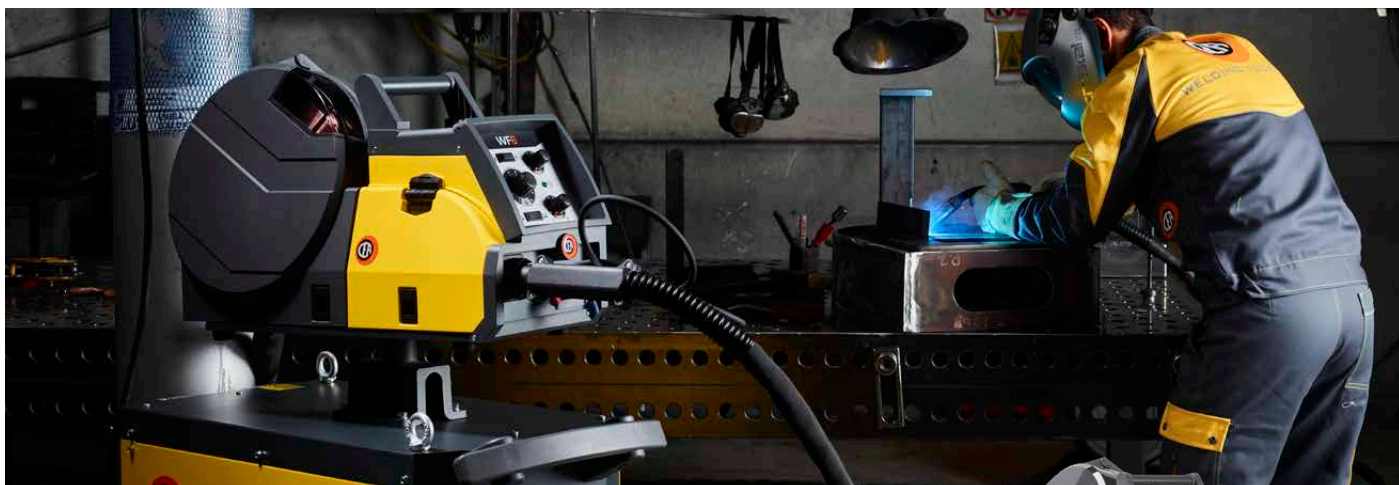


## FSC - Fast Start Control

It is the innovative arc striking control that reduces drastically the ignition time. By this new technology it is possible to have a quick and perfect ignition at every start.  
This is ideal for spot-welding and pre-assembly of components.

## INTERCHANGEABLE WITH OLD FEEDER

Maxi i's power sources are interchangeable with MAXI's step adjustment.  
This means that they can work with the same interconnecting cable of CEA step adjustment MAXI equipment and their wire feeders.



## TWO VERSION

To adapt MAXI i for any possible application, CEA proposes 2 version of the generator: MAXI i air cooled and MAXI i W water cooled.  
The same feeder can work in water cooled mode just by adding the MXi accessory kit.

MAXI i air cooled

MAXI i W water cooled



TECHNICAL DATA		MAXI i			
		406	406 W	506	506 W
Three phase input 50/60 Hz	V +/- 20%	400	400	400	400
Input Power @ I <sub>2</sub> Max	kVA	17	17,5	23,5	24
Delayed Fuse (I eff)	A	16	16	20	20
Power Factor / cos φ		0,92 / 0,99	0,92 / 0,99	0,94 / 0,99	0,94 / 0,99
Efficiency Degree		0,87	0,87	0,87	0,87
Open circuit voltage	V	50	50	56	56
Current range	A	20 - 400	20 - 400	20 - 500	20 - 500
Duty cycle at (40°C)	A 100 %	280	280	330	330
	A 60 %	320	320	400	400
	A 35 %	400	400	500	500
Wire	Ø mm	0,6 - 1,6	0,6 - 1,6	0,6 - 1,6	0,6 - 1,6
Standards		EN 60974-1 • EN 60974-5 • EN 60974-10 • [S]			
Protection Class	IP	23 S	23 S	23 S	23 S
Dimensions (L x W x H)	mm	1000 x 500 x 710	1000 x 500 x 930	1000 x 500 x 710	1000 x 500 x 930
Weight	Kg	48	61	52	65



## ORDER INFORMATION

CODE	DESCRIPTION	MAXI i 406 AIR	MAXI i 406 W WATER	MAXI i 506 AIR	MAXI i 506 W WATER
POWER SOURCES					
006170	Power source <b>MAXI 406 i</b> 400 V 3 phase	●			
006175	Power source <b>MAXI 406 i W</b> 400 V 3 phase		≈		
006180	Power source <b>MAXI 506 i</b> 400 V 3 phase			●	
006185	Power source <b>MAXI 506 i W</b> 400 V 3 phase				≈
INTERCONNECTING CABLES FOR WF 5 / WF 6					
010930	1,2 m Air cooled Interconnecting cable Power source-Wire feeder WF 5 / WF 6	●		●	
010935	5 m Air cooled Interconnecting cable Power source-Wire feeder WF 5 / WF 6				
010940	10 m Air cooled Interconnecting cable Power source-Wire feeder WF 5 / WF 6				
010945	1,2 m Water cooled Interconnecting cable Power source-Wire feeder WF 5 / WF 6		≈		≈
010950	5 m Water cooled Interconnecting cable Power source-Wire feeder WF 5 / WF 6				
010955	10 m Water cooled Interconnecting cable Power source-Wire feeder WF 5 / WF 6				
INTERCONNECTING CABLES FOR WF 7					
010960	1,2 m Air cooled Interconnecting cable Power source-Wire feeder WF 7				
010965	5 m Air cooled Interconnecting cable Power source-Wire feeder WF 7				
010970	10 m Air cooled Interconnecting cable Power source-Wire feeder WF 7				
010975	1,2 m Water cooled Interconnecting cable Power source-Wire feeder WF 7				
010980	5 m Water cooled Interconnecting cable Power source-Wire feeder WF 7				
010985	10 m Water cooled Interconnecting cable Power source-Wire feeder WF 7				
WIRE FEEDERS					
030637	Closed Wire Feeder <b>WF 7</b> 4 rolls (Ø: 1,0 / 1,2) with V adjustment				
030636	Closed Wire Feeder <b>WF 6</b> 4 rolls (Ø: 1,0 / 1,2)	●	≈	●	≈
030635	Closed Wire Feeder <b>WF 5</b> 4 rolls (Ø: 1,0 / 1,2)				
031122	<b>HK 2</b> Hanging Kit				
031009	Accessories type: "MXI" to connect water cooled interconnecting cable to the wire feeder		≈		≈
030938	Accessories IR type: "J" to connect water cooled interconnecting cable to the wire feeder (WF 5)				
031116	<b>WK 4</b> standard wheels kit for MF 4, MF4 yard and QF 7 W PRO DRIVE feeder				
031007	<b>WK 2</b> extra-large wheel kit				
030927	<b>Wheels Kit</b> for WF 5 with additional fastening plate (code 030887) to fix interconnecting cable				
030887	<b>Fastening plate</b> to fix interconnecting cable to WF 5 (already included into 030924, 030927 wheels kit)				
030755	Closed Wire Feeder <b>SWF STRONG FEEDER</b> with Euro Connect. 4 rolls (Ø: 1,0 / 1,2)				
ALUMINIUM KIT					
030895	<b>Aluminium Kit</b> of double grooved TWIN rolls (Ø: 0,8 / 1,0) and gears kit for Al wires				
030897	<b>Aluminium Kit</b> of double grooved TWIN rolls (Ø: 1,0 / 1,2) and gears kit for Al wires				
030899	<b>Aluminium Kit</b> of double grooved TWIN rolls (Ø: 1,2 / 1,6) and gears kit for Al wires				
MIG MAG WELDING TORCHES					
020466	CEA Torch CX <b>353/4</b> 4m - wire: Ø 0,8/1,2 CO2 340A @60% / Mix 290A @60%	●		●	
020471	CEA Torch CX <b>451/4</b> 4m - wire: Ø 0,8/1,6 CO2 400A @60% / Mix 300A @60%				
020472	CEA Torch CXH <b>302/4</b> 4m - wire: Ø 0,8/1,2 water cooled - C02 300A @100% / Mix 250A @100%				
020479	CEA Torch CXH <b>402/4</b> 4m - wire: Ø 0,8/1,6 water cooled - C02 500A @100% / Mix 450A @100%		≈		≈
For other torches see mig/mag accessories page					
GROUND CABLES					
239603	50 mm² / 4 m <b>Ground cable</b> with clamp	●	≈	●	≈
GAS REDUCERS					
020916	Reducer with flowmeter and 1 manometer	●	≈	●	≈
OTHER OPTION[S]					
031126	Cable winding kit (Maxi I/Maxiq/Qubox)				
031124	TS1 - Torch support KIT (WF6 - WF7)				
030903	Extention cable for changeover polarity				
402275A	Cea <b>CL-1100</b> cooling liquid - 5 l Tank		≈		≈
236590	Metallic spool adaptor				
	MAXI 406 i Suggested air cooled version with torch	●			
	MAXI 406 i W Suggested water cooled version with torch		≈		
	MAXI 506 i Suggested air cooled version with torch			●	
	MAXI 506 i W Suggested water cooled version with torch				≈

## OPTIONAL KIT TO RETROFIT MAXI i AIR COOLED VERSION INTO MAXI i WATER COOLED VERSION

CODE	DESCRIPTION	MAXI i 406 AIR	MAXI i 406 W WATER	MAXI i 506 AIR	MAXI i 506 W WATER
KIT RETROFIT FOR WATER					
031012	Kit for Retrofit <b>IR 14</b>	≈		≈	
031009	Accessories type: "MXI" to connect water cooled interconnecting cable to the wire feeder				
030938	Accessories IR type: "J" to connect water cooled interconnecting cable to the wire feeder (WF 5)				
WATER COOLING					
032050	Water cooling equipment <b>IR 14</b> 400 V	≈		≈	



# MAXIQ

SOMETHING DIFFERENT IN THE WELDING MARKET



**MAXIQ** represent the logic evolution of the conventional step adjustment MIG equipment, with a modern inverter integrated into a sturdy metallic structure and a simple and innovative digital control which will always grant high quality welding performances.

**MAXIQ** keep the adjustment simplicity of the conventional MIG equipment, with two single knobs to set Voltage and Wire Speed, offering so the pleasure to set welding parameters as wished; this without any pre-selected synergic programs choosing the parameters on your behalf.

**MAXIQ** also allow to weld with the HYBRID SYNERGIC<sup>R</sup> mode which always detect the best feedback during the whole welding process, thus granting the same welding performances as the most modern equipment also in manual MIG mode.

These power sources represent the best choice in all industrial fields for all qualified applications, such as medium and large fabrication work, shipyards and steel erection



- Simple and strong
- Hybrid synergic<sup>R</sup> control
- Great welding performance



## MAXIQ FEATURES

- Two MIG/MAG welding modes: MANUAL and HYBRID SYNERGIC<sup>®</sup>
- All parameters digitally controlled directly from the wire feeder
- "HYBRID SYNERGIC<sup>®</sup> PRE SET" key for the best welding characteristic according to used type of material and wire
- "Energy saving" function to operate the power source cooling fan and torch water cooling only when necessary
- Excellent arc striking always precise and efficient
- Final crater control
- Burn-Back control
- MAXIQ W is fitted with an integrated water cooling unit for the torch

### WIRE FEEDER MF 4 / MF 4W

- **4 ROLLS** of large diameter
- **DOUBLE GROOVE ROLLS** replaceable without any tool
- **WIRE SPOOLS** up to Ø 300 mm
- **INSPECTION WINDOWS** in the spool cover
- **HK1** Hanging Kit
- **LONG INTERCONNECTING CABLE** are available for MAXIQ equipment in the air cooled version over 50 m
- **STRONG INDUSTRIAL CASE** made to last



### HYBRID SYNERGIC<sup>®</sup>

This control represents something absolutely innovative in the welding world.

While keeping the welding equipment in manual adjustment, the HYBRID SYNERGIC<sup>®</sup> - depending on the material and the diameter of the wire used - defines the best response in terms of starting and depositing of the wire throughout the welding cycle.

### SMART LED ASSISTANT

In addition, a "smart LED" signal helps less skilled operators to set the most appropriate welding parameters.





## FSC - Fast Start Control

It is the innovative arc striking control that reduces drastically the ignition time. By this new technology it is possible to have a quick and perfect ignition at every start. This is ideal for spot-welding and pre-assembly of components.


## SIMPLE AUTOMATION

MAXIQ are standard equipped with analogic-digital I/O. This allows to integrate very easily the power source into an automated welding equipment without any expensive and sophisticated external interfaces, usually necessarily supplied for robotics.

## SPECIAL 4 STROKE

It is the special function that allows to save time at any weld. Every welder who welds in 4 stroke can quickly prepare the piece operating a perfect spot without changing any set on the interface. Simply by pressing for less than one second the torch trigger, it is possible to spot in 2 stroke even if the welder is set in 4 stroke. Keeping the same set-up, it is only needed to press the trigger for more than one second and the welder automatically works in 4 stroke.



TECHNICAL DATA		MAXIQ		MAXIQ	
		400	400 W	500	500 W
Three phase input 50/60 Hz	V +/- 20%	400	400	400	400
Input Power @ I <sub>2</sub> Max	kVA	19	19,5	25,5	26
Delayed Fuse (I eff)	A	25	25	32	32
Power Factor / cos $\phi$		0,80 / 0,99	0,80 / 0,99	0,87 / 0,99	0,87 / 0,99
Efficiency Degree		0,86	0,86	0,86	0,86
Open circuit voltage	V	62	62	62	62
Current range	A	10 - 400	10 - 400	10 - 500	10 - 500
Duty cycle at (40°C)	A 100 %	300	300	390	390
	A 60 %	350	350	430	430
	A 35 %	400	400	500	500
Wire	Ø mm	0,6 - 1,6	0,6 - 1,6	0,6 - 1,6	0,6 - 1,6
Standards		EN 60974-1 • EN 60974-5 • EN 60974-10 • 			
Protection Class	IP	23 S	23 S	23 S	23 S
Dimensions (L x W x H)	mm	1040 x 495 x 950	1040 x 495 x 950	1040 x 495 x 950	1040 x 495 x 950
Weight	Kg	66	78	68	80

## ORDER INFORMATION

CODE		DESCRIPTION			MAXIQ 400 AIR	MAXIQ 400 W WATER	MAXIQ 500 AIR	MAXIQ 500 W WATER
POWER SOURCES								
006130	Power Source	MAXIQ 400	400 V		●			
006135	Power Source	MAXIQ 400 W	400 V	Water cooled		≈		
006140	Power Source	MAXIQ 500	400 V				●	
006145	Power Source	MAXIQ 500 W	400 V	Water cooled				≈
INTERCONNECTING CABLES								
010866	1,2 m	Air cooled	Interconnecting cable	Power source-Wire feeder	●		●	
010864	4 m	Air cooled	Interconnecting cable	Power source-Wire feeder				
010868	10 m	Air cooled	Interconnecting cable	Power source-Wire feeder				
010839	1,2 m	Water cooled	Interconnecting cable	Power source-Wire feeder		≈		≈
010841	4 m	Water cooled	Interconnecting cable	Power source-Wire feeder				
010846	10 m	Water cooled	Interconnecting cable	Power source-Wire feeder				
WIRE FEEDERS								
030730	Wire Feeder	MF 4	Hybrid Synergic <sup>®</sup> 4 rolls (Ø 1,0 / 1,2)	Air cooled version	●		●	
030735	Wire Feeder	MF 4 W	Hybrid Synergic <sup>®</sup> 4 rolls (Ø 1,0 / 1,2)	Water cooled version		≈		≈
031116	WK 4 standard wheels kit for MF feeder							
031007	WK 2 extra-large wheels kit for MF feeder							
031117	HK 1 - Hanging Kit for MF4 / MF4W							
ALUMINIUM KIT								
030895	Aluminium Kit of double grooved TWIN rolls (Ø 0,8/1,0) and gears kit for Al wires							
030897	Aluminium Kit of double grooved TWIN rolls (Ø 1,0/1,2) and gears kit for Al wires							
030899	Aluminium Kit of double grooved TWIN rolls (Ø 1,2/1,6) and gears kit for Al wires							
MIG MAG WELDING TORCHES								
020466	CEA Torch	CX 353/4	4 m wire Ø 0,8/1,2	C02 340A @60% / Mix 290A @60%	●			
020471	CEA Torch	CX 451/4	4m wire Ø 0,8/1,6	C02 400A @60% / Mix 300A @60%			●	
021006	CEA Torch	CX 353/4	Up/Down-17p 4m wire Ø 0,8/1,2	C02 340A @60% / Mix 290A @60%				
020472	CEA Torch	CXH 302/4	4m wire: Ø 0,8/1,2	water cooled C02 300A @100% / Mix 250A @100%				
020479	CEA Torch	CXH 402/4	4m wire: Ø 0,8/1,6	water cooled C02 500A @100% / Mix 450A @100%		≈		≈
021005	CEA Torch	CXH 302/4	Up/Down-17p 4m wire Ø 0,8/1,2	C02 300A @100% / Mix 250A @100%				
021007	CEA Torch	CXH 402/4	Up/Down-17p 4m wire Ø 0,8/1,6	C02 500A @100% / Mix 450A @100%				
021021	CEA Digitorch	DX 353/4-17p	4m wire Ø 0,8/1,2	C02 340A @60% / Mix 290A @60%				
021020	CEA Digitorch	DXH 302/4-17p	4m wire Ø 0,8/1,2	C02 300A @100% / Mix 250A @100%				
021022	CEA Digitorch	DXH 402/4-17p	4m wire Ø 0,8/1,6	C02 500A @100% / Mix 450A @100%				
For other torches see mig/mag accessories page								
GROUND CABLES								
239603	50 mm <sup>2</sup> / 4 m	Ground cable with clamp			●	≈		
239607	70 mm <sup>2</sup> / 4 m	Ground cable with clamp					●	≈
GAS REDUCERS								
020916	Reducer with flowmeter and 1 manometer				●	≈	●	≈
OTHER OPTION[S]								
031126	Cable winding kit (Maxi I/Maxiq/Qubox)							
030903	Extention cable for changeover polarity							
402275A	Cea	CL-1100	cooling liquid - 5 l	Tank		≈		≈
236234	RC 178 remote control with 5 m cable							
236590	Metallic spool adaptor							
	MAXIQ 400	Suggested air cooled version with torch			●			
	MAXIQ 400 W	Suggested water cooled version with torch				≈		
	MAXIQ 500	Suggested air cooled version with torch					●	
	MAXIQ 500 W	Suggested water cooled version with torch						≈



# Q-YARD

## THE MULTIPROCESS YARD MASTER



**Q-YARD** represents the ideal welding equipment for the needs of yard industry. This power source has been developed and produced with the highest quality and reliability criteria to allow the best welding performances in yard application.

The new wire feeders **MF4 YARD** and **MINI MF4 YARD** allow to keep the adjustment simplicity of the conventional MIG equipment with two knobs to set Voltage and Wire Speed.

**Q-YARD** can work with air-cooling interconnecting cable up to 80m and up to 40m with water-cooled ones.

**Q-YARD** allows to weld with the **HYBRID SYNERGIC<sup>R</sup>** mode granting the same welding performances as the most modern equipment also in manual MIG mode.



- Multi-process, for yard welding application
- Hybrid Synergic<sup>R</sup> control
- Excellent welding performance





## Q-YARD FEATURES

- Process: MIG, MMA, TIG Lift
- Special design optimized for yard industry: easy to stack on top of each other
- Two MIG/MAG welding modes: MANUAL and HYBRID SYNERGIC<sup>®</sup>
- All parameters are digitally controlled directly from the wire feeder
- "Hybrid Synergic<sup>®</sup> PRE SET" key for the best welding characteristic according to used type of material and wire
- Great robustness due to solid metallic main structure
- Excellent arc striking always precise and efficient
- "Energy saving" function to operate the power source cooling fan and torch water cooling only when necessary
- Final crater control
- Burn-Back control

### WIRE FEEDER

#### MF4 YARD / MINI MF4 YARD

- **DIGITAL CONTROL** of all parameters is located directly on the **MF4 YARD** (air cooled) and **MF4W YARD/MINI MF4W YARD** (water cooled).
- **GAS FLOWMETER** standard equipped
- **PROFESSIONAL WIRE FEEDING** mechanism with 4 rolls of large diameter for a precise and constant wire driving
- **DOUBLE GROOVE** rolls replaceable without any tool
- **WIRE SPOOLS** up to Ø 300 mm (MF4 YARD) or Ø 200 mm (MINI MF4 YARD)
- **INSPECTION WINDOW** in the spool cover (MF4)
- **HK1** Hanging Kit (MF4 optional)
- **MMA ADAPTOR** socket for welding MMA directly from the feeder (optional)
- **LONG INTERCONNECTING CABLE** are available for QYARD equipment in the air cooled version over 50 m
- **STRONG INDUSTRIAL CASE** made to last



#### HYBRID SYNERGIC<sup>®</sup>

This control represents something absolutely innovative in the welding world.

While keeping the welding equipment in manual adjustment, the HYBRID SYNERGIC<sup>®</sup> - depending on the material and the diameter of the wire used - defines the best response in terms of starting and depositing of the wire throughout the welding cycle.

#### SMART LED ASSISTANT

In addition, a "smart LED" signal helps less skilled operators to set the most appropriate welding parameters.



## FSC - Fast Start Control

It is the innovative arc striking control that reduces drastically the ignition time. By this new technology it is possible to have a quick and perfect ignition at every start. This is ideal for spot-welding and pre-assembly of components.

## SIMPLE AUTOMATION

Q-YARD are standard equipped with analogic-digital I/O. This allows to integrate very easily the power source into an automated welding equipment without any expensive and sophisticated external interfaces, usually necessarily supplied for robotics.

## SPECIAL 4 STROKE

It is the special function that allows to save time at any weld. Every welder who welds in 4 stroke can quickly prepare the piece operating a perfect spot without changing any set on the interface. Simply by pressing for less than one second the torch trigger, it is possible to spot in 2 stroke even if the welder is set in 4 stroke. Keeping the same set-up, it is only needed to press the trigger for more than one second and the welder automatically works in 4 stroke.

## SPECIAL YARD FEATURE

Q-YARD are equipped with all the key features for an easy usage in the yard industry. It is standard the option to stack the generator on multiple levels and to connect the feeder to 15 kg or 5 kg spools.

In combination with the optional HR 42-LC (water cooling system), it is possible to use interconnecting cable up to 40m. Whilst in air cooling setups the maximum interconnecting cable is 80m.



TECHNICAL DATA		Q-YARD 450
Three phase input 50/60 Hz	V +/- 20%	400
Input Power @ I <sub>2</sub> Max	kVA	22
Delayed Fuse (I eff)	A	32
Power Factor / cos $\phi$		0,84 / 0,99
Efficiency Degree		0,86
Open circuit voltage	V	62
Current range	A	10 - 450
Duty cycle at (40°C)	A 100 %	390
	A 50 %	450
Wire	Ø mm	0,6 - 1,6
Standards		EN 60974-1 • EN 60974-5 • EN 60974-10- [S]
Protection Class	IP	23 S
Dimensions (L x W x H)	mm	631 (782 with handle) x 273 x 512 (543 with eyebolts)
Weight	Kg	56

## ORDER INFORMATION

CODE	DESCRIPTION	Q-YARD 450	
		AIR	WATER
POWER SOURCE			
006160	Power Source <b>Q-YARD 450</b> 400 V	●	≈
STANDARD MODELS include Programs for Fe - CrNi - Al and TIG / MMA functions			
INTERCONNECTING CABLES			
010866	1,2 m Air cooled Interconnecting cable Power source-Wire feeder	●	
010867	5 m Air cooled Interconnecting cable Power source-Wire feeder		
010868	10 m Air cooled Interconnecting cable Power source-Wire feeder		
010871	20 m / 70 mm² Air cooled for DIGITECH, QUBOX, MAXIQ and Q-YARD		
010869	30 m / 70 mm² Air cooled for DIGITECH, QUBOX, MAXIQ and Q-YARD		
010872	40 m / 70 mm² Air cooled for DIGITECH, QUBOX, MAXIQ and Q-YARD		
010839	1,2 m Water cooled Interconnecting cable Power source-Wire feeder		≈
010842	5 m Water cooled Interconnecting cable Power source-Wire feeder		
010846	10 m Water cooled Interconnecting cable Power source-Wire feeder		
010854	20 m / 70 mm² Water cooled for DIGITECH, QUBOX, MAXIQ and Q-YARD		
010876	30 m / 70 mm² Water cooled for DIGITECH and Q-YARD to be use with code 032105 - HR 41-LC water cooler		
WIRE FEEDERS			
030731	Wire Feeder <b>MF 4 yard</b> with A/V and Flowmeter - 4 rolls (Ø: 1,0 / 1,2) Air cooled	●	
030736	Wire Feeder <b>MF 4 W yard</b> with A/V and Flowmeter - 4 rolls (Ø: 1,0 / 1,2) Water cooled		≈
400034	Adaptor socket for MMA directly from the wire feeder		
031116	<b>WK 4</b> standard wheels kit for MF 4, MF4 yard and QF 7 W PRO DRIVE feeder		
031007	<b>WK 2</b> extra-large wheel kit		
031117	<b>HK 1</b> Hanging Kit for MF4 / MF4 yard		
YARD WIRE FEEDERS			
030727	Wire Feeder <b>Mini MF 4 yard</b> with A/V and Flowmeter 4 rolls (Ø: 1,0 / 1,2) Air cooled		
030728	Wire Feeder <b>Mini MF 4 W yard</b> with A/V and Flowmeter 4 rolls (Ø: 1,0 / 1,2) Water cooled		
ALUMINIUM KIT			
030895	<b>Aluminium Kit</b> of double grooved TWIN rolls (Ø: 0,8/1,0) and gears kit for Al wires		
030897	<b>Aluminium Kit</b> of double grooved TWIN rolls (Ø: 1,0/1,2) and gears kit for Al wires		
030899	<b>Aluminium Kit</b> of double grooved TWIN rolls (Ø: 1,2/1,6) and gears kit for Al wires		
WATER COOLING			
032130	Water cooling equipment <b>HRX 52</b> 400 V		≈
032131	Water cooling equipment <b>HRX 62-LC</b> 400 V reinforced pump - 4,5 bar - for connection length over 20 m		
031174	Kit for connection Q-YARD with HRX		≈
402275A	Cea <b>CL-1100</b> cooling liquid - 5 l Tank		≈
TROLLEY			
031008	WK 3 extra-large wheels kit for Q-YARD (without cylinder holder)		
234914	Trolley <b>CT 70</b> with 4 rolls for power source, cooling equipment and cylinder (and autotransformer)	●	≈
MIG MAG WELDING TORCHES			
020471	CEA Torch <b>CX 451/4</b> 4 m wire Ø 0,8/1,6 C02 400A @60% / Mix 300A @60%	●	
021006	CEA Torch <b>CX 353/4</b> Up/Down-17p 4m wire Ø 0,8/1,2 C02 340A @60% / Mix 290A @60%		
020479	CEA Torch <b>CXH 402/4</b> 4 m wire Ø 0,8/1,6 water cooled C02 500A @100% / Mix 450A @100%		≈
021007	CEA Torch <b>CXH 402/4</b> Up/Down-17p 4m wire Ø 0,8/1,6 C02 500A @100% / Mix 450A @100%		
021021	CEA Digitorch <b>DX 353/4-17p</b> 4m wire Ø 0,8/1,2 C02 340A @60% / Mix 290A @60%		
021022	CEA Digitorch <b>DXH 402/4-17p</b> 4m wire Ø 0,8/1,6 C02 500A @100% / Mix 450A @100%		
For other torches see mig/mag accessories page			
TIG TORCH WITH BUILT-IN GAS VALVE FOR TOUCH-START TECHNIQUE			
020568	Torch <b>RTX 26.4</b> 4 m - 180 A 35%		
GROUND CABLES			
239607	70 mm² / 4 m <b>Ground cable</b> with clamp	●	≈
GAS REDUCERS			
020916	Reducer with flowmeter and 1 manometer	●	≈
OPTIONAL			
030903	Extention cable for changeover polarity		
236590	Metallic spool adaptor		
236234	<b>RC 178</b> remote control with 5 m cable		
460262	4+3 m 50 mm² cables with electrodeholder pincer, ground clamp and 50 mm² safety connections brush/hammer - shield with lens		
Q-YARD 450 - Suggested air cooled version with torch		●	
Q-YARD 450 - Suggested water cooled version with torch			≈





# QUBOX / QUBOX PULSE

BACK TO WELD



QUBOX



QUBOX PULSE

**QUBOX** and **QUBOX PULSE** series multiprocess equipment are characterized by a synergic digital control and inverter technology integrated into a sturdy and functional metallic structure, with a separate wire feeder. Technologically advanced, robust and easy-to-use, they allow high quality welding in MMA, TIG with "Lift" mode, MIG-MAG and with the **QUBOX PULSE** models, also in PULSED MIG.

The intuitive interface will allow less experienced operators to easily operate **QUBOX** and **QUBOX PULSED** equipment with a user-friendly welding parameters adjustment process.

Once the wished program has been selected, the welding control automatically sets the best parameters based on the material type, wire diameter and gas being used.

**QUBOX** and **QUBOX PULSE** are the best choice in all industrial fields for all qualified applications requiring high precision and repeatability of the welding results, such as medium and large fabrication work, shipyards and steel erection.

**QUBOX W** and **QUBOX W PULSE** power sources are fitted with integrated water cooling unit.



VISION.ARC

vision.PULSE

- Professional and strong
- Full synergic control
- Great welding performance

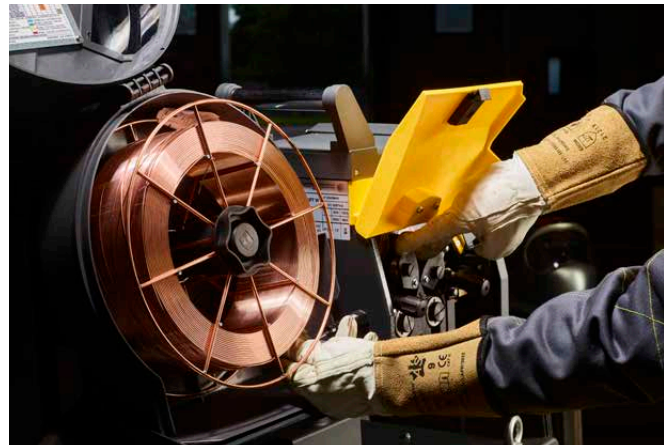


## QUBOX FEATURES

- Parameter control directly from the wire feeder
- Digital control of the welding parameters with synergic curves preset according to used type of material, gas and wire diameter
- "Smart PROGRAM" key for quickly selecting any program
- "Energy saving" function to operate the power source cooling fan and torch water cooling only when necessary
- Excellent arc striking always precise and efficient
- Ability to partially or totally lock the equipment with access key by password
- Great robustness due to solid metallic main structure
- Initial and final crater control
- Water cooling equipment integrated into the power source (W version)

### WIRE FEEDER QF7 W PRO DRIVE

- **STRONG INDUSTRIAL CASE** made to last
- **PROFESSIONAL WIRE FEEDING** mechanism with 4 rolls of large diameter for a precise and constant wire driving
- **DOUBLE GROOVE ROLLS** replaceable without any tool
- **LODGING FOR WIRE SPOOLS** up to Ø 300 mm
- **LED LIGHT** in the feeder compartment
- **INSPECTION WINDOWS** in the spool cover
- **HK1** Hanging Kit (optional)
- **LONG INTERCONNECTING CABLE** are available for QUBOX equipment in the air cooled version over 50 m



### WIRE FEEDER YARD 4

This compact and light wire feeder (11,5 Kg only), studied for Ø 200 mm wire spools, with flowmeter and complete control of the parameters on its panel, represents the ideal solution for shipyards and offshore welding applications.



