#### FOR HEAT-RESISTING STEEL

# K-91TB9

# Typical applications

Butt and fillet welding of 9%Cr-1%Mo-Ni-Nb-V steel used for high pressure boilers, Chemical and oil refinery plants. It's applied for ASTM A189-F91, A199-T91, A200-T91, A213-T91, A335-P91, A369-FP91, A387-Gr91 and equivalents.

# Characteristics on Usage

- ① All-position welding provide the metal of 9%Cr-1%Mo-Ni-Nb-V
- ② Excellent creep rupture strength, easy slag removal and good weld soundnees
- ③ The shielding gas should be used 80%Ar+20%CO<sub>2</sub> for welding.
- ④ Preheat at 200~350℃ and postheat at 720~780℃
- ⑤ wire should be used as soon as possible after taking out from package.

#### Typical chemical composition of all-weld-metal (%)

Shielding G	as C	Si	Mn	Cr	Мо	Ni	V	Nb	Ν
Ar+20%CO2	0.12	0.25	0.72	10.3	1.0	0.7	0.19	0.03	0.04

# Typical mechanical properties of all-weld-metal

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Shielding Gas	Y · P N/mm²{kgf/mm²}	El (%)	PWHT	
Ar+20%CO2	810 {82}	15	760°C X2hr.	

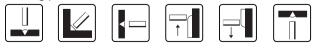
# Sizes available and recommended currents (DC wire⊕)

Dia.	(mm)	1.2
Amp.	F H-Fil	120~280
	N-FII V	120~220

# Package

Dia.	(mm)	1.2
Spool	(kg)	15,20

# Welding positions



Approved by