

Speed Welding Processes  
Designed by Lorch

**SPEED TRANSLATES  
TO PRODUCTIVITY.**



## Overview

**Through the advent of world-leading, next generation, inverter power technologies and digital control; Lorch has developed more advanced welding processes to increase welding speeds and further optimize the arc performance for specific applications.**

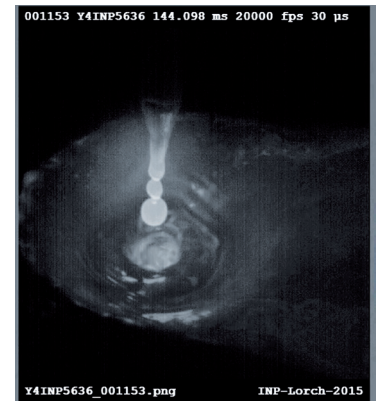
**Lorch is the true master of speed with these new advanced waveform control processes, delivering superior cutting-edge performance with faster welding speeds while producing a superior metallurgical weldment.**

**Lorch latest generation S Series and MicorMIG with 'speed' technologies are simply more efficient, consume less power and can deliver faster welding speeds. Speed translates to productivity and reduced operating costs . . .**

## The Lorch speed processes.

### SpeedPulse XT – Extra fast. Extra low-spatter. Extra proficient handling.

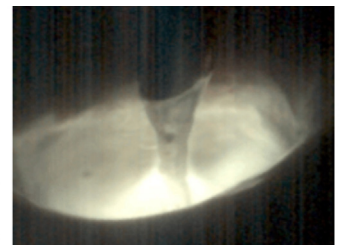
SpeedPulse XT turns you into the undisputed Master of the Pulsed Arc with its advanced patented waveform control technology. The days have gone for slow single droplet transfer pulsed welding, today, three pulsed droplets followed by a liquid flow of molten weld-metal accelerates the entire welding process. The Lorch S SpeedPulse XT is the cutting edge in Pulsed MIG welding technology delivering extra fast welding speeds with very low, insignificant levels of spatter, reducing any post weld clean up time. Up to 48% faster welding speeds are possible.



### SpeedArc XT – Deeply impressive.

SpeedArc XT sets itself apart by its highly focused and incredibly stable arc combined with high energy density that stands head and shoulders above any other comparable process. Delivering much deeper penetration into the base material across the entire power range, this process delivers a level of penetration to which ordinary MIG-MAG machines simply cannot measure up. The greater arc pressure that flows into the weld pool drives this deeper penetration and ability to run at a longer stick out length.

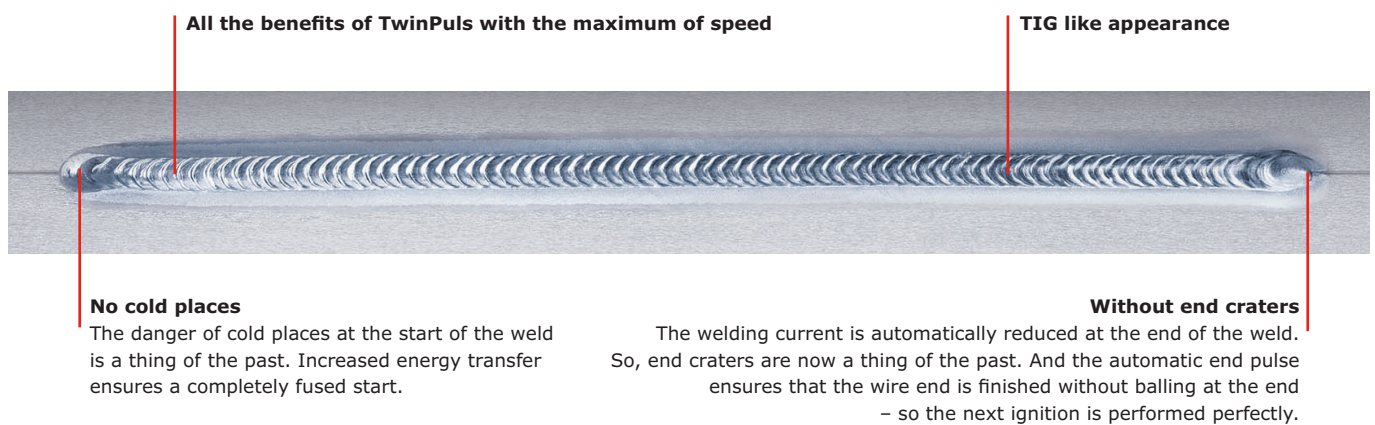
SpeedArc XT adds a significant speed boost to MIG-MAG welding across the entire power range, making it noticeably faster, much easier to control and, consequently, much more economical. Up to 30% faster welding speeds are possible.



