

Classifications

EN ISO 17633-A	EN ISO 17633-B	AWS A5.22
T Z19 9 H R M21 3	TS 308H-F M21 0	E308HT0-4
T Z19 9 H R C1 3	TS 308H-F C1 0	E308HT0-1

Characteristics and typical fields of application

BÖHLER E 308 H-FD is a flux cored wire with rutile slag characteristic for GMAW of austenitic CrNi steels like 1.4948 / AISI 304H. This wire is designed mainly for downhand and horizontal welding positions. The weld metal is suitable for service temperatures up to approx. 700°C.

This product achieves high productivity and is easy to operate achieving excellent welding characteristics, almost no spatter formation and temper discoloration, smooth weld finish and safe penetration. Increased travel speeds as well as little demand for cleaning and pickling provide considerable savings in time and money.

The weld deposit is scaling resistant and because of the controlled low delta ferrite content high resistant against sigma phase embrittlement.

Base materials

Similar alloyed creep resistant steels
1.4948 X6CrNi18-11, 1.4878 X12CrNiTi18-9
AISI 304, 304H, 321H, 347H

Typical analysis of all weld metal (wt.-%)

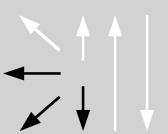
	C	Si	Mn	Cr	Ni		FN
wt.-%	0.06	0.6	1.2	19.4	10.1		3-8

Mechanical properties of all-weld metal

Condition	Yield strength R _{p0,2}	Tensile strength R _m	Elongation A (L ₀ =5d ₀)	Impact work ISO-V KV J
	MPa	MPa	%	+20°C
u	390 (≥ 350)	585 (≥ 550)	42 (≥ 25)	80 (≥ 32)

u untreated, as welded – shielding gas Ar + 18% CO₂

Operating data

	Polarity:	Shielding gases:	Redrying:	∅ (mm)	Amps A	Voltage V
	DC (+)	Argon + 15 – 25% CO ₂ 100% CO ₂	possible 150°C / 24 h	1.2 1.6	120 – 280 175 – 260	20 – 34 21 – 29

Welding with standard GMAW power source possible, slightly pulling torch position (angel appr. 80°), when using 100% CO₂ as shielding gas it is necessary to increase the voltage by 2 V the gas flow should be 15 – 18 l/min

Approvals

TÜV (11179.), CE