

# HSP HIGH SPEED PULSE

48% Faster Welding | Less Heat Input | 50% Less Noise | Less Spatter

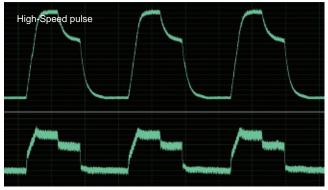


# THE HIGH SPEED PULSE PROCESS

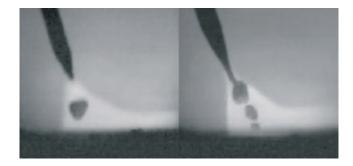
HSP - High Speed Pulse is a synergetic waveform controlled process control variant applied in MIG welding which is particularly well-suited for certain types of applications.

This variant involves a modified I-U-I controlled, non-short-circuiting pulse welding process of constant frequency that marries the characteristics of the classic pulse arc with those of the classic spray arc in a beneficial way.





An ability to increase the deposition rate the key to increased speed. A pulsed arc may have one drop per pulse, but our process specialists have found a way to add another drop to it. This leads to a controlled, virtually flowing material transfer to the work-piece like in the spray arc but covering the entire material thicknesses.



Welders are no robots. They react to unevenness and changes. The HSP-High Speed Pulse gives the welder extra freedom to influence the arc, e.g. by adjusting the torch distance. The welding system makes adjustments faster and more precisely than ever. It even does so within the same pulse phase. This allows the welder to intuitively guide the arc more calmly and safely, and to incorporate slight corrections into the welding process without any delay, with impressive results.



Combined with the extremely robust and stable arc properties, this improves handling and quality at little to no spatter, which leads to significantly less rework. Keep up with changing times when welding.

# **KEYFACTS**

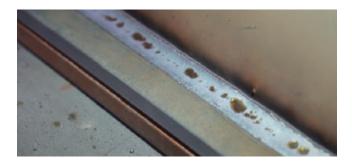
- 1 Up to 48% faster welding
- 2 Less heat input due to focused arc
- 3 50% less noise due to pleasantly quiet arc
- 4 Excellent arc handling and visibility
- 6 Much less spatter, which equals less rework

# **ADVANTAGES**

- Automation/Manual welding: High process reliability and intuitive arc length adjustment
- Melting capacity: Raising the upper limit of the deposition rate of the impulse process
- 3 Penetration: Greater penetration depth
- 4 Dynamics: Process effect adjustment options
- 5 Ergonomics: Constantly pleasant pulse frequency, lower noise

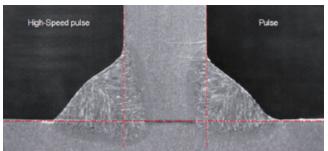
# **GET BETTER WELDING SEAM**

Less heat input, less spatters, less rework



#### **GET HIGHER WELDING STRENGTH**

Deeper penetration, no undercut defects, higher strength.



# HSP VERTICAL-UP WELDING PROCESS

The HSP optimised for fillet welds (FW) completed using PF welding (in vertical up position); can also be used to great benefit in other weld positions. For Topwell ProMIG Series, HSP is approx 70 % faster, an enormous progress for everyone welding a vertical seam. A whole new level!

No need to swing! No undercuts or other defects!

The speed of PF welding by HSP is twice that of the traditional pulse welding.



# **RELATED PRODUCTS**



# PROMIG-360SYN DPulse

Input Voltage: 3PH ~ 400V ±15% Rated Output(40°C): 360A @ 60%



# PROMIG-500SYN DPulse

Input Voltage: 3PH ~ 400V ±15% Rated Output(40°C) 500A @ 100%

















**PROFESSIONAL IN WELDING** 

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