## FSC - Fast Start Control

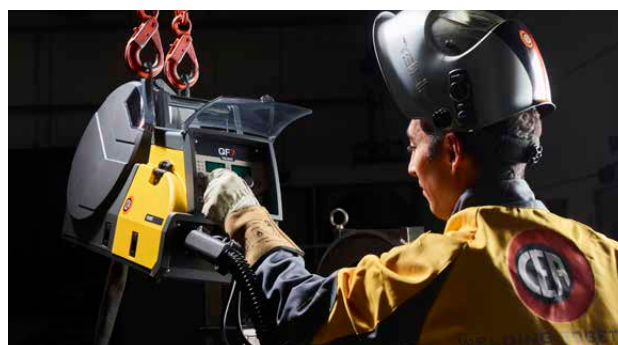
It is the innovative arc striking control that reduces drastically the ignition time. By this new technology it is possible to have a quick and perfect ignition at every start. This is ideal for spot-welding and pre-assembly of components.

## SIMPLE AUTOMATION

Standard equipped with analogic-digital I/O, QUBOX power sources can be easily integrated into automated welding equipment without any expensive and sophisticated external interfaces usually necessarily supplied for robotics.

## SPECIAL 4 STROKE

It is the special function that allows to save time at any weld. Every welder who welds in 4 stroke can quickly prepare the piece operating a perfect spot without changing any set on the interface. Simply by pressing for less than one second the torch trigger, it is possible to spot in 2 stroke even if the welder is set in 4 stroke. Keeping the same set-up, it is only needed to press the trigger for more than one second and the welder automatically works in 4 stroke.



## SPECIAL PROCESSES

QUBOX and QUBOX PULSE models are available in: STANDARD configurations, designed for the most used welding applications, and PREMIUM, equipped with the innovative welding processes vision.COLD, vision.ULTRASPEED and vision.POWER. On this second version is standard the package of special ECP curves dedicated to those who want a system with higher level welding performance and who is not willing to give up the flexibility to weld different materials.

### PREMIUM VISION



vision.COLD  
To weld thin thickness laminations with low heat transfer



vision.POWER  
For a more concentrated arc and deeper penetration on medium and thick thickness



vision.ULTRASPEED  
For high speed welding



ECP  
Extra curve package

### ON DEMAND



vision.PIPE  
For a more accurate welding in pipe first root pass.

TECHNICAL DATA		QUBOX			QUBOX PULSE			
		400	400 W	500 W	335	335 W	405 W	505 W
Three phase input 50/60 Hz	V +/- 20%	400	400	400	400	400	400	400
Input Power @ I <sub>2</sub> Max	kVA	22	22,5	29,5	18	18,5	22,5	29,5
Delayed Fuse (I eff)	A	32	32	40	20	20	32	40
Power Factor / cos φ		0,70/0,99	0,70/0,99	0,75/0,99	0,65/0,99	0,65/0,99	0,70/0,99	0,75/0,99
Efficiency Degree		0,88	0,88	0,89	0,88	0,88	0,88	0,89
Open circuit voltage	V	62	62	62	62	62	62	62
Current range	A	10 - 400	10 - 400	10 - 500	10 - 330	10 - 330	10 - 400	10 - 500
Duty cycle at (40°C)	A 100 %	350	350	420	300	300	350	420
	A 60 %	400	400	500	330	330	400	500
Wire	Ø mm	0,6 - 1,6	0,6 - 1,6	0,6 - 1,6	0,6 - 1,6	0,6 - 1,6	0,6 - 1,6	0,6 - 1,6
Standards		EN 60974-1 • EN 60974-5 • EN 60974-10- [S]						
Protection Class	IP	23 S	23 S	23 S	23 S	23 S	23 S	23 S
Dimensions (L x W x H)	mm	1030 X 950 X 515	1030 X 950 X 515	1030 X 950 X 515	1030 X 950 X 515	1030 X 950 X 515	1030 X 950 X 515	1030 X 950 X 515
Weight	Kg	70	80	86	70	80	80	86



CODE	DESCRIPTION	QUBOX			QUBOX PULSE			
		400 AIR	400W WATER	500W WATER	335 AIR	335W WATER	405W WATER	505W WATER
	POWER SOURCES							
004730	Power Source <b>QUBOX 400</b> 400 V	●						
004740	Power Source <b>QUBOX 400 W</b> 400 V Water cooled		≈					
004745	Power Source <b>QUBOX 500 W</b> 400 V Water cooled			≈				
004766	Power Source <b>QUBOX 335 PULSE</b> 400 V				●			
004771	Power Source <b>QUBOX 335 W PULSE</b> 400 V Water cooled					≈		
004770	Power Source <b>QUBOX 405 W PULSE</b> 400 V Water cooled						≈	
004775	Power Source <b>QUBOX 505 W PULSE</b> 400 V Water cooled							≈
	STANDARD MODELS include Programs for Fe - CrNi - Al and TIG / MMA functions							
	PREMIUM VERSION - POWER SOURCES							
004730PR	Power Source <b>QUBOX 400</b> 400 V <b>PREMIUM</b>							
004740PR	Power Source <b>QUBOX 400 W</b> 400 V <b>PREMIUM</b> water cooled							
004745PR	Power Source <b>QUBOX 500 W</b> 400 V <b>PREMIUM</b> water cooled							
004766PR	Power Source <b>QUBOX 335 PULSE</b> 400 V <b>PREMIUM</b>							
004771PR	Power Source <b>QUBOX 335 W PULSE</b> 400 V <b>PREMIUM</b> water cooled							
004770PR	Power Source <b>QUBOX 405 W PULSE</b> 400 V <b>PREMIUM</b> water cooled							
004775PR	Power Source <b>QUBOX 505 W PULSE</b> 400 V <b>PREMIUM</b> water cooled							
	PREMIUM MODELS include already install vision.COLD vision.ULTRASPEED vision.POWER and ECP							
	SOFTWARE FOR SPECIAL MIG/MAG PROCESS							
050010	<b>vision.PIPE</b> for first root pass of pipes in MIG/MAG (*)							
050050	<b>ECP-Extra Curves Package</b> to meet special application (*)							
NOTE:	(*) TO BE INSTALLED ONLY IN CEA BEFORE DELIVERING THE EQUIPMENT							
	INTERCONNECTING CABLES							
010866	1,2 m Air cooled Interconnecting cable Power source-Wire feeder	●			●			
010867	5 m Air cooled Interconnecting cable Power source-Wire feeder							
010868	10 m Air cooled Interconnecting cable Power source-Wire feeder							
010839	1,2 m Water cooled Interconnecting cable Power source-Wire feeder		≈	≈		≈	≈	≈
010842	5 m Water cooled Interconnecting cable Power source-Wire feeder							
010846	10 m Water cooled Interconnecting cable Power source-Wire feeder							
	WIRE FEEDERS							
030726	Wire Feeder <b>QF 7 W PRO DRIVE</b> w.4 rolls (Ø: 1,0/1,2) Water cooled	●	≈	≈	●	≈	≈	≈
031116	<b>WK 4</b> standard wheels kit for MF 4, MF4 yard and QF 7 W PRO DRIVE feeder							
031007	<b>WK 2</b> extra-large wheel kit							
031117	<b>HK 1</b> Hanging Kit for QF 7 W PRO DRIVE							
	YARD WIRE FEEDERS							
030724	Wire Feeder <b>YARD 4</b> with A/V and Flowmeter 4 rolls (Ø: 1,0 / 1,2) Air cooled version							
030729	Wire Feeder <b>YARD 4 W</b> with A/V and Flowmeter 4 rolls (Ø: 1,0 / 1,2) Water cooled version							
	ALUMINIUM KIT							
030895	<b>Aluminium Kit</b> of double grooved TWIN rolls (Ø: 0,8/1,0) and gears kit for Al wires							
030897	<b>Aluminium Kit</b> of double grooved TWIN rolls (Ø: 1,0/1,2) and gears kit for Al wires							
030899	<b>Aluminium Kit</b> of double grooved TWIN rolls (Ø: 1,2/1,6) and gears kit for Al wires							
	MIG MAG WELDING TORCHES							
020466	CEA Torch <b>CX 353/4</b> 4 m wire Ø 0,8/1,2 C02 340A @60% / Mix 290A @60%				●			
020471	CEA Torch <b>CX 451/4</b> 4 m wire Ø 0,8/1,6 C02 400A @60% / Mix 300A @60%	●						
021006	CEA Torch <b>CX 353/4</b> Up/Down-17p 4m wire Ø 0,8/1,2 C02 340A @60% / Mix 290A @60%							
020472	CEA Torch <b>CXH 302/4</b> 4 m wire Ø 0,8/1,2 water cooled C02 300A @100% / Mix 250A @100%					≈		
020479	CEA Torch <b>CXH 402/4</b> 4 m wire Ø 0,8/1,6 water cooled C02 500A @100% / Mix 450A @100%		≈	≈			≈	≈
021007	CEA Torch <b>CXH 402/4</b> Up/Down-17p 4m wire Ø 0,8/1,6 C02 500A @100% / Mix 450A @100%							
021021	CEA Digtorch <b>DX 353/4-17p</b> 4m wire Ø 0,8/1,2 C02 340A @60% / Mix 290A @60%							
021022	CEA Digtorch <b>DXH 402/4-17p</b> 4m wire Ø 0,8/1,6 C02 500A @100% / Mix 450A @100%							
	For other torches see mig/mag accessories page							
	TIG TORCHES WITH BUILT-IN GAS VALVE FOR TOUCH-START TECHNIQUE							
020568	Torch <b>RTX 26.4</b> 4 m - 180 A 35%							
	GROUND CABLES							
239603	50 mm <sup>2</sup> / 4 m <b>Ground cable</b> with clamp	●	≈		●	≈	≈	
239607	70 mm <sup>2</sup> / 4 m <b>Ground cable</b> with clamp			≈				≈
	GAS REDUCERS							
020916	Reducer with flowmeter and 1 manometer	●	≈	≈	●	≈	≈	≈
	OTHER OPTION[S]							
031126	Cable winding kit (Maxi I/Maxiq/Qubox)							
030903	Extention cable for changeover polarity							
402275A	Cea <b>CL-1100</b> cooling liquid - 5 l Tank		≈	≈		≈	≈	≈
353473	Dust Air Filter (package of 4 pcs)							
236590	Metallic spool adaptor							
236234	<b>RC 178</b> remote control with 5 m cable							
460262	4+3 m 50 mm <sup>2</sup> cables with electrodeholder pincer, ground clamp - brush/hammer - shield with lens							
460264	4+3 m 70 mm <sup>2</sup> cables with electrodeholder pincer, ground clamp - brush/hammer - shield with lens							
	<b>QUBOX 400</b> Suggested air cooled version with torch	●						
	<b>QUBOX 400 W</b> Suggested water cooled version with torch		≈					
	<b>QUBOX 500 W</b> Suggested water cooled version with torch			≈				
	<b>QUBOX 335 PULSE</b> Suggested air cooled version with torch				●			
	<b>QUBOX 335 W PULSE</b> Suggested water cooled version with torch					≈		
	<b>QUBOX 405 W PULSE</b> Suggested water cooled version with torch						≈	
	<b>QUBOX 505 W PULSE</b> Suggested water cooled version with torch							≈



# DIGITECH

## THE WELDING EDGE



**DIGITECH** are the most advanced and top performing multi-process pulse welding equipment of CEA.

Developed with the arc control software vision.ARC2, **DIGITECH** obtain incredible quality results with any material in all welding application.

**DIGITECH** are characterized by a digital interface with colour display and a synergic control to automatically determine the best welding parameters, based on the used type of material, the wire diameter and the gas.

Technologically ahead and easy-to-use, they offer premium welding quality at high speed in PULSED MIG, DUAL PULSED, MIG-MAG, MMA and TIG with "lift" arc striking.

**DIGITECH** are open to be connected to a LAN, allowing to interface the equipment to a robot and support software, making these equipment the best solution in any industrial field requiring high precision and repeatability of the achieved results and complying with all the demands of the 4.0 Industry.

**DIGITECH 3200 VP2** is the compact version designed with a built-in feeder while **DIGITECH 4003 VP3** and **5003 VP3** use a separate wire feeder and are available with the new imposing design.



VISION.ARC2

vision.PULSE

dual.PULSE

- Top welding performance
- LCD Panel Interface
- Complete connectivity
- Special MIG and Pulse process possibility



## DIGITECH FEATURES

- High tech multi-process equipment with exceptional performance in PULSED MIG, DUAL PULSED, MIG/MAG, MMA and TIG.
- Digital control of the welding parameters with preset synergic curves according to the type of material, gas and wire diameter being used
- Possibility of integrating special welding process: vision.MIG and vision.PULSED
- vision.ARC2 guarantees a constant arc in all conditions and the perfect droplet detachment, mostly in PULSED MIG and DUAL PULSED, to achieve superior welding performances
- User Interface with LCD colour display to keep under control the whole welding process
- Monitoring and repeatability of the welding parameters
- Excellent arc striking always precise and efficient
- Ability to partially or totally lock the equipment with access key by password
- "Energy Saving" function to operate the power source cooling fan and torch water cooling when necessary
- Welding parameter adjustments directly from Up/Down MIG torch
- LAN connectivity to the network via Ethernet port or WIFI (Optional)
- Data storing and data printing ability (Optional)

## WIRE FEEDER HT6 PRO DRIVE

- **PROFESSIONAL WIRE FEEDING** mechanism with 4 rolls of large diameter for a precise and constant wire driving
- **DOUBLE GROOVE ROLLS** replaceable without any tool
- **LODGING FOR WIRE SPOOLS** up to Ø 300 mm
- **LED LIGHT** in the feeder compartment (HT6 Pro Drive)
- **INSPECTION WINDOWS** in the spool cover (HT6 Pro Drive)
- **HK1** Hanging Kit (HT6 Pro Drive - Optional)
- **STRONG INDUSTRIAL CASE** made to last
- **GRADUATED KNOB** to achieve the most correct value of the wire pressure cables from the power source to the feeder.



## DOUBLE FEEDER

DIGITECH in the version with double wire feeder represents the ideal solution whenever a greater flexibility is needed in all applications using two different types of material, wire or gas.

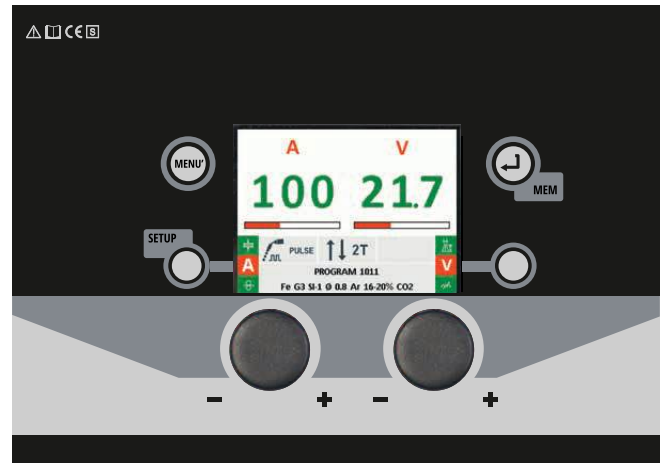




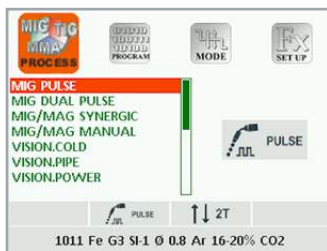
# DIGITECH SYNERGIC CONTROL

DIGITECH control, fitted with the innovative colour display with icons and a clear infographic, allows even less expert welders to very easily adjust all the welding parameters in an intuitive way with extreme simplicity.

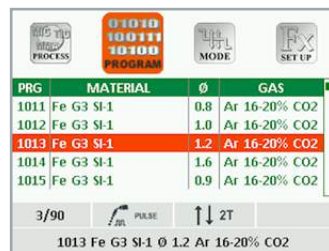
At the same time, DIGITECH power sources offer also most expert welders the possibility of fine tuning and customizing the welding process control, thanks to the ability to access clear, simple and complete under menus for the best possible configuration and optimization of the equipment.



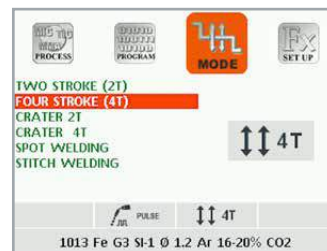
## PROCESS SELECTION



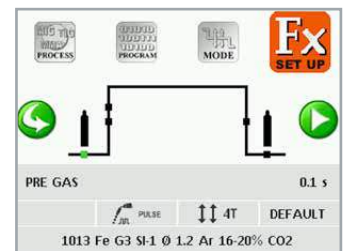
## PROGRAM SELECTION



## WELDING MODE



## WELDING SET UP



## WSC - Wire Start Control

This arc striking control device prevents any possible wire sticking to the workpiece or torch nozzle, by always ensuring a prompt and precise arc striking

## SIMPLE AUTOMATION

Standard equipped with analogic-digital I/O, DIGITECH can be easily integrated into automated welding equipment without any expensive and sophisticated external interfaces usually necessarily supplied for robotics.

## ETHERNET LAN

Possibility of having a special version fitted with an external Ethernet socket to interface the equipment to a remote device and support software.

## DIGITECH 4.0 READY

These units have the possibility to be connected to an industrial LAN through an Ethernet port or by a WiFi LAN (Optional), to satisfy all the requirement of 4.0 industry.



## ROBOT INTERFACE

DIGITECH power sources can be connected to any Robot or Cobot by means of a CEA Robot Interface which can handle several analogic, fieldbus digital protocols depending on the features of the Robot to be used.

### RI-A1



ANALOGIC/DIGITAL INTERFACE

### RI-D



DIGITAL FIELD BUS INTERFACE



## SPECIAL PROCESSES

vision.ARC2 is the software platform available on DIGITECH, which enables to weld with the following optional special processes:

### MIG MAG



**vision.COLD**  
To weld thin thickness laminations with low heat transfer



**vision.ULTRASPEED**  
For high speed welding



**vision.POWER**  
For a more concentrated arc and deeper penetration on medium and thick thickness



**vision.PIPE**  
For a more accurate welding in pipe first root pass.

### MIG PULSED



**vision.PULSE-POWER**  
For a deeper and more flattened welding bead on medium large thickness



**vision.PULSE-RUN**  
For a faster and colder pulse welding



**vision.PULSE-UP**  
For a faster and more precise vertical up welding

### ECP



**EXTRA CURVE PACKAGE**  
A complete set of welding curves for different materials

## CQM CEA QUALITY MANAGER - CWM CEA WELDER MANAGER

**CQM (CEA QUALITY MANAGER)** is a software developed by CEA to enable welding data recording, monitoring, and printing by means of an external computer connected to one or more DIGITECH power sources.

**CWM (CEA WELDER MANAGER)** is a software developed by CEA designed to monitor the status of one or more DIGITECH power sources by connecting them via Ethernet (or Wi-Fi optional) to an external computer in the same network.



TECHNICAL DATA		DIGITECH VP2		DIGITECH VP3	
		3200	4003	5003	
Three Phase input 50/60 Hz	V +10% -10%	400	400	400	
Input Power @ I <sub>2</sub> Max	kVA	19	23,4	29,5	
Delayed Fuse (I eff)	A	20	32	40	
Power Factor / cos φ		0,66/0,99	0,65/0,99	0,75/0,99	
Efficiency Degree		0,85	0,88	0,89	
Open circuit voltage	V	62	62	62	
Current range	A	10 - 320	10 - 400	10 - 500	
Duty cycle at (40°C)	A 100 %	240	350	400	
	A 60 %	270	400	460	
	A X %	320 (40%)	-	500 (50%)	
Wires	Ø mm	0,6 - 1,6	0,6 - 1,6	0,6 - 1,6	
Standards		EN 60974-1 • EN 60974-5 • EN 60974-10 <b>S</b>			
Protection Class	IP	23 S	23 S	23 S	
Dimensions (L x W x H)	mm	660 x 290 x 515	725 x 310 x 525	725 x 310 x 525	
Weight	Kg	41	45	47	

## DIGITECH 3200 VP2

### ORDER INFORMATION

CODE	DESCRIPTION	DIGITECH VP2 3200	
		AIR	WATER
POWER SOURCES			
004700	Power Source <b>DIGITECH 3200 VP2</b> 400 V (4 rolls for wire Ø 0,8/1,0 mm)	●	≈
SPECIAL VERSION - POWER SOURCE FITTED WITH SOFTWARE			
004700PR	Power Source <b>DIGITECH 3200 VP2 PREMIUM</b> 400 V with vision.FULL PACKAGE and Ethernet socket		
ALUMINIUM KIT			
030895	<b>Aluminium Kit</b> of double grooved TWIN rolls (Ø 0,8/1,0) and gears kit for Al wires		
030897	<b>Aluminium Kit</b> of double grooved TWIN rolls (Ø 1,0/1,2) and gears kit for Al wires		
SOFTWARE FOR SPECIAL MIG/MAG PROCESS			
050002	<b>SM1 - SPECIAL MIG</b> Process Package including: vision.COLD, vision.POWER, vision.ULTRASPEED, vision.PIPE and ECP - Extra Curves Package		
050003	<b>SP2 - PERFORMANCE</b> Process Package including: vision.PULSE-UP, vision.PULSE-RUN, vision.ULTRASPEED and ECP - Extra Curves Package		
050004	<b>SFP - vision.FULL-PACKAGE</b> complete package with SM1 and SP2: vision.PULSE-UP, vision.PULSE-RUN and vision.PULSE-POWER with ECP		
050050	<b>ECP</b> - Extra Curves Package to meet special application		
EN 1090 WPQR - WPS			
Collection of WPQR - WPS for DIGITECH		Page 111	
MIG MAG WELDING TORCHES			
020466	CEA Torch <b>CX 353/4</b> 4 m wire Ø 0,8/1,2 C02 340A @60% / Mix 290A @60%	●	
021006	CEA Torch <b>CX 353/4</b> Up/Down-17p 4m wire Ø 0,8/1,2 C02 340A @60% / Mix 290A @60%		
020472	CEA Torch <b>CXH 302/4</b> 4 m wire Ø 0,8/1,2 water cooled C02 300A @100% / Mix 250A @100%		≈
021005	CEA Torch <b>CXH 302/4</b> Up/Down-17p 4m wire Ø 0,8/1,2 C02 300A @100% / Mix 250A @100%		
021021	CEA <b>Digitorch DX 353/4-17p</b> 4m wire Ø 0,8/1,2 C02 340A @60% / Mix 290A @60%		
021020	CEA <b>Digitorch DXH 302/4-17p</b> 4m wire Ø 0,8/1,2 C02 300A @100% / Mix 250A @100%		
For other torches see MIG/MAG accessories page			
TIG TORCHES WITH BUILT-IN GAS VALVE FOR TOUCH-START TECHNIQUE			
020568	Torch <b>RTX 26.4</b> 4 m - 180 A 35%		
WATER COOLING			
032098	Water cooling equipment <b>HR 32</b> 400 V		≈
402275A	Cea <b>CL-1100</b> cooling liquid - 5 l Tank		≈
TROLLEYS			
234914	Trolley <b>CT 70</b> with 4 rolls for power source, cooling equipment and cylinder (and autotransformer)	●	≈
GROUND CABLES			
239603	50 mm² / 4 m <b>Ground cable</b> with clamp	●	≈
GAS REDUCERS			
020916	Reducer with flowmeter and 1 manometer	●	≈
OTHER OPTION[S]			
236590	Metallic spool adaptor		
236234	<b>RC 178</b> remote control with 5 m cable		
020340	Autotransformer <b>A 13-H</b> 220/400 V 50/60 Hz 3 Phase		
460292	4+3 m 35 mm² cables with electrodeholder pincer, ground clamp and 50 mm² safety connections - brush/hammer - shield with lens		
	DIGITECH 3200 VP2 COMPACT Suggested air cooled version with torch	●	
	DIGITECH 3200 VP2 COMPACT Suggested water cooled version with torch		≈



DIGITECH 3200 VP2 COMPACT

# DIGITECH 4003/5003 VP3

## ORDER INFORMATION

CODE	DESCRIPTION	DIGITECH VP3 4003		DIGITECH VP3 5003	
		AIR	WATER	AIR	WATER
	POWER SOURCES				
004708	Power Source <b>DIGITECH 4003 VP3</b> 400 V	●	≈		
004713	Power Source <b>DIGITECH 5003 VP3</b> 400 V			●	≈
	SPECIAL VERSION - POWER SOURCE FITTED WITH SOFTWARE				
004708PR	Power source <b>DIGITECH 4003 VP3 PREMIUM</b> 400 V with vision.FULL PACKAGE and Ethernet socket				
004713PR	Power source <b>DIGITECH 5003 VP3 PREMIUM</b> 400 V with vision.FULL PACKAGE and Ethernet socket				
	DIGITECH VP3's PREMIUM READY FOR INDUSTRY 4.0 - PREPARED To be connected to QR WIFI READER and/or to WIFI LAN				
004709PR	Power source <b>DIGITECH 4003 VP3 PREMIUM 4.0 READY</b> 400V vision.FULL PACKAGE & Ethernet & USB socket				
004714PR	Power source <b>DIGITECH 5003 VP3 PREMIUM 4.0 READY</b> 400V vision.FULL PACKAGE & Ethernet & USB socket				
	SOFTWARE FOR SPECIAL MIG/MAG PROCESS				
050002	<b>SM1 - SPECIAL MIG</b> Process Package: vision.COLD, vision.POWER, vision.ULTRASPEED, vision.PIPE and ECP				
050003	<b>SP2 - PERFORMANCE</b> Process Package: vision.PULSE-UP, vision.PULSE-RUN, vision.ULTRASPEED and ECP				
050004	<b>SFP - vision.FULL-PACKAGE</b> complete package with Special MIG Process Package (SM1) and Special PULSE Process: vision.PULSE-UP, vision.PULSE-RUN and vision.PULSE-POWER with extra curves ECP				
050050	<b>ECP</b> -Extra Curves Package to meet special application				
	EN 1090 WPQR - WPS				
	Collection of WPQR - WPS for DIGITECH				
	Page 111				
	INTERCONNECTING CABLES				
010839	1,2 m Air / Water cooled Interconnecting cable Power source-Wire feeder	●	≈	●	≈
010842	5 m Air / Water cooled Interconnecting cable Power source-Wire feeder				
010846	10 m Air / Water cooled Interconnecting cable Power source-Wire feeder				
	WIRE FEEDERS				
030716	Wire Feeder <b>HT 6 PRO DRIVE</b> 4 rolls (Ø 1,0/1,2)	●	≈	●	≈
031116	<b>WK 4</b> standard wheels kit for HT 6 PRO DRIVE feeder				
031007	<b>WK 2</b> extra-large wheels kit for HT 6 PRO DRIVE feeder				
031117	<b>HK 1</b> Hanging Kit for HT 6 PRO DRIVE feeder				
	Aluminium KIT				
030895	<b>Aluminium Kit</b> of double grooved TWIN rolls (Ø 0,8/1,0) and gears kit for Al wires				
030897	<b>Aluminium Kit</b> of double grooved TWIN rolls (Ø 1,0/1,2) and gears kit for Al wires				
030899	<b>Aluminium Kit</b> of double grooved TWIN rolls (Ø 1,2/1,6) and gears kit for Al wires				
	MIG MAG WELDING TORCHES				
020471	CEA Torch <b>CX 451/4</b> 4 m wire Ø 0,8/1,6 C02 400A @60% / Mix 300A @60%	●	≈	●	≈
021006	CEA Torch <b>CX 353/4</b> Up/Down-17p 4m wire Ø 0,8/1,2 - C02 340A @60% / Mix 290A @60%				
020479	CEA Torch <b>CXH 402/4</b> 4 m wire Ø 0,8/1,6 water cooled C02 500A @100% / Mix 450A @100%		≈		≈
021007	CEA Torch <b>CXH 402/4</b> Up/Down-17p 4m wire Ø 0,8/1,6 - C02 500A @ 100% / Mix 450A @100%				
021021	CEA <b>Digitorch DX 353/4-17p</b> 4m wire Ø 0,8/1,2 - C02 340A @60% / Mix 290A @60%				
021022	CEA <b>Digitorch DXH 402/4-17p</b> 4m wire Ø 0,8/1,6 - C02 500A @100% / Mix 450A @100%				
	For other torches see MIG/MAG torches				
	TIG TORCHES WITH BUILT-IN GAS VALVE FOR TOUCH-START TECHNIQUE				
020568	Torch <b>RTX 26.4</b> 4 m - 180 A 35%				
	WATER COOLING				
032125	Water cooling equipment <b>HRX 51</b> 400 V		≈		≈
402275A	Cea <b>CL-1100</b> cooling liquid - 5 l Tank		≈		≈
	TROLLEYS				
234914	Trolley <b>CT 70</b> with 4 rolls for power source, cooling equipment and cylinder (and autotransformer)				
234932	Trolley <b>PRIME CT 80</b> with 4 rolls for power source, cooling equipment and cylinder (and autotransformer)				
234934	Trolley <b>PRIME CT 81</b> with 4 rolls for power source, cooling equipment and cylinder (and autotransformer)	●	≈	●	≈
	GROUND CABLES				
239603	50 mm <sup>2</sup> / 4 m <b>Ground cable</b> with clamp	●	≈		
239607	70 mm <sup>2</sup> / 4 m <b>Ground cable</b> with clamp			●	≈
	GAS REDUCERS				
020916	Reducer with flowmeter and 1 manometer	●	≈	●	≈
	OTHER OPTION[S]				
030903	Extention cable for changeover polarity				
236590	Metallic spool adaptor				
236234	<b>RC 178</b> remote control with 5 m cable				
020340	Autotransformer <b>A 13-H</b> 220/400 V 50/60 Hz 3 Phase				
460262	4+3 m 50 mm <sup>2</sup> cables with electrodeholder pincer, ground clamp and 50mm <sup>2</sup> safety connections brush/hammer - shield with lens				
	DIGITECH 4003 VP3 Suggested air cooled version with torch	●			
	DIGITECH 4003 VP3 Suggested water cooled version with torch		≈		
	DIGITECH 5003 VP3 Suggested air cooled version with torch			●	
	DIGITECH 5003 VP3 Suggested water cooled version with torch				≈



# DIGITECH DOUBLE FEEDER

## ORDER INFORMATION

CODE	DESCRIPTION	DIGITECH VP3 4003		DIGITECH VP3 5003	
		AIR	WATER	AIR	WATER
	POWER SOURCES				
004708	Power Source <b>DIGITECH 4003 VP3</b> 400 V	●	≈		
004713	Power Source <b>DIGITECH 5003 VP3</b> 400 V			●	≈
	SPECIAL VERSION - POWER SOURCE FITTED WITH SOFTWARE				
004708PR	Power source <b>DIGITECH 4003 VP3 PREMIUM</b> 400 V with vision.FULL PACKAGE and Ethernet socket				
004713PR	Power source <b>DIGITECH 5003 VP3 PREMIUM</b> 400 V with vision.FULL PACKAGE and Ethernet socket				
	SOFTWARE FOR SPECIAL MIG/MAG PROCESS				
050002	<b>SM1 - SPECIAL MIG</b> Process Package: vision.COLD, vision.POWER, vision.ULTRASPEED, vision.PIPE and ECP				
050003	<b>SP2 - PERFORMANCE</b> Process Package: vision.PULSE-UP, vision.PULSE-RUN, vision.ULTRASPEED and ECP				
050004	<b>SFP - vision.FULL-PACKAGE</b> complete package with Special MIG Process Package (SM1) and Special PULSE Process: vision.PULSE-UP, vision.PULSE-RUN and vision.PULSE-POWER with extra curves ECP				
050050	<b>ECP</b> - Extra Curves Package to meet special application				
	EN 1090 WPQR - WPS				
	Collection of WPQR - WPS for DIGITECH				
	Page 111				
	INTERCONNECTING CABLES				
010839	1,2 m Air / Water cooled Interconnecting cable Power source-Wire feeder	●	≈	●	≈
010839	1,2 m Air / Water cooled Interconnecting cable Power source-Wire feeder	●	≈	●	≈
010842	5 m Air / Water cooled Interconnecting cable Power source-Wire feeder				
010846	10 m Air / Water cooled Interconnecting cable Power source-Wire feeder				
	WIRE FEEDERS				
030716	Wire Feeder <b>HT 6 PRO DRIVE</b> 4 rolls (Ø 1,0/1,2)	●	≈	●	≈
030716	Wire Feeder <b>HT 6 PRO DRIVE</b> 4 rolls (Ø 1,0/1,2)	●	≈	●	≈
031120	Support and Connection Kit for DOUBLE HT 6 wire feeder system for DIGITECH VP3	●	≈	●	≈
	Aluminium KIT				
030895	<b>Aluminium Kit</b> of double grooved TWIN rolls (Ø 0,8/1,0) and gears kit for Al wires				
030897	<b>Aluminium Kit</b> of double grooved TWIN rolls (Ø 1,0/1,2) and gears kit for Al wires				
030899	<b>Aluminium Kit</b> of double grooved TWIN rolls (Ø 1.2/1,6) and gears kit for Al wires				
	MIG MAG WELDING TORCHES				
020466	CEA Torch <b>CX 353/4</b> 4 m wire Ø 0,8/1,2 CO2 340A @60% / Mix 290A @60%				
020471	CEA Torch <b>CX 451/4</b> 4 m wire Ø 0,8/1,6 CO2 400A @60% / Mix 300A @60%	●X2		●X2	
021006	CEA Torch <b>CX 353/4</b> Up/Down-17p 4m wire Ø 0,8/1,2 CO2 340A @60% / Mix 290A @60%				
020472	CEA Torch <b>CXH 302/4</b> 4 m wire Ø 0,8/1,2 water cooled CO2 300A @100% / Mix 250A @100%				
020479	CEA Torch <b>CXH 402/4</b> 4 m wire Ø 0,8/1,6 water cooled CO2 500A @100% / Mix 450A @100%		≈X2		≈X2
021007	CEA Torch <b>CXH 402/4</b> Up/Down-17p 4m wire Ø 0,8/1,6 - CO2 500A @ 100% / Mix 450A @100%				
021021	CEA <b>Digitorch DX 353/4-17p</b> 4m wire Ø 0,8/1,2 - CO2 340A @60% / Mix 290A @60%				
021020	CEA <b>Digitorch DXH 302/4-17p</b> 4m wire Ø 0,8/1,2 - CO2 500A @100% / Mix 450A @100%				
021022	CEA <b>Digitorch DXH 402/4-17p</b> 4m wire Ø 0,8/1,6 - CO2 500A @100% / Mix 450A @100%				
	WATER COOLING				
032125	Water cooling equipment <b>HRX 51</b> 400 V		≈		≈
402275A	Cea <b>CL-1100</b> cooling liquid - 5 l Tank		≈		≈
	TROLLEYS				
234935	Trolley <b>PRIME CT 82</b> Large for power source and 2 gas cylinders and autotransformer	●	≈	●	≈
	GROUND CABLES				
239603	<b>50 mm<sup>2</sup></b> / 4 m <b>Ground cable</b> with clamp	●	≈		
239607	<b>70 mm<sup>2</sup></b> / 4 m <b>Ground cable</b> with clamp			●	≈
	GAS REDUCERS				
020916	Reducer with flowmeter and 1 manometer	●	≈	●	≈
	OTHER OPTION[S]				
030903	Extention cable for changeover polarity				
236590	Metallic spool adaptor				
236234	<b>RC 178</b> remote control with 5 m cable				
020340	Autotransformer <b>A 13-H</b> 220/400 V 50/60 Hz 3 Phase				
	DIGITECH 4003 VP3 with Double Feeder HT 6 - Suggested air cooled version with torch	●			
	DIGITECH 4003 VP3 with Double Feeder HT 6 - Suggested water cooled version with torch		≈		
	DIGITECH 5003 VP3 with Double Feeder HT 6 - Suggested air cooled version with torch			●	
	DIGITECH 5003 VP3 with Double Feeder HT 6 - Suggested water cooled version with torch				≈





# SMARTMIG / COMPACT

## STEP ADJUSTMENT MIG COMPACT EQUIPMENT



Industrial semi-automatic welding equipment with built-in wire feeder, suitable to be used with CO<sub>2</sub> gas and mixture for professional and industrial applications.

