

BÖHLER FOX A 7-A

Rutile basic stick electrode high-alloyed, special applications

Classifications	
EN ISO 3581-A	AWS A5.4
E Z18 9 MnMo R 3 2	E307-16 (mod.)

Characteristics and typical fields of application

Rutile 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 –100 °C or above +500 °C. The scaling resistance goes up to +850 °C. When working at service temperatures above +650 °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. BÖHLER FOX A 7-A is suitable for both AC and DC.

Base materials

For fabrication, repair and maintenance!

Dissimilar joints, tough buffer and intermediate layers prior to hardfacing, 14 % manganese steels, 13 – 17 % chromium heat resistant steels up to +850 °C, armour plates, high carbon and quenched & tempered steels, surfacing of gears, valves, turbine blades etc.

Typical analysis of all-weld metal (wt%)									
	С	Si	Mn	Cr	Ni	Мо			
wt-%	0.10	1.5	4.0	19.5	8.5	0.7			

Mechanical properties of all-weld metal Condition Yield strength Tensile strength Elongation Impact work ISO-V KV J A $(L_0 = 5d_0)$ R_{e} R_{m} **MPa MPa** % +20 °C -100 °C **520** (≥ 350) **720** (≥ 500) **35** (≥ 25) 75 (≥ 32)

u untreated, as welded

Operating data

→	Polarity: DC (+) AC	Redrying if necessary: 120 – 200 °C / min. 2 h	Electrode identification: FOX A 7-A E Z 18 9 MnMo R	ø (mm) 2.5 3.2 4.0 5.0	L mm 350 350 350 450	Amps A 60 – 80 80 – 110 110 – 140 140 – 170
				5.0	450	140 – 170

Approvals

TÜV (09101.), SEPROZ, CE