

PRODUCT INFORMATION

ESS SPEED-PULSER "SP"



MEHR ALS SIE ERWARTEN.

For ESS-Transtig / Squarearc 276 / 356 / 506

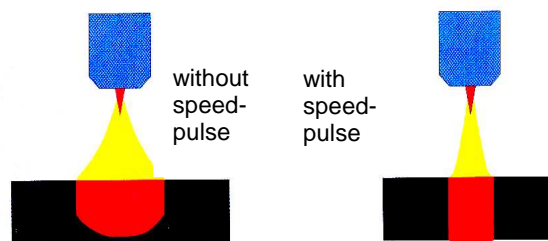
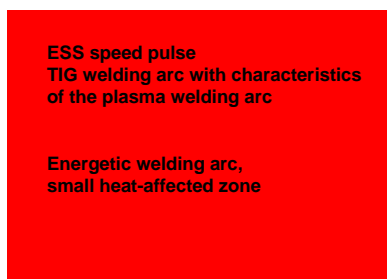
ESS-speed pulser is optionally available for the ips - TIG inverter welding units of the range 276 / 356 / 506 equipped with digital TIG control WS 20. The continuously variable pulse frequency of 40 – 2000 Hz provides an additional pinch effect for the arc. Density of energy and stability of the arc are increased. This function is active both in DC and in AC/DC-mode.

Advantages:

- Very narrow and stable welding arc with higher energy density
- Smaller heat-affected zone, less distortion of the work piece
- Higher welding speed, even on manual operation
- Increased penetration depth. Even with greater sheet metal thickness you can attain an almost perfect welding from one side only
- Welding of very thin sheet-metal to thicker material is easier than before
- The weld seams are narrow, the tempering colours become „colder“
- The tight and „hot“ welding arc is most suitable for rendering shrinkage in massive die-cast metal
- In many cases the application of the ESS-speed-pulser can replace the much more expensive plasma welding process

Fields of application:

- Especially in mechanized and automated application areas you will find advantages with regard to welding speed and precision of the welding seams
- Aluminium and stainless steel container and boiler construction
- Manufacture of apparatus, special machine building industry
- Manufacture of die-cast metal and aluminium
- Automotive supply industry, industrial production of precision parts
- High-tech welding in aeronautical engineering and space technology
- Orbital welding of thin-walled pipe joints



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Basic function of the Speed-Pulser:

The welding current changes between high-current I_1 and low-current I_3 , pulse in pulse is possible, I_3 in accordance with I_1 or I_2 (see below characteristic curve).

Functional sequence:

- The speed-pulser „SP“ is activated as soon as the rocker switch is in position ON .
- The frequency between 40 – 2000 Hz can be selected by the potentiometer „F“.
- The high-current is conform to the adjusted current which is indicated on the display.
- The value of the low-current can be adjusted as a percentage % of the high-current by turning potentiometer "I3" (for instance when selecting 100%, $I_1 = I_3$).
- Potentiometer "T1" serves for adjusting the balance between high-current phase and low-current phase. For instance: adjusting 80 %, the high-current phase is lasting 4 times longer than the low-current phase (20%).

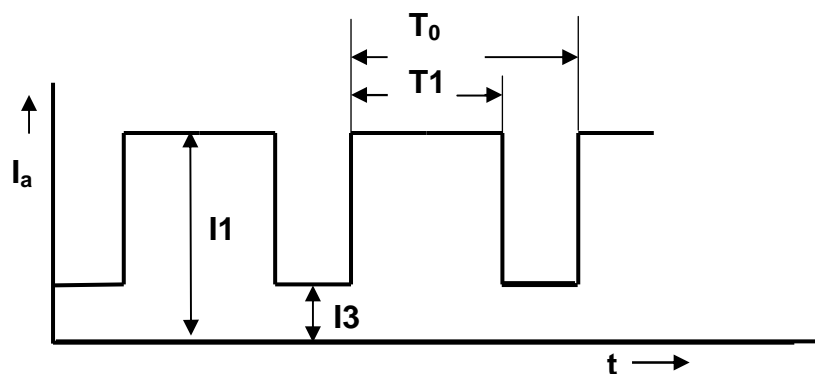
F: Pulse frequency 40 – 2000 Hz

T1: Duration of the high-current phase in % of T_0



ON/OFF switch for speed-pulse function

I3: Low current as a percentage of high current I_1



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