**SMARTMIG** and **COMPACT** power sources, in their robust and user-friendly design, ensure excellent welding characteristics on any material, Aluminium and stainless steel included, by granting a very stable arc in any welding position.

Robust and easy-to-use, **SMARTMIG** and **COMPACT** power sources are suitable to be used in industry, fabrication work, car body repair, agriculture and maintenance.




- Simple and easy to use
- Compact and reliable
- Good welding performance

## SMARTMIG / COMPACT FEATURES

- Excellent MIG-MAG welding characteristics on any material and with any gas
- Arc striking always precise
- Burn-Back and motor ramp externally adjustable
- Spot timer on all models
- 2 – 4 stroke mode selector switch (COMPACT)
- Professional feeding system to ensure a precise and constant wire feeding
- Large inner lodging to easily accommodate also metallic coils (300 mm Ø max.)
- Double inductance connection for a better welding pool in any position (COMPACT)
- Standard supplied with cylinder carriage and robust wheels for an easy manoeuvrability





TECHNICAL DATA		SMARTMIG		COMPACT	
		T 25	270	310	410
Three phase input 50/60 Hz	V	230/400	230/400	230/400	230/400
Input Power @ I <sub>2</sub> Max	kVA	9,7	12	13,3	18,5
Delayed Fuse (I <sub>2</sub> @ 60%)	A	16/10	16/10	25/16	35/20
Power Factor / cos Φ		0,75	0,96	0,96	0,96
Efficiency Degree		0,76	0,65	0,70	0,77
Open circuit voltage	V	17 - 38	17 - 38	18 - 43,5	20 - 44
Adjustment positions	N°	10	10	10	20
Current range	A	25 - 250	25 - 250	30 - 300	60 - 400
Duty cycle at (40°C)	A 100%	120	140	170	240
	A 60%	160	180	225	300
	A 35%	210	250	300	400
	A X%	250 (25%)	---	---	---
Wires	Ø mm	0,6 - 1,2	0,6 - 1,2	0,6 - 1,2	0,6 - 1,6
Standards		EN 60974-1 • EN 60974-5 • EN 60974-10 • 			
Protection Class	IP	23 S	23 S	23 S	23 S
Dimensions (L x W x H)	mm	830 x 400 x 615	860 x 540 x 790	860 x 540 x 790	1060 x 600 x 780
Weight	Kg	53	67	70	109



IR 14 water cooling equipment  
(COMPACT 410)

## ORDER INFORMATION

CODE	DESCRIPTION	SMARTMIG T 25 AIR	COMPACT 270 AIR	COMPACT 310 AIR	COMPACT 410 AIR	WATER
POWER SOURCES WITH TORCH						
007545	Power source <b>SMARTMIG T 25*</b> 230/400 V - 3 Ph complete with: <b>C 25/3</b> 3 m Torch, 5 mm² / 3m <b>Ground cable</b> and roll for 0,8/1,0 mm Ø wires -	●				
POWER SOURCES WITHOUT TORCH						
007546	Power source <b>SMARTMIG T 25*</b> 230/400 V - 3 Ph complete with: 25 mm²/3 m <b>Ground cable</b> and roll for 0,8/1,0 mm Ø wires -					
007200	Power source <b>COMPACT 270*</b> 230/400V (2 rolls for wire Ø 0,8/1,0 mm)		●			
007210	Power source <b>COMPACT 310</b> 230/400V (2 rolls for wire Ø 0,8/1,0 mm)			●		
007230	Power source <b>COMPACT 410</b> 230/400V (4 rolls for wire Ø 1,0/1,2 mm)				●	≈
WELDING TORCHES						
020458	CEA Torch <b>CX 251/3</b> 3 m wire Ø 0,6/1,0 C02 260A @60% / Mix 200A @60%		●	●		
020466	CEA Torch <b>CX 353/4</b> 4 m wire Ø 0,8/1,2 C02 340A @60% / Mix 290A @60%				●	
020472	CEA Torch <b>CXH 302/4</b> 4 m wire Ø 0,8/1,2 water cooled C02 300A@100% / Mix 250A @100%					≈
WATER COOLING						
032050	Water cooling equipment <b>IR 14</b> 400 V					≈
032055	Water cooling equipment <b>IR 14</b> 230 V					
402275A	Cea <b>CL-1100</b> cooling liquid - 5 l Tank					≈
030939	Accessories IR type: "L"					≈
IR must have the same input voltage used for the power source.						
GROUND CABLES						
239618	25 mm² / 4 m <b>Ground cable</b> with clamp		●			
239601	35 mm² / 4 m <b>Ground cable</b> with clamp			●		
239603	50 mm² / 4 m <b>Ground cable</b> with clamp				●	≈
GAS REDUCERS						
020855	Reducer with 2 manometers	●	●	●	●	≈
OPTIONAL						
236590	Metallic spool adaptor					
SMARTMIG T 25 Suggested air cooled version with torch						
COMPACT 270 Suggested air cooled version with torch						
COMPACT 310 Suggested air cooled version with torch						
COMPACT 410 Suggested air cooled version with torch						
COMPACT 410 Suggested water cooled version with torch						



# MAXI

## STEP ADJUSTMENT MIG WELDING EQUIPMENT WITH SEPARATE WIRE FEEDER



Semi-automatic welding equipment, with separate wire feeder, recommended for industrial applications in medium and large fabrication work.

**MAXI** power sources, are the most complete solution for any job and ensure excellent welding performances on any thickness by granting a very stable arc in any welding position.

**MAXI** supplied with cylinder carriage and robust wheels.



- Easy to use
- Strong and reliable
- Good welding performance


### MAXI FEATURES

- Excellent welding characteristics on any material and with any gas type
- Ideal for welding any metal in any industrial application
- Control panel protected against accidental impact
- Large ergonomic handle for an easy maneuverability
- Double inductance connection for a better welding pool in any position

### WIRE FEEDER WF 5

- External Burn-Back and motor ramp adjustments for a precise arc striking
- 2/4 stroke selector switch
- Professional wire feeding mechanism for a precise and constant wire driving
- Double groove rolls replaceable without any tool



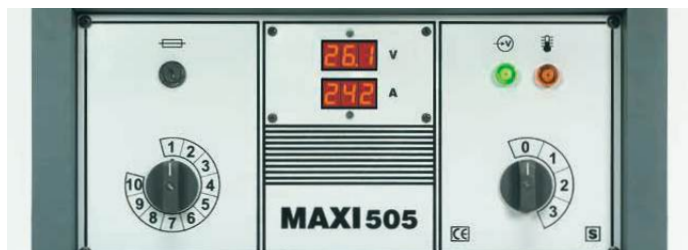
TECHNICAL DATA		MAXI	
		405	505
Three phase input 50/60 Hz	V	230/400	230/400
Input Power @ I <sub>2</sub> Max	kVA	19	24,2
Delayed Fuse (I <sub>2</sub> @ 60%)	A	35/20	40/25
Power Factor / cos φ		0,96	0,97
Efficiency Degree		0,77	0,78
Open circuit voltage	V	20 - 44	19 - 51
Adjustment positions	N°	20	30
Current range	A	60 - 400	60 - 500
Duty cycle at (40°C)	A 100%	230	300
	A 60%	300	370
	A 35%	400	500
Wires	Ø mm	0,6 - 1,6	0,8 - 2,0
Standards		EN 60974-1 • EN 60974-10 	
Protection Class	IP	23 S	23 S
Dimensions (L x W x H)	mm	1060 x 600 x 780	1060 x 600 x 780
Weight	Kg	99	113



**SWF** feeders with robust suitcase, ideal for site jobs and harshest environments.



**IR 14** water cooling equipment



**CONTROL PANEL** Digital ammeter/voltmeter with hold function of the last welding parameters ( optional )

## ORDER INFORMATION

CODE		DESCRIPTION		MAXI 405		MAXI 505	
				AIR	WATER	AIR	WATER
POWER SOURCES							
006105	Power source	MAXI 405	230/400 V 3 phase	●	≈		
006115	Power source	MAXI 505	230/400 V 3 phase			●	≈
INTERCONNECTING CABLES							
010930	1.2 m Air cooled	Interconnecting cable	Power source-Wire feeder	●		●	
010935	5 m Air cooled	Interconnecting cable	Power source-Wire feeder				
010940	10 m Air cooled	Interconnecting cable	Power source-Wire feeder				
010945	1.2 m Water cooled	Interconnecting cable	Power source-Wire feeder		≈		≈
010950	5 m Water cooled	Interconnecting cable	Power source-Wire feeder				
010955	10 m Water cooled	Interconnecting cable	Power source-Wire feeder				
WIRE FEEDERS							
030635	Closed Wire Feeder	WF 5	4 rolls (Ø 1,0 / 1.2)	●	≈	●	≈
030755	Closed Wire Feeder	SWF STRONG FEEDER	4 rolls (Ø 1,0 / 1.2)				
030927	Wheels Kit	for WF 5 with additional fastening plate (code 030887) to fix interconnecting cable					
030887	Fastening plate to fix interconnecting cable to WF 5 (already included into 030924, 030927 wheels kit)						
WELDING TORCHES							
020466	CEA Torch	CX 353/4	4 m wire Ø 0,8/1,2 C02 340A @60% / Mix 290A @60%	●			
020471	CEA Torch	CX 451/4	4 m wire Ø 0,8/1,6 C02 400A @60% / Mix 300A @60%			●	
020472	CEA Torch	CXH 302/4	4 m wire Ø 0,8/1,2 water cooled C02 300A @100%/Mix 250A @100%		≈		
020479	CEA Torch	CXH 402/4	4 m wire Ø 0,8/1,6 water cooled C02 500A @100%/Mix 450A @100%				≈
WATER COOLING							
032050	Water cooling equipment IR 14 400 V				≈		≈
032055	Water cooling equipment IR 14 230 V						
402275A	Cea CL-1100 cooling liquid - 5 l Tank				≈		≈
030938	Accessories IR type: "J"				≈		≈
IR must have the same input voltage used for the power source.							
GROUND CABLES							
239603	50 mm² / 4 m	Ground cable with clamp		●	≈	●	≈
GAS REDUCERS							
020855	Reducer with 2 manometers			●	≈	●	≈
OTHER OPTION[S]							
030956	Digital V/A meter Kit with "hold" function						
236590	Metallic spool adaptor						
020400	Adjustable Arm Torch and Support						
	MAXI 405 - WF 5	Suggested air cooled version	(with torch)	●			
	MAXI 405 - WF 5	Suggested water cooled version	(with torch)		≈		
	MAXI 505 - WF 5	Suggested air cooled version	(with torch)			●	
	MAXI 505 - WF 5	Suggested water cooled version	(with torch)				≈







# TIG

- 66 RAINBOW HF
- 68 MATRIX HF
- 72 MATRIX X HF
- 76 MATRIX AC/DC
- 80 MATRIX X AC/DC



# RAINBOW HF

OUR ICON FOR PRECISION DC TIG WELDING



**RAINBOW HF** is the iconic welding machine that has introduced the innovative inverter technology for professional TG DC welding machines in a curved design.

Equipped with a digital control, these powerful 100 kHz power sources, based on IGBT technology and fitted with flat transformer, can be used for TIG welding of any metal, excluding Aluminium and its alloys.

**RAINBOW HF** performs very well also in MMA welding, due to their lightness and portability, making them the ideal solution for excellent quality welding in maintenance, assembly and light fabrication works.



- High precision welding
- Ultra-compact, light and powerful
- Ideal for professional welders

## RAINBOW HF FEATURES

- Digital control of all the welding parameters
- TIG arc striking by high frequency or "lift arc"
- High performance on thin metal sheets
- Energy Saving function to operate the power source cooling fan only when necessary
- Sloping front control panel, easy to read and adjust and highly visible from any direction
- Thanks to the "Tunnel" fan cooling system, IP 23 protection class and dust-proof electronic components allow their use in the toughest work environments
- Use of Up/Down TIG torches will enable to adjust directly from the torch the welding parameters



CC

DC  
+ -


VRD

RAINBOW HF PRO

99  
JOB

PULSED



TECHNICAL DATA		RAINBOW 201 HF		RAINBOW 182 HF PRO		RAINBOW 202 HF PRO	
		TIG DC	MMA	TIG DC	MMA	TIG DC	MMA
Single phase input 50/60 Hz	V +20% -20%	230	230	230	230	230	230
Input Power @ I <sub>2</sub> Max	kVA	8,5	9,0	6,9	8,3	8,5	9
Delayed Fuse (I eff)	A	20	20	16	16	20	20
Power Factor / cos φ		0,67/0,99	0,67/0,99	0,67/0,99	0,67/0,99	0,67/0,99	0,67/0,99
Efficiency Degree		0,82	0,82	0,82	0,82	0,82	0,82
Open circuit voltage	V	88	88	90	90	88	88
Current range	A	5 - 200	5 - 160	5 - 180	5 - 160	5 - 200	5 - 160
Duty cycle at (40°C)	A 100 %	120	110	110	80	120	110
	A 60 %	140	130	130	100	140	130
	A X %	200 (25%)	160 (30%)	180 (25%)	160 (20%)	200 (25%)	160 (30%)
Standards		EN 60974-1 • EN 60974-3 • EN 60974-10 					
Protection Class		23 S	23 S	23 S	23 S	23 S	23 S
Dimensions (L x W x H)	mm	390 x 135 x 300		390 x 135 x 300		390 x 135 x 300	
Weight	Kg	7,5		7,5		7,5	

## PULSE MODE

(RAINBOW 182 HF pro - 202 HF pro)



### SYN PULSE

SYN PULSE will synergically generate pulse frequency and base current



### FAST PULSE

Adjust frequency from 0,5 Hz to 500 Hz



### SLOW PULSE

Adjust separately current/time of peak and base



RAINBOW FUNCTION	182 HF PRO		201 HF		202 HF PRO	
	TIG	MMA	TIG DC	MMA	TIG	MMA
Pre Gas	●		●		●	
Initial current	●				●	
Up Slope	●		●		●	
Welding current	●	●	●	●	●	●
2nd welding current	"CYCLE"				●	
Pulse cycle	"PULSE"				●	
Down Slope	●		●		●	
Final current	●				●	
Post gas	●		●		●	
Spot time	●		●		●	
Automatic Hot Start		●		●		●
Automatic Arc Force		●		●		●
Automatic Anti-sticking		●		●		●

## "CYCLE" FUNCTION

(RAINBOW 182 HF pro - 202 HF pro)

"CYCLE" function allows, by simply pressing the torch trigger, to continuously switch between two current values, previously preselected.

## ORDER INFORMATION

CODE	DESCRIPTION	RAINBOW 201 HF	RAINBOW 182 HF PRO	RAINBOW 202 HF PRO
POWER SOURCES				
004125	Power Source <b>RAINBOW 201 HF</b> 230 V	●		
004115	Power Source <b>RAINBOW 182 HF PRO</b> 230 V		●	
004126	Power Source <b>RAINBOW 202 HF PRO</b> 230 V			●
WELDING TORCHES				
020553	CEA Torch <b>TXA 174</b> 4 m 140 A 60% (DC)	●	●	●
020662	CEA Torch <b>TXA 26.4 "UP/DOWN"</b> 4 m 250 A 60% (DC)			
For torches with 8 m long cable see tig accessories				
GROUND CABLES				
239618	25 mm <sup>2</sup> / 3 m <b>Ground cable</b> with clamp	●	●	●
GAS REDUCERS				
020916	Reducer with flowmeter and 1 manometer	●	●	●
OTHER OPTION[S]				
030963	<b>Rainbow Bag</b>			
030940	<b>Carrying Belt Kit</b>			
236243	<b>CD 6/8</b> 8 m manual remote control			
020919	<b>PSR 7</b> 5 m foot remote control			
460056	Adapter for simultaneous connection of Torch and PSR 7			
460005	<b>A6</b> Connection kit for non-standard Torch			
	RAINBOW 201 HF Suggested air cooled version with torch	●		
	RAINBOW 182 HF pro Suggested air cooled version with torch		●	
	RAINBOW 202 HF pro Suggested air cooled version with torch			●





# MATRIX HF

THE PERFECT SOLUTION FOR DC TIG



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

**MATRIX HF** grant excellent TIG welding performances with mild and stainless steel, copper and its alloys and are suitable to be used for the toughest industrial applications and maintenance.

**MATRIX HF** offer excellent performances in MMA welding with the most difficult basic and cellulosic electrodes.

**MATRIX 2200 HF** optimizes the energy consumption with PFC device and is the ideal choice whenever power and portability are needed.



- High precision welding
- Excellent performance
- Complete TIG feature



## MATRIX HF FEATURES

- TIG DC min current from 1A
- Standard equipped with pulse mode integrated into the control with available "EASY PULSE" feature
- Excellent TIG welding characteristics
- HF IGNITION – Intelligent HF ignition grants a more accurate and prompter arc striking in all conditions.
- "Energy Saving" function to operate the power source cooling fan and the torch water cooling only when necessary.
- Use of special TIG torches will enable the remote control of the welding parameters directly from the torch
- Control panel protected against accidental impact
- Reduced weight and size, easy-to-carry
- Electrode type selection (MMA - MATRIX 3001 HF only)
- Possibility of memorizing welding parameters 99 JOBS ( excluded MATRIX 3001 HF)
- LIFT ARC CURRENT - with possibility to set the value of the starting current in LIFT

### 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.



MATRIX HF FUNCTION	MATRIX HF 3001		MATRIX HF 2200 · 2600 · 3000 · 4200	
	TIG	MMA	TIG	MMA
High Frequency striking	●		●	
"Lift" mode striking	●		●	
Pre Gas	●		●	
Initial Current			●	
Up Slope	●		●	
Welding current	●		●	
2nd welding current	"CYCLE"		●	
Base current	"PULSE"		●	
Base current time	"PULSE"		●	
Peak current	"PULSE"		●	
Peak current time	"PULSE"		●	
Pulse frequency	"PULSE"		●	
Down Slope	●		●	
Final current			●	
Post gas	●		●	
Spot time	●		●	
Hot Start		●		●
Arc Force		●		●
Electrode type selection		●		
Anti-sticking		●		●



### 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 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.

## PULSE MODE

**SYN PULSE**

### SYN PULSE

SYN PULSE will synergically generate pulse frequency and base current

**FAST PULSE**

### FAST PULSE

Adjust frequency from 0,5 Hz to 500 Hz

**ULTRA FAST**

### ULTRA FAST

Adjust frequency up to 2000 Hz

**SLOW PULSE**

### SLOW PULSE

Adjust separately current/time of peak and base



MATRIX 2200 HF



MATRIX 3000 HF



MATRIX 4200 HF

TECHNICAL DATA		MATRIX 2200 HF		MATRIX 2600 HF		MATRIX 3000 / 3001 HF		MATRIX 4200 HF	
		TIG	MMA	TIG	MMA	TIG	MMA	TIG	MMA
Single phase input 50/60 Hz	V +/- 20%	230		-		-		-	
Three phase input 50/60 Hz	V +/- 20%	-		400		400		400	
Input Power @ I <sub>2</sub> Max	kVA	5,2	6,0	6,7	9,6	8,5	8,5	16,8	19,2
Delayed Fuse (I eff)	A	16	16	10	10	10	10	16	16
Power Factor / cos φ		0,99/0,99	0,99/0,99	0,95/0,99	0,95/0,99	0,96/0,99	0,95/0,99	0,95/0,99	0,95/0,99
Efficiency Degree		0,84		0,86		0,87		0,86	
Open circuit voltage	V	85		85		85		85	
Current range	A	1 - 220	10 - 180	1 - 260	10 - 250	1 - 300	10 - 270	3 - 420	10 - 400
Duty cycle at (40°C)	A 100 %	160	120	200	190	210	200	270	270
	A 60 %	190	150	230	220	250	230	340	340
	A X %	220 (30%)	180 (30%)	260 (40%)	250 (40%)	300 (35%)	270 (35%)	420 (40%)	400 (40%)
Standards		EN 60974-1 • EN 60974-3 • EN 60974-10							
Protection Class	IP	23 S		23 S		23 S		23 S	
Dimensions (L x W x H)	mm	465 x 185 x 390		495 x 185 x 390		495 x 185 x 390		560 x 220 x 425	
Weight	Kg	14		17,5		17,5		25	



VT 101 trolley for lodging gas cylinder and water cooling equipment



VT 200 trolley for lodging gas cylinder and water cooling equipment (for MATRIX 4200HF)



CT 401 trolley for lodging gas cylinder and water cooling equipment

## ORDER INFORMATION

CODE	DESCRIPTION	MATRIX 2200 HF		MATRIX 2600 HF		MATRIX 3000 HF		MATRIX 3001 HF		MATRIX 4200 HF	
		AIR	WATER	AIR	WATER	AIR	WATER	AIR	WATER	AIR	WATER
	POWER SOURCES										
004505	Power source <b>MATRIX 2200 HF</b> 230V	●	≈								
004527	Power source <b>MATRIX 2600 HF</b> 400V			●	≈						
004530	Power source <b>MATRIX 3000 HF</b> 400V					●	≈				
004532	Power source <b>MATRIX 3001 HF</b> 400V							●	≈		
004555	Power source <b>MATRIX 4200 HF</b> 400V									●	≈
	WELDING TORCHES										
020562	CEA Torch <b>TXA 26.4</b> 4 m - 250 A 60% (DC)	●	/	●	/	●	/	●	/	●	/
020662	CEA Torch <b>TXA 26.4 "UP/DOWN"</b> 4 m - 250 A 60% (DC)	/	/	/	/	/	/	/	/	/	/
020667	CEA Torch <b>Mini TXH 20.4</b> 4 m - 250 A 100% (DC) - water cooled	/	≈	/	≈	/	≈	/	≈	/	≈
020677	CEA Torch <b>TXH 18.4 "UP/DOWN"</b> 4 m - 320 A 100% (DC) - water cooled	/	/	/	/	/	/	/	/	/	/
	For torches with 8 m long cable see tig accessories										
	2 WHEELS TROLLEYS										
234929	Trolley <b>VT 101</b> with 2 rolls for power source, cooling equipment and cylinder	●	≈	●	≈	●	≈	●	≈	/	/
234921	Trolley <b>VT 200</b> for power source, HR 23 cooling equipment and cylinder	/	/	/	/	/	/	/	/	●	≈
	WATER COOLING										
032065	Water cooling equipment <b>HR 22</b> 230 V	/	≈	/	/	/	/	/	/	/	/
032060	Water cooling equipment <b>HR 23</b> 400 V to be ordered with "VT" trolley line only	/	/	/	≈	/	≈	/	≈	/	≈
413463	Input cable Adapter to connect <b>HR 23</b> with MATRIX 4200 HF	/	/	/	/	/	/	/	/	/	≈
402275A	Cea <b>CL-1100</b> cooling liquid - 5 l Tanks	/	≈	/	≈	/	≈	/	≈	/	≈
	GROUND CABLES										
239601	35 mm² / 4 m Ground cable with clamp	●	≈	●	≈	●	≈	●	≈		
239603	50 mm² / 4 m Ground cable with clamp									●	≈
	GAS REDUCERS										
020916	Reducer with flowmeter and 1 manometer	●	≈	●	≈	●	≈	●	≈	●	≈
	OTHER OPTION[S]										
236243	<b>CD 6/8</b> 8 m manual remote control										
020919	<b>PSR 7</b> 5 m foot remote control										
460056	Adapter for simultaneous connection of Torch and PSR 7										
460005	<b>A6</b> Connection kit for non-standard Torch										
	Autotransformer 220V/400V-50/60Hz - 3 Phase	/	/								
	Special Trolley for Gas Cylinder & Autotransformer	/	/								
	MATRIX 2200 HF Suggested air cooled version with torch and VT 101	●									
	MATRIX 2200 HF Suggested water cooled version with torch and VT 101		≈								
	MATRIX 2600 HF Suggested air cooled version with torch and VT 101			●							
	MATRIX 2600 HF Suggested water cooled version with torch and VT 101				≈						
	MATRIX 3000 HF Suggested air cooled version with torch and VT 101					●					
	MATRIX 3000 HF Suggested water cooled version with torch and VT 101						≈				
	MATRIX 3001 HF Suggested air cooled version with torch and VT 101							●			
	MATRIX 3001 HF Suggested water cooled version with torch and VT 101								≈		
	MATRIX 4200 HF Suggested air cooled version with torch and VT 200									●	
	MATRIX 4200 HF Suggested water cooled version with torch and VT 200										≈

("") On request

VERSION WITH 4 WHEEL TROLLEY CT 401 - TROLLEY AND WATER COOLING TO BE ORDERED IN ADDITION TO THE POWER SOURCE

CODE	DESCRIPTION	MATRIX 2200 HF		MATRIX 2600 HF		MATRIX 3000 HF		MATRIX 3001 HF		MATRIX 4200 HF	
		GAS	WASSER	GAS	WASSER	GAS	WASSER	GAS	WASSER	GAS	WASSER
	4 WHEELS TROLLEY										
234931	Trolley <b>CT 401</b> with 4 rolls for power source, cooling equipment and cylinder	●	≈	●	≈	●	≈	●	≈	●	≈
	WATER COOLING FOR CT 401										
032065	Water cooling equipment <b>HR 22</b> 400 V		≈								
032060	Water cooling equipment <b>HR 23</b> 400 V				≈		≈		≈		
032098	Water cooling equipment <b>HR 32</b> 400 V										
402275A	Cea <b>CL-1100</b> cooling liquid - 5 l Tanks		≈		≈		≈		≈		≈
031166	Adaptor support plate for Matrix 4200 HF if used with CT 401 and HR 32										≈





# 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 requests 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.



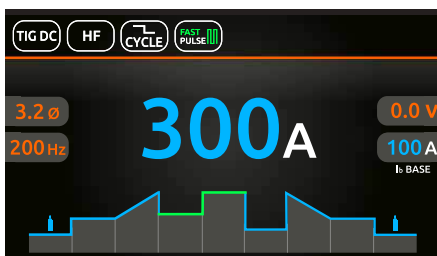
## X VISION CONTROL DISPLAY

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

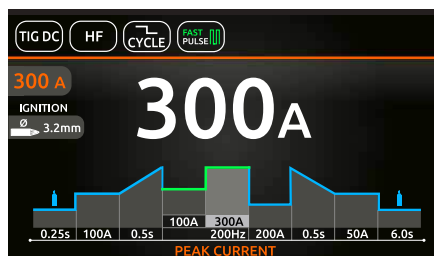
- User friendly interface
- Digital Ammeter and Voltmeter with welding current pre-setting and Hold Function of the last read value
- Welding mode "cycle"
- Personalised welding program storing and recalling
- Possibility of copying job/s easily from one machine to another via USB
- Advance setting infographic



WELDING MODE



WELDING SETTING MODE



ADVANCE JOB MANAGEMENT

4 SAVED JOBS			
PRESS KNOB TO LOAD		PRESS KNOB 2 sec TO EDIT	
J-01	JOB 01	80A	TIG DC LIFT TIG 11 2T OFF PULSE
J-02	JOB 02	150A	TIG DC HF 11 2T AUTO SLOW PULSE
J-03	JOB 03	100A	RCT HF ColdTACK
J-04	JOB 04	125A	TIG DC HF 11 4T FAST PULSE

## PULSE MODE

**SYN PULSE**

### SYN PULSE

SYN PULSE will synergically generate pulse frequency and base current

**FAST PULSE**

### FAST PULSE

Adjust frequency from 0,5 Hz to 500 Hz

**ULTRA FAST**

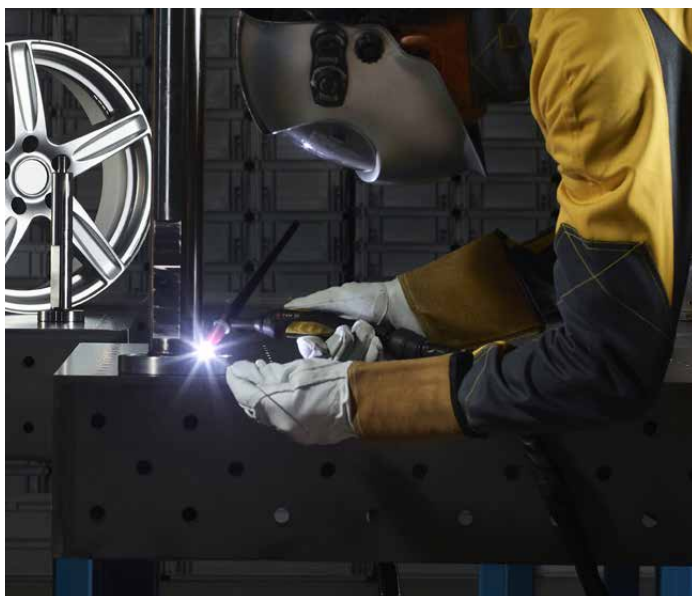
### ULTRA FAST

Adjust frequency up to 2000 Hz

**SLOW PULSE**

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





# MATRIX AC/DC

THE PERFECT SOLUTION FOR AC/DC TIG



**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** grants excellent TIG welding performance with all metals, including aluminum and its alloys, in the toughest industry and in maintenance application.

