M-308

STAINLESS STEEL
SOLID WIRE

KISWEL

Rev.0

M-308

KISWEL

■ Description & Application

- **Solid welding wire for 18%Cr-8%Ni austenite stainless steels (AISI STS 301, 302, 304)**
- **A various application for petrochemical, automobile exhaust and etc.**
- **Excellent weldability because of stable feed and arc**
- **Good wetting of molten weld metal help excellent bead appearance.**

■ Classification

- **AWS A5.9 : ER308**
- **EN ISO 14343-B : SS308**
- **KS D 3696 : STSY308**
- **JIS Z 3321 : YS308**

■ Typical Chemical Composition of Wire (%)

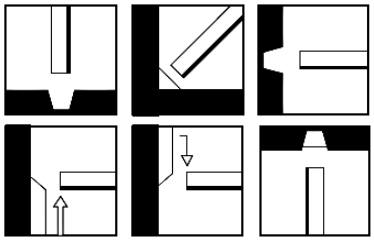
	C	Si	Mn	P	S	Ni	Cr
AWS ER308	≤0.08	0.30-0.65	1.00-2.50	≤0.030	≤0.030	9.0-11.0	19.5-22.0
EN ISO SS308	≤0.08	≤0.65	1.00-2.50	≤0.025	≤0.025	9.0-11.0	19.5-22.0
M-308	**0.04**	**0.41**	**1.9**	**0.024**	**0.001**	**9.7**	**19.8**

- **Ferrite Number : 11 ~ 12**

■ Shielding Gas

- **Ar + 1~3%O_2 (15~25ℓ/min)**
- **Ar + 1~5%CO_2 (15~25ℓ/min)**

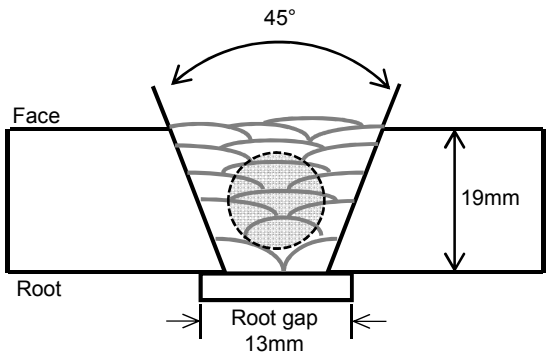
■ Welding Position



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■ All Weld Metal Test Specimen



Base metal	STS 304L
Diameter	1.2mm
Current / Voltage	250A /240V
Stick out	20mm
Travel Speed	45 CPM
Welding Position	PA / 1G

■ Typical Mechanical Properties of Weld Metal

	Shielding Gas	PWHT	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J) (Joule @ Temp)
AWS ER308	-	-	-	-	-	-
EN ISO SS308	-	AW	≥ 350	≥ 550	≥ 25	-
M-308	**Ar + 2%O_2**	**AW**	**369**	**574**	**30**	**49 @ -196℃**

■ Typical Operating Procedures

Dia (mm)	Shielding Gas	Current (amps)	Voltage (volts)	Feed speed (m/min)	Melt-off Rate (Kg/Hr)
1.2	Ar + 2% O_2	80-240	14-25	2.5-7.5	0.7-2.0
	Short circuit				
1.2	Ar + 2% O_2	270-350	27-29	10.0-12.5	2.8-3.5
	Spray				

* Polarity : DCEP (DC+)

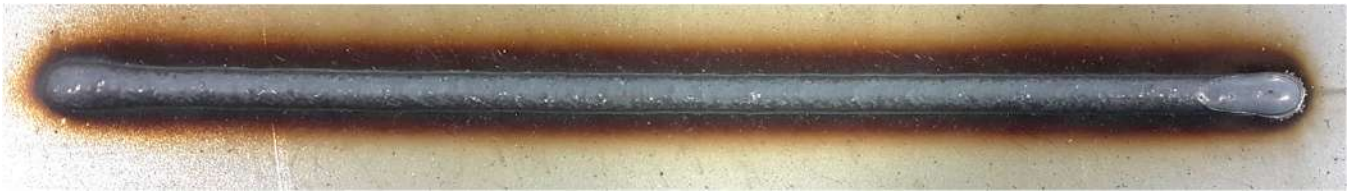
■ Wire surface




* To improve feed ability, Proper surface roughness

■ Bead appearance (Bead on plate)

Mode	Current (A)	Voltage (V)	Travel SP (CPM)	Base Metal	Thickness (mm)	Stick out (mm)	Shielding Gas
Inverter	160	21	30	STS 304	5	15	Ar + 2%O_2



Mode	Current (A)	Voltage (V)	Travel SP (CPM)	Base Metal	Thickness (mm)	Stick out (mm)	Shielding Gas
Inverter	220	22	30	STS 304	5	15	Ar + 2%O_2



■ Bead appearance (H-fillet)

Mode	Current (A)	Voltage (V)	Travel SP (CPM)	Base Metal	Thickness (mm)	Stick out (mm)	Shielding Gas
Inverter	240	26	40	STS 304	5	15	Ar + 2%O_2



■ Packaging



■ Size and Weight

Dia. (mm)	0.8, 0.9, 1.0, 1.14, 1.2, 1.32, 1.4, 1.6			
Weight (kg)	2	5	12.5, 15, 20	100~200
Packaging	Plastic Spool			Pail-pack
	-		Wire Basket	

■ Handling

• **Do not speed up or brake loaded products to prevent rollover during transport.**

• **Please run out product within two weeks of its packaging release.**

• **If the product is discontinued for more than two weeks, it should be packed and stored separately to prevent air contact.**

• **Products that are in use on the supply line must be prevented by covering to prevent product contamination and electric shock accidents.**

• **When using Drum or DPP, check the enclosed installation and handling manual, and use it after proper installation.**

■ Storage

• **Do not stock Drum or DPP packaging palettes more than 2 layers and Spool or Wire basket packaging palettes more than 3 layers. To prevent damage to the products and external packaging.**

• **Store the product without removing the packaging to prevent air contact.**

• **To prevent product packaging damage and condensation due to moisture. Keep the product at a relative humidity of less than 50%**

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The Management System of KISWEL LTD, 704, Gongdan-ro, Seongsan-gu, Changwon-si, Gyeongnam 51544, Republic of Korea, 70, Saebyeok-ro 63beon-gil, Sasang-gu, Busan 47018, Republic of Korea has been approved by Lloyd's Register Quality Assurance to : IATF 16949:2016, ISO 14001:2015, applicable to : Manufacture of solid welding wires & rods, flux cored wires, submerged arc welding wires & fluxes, stainless steel welding wires & rods and covered electrodes.
More information : www.kiswel.com

