

# **ST-80CM**

AWS A5.28/ ASME SFA5.28 ER80S-G



## ❖ Specification

**AWS A5.28**

**ER80S-G**

**JIS**

**Z3316 YGT1CM**

## ❖ Applications

All position welding of Industrial machine tools, pressure vessels, boiler structures and ocean structures.

## ❖ Characteristics on Usage

TIG welding for boiler steam pipe of Steam power generation and 1.0 ~ 1.25%Cr-0.5%Mo heat resisting steel using for refining oil & chemical industrial machine tool.

## ❖ Note on Usage

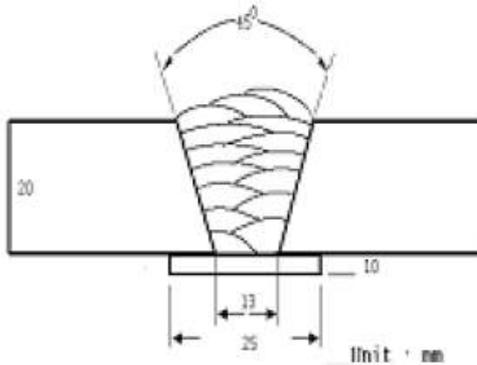
1. Use welding grade Ar100% gas.
2. Flow quantity of shielding gas should be 15~20ℓ/min, generally.
3. Use the wind-screen against wind.



## Mechanical Properties & Chemical Composition of All Weld Metal

### ❖ Welding Conditions

Method by AWS Spec.



[ Joint Preparation & Layer Details ]

<b>Diameter(mm)</b>	: 2.4mm (3/32in)
<b>Shielding Gas</b>	: 100%Ar
<b>Flow Rate(ℓ /min.)</b>	: 15 ~ 20
<b>Amp./Volt.</b>	: 160 ~ 240/13 ~ 16
<b>Pre-Heat(℃)</b>	: R.T
<b>Interpass Temp.(℃)</b>	: 150±15
<b>Polarity</b>	: DC(-)

### ❖ Mechanical Properties of the weld metal

Brand Name	Tensile Test Results			Charpy V-Notch Impact Value
	Y.S. MPa(ksi)	T.S. MPa(ksi)	EL.(%)	J (ft . lbs)
ST-80CM				0℃(32°F)
	540 (78.3)	600 (87.0)	31	320 (236)
<b>AWS A5.28 ER80S-G</b>	-	≥550	-	Not Specified

### ❖ Chemical Composition of Wire (Wt%)

Brand Name	C	Si	Mn	P	S	Ni	Cr	Mo
ST-80CM	0.071	0.56	1.08	0.014	0.006	0.022	1.38	0.56
<b>AWS A5.28 ER80S-G</b>	Not Specified							

This information is provided solely for the purpose of confirming product conformance with applicable standards. The serviceability of a product or structure utilizing this type of information is and must be the sole responsibility of the builder/user. Many variables beyond the control of HYUNDAI WELDING CO., LTD. affect the results obtained in applying this type of information. These variables include, but are not limited to, welding procedure, shielding gas, plate chemistry and temperature, weldment design, fabrication methods and service requirements.



**Notice**

***This test report is made for giving general information,  
and it's not meaning guarantee.***

***Test results are changeable by several welding  
- parameter including base materials***