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



- High precision welding
- Excellent performance
- Complete TIG feature



## MATRIX AC/DC FEATURES

- TIG DC min current from 1A / TIG AC min Current from 3 A
- Standard equipped with pulse mode integrated into the control with available "EASY PULSE" features
- Excellent TIG welding characteristics
- HF IGNITION – Intelligent HF ignition grants a more accurate and prompter arc striking in all conditions
- "Energy Saving" function to operate the power source cooling fan and the torch water cooling only when necessary
- Control panel protected against accidental impact
- Reduced weight and size, easy-to-carry
- TIG AC: electrode polarity arc ignition
- LIFT ARC CURRENT - with possibility to set the value of the starting current in LIFT
- MMA welding mode can now be set in MMA AC

### 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.



## CONTROL DISPLAY

- 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
- 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



### 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 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.

## PULSE DC MODE



### SYN PULSE

SYN PULSE will synergically 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

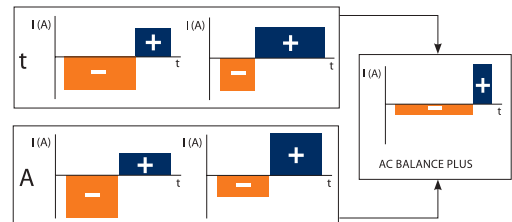


### SLOW PULSE

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



### 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

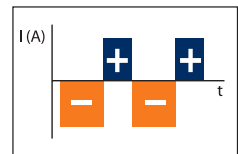
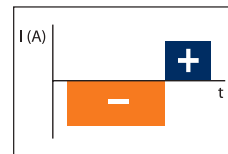


### COLD

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.



TECHNICAL DATA		MATRIX			
		2200 AC/DC		3000 AC/DC	
		TIG	MMA	TIG	MMA
Single phase input 50/60 Hz	V	230 +/- 20%		-	
Three phase input 50/60 Hz	V	-		400 +/- 20%	
Input Power @ I <sub>2</sub> Max	kVA	5,6	6,2	9,0	9,6
Delayed Fuse (I eff)	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 X %	220 (30%)	180 (30%)	300 (35%)	250 (40%)
Standards		EN 60974-1 • EN 60974-3 • EN 60974-10 <b>[S]</b>			
Protection Class	IP	23 S	23 S	23 S	23 S
Dimensions (L x W x H)	mm	465 x 185 x 390		495 x 185 x 390	
Weight	Kg	15,5		19	

## ORDER INFORMATION

CODE	DESCRIPTION	MATRIX			
		2200 AC/DC		3000 AC/DC	
		AIR	WATER	AIR	WATER
POWER SOURCE					
004510	Power source <b>MATRIX 2200 AC/DC 230V</b> 1 Phase	●	≈		
004535	Power source <b>MATRIX 3000 AC/DC 400V</b> 3 Phase			●	≈
WELDING TORCHES					
020562	CEA Torch <b>TXA 26.4</b> 4 m 250 A 60% (DC)	●		●	
020672	CEA Torch <b>TXH 18.4</b> 4 m 320 A 100% (DC) - water cooled		≈		≈
020677	CEA Torch <b>TXH 18.4 "UP/DOWN"</b> 4 m 320 A 100% (DC) - water cooled				
020667	CEA Torch <b>Mini TXH 20.4</b> 4 m 220 A 100% (DC) - water cooled				
<i>For torches with 8 m long cable see tig accessories</i>					
TROLLEYS					
234929	Trolley <b>VT 101</b> for power source, cooling equipment and cylinder	●	≈	●	≈
234931	Trolley <b>CT 401</b> for power source, cooling equipment and cylinder				
WATER COOLING					
032065	Water cooling equipment <b>HR 22</b> 230 V		≈		
032060	Water cooling equipment <b>HR 23</b> 400 V				≈
402275A	Cea <b>CL-1100</b> cooling liquid - 5 l Tank		≈		≈
GROUND CABLES					
239601	<b>35 mm<sup>2</sup> / 4 m Ground cable</b> with clamp	●	≈	●	≈
GAS REDUCERS					
020916	Reducer with flowmeter and 1 manometer	●	≈	●	≈
OPTIONAL					
236243	<b>CD 6/8</b> 8 m remote control with geared down potentiometer				
020919	<b>PSR 7</b> 5 m foot remote control				
460056	Adapter for simultaneous connection of Torch and PSR 7				
460005	A6 Connection kit for non-standard Torch				
	MATRIX 2200 AC DC Suggested air cooled version with torch	●			
	MATRIX 2200 AC DC Suggested water cooled version with torch		≈		
	MATRIX 3000 AC DC Suggested air cooled version with torch			●	
	MATRIX 3000 AC DC Suggested water cooled version with torch				≈



VT 101



CT 401



PSR 7 5 m foot remote control



CD6/8 8m remote control with geared down potentiometer





# MATRIX X AC/DC

THE ULTIMATE SOLUTION  
FOR AC/DC TIG



**MATRIX X AC/DC** are high efficiency TIG AC/DC inverter power sources, studied to satisfy the most advanced and sophisticated requests in the TIG welding market.

**MATRIX X AC/DC** 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** 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.

Thanks to PFC the single phase **MATRIX X 220 AC/DC** 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.



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



## MATRIX X AC/DC FEATURES

- TIG DC minimum current from 1A and TIG AC starting from 3A
- Excellent welding characteristics in TIG with all materials 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.



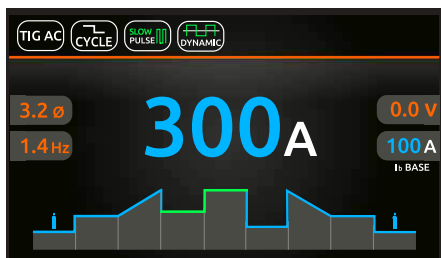
## X VISION CONTROL DISPLAY

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

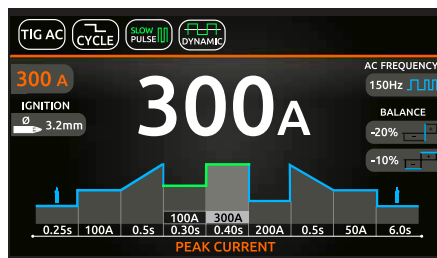
- User friendly interface
- Digital Ammeter and Voltmeter with welding current pre-setting and Hold Function of the last read value
- Welding mode "cycle"
- Personalized welding program storing and recalling
- Possibility of copying job/s easily from one machine to another via USB
- Advanced setting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



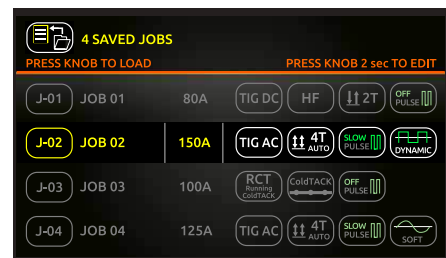
### WELDING MODE



### WELDING SETTING MODE



### ADVANCED JOB MANAGEMENT



## PULSE DC MODE



### SYN PULSE

SYN PULSE will synergically 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

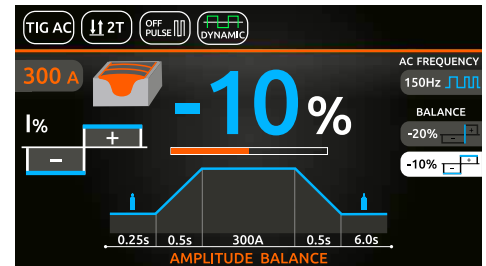
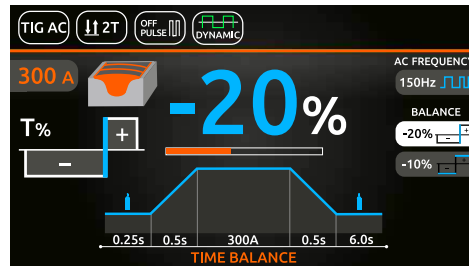


### SLOW PULSE

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.



### 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

TECHNICAL DATA		MATRIX X							
		220 AC/DC		300 AC/DC		400 AC/DC		500 AC/DC	
		TIG	MMA	TIG	MMA	TIG	MMA	TIG	MMA
Single phase input 50/60 Hz	V +/- 20%	230		-		-		-	
Three phase input 50/60 Hz	V +/- 20%	-		400		400		400	
Input Power @ I <sub>2</sub> Max	kVA	5,6	6,2	9,0	9,6	19,0	24,7	26,0	31,0
Delayed Fuse (I eff)	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 X %	220 (30%)	180 (30%)	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	
Dimensions (L x W x H)	mm	530 x 215 x 410		530 x 215 x 410		710 x 290 x 530		710 x 290 x 530	
Weight	Kg	20		21,5		53		54	

## ORDER INFORMATION

CODE	DESCRIPTION	MATRIX X							
		220 AC/DC		300 AC/DC		400 AC/DC		500 AC/DC	
		AIR	WATER	AIR	WATER	AIR	WATER	AIR	WATER
POWER SOURCE									
004512	Power source <b>MATRIX X220 AC/DC 230V</b> 1 Phase X Vision control	●	≈						
004565	Power source <b>MATRIX X300 AC/DC 400V</b> 3 Phase X Vision control			●	≈				
004093	Power source <b>MATRIX X400 AC/DC 400V</b> 3 Phase X Vision control					●	≈		
004097	Power source <b>MATRIX X500 AC/DC 400V</b> 3 Phase X Vision control							●	≈
TIG TORCHES									
020562	CEA Torch <b>TXA 26.4</b> 4 m - 250 A 60% (DC)	●	≈	●	≈	●	≈	●	≈
020662	CEA Torch <b>TXA 26.4 "UP/DOWN"</b> 4 m - 250 A 60% (DC)								
020667	CEA Torch <b>Mini TXH 20.4</b> 4 m - 250 A 100% (DC) - water cooled		≈						
020680	CEA Torch <b>Mini TXH 20.4 "UP/DOWN"</b> 4 m - 250 A 100% (DC) - water cooled								
020672	CEA Torch <b>TXH 18.4</b> 4 m - 320 A 100% (DC) - water cooled				≈		≈		≈
020677	CEA Torch <b>TXH 18.4 "UP/DOWN"</b> 4 m - 320 A 100% (DC) - water cooled								
For torches with 8 m long cable see tig accessories									
TROLLEYS									
234929	Trolley <b>VT 101</b> for power source, cooling equipment and cylinder	●	≈	●	≈				
234931	Trolley <b>CT 401</b> for power source, cooling equipment and cylinder								
234914	Trolley <b>CT 70</b> with 4 rolls for power source, cooling equipment and cylinder					●	≈	●	≈
234928	Trolley <b>CT 75</b> with 4 rolls for power source, cooling equipment and cylinder								
234932	Trolley <b>PRIME CT 80</b> with 4 rolls for power source, cooling equipment and cylinder								
WATER COOLING									
032120	Water cooling equipment <b>HRX 20</b> 230 V		≈						
032115	Water cooling equipment <b>HRX 30</b> 400 V				≈				
032130	Water cooling equipment <b>HRX 52</b> 400 V						≈		≈
402275A	Cea <b>CL-1100</b> cooling liquid - 5 l Tank		≈		≈		≈		≈
GROUND CABLES									
239601	<b>35 mm² / 4 m Ground cable</b> with clamp	●	≈	●	≈				
239607	<b>70 mm² / 4 m Ground cable</b> with clamp					●	≈	●	≈
GAS REDUCERS									
020916	Reducer with flowmeter and 1 manometer	●	≈	●	≈	●	≈	●	≈
OPTIONAL									
031118	<b>TSAl</b> - TIG Simple Automation KIT - (Torch trigger - Arc On - Current Adj, 0-10V)								
031119	<b>TSAs</b> - TIG Simple Automation KIT - (Torch trigger - Arc On - Current Adj, 0-10V)								
353485	<b>DFX1</b> - Dust Filter for MATRIX X 220 / X 300								
353486	<b>DFX5</b> - Dust Filter for MATRIX X 400 / X 500								
236243	<b>CD 6/8</b> 8 m remote control with geared down potentiometer								
020919	<b>PSR 7</b> 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 AC/DC Suggested air cooled version with torch	●							
	MATRIX X 220 AC/DC Suggested water cooled version with torch		≈						
	MATRIX X 300 AC/DC Suggested air cooled version with torch			●					
	MATRIX X 300 AC/DC Suggested water cooled version with torch				≈				
	MATRIX X 400 AC/DC Suggested air cooled version with torch					●			
	MATRIX X 400 AC/DC Suggested water cooled version with torch						≈		
	MATRIX X 500 AC/DC Suggested air cooled version with torch							●	
	MATRIX X 500 AC/DC 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



**CT 70** trolley for lodging gas cylinder and water cooling equipment







# MMA

- 86 ROCK
- 88 MATRIX E

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## MMA CONVENTIONAL

- 90 ARC - TRIARC
- 91 ARCTRONIC



# ROCK

## INVERTER POWER SOURCES FOR ELECTRODE WELDING



**ROCK 160, 200 and 210 PRO** are the latest generation of inverter power sources, built in a strong and robust chassis.

They are perfect for any professional use with any type of basic and rutile electrodes for maintenance and light fabrication works.

The high welding characteristics in MMA and TIG welding with "Lift" mode arc striking, coupled with IP 23 protection class, enable their use in any work environment.

**ROCK** are equipped with an ergonomic handle, carrying belt for easy transportation and standard supplied with an electrode-holder and ground clamp cables.



- MMA and TIG Lift welding
- Strong and robust construction
- Portable everywhere

## ROCK FEATURES

- Excellent welding characteristics with any type of basic and rutile electrode
- Possibility to work with adequate size power generator sets
- ROCK 210 PRO: CELL and VRD
- Shock-proof fiber compound main structure
- Easy-to-carry thanks to their reduced weight and dimension
- Input Voltage fluctuation compensation for high arc stability
- Automatic Hot Start to improve the arc striking with the most difficult electrodes
- Built-in Arc Force to automatically select the best welding arc dynamics
- Electrode Anti-sticking function

ROCK 210 PRO







ROCK PACKAGE




ROCK FIBER CASE KIT



ROCK 200



ROCK 210 PRO

		ROCK		
		160	200	210 PRO
Single phase input 50/60 Hz	V +10% -10%	230	230	230
Input Power @ I <sub>2</sub> Max	kVA	8,2	10,4	10,6
Delayed Fuse (I eff)	A	16	20	25
Power Factor / cos φ		0,63/0,99	0,67/0,99	0,66/0,99
Efficiency Degree		0,82	0,81	0,81
Open circuit voltage	V	72	72	90 - 12 (VRD)
Current range	A	10 - 160	10 - 200	10 - 200
Duty cycle at (40°C)	A 100 %	95	105	110
	A 60 %	105	110	145
	A X %	160 (20%)	200 (10%)	200 (30%)
Standards		EN 60974-1 - EN 60974-10 - 		
Protection Class	IP	23 S	23 S	23 S
Dimensions (L x W x H)	mm	315 x 135 x 260	315 x 135 x 260	355 x 135 x 260
Weight	Kg	4,3	4,6	6,1



## ORDER INFORMATION

CODE	DESCRIPTION	ROCK 160	ROCK 200	ROCK 210 PRO
POWER SOURCES				
003835	<b>ROCK 160</b> 230 V with 3+3 m 16mm <sup>2</sup> cables, electrode-holder pincer, ground clamp and belt	●		
003840	<b>ROCK 200</b> 230 V with 3+3 m 16mm <sup>2</sup> cables, electrode-holder pincer, ground clamp and belt		●	
003845	<b>ROCK 210 PRO</b> 230 V - CELL and VRD with 4+3 m 25mm <sup>2</sup> cables, electrode-holder pincer, ground clamp and belt			●
POWER SOURCES IN FIBER CARRY-CASE WITH ACCESSORIES				
033835	<b>ROCK 160</b> 230V FIBER CASE KIT complete with 3+3 m 16mm <sup>2</sup> cables with electrode-holder pincer, ground clamp and belt	●		
033840	<b>ROCK 200</b> 230V FIBER CASE KIT complete with 3+3 m 16mm <sup>2</sup> cables with electrode-holder pincer, ground clamp and belt		●	
OPTIONAL				
030963	<b>Rainbow Bag</b>	●	●	●
201752	Kit of 2 male 50mm <sup>2</sup> safety connections	●	●	●
TIG TORCH WITH BUILT-IN GAS VALVE FOR TOUCH-START TECHNIQUE				
020558	<b>Torch RTX 17.4</b> 4 m - 140 A 35%	●	●	●
ACCESSORY KIT				
460281	3+2 m 16 mm <sup>2</sup> cables with electrodeholder pincer, ground clamp and 50 mm <sup>2</sup> safety connections - brush/hammer - shield with lens	●	●	
460286	4+3 m 25 mm <sup>2</sup> cables with electrodeholder pincer, ground clamp and 50 mm <sup>2</sup> safety connections - brush/hammer - shield with lens			●





# MATRIX E

## PROFESSIONAL ALL-ROUNDER FOR MMA WELDING



Powerful, compact and light **MATRIX E** are high performing and technologically advanced MMA power sources.

**MATRIX E** power sources, are recommended for the highest standard applications with any electrode.

Suitable to be used in shipyards, steel construction, pipewelding and maintenance, **MATRIX E** ensure an extraordinary stability of the welding parameters and their "fast dynamic characteristic" enables to achieve quality results even with the most difficult cellulosic and basic electrodes, and also in TIG with "Lift" mode arc striking.

**MATRIX 2700 E SV** is standard supplied with 230/400 V three phase input voltage.

Thanks to PFC the single phase **MATRIX 2200 E** optimizes the amount of energy consumption by allowing the use of this powerful power source with 16 A fuse mains and power generator sets.



- Top performance with any electrode, cellulosic included
- Portable, strong and powerful

## MATRIX E FEATURES

- Excellent welding characteristics in MMA with any kind of electrodes, including cellulosic, and in TIG with "Lift" mode
- High reliability when used with generator sets
- Suitable to be used with mains cable lengths over 100 m
- ENERGY SAVING function to operate the power source cooling fan only when necessary
- Possibility of activating the VRD function
- STAND BY function on the remote control
- Auto-diagnostic feature for trouble shooting
- Control rack protection cover
- IP 23 protection class and dust-proof electronic components, thanks to the innovative "Tunnel" fan cooling system, allow operation in the toughest work environments
- Electrode Anti-sticking function



TECHNICAL DATA		MATRIX				
		2200 E	2700 E SV		3000 E	4200 E
Single Phase Input V 50/60 Hz	+15% -15%	230	-	-	-	-
Three Phase Input V 50/60 Hz	+15% -15%	-	230	400	400	400
Input Power @ I <sub>2</sub> max	kVA	5,7	8,0	10,5	12,4	19,4
Delayed Fuse (@ I <sub>2</sub> 100%)	A	16	16	10	16	20
Power Factor / cos Φ		0,97/0,99	0,90/0,99		0,88/0,99	0,83/0,99
Efficiency Degree V		0,85	0,80		0,86	0,88
Open Circuit Voltage	V	100	100		100	100
Current Range	A	5 - 180	5 - 220	5 - 270	5 - 300	5 - 420
Duty cycle at (40°C)	A 100%	120	150	180	220	270
	A 60%	150	180	220	250	340
	A X%	180 (30%)	220 (30%)	270 (30%)	300 (30%)	420 (40%)
Dimensions (L x W x H)	mm	430 x 185 x 390	465 x 185 x 390		465 x 185 x 390	500 x 220 x 425
Weight	kg	12	16,5		15	20

## CONTROL DISPLAY

1. Welding current electronic adjustment
  2. Digital adjustable ARC FORCE and HOT START
  3. Digital Ammeter and Voltmeter with welding current presetting and Hold Function of the last read value
  4. Welding process selector switch
- MMA: welding of coated electrodes: rutile, basic, cast iron and Aluminium
  - MMA Cell: for welding of cellulosic electrodes
  - MMA CrNi: for welding of stainless steel
  - TIG: by the innovative "Lift" mode arc striking with thermic control (TCS), quick and precise striking is achieved, by minimizing any tungsten inclusion and avoiding any incision onto the workpiece. The SWS (Smart Welding Stop) synergic system reduces the electrode wearing and avoids any oxidation on the welded joint.



## ORDER INFORMATION

CODE	DESCRIPTION			MATRIX 2200 E	MATRIX 2700 E SV	MATRIX 3000 E	MATRIX 4200 E
	POWER SOURCES						
004500	MATRIX 2200 E	230 V - 1 Ph	with digital Ammeter / Voltmeter	●			
004525	MATRIX 2700 E SV	230 / 400 V - 3 Ph with digital V/A meter TO BE DISCONTINUED			●		
004515	MATRIX 3000 E	400 V - 3 Ph	with digital V/A meter			●	
004548	MATRIX 4200 E	400 V - 3 Ph	with digital Ammeter / Voltmeter				●
	ACCESSORY KITS						
460286	4+3 m 25 mm <sup>2</sup>	cables with electrodeholder pincer, ground clamp and 50 mm <sup>2</sup> safety connections - brush/hammer - shield with lens		●			
460292	4+3 m 35 mm <sup>2</sup>	cables with electrodeholder pincer, ground clamp and 50 mm <sup>2</sup> safety connections - brush/hammer - shield with lens			●	●	
460262	4+3 m 50 mm <sup>2</sup>	cables with electrodeholder pincer, ground clamp and 50 mm <sup>2</sup> safety connections - brush/hammer - shield with lens					●
	REMOTE CONTROLS						
236243	CD 6/8	8 m	manual remote control	●	●	●	●
236244	CD 6/25	25 m	manual remote control	●	●	●	●
236249	CD 6/50	50 m	manual remote control	●	●	●	●
	OTHER OPTION[S]						
234912	Transport Trolley CT 10						●
031150	Roll bar protection kit						●
031100	CB 2 carrying Belt Kit			●	●	●	
	TIG TORCHES WITH BUILT-IN GAS VALVE FOR TOUCH-START TECHNIQUE						
020558	Torch RTX 17.4	4 m - 140 A	35%	●			
020568	Torch RTX 26.4	4 m - 180 A	35%	●	●	●	●



CD 6 remote control from 8 to 50 m



Roll bar protection (MATRIX 4200 E)



# ARC / TRIARC

## INDESTRUCTIBLE WORKHORSE



Excellent arc characteristic, product sturdiness and reliability are the main features of **ARC** and **TRIARC** models. Suitable for heavy duty application in maintenance, fabrication works, shipyards and steel construction, these machines ensure a great welding arc stability.

**TRIARC** grant more stable and softer arc being fitted with smoothing inductance and are also suitable for welding cellulosic electrodes.



- Shunt adjustment
- Sturdy and reliable
- Good welding performance with any electrode

## ARC / TRIARC FEATURES

- Continuous welding current adjustment by magnetic shunt
- Standard delivered with large wheels and strong handles for easy maneuverability
- Easy changeover of mains supply voltage by switch
- Welding current and electrode indicator



TECHNICAL DATA		ARC 453	TRIARC 406/L
Three phase input 50/60 Hz	V + 10% / - 10%	230/400	230/400
Input Power @ I <sub>2</sub> Max	kVA	32,5	29,8
Delayed Fuse (I eff)	A	63/35	50/32
Power Factor / cos φ		0,99	0,99
Efficiency Degree		0,68	0,66
Open circuit voltage	V	75	75
Current range	A	70 - 450	60 - 400
Duty cycle at (40°C)	A 100 %	230	230
	A 60 %	300	300
	A 35 %	400	400
Standards		EN 60974-1 • EN 60974-10	
Protection Class	IP	23 S	23 S
Dimensions (L x W x H)	mm	1120 x 570 x 725	1120 x 570 x 725
Weight	Kg	117	122

## ORDER INFORMATION

CODE	DESCRIPTION	ARC 453	TRIARC 406/L
POWER SOURCES			
005325	<b>ARC 453</b> 230/400 V (*)	●	
005335	<b>TRIARC 406 / L</b> 230/400 V (*)		●
ACCESSORY KITS			
460262	4+3 m 50 mm <sup>2</sup> cables with electrodeholder pincer, ground clamp and 50 mm <sup>2</sup> safety connections - brush/hammer - shield with lens	●	●
TIG TORCHES WITH BUILT-IN GAS VALVE FOR TOUCH-START TECHNIQUE			
020558	Torch <b>RTX 17.4</b> 4 m 140 A 35%	●	●
020568	Torch <b>RTX 26.4</b> 4 m 180 A 35%	●	●

(\*) To be discontinued

# ARCTRONIC

## THE PIPE-WELD QUEEN



**ARCTRONIC** are sturdy, reliable, with excellent arc characteristics and recommended for highest standard applications with any electrode, they are suitable to be used in shipyards, steel construction and pipe welding.

**ARCTRONIC** ensure an extraordinary stability of the welding parameters and their "fast dynamic characteristic" allows to obtain quality results also with the most difficult cellulosic and basic electrodes.



- Strong and powerful
- Superior performance with any electrode
- The best equipment for cellulosic electrode

## ARCTRONIC FEATURES

- Adjustable Hot Start and Arc Force
- Electrode Anti-sticking Function
- Lift arc mode TIG welding striking
- Gouging facility with carbon electrodes (special version)
- "Stand by" function switching off the power source also from distance when not in use
- PCB in an isolated rack for protection against dust and dirt



TECHNICAL DATA		ARCTRONIC
		626
Three phase input 50/60 Hz	V +10% / - 10%	230/400
Input Power @ I <sub>2</sub> Max	kVA	47,4
Delayed Fuse (I eff)	A	80/45
Power Factor / cos φ		0,75/0,80
Efficiency Degree		0,65
Open circuit voltage	V	64
Current range	A	5 - 600
Duty cycle (at 40°C)	A 100 %	330
	A 60 %	430
	A 35 %	600
Standards		EN 60974-1 - EN 60974-10 - [S]
Protection Class	IP	23 S
Dimensions (L x W x H)	mm	1260 x 730 x 615
Weight	Kg	196

## ORDER INFORMATION


CODE	DESCRIPTION	ARCTRONIC 626
POWER SOURCES		
005634	<b>ARCTRONIC 626</b> 230/400 V (*)	●
ACCESSORY KITS		
460262	4+3 m 50 mm <sup>2</sup> cables with electrodeholder pincer, ground clamp and 50 mm <sup>2</sup> safety connections brush /hammer - shield with lens	
460264	4+3 m 70 mm <sup>2</sup> cables with electrodeholder pincer, ground clamp and 70 mm <sup>2</sup> safety connections brush / hammer - shield with lens	●
REMOTE CONTROLS		
236241	<b>CD 3/25</b> 25 m manual remote control with geared down potentiometer	●
236242	<b>CD 3/50</b> 50 m manual remote control with geared down potentiometer	●
OTHER OPTION[S]		
030962	Digital V/A meter Kit with "hold" function (**)	●
TIG TORCHES WITH BUILT-IN GAS VALVE FOR TOUCH-START TECHNIQUE		
020568	Torch <b>RTX 26.4</b> 4 m - 180 A 35%	●

(\*) To be discontinued

(\*\*) To be mounted and connected at customer's care





A vertical photograph on the left side of the page shows a white and green industrial robot arm. The arm is positioned vertically, with its upper section being white and its lower section being green. It is mounted on a dark, metallic base. The background is dark, and the lighting highlights the robot's form.

# ROBOTICS & AUTOMATION

- 94 30 YEARS ROBOTIC EXPERIENCE
- 95 WELDING & ROBOTICS
- 96 ROBOT SOLUTION - DIGITEC
- 99 COBOT SOLUTION - DIGITEC
- 100 ROBOT TIG DC SOLUTION
- 101 ROBOT TIG AC/DC SOLUTION

# 30 YEARS ROBOTIC EXPERIENCE



The secret of CEA's competence and strength in the robotics industry is also the special relationship with TECNOROBOT, leading Italian company in the field.

In fact, for the past two decades, CEA and TECNOROBOT have collaborated to provide the best solutions in welding integrated robotic systems to their customers.

In 2013, believing in the robotic market's force and opportunities, CEA and TECNOROBOT joined together, sealing the paths of the two companies together.

Member of bridge4companies, TECNOROBOT represents a point of reference for the robotic market as a manufacturer of innovative and high-quality solutions, thanks to 30 years of activity in the field of welding, manipulation and cutting.

FANUC integrators, their systems represent a unique solution based on customer needs. TECNOROBOT'S philosophy is not only limited to production, development and sales, but also to providing excellent advice and technical assistance to its customers.





# WELDING & ROBOTICS

CEA has developed several products and interfaces for automation and robotics for MIG/MAG, MIG pulsed, TIG and PLASMA processes, by using its power sources. A team of experts is always able to suggest and propose the solutions better suiting different applications in line with the customer's needs.

DIGITECH equipments allow a flexible and economic integration with all major welding robots available on the market; thanks to the availability of feeders and versatile interfaces – digital and analogic/digital – these power sources can be either connected to new robotized equipment or utilized as a retrofit to existing robots.



## RBS 15

Wire feeder to be fitted on both hollow wrist robots and traditional ones with external device. Compact and light (only 6.2 kg) RBS 15 represents the ideal solution for any robotized application, being equipped with a 4 roll feeding mechanism, easily accessible also for roll replacements without any tooling, and having a double solenoid valve for gas and air.



## RI-D

Digital Field Bus interface. Usable on robots with field bus controller.



## RI-A 1

Analogic/Digital interface. Usable on robots with analogic/digital control.



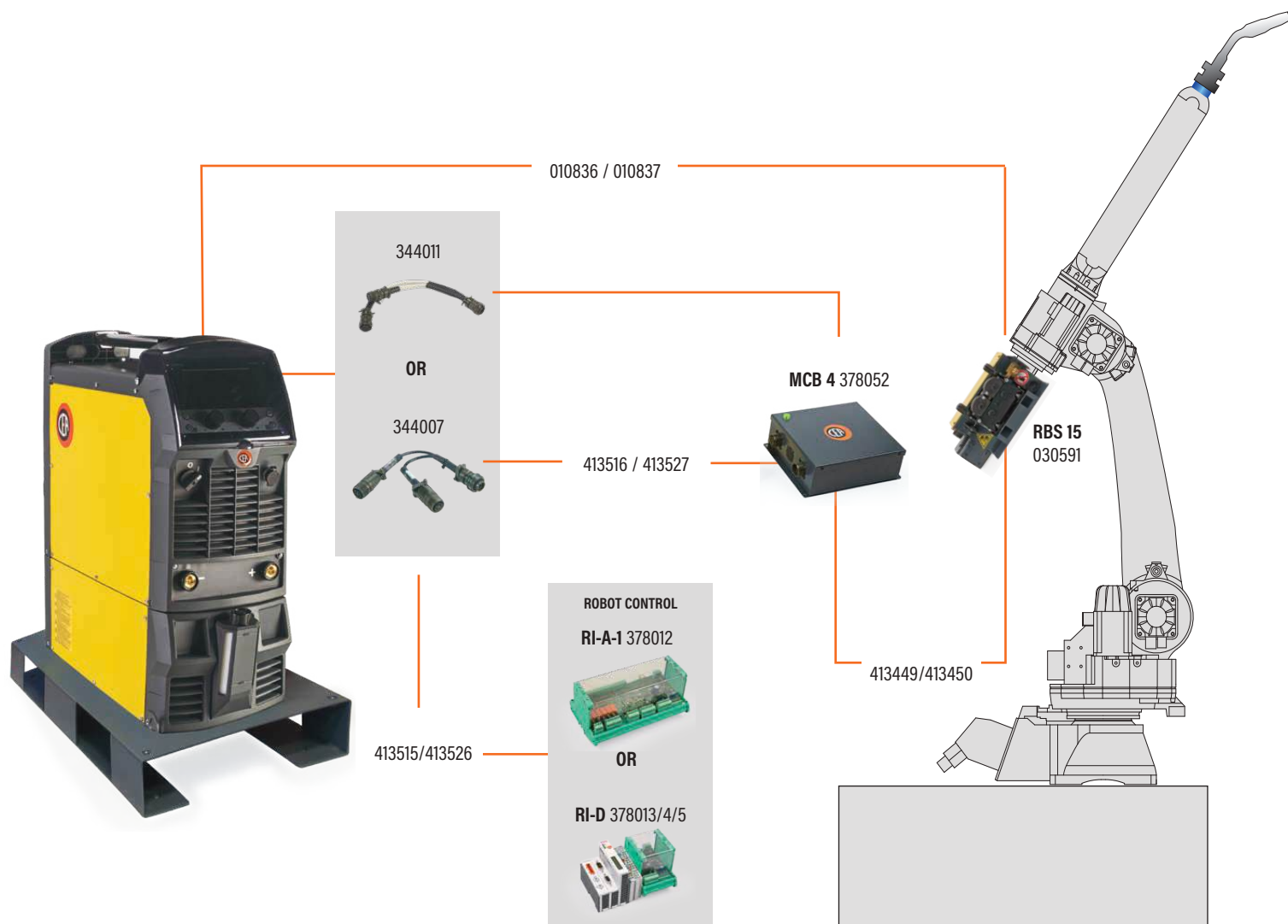
## MCB4

Control box for the wire feeder and auxiliary functions purpose-designed to be fitted either inside the power source, or inside the external robot control or even on the robot structure depending on the integrator's needs.





