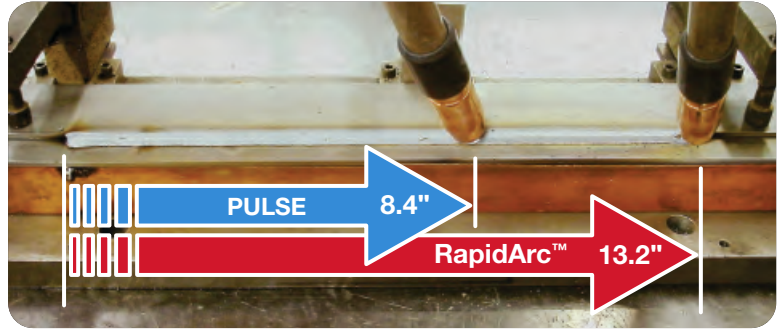


RapidArc® Weld Process Overview

RapidArc® Shorter Arc Length - Faster Travel Speeds.

- **Increases Travel Speed by over 50%***
- **Reduces Spatter by 15%**
- **Reduces Heat Input**
- **Reduces Distortion**

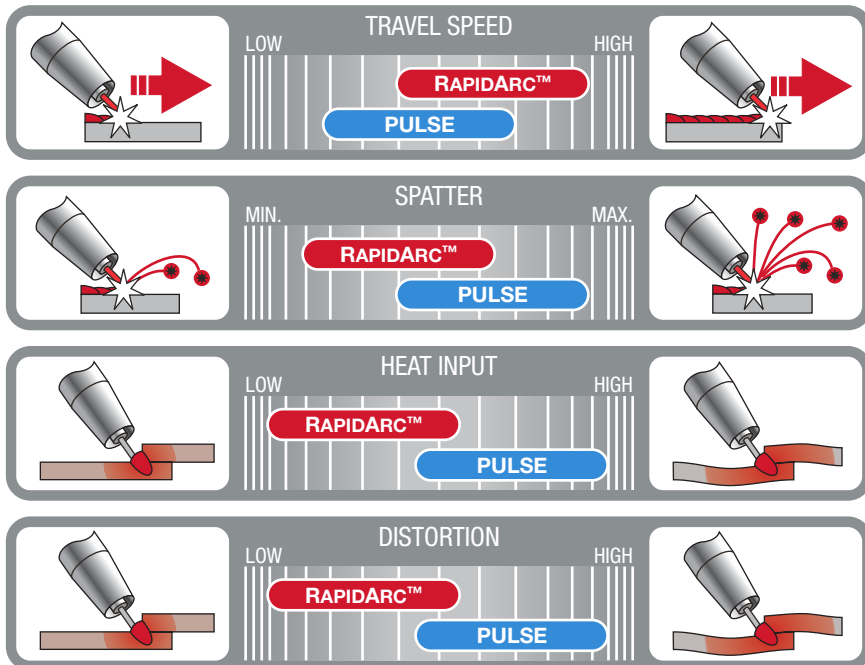


The **RapidArc®** process is designed to reduce cycle time in semi-automatic, robotic, and hard automation applications by utilizing increased travel speeds.

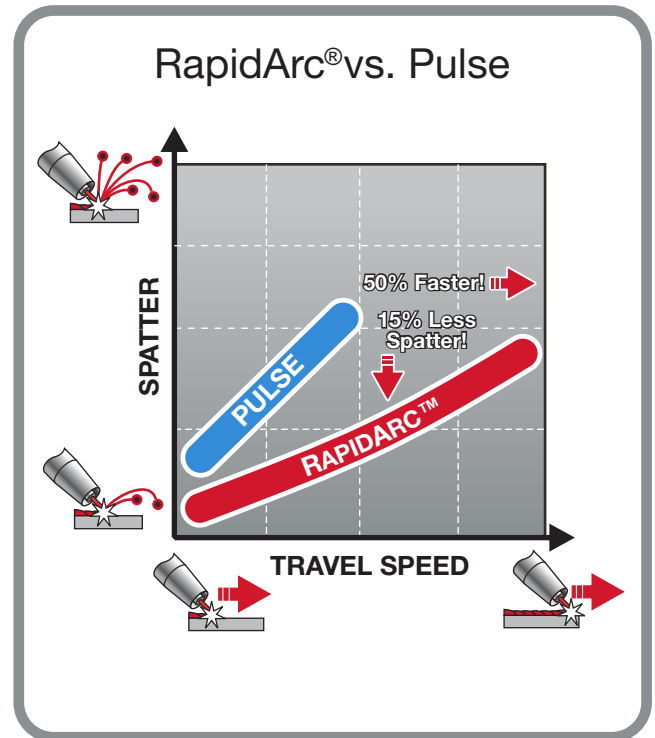
Traditional Pulse uses a longer arc length to avoid spatter which also limits travel speed. With **RapidArc®**, arc length is kept short and tight, and spatter is avoided with precise control of droplet transfer. As the droplet is transferred, it contacts the puddle resulting in a short. The **RapidArc®** waveform features a short-circuit response which allows

the short to clear with minimal spatter. A plasma boost function creates electrode to puddle separation, and increases stability by establishing rhythm. **UltimArc™** completes the advanced controls for fine tuning travel speed, spatter, puddle fluidity and penetration. The result is a highly versatile, advanced pulse application.

