

## GMAW Solid Wire for Stainless Steel

# KMS-310

### Classification

AWS	A5.9/A5.9M	ER310
JIS	Z3321	YS310
EN	14343-A	G 25 20
YB	T5092	H12Cr26Ni21Si

Shielding Gas: Ar+1~2%O<sub>2</sub>(CO<sub>2</sub>)

### Applications and Features

- ( 1 ) Weld metal is austenitic structure with 25%Cr-20%Ni.
- ( 2 ) Suitable for welding AISI 310S steel and dissimilar metals (carbon steel, Cr-Mo steel and stainless steel).
- ( 3 ) Ideal for welding in chemical processing and nuclear plants, as well as for furnace and heat treatment equipment, due to the high scaling temperature and excellent oxidation resistance.

### Welding Position



### Welding Instruction

- ( 1 ) Use Ar+1~2%O<sub>2</sub> for spray transfer and Ar+1~2%CO<sub>2</sub> for short-circuit transfer.
- ( 2 ) For welding dissimilar alloy, please refer to Appendix I.
- ( 3 ) For other instructions, please refer to Appendix B and F .

### Typical Chemical Composition of Weld Metal (wt%)

C	Si	Mn	P	S	Cr	Ni
0.09	0.41	2.01	0.010	0.007	27.36	21.55

### Typical Mechanical Properties of Weld Metal

Tensile Strength	Yield Strength	Elongation
N/mm <sup>2</sup>	N/mm <sup>2</sup>	%
610	480	44

### Size and Suggested Operating Range (DC+)

Diameter (mm)		0.8	0.9	1.0	1.2	1.4	1.6
Ar+1~2%CO <sub>2</sub>	Current (A)	40~120	60~140	80~160	100~210	-	-
	Voltage (V)	15~20	15~21	16~22	17~22	-	-
Ar+1~2%O <sub>2</sub>	Current (A)	160~210	170~260	180~280	200~300	210~320	220~330
	Voltage (V)	24~28	24~30	24~30	24~30	24~32	24~32