# ROBOT SOLUTION - DIGITECH



031165 - SB1



344011



344007



032125 HRX 51

SOFTWARE FOR SPECIAL PROCESS  
**PREMIUM FULL PACKAGE**  
> see page 15

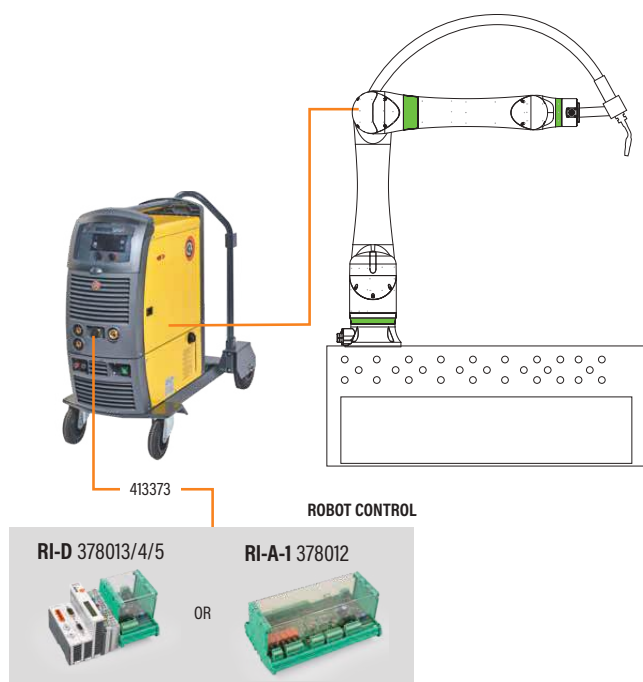


## ORDER INFORMATION

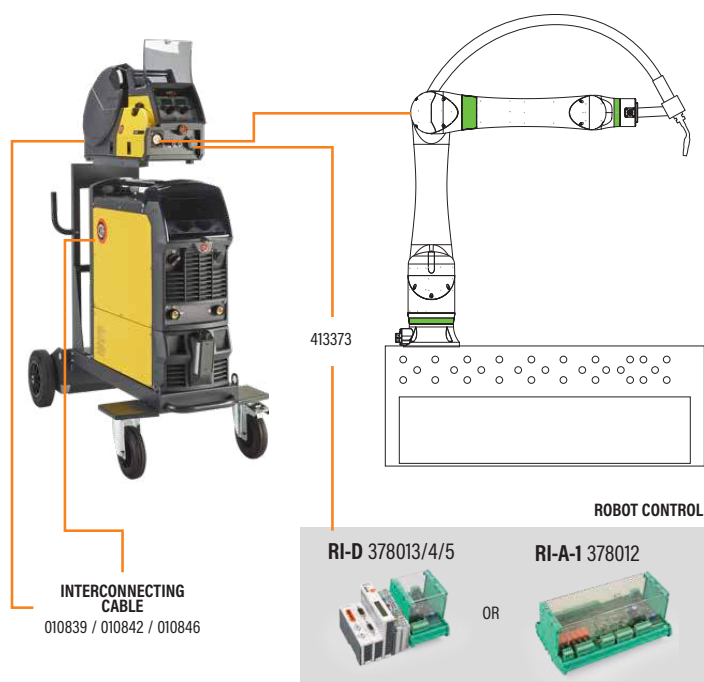
CODE	DESCRIPTION	DIGITECH 4003 VP3	DIGITECH 5003 VP3
	POWER SOURCES		
004708	Power Source <b>DIGITECH 4003 VP3</b> 400 V	≈	
004713	Power Source <b>DIGITECH 5003 VP3</b> 400 V		≈
	SPECIAL VERSIONS - POWER SOURCE FITTED WITH SOFTWARE		
004708PR	Power source <b>DIGITECH 4003 VP3 PREMIUM</b> 400 V with vision.FULL PACKAGE and Ethernet socket		
004713PR	Power source <b>DIGITECH 5003 VP3 PREMIUM</b> 400 V with vision.FULL PACKAGE and Ethernet socket		
	SOFTWARE FOR SPECIAL MIG/MAG PROCESS		
050002	<b>SM1 - SPECIAL MIG</b> Process Package including: vision.COLD, vision.POWER, vision.ULTRASPEED, vision.PIPE and ECP - Extra Curves Package		
050003	<b>SP2 - PERFORMANCE</b> Process Package including: vision.PULSE-UP, vision.PULSE-RUN, vision.ULTRASPEED and ECP - Extra Curves Package		
050004	<b>SFP - vision.FULL</b> - PACKAGE complete with SM1 and SP2		
050050	<b>ECP</b> -Extra Curves Package to meet special application		
	INTERCONNECTING CABLES		
010836	5 m Air / Water cooled Interconnecting cable	≈	≈
010837	10 m Air / Water cooled Interconnecting cable		
	WIRE FEEDER		
030591	Robot Wire Feeder RBS 15 with Euro Connect. 4 rolls (Ø 1,0/1,2)	≈	≈
030593	Robot Wire Feeder RBS 15 with "L" Connect. 4 rolls (Ø 1,0/1,2)		
	ROBOT INTERFACE		
378012	Robot Interface <b>RI-A 1</b> Analogic/Digital	Analogic	Analogic
378013	Robot Interface <b>RI-DD</b> DeviceNet	DeviceNet	DeviceNet
378014	Robot Interface <b>RI-DE</b> EtherNet/IP	EtherNet/IP	EtherNet/IP
378015	Robot Interface <b>RI-DP</b> ProfiNet	ProfilNet	ProfilNet
	ROBOTICS PACKAGE		
378052	<b>MCB 4</b> - Motor Control Box	≈	≈
	INTERCONNECTING CABLES KIT AND CONNECTOR KIT		
413449	5 m Interconnecting cable Wire Feeder - MCB 4	≈	≈
413450	10 m Interconnecting cable Wire Feeder - MCB 4		
344007	Connector cable kit to link Power source with MCB 4 - interface(RI) to be used with 413516 or 413527		
344011	Connector cable kit to link Power source with MCB 4 (fixed on power source) - interface ( RI )	≈	≈
413526	5 m Interconnecting cable Power source - Robot Interface	≈	≈
413515	10 m Interconnecting cable Power source - Robot Interface		
413527	2 m Interconnecting cable Power source - MCB 4		
413516	10 m Interconnecting cable Power source - MCB 4		
	WATER COOLING		
032125	Water cooling equipment <b>HRX 51</b> 400 V	≈	≈
402275A	Cea <b>CL-1100</b> cooling liquid - 5 l Tank	≈	≈
	GROUND CABLES		
239607	70 mm2 / 4 m <b>Ground cable</b> with clamp	≈	≈
	TROLLEY AND SUPPORT BASE		
031165	Support Base <b>SB 1</b> for Power source		
234914	Trolley <b>CT 70</b> with 4 rolls for power source, cooling equipment and cylinder (and autotransformer)		
	OTHER OPTION[S]		
020340	Autotransformer <b>A 13-H</b> 220/400 V 50/60 Hz 3 Phase		
030947	Aluminium Kit of double grooved TWIN rolls (Ø 1,0/1,2) and gears kit for Al wires		
030949	Aluminium Kit of double grooved TWIN rolls (Ø 1.2/1,6) and gears kit for Al wires		
	DIGITECH 4003 VP3 ETHERNET/IP Interface COMPLETE PACKAGE Suggested version	EtherNet/IP	
	DIGITECH 5003 VP3 ETHERNET/IP Interface COMPLETE PACKAGE Suggested version		EtherNet/IP

# COBOT SOLUTION

## COMPACT



## SEPARATED WIRE FEEDER



## ORDER INFORMATION

CODE	DESCRIPTION	DIGITECH 3200
POWER SOURCES		
004700	Power Source <b>DIGITECH 3200 VP2</b> 400 V (4 rolls for wire Ø 0,8/1,0 mm)	≈
PREMIUM VERSION - POWER SOURCES		
004700PR	Power Source <b>DIGITECH 3200 VP2 PREMIUM</b> 400 V with vision.FULL PACKAGE and Ethernet socket	
SOFTWARE FOR SPECIAL MIG/MAG PROCESS		
050002	<b>SM1 - SPECIAL MIG</b> Process Package including: vision.COLD, vision.POWER, vision.ULTRASPEED, vision.PIPE and ECP - Extra Curves Package	
050003	<b>SP2 - PERFORMANCE</b> Process Package including: vision.PULSE-UP, vision.PULSE-RUN, vision.ULTRASPEED and ECP - Extra Curves Package	
050004	<b>SFP - vision.FULL-PACKAGE</b> complete with Special MIG Process Pack (SM1), Special PULSE Process (SP2)	
050050	<b>ECP</b> - Extra Curves Package to meet special application	
Aluminium KIT		
030895	Aluminium Kit of double grooved TWIN rolls (Ø: 0,8/1,0) and gears kit for Al wires	
030897	Aluminium Kit of double grooved TWIN rolls (Ø: 1,0/1,2) and gears kit for Al wires	
WATER COOLING		
032098	Water cooling equipment <b>HR 32</b> 400 V	≈
402275A	Cea <b>CL-1100</b> cooling liquid - 5 l Tank	≈
ROBOTICS PACKAGE		
378012	Robot Interface <b>RI-A 1</b> Analogic/Digital	Analog
378013	Robot Interface <b>RI-DD</b> DeviceNet	DeviceNet
378014	Robot Interface <b>RI-DE</b> EtherNet/IP	EtherNet
378015	Robot Interface <b>RI-DP</b> ProfiNet	ProfiNet
413373	2 m Interconnecting cable Power source - Robot Interface	≈
GROUND CABLES		
239603	50 mm <sup>2</sup> / 4 m <b>Ground cable</b> with clamp	≈
TROLLEY AND SUPPORT BASE		
234914	Trolley <b>CT 70</b> with 4 rolls for power source, cooling equipment and cylinder (and autotransformer)	≈
234928	Trolley <b>CT 75</b> with 4 rolls for power source, cooling equipment and cylinder (and autotransformer)	
031165	Support Base <b>SB 1</b> for Power source	
GAS REDUCERS		
020855	Reducer with 2 manometers	
020916	Reducer with flowmeter and 1 manometer	
OPTIONAL		
236590	Metallic spool adaptor	
DIGITECH 3200 VP2 - ETHERNET/IP Interface COMPLETE PACKAGE Suggested version		EtherNet

## ORDER INFORMATION

DESCRIPTION		DIGITECH 4003 VP3	DIGITECH 5003 VP3
POWER SOURCES			
004708	Power Source <b>DIGITECH 4003 VP3</b> 400 V	≈	
004713	Power Source <b>DIGITECH 5003 VP3</b> 400 V		≈
SPECIAL VERSIONS - POWER SOURCE FITTED WITH SOFTWARE			
004708PR	Power source <b>DIGITECH 4003 VP3 PREMIUM</b> 400 V with vision.FULL PACKAGE and Ethernet socket		
004713PR	Power source <b>DIGITECH 5003 VP3 PREMIUM</b> 400 V with vision.FULL PACKAGE and Ethernet socket		
SOFTWARE FOR SPECIAL MIG/MAG PROCESS			
050002	<b>SM1 - SPECIAL MIG</b> Process Package including: vision.COLD, vision.POWER, vision.ULTRASPEED, vision.PIPE and ECP - Extra Curves Package		
050003	<b>SP2 - PERFORMANCE</b> Process Package including: vision.PULSE-UP, vision.PULSE-RUN, vision.ULTRASPEED and ECP - Extra Curves Package		
050004	<b>SFP - vision.FULL</b> - PACKAGE complete with Special MIG Process Pack. (SM1) and Special PULSE Process: vision.PULSE-UP, vision.PULSE-RUN and vision.PULSE-POWER with extra curves ECP		
050050	<b>ECP</b> -Extra Curves Package to meet special application		
INTERCONNECTING CABLES			
010839	1,2 m Air / Water cooled Interconnecting cable Power source-Wire feeder	≈	≈
010842	5 m Air / Water cooled Interconnecting cable		
010846	10 m Air / Water cooled Interconnecting cable		
WIRE FEEDER			
030716	Wire Feeder <b>HT 6 PRO DRIVE</b> with Euro Connection 4 rolls (Ø 1,0/1,2)	≈	≈
031116	<b>WK 4</b> standard wheels kit for HT 6 PRO DRIVE feeder		
031007	<b>WK 2</b> extra-large wheels kit for HT 6 PRO DRIVE feeder		
WATER COOLING			
032125	Water cooling equipment <b>HRX 51</b> 400 V	≈	≈
402275A	Cea <b>CL-1100</b> cooling liquid - 5 l Tank	≈	≈
ROBOTICS PACKAGE			
378012	Robot Interface <b>RI-A 1</b> Analogic/Digital	Analog	Analog
on demand	Robot Interface <b>RI-DM</b> Modbus	Modbus	Modbus
378013	Robot Interface <b>RI-DD</b> DeviceNet	DeviceNet	DeviceNet
378014	Robot Interface <b>RI-DE</b> EtherNet/IP	EtherNet	EtherNet
378015	Robot Interface <b>RI-DP</b> ProfiNet	ProfiNet	ProfiNet
413373	2 m Interconnecting cable Power source - Robot Interface	≈	≈
GROUND CABLES			
239607	70 mm <sup>2</sup> / 4 m <b>Ground cable</b> with clamp	≈	≈
TROLLEY AND SUPPORT BASE			
031165	Support Base <b>SB 1</b> for Power source		
234914	Trolley <b>CT 70</b> with 4 rolls for power source, cooling equipment and cylinder (and autotransformer)	≈	≈
OTHER OPTION[S]			
020340	Autotransformer <b>A 13-H</b> 220/400 V 50/60 Hz 3 Phase		
030895	<b>Aluminium Kit</b> of double grooved TWIN rolls (Ø 0,8/1,2) and gears kit for Al wires		
030897	<b>Aluminium Kit</b> of double grooved TWIN rolls (Ø 1,0/1,2) and gears kit for Al wires		
030899	<b>Aluminium Kit</b> of double grooved TWIN rolls (Ø 1,2/1,6) and gears kit for Al wires		
DIGITECH 4003 VP3 ETHERNET/IP Interface COMPLETE PACKAGE Suggested version		EtherNet	
DIGITECH 5003 VP3 ETHERNET/IP Interface COMPLETE PACKAGE Suggested version			EtherNet

(\*\*) On request

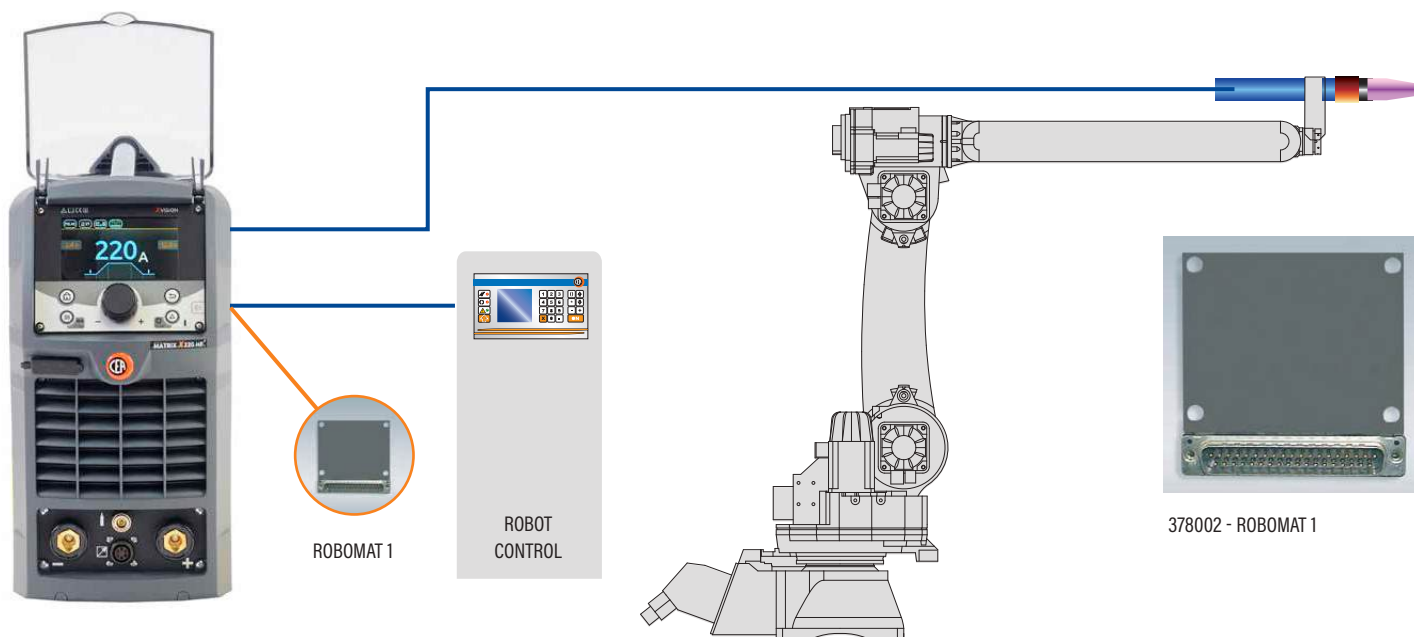
SOFTWARE FOR SPECIAL PROCESS  
**PREMIUM FULL PACKAGE**  
> see page 15





# ROBOT TIG DC SOLUTION

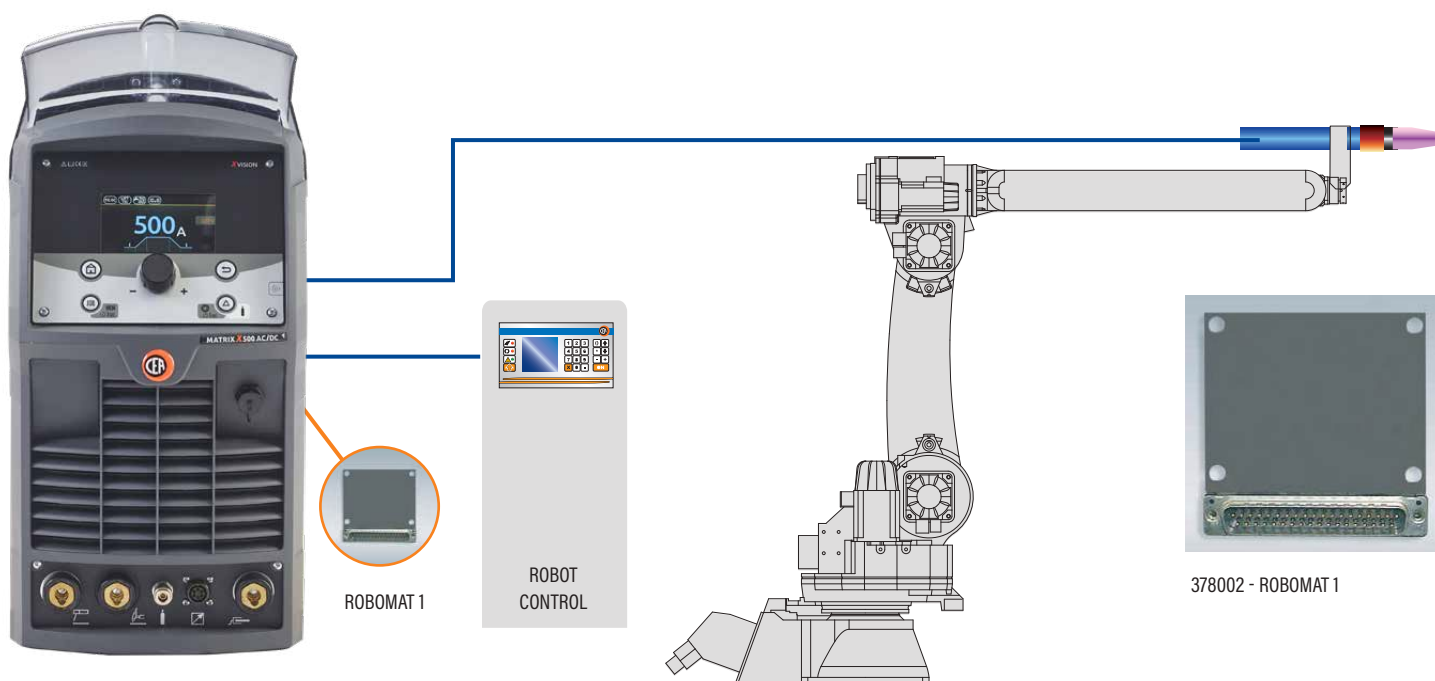
MATRIX series three-phase power sources, in the special "R" version, can be easily integrated in TIG welding automated equipment by means of ROBOMAT 1 interface which handles both the start/stop signals of the process and main welding parameter adjustments.



## ORDER INFORMATION

CODE	DESCRIPTION	MATRIX 3000 HF-R		MATRIX 4200 HF-R		MATRIX X 220 HF-R		MATRIX X 300 HF-R			
		AIR	WATER	AIR	WATER	AIR	WATER	AIR	WATER		
	POWER SOURCES - DC										
004531	Power source <b>MATRIX 3000 HF-R</b>	400 V - 3 Phase		●	≈						
004556	Power source <b>MATRIX 4200 HF-R</b>	400 V - 3 Phase				●	≈				
004508	Power source <b>MATRIX X 220 HF-R</b>	400 V - 1 Phase X vision control						●	≈		
004561	Power source <b>MATRIX X 300 HF-R</b>	400 V - 3 Phase X vision control								●	≈
	WATER COOLING										
032060	Water cooling equipment <b>HR 23</b>	400 V to be only ordered with related "VT" trolley		⚡	≈	⚡		⚡		⚡	
032098	Water cooling equipment <b>HR 32</b>	400 V		⚡		⚡	≈	⚡		⚡	
032120	Water cooling equipment <b>HRX 20</b>	230 V		⚡		⚡		⚡	≈	⚡	
032115	Water cooling equipment <b>HRX 30</b>	400 V		⚡		⚡		⚡		⚡	≈
031166	Adaptor Plate Kit for Matrix 4200 if used with CT 401 and HR 32			⚡		⚡	≈	⚡		⚡	
402275A	Cea <b>CL-1100</b> cooling liquid - 5 l Tank			⚡	≈	⚡		⚡	≈	⚡	≈
	ROBOTICS PACKAGES										
413508	<b>5 m Interconnecting cable</b> ROBOMAT 1 / automatic equipment			●	≈	●	≈	●	≈	●	≈
378002	Robot Interface <b>ROBOMAT 1</b>			●	≈	●	≈	●	≈	●	≈
	GROUND CABLES										
239601	<b>35 mm<sup>2</sup> / 4 m Ground cable</b> with clamp			●	≈			●	≈	●	≈
239603	<b>50 mm<sup>2</sup> / 4 m Ground cable</b> with clamp					●	≈				
	TROLLEYS										
234929	Trolley <b>VT 101</b> with 2 rolls for power source, cooling equipment and cylinder			●	≈	⚡		●	≈	●	≈
234931	Trolley <b>CT 401</b> with 4 rolls for power source, cooling equipment and cylinder			⚡		●	≈				
	OTHER OPTION										
460005	<b>A6 Connection kit</b> for non-standard Torch			●	≈	●	≈	●	≈	●	≈
	MATRIX 3000 HF-R	robot use complete package Suggested air cooled version		●							
	MATRIX 3000 HF-R	robot use complete package Suggested water cooled version			≈						
	MATRIX 4200 HF-R	robot use complete package Suggested air cooled version				●					
	MATRIX 4200 HF-R	robot use complete package Suggested water cooled version					≈				
	MATRIX X 220 HF-R	robot use complete package Suggested air cooled version						●			
	MATRIX X 220 HF-R	robot use complete package Suggested water cooled version							≈		
	MATRIX X 300 HF-R	robot use complete package Suggested air cooled version								●	
	MATRIX X 300 HF-R	robot use complete package Suggested water cooled version									≈

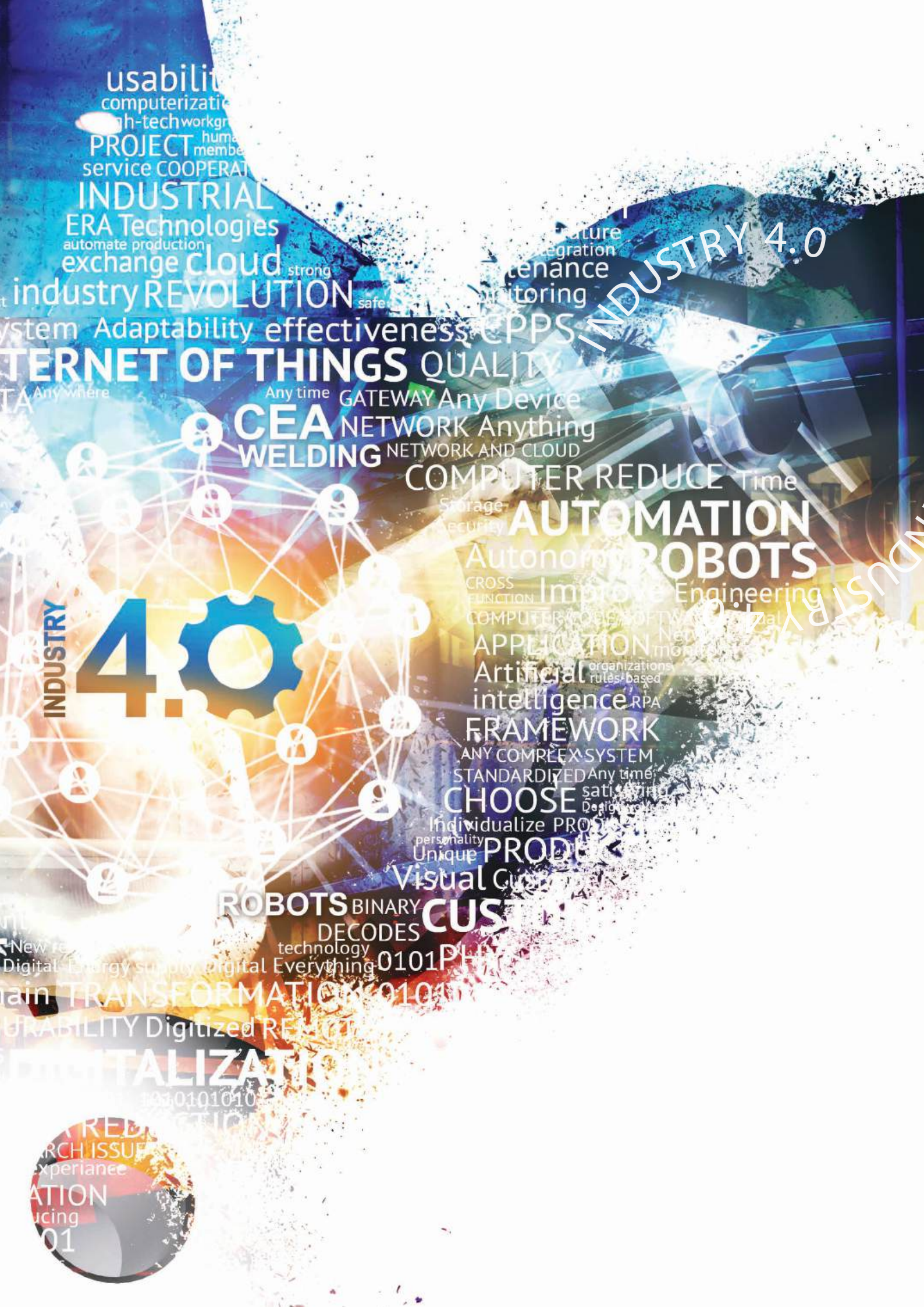
# ROBOT TIG AC/DC SOLUTION



## ORDER INFORMATION

CODE	DESCRIPTION	MATRIX 3000 AC/DC-R		MATRIX X 220 AC/DC-R		MATRIX X 300 AC/DC-R		MATRIX X 400 AC/DC-R		MATRIX X 500 AC/DC-R	
		AIR	WATER	AIR	WATER	AIR	WATER	AIR	WATER	AIR	WATER
	POWER SOURCES - AC/DC										
004536	Power source <b>MATRIX 3000 AC/DC-R</b> 400 V 3 Phase	●	≈								
004513	Power source <b>MATRIX X 220 AC/DC-R</b> 230 V 1 Phase X vision control			●	≈						
004566	Power source <b>MATRIX X 300 AC/DC-R</b> 400 V 3 Phase X vision control					●	≈				
004094	Power source <b>MATRIX X 400 AC/DC-R</b> 400 V 3 Phase X vision control							●	≈		
004098	Power source <b>MATRIX X 500 AC/DC-R</b> 400 V 3 Phase X vision control									●	≈
	WATER COOLING										
032060	Water cooling equipment <b>HR 23</b> 400V ordered with "VT" trolley		≈								
032120	Water cooling equipment <b>HRX 20</b> 230 V				≈						
032115	Water cooling equipment <b>HRX 30</b> 400 V						≈				
032130	Water cooling equipment <b>HRX 52</b> 400V ordered with "CT" trolley								≈		≈
402275A	Cea <b>CL-1100</b> cooling liquid - 5 l Tank		≈		≈		≈		≈		≈
	ROBOTICS PACKAGES										
413508	5 m Interconnecting cable ROBOMAT 1 / automatic equipment	●	≈	●	≈	●	≈	●	≈	●	≈
378002	Robot Interface <b>ROBOMAT 1</b>	●	≈	●	≈	●	≈	●	≈	●	≈
	GROUND CABLES										
239601	35 mm <sup>2</sup> / 4 m <b>Ground cable</b> with clamp	●	≈	●	≈	●	≈				
239603	50 mm <sup>2</sup> / 4 m <b>Ground cable</b> with clamp							●	≈		
239607	70 mm <sup>2</sup> / 4 m <b>Ground cable</b> with clamp									●	≈
	TROLLEYS										
234929	Trolley <b>VT 101</b> with 2 rolls for power source, cooling equipment and cylinder	●	≈	●	≈	●	≈				
234931	Trolley <b>CT 401</b> with 4 rolls for power source, cooling equipment and cylinder										
234914	Trolley <b>CT 70</b> with 4 rolls for power source, cooling equipment and cylinder							●	≈	●	≈
234932	Trolley <b>PRIME CT 80</b> with 4 rolls for power source, cooling equipment and cylinder										
	OTHER OPTION										
460005	<b>A6</b> Connection kit for non-standard Torch	●	≈	●	≈	●	≈	●	≈	●	≈
	MATRIX 3000 AC/DC-R complete package air cooled	●									
	MATRIX 3000 AC/DC-R complete package water cooled		≈								
	MATRIX X 220 AC/DC-R complete package air cooled			●							
	MATRIX X 220 AC/DC-R complete package water cooled				≈						
	MATRIX X 300 AC/DC-R complete package air cooled					●					
	MATRIX X 300 AC/DC-R complete package water cooled						≈				
	MATRIX X 400 AC/DC-R complete package air cooled							●			
	MATRIX X 400 AC/DC-R complete package water cooled								≈		
	MATRIX X 500 AC/DC-R complete package air cooled									●	
	MATRIX X 500 AC/DC-R complete package water cooled										≈





usability

computerization

high-tech workgroup

PROJECT

human member

service COOPERATION

INDUSTRIAL

ERA Technologies

automate production

exchange cloud

strong

safe

feature

integration

maintenance

monitoring

industry REVOLUTION

system Adaptability effectiveness CPPS

INTERNET OF THINGS QUALITY

Any where

Any time

GATEWAY Any Device

CEA

NETWORK Anything

WELDING

NETWORK AND CLOUD

COMPUTER REDUCE Time

Storage security

AUTOMATION

Autonomous

ROBOTS

CROSS FUNCTION

Improve Engineering

COMPUTER CODES SOFTWARE

APPLICATION

Artificial intelligence

FRAMEWORK

ANY COMPLEX SYSTEM

STANDARDIZED

CHOOSE

Individualize PRO

Unique

Visual C

CUST

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TRANSFORMATION

DIGITIZED

REDUCTION

ARCH ISSUE

experience

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# INDUSTRY 4.0

For Industry 4.0 we mean the transformation of manufacturing processes based on the digitalization of the factory, the connection between physical and digital systems and the interconnectivity of more equipment. Industry 4.0 certainly represents the fourth industrial revolution.

