

TGA-308H

AWS A5.9 ER308H
JIS Z3321 Y308H
EN ISO 14343-A-W 19 9 H

Characteristics and Applications:

The TGA-308H consumables are designed to match unstabilised 18Cr-10Ni austenitic stainless steels for elevated temperature strength and oxidation resistance. These steels and the weld metal have carbon content controlled to 0.04-0.08%. Weld metal Cr and rest alloy are kept low and ferrite is controlled to minimize embrittlement by sigma phase. Beneficial and detrimental minor elements and residuals are also controlled to optimise high temperature properties. Typical applications include chemical, petrochemical industries as well as distillery, dairy and restaurant equipment.

Applications: Chemical Process & Petrochemical, Catalytic Crackers, Pulp and Paper

Notes on usage:

1. For GTAW process, use DC-, Argon Shield and Tungsten Electrode.
2. 99.99% Argon, 6~12 l/min is recommended in GTAW process.
3. Trailer Shield is required to ensure the weld pool completely shielded by inert gas until solidification is complete and no porosity problem.
4. Select right gas cup size and employ proper stick out of tungsten electrode.
5. Clean the surface of base metal to prevent contamination.

Typical chemical composition of all weld metal (wt %) :

C	Mn	P	S	Si	Cr	Ni	Mo
0.05	2.10	0.023	0.004	0.48	20.1	9.6	0.11

Typical mechanical properties of all weld metal:

Tensile strength MPa(Ksi)	Elongation (%)
620(90)	42

Sizes and recommended current range (DC <->):

Diameter (mm)		1.6	2.0	2.4	3.2	4.0
Amps	F&HF	100-150	140-180	150-200	160-240	200-300

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