Lorch SpeedPulse XT

Classification

SpeedPulse XT is a synergetic waveform controlled process control variant applied in MSG welding (ISO 857 process no. 13) which is particularly well-suited for certain types of applications. This variant involves a modified I-U-I-controlled, non-short-circuiting pulse welding process of constant frequency that marries the characteristics of the classic pulse arc with those of the classic spray arc in a beneficial way.

Benefits

Automation / manual welding
High degree of process reliability / intuitive altering of the arc length
Welding performance
Expansion of the top welding performance limit for the pulse process
Dynamics
Option to adjust the process impact
Ergonomics
Constant, pleasant pulse frequency, reduction of noise emissions

Operating ranges

Material	Inert gas [Ar/CO_2]	Wire diameter [mm]	Additional data
SG Fe	82/18 92/8	1.0 - 1.6	WPS
Cr Ni 308 Cr Ni 316	98/2	1.0 - 1.2	
Al Mg 4.5 Mn Al Mg 5 Al Si 5	Ar	1.2 - 1.6	

- Welding programs for other operating ranges available on request
- Operating ranges may vary with the type of power source used
- Allows for using the arc as a sensor capable of tracking the seam using internal signal processing/the welding current

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Settings
- Guiding parameter (primary setting): Wire feed speed
- Derived guiding parameters (forecast values): Sheet thickness, current, voltage
- Correction options: Pulse frequency (dynamics), voltage, wire feed speed
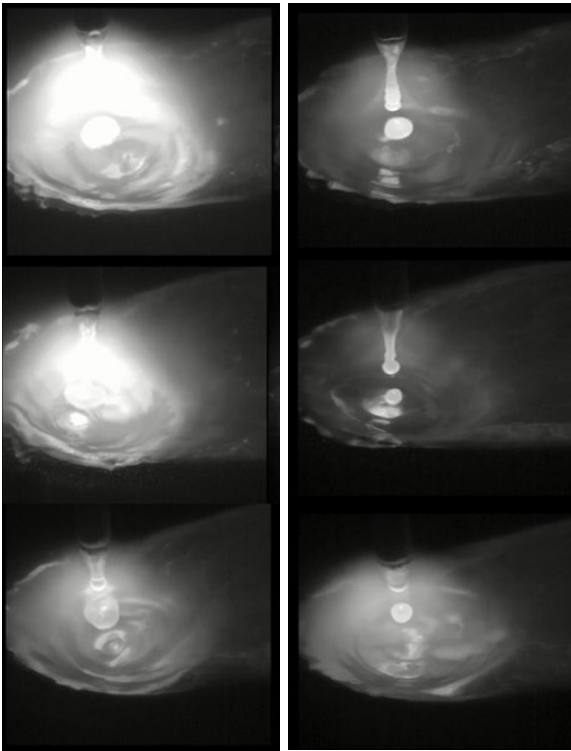
Readouts
- Set value wire feed speed
- Forecast current [A] and voltage [V] (arithmetic means)
- output of electric heat [kW]
- Actual values (during welding) and hold values (after welding)

Availability
- Types of power sources: Lorch S-series
- WPS available, see operating ranges

More information
www.lorch.eu

SpeedPulse XT
Steel with M21 inert gas and deposit welding

High speed image of the pulse arc, the melting wire electrode, the weld pool, and the metal transfer at matching wire feed speeds, but different pulse frequencies (Dynamics)

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