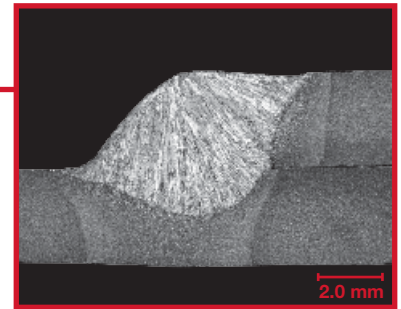
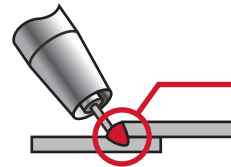
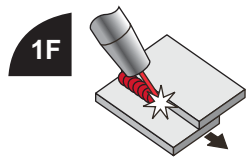
FEATURES



*Based on a side by side comparison of RapidArc® and Pulse using a Power Wave® S350 with SuperArc® 14 ga L-56 wire. RapidArc™ parameters: WFS 450 in/min, Travel Speed 55 in/min, 22 Volts. Pulse parameters: WFS 350 in/min, Travel Speed 35 in/min, 22.5 Volts.

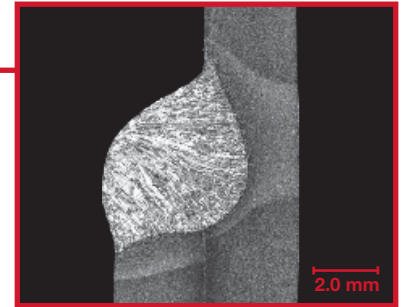
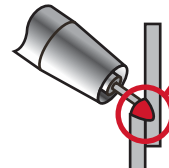
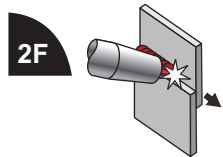


Applications



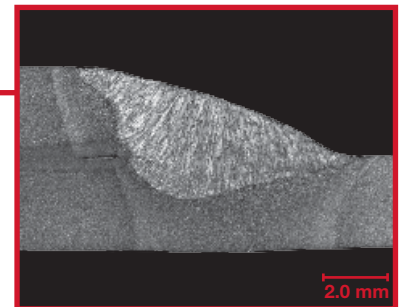
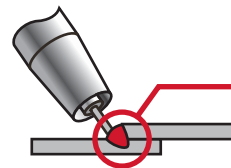
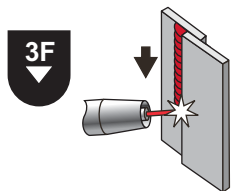
* Setting used for macro image.

* .045" L-56	90Ar / 10CO ₂	Mild Steel	12ga	3/4 in.	450 in.	58 in/min	20.0	260
1.2 mm	80Ar / 20CO ₂	Mild Steel	2.6mm	19mm	10 m/min	147 cm/min	24.0	255



* Setting used for macro image.

* .045" L-56	90Ar / 10CO ₂	Mild Steel	12ga	3/4 in.	425 in.	58 in/min	19.8	240
1.2 mm	80Ar / 20CO ₂	Mild Steel	2.6mm	19mm	10 m/min	147 cm/min	20.5	240



* Setting used for macro image.

* .045" L-56	90Ar / 10CO ₂	Mild Steel	12ga	3/4 in.	400 in.	62 in/min	22.5	245
1.2 mm	80Ar / 20CO ₂	Mild Steel	2.6mm	19mm	11 m/min	160 cm/min	21.5	250

See the RapidArc® weld process guide for: technical data, proper set-up, application settings and troubleshooting.

Recommended Equipment

Power Source

Power Wave® C300, S350, R350, S500, R500 or S700

Wire Feeder

Power Feed® 84 or 25M

Accessories

SuperArc® Wire or
SupraMig® Wire
Magnum® Pro Gun

Customer Assistance Policy

The business of The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customer and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for advice or information about their use of our products. We respond to our customers based on the best information in our possession at that time. Lincoln Electric is not in a position to warrant or guarantee such advice, and assumes no liability, with respect to such information or advice. We expressly disclaim any warranty of any kind, including any warranty of fitness for any customer's particular purpose, with respect to such information or advice. As a matter of practical consideration, we also cannot assume any responsibility for updating or correcting any such information or advice once it has been given, nor does the provision of information or advice create, expand or alter any warranty with respect to the sale of our products.

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