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SYNERGIC MULTIPROCESS INVERTER PULSED POWER SOURCES

Synergic multiprocess pulsed equipment of DIGITECH VP2 (VISION PULSE 2) series are the evolution of DIGITECH VISION PULSE.

The use of a very latest generation microprocessor and of a new arc control software vision.ARC2 allow to obtain an incredibly far superior premium quality welding performance unthinkable till this day.

DIGITECH VP2 equipment are characterized by a synergic digital control to automatically determine the best welding parameters, based on the used type of material, wire diameter and gas.

DIGITECH VP2 innovative digital control with colour display fully meets the needs of combining synergy with the total control of all the welding parameters, for a far more modern and effective

approach to welding.

Technologically ahead, robust 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 and represent the best solution in any industrial field requiring high precision and repeatability of the achieved results.

DIGITECH 3300, 4000 e 5000 VP2 are supplied with a separate wire feeder, whilst DIGITECH 3200 VP2 is designed with a built-in feeder.

WHY TO CHOOSE DIGITECH VP2?

- ▶ Multiprocess 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
- ▶ 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
- ▶ Interface with LCD colour display to keep under control the whole welding process
- ▶ Possibility of integrating special MIG and PULSED MIG welding processes
- ▶ Welding process always under control by means of the digital adjustment of all parameters
- ▶ User friendly and easy-to-use selection and recalling of the parameters and welding programs
- ▶ Ability to store personalized welding parameters up to 99 JOBS
- ▶ Excellent arc striking always precise and efficient
- ▶ Initial and final crater control
- ▶ Ability to partially or totally lock the equipment with access key by password
- ▶ Monitoring and repeatability of the welding parameters
- ▶ Low energy consumption
- ▶ 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
- ▶ Mains voltage fluctuation automatic compensation within +20% -20%
- ▶ Data storing and data printing ability (Optional)
- ▶ VRD Voltage Reduction Device for the operator’s maximum safety



DIGITECH VP2 SYNERGIC CONTROL

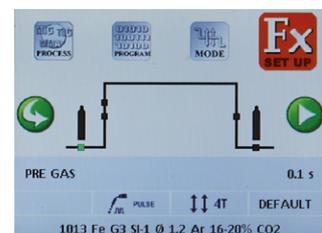
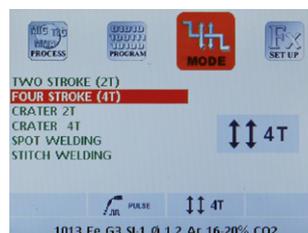
DIGITECH VP2 control, fitted with the innovative colour display with icons and easily-read graphics, allows even less expert welders to very easily adjust all the welding parameters in an intuitive way with extreme simplicity. After choosing the program type according to used material, wire diameter and gas, the control automatically selects the best welding parameters, fruit of CEA’s know-how acquired in over 65 years’ experience. At the same time DIGITECH VP2 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.



PRG	MATERIAL	Ø	GAS
1011	Fe G3 S1-1	0.8	Ar 16-20% CO2
1012	Fe G3 S1-1	1.0	Ar 16-20% CO2
1013	Fe G3 S1-1	1.2	Ar 16-20% CO2
1014	Fe G3 S1-1	1.6	Ar 16-20% CO2
1021	Fe G3 S1-1	0.8	Ar 11-15% CO2

3/40 PULSE 4T

1013 Fe G3 S1-1 Ø 1.2 Ar 16-20% CO2



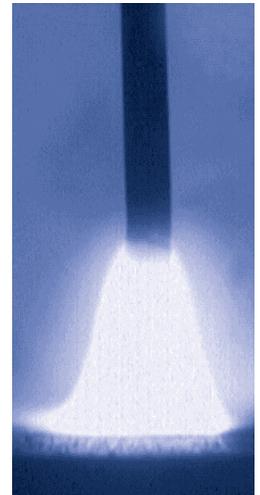
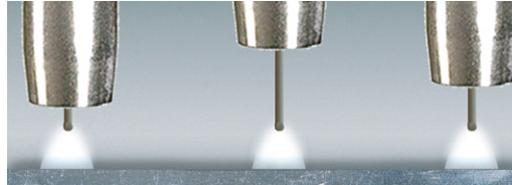


VISION.ARC 2

vision.ARC2 is the latest evolution of the 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 welding pulse impulse.

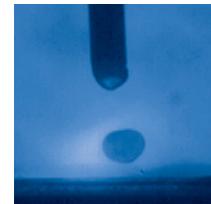
The innovative vision.ARC2 allows to better monitor and manage in a far more efficient way all unwished physical phenomena, which may often negatively affect the arc stability and, consequently, the control capacity of the power source.

New vision.ARC2 allows the power source control to operate in a very 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.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

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.



