

Lorch SpeedUp

Classification

SpeedUp 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 thanks to a cyclic modification of the power used. Different types of arcs are combined depending on the material used.

Benefits

Automation / manual welding

The continuous movement of the mechanised torch guidance is ideal for automation applications / exceptionally easy manual torch guidance

Optimised for fillet welds

Optimised for fillet welds (FW) completed using PF welding (in vertical up position); can also be used to great benefit in other weld positions

Uniform heat input

Penetration and material binding are uniform and slightly wavy

Even, slightly rippled weld surface

Finished weld is narrower than a weld produced using a conventional FW+PF triangular movement

Prevents errors that may occur during a conventional triangular movement

Operating ranges

Material	Inert gas [Ar/CO ₂]	Wire diameter [mm]	Additional data
SG Fe	82/18 92/8	1.0 - 1.2	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	

- Oscillation and using the arc as a sensor for seam tracking is not recommended
- Avoid guiding the wire across long or complicated distances
- Operating ranges may vary with the type of power source used
- Welding programs for other operating ranges available on request

Notices

Settings

- Guiding parameter (primary setting): Wire feed speed average
- Derived guiding parameters (forecast values): Sheet thickness, current, voltage
- Correction options: Arc length (voltage, wire feed speed), process cycle ratio, process cycle frequency

Readouts

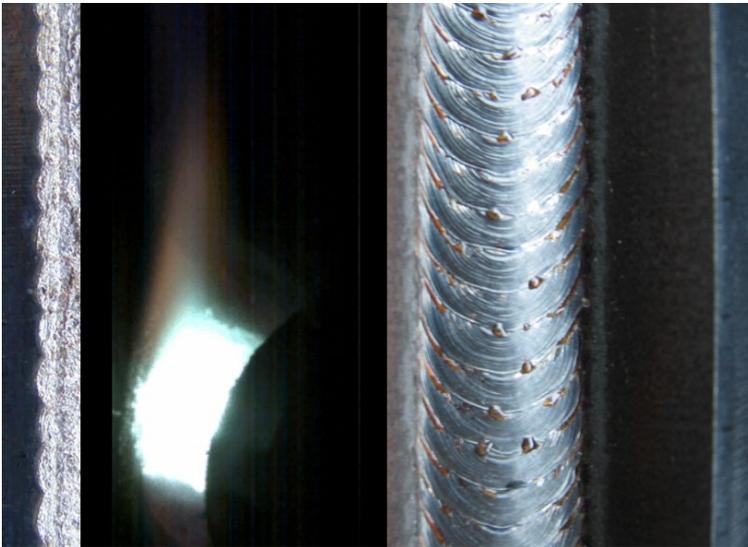
- Set value wire feed speed
- Forecast current [A] and voltage [V] (arithmetic means)
- output of electric heat [kW]
- Actual values (during welding) and hold values (after welding)

Availability

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

More information

www.lorch.eu



SpeedUp

Steel with M21 inert gas and ascending fillet weld, mechanised movement

View of the longitudinal penetration profile (breaking test), arc with torch and melt, weld surface (non-cleaned)

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