



High Directional Stability | Deep Penetration | Outstanding Performance | Less Spatter



THE HYBRID PULSE CONTROLS PROCESS

HPC-Hybrid Pulse Controls is synergetic waveform controlled welding process control variants applied in MIG welding which Pulse(spray arc) and short-circuit transfer types in one duty cycle. It shorts the wire during each base current (Dip-Pulse) and form One-Pulse, One-Dip transfer. It keeps the advantage of both transfer types which delivers exceptional directional stability, deep penetration and free-spratters.



THE ADVANTAGES

- 1 High directional stability
- 2 Deep penetration
- 3 Much less spatter, which equals less rework
- 4 Less cleaning required and savings on wearing parts
- **6** Outstanding result for pipe welding solutions, especially for vertical-up

THE HPC IS DESIGNED FOR WELDING WITH ROBOT OR CARRIAGE

Welding with Robot or Carriage to ensure an excellent performance.



PENETRATION STABILISER

Due to the additional wire control, the current and penetration remain constant if the distance between the welding torch and the component changes. The arc becomes dramatically more stable, and the penetration is much more constant.

With Penetration Stabiliser

When the penetration stabiliser is activated, the penetration remains even, despite stick out changes







Stick out 15 mm Vd = 10 - 13 m/min Current: 300 A Thickness: 6 mm

Stick out 30 mm Vd = 10 - 13 m/min Current: 300 A Thickness: 6 mm

Without Penetration Stabiliser

If the penetration stabiliser is deactivated, the penetration is reduced if a stick out change occurs.





Stick out 15 mm Vd = 10 m/min Current: 250A-300 A Thickness: 6 mm

Stick out 30 mm Vd = 10 m/min Current: 250A-300 A Thickness: 6 mm

ARC LENGTH STABILISER

By reducing the arc length, the arc length stabiliser in the spray arc with LSC Universal enables stable and regular short circuit behaviour, with the arc always being maintained at the same short length. There is no need for the user to carry out manual readjustment in the event of external interference (e.g. caused by changing welding torch position, material misalignment, changing sheet thicknesses or uneven heat extraction).

With Arc Length Stabiliser

The set arc length remains the same in spite of a change in the welding torch position.



Without Arc Length Stabiliser

The set arc length is reduced when the welding torch position is changed and manual correction of the arc length is necessary.



HPC PERFORMANCE IN ROOT WELDING





With challenging root passes where a higher arc pressure is required, the Root characteristic impresses above all with its ease of use and perfect root formation.



PIPE WELDING APPLICATION

•ProMIG-500SYN DPulse ST + Carriage • Fast and High-quality weld seam





PROFESSIONAL IN WELDING

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