

WiseThin+

PRODUCTIVE SHEET AND POSITION WELDING



INCREASE WELDING SPEED AND ACHIEVE BETTER QUALITY

WiseThin+ is developed for faster and productive manual sheet welding, for ferrous and non ferrous materials. With the process you can weld in any position and also down hand, even with wide gap or varying gap tolerances. Weld pool control is excellent and the amount and size of spatters reduced. WiseThin+ provides even 25% lower heat input than normal MIG/MAG welding, reducing material distortion and post weld rework.

Process offers excellent welding characteristics in plate thicknesses 0.8 - 3.0 mm, even with CO₂ shielding gas. Welding speed is higher than in traditional short arc welding. Refinement of the process is based on accurate and real-time voltage measurement and filler wire droplet detachment. Thus droplet transfer to the weld pool is soft and controlled. WiseThin+ is a MIG/MAG welding process 131, 133, 135, 136 and 138 according to standard EN ISO 4063. WiseThin+ welding process is a standard feature in FastMig X Intelligent setup, and optional feature in FastMig X Regular and Pipe setups.

KEY BENEFITS



FASTER

Compared with traditional short arc welding



LOWER SHIELDING GAS COSTS

Due to a possibility to use CO₂



LESS HEAT INPUT

And therefore less deformation and less after-work

KEY APPLICATIONS



THIN SHEET FABRICATION



CAR CHASSIS



PROCESS PIPELINES

BENEFITS

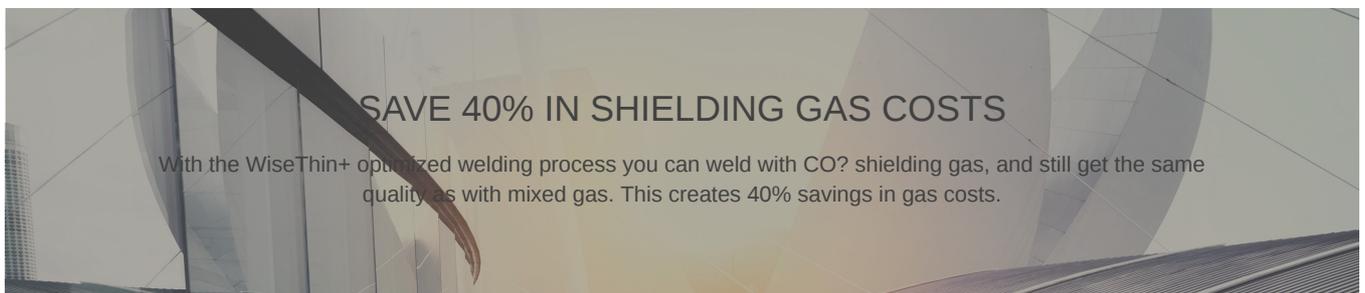


- Higher welding speed than in traditional shot arc welding
- High quality welds, reduced post weld rework
- Lower heat input and thus also less deformation
- Decreased amount and size of spatters
- Stable arc for positional welding for thicker plate thicknesses
- Excellent arc ignition for tack and intermittent welds
- Savings in welding costs as you get mixed gas welding characteristics with pure CO₂
- Down hand and all positional welding
- Easy to make short welds because of accurate arc control
- Suitable for brazing
- Expands the parameter window and thus reduces the need to use smaller wire diameters
- Soft and pleasant arc characteristics
- Easy to use

20 % FASTER WELDING WITH WISETHIN+

WiseThin+ welding gives excellent welding characteristics for position welding in thicker plates. The arc is steady and easy to handle and the arc sound is uniform all the time because of stable short circuiting. The weld pool flows to the joint smoothly and there is no risk of undercutting. As a result there are no spatters.

Position PF, 1.2 mm Fe solid wire, Ar+ CO₂ or CO₂ shielding gas, Plate thickness 6.0 mm + 6.0 mm, Wfs = 2.65 m/min → I = 105 A and U = 18.5 V, Fine tuning setting +1.5.



You get the same welding quality
with **39 %** lower shielding gas costs!



Normal welding

Gas cost (Ar+18%CO₂) = 25 cyl * 86 €/cyl =

2150 €



Kemppi WiseThin+

Gas cost CO₂ = 25 cyl * 52 €/cyl =

1300 €

Assumptions:

Time: 1 year = 220 working days, 8 hours per day with arc time 20 %
Shielding gas: 25 000 litres = 25 cylinders a year

WiseThin+ process is optimised for solid wires and CO₂ shielding gas.
It can bring you significant savings when welding on 1 – 5 mm plates.

ALTERNATIVE EQUIPMENT AND SOFTWARE



WiseThin

Short arc process for sheet metal welding. WiseThin produces easily controllable and spatterless arc thanks to the digital control of the welding parameters in any position, even in case of wider caps and gap variations. Also available for automated welding.