# **YAWATA 308L-16** For Low Carbon 18%Cr-8%Ni Stainless Steel

#### Classification

AWS A 5.4 : E308L-16 DIN 8556 : E 19 9 LR 26

ABS, TIS

**Approvals** 

# Applications

Welding of all Cr-Ni steels with low or medium C content, as well as titamium and niobium stabilized Cr-Ni steels of the 18%Cr-8%Ni type, e.g. material DIN No 1.4300, 1.4301, 1.4306, 1.4541, 1.4543, 1.4550, AISI 302, 304, 304L, 321, 347.

#### Characteristics

YAWATA 308L-16 is a rutile high-alloy extra-low carbon electrode (ELC) for non-stabilized and stabilized Cr-Ni steels resistant to atmospheric corrosion of the 18%Cr-8%Ni type. Resistant to grain disintegration of operaing temperatures up to 350°C. Smoth running, good striking and restriking, regular appearance, finely rippled, smooth junction, easy slag removal.

# **Typical Chemical Composition of Deposited Metal (%)**

С	Si	Mn	Р	S	Cr	Ni
0.03	0.70	1.10	0.025	0.011	18.9	9.9

# **Typical Mechanical Properties of Deposited Metal**

Tensile Strength N/mm <sup>2</sup> (kgf/mm <sup>2</sup> )	Elongation %	Creep-rupture Strength (as welded, 650°C x 1,000h) N/mm <sup>2</sup> (kgf/mm <sup>2</sup> )
560 (57)	51	120 (12)

## Sizes & Recommended Current Range (AC or DC +)

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Diameter/ Length (mm)	2.0/250	2.6/300	3.2/350	4.0/350	5.0/350	
Welding Position	Current (A)					
F	40~50	55~70	80~100	110~140	140~170	
V, OH	35~45	45~65	70~90	100~130	-	

## Guideline in Usage

- 1. Use dry electrodes only. Damp electrodes should be re-dried at  $200 \sim 250^{\circ}$ C for 60 minutes before use.
- 2. Dirt such as oil, grease and dust should be completely removed from groove.
- Excessively wide weaving may cause welding defects. Keep weaving width to less than 2.5 times electrodes diameter.

#### Welding Positions



All positions, except vertical down