TOPWELL

PROFESSIONAL IN WELDING

# ULS

## ULTRA LOW SPATTERS

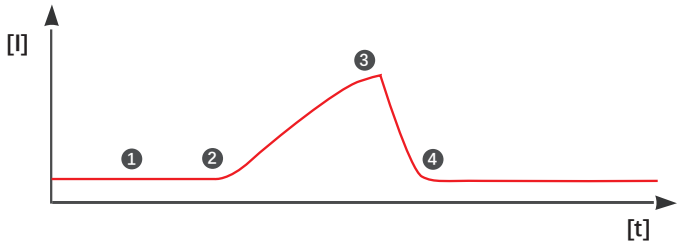
75% Less Spatter | Lower Filler Consumption | 25% Savings On Gas Costs | Greater Penetration

# THE ULTRA LOW SPATTERS WELDING PROCESS

The ULS process is a modified shourt-arc transfer arc, it controls the volatility during the change of state between short and arc to control the amount and size of the spatter generated.

## Standard Short Circuit Transfer Arc

As soon as the short circuit is detected the current is increased. The arc ignites at a relatively high short circuit current and high arc pressure. This can lead to welding spatter and instabilities.




## Standard-Short arc

1 Droplet formation

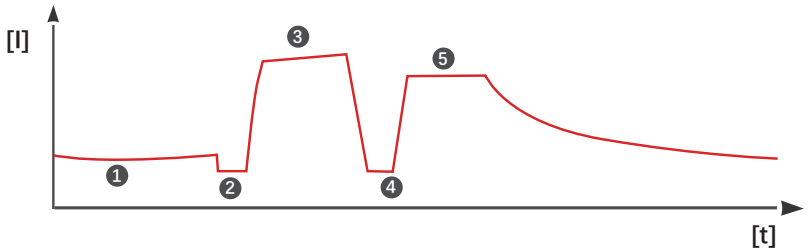
2 Component contact

3 Droplet is “pinched”

4 Droplet detachment spatter

## ULS TRANSFER ARC

The ULS principle of reignition at a relatively low current level constitutes a significant difference with regard to the standard dip transfer arc. The short circuit is triggered at a low current level, which leads to soft reignition and a stable welding process.




## ULS-Short arc

1 Droplet formation

2 Component contact current is reduced lower droplet load

3 Droplet is “pinched”

4 Droplet detachment current is reduced spattering is minimised

5 Deeper penetration is achieved by increasing the current

# THE ADVANTAGES

## UP TO 75% LESS SPATTER

1. Less rework
2. Lower filler material consumption
3. Fewer rejects
4. Less cleaning required and savings on wearing parts