The main hubs around which this "revolution" revolves are represented by:

- Interconnectivity between equipment in the production cycle.
- Continuous monitoring of work conditions by means of appropriate set of sensors and adaptive capacity versus any process drift.
- Equipment remote control, maintenance and diagnosis.
- Machines viewed as networked objects (IOT Internet of things).



**CEA DIGITECH  
PREMIUM 4.0 READY**



**344007**



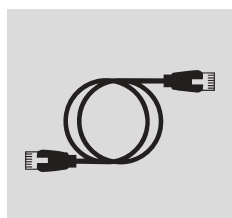
**ROBOT INTERFACE RI-D  
378013 / 378014 /  
378015**



**CUSTOMER  
MANAGEMENT  
SOFTWARE**



**CEA DIGITECH  
PREMIUM 4.0 READY**



**ETHERNET CABLE**



**CUSTOMER  
MANAGEMENT  
SOFTWARE**

## CEA EQUIPMENT FOR INDUSTRY 4.0

In order to face the challenge of this philosophy, CEA has developed the new DIGITECH (4.0 VERSION) equipment and a series of support software, which, with no doubt, allow this equipment to be fully complying with INDUSTRY 4.0 concepts.

- The features of DIGITECH equipment can be briefly summarized as follows:
- Digital electronic control managed by a microprocessor.
- Graphical interface with user friendly and intuitive LCD display.
- Unique identifiability of the equipment through an IP address.
- Possibility of being connected to other equipment by an Ethernet or Wifi network.
- Possibility of remote activating programs or JOBS via Ethernet or Wifi.
- Possibility of interconnecting several networked equipment.
- Low energy consumption thanks to latest generation inverter power sources.
- Remote auto-diagnostic system.







# CQM CEA QUALITY MANAGER



## QUALITY CONTROL AND PARAMETER PRINTING

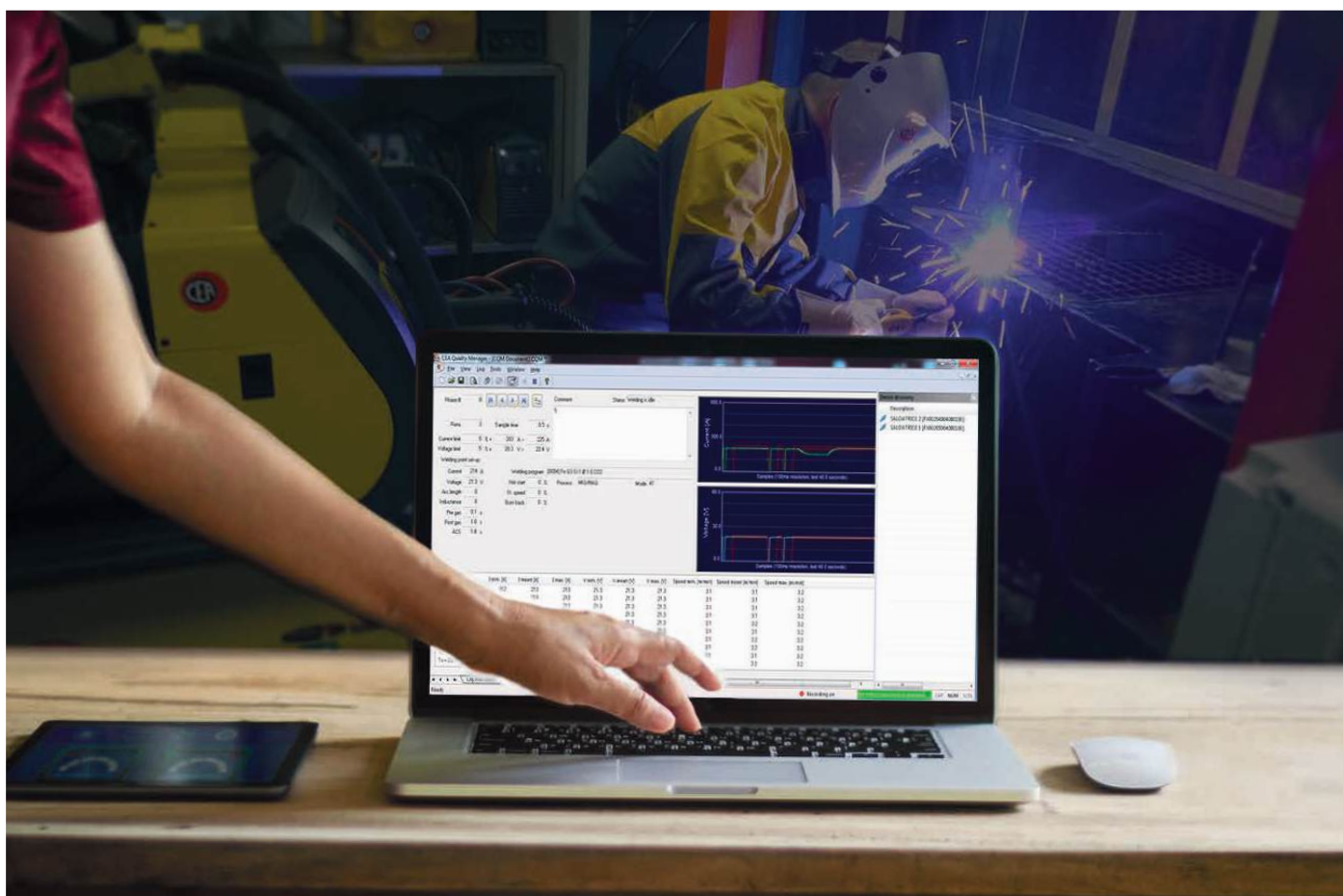
CQM "CEA QUALITY MANAGER" software has been developed by CEA to enable welding data recording, monitoring and printing by means of an external computer connected to one or more power sources of DIGITECH series.

Ideal for monitoring production and satisfying quality needs of the market, CEA QUALITY MANAGER enables to create customized detailed reports related to welding jobs made on various workpieces by several operators using different materials.

CEA QUALITY MANAGER is a very useful tool for:

- satisfying welding documentation requirements as prescribed by the buyers and by international norms such as EN 1090
- checking and monitoring the welding process
- creating sheets and work procedures from laboratory to be transferred to production
- generating welding job printout sheets

CEA QUALITY MANAGER takes advantage from current, voltage and wire speed sensors integrated into the welding equipment, without utilizing any additional complex and expensive detecting instrument and interface systems. To make it work, it is enough to simply use an Ethernet connection and the welding data recording program is ready to operate, enabling the monitoring of one or more power sources connected via Ethernet to your computer.





## RECORDING

**Register every instant** of all your DIGITECH welding data and reach an extraordinary level in quality control.



## PRINTING

**Easy printing** of all the machine parameters and data for archiving in a standard CQM file or in excel.



## WELDING PARAMETER CONTROL

**Easy comparison** of every welding instant with your pre-set parameters and remote control of your production without any additional testing operation.



## BAR CODE READER

Get the workflow of your company even faster. Don't want to waste time in creating the registration setting on the PC? Add the BAR CODE READER option to your DIGITECH and create a more detailed recording file in an extremely fast and easy way, directly from the machine.



## ETHERNET CONNECTION

**Safe and reliable system.** By Ethernet connection, CEA's software allows you to have a quick and stable connection in any working condition.



ETHERNET LAN

CEA Quality Manager - 1.5.2 (build 1792)



**CEA S.p.A. - COSTRUZIONI ELETTROMECCANICHE ANNETTONI**  
 Via S. Felice, 11 - 20090 Lecco - ITALY  
 Tel. 030-541-0232  
 Fax 030-541-0236  
 E-Mail: info@cea-annettoni.it  
 Web: www.cea-annettoni.it

File:	CRANES AB 1456	COO:	B71235478
Description:	TEST N. 471		
Notes:	NOTES		
Operator:	Paul Smith - U 503		
Welder:	Digitech Vision 5000	S/N:	AG107005
Firmware:	H04-03.04 F03-04.06-BETA1012 CD4-28.01.50A		

Phase # 1										
Description	DIGITECH 5000 VISION									
Sampling time	1.0 s	Current limit	10 %	Voltage limit	10 %					
<b>Run 1</b>										
Curve	[101] Fe G3 Si-1 Ø 0.8 Ar 16-20% CO <sub>2</sub>				Inductance	0	0.1 s			
Process	MIG Pulsed				Pre gas	0				
Mode	4T				Post gas	1.0				
Current	200 A				Burn back	0 %				
Voltage	27.5 V				Hot start	0				
Starting speed	0 %				Job slope	0.5 s				
Arc	0									
Started: 18/03/2016 11:10:43 Terminated: 18/03/2016 11:10:43										
Sample #	T [s]	Current [A]	Voltage [V]	Wire speed [m/min]	Min	Mean	Max	Min	Mean	Max
1	0.20	106	111	12.80	20.30	20.80	17.10	17.10	17.10	17.10
<b>Run 2</b>										
Started: 18/03/2016 11:10:52 Terminated: 18/03/2016 11:11:38										
Sample #	T [s]	Current [A]	Voltage [V]	Wire speed [m/min]	Min	Mean	Max	Min	Mean	Max
2	1.00	82	101	14.00	17.20	20.80	17.00	17.10	17.10	17.20
3	2.00	84	87	91	12.80	13.40	14.80	17.00	17.10	17.10
4	3.00	89	81	83	11.90	11.90	12.40	17.00	17.10	17.20
5	4.00	78	86	11.10	11.20	11.40	17.00	17.00	17.10	17.10
6	5.00	78	78	11.00	11.00	11.10	17.00	17.00	17.10	17.10
7	6.00	78	78	11.00	11.00	11.10	17.00	17.10	17.10	17.10
8	7.00	78	78	10.90	10.90	11.00	17.00	17.10	17.10	17.20
9	8.00	78	78	10.90	10.90	11.00	16.90	17.00	17.10	17.10
10	9.00	78	78	10.90	11.00	11.00	17.00	17.10	17.10	17.20
11	10.00	78	78	10.90	11.00	11.00	17.00	17.10	17.10	17.20
12	11.00	78	78	10.90	10.90	10.90	17.00	17.10	17.10	17.20
13	12.00	73	71	10.80	10.90	11.00	17.00	17.00	17.20	17.20
14	13.00	68	68	72	10.70	10.90	12.20	17.00	17.10	17.10

18/03/2016 11:19:16

1/6

CEA Quality Manager - 1.5.2 (build 1792)

Sample #	T [s]	Current [A]	Voltage [V]	Wire speed [m/min]	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max
182	16.00	185	185	25.00	25.00	25.10	9.90	10.00	10.00				
190	17.00	185	185	25.00	25.00	25.00	9.90	10.00	10.00				
191	18.00	185	185	25.00	25.00	25.00	9.90	9.90	10.00				
192	19.00	185	185	25.00	25.00	25.00	9.90	10.00	10.10				
193	20.00	185	185	24.90	25.00	25.00	9.90	9.90	10.00				
194	21.00	185	185	24.90	25.00	25.00	9.90	9.90	10.00				
195	22.00	185	185	24.90	25.00	25.00	9.90	9.90	10.00				
196	23.00	185	185	24.90	24.90	25.00	9.90	10.00	10.10				
197	24.00	185	185	24.90	25.00	25.00	9.90	10.00	10.00				
198	25.00	185	185	25.00	25.00	25.00	9.90	9.90	10.00				
199	26.00	185	185	25.00	25.00	25.00	9.90	10.00	10.00				
200	27.00	185	185	25.00	25.00	25.00	9.90	9.90	10.00				
201	27.40	185	185	25.00	25.00	25.00	9.90	10.00	10.10				
<b>Run 11</b>													
Started: 18/03/2016 11:15:05 Terminated: 18/03/2016 11:15:11													
Sample #	T [s]	Current [A]	Voltage [V]	Wire speed [m/min]	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max
202	1.00	88	93	91	14.40	14.40	19.20	9.90	10.00	10.00			
203	2.00	88	80	100	14.10	20.80	27.20	9.90	10.00	10.00			
204	3.00	108	134	193	25.80	26.40	27.10	9.90	9.90	10.00			
205	4.00	106	168	173	25.30	25.50	25.80	9.90	10.00	10.00			
206	5.00	174	178	181	25.10	25.20	25.30	9.90	10.00	10.00			
207	6.00	181	183	184	25.00	25.10	25.10	9.90	10.00	10.00			
208	6.80	184	184	185	25.00	25.00	25.00	9.90	9.90	10.00			
<b>Run 12</b>													
Started: 18/03/2016 11:15:23 Terminated: 18/03/2016 11:15:27													
Sample #	T [s]	Current [A]	Voltage [V]	Wire speed [m/min]	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max
209	1.00	89	93	88	14.70	16.80	19.80	9.90	10.00	10.00			
210	2.00	86	87	88	12.80	13.40	14.40	9.90	10.00	10.00			
211	3.00	86	80	105	12.40	18.80	24.80	9.90	10.00	10.00			
212	4.00	112	138	192	24.80	24.80	24.90	9.90	9.90	10.00			
213	5.00	188	187	174	24.80	24.90	25.00	9.90	10.00	10.00			
214	5.30	175	175	177	25.00	25.00	25.00	9.90	10.00	10.00			

Total weld time: 0h, 3m, 27s

CEA Quality Manager - version 1.5.2 (build 1792)

CEA Customer Relationship Manager 1.1  
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6/10/2016  
 J. M. M.



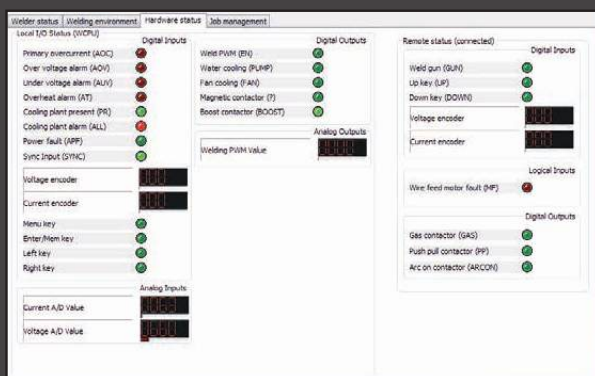
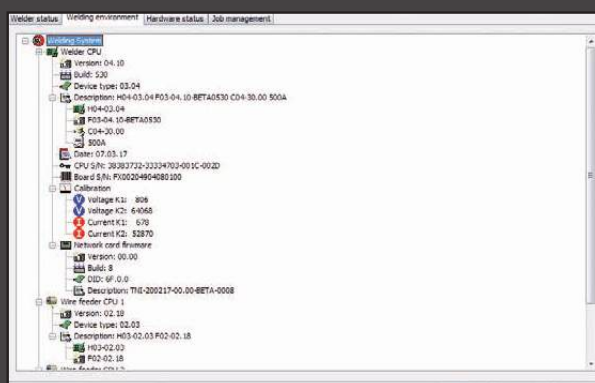
# CWM CEA WELDER MANAGER

## WELDER STATUS CONTROL AND WELDING JOB DUPLICATION

CWM: CEA WELDER MANAGER is a software which allows to monitor the status of one or more DIGITECH welding equipment, one another connected via Ethernet (or via Wifi as optional) by means of an external computer in the same network.

Ideal for the remote monitoring of the welding equipment status, including any faced anomaly, CEA WELDER MANAGER enables to save and duplicate JOBS from one equipment to another, by allowing to copy and paste the exact same setting on all available power sources, thus obtaining a perfect equality in their welding quality.

CEA WELDER MANAGER takes advantage from resources integrated into the welding equipment without utilizing any additional complex and expensive instruments and interface systems. To make it work, it is enough to simply use an Ethernet connection and the program is ready to operate.



### WELDING MONITORING

Live control of one single machine for checking the real instant working situation and parameters.



### PROBLEM CHECKING

Any machine error will be displayed for easy problem-solving.



### JOB CLONE

Don't waste time for replicating the same job on any additional DIGITECH power source. Just clone one setting from one machine to another directly from your PC.

## JOB SAVE AND DUPLICATION

More and more there is the need of a very high quality in welding and repeatability of the results. Once a series of JOBS has been created and memorized in one welding equipment, it would be a long and tiring task to manually re-input the exact same parameters into other power sources, with the risk of making involuntary mistakes. CEA WELDER MANAGER allows to transfer JOBS from one equipment to others, by granting the reproducibility of the welding operations from one working place to another.

By connecting an external computer - onto which this software has been installed - to a welding equipment, it is possible to download all memorized JOBS (DOWNLOAD FROM WELDER) and create a file, which, thereafter, can be transferred to one or more power sources, by simply clicking onto UPLOAD TO WELDER icon.

CEA WELDER MANAGER is very useful to also make a JOB BACKUP and therefore safely keep memorized JOBS data onto an external unit from where, in case of failure or necessity, they can be retrieved.

# CEA CALIBRATION SERVICE

This is a professional and guaranteed service able to provide all clients the calibration of all the measuring instruments fitted in the welding equipment.

## WHAT IS CALIBRATION?

In arc welding processes, welding quality itself is strictly subordinated, in addition to the experience and professionalism of the operator, to the precision in adjusting and repeating same parameters, such as welding current, voltage and wire speed (MIG/MAG welding). Calibration means to verify the measuring precision of the instruments being utilized in your own welding equipment. This must fully meet what prescribed by EN 60974-14 norm, which clearly states methods, instruments and allowed tolerances as necessary for each operation.

## WHY TO CALIBRATE?

To calibrate means to periodically check the measuring precision of the instruments provided into the welding equipment. Such a control grants the full compliance of the parameter tolerances and, therefore, allows you to repeat welding results by granting an unchanged quality while welding the workpiece.


It also allows you to cope with instructions as prescribed in your WPS's related to the workpiece being welded.

## CEA CALIBRATION

CEA calibration is obtained by connecting the power source to a conventional load in order to measure by means of precise and certified instruments both current and voltage as performed by the machine. In MIG/MAG also welding wire speed is to be controlled in the same way.

Whenever such a test is positive, a proper certificate is also released complete with all detected data and the power source is to be fitted with a sticker stating the test result together with its validity date.



Such a service has got various options ranging from calibration made in CEA factory just after the machine is completed on the assembly line, to calibration made directly at the final user's machine.

 <b>CEA</b> Costruzioni Elettromeccaniche Annettoni S.p.A. C.so Emanuele Filiberto, 27 23900 Lecco - Italia Tel. +39 0341 22322 Fax +39 0341 422646		<b>Issued date:</b> 27/10/2015 <b>Calibrated date:</b> 27/10/2015 <b>Approved date:</b> 27/10/2015 <b>Calibration due date:</b> 27/10/2016	
<b>Calibration certificate No:</b> CEA 2015 001			
<b>Customer:</b>			
<b>Addresses:</b>			
<b>BASIC INFORMATION</b>			
<b>Type of unit:</b>		MIG / MAG welding machine with separate wire feeder	
<b>Power source:</b> DIGITECH 5000 VISION PULSE	<b>Serial number:</b> YB 107 011		
<b>Control panel:</b> DH 50	<b>Serial number:</b> FX 00206104080100		
<b>Wire feeder:</b> HT 5	<b>Serial number:</b> YD 251 020		
<b>General notes:</b> Wire Fe d=1.0mm - Connection cable 10mt - Torch C350 4mt			
<b>CALIBRATION SPECIFICATIONS</b>			
<b>Equipment function under test:</b> VOLTAGE CURRENT WIRE SPEED DISPLAYS			
<b>Validation method:</b>		Conventional load resistor - MIG/MAG (CV) / rotary transducer	
<b>Validation type:</b>	Accuracy <input checked="" type="checkbox"/> Consistency <input type="checkbox"/>		
<b>Validation grade:</b>	Standard <input checked="" type="checkbox"/> Precision <input type="checkbox"/>	<b>Validation range:</b>	Full range
<b>Power source rated max current:</b> 500A	<b>Power source rated min current:</b> 10A	<b>Power source no_load voltage:</b> 70V	
<b>Max allowed error of display A (±2.5 %):</b> ± 12.5 A	<b>Max allowed error of display V (±2.5 %):</b> ± 1.75 V		
<b>Wire feed speed rated min value:</b> 0.6 m/min	<b>Wire feed speed rated max value:</b> 25 m/min	<b>Max allowed error of wire feed speed:</b> ± 10 % of set value	
<b>TEST CONDITIONS</b>			
<b>Ambient temperature:</b> 25°C	<b>Input voltage:</b> 400V	<b>Input voltage frequency:</b> 50Hz	

SET POINTS		VOLTMETER						AMMETER			
		MEASURED VOLTAGE	AVERAGE MEASURED VOLT	DISPLAY V IND	AVERAGE DISP IND	ERROR V	MEASURED CURRENT	AVERAGE MEASURED CURRENT	DISPLAY A IND	AVERAGE DISP IND	ERROR A
V <sub>2</sub>	I <sub>2</sub>	[V]	[V]	[V]	[V]	[V]	[A]	[A]	[A]	[A]	[A]
14,0	10	MEAS 1,1 13,35 MEAS 1,2 12,87	13,11	13,3 13,0	13,15	0,04	9,34 9,20	9,27	9 9	9,0	-0,27
20,25	125	MEAS 2,1 20,82 MEAS 2,2 20,82	20,82	20,8 20,8	20,80	-0,02	125,80 125,54	125,67	125 125	125,0	-0,67
26,5	250	MEAS 3,1 27,33 MEAS 3,2 27,15	27,24	27,3 27,2	27,25	0,01	251,20 250,80	251,00	250 250	250,0	-1,00
32,75	375	MEAS 4,1 33,00 MEAS 4,2 32,80	32,90	32,9 32,8	32,85	-0,05	375,80 375,20	375,50	375 375	375,0	-0,50
39,0	500	MEAS 5,1 40,40 MEAS 5,2 39,90	40,15	40,5 40,0	40,25	0,10	499,60 499,40	499,50	500 500	500,0	0,50

SET POINTS		WIRE SPEED METER					
		MEASURED WIRE SPEED	AVERAGE WIRE SPEED	DISPLAY WIRE SPEED	AVERAGE DISP IND	MAX ALLOWED ERROR	ERROR
[m/min]		[m/min]	[m/min]	[m/min]	[m/min]	[m/min]	[m/min]
0,6	MEAS 1,1 0,5 MEAS 1,2 0,5	0,50	0,5	0,6	0,6	± 0,06	0,05
6,7	MEAS 2,1 6,6 MEAS 2,2 6,6	6,60	6,6	6,6	6,6	± 0,67	0,00
12,8	MEAS 3,1 12,5 MEAS 3,2 12,7	12,60	12,8	12,8	12,8	± 1,28	0,20
18,9	MEAS 4,1 18,3 MEAS 4,2 18,5	18,40	18,9	18,9	18,9	± 1,89	0,50
25,0	MEAS 5,1 24,3 MEAS 5,2 24,3	24,30	25,0	24,9	25,0	± 2,50	0,65

CALIBRATION EQUIPMENT		
REF	DESCRIPTION	CAL DATE EXPIRE
CEA E153	SMP 1286 - LOAD RESISTOR AND ROTARY TRANSDUCER	JAN 2016
CEA MD39	FLUKE 77 - MULTIMETER FOR WELDING VOLTAGE	OCT 2016
CEA E138	CURRENT SENSOR - 1000A 5V 1%	JAN 2016
CEA MD47	METRAHITPRO - MULTIMETER FOR WELDING CURRENT	JAN 2016

CALIBRATION RESULT				CEA Costruzioni Elettromeccaniche Annettoni S.p.A. CORSO E. FILIBERTO, 27 - LECCO	
RESULT:	Passed <input checked="" type="checkbox"/> Failed <input type="checkbox"/>				
WORK PERFORMED BY:	R. VALSECCHI	SIGNATURE:			
APPROVED BY:	A. VALSECCHI	SERVICE MANAGER:			





# EN 1090

With effect from 1st July 2014 it is compulsory to comply with the new EN1090 standard which, in civil engineering, imposes that all on-site construction welded products must be CE marked as foreseen by CPR 305/2011 (Construction Products Regulation) and by Directive 89/106/EEC.

EN 1090 standard consists of 3 parts, i.e.

## EN 1090-1

defining the requirements for component compliance (CE marking)

## EN 1090-2

defining the technical requirements for steel structures

## EN 1090-3

defining technical requirements for Aluminium structures

EN 1090-2 norm provides that the construction design engineer should also define the job risk level actually called "Execution Class" (EXC): EXC types are classified by an increasing number from 1 to 4, where 4 is to indicate the structure technically more complex.

### EXC 1:

steel structures with strength class up to S275, e.g. agricultural construction such as barns

### EXC 2:

steel structures with strength class up to S700, e.g. civil buildings such as homes and offices from 2 to 15 stores.

### EXC 3:

structures subjected to high degree of stress, e.g. buildings higher than 15 stores or bridges.

### EXC 4:

special structures with extreme degree of resistivity, e.g. road or rail viaducts.

## HOW CEA CAN HELP YOU

CEA has produced a collection of qualifying welding procedures called WPQR (Welding Procedure Qualification Record) from which other welding procedure specification are derived, i.e. the so called WPS (Welding Procedure Specification), which will help CEA customers, who will buy them, to satisfy one of the EN 1090 requirements for the erection of steel constructions according to EXC1 and EXC2 classes.

Supplied WPQR's and WPS's have been released and certified by the German competent authority SLV according to material composition, its thickness, type of joint, welding position, filler material, protective gas and valid for CONVEX and DIGITECH vision. PULSE power sources only.

## FAQ

### CAN GIVEN WPS BE USED BY ANY WELDING EQUIPMENT?

Yes, but only if the used model is also clearly specified in the supplied WPS chosen to do the job.

### WILL WPQR'S AND WPS'S ENABLE USE OF FILLER MATERIAL AND/OR GAS OF ANY BRAND?

Yes, provided that used products are supplied with certifications fully matching what prescribed in the given specifications.

### ARE CEA SUPPLIED WPQR AND WPS "PACKAGES" SUFFICIENT TO ENABLE THE OPERATOR TO APPLY CE MARKING ON THE MANUFACTURED ITEM?

No, they are not. WPQR's and WPS's are just a help, in terms of costs and time, to reach a certification according to EN 1090 norm. Each client will have to comply with his obligations by carrying out the job after employing qualified welders and by granting adequate quality controls of the whole manufacturing process according to what specified by EN 3834. It will be also necessary to carry out a periodic maintenance program of the welding power source being used, by using - as said - certified consumable material, strictly adhering what prescribed in the chosen welding specifications.

## LIMITATION OF LIABILITY

CEA supplied WPS's and WPQR's will facilitate the qualification of the welding process (point 4 of CE certification). WPQR's, made in cooperation with SLV, are in conformity with current standards for the qualification of WPS's. WPS's supplied by CEA are valid for the execution of steel constructions made according to EXC 1 and EXC 2 above referred, as foreseen by EN 1090-2 standard with related application areas. The use of CEA supplied WPQR / WPS packages will not entitle the user to disregard the additional steps, as prescribed by EN 1090 and by CPR 305/2011, he will have to fully fulfil himself.

CEA is not liable in case of improper or poor use of any WPS, of any incorrect utilization of CEA power sources, of any mismatch between the welding equipment prescribed in WPQR and WPS and the one wrongly used during the welding process, of any mistake made by the user in the execution of WPQR/WPS and of the utilization of non-qualified personnel during the welding job.

It must be clear that only the user, manufacturing the welded structure, will be responsible for the correct application of CEA supplied WPS's and of the full compliance of that herein specified.

The user is fully liable and responsible for the CE marking for the finished manufactured product.

By purchasing CEA WPS's the buyer accepts all that is contained within this document.

## CWM & CQM for DIGITECH

CODE	DESCRIPTION
	CWM&CQM for DIGITECH
031108	<b>CWM - CEA WELDER MANAGER</b> Software tools to be installed on PC (No license for power source required)
031105	<b>CQM - CEA QUALITY MANAGER</b> Software tools complete with <b>CWM - CEA WELDER MANAGER</b> Software tools to be installed on PC. (License for Power source must be ordered separately) (***)
050062	<b>Unitary License</b> for any single power source to be connected and used with CQM
031106	<b>Ethernet Adaptor KIT</b> for power source
	Technical support on site for training and first set up of the system
	(***) To exploit the maximum potential of the CQM system with a <b>QR/Barcode reader</b> , it is necessary to use the CQM with the special <b>DIGITECH PREMIUM 4.0</b> power sources (see below). These equipments are already prepared by CEA before delivery to be connected to the QR reader/Barcodes. It is also possible - if needed - to connect these special power sources to a WIFI NETWORK by adding the part no. 031101. Note: this feature cannot be implemented afterwards on any equipment different from version DIGITECH 4.0.

