

## Lorch SpeedRoot

### Classification

SpeedRoot is a synergetic waveform controlled process control variant applied in MSG welding (ISO 857 process no. 13) which is particularly well-suited for root welding with gap. The process produces a modified, low-spatter short arc.

### Benefits

#### Automation / manual welding

Minimised spatter during short-arc welding

#### Optimised for welding operations involving a gap

High gap bridging ability thanks to moderately vibrating melt

Exceptional manageability of the weld pool

Elimination of spatter

#### Heat input

Wide energy operating range ("cold" to "hot")

### Operating ranges

Material	Inert gas [Ar/CO <sub>2</sub> ]	Wire diameter [mm]	Additional data
SG Fe	82/18	0.8 - 1.2	WPS
	92/8		
	CO <sub>2</sub>		
Cr Ni 308 Cr Ni 316	98/2	0.8 - 1.2	

- Torch angle neutral or set towards the finished part of the weld
- Not intended for medium to high penetration
- Factory settings for V and I welds with gap
- Correction options for adaptation to changing conditions
- Welding programs for other operating ranges available on request

## Notices

### Settings

- Guiding parameters (primary settings): Wire feed speed
- Derived guiding parameters (forecast values): Sheet thickness, current, voltage
- Correction options: Arc length energy (heat), 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, P-series
- WPS available, see operating ranges

### More information

[www.lorch.eu](http://www.lorch.eu)



### SpeedRoot

Steel with M21 inert gas at V-weld with descending welding direction

High speed image of the solidified weld, the weld pool, the ignited arc, the workpiece fusion faces, and the wire electrode