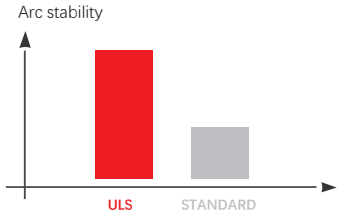
## UP TO 25% SAVINGS ON GAS COSTS

1. Lower gas costs through the use of 100% CO2
2. Greater penetration through the use of 100% CO2

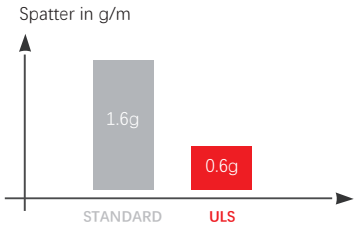
## HIGH PROCESS STABILITY

1. Improved process stability in the area of the intermediate arc
2. No additional sensor line needed

### High Process Stability

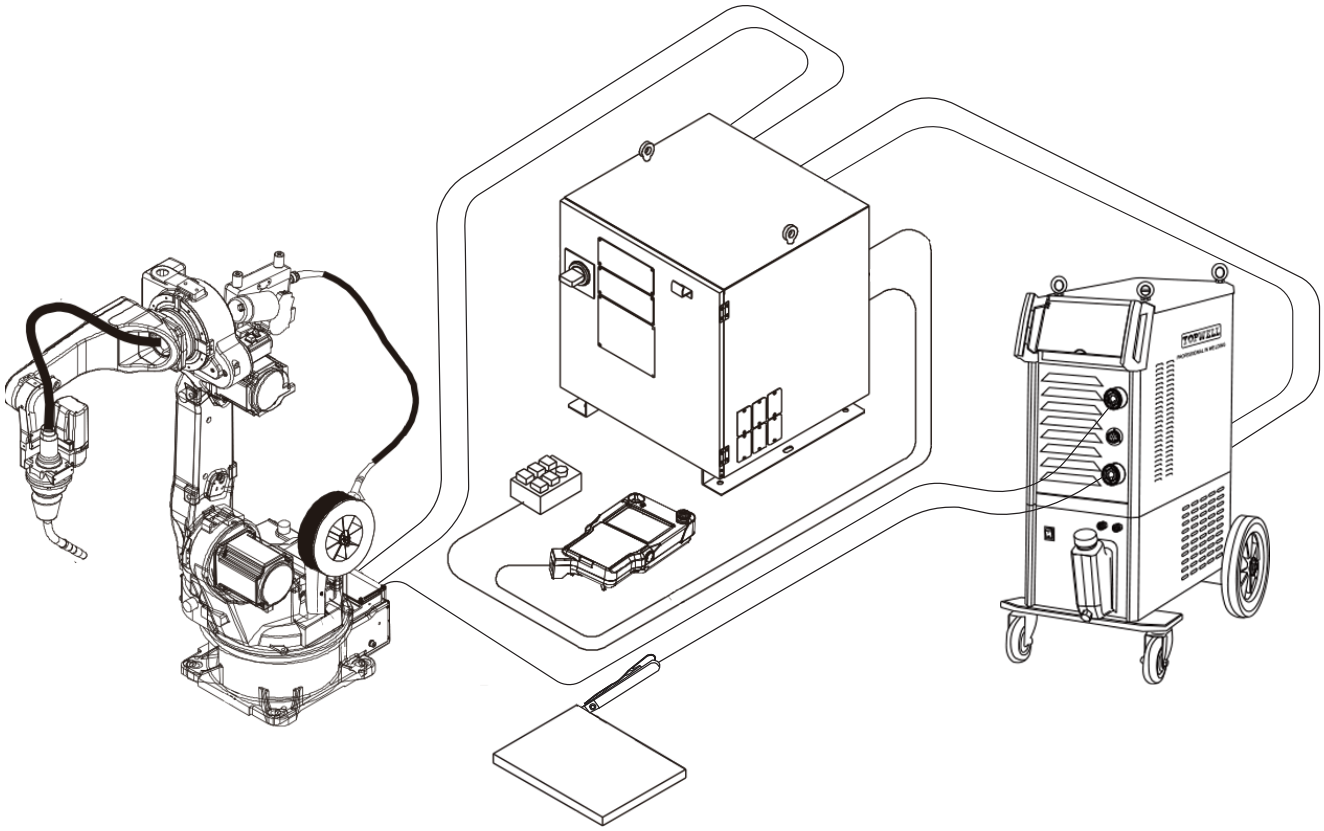



### Extrmely Little Spatter



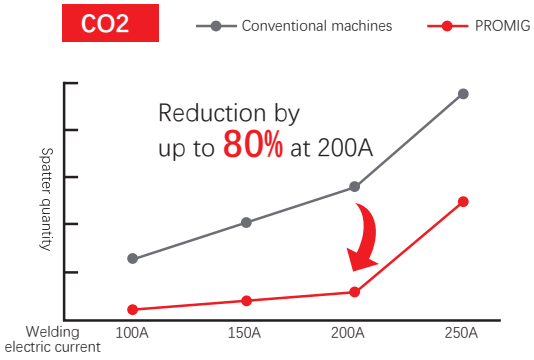

# THE ULS IS DESIGNED FOR WELDING WITH ROBOT OR CARRIAGE

Welding with Robot or carriage  to ensure an excellent performance.

