



Definitive version of welding process for galvanized sheet

Features

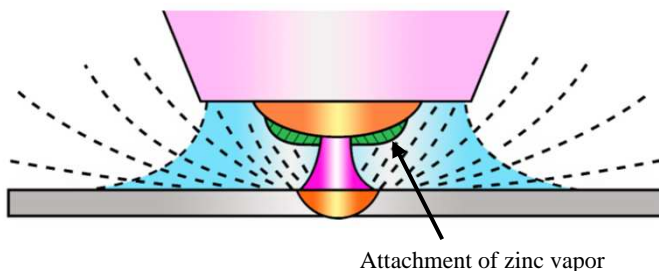
- Stable welding for long hours is assured due to the tip of a unique structure which, together with 2 high-speed gas flows, works to prevent the zinc vapor from attaching to the tip and shield cap.
- Arc start is exceedingly easy due to the new arc starting method, thus making high productivity welding possible.



Principle

Conventional process

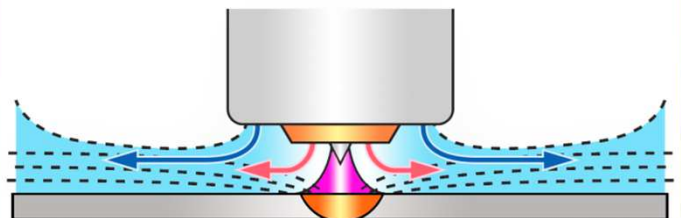
— — — Zinc vapor



The zinc, because of its low boiling point (903°C), evaporates when it is nearest to the arc, and as a vapor it gets blown upwards, attaching to the tip end. As a result, it has been necessary to clean the tip at a short interval.

DS plasma welding process

← Inner shield gas
← Outer shield gas

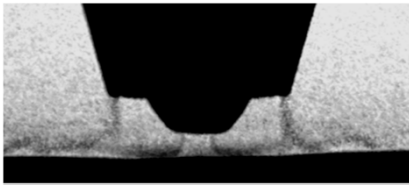


This double shield welding process is so designed that the inner shield gas, flowing at a high speed, pushes out the zinc vapor, which is furthermore pushed outward by the outer shield gas flow. Thus the zinc vapor attaching to the tip and shield cap is kept to a minimum.

DS-plasma welding process as compared with the conventional one

Difference in gas flow

Conventional



DS-plasma



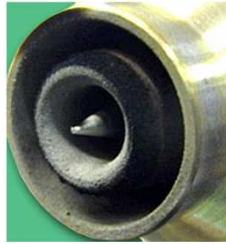
Difference in attached amount of zinc (SPC1.2t 45g/m²) Weld length:25cm

Conventional



After 60 times of welding

DS-plasma



After 100 times of welding

(Condition: 160A, 100cm/min)

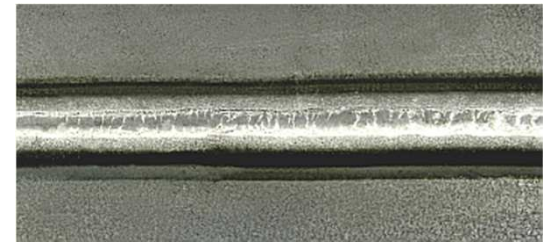
● Attachment of zinc vapor is least.

Weldability

Examples of bead (Amount of zinc coating)

Condition : 100cm/min

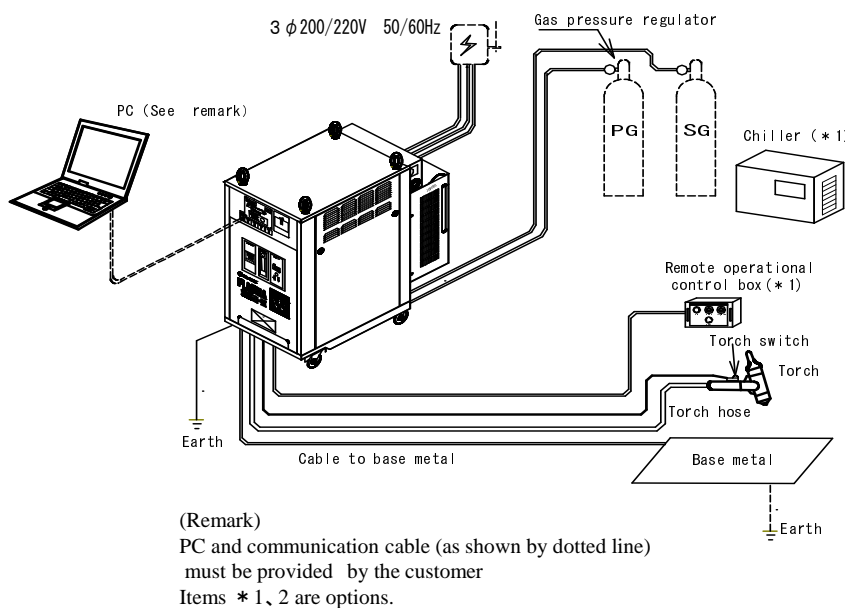
Front bead



Back bead

● Smooth, beautiful bead is obtained.

System composition



Plasma welding power source

Type	<ul style="list-style-type: none"> •NW-150AH-III-DS •NW-350AH-III-DS
Specification	For details see catalog of III types of plasma welding machines.

Plasma torch

Type	107WH-DS	504WH-DS
Rated output current	250A	350A
Rated duty cycle	60%	100%
Water cooling method	Indirect water cooling	Direct water cooling
Length of torch hose	5m, 10m	



Cautions for safety

- This machine should be installed in an indoor ventilated area away from inflammables.
- Please read the operational manual well for correct use.

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Distributor

※ This contents of this catalog are subject to change without notice.

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