(\*\*) On request

## INDUSTRY 4.0

CODE	DESCRIPTION
	DIGITECH 's READY FOR INDUSTRY 4.0 - PREPARED ALSO TO BE CONNECTED TO WIFI LAN
004709	Power source <b>DIGITECH 4003 VP3</b> - 4.0 Ready - 400V Ethernet & USB socket (*)
004714	Power source <b>DIGITECH 5003 VP3</b> - 4.0 Ready - 400V Ethernet & USB socket (*)
004709PR	Power source <b>DIGITECH 4003 VP3</b> - Premium 4.0 Ready -400V vision.FULL PACKAGE & Ethernet & USB socket (*)
004714PR	Power source <b>DIGITECH 5003 VP3</b> - Premium 4.0 Ready -400V vision.FULL PACKAGE & Ethernet & USB socket (*)
050064	Unitary License for any single power source to be ready for INDUSTRY 4,0 requirement (***)
NOTE:	(*) Unitary License 050064 included in the power source
	(***) This software allows to receive Input Data and return Output Data via Ethernet port
	OTHER OPTION(S)
419137	<b>QR and Barcode WiFi reeder Additional Kit</b> (Not included in the power source) ONLY with DIGITECH 4.0
031101	<b>Wireless transmission Kit</b> from Power source to NETWORK for Wi-Fi transmission ONLY with DIGITECH 4.0

(\*\*) On request

	Ethernet Socket	USB socket for QR reader	USB socket for WIFI	CWM	CQM	Wireless QR reader	WIFI Connection kit
<b>Digitech</b>	0			0	0		
<b>Digitech PREMIUM</b>	X			0	0		
<b>Digitech 4.0</b>	X	X	X	0	0	0	0
<b>Digitech PREMIUM 4.0</b>	X	X	X	0	0	0	0

X = Included 0 = Compatible/Optional

## EN 1090 WPQR - WPS

CODE	DESCRIPTION
	EN 1090 WPQR - WPS
051000	Collection of WPQR & WPS for CONVEX/DIGITECH Range - Italian
051005	Collection of WPQR & WPS for CONVEX/DIGITECH Range - English
051010	Collection of WPQR & WPS for CONVEX/DIGITECH Range - German
	CALIBRATION CERTIFICATES
	CALIBRATION CERTIFICATE FOR CONVEX, MAXIQ, QUBOX AND DIGITECH Range
	Calibration certificate of Power source and wire feeder - at the order before the delivery
	CALIBRATION CERTIFICATE FOR CONVEX, MAXIQ, QUBOX AND DIGITECH Range ALREADY DELIVERED
	Calibration certificate with Calibration made in CEA Factory (Transports cost at customer's care)
	Calibration certificate with Calibration made at CUSTOMER premises with the exclusion of: Travelling time, Milage allowance, and all other travelling and transport expenses







# ACCESSORIES

## MIG MAG ACCESSORIES

- 112 WIRE FEEDERS
- 113 WIRE FEEDER ACCESSORIES
- 114 FEEDING ROLLS TABLE
- 116 MIG TORCHES
- 121 WATER COOLERS
- 121 INTERCONNECTING CABLES
- 122 TROLLEYS
- 122 GROUND CABLES
- 123 GAS REDUCERS
- 123 OTHER ACCESSORIES

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## TIG ACCESSORIES

- 124 TIG TORCHES
- 126 TROLLEYS
- 126 GROUND CABLES
- 126 GAS REDUCERS
- 127 WATER COOLERS
- 127 OTHER ACCESSORIES

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## MMA ACCESSORIES

- 128 MMA TORCHES
- 128 OTHER ACCESSORIES



# WIRE FEEDERS

MIG ACCESSORIES



WF5



SWF



WF6



WF7



MF4



MF4 YARD



QF7 W PRO DRIVE



HT6 PRO DRIVE



MINI MF4



YARD 4

## ORDER INFORMATION

CODE	DESCRIPTIONS	MAXI I	MAXI Q	QYARD	QUBOX	DIGITECH	MAXI
WIRE FEEDERS							
030635	Closed Wire Feeder <b>WF 5</b> with 4 rolls (Ø 1,0 / 1,2)	●					●
030755	Closed Wire Feeder <b>SWF STRONG FEEDER</b> with 4 rolls (Ø 1,0 / 1,2)	●					●
030636	Wire Feeder <b>WF 6</b> with 4 rolls (Ø: 1,0 / 1,2)	●					●
030637	Wire Feeder <b>WF 7</b> with 4 rolls (Ø: 1,0 / 1,2) with V adjustment	●					
030730	Wire Feeder <b>MF 4 Hybrid Synergic<sup>®</sup></b> with 4 rolls (Ø: 1,0 / 1,2) Air cooled version		●				
030735	Wire Feeder <b>MF 4 W Hybrid Synergic<sup>®</sup></b> with 4 rolls (Ø: 1,0 / 1,2) Water cooled version		●				
030731	Wire Feeder <b>MF 4 yard</b> with 4 rolls (Ø: 1,0 / 1,2) Air cooled			●			
030736	Wire Feeder <b>MF 4 W yard</b> with 4 rolls (Ø: 1,0 / 1,2) Water cooled			●			
030726	Wire Feeder <b>QF 7 W PRO DRIVE</b> with 4 rolls (Ø: 1,0 / 1,2)				●		
030716	Wire Feeder <b>HT 6 PRO DRIVE</b> with 4 rolls (Ø 1,0 / 1,2)					●	
YARD WIRE FEEDERS - 200 mm SPOOL							
030727	Wire Feeder <b>Mini MF 4 yard</b> with A/V and Flowmeter 4 rolls (Ø: 1,0 / 1,2) Air cooled			●			
030728	Wire Feeder <b>Mini MF 4 W yard</b> with A/V and Flowmeter 4 rolls (Ø: 1,0 / 1,2) Water cooled			●			
030724	Wire Feeder <b>YARD 4</b> with A/V and Flowmeter 4 rolls (Ø: 1,0 / 1,2) Air cooled				●		
030729	Wire Feeder <b>YARD 4 W</b> with A/V and Flowmeter 4 rolls (Ø: 1,0 / 1,2) Water cooled				●		

# WIRE FEEDER ACCESSORIES

MIG ACCESSORIES



**WK2**



**WK4**



**WF WHEELS KIT W. FASTENING PLATE**



**FASTENING PLATE FOR WF5**



**HK1 / HK2**



**ADAPTOR SOCKET FOR MMA**



**DOUBLE FEEDER SUPPORT HT6**



**MXi**



**TS1 - TORCH SUPPORT KIT**



**SPOOL COVER TR2 TR4**









## ORDER INFORMATION

CODE	DESCRIPTIONS	MF4	MF4W	MF4 YARD	MF4 W YARD	Q7 W PRO DRIVE	YARD 4	YARD 4 W	HT6 PRO DRIVE	WF5	SWF	WF6 / WF7
<b>WHEELS KIT</b>												
031007	<b>WK 2</b> extra-large wheels kit	•	•	•	•	•			•			•
031116	<b>WK 4</b> standard wheels kit	•	•	•	•	•			•			•
030927	<b>WF 5 WHEELS KIT</b> with fastening plate (030887)									•		
<b>OTHER ACESORIES</b>												
031117	<b>HK 1</b> - Hanging Kit	•	•	•	•	•			•			
031122	<b>HK 2</b> - Hanging Kit											•
400034	<b>ADAPTOR</b> socket for MMA			•	•							
030873	Support and connection <b>kit for double HT6</b> wire feeder for Digitech <b>VP2</b>								•			
031120	Support and connection <b>kit for double HT6</b> wire feeder for Digitech <b>VP3</b>								•			
030887	Fastening plate to fix interconnective cable to WF5									•		
031009	<b>"MXi"</b> to connect water cooled interconnecting cable to wire feeder											•
031124	TS1 - Torch support KIT											•
420430	Complete <b>spool cover</b> for TR2 and TR4											

# FEEDING ROLLS TABLE

## FEEDER MECHANISMS IN PRODUCTION

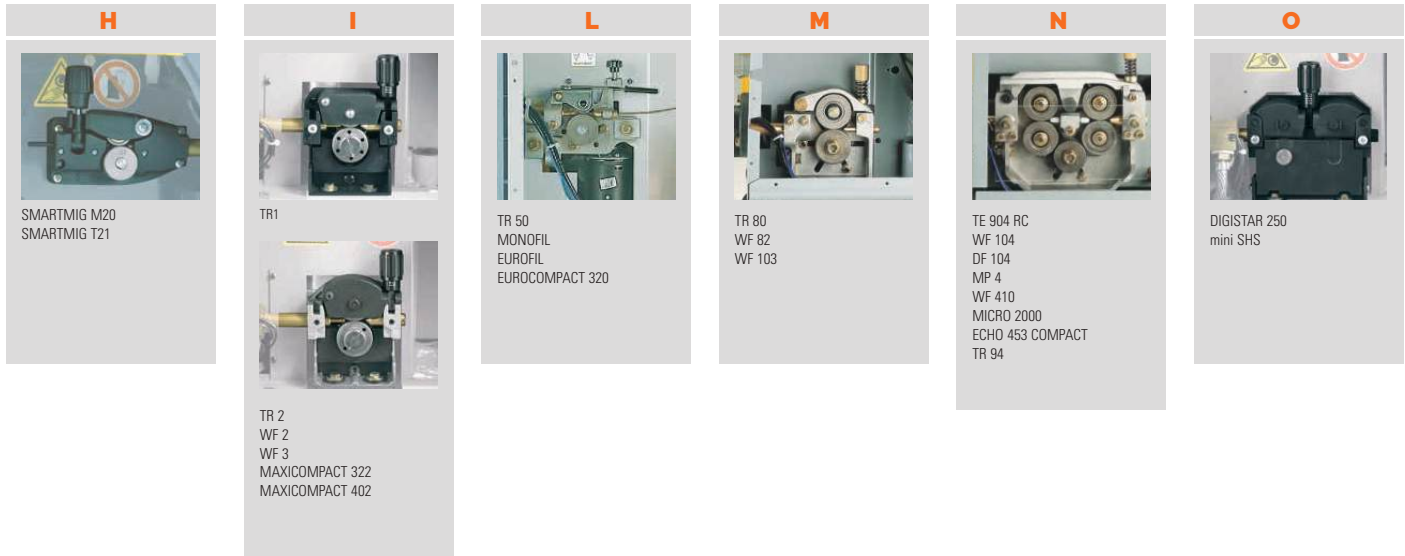
\* The machine models in bold are in production

A	B	C	D	E	F	G
 <p><b>SMARTMIG</b></p>  <p><b>COMPACT 270</b> <b>COMPACT 310</b> <b>COMPACT 240M</b></p>	 <p><b>YARD 4</b> <b>COMPACT 364 - 410</b> COMPACT 3100 SYN TR 4 COMPACT 3600 SYN COMPACT 4100 SYN MINI 4 - DTR 4 AV</p>	 <p><b>TREO 181</b> <b>TREOSTAR 1800</b> <b>TREOSTAR 2000 PULSE</b> TREO 1800 Synergic DIGISTAR 2000 PULSE TREO 1650 Synergic TREO 1600 Synergic</p>	 <p><b>RBS</b> WF 4 DF 4 TA 4 ES 4 - ES 5 DIGITECH 300 MAXICOMPACT 324 - 404 MCS 324 Synergic MCS 404 Synergic</p>	 <p><b>DIGITECH 3200</b> <b>HT 5</b> <b>QF 7 PRO DRIVE</b> <b>WF 6 / WF 7</b> <b>HT6 PRO DRIVE</b> <b>SHS</b> <b>SWF</b> <b>WF 5</b> <b>MF4</b> HS 5 QF 5 HT 4 HS 4 CONVEX 320 BASIC CONVEX 3200 VISION</p>	 <p><b>CONVEX MOBILE</b> <b>CONVEX 321 / 401</b> <b>CONVEX 325 / 405 PULSE</b> <b>DOGMA</b></p>	 <p><b>SMART / SMARTCAR</b></p>

## ORDER INFORMATION

CODE	Ø WIRE mm	MATERIAL	TYPE OF ROLL	Quantity per FEEDER						
				A	B	C	D	E	F	G
458904	0,6 - 0,8	Steel	Motor	1						
458907	0,8 - 1,0	Steel	Motor	1						
458917	1,0 - 1,2	Steel	Motor	1						
458937	1,0 - 1,2	Aluminium	Motor	1						
458903	0,6 - 0,8	Steel	Motor		2		2	2		
458905	0,8 - 1,0	Steel	Motor		2		2	2		
458915	1,0 - 1,2	Steel	Motor		2		2	2		
458925	1,2 - 1,6	Steel	Motor		2		2	2		
459170	0,6 - 0,8	Steel	Motor			1				
459172	0,8 - 1,0	Steel	Motor			1				
459174	1,0 - 1,2	Steel	Motor			1				
458930	0,8 - 1,0	Aluminium	Motor		2					
458935	1,0 - 1,2	Aluminium	Motor		2					
458945	1,2 - 1,6	Aluminium	Motor		2					
458950	1,0 - 1,2	Flux cored	Motor		2		2	2		
458955	1,2 - 1,6	Flux cored	Motor		2		2	2		
458965	1,6 - (2,0) - 2,4	Flux cored	Motor		2		2	2		
458979	0,8 twin	Aluminium	Idle					2		
458981	1,0 twin	Aluminium	Idle					2		
458984	1,2 twin	Aluminium	Idle					2		
458987	1,6 twin	Aluminium	Idle					2		
458968	0,8 - 1,0 twin	Aluminium	Motor				4	2		
458970	1,0 - 1,2 twin	Aluminium	Motor				4	2		
458975	1,2 - 1,6 twin	Aluminium	Motor				4			
459180	0,8 - 1,0	Aluminium	Motor			1				
459182	1,0 - 1,2	Aluminium	Motor			1				
459190	1,0 - 1,2	Flux cored	Motor			1				
459001	All	Steel	Idle						2	
422923	All	All	Idle							2
459002	0,6 - 0,8	Steel	Motor						2	2
459005	0,8 - 0,9	Steel	Motor						2	2
459003	0,8 - 1,0	Steel	Motor						2	2
459004	1,0 - 1,2	Steel	Motor						2	2
459006	1,2 - 1,6	Steel	Motor						2	
459010	1,0 twin	Aluminium	Idle						2	
459011	1,2 twin	Aluminium	Idle						2	
459013	1,0 twin	Aluminium	Motor						2	
459014	1,2 twin	Aluminium	Motor						2	
459055	0,8 - 1,0	Aluminium	Motor							2
459056	1,2 - 1,6	Aluminium	Motor							2
459020	1,0 twin	Flux cored	Idle						2	
459021	1,2 twin	Flux cored	Idle						2	
459019	1,6 twin	Flux cored	Idle						2	
459022	1,0 twin	Flux cored	Motor						2	
459023	1,2 twin	Flux cored	Motor						2	
459024	1,6 twin	Flux cored	Motor						2	

## FEEDER MECHANISMS OF EQUIPMENT OUT OF PRODUCTION

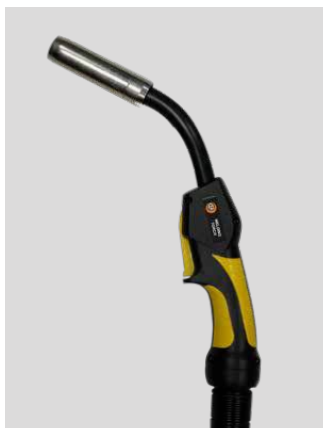


CODE	Ø WIRE mm	MATERIAL	TYPE OF ROLL	Quantity per FEEDER					
				H	I	L	M	N	O
459250	0,6 - 0,8	Steel / FCW	Motor	1					
459251	0,8 - 1,0	Steel / FCW	Motor	1					
459261	1,0 - 1,2	Steel / FCW	Motor	1					
459260	0,8 - 1,0	Aluminium	Motor	1					
459107	0,6 - 0,8	Steel	Motor			1			
459125	0,8 - 1,0	Steel	Motor			1			
459159	1,0 - 1,2	Steel	Motor			1			
458846	1,0 - 1,2	Aluminium	Motor			1			
458903	0,6 - 0,8	Steel	Motor		1				2
458905	0,8 - 1,0	Steel	Motor		1				2
458915	1,0 - 1,2	Steel	Motor		1				2
458925	1,2 - 1,6	Steel	Motor		1				2
459121	0,8	Steel	Motor				1		
459161	1,0	Steel	Motor				1		
459201	1,2	Steel	Motor				1		
459241	1,6	Steel	Motor				1		
459281	2,0	Steel	Motor				1		
459123	0,8	Steel	Motor					2	
459163	1,0	Steel	Motor					2	
459203	1,2	Steel	Motor					2	
459244	1,6	Steel	Motor					2	
459284	2,0	Steel	Motor					2	
458849	1,2	Aluminium	Motor				1		
458853	1,6	Aluminium	Motor				1		
458930	0,8 - 1,0	Aluminium	Motor		1				
458935	1,0 - 1,2	Aluminium	Motor		1				
458945	1,2 - 1,6	Aluminium	Motor		1				
459333	1,2	Flux cored	Motor				1		
459242	1,6	Flux cored	Motor				1		
458950	1,0 - 1,2	Flux cored	Motor		1				2
458955	1,2 - 1,6	Flux cored	Motor		1				2
458965	1,6 - (2,0) - 2,4	Flux cored	Motor		1				2
459106	All	Steel	Idle				1		
459086	0,8	Aluminium	Idle				1	4	
459087	1,0	Aluminium	Idle				1	4	
459088	1,2	Aluminium	Idle				1	4	
459089	1,6	Aluminium	Idle				1	4	
458968	0,8 - 1,0 twin	Aluminium	Motor						2
458970	1,0 - 1,2 twin	Aluminium	Motor						2
458978	0,8 - 1,0 twin	Aluminium	Idle						2
458980	1,0 - 1,2 twin	Aluminium	Idle						2
458975	1,2 - 1,6 twin	Aluminium	Motor						2
458985	1,2 - 1,6 twin	Aluminium	Idle						2
459090	1,6	Flux cored	Idle				1	4	
459092	2,4	Flux cored	Idle				1	4	
459106	All	Steel	Idle					2	

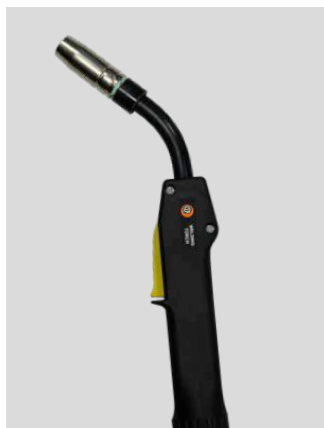


# MIG TORCHES

## MIG ACCESSORIES



CEA CX - CXH TORCH



CEA C TORCH



UP/DOWN TORCH



DIGITORCH

## ORDER INFORMATION

CODE		DESCRIPTION			
CEA MIG TORCHES CX and CXH series					
020458	CEA Torch <b>CX 251/3</b>	3 m	wire Ø 0,6/1,0		CO2 260A @60% / Mix 200A @60%
020459	CEA Torch <b>CX 251/4</b>	4 m	wire Ø 0,6/1,0		CO2 260A @60% / Mix 200A @60%
020463	CEA Torch <b>CX 351/4</b>	4 m	wire Ø 0,8/1,2		CO2 300A @60% / Mix 220A @60%
020465	CEA Torch <b>CX 351/A</b>	3 m	wire Ø 1,0/1,2	for Aluminium	CO2 300A @60% / Mix 220A @60%
020466	CEA Torch <b>CX 353/4</b>	4 m	wire Ø 0,8/1,2		CO2 340A @60% / Mix 290A @60%
020471	CEA Torch <b>CX 451/4</b>	4 m	wire Ø 0,8/1,6		CO2 400A @60% / Mix 300A @60%
021002	CEA Torch <b>CX 353/4 Up/Down-6p</b>	4 m	wire Ø 0,8/1,2		CO2 340A @60% / Mix 290A @60%
021006	CEA Torch <b>CX 353/4 Up/Down-17p</b>	4 m	wire Ø 0,8/1,2		CO2 340A @60% / Mix 290A @60%
020472	CEA Torch <b>CXH 302/4</b>	4 m	wire Ø 0,8/1,2	water cooled	CO2 300A @100% / Mix 250A @100%
020473	CEA Torch <b>CXH 302/A</b>	3 m	wire Ø 0,8/1,2	water cooled for Aluminium	CO2 300A @100% / Mix 250A @100%
020479	CEA Torch <b>CXH 402/4</b>	4 m	wire Ø 0,8/1,6	water cooled	CO2 500A @100% / Mix 450A @100%
020480	CEA Torch <b>CXH 402/A</b>	3 m	wire Ø 1,0/1,6	water cooled for Aluminium	CO2 500A @100% / Mix 450A @100%
020481	CEA Torch <b>CXH 502/4</b>	4 m	wire Ø 1,0/1,6	water cooled	CO2 500A @100% / Mix 500A @100%
021001	CEA Torch <b>CXH 302/4 Up/Down-6p</b>	4 m	wire Ø 0,8/1,2	water cooled	CO2 300A @100% / Mix 250A @100%
021005	CEA Torch <b>CXH 302/4 Up/Down-17p</b>	4 m	wire Ø 0,8/1,2	water cooled	CO2 300A @100% / Mix 250A @100%
021007	CEA Torch <b>CXH 402/4 Up/Down-17p</b>	4 m	wire Ø 0,8/1,6	water cooled	CO2 500A @100% / Mix 450A @100%
DIGITORCH					
021021	CEA <b>Digitorch DX 353/4-17p</b>	4 m	wire Ø 0,8/1,2		CO2 340A @60% / Mix 290A @60%
021016	CEA <b>Digitorch DX 353/4-D</b>	4 m	wire Ø 0,8/1,2		CO2 340A @60% / Mix 290A @60%
021020	CEA <b>Digitorch DXH 302/4-17p</b>	4 m	wire Ø 0,8/1,2	water cooled	CO2 300A @100% / Mix 250A @100%
021015	CEA <b>Digitorch DXH 302/4-D</b>	4 m	wire Ø 0,8/1,2	water cooled	CO2 300A @100% / Mix 250A @100%
021022	CEA <b>Digitorch DXH 402/4-17p</b>	4 m	wire Ø 0,8/1,6	water cooled	CO2 500A @100% / Mix 450A @100%
021017	CEA <b>Digitorch DXH 402/4-D</b>	4 m	wire Ø 0,8/1,6	water cooled	CO2 500A @100% / Mix 450A @100%
CEA MIG TORCHES WITH CONSUMABLES SIMILAR TO BINZEL					
020420	CEA Torch <b>C 15/3</b>	3 m	wire Ø 0,6/1,0		
020421	CEA Torch <b>C 25/3</b>	3 m	wire Ø 0,6/1,0		
020422	CEA Torch <b>C 25/4</b>	4 m	wire Ø 0,6/1,0		
020424	CEA Torch <b>C 36/4</b>	4 m	wire Ø 0,8/1,2		
ABICOR BINZEL PUSH PULL					
020488	Push Pull Torch <b>PP 401 D</b>	8 m 24 V	wire Ø 0,8/1,2	water cooled (to be ordered w. 031107 or 031113)	
031107	Push Pull synchronizer PC Board KIT (to be ordered with the Push pull torch)				
031113	Push Pull synchronizer PC Board KIT 24 / 42 V (to be ordered with the Push pull torch)				
031123	Push Pull synchronizer PC Board KIT 24 / 42 V (to be ordered with the Push pull torch)				
TORCH ACCESSORIES					
460369	WPE 1 Water Hoses Extension Kit for non-standard water cooled CEA Torch				

## UP DOWN TORCHES / DIGITORCH / PUSH PULL MATCHING

CODE	DESCRIPTION	TREO / TREOSTAR	CONVEX MOBILE	SMART	SMARTCAR	CONVEX	DOGMA	MAXI i	MAXIQ	Q-YARD	QUBOX / QUBOX PULSE	DIGITECH
021002	CEA Torch <b>CX 353/4 Up/Down-6p</b> 4m wire Ø 0,8/1,2 - C02 340A @60% / Mix 290A @60%		●									
021006	CEA Torch <b>CX 353/4 Up/Down-17p</b> 4m wire Ø 0,8/1,2 - C02 340A @60% / Mix 290A @60%					●	●		●	●	●	●
021001	CEA Torch <b>CXH 302/4 Up/Down-6p</b> 4m wire Ø 0,8/1,2 water cooled C02 300A @100% / Mix 250A @100%		≈									
021005	CEA Torch <b>CXH 302/4 Up/Down-17p</b> 4m wire Ø 0,8/1,2 water cooled C02 300A @100% / Mix 250A @100%					≈	≈		≈	≈	≈	≈
021007	CEA Torch <b>CXH 402/4 Up/Down-17p</b> 4m wire Ø 0,8/1,6 water cooled C02 500A @100% / Mix 450A @100%					≈	≈		≈	≈	≈	≈
DIGITORCH												
021021	CEA <b>Digitorch DX 353/4-17p</b> 4m wire Ø 0,8/1,2 C02 340A @60% / Mix 290A @60%								●	●	●	●
021016	CEA <b>Digitorch DX 353/4-D</b> 4m wire Ø 0,8/1,2 C02 340A @60% / Mix 290A @60%				●		●					
021020	CEA <b>Digitorch DXH 302/4-17p</b> 4m wire Ø 0,8/1,2 water cooled C02 300A @100% / Mix 250A @100%								≈	≈	≈	≈
021015	CEA <b>Digitorch DXH 302/4-D</b> 4m wire Ø 0,8/1,2 water cooled C02 300A @100% / Mix 250A @100%						≈					
021022	CEA <b>Digitorch DXH 402/4-17p</b> 4m wire Ø 0,8/1,6 water cooled C02 500A @100% / Mix 450A @100%								≈	≈	≈	≈
021017	CEA <b>Digitorch DXH 402/4-D</b> 4m wire Ø 0,8/1,6 water cooled C02 500A @100% / Mix 450A @100%						≈					
ABICOR BINZEL PUSH PULL												
020488	Push Pull Torch <b>PP 401 D</b> 8 m 24 V wire Ø 0,8/1,2 water cooled (to be ordered w. Push Pull KIT)						≈ **		≈	≈	≈	≈
031107	Push Pull Synchronizer PC Board KIT										≈	≈ *
031113	Push Pull Synchronizer PC Board KIT 24/42 V								≈	≈	≈	≈
031123	Push Pull Synchronizer PC Board KIT 24/42 V						≈ **					

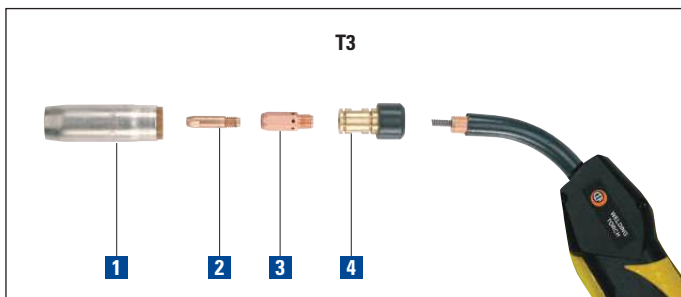
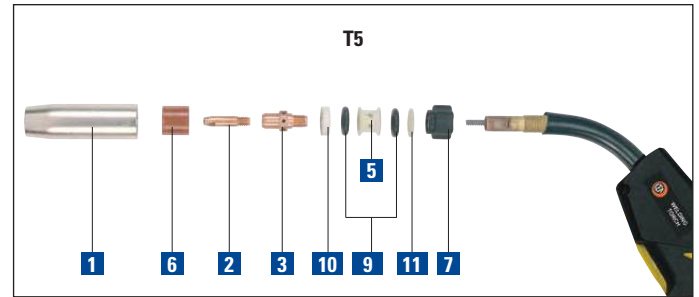
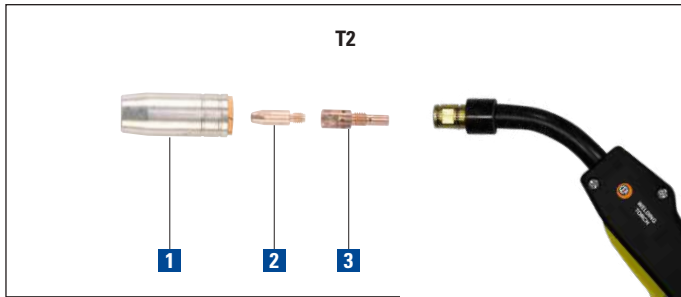
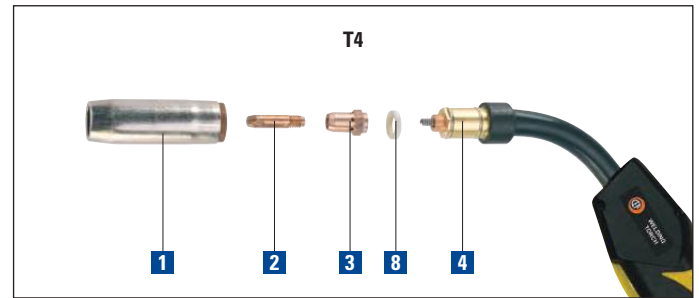
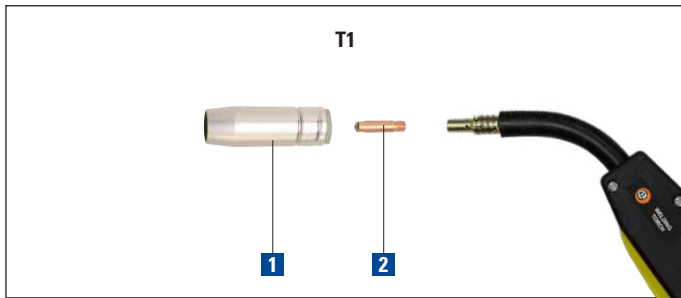
\* for DIGITECH 3200 VP2 \*\* for DOGMA 322/322W, DOGMA 402/402W, DOGMA 326/326W and DOGMA 406/406W



DOWNLOAD THE FULL  
TORCHES CATALOGUE



## CONSUMABLES FOR MIG/MAG TORCHES



## ORDER INFORMATION

CODE	DESCRIPTION	T1	T2	T3			T4			T5	SET / Q.TY		
		C 15	C 25	C 36 - MB 36 KD U/D	C 250 - CX 251	C 350 - CX 351 - CX 353 - DX 353	C 350/A - CX 351/A	D 361	C 450 - CX 451	CH 301 - CXH 302 - DXH 302		CH 401 - CXH 402 - DXH 402	DH 411
1	GAS NOZZLES												
486120	Gas Nozzle												1
486121	Gas Nozzle												1
486137	Gas Nozzle												1
486122	Gas Nozzle												1
486127	Gas Nozzle												1
486035	Gas Nozzle												1
486137	Gas Nozzle												1
486128	Cone shaped Gas Nozzle												1
486151	Cone shaped Gas Nozzle												1
486138	Cone shaped Gas Nozzle												1
486182	Cone shaped Gas Nozzle												1
486154	Cone shaped Gas Nozzle												1
486206	Cone shaped Gas Nozzle												1
486031	Cone shaped Gas Nozzle												1
486034	Cone shaped Gas Nozzle												1
486149	Cylindric gas nozzle												1
486155	Cylindric gas nozzle												1
486184	Narrow Cone shaped Gas Nozzle												1
486210	Narrow Cone shaped Gas Nozzle												1
486030	Narrow Cone shaped Gas Nozzle												1
486033	Narrow Cone shaped Gas Nozzle												1

CODE	DESCRIPTION	T1	T2	T3			T4			T5	SET / Q.TY		
		C 15	C 25	C 36 - MB 36 KD U/D	C 250 - CX 251	C 350 - CX 351 - CX 353 - DX 353	C 350/A - CX 351/A	D 361	C 450 - CX 451	CH 301 - CXH 302 - DXH 302		CH 401 - CXH 402 - DXH 402	DH 411
2	CONTACT TIPS												
486171	Ø 0,6 mm Contact Tip	●											10
486177	Ø 0,6 mm Contact Tip - Cu-Cr-Zr	●											10
486173	Ø 0,8 mm Contact Tip	●											10
454808	Ø 0,8 mm Contact Tip				●			●					10
454798	Ø 0,8 mm Contact Tip					●	●		●	●			10
486189	Ø 0,8 mm Contact Tip		●										10
454820	Ø 0,8 mm Contact Tip			●									10
486179	Ø 0,8 mm Contact Tip - Cu-Cr-Zr	●											10
486195	Ø 0,8 mm Contact Tip - Cu-Cr-Zr		●										10
454810	Ø 0,8 mm Contact Tip - Cu-Cr-Zr				●			●					5
454797	Ø 0,8 mm Contact Tip - Cu-Cr-Zr					●	●		●	●			5
454824	Ø 0,8 mm Contact Tip - Cu-Cr-Zr			●									10
454838	Ø 1,0 mm Contact Tip				●			●					10
486175	Ø 1,0 mm Contact Tip	●											10
454878	Ø 1,0 mm Contact Tip					●	●		●	●	●	●	10
486191	Ø 1,0 mm Contact Tip		●										10
454821	Ø 1,0 mm Contact Tip			●									10
486181	Ø 1,0 mm Contact Tip - Cu-Cr-Zr	●											10
454876	Ø 1,0 mm Contact Tip - Cu-Cr-Zr					●	●		●	●	●	●	5
454844	Ø 1,0 mm Contact Tip - Cu-Cr-Zr				●			●					5
486197	Ø 1,0 mm Contact Tip - Cu-Cr-Zr		●										10
454825	Ø 1,0 mm Contact Tip - Cu-Cr-Zr			●									10
486203	Ø 1,0 mm Contact Tip for Al		●										10
454851	Ø 1,0 mm Contact Tip for Al			●									10
454958	Ø 1,2 mm Contact Tip					●	●		●	●	●	●	10
454845	Ø 1,2 mm Contact Tip				●			●					10
486193	Ø 1,2 mm Contact Tip		●										10
454822	Ø 1,2 mm Contact Tip			●									10
486199	Ø 1,2 mm Contact Tip - Cu-Cr-Zr		●										10
454957	Ø 1,2 mm Contact Tip - Cu-Cr-Zr					●	●		●	●	●	●	5
454846	Ø 1,2 mm Contact Tip - Cu-Cr-Zr				●			●					5
454826	Ø 1,2 mm Contact Tip - Cu-Cr-Zr			●									10
486205	Ø 1,2 mm Contact Tip for Al		●										10
454852	Ø 1,2 mm Contact Tip for Al			●									10
454998	Ø 1,6 mm Contact Tip							●		●	●	●	10
454823	Ø 1,6 mm Contact Tip												10
454997	Ø 1,6 mm Contact Tip - Cu-Cr-Zr							●		●	●	●	5
454827	Ø 1,6 mm Contact Tip - Cu-Cr-Zr												10
454853	Ø 1,6 mm Contact Tip for Al												10
455168	Ø 2,0 mm Contact Tip									●		●	10
455167	Ø 2,0 mm Contact Tip - Cu-Cr-Zr									●		●	5
3	GAS DIFFUSERS												
423220	Gas Diffuser				●			●					1
423221	Gas Diffuser					●	●						1
423422	Gas Diffuser								●				1
423218	Gas Diffuser									●			1
423219	Gas Diffuser										●	●	1
455445	Gas Diffuser											●	1
423217	Gas Diffuser		●										1
423423	Ceramic Gas Diffuser			●									1
423421	Gas Diffuser												1
423420	Gas Diffuser												1
4	GAZ NOZZLE SUPPORTS												
452220	Gas nozzle support				●			●					1
452221	Gas nozzle support					●	●						1
452222	Gas nozzle support								●				1
452224	Gas nozzle support									●			1
452223	Gas nozzle support										●	●	1
452226	Gas nozzle support			●									1
452225	Gas nozzle support												1





