

EN 1600: E 18 8 Mn B 2 2
AWS A5.4: E307-15 (mod.)

BÖHLER FOX A 7

**SMAW basic electrode
high-alloyed, special applications**

Description

Basic electrode for joint welding of dissimilar joints, problem steels and for repair and maintenance. Very popular electrode for numerous applications. The weld metal offers exceptionally high ductility and elongation together with outstanding crack resistance. There is no fear of embrittlement when operating down to service temperatures of -110°C or above $+500^{\circ}\text{C}$. The scaling resistance goes up to $+850^{\circ}\text{C}$. When working at service temperatures above $+650^{\circ}\text{C}$ please contact the supplier. The weld metal can be post weld heat treated without any problems. The deposit will work harden and offers good resistance against cavitation. Ductility is good even after high dilution when welding problem steels or when subjected to thermal shock or scaling. An excellent alloy providing cost effective performance.

Typical Composition of All-weld Metal

	C	Si	Mn	Cr	Ni
wt-%	0.1	0.7	6.5	18.8	8.8

Mechanical Properties of All-weld Metal

	u	
yield strength R_e N/mm ² (MPa):	460	(≥ 390)
tensile strength R_m N/mm ² (MPa):	660	(≥ 620)
elongation A ($L_0=5d_0$) %:	38	(≥ 35)
impact work ISO-V V J	+20°C: 90	(≥ 80)
	-110°C:	(≥ 32)

u untreated, as-welded

Operating Data



re-drying if necessary:

120-200°C, min. 2 h

electrode identification:

FOX A 7 E 18 8 Mn B

ø mm	L mm	amps A
2.5	300	55-75
3.2	350	80-100
4.0	350	100-130
5.0	450	140-170
6.0	450	160-200



Preheating and interpass temperature as required by the base metal.

Base Materials

For fabrication, repair and maintenance!

Dissimilar joints, tough buffer and intermediate layers prior to hardfacing, 14% manganese steels, 13-17% chromium and heat resistant steels up to $+850^{\circ}\text{C}$, armour plates, high carbon and quenched & tempered steels, surfacing of gears, valves, turbine blades etc.

Approvals and Certificates

TÜV-D (06786.), DNV (E 18 8 MnB), GL (4370), LTSS, VUZ, PRS (4370), SEPROZ, CE

Same Alloy Filler Metals

SMAW electrode:	FOX A 7-A	GMAW flux cored wire:	A 7-FD
GTAW rod:	A 7CN-IG		A7 PW-FD
GMAW solid wire:	A 7-IG	SAW combination:	A 7CN-UP/BB 203
Metal cored wire:	A 7-MC		