CONVEX / CONVEX PULSE

MIG/MAG MMA TIG (WIG)
CONVEX

MIG/MAG PULSED DUAL PULSED MMA TIG (WIG)
CONVEX PULSE

3~ CC CV Inverter DC + - SYN DIGITAL 888 LIFT GOES GREEN

SYNERGIC MULTIPROCESS INVERTER COMPACT POWER SOURCES

Futuristic design and inverter technology with latest generation digital control are main characteristics of CONVEX and CONVEX PULSE 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 quality welding in MIG/MAG and, only for CONVEX PULSE models, also in PULSED MIG and in DUAL PULSE.

The CONVEX and CONVEX PULSE equipment also allow 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 being used, fruit of CEA’s know-how acquired in over 65 years’ experience.

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.

WHY TO CHOOSE CONVEX AND CONVEX PULSE?

- 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 synergic curves preset according to used type of material, gas and wire diameter
- Ability to store personalized welding parameters up to 99 JOBS
- Smart PROGRAM" key for quickly selecting any program
- 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
- Reduced energy consumption
- Trouble shooting auto-diagnosis feature
- Metallic main structure with shockproof fibre compound front panel
- Control rack protection cover
- Initial and final crater control
- VRD – Voltage Reduction Device

TWO AVAILABLE VERSIONS

CONVEX and CONVEX PULSE models are available in either STANDARD configurations, designed for the most standardized 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

SYNERGIC PROGRAMS:

Fe - CrNi - AlMg - AlSi

PREMIUM PACKAGE

STANDARD FITTED WITH:

vision.COLD

vision.COLD for MIG/MAG welding small thickness with reduced heat input

vision.ULTRASPEED

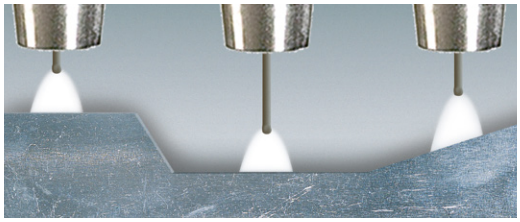
vision.ULTRASPEED for high speed MIG/MAG welding

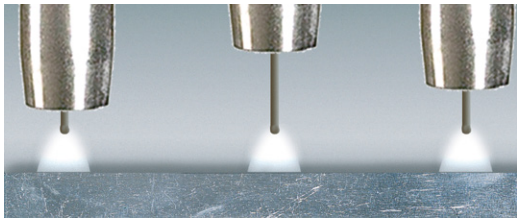
SYNERGIC PROGRAMS:

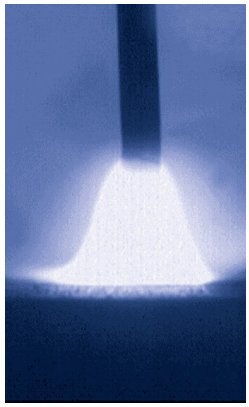
Fe – CrNi – AlMg – AlSi - CuSi3 – AlBz8 – FCW (Rutil –Basic – Metal) – Duplex – Super Duplex AND OTHER CURVES FROM EXTRA CURVE PACKAGE (ECP).

VISION.ARC

vision.ARC is the innovative welding arc control developed by CEA granting a short arc extremely stable and precise in spite of any change of the external conditions. vision.ARC ensures outstanding performances, impossible to be obtained by traditional power sources.

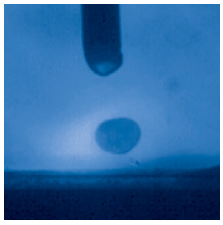






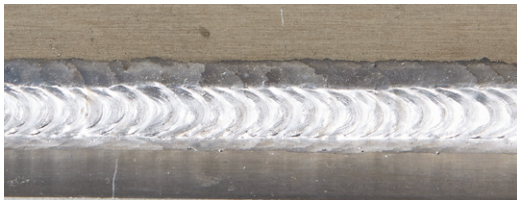
VISION.PULSE (CONVEX PULSE)

vision.PULSE permits a short arc pulse welding, constantly controlled, 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 in the puddle and considerable increase in welding speed too.



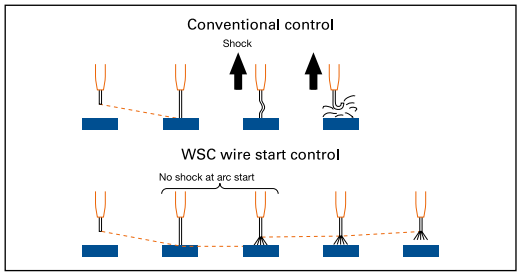
DUAL-PULSED (CONVEX PULSE)

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.



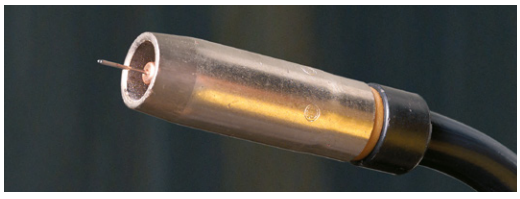
WSC - WIRE START CONTROL

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



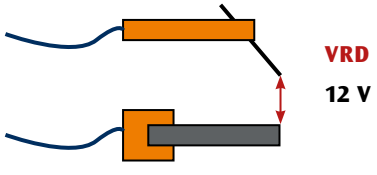
BURN BACK CONTROL

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.



VRD - VOLTAGE REDUCTION DEVICE

VRD device reduces open circuit voltage below 12 V and grants additional safety protection for the operator in all highly hazardous environments.



OPEN TO THE FUTURE

CONVEX and CONVEX PULSE are systems open to evolving technology: both control firmware and software are designed to be always updatable.

ACCESSORIES

- CT 45 trolley
- CT 70 trolley
- HR 32/HR 30 water cooling equipment
- Autotransformer
- Up/Down torches

CT 45

CT 70

HR 32/30

TECHNICAL DATA		CONVEX		CONVEX PULSE	
		321	401	325	405
Three phase input 50/60 Hz	V +20% -20%	400	400	400	400
Input Power @ I_2 Max	kVA	13	17,8	17	23,7
Delayed Fuse (I_{eff})	A	20	25	25	25
Power Factor / cos φ		0,87/0,99	0,92/0,99	0,66/0,99	0,70/0,99
Efficiency Degree		0,86	0,85	0,86	0,85
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
Standards		EN 60974-1 • EN 60974-5 • EN 60974-10			
		S			
Protection Class	IP	23 S	23 S	23 S	23 S
Insulation Class		H	H	H	H
Dimensions	↗ mm	660	660	660	660
	→ mm	290	290	290	290
	↑ mm	515	515	515	515
Weight	kg	41	42	42	43

Other voltages available on request

These power sources are built for industrial environment use. EMC (CISPR 11): class A

ISO 9001: 2008

Technical features might change without notice