## ORDER INFORMATION

CODE	DESCRIPTION	T1	T2	T3				T4		T5	SET / Q.TY			
		C 15	C 25	C 36 - MB 36 KD U/D	C 250 - CX 251	C 350 - CX 351 - CX 353 - DX 353	C 350/A - CX 351/A	D 361	C 450 - CX 451	CH 301 - CXH 302 - DXH 302		CH 401 - CXH 402 - DXH 402	DH 411	CH 501 - CXH 502
5	OTHER													
424391	Spacer												●	1
6	OTHER													
407516	Insulation bush												●	1
7	OTHER													
430788	Locknut												●	1
8	OTHER													
458327	Insulating washer										●	●		1
400462	Insulating washer									●				1
9	OTHER													
433599	Seal												●	1
10	OTHER													
458304	Insulating washer												●	1
11	OTHER													
458305	Pressure washer												●	1
	LINER AND LINER LOCKING COLLETS													
454704	Liner locking collet	●	●	●	●	●	●	●	●	●	●	●	●	1
415620	Liner locking collet Ø 4.0													1
415621	Liner locking collet Ø 4.7													1
432345	Liner	3 m	for wire Ø 0,6/0,8	●	●	●								1
432405	Liner	3 m	for wire Ø 1,0/1,2				●							1
432350	Liner	3 m	for wire Ø 1,0/1,2	●	●	●								1
432401	Liner	3 m	for wire Ø 1,0/1,2											1
432419	Liner	3 m	for wire Ø 1,0/1,2				●							1
432394	Liner	3 m	for wire Ø 1,0/1,2								●			1
432430	Carbon teflon / Bronze liner	3 m	for wire Ø 1,0/1,2		●	●								1
432395	Liner	3 m	for wire Ø 1.2/1,6								●			1
432421	Liner	3 m	for wire Ø 1.2/1,6											1
432425	Liner	3 m	for wire Ø 1.4/1,6											1
432428	Carbon teflon liner	3 m	for wire Ø 1,6 Al											1
432396	Liner	3 m	for wire Ø 2.0/2.4								●			1
432355	Liner	4 m	for wire Ø 0,6/0,8		●	●	●	●		●				1
432402	Liner	4 m	for wire Ø 0,6/1,0					●						1
432360	Liner	4 m	for wire Ø 1,0/1,2		●	●		●			●			1
432406	Liner	4 m	for wire Ø 1,0/1,2						●			●		1
432390	Liner	4 m	for wire Ø 1,0/1,2								●		●	1
432431	Carbon teflon / Bronze liner	4 m	for wire Ø 1,0/1,2			●								1
432407	Liner	4 m	for wire Ø 1.2/1,6									●		1
432391	Liner	4 m	for wire Ø 1.2/1,6								●		●	1
432426	Liner	4 m	for wire Ø 1.4/1,6											1
432429	Carbon teflon liner	4 m	for wire Ø 1,6 Al											1
432393	Liner	4 m	for wire Ø 1,6/2,4											1
432418	Carbon teflon / Bronze	4 m	for wire Ø 0,8/1,0 Al	●	●	●	●	●	●	●	●	●	●	1
432416	Carbon teflon / Bronze	4 m	for wire Ø 1.2/1,6 Al	●	●	●		●	●	●	●	●	●	1

# WATER COOLERS

## MIG ACCESSORIES



IR 14



HR 32, HR 30

HRX 51  
HRX 61-LC Reinforced PumpHRX 52  
HRX 62-LC Reinforced Pump

Kit for Retrofit IR 14

CODE	DESCRIPTION	CONVEX MOBILE	CONVEX	MAXI I	Q YARD	DIGITECH 3200 VP2	DIGITECH VP3 4003 / 5003	COMPACT 410	MAXI
032050	Water cooling equipment <b>IR 14</b> 400 V			≈				≈	≈
032055	Water cooling equipment <b>IR 14</b> 230 V							≈	≈
030938	IR Accessories type : "J"								≈
030939	IR Accessories type : "L"							≈	
032090	Water cooling equipment <b>HR 30</b> 400 V	≈	≈		≈	≈			
032098	Water cooling equipment <b>HR 32</b> 400 V	≈	≈		≈	≈			
032125	Water cooling equipment <b>HRX 51</b> 400 V						≈		
032130	Water cooling equipment <b>HRX 52</b> 400 V				≈				
032126	Water cooling equipment <b>HRX 61-LC</b> 400 V reinforced pump 4,5 bar, con. over 20 m						≈		
032131	Water cooling equipment <b>HRX 62-LC</b> 400 V reinforced pump 4,5 bar, con. over 20 m				≈				
031012	Kit for Retrofit <b>IR 14</b>			≈					

# INTERCONNECTING CABLES

## MIG ACCESSORIES

CODE	DESCRIPTION	MAXI I	MAXI Q	Q YARD	Q BOX	DIGITECH	MAXI
010930	1,2 m Air cooled Interconnecting cable Power source-Wire feeder	●					●
010935	5 m Air cooled Interconnecting cable Power source-Wire feeder	●					●
010940	10 m Air cooled Interconnecting cable Power source-Wire feeder	●					●
020894	20 m / 70 mm <sup>2</sup> Air cooled	●					●
020845	30 m / 70 mm <sup>2</sup> Air cooled	●					●
010945	1,2 m Water cooled Interconnecting cable Power source-Wire feeder	≈					≈
010950	5 m Water cooled Interconnecting cable Power source-Wire feeder	≈					≈
010955	10 m Water cooled Interconnecting cable Power source-Wire feeder	≈					≈
020844	20 m / 70 mm <sup>2</sup> Water cooled	≈					≈
010960	1,2 m Air cooled Interconnecting cable Power source-Wire feeder	●					
010965	5 m Air cooled Interconnecting cable Power source-Wire feeder	●					
010970	10 m Air cooled Interconnecting cable Power source-Wire feeder	●					
010975	1,2 m Water cooled Interconnecting cable Power source-Wire feeder	≈					
010980	5 m Water cooled Interconnecting cable Power source-Wire feeder	≈					
010985	10 m Water cooled Interconnecting cable Power source-Wire feeder	≈					
010971	20 m / 70 mm <sup>2</sup> Air cooled Interconnecting cable Power source-Wire feeder	●					
010972	30 m / 70 mm <sup>2</sup> Air cooled Interconnecting cable Power source-Wire feeder	●					
010990	20 m / 70 mm <sup>2</sup> Water cooled Interconnecting cable Power source-Wire feeder	≈					
010866	1,2 m Air cooled Interconnecting cable Power source-Wire feeder		●	●	●	●	
010864	4 m Air cooled Interconnecting cable Power source-Wire feeder		●	●	●	●	
010867	5 m Air cooled Interconnecting cable Power source-Wire feeder		●	●	●	●	
010868	10 m Air cooled Interconnecting cable Power source-Wire feeder		●	●	●	●	
010871	20 m / 70 mm <sup>2</sup> Air cooled		●	●	●	●	
010869	30 m / 70 mm <sup>2</sup> Air cooled		●	●	●	●	
010872	40 m / 70 mm <sup>2</sup> Air cooled		●	●	●	●	
010839	1,2 m Water cooled Interconnecting cable Power source-Wire feeder		≈	≈	≈	≈	
010841	4 m Water cooled Interconnecting cable Power source-Wire feeder		≈	≈	≈	≈	
010842	5 m Water cooled Interconnecting cable Power source-Wire feeder		≈	≈	≈	≈	
010846	10 m Water cooled Interconnecting cable Power source-Wire feeder		≈	≈	≈	≈	
010859	15 m / 70 mm <sup>2</sup> Water cooled		≈	≈	≈	≈	
010854	20 m / 70 mm <sup>2</sup> Water cooled		≈	≈	≈	≈	
010861	25 m / 70 mm <sup>2</sup> Water cooled for with 032105 - HR 41-LC			≈		≈	
010876	30 m / 70 mm <sup>2</sup> Water cooled for with 032105 - HR 41-LC			≈		≈	

# TROLLEYS FOR MIG EQUIPMENT

## MIG ACCESSORIES



VT 101



CT 401



CT 70



PRIME CT 80



PRIME CT 81



PRIME CT 82



WK 2



Accessory BOX KIT /  
SUPPORT PLATE



WK 3



CT 45

CODE	DESCRIPTION	TREO	TREOSTAR	CONVEX MOBILE	CONVEX	Q YARD	DIGITECH VP2	DIGITECH VP3
031007	<b>WK 2</b> extra-large wheels kit			●				
031008	<b>WK 3</b> extra-large wheels kit for Q-YARD (without cylinder holder)					●		
234929	Trolley <b>VT 101</b> for power source, cylinder	●						
234931	Trolley <b>CT 401</b> for power source, cylinder			●				
234909	Trolley <b>CT 45</b> for power source, cylinder				●			
234914	Trolley <b>CT 70</b> with 4 rolls for power source, cooling equipment and cylinder				●	●	●	●
234932	Trolley <b>PRIME CT 80</b> with 4 rolls for power source, cooling equipment and cylinder (and autotransformer)							●
234934	Trolley <b>PRIME CT 81</b> with 4 rolls for power source, cooling equipment and cylinder (and autotransformer)							●
234935	Trolley <b>PRIME CT 82</b> with 4 rolls for power source, cooling equipment and two gas cylinders							●
344013	<b>Accessory BOX KIT</b> (to be ordered with HR32)			●				
449478	<b>Adaptor support</b> plate for CONVEX MOBILE mounted on CT401			●				

# GROUND CABLES

## MIG ACCESSORIES



25 mm<sup>2</sup> / 3 m Ground cable



35 mm<sup>2</sup> / 4 m Ground cable



50 mm<sup>2</sup> / 4 m Ground cable



70 mm<sup>2</sup> / 4 m Ground cable

CODE	DESCRIPTION
239618	25 mm <sup>2</sup> / 3 m <b>Ground cable</b> with clamp
239601	35 mm <sup>2</sup> / 4 m <b>Ground cable</b> with clamp
239603	50 mm <sup>2</sup> / 4 m <b>Ground cable</b> with clamp
239607	70 mm <sup>2</sup> / 4 m <b>Ground cable</b> with clamp

# GAS REDUCERS

## MIG ACCESSORIES



Reducer with 2 manometers (\"MINI\" Type)



Reducer with 2 manometers



Reducer with flowmeter and 1 manometer

CODE	DESCRIPTION
020851	Reducer with 2 manometers ( \"MINI\" Type )
020855	Reducer with 2 manometers
020916	Reducer with flowmeter and 1 manometer
020859	Reducer with flowmeter, 2 manometers and preheater 48 V
020810	Reducer with flowmeter, 2 manometers and preheater 230 V

# OTHER ACCESSORIES

## MIG ACCESSORIES



CL-1100 cooling liquid 5l



Anti spatter Spray



Autotransformer A13-H



Cable winding kit

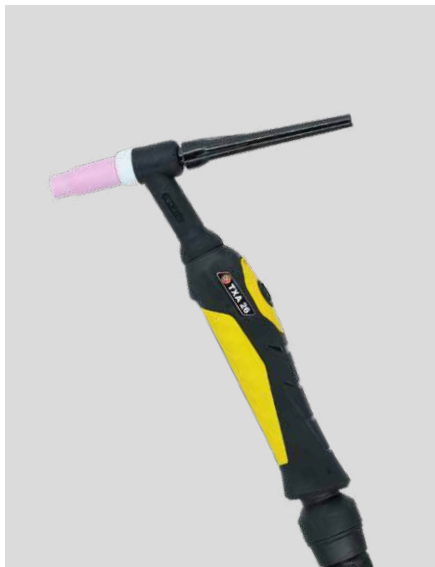
CODE	DESCRIPTION
031126	Cable winding kit (Maxi I/Maxiq/Qubox)
460369	WPE 1 Water Hoses Extension Kit for non-standard water cooled CEA Torch
031124	Torcha support KIT
439230	<b>UltraLUX</b> infinite shade adjustment from DIN 9/13 by potentiometer
020340	Autotransformer <b>A13-H</b> 220/400 V 50/60 Hz 3 phase
402275A	Cea <b>CL-1100</b> cooling liquid - 5 l Tank
	ANTI SPATTER SPRAY
407222	<b>ECOXWELD</b> - 400 ml - Ecologic water based anti-spatter spray - Chlorinated and Silicon free
407222A	Package of 12 pieces of ECOXWELD - 400 ml
407223	<b>CERAMXWELD</b> - 500 ml - Ceramic based long lasting anti-spatter spray (*) - Chlorinated and Silicon Free
407223A	Package of 12 pieces of CERAMXWELD - 500 ml (*)

\*resist up to 1500°C

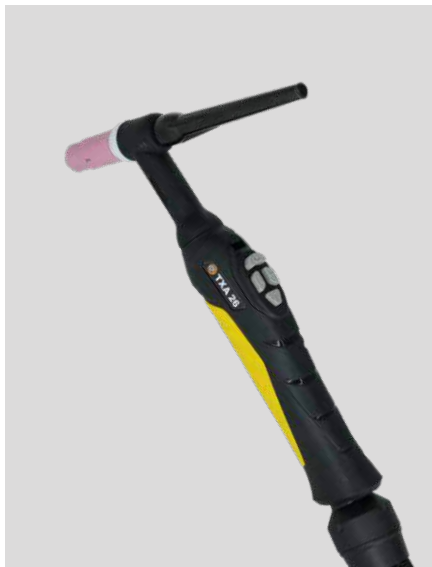


# TIG TORCHES

## TIG ACCESSORIES



CEA TXA/TXH TORCHES



CEA TXA/TXH UP/DOWN TORCHES



CEA RTX TORCHES



Kit Button / Potentiometer



Kit Button / UP/DOWN

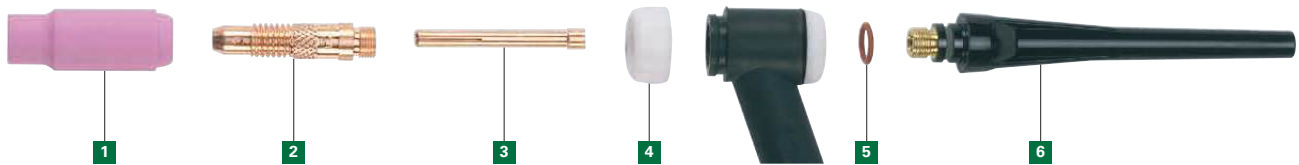
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## ORDER INFORMATION

CODE	DESCRIPTION	
	CEA TIG TORCHES: TXA and TXH series	
020553	CEA Torch <b>TXA 17.4</b>	4 m - 140 A 60% (DC)
020555	CEA Torch <b>TXA 17.8</b>	8 m - 140 A 60% (DC)
020562	CEA Torch <b>TXA 26.4</b>	4 m - 250 A 60% (DC)
020567	CEA Torch <b>TXA 26.8</b>	8 m - 250 A 60% (DC)
020662	CEA Torch <b>TXA 26.4 "UP/DOWN"</b>	4 m - 250 A 60% (DC)
020663	CEA Torch <b>TXA 26.8 "UP/DOWN"</b>	8 m - 250 A 60% (DC)
020667	CEA Torch <b>Mini TXH 20.4</b>	4 m - 250 A 100% (DC) - water cooled
020668	CEA Torch <b>Mini TXH 20,8</b>	8 m - 250 A 100% (DC) - water cooled
020680	CEA Torch <b>Mini TXH 20.4 "UP/DOWN"</b>	4 m - 250 A 100% (DC) - water cooled
020681	CEA Torch <b>Mini TXH 20,8 "UP/DOWN"</b>	8 m - 250 A 100% (DC) - water cooled
020672	CEA Torch <b>TXH 18.4</b>	4 m - 320 A 100% (DC) - water cooled
020673	CEA Torch <b>TXH 18.8</b>	8 m - 320 A 100% (DC) - water cooled
020677	CEA Torch <b>TXH 18.4 "UP/DOWN"</b>	4 m - 320 A 100% (DC) - water cooled
020678	CEA Torch <b>TXH 18.8 "UP/DOWN"</b>	4 m - 320 A 100% (DC) - water cooled
454570	<b>Kit Torches Button with Potentiometer</b>	to upgrade TXA and TXH standard TIG Torches
454567	<b>Kit Torches Button with "UP/DOWN"</b>	to upgrade TXA and TXH standard TIG Torches
	TIG TORCHES WITH BUILT-IN GAS VALVE FOR TOUCH-START TECHNIQUE	
020556	Torch <b>RTX 9.4 4 m</b> - 110 A 35%	25 mm² quick connector
020558	Torch <b>RTX 17.4 4 m</b> - 140 A 35%	
020559	Torch <b>RTX 17.8 8 m</b> - 140 A 35%	
020568	Torch <b>RTX 26.4 4 m</b> - 180 A 35%	
020569	Torch <b>RTX 26.8 8 m</b> - 180 A 35%	
	All the torches are completed with Tunasten electrode	

*All the torches are completed with Tungsten electrode*



CODE	DESCRIPTION	TIG TORCH													SET / QTY
		TA 9 / TXA 9	RTA 9 / RTX 9	RTA 17 / RTX 17	TA 17 / TXA 17	RTA 26 / RTX 26	TA 26 / TXA 26	TG 26	TA 27 / TXA 27	TH 19 / TXH 19	TH 18 / TXH 18	TW 18	TH 20 / TXH 20	TW 20	
1	CERAMIC NOZZLES														
486091	Ceramic nozzle Gr.4 - int. Ø 6,5 mm	●	●									●	●	1	
486068	Ceramic nozzle Gr.4 - int. Ø 6,5 mm					●	●	●	●	●	●			1	
486092	Ceramic nozzle Gr.5 - int. Ø 8 mm	●	●									●	●	1	
486069	Ceramic nozzle Gr.5 - int. Ø 8 mm			●	●	●	●	●	●	●	●			1	
486093	Ceramic nozzle Gr.6 - int. Ø 10 mm	●	●									●	●	1	
486070	Ceramic nozzle Gr.6 - int. Ø 10 mm			●	●	●	●	●	●	●	●			1	
486094	Ceramic nozzle Gr.7 - int. Ø 11 mm	●	●									●	●	1	
486071	Ceramic nozzle Gr.7 - int. Ø 11 mm			●	●	●	●	●	●	●	●			1	
486072	Ceramic nozzle Gr.8 - int. Ø 12 mm			●	●					●	●	●		1	
2	COLLET HOLDERS														
451985	Collet holder Ø 1,0 mm	●	●									●	●	1	
426025	Collet holder Ø 1,0 mm			●	●									1	
451986	Collet holder Ø 1,6 mm	●	●									●	●	1	
426021	Collet holder Ø 1,6 mm			●	●	●	●	●	●	●	●			1	
451987	Collet holder Ø 2,4 mm	●	●									●	●	1	
426022	Collet holder Ø 2,4 mm			●	●	●	●	●	●	●	●			1	
426023	Collet holder Ø 3,2 mm					●	●	●	●	●	●			1	
451988	Collet holder Ø 3,2 mm											●	●	1	
426024	Collet holder Ø 4,0 mm									●	●	●		1	
3	COLLETS														
450785	Collet Ø 1,0 mm	●	●									●	●	1	
450793	Collet Ø 1,0 mm			●	●									1	
450786	Collet Ø 1,6 mm	●	●									●	●	1	
450794	Collet Ø 1,6 mm			●	●	●	●	●	●	●	●			1	
450787	Collet Ø 2,4 mm	●	●									●	●	1	
450795	Collet Ø 2,4 mm			●	●	●	●	●	●	●	●			1	
450796	Collet Ø 3,2 mm					●	●	●	●	●	●			1	
450788	Collet Ø 3,2 mm											●	●	1	
450797	Collet Ø 4,0 mm									●	●	●		1	
4	NOZZLES SIDE INSULATION RINGS														
436141	Insulating ring	●	●									●	●	1	
436148	Insulating ring			●	●	●	●	●	●	●	●			1	
5	SEALS														
433480	Seal	●	●									●	●	1	
433482	Seal			●	●	●	●	●	●	●	●			1	
6	CAPS														
410556	Short cap	●	●									●	●	1	
410570	Short cap			●	●	●	●	●	●	●	●			1	
410557	Long cap	●	●									●	●	1	
410560	Long cap			●	●	●	●	●	●	●	●			1	
	GAS LENS CERAMIC NOZZLES														
486096	GAS LENS Ceramic nozzle Gr. 5 - int.Ø 8 mm											●	●	1	
486097	GAS LENS Ceramic nozzle Gr. 6 - int.Ø 10 mm	●	●									●	●	1	
486064	GAS LENS Ceramic nozzle Gr. 6 - int.Ø 10 mm			●	●	●	●	●	●	●	●			1	
486098	GAS LENS Ceramic nozzle Gr. 7 - int.Ø 11 mm	●	●									●	●	1	
486065	GAS LENS Ceramic nozzle Gr. 7 - int.Ø 11 mm			●	●	●	●	●	●	●	●			1	
486066	GAS LENS Ceramic nozzle Gr. 8 - int.Ø 12 mm			●	●	●	●	●	●	●	●			1	
	GAS LENS COLLET HOLDERS														
451995	GAS LENS Collet holder Ø 1,6 mm	●	●									●	●	1	
451998	GAS LENS Collet holder Ø 1,6 mm			●	●	●	●	●	●	●	●			1	
451996	GAS LENS Collet holder Ø 2,4 mm	●	●									●	●	1	
451999	GAS LENS Collet holder Ø 2,4 mm			●	●	●	●	●	●	●	●			1	
451994	GAS LENS Collet holder Ø 3,2 mm					●	●	●	●	●	●			1	
451997	GAS LENS Collet holder Ø 3,2 mm											●	●	1	
451989	GAS LENS Collet holder Ø 4,0 mm									●	●	●		1	

# TROLLEYS FOR TIG EQUIPMENT

## TIG ACCESSORIES



VT 101



VT 200



CT 401



CT 70



CT 75



CT 80

CODE	DESCRIPTION	MATRIX 2200 HF	MATRIX 2600 HF	MATRIX 3000 HF	MATRIX 3001 HF	MATRIX 4200 HF	MATRIX X 220 HF	MATRIX X 300 HF	MATRIX 2200 AC/DC	MATRIX 3000 AC/DC	MATRIX X 220 AC/DC	MATRIX X 300 AC/DC	MATRIX X 400 AC/DC	MATRIX X 500 AC/DC
234929	<b>VT 101</b> for power source, cylinder	●					●		●		●			
234921	<b>VT 200</b> for power source, HR 23 cooling equipment, cylinder					●								
234931	<b>CT 401</b> for power source, cylinder		●			●		●	●		●			
234914	<b>CT 70</b> with 4 rolls for power source, cooling equipment, cylinder													●
234928	<b>CT 75</b> with 4 rolls for power source, cooling equipment, cylinder													●
234932	<b>CT 80</b> with 4 rolls for power source, cooling equipment, cylinder													●
031166	<b>Adaptor support plate</b> for MATRIX 4200 HF in used with CT 401 and HR 30/32					●								

# GROUND CABLES



16 / 25 mm<sup>2</sup> / 3 m Ground cable



50 mm<sup>2</sup> / 4 m Ground cable

CODE	DESCRIPTION
239624	16 mm <sup>2</sup> / 3 m <b>Ground cable</b> with clamp
239618	25 mm <sup>2</sup> / 3 m <b>Ground cable</b> with clamp
239601	35 mm <sup>2</sup> / 4 m <b>Ground cable</b> with clamp
239603	50 mm <sup>2</sup> / 4 m <b>Ground cable</b> with clamp

# GAS REDUCERS



Reducer with 2 manometers (\"MINI\" Type)



Reducer with flowmeter and 1 manometer

CODE	DESCRIPTION
020851	Reducer with 2 manometers ( \"MINI\" Type )
020916	Reducer with flowmeter and 1 manometer

# WATER COOLERS

## TIG ACCESSORIES



HR 22 / HR 23



HRX 20 / HRX 30



HR 30 / HR 32



HRX 52

CODE	DESCRIPTION	MATRIX 2200 HF	MATRIX 2600 HF MATRIX 3000 HF MATRIX 3001 HF	MATRIX 4200 HF	MATRIX X 220 HF	MATRIX X 300 HF	MATRIX 2200 AC/DC	MATRIX 3000 AC/DC	MATRIX X 220 AC/DC	MATRIX X 300 AC/DC	MATRIX X 400 AC/DC	MATRIX X 500 AC/DC
032065	Water cooling equipment <b>HR 22</b> 230 V	≈					≈					
032060	Water cooling equipment <b>HR 23</b> 400 V		≈	≈				≈				
032090	Water cooling equipment <b>HR 30</b> 400 V			≈								
032098	Water cooling equipment <b>HR 32</b> 400 V			≈								
032120	Water cooling equipment <b>HRX 20</b> 230 V				≈				≈			
032115	Water cooling equipment <b>HRX 30</b> 400 V					≈				≈		
032130	Water cooling equipment <b>HRX 52</b> 400 V										≈	
414363	<b>Input cable Adapter</b> to connect HR 23 with MATRIX 4200 HF			≈								

# OTHER ACCESSORIES

## TIG ACCESSORIES



PSR7



Adapter for simultaneous connection of Torch and PSR 7



CD 6/8



KIT A6



TSA1 TIG Simple Automation KIT



DFX1 / DFX5 Dust Filter



UltraLUX



CL-1100

CODE	DESCRIPTION
<b>REMOTE CONTROLS</b>	
020919	<b>PSR 7</b> 5 m foot remote control
460056	<b>Adapter</b> for simultaneous connection of Torch and PSR 7
236243	<b>CD 6/8</b> 8 m remote control with geared down potentiometer
<b>OTHER</b>	
460005	<b>A6</b> Connection kit for non-standard Torch
031118	<b>TSA1 TIG</b> Simple Automation KIT - ( Torch trigger - Arc On - Current Adj. 0-10 V ) for MATRIX X 220 / X 300
031119	<b>TSA5 TIG</b> Simple Automation KIT - ( Torch trigger - Arc On - Current Adj. 0-10 V ) for MATRIX X 400 / X 500
353485	<b>DFX1</b> Dust Filter for MATRIX X 220 / X 300
353486	<b>DFX5</b> Dust Filter for MATRIX X 400 / X 500
439230	<b>UltraLUX</b> infinite shade adjustment from DIN 9/13 by potentiometer
402275A	Cea <b>CL-1100</b> cooling liquid - 5 l Tank





# TIG TORCHES WITH BUILT-IN GAS VALVE



CEA RTX TORCHES

## ORDER INFORMATION

CODE	DESCRIPTION
TIG TORCHES WITH BUILT-IN GAS VALVE FOR TOUCH-START TECHNIQUE	
020558	Torch <b>RTX 17.4</b> 4 m - 140 A 35%
020559	Torch <b>RTX 17.8</b> 8 m - 140 A 35%
020568	Torch <b>RTX 26.4</b> 4 m - 180 A 35%
020569	Torch <b>RTX 26.8</b> 8 m - 180 A 35%

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# OTHER ACCESSORIES

## MMA ACCESSORIES



Remote control



Trolley CT 10



Roll bar protection kit



Carrying Belt Kit

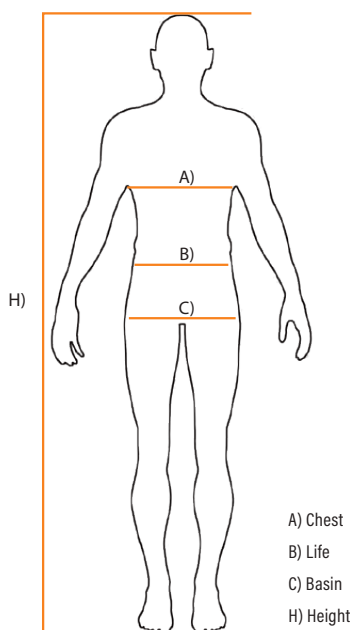


Rainbow Bag

## ORDER INFORMATION

CODE	DESCRIPTION
ACCESSORY KIT	
460281	<b>3+2 m 16 mm<sup>2</sup></b> cables with electrodeholder pincer, ground clamp and 50 mm <sup>2</sup>
460286	<b>4+3 m 25 mm<sup>2</sup></b> cables with electrodeholder pincer, ground clamp and 50 mm <sup>2</sup> safety connections - brush/hammer - shield with lens
460292	<b>4+3 m 35 mm<sup>2</sup></b> cables with electrodeholder pincer, ground clamp and 50 mm <sup>2</sup> safety connections - brush/hammer - shield with lens
460262	<b>4+3 m 50 mm<sup>2</sup></b> cables with electrodeholder pincer, ground clamp and 50 mm <sup>2</sup> safety connections - brush/hammer - shield with lens
460264	<b>4+3 m 70 mm<sup>2</sup></b> cables with electrodeholder pincer, ground clamp and 70 mm <sup>2</sup> safety connections - brush/hammer - shield with lens
REMOTE CONTROLS	
236243	<b>CD 6/8</b> 8 m manual remote control
236244	<b>CD 6/25</b> 25 m manual remote control
236249	<b>CD 6/50</b> 50 m manual remote control
OTHER	
234912	Transport <b>Trolley CT 10</b>
031150	<b>Roll bar</b> protection kit
201752	<b>Kit of 2 male</b> 50 mm <sup>2</sup> safety connections
031100	<b>CB 2</b> carrying Belt Kit
030963	<b>Rainbow Bag</b>

# PROFESSIONAL WELDING APPAREL



<b>STANDARDS</b>	UNI EN ISO 11611:2008 <i>(Protective clothing for use in welding and allied processes)</i>  UNI EN ISO 11612:2009 <i>(Protective clothing against heat and flame)</i>
Material type	100% flame retardant cotton
Rugged fabric	330 g /m2
Extra protection	highly wear-prone points are double-layered
Colour	Grey / Yellow



CODE	DESCRIPTION	SIZES						MEASURES cm	
	JACKETS	I	UK	E	F	DE	USA	A	H
100810	Welder's Jacket	48	16	46	44	48	M	92/98	172/178
100811	Welder's Jacket	50	18	48	46	50	L	98/102	172/178
100812	Welder's Jacket	52	20	50	48	52	L	102/106	174/180
100813	Welder's Jacket	54	22	52	50	54	XL	106/110	174/180
100814	Welder's Jacket	56	24	54	52	56	XL	110/116	176/182



CODE	DESCRIPTION	SIZES						MEASURES cm		
	TROUSERS	I	UK	E	F	DE	USA	B	A	H
100760	Welder's Trousers	48	16	46	44	48	M	88/92	98/102	172/174
100761	Welder's Trousers	50	18	48	46	50	M	92/96	104/106	174/178
100762	Welder's Trousers	52	20	50	48	52	L	96/100	107/110	176/180
100763	Welder's Trousers	54	22	52	50	54	L	102/106	112/116	176/182
100764	Welder's Trousers	56	24	54	52	56	XL	108/112	118/122	180/184



CODE	DESCRIPTION	SIZES						MEASURES cm	
	WELDER'S COAT	I	UK	E	F	DE	USA	A	H
100820	Welder's Coat	50	18	48	46	50	L	98/102	172/178
100821	Welder's Coat	52	20	50	48	52	L	102/106	174/180
100822	Welder's Coat	54	22	52	50	54	XL	106/110	174/180
100823	Welder's Coat	56	24	54	52	56	XL	110/116	176/182
100824	Welder's Coat	58	26	56	54	58	XXL	116/122	176/184



CODE	DESCRIZIONE
	ACCESSORIES
439230	ultraLUX infinite shade adjustment from DIN 9-13 by potentiometer



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# SYMBOLS LIST



MIG/MAG welding



MIG Pulsed welding



MIG Double Pulsed welding



Single phase input



Three phase input



Constant Current and Constant Voltage



Constant Current



Constant Voltage



Direct current output



Synergic adjustment



Voltage reduction device



TIG HF welding



TIG-Lift welding



MMA welding with stick electrode



Ability to store personalized welding parameters up to 99 Jobs



Energy Saving function to operate the power source cooling fan and torch water cooling only when necessary



High Resolution digital display



Step adjustment



TIG pulsation



Alternative and direct current output



Shunt Adjustment



Products not for the European market as do not meet the requirements of the Directive 2009/125/EC ( Ecodesign )



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*Technical characteristics might change without notice.*

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