

For 22%Cr-12%Ni Stainless Steel and Dissimilar Metal

APPLICATIONS

Welding of 22%Cr-12%Ni stainless steel, dissimilar metals such as 18% Cr-8%Ni stainless steel to mild steel or low alloy steel, 18%Cr-8%Ni stainless clad steel, and the parts of hardenable steel for which post-heat treatment is impossible, for petroleum, chemical and textile industries.

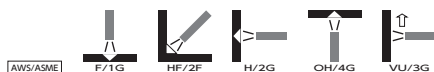
CHARACTERISTICS

S-309·R is a lime-titania type stainless steel electrode. 25% Cr-12% Ni weld metal shows extremely high crack resistance due to its high ferrite content.

GUIDELINES FOR USAGE

1. Electrodes should be redried at 150~250°C for 60 minutes before use.
2. Dirt such as oil, grease and dust should be completely removed from groove.
3. Excessively wide weaving may cause welding defects. Keep weaving width to less than 2.5 times electrode diameter. Arc length should be kept as short as possible.

WELDING POSITION



■ TYPICAL CHEMICAL COMPOSITION OF WELD METAL (%)

C	Si	Mn	P	S	Ni	Cr
0.06	0.33	1.51	0.020	0.006	13.2	24.2

■ TYPICAL MECHANICAL PROPERTIES OF WELD METAL

Tensile Strength, MPa	Elongation, %	Creep-rupture Strength (as welded, 650°C×1,000h), MPa
590	37	120

■ SIZES & RECOMMENDED CURRENT RANGE<AC or DC(+)>

Diameter (mm)		2.0	2.6	3.2	4.0	5.0
Length (mm)		250	300	350	350	350
Current	F	45~65	55~95	710~125	100~160	150~220
A	V-up, OH	40~60	50~85	65~105	85~135	—

Identification color: End-black