## TwinPuls XT – TIG like appearance.

TwinPuls XT specifically controls and separates the heating and cooling phases. What does that mean to you? You benefit from a cosmetically pleasing weld seam, with significantly lower and more controlled heat input into the workpiece. The improved heat control can result in much lower distortion, resulting in notably less rework. What is more, the isolation of the different phases makes positional welding much easier.

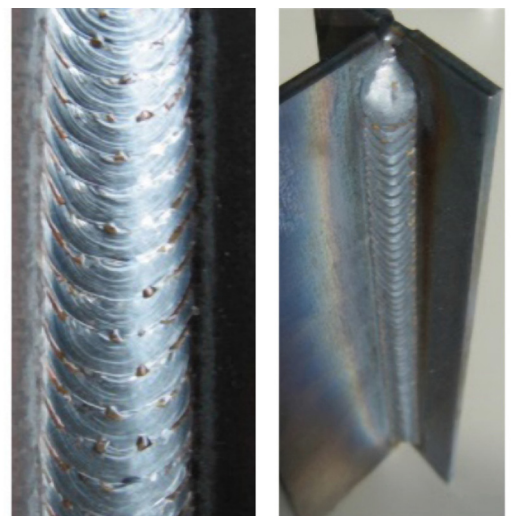
Real-world applications that commonly used to be completed by TIG welding can now be welded with MIG-MAG processes up to seven times faster, thanks to the ground-breaking capabilities of the new and improved TwinPuls XT. Welding is now simply faster and more efficient. Producing no cold starts or end craters whatsoever, TwinPuls XT achieves perfect results that even stand up to TIG. There is one end to everything, except when you talk about weld seams. They have not one but two ends and both look perfect thanks to TwinPuls XT.



## SpeedUp – Experience an entirely new way of vertical UP welding.

Up to now, vertical up welding required a tremendous amount of experience, skill and a steady hand to weld in the conventional 'Christmas tree' style. The SpeedUp option on the MicorMIG series of machines turns vertical up welding into just that - a simple, straight up weld, with no weaving required.

SpeedUp combines the hot high-current phase with the cold phase to effect an overall reduced heat input – allowing great penetration, exactly dimensioned and well-proportioned weld seams with near perfect a-measurement dimensions. Unparalleled arc performance delivers outstanding speed and produces results that are seamless and with virtually no spatter.



**SpeedRoot – for MIG-MAG root pass welding. Quality that is noticeably better.**

Previously, the main requirement for joining both edges of the material perfectly and with as little defects as possible was to apply this simple formula: Root welding = TIG. Whilst enabling clean results, the application of this process was also exceedingly slow. SpeedRoot delivers dramatic speed benefits as well weld seams whose quality is on par with TIG welds. This superior performance is made possible by the high-end control technology that is built into every machine of the S-SpeedPulse XT series!



This technology controls the level of current and voltage with utmost precision, thereby guaranteeing high speed process reliability and flawless weld appearance. Anyone who has ever bridged a 4mm gap on 3mm sheets without weaving using the S-SpeedPulse XT series and SpeedRoot will never want to go back to the solution they used before. Especially when they discover that the perfect weld seam they are looking at took them much less time than it would have if they had resorted to TIG welding.

**SpeedCold – for cold hard efficiency whilst thin sheet welding.**

SpeedCold keeps the arc stable during thin sheet welding and puts an end to pesky, sticky spatter. The Lorch S-SpeedPulse XT series with SpeedCold will even weld sheets as thin as 0.5mm and eliminates the need for rework almost entirely. Any spatter that does occur is so “cold” that it will usually not stick to the material. SpeedCold truly shines when used for welding butt, lap and corner welds on thin sheet metal. Responding in milliseconds to any changes in the arc, the SpeedCold control is distinguished by its exceptional weld seam control as well as the outstanding seam shaping and gap bridging properties, especially on CrNi and Steel. Lower heat input means less rework thanks to less distortion, less spatter and reduced use of energy. And, we have not even talked about the speed advantages this process has to offer. You cannot ask for much more.



**Lorch advanced welding process by power source series**

	S-SpeedPulse XT	MicorMIG Pulse series	MicorMIG series
<b>Welding process</b>			
SpeedPulse XT	●	-	-
SpeedArc XT	●	-	-
TwinPuls XT	●	-	-
Speedroot	●	-	-
Speedcold	●	-	-
SpeedUp	●	●	●
SpeedArc	-	●	●

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