



# DAIKOFCW 308HP



AUSTENITIC STAINLESS STEELS  
308H

## DESCRIPTION

### Rutile all position flux cored wire

Austenitic rutile flux cored wire for welding and cladding in all positions thanks to the fast-freezing slag. It offers excellent weldability, easy handling and slag control in all positions resulting in high productivity with outstanding welding performance. Self-releasing slag requiring less cleaning and pickling, very low spatter formation and increased travel speeds allow to obtain noticeable savings in time and costs. These consumables are used to weld 18%Cr-10%Ni stainless steels which will be applied for elevated temperatures (more than 600°C).

## SPECIFICATIONS

EN ISO 17633-A	TZ 19 9 H R C1/M21 3	AWS A5.22	E308HT1-1/4
Shielding	M21, C1	Positions	PA, PB, PC, PD, PE, PF, PG
Current	DC+	Packaging Type	B5300 spool

## ASME QUALIFICATIONS

### FERRITE

### PREN

F-No (QW432)	6	2-8 FN	19.5
A-No (QW442)	8		

## CHEM. COMP. %

### DEFAULT

## MECHANICAL PROPERTIES

### MIN. PER STANDARD

### PRODUCT

C	0.06	Tensile strength $R_m$ MPa	550	600
Mn	1.3	Yield strength $R_{p0.2}$ MPa	350	420
Ni	10	Elongation A ( $L_0=5d_0$ ) %	30	34
Cr	19.5	Impact Charpy ISO-V	-	70J @ 20°C
P	0.02	Impact Charpy ISO-V	-	68J

## WELDING PARAMETERS

### 1.2 mm

### 1.6 mm

Ampere	120A - 280A	200A - 350A
Voltage	22V - 30V	26V - 30V
Packaging	Ø 1,2÷1,6mm	Ø 1,2÷1,6mm
Packaging Type	B5300 spool	B5300 spool

## NOTES

D200 spool and Ø 1,0 mm available upon request.





# 308H

## DESCRIPTION

AUSTENITIC STAINLESS STEELS

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### APPLICATION

308H consumables are specifically designed for applications involving unstabilized 18Cr-10Ni austenitic stainless steels, offering high resistance to elevated temperatures and oxidation. These steels and weld metal have a carefully controlled carbon content between 0.04% and 0.08%. The levels of chromium (Cr) and nickel (Ni) in the weld metal are kept low, and the ferrite is regulated to minimize brittleness due to sigma phase formation. Minor elements and impurities, both beneficial and harmful, are controlled to optimize high-temperature properties. It is crucial that these consumables exclude components containing bismuth, ensuring a Bi level below 0.002% as required by API 582 standards. 308H consumables are also recommended for welding stabilized grades 321H or 347H thicker than 12 mm, preventing cracking in the heat-affected zone (HAZ) and low ductile fracture resistance to creep when using 347 weld metal. It is important to note that some standards suggest the use of 16-8-2 type alloys for these steels, including 304H. 308H is widely used in petrochemical and chemical processing plants, particularly in the construction of cyclones and transfer lines used to recirculate the catalyst in catalytic crackers (cat crackers) operating between 400 °C and 815 °C. Preheat is not required; the maximum interpass temperature is 250 °C. No post-weld heat treatment (PWHT) is required.

### ALLOY TYPE

High carbon 308 austenitic stainless steels.

### MICROSTRUCTURE

Austenite with delta ferrite controlled 2-8FN.

### MATERIALS

For 304/304H materials used at elevated temperatures.

**EN W.Nr.:** 1.4948 (X 6 CrNi 18 11)

**ASTM:** 304H, A351 Gr CF10, CF8

**UNS:** S30409

