

# SW-316HBF

## Conformances

AWS A5.22/ ASME SFA5.22 E316HT1-1/-4

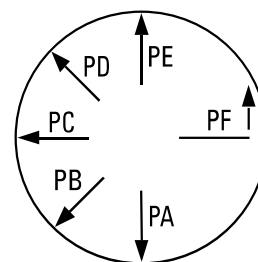
## Applications

- Welding of 18%Cr-12%Ni-2% Mo stainless steels for high temperature service.

## Features

- Designed for welding with 100% CO<sub>2</sub> or Ar+15~25%CO<sub>2</sub> shielding gas
- Excellent all position weldability
- Smooth and stable arc with a fast freezing slag

## Welding Position



## Current

DC +

## Shielding Gas

100% CO<sub>2</sub>

Ar + 20~25% CO<sub>2</sub>

## Diameter / Packaging

Diameter	Spool			Pac			
	mm (in)	12.5kg (28lbs)	15kg (33lbs)	20kg (44lbs)	250kg (551lbs)	300kg (661lbs)	350kg (771lbs)
1.2 (0.045)	✓	✓					
1.4 (0.052)							
1.6 (1/16)							

**Typical Chemical Composition of All-Weld Metal (%)**

	C	Si	Mn	P	S	Cr	Ni	Nb
100% CO <sub>2</sub>	0.056	0.71	1.64	0.016	0.008	18.2	12.5	2.75
80% Ar + 20% CO <sub>2</sub>	0.052	0.71	1.54	0.016	0.008	18.2	12.5	2.59

**Typical Mechanical Properties of All-Weld Metal**

	TS MPa(lbs/in <sup>2</sup> )	EL (%)	Temp °C(°F)	CVN-Impact Value J (ft-lbs)
100% CO <sub>2</sub>	577 (83,665)	41.8	-60 (-76)	60 (44.2)
80% Ar + 20% CO <sub>2</sub>	575 (83,375)	41.9	-60 (-76)	60 (44.2)

**Typical Welding Parameters**

Diameter, Polarity Shielding Gas	CTWD mm (in)	Wire Feed Speed m/min (in/min)	Amp. (A)	Volt. (V)	Deposition Rate kg/hr (lb/hr)
<b>1.2mm (0.045 in) DC+</b>					
100% CO <sub>2</sub>	20 (4/5)	6.0 (236)	140	23~26	2.5 (5.5)
		9.2 (362)	180	27~30	3.4 (7.5)
		12.0 (472)	210	28~31	4.5 (9.9)
80% Ar + 20% CO <sub>2</sub>	20 (4/5)	6.1 (240)	140	23~26	2.6 (5.7)
		9.0 (354)	180	27~30	3.6 (7.9)
		11.5 (453)	210	27~30	4.6 (10.1)

SMAW

SAW

GMAW

GTAW

FCAW

Non-FERROUS

APPENDIX