SPECIAL PROCESSES (OPTIONAL)

vision.ARC2, available on DIGITECH VP2, is the software platform which enables to weld by means of the following special processes:

MIG/MAG



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



vision.ULTRASPEED for high speed welding



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

MIG PULSED



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



vision.PULSE-RUN for a colder and faster pulsed welding



vision.PULSE-POWER for a more penetrated and smoothly shaped welding on medium large thickness

- ▶ Metallic main structure with shock-proof fibre compound front frames
- ▶ Control rack protection cover
- ▶ Easy to read and adjust sloping front control panel, highly visible from any direction
- ▶ IP 23 S protection class and dust-proof electronic components, thanks to the innovative “Tunnel” fan cooling system, allow operation in the toughest work environments



DIGITECH 3300, 4000 and 5000 VP2 offer the possibility of using interconnecting cables up to 50 m in order to control the parameters directly from the feeder

HT 5 WIRE FEEDER

Also HT 5 duplicates main selection and control keys as given in the main power source. The available 4 independent displays, feeder plus power source, provide the possibility of contemporarily visualizing and monitoring 4 different parameters at the same time.

- Professional wire feeding mechanism with 4 rolls of large diameter for a precise and constant wire driving
- Graduated knob to achieve the most correct value of the wire pressure, which remains unchanged also after any arm opening and closing
- Double groove rolls replaceable without any tool
- Lodging for wire spools up to 300 mm Ø maximum



DOUBLE FEEDER

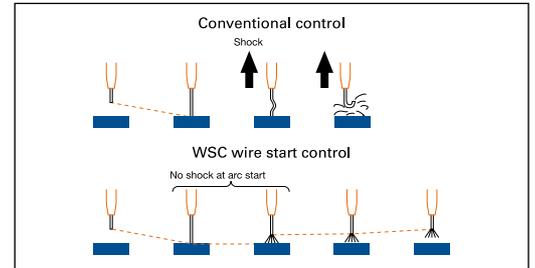
DIGITECH VP2 in the version with double feeder represent the ideal solution whenever a greater flexibility is needed in all applications using two different types of material.

Thanks to the double feeder it is possible to greatly reduce process change time with a consequent large increase in productivity.



WSC - WIRE START CONTROL

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



BURN BACK CONTROL

At the end of each weld, in any condition and with any material, the digital control ensures a perfect wire cut, thus avoiding the formation of the typical “wire globule”, so ensuring the subsequent best arc restriking



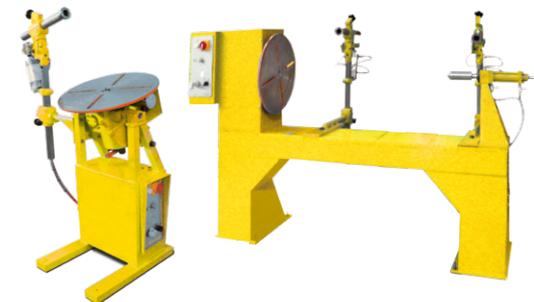
DIGITORCH

DIGITORCH's allow the operator readily see on the wide torch display and adjust main welding parameters, i.e. welding current, material thickness, wire speed, arc length, electronic inductance and memorized program number. Besides, depending on the selected welding mode, it is possible to switch from one program to the other or increase/decrease the parameters of the synergic curve in use.



SIMPLE AUTOMATION

Standard equipped with analogic-digital I/O, DIGITECH VP2 can be easily integrated into automated welding equipment without any expensive and sophisticated external interfaces usually necessarily supplied for robotics.



ROBOT INTERFACE

DIGITECH VP2 power sources can be easily connected to any Robot 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.



OPEN TO THE FUTURE

DIGITECH VP2 equipment are systems open to evolving technology: both control firmware and software are designed to be always updatable.



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.



ACCESSORIES

- Up/Down torches
- CT 70 / CT 75 water cooling and gas cylinder trolley
- CT 72 large trolley to carry HR 30 / 31 / 32 water cooling, two gas cylinders and/or autotransformer
- WK 1 kit of standard wheels/ WK 2 kit of extra large wheels
- SP feeder sliding supports
- Adjustable torch support
- RC 178 remote control
- Autotransformer
- HR 30/31/32 water cooling equipment



TECHNICAL DATA		DIGITECH VP2			
		3200	3300	4000	5000
Three phase input 50/60 Hz	V $\begin{matrix} +20\% \\ -20\% \end{matrix}$	400	400	400	400
Input Power @ I ₂ Max	kVA	19	19,6	25,5	31,2
Delayed Fuse (I _{eff})	A	20	25	32	40
Power Factor / cos φ		0,62/0,99	0,62/0,99	0,65/0,99	0,69/0,99
Efficiency Degree		0,82	0,82	0,85	0,85
Open circuit voltage	V	62	62	70	70
Current range	A	10 - 320	10 - 330	10 - 400	10 - 500
Duty cycle at (40°C)	A 100%	240	280	350	380
	A 60%	270	300	400	460
	A X%	320 (40%)	330 (40%)	-	500 (50%)
Wires	Ø mm	0,6 - 1,6	0,6 - 1,6	0,6 - 1,6	0,6 - 1,6
Standards		EN 60974-1 • 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	35	40	44

Other voltages available on request

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

