



Versa-Pulse™



■ Continuum™
System

Material
Thickness



20 gauge
to 3/16 inch

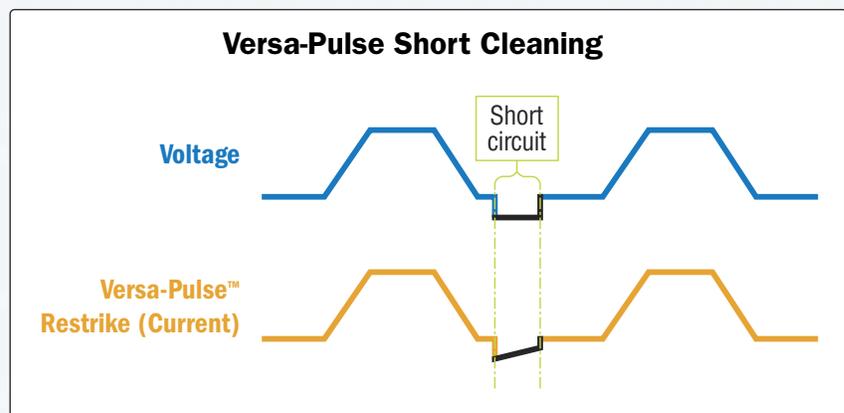
Welding Positions



Versa-Pulse is a pulsed GMAW process created with speed in mind. The tight, stable arc it provides allows for faster travel speeds and high precision.

Versa-Pulse can attain much higher travel speeds than other welding processes, and was designed to work in robotic and mechanized applications, but can also be used in semi-auto applications.

What makes Versa-Pulse unique is the short after each pulse and how it is cleared. This allows for a tight consistent arc with low spatter.



Material applications: carbon steel, stainless steel

Industry applications: automotive, recreational vehicles, motorcycles, architectural components, HVAC, sheet metal

Versa-Pulse Benefits



Lower Heat Input

- Compared to conventional pulse, Versa-Pulse can reduce heat input with its ability to travel quickly. This can reduce warping and burn-through.



Semi-Auto Applications

- Skilled operators can take advantage of the increased travel speed.
- Versa-Pulse can be used in semi-auto applications where an operator needs the ability to make small, fast and precise welds. This is done by keeping tight arc lengths, allowing for exceptional control of the weld puddle, all while minimizing spatter and puddle agitation.



Auto Applications

- In robotic applications the tight arc lengths can be taken advantage of where high travel speed is needed.
- Versa-Pulse can also be used with through-arc seam tracking.

Feature Definitions

Wire Feed Speed (WFS)

- Wire feed speed is the main control for Versa-Pulse. This provides the user synergic control* of deposition, amperage and voltage. This also gives the user a one-knob adjustment to change overall welding power.

Increase

- For more welding power for thicker material
- For more deposition for faster travel speeds and increased bead size
- For more amperage and penetration

Decrease

- For welding on thinner materials
- For welding out of position

Arc Length

- Arc length changes how much time is spent in a short circuit after the pulse. As the user changes this, more or less time will be spent in the short which will affect the perceived arc length. Adjusting this may be necessary when trying to travel faster or slower.

Increase

- To reduce spatter production
- When using long or undersized cables

Decrease

- To help increase travel speed
- To provide more control of the weld puddle

Arc Control

- Arc control shifts the power without changing the deposition. The power is shifted by changing the frequency of the pulse waveform. Arc control is normally adjusted when the user wants to fine-tune the transfer for their application.

Increase

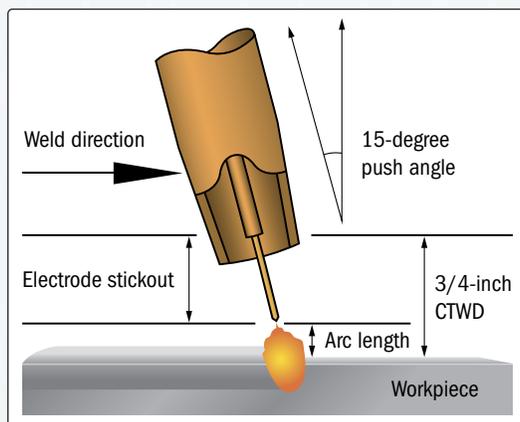
- To reduce frequency (less power)**
- To provide a stiffer, shorter, narrower arc cone — great for joints that need a faster freezing puddle and thinner materials where bead placement is key
- To increase reinforcement

Decrease

- To increase frequency (more power)**
- To provide a softer, slightly longer, wider arc cone — great for outside corner joints and to smooth the toes of the weld bead
- To flatten the bead profile

*Synergic control is when the user changes the WFS, the voltage and amperage are changed accordingly for the wire feed speed being commanded. Arc length (AL) and arc control (AC) do not need to be changed when changing wire speed. If the user likes a certain arc the AL and AC offsets will be applied at any point in the WFS range so they will consistently get the arc they like.

**This may seem backwards, but this is how the adjustment works.



Versa-Pulse Torch Angles

- 10 to 20 degree push angle
- We recommend maintaining a push angle
- We recommend staying in the front 1/3 of the puddle

Versa-Pulse Contact Tip to Work Distance (CTWD)

- 5/8 to 3/4 inch CTWD