

## GMAW Solid Wire for Stainless Steel

# KMS-316

### Classification

AWS	A5.9/A5.9M	ER316
JIS	Z3321	YS316
EN	14343-A	-
YB	T5092	H08Cr19Ni12Mo2Si

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

### Applications and Features

- ( 1 ) Weld metal is austenitic structure with 19%Cr-12%Ni-3%Mo.
- ( 2 ) 2-3% molybdenum improves pitting corrosion resistance of the weld deposit.
- ( 3 ) Use for high temperature service applications
- ( 4 ) Ideal for welding chemical vessels, high pressure piping and tubing.

### 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 other instructions, please refer to Appendix B and F.

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

C	Si	Mn	P	S	Cr	Ni	Mo
0.05	0.36	1.78	0.013	0.009	19.58	12.49	2.47

### Typical Mechanical Properties of Weld Metal

Tensile Strength	Yield Strength	Elongation
N/mm <sup>2</sup>	N/mm <sup>2</sup>	%
580	400	40

### 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