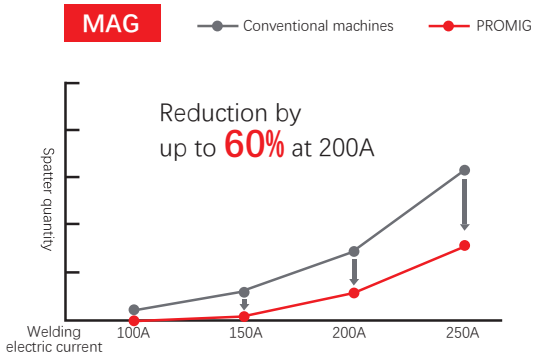


# ULS PERFORMANCE IN CO2 AND MAG WELDING PROCESS

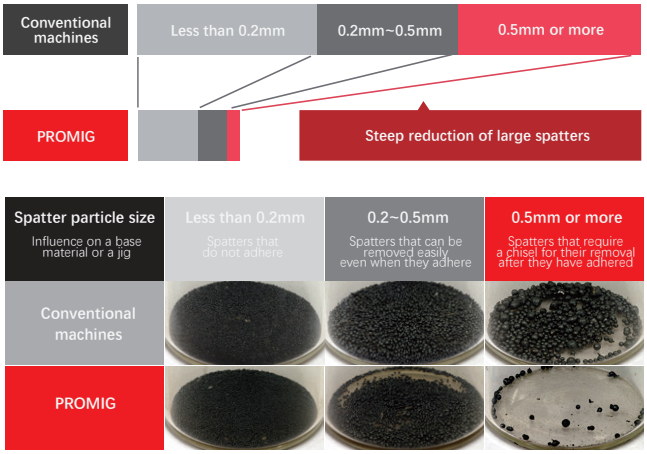
**Realization of low-spatter generation equivalent to MAG welding even using CO2 welding**



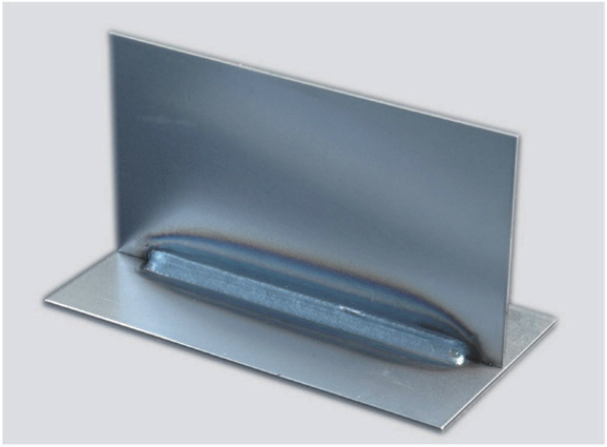

**Reducing spatters to the utmost limit even by MAG welding**




Furthermore, the adhesion of generated spatters to a base material or a jig can be reduced owing to the small particle forms.As a result, you can significantly reduce the number of man-hours required for removing spatters, leading to a reduction in the frequency of cleanup work of the nozzle.

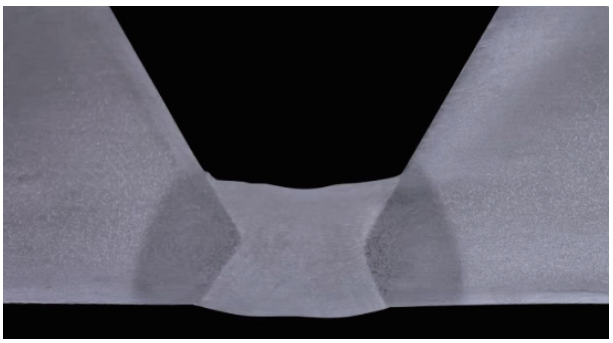


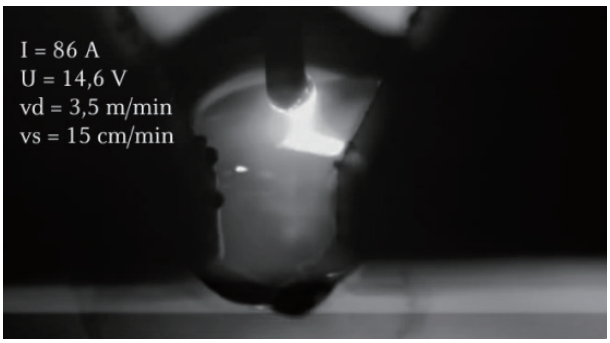

·Welding electric current:200A ·Welding speed:50cm/min · Wire size:φ1.2mm ·Shield gas:CO2 ·Welding time:2.5min



· Welding current: 130A · Shield gas: MAG
· Plate thickness: 1.6mm

# ULTRA LOW-SPATTER PERFORMANCE IN ROOT WELDING PROCESS






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

# 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%


TOPWELL®
PROFESSIONAL IN WELDING

Web & Mail
www.cn-topwell.com
sales@topwellwelders.com

Phone
(+86)571-88231791
(+86)571-88231792