

TRU-CORE™ FC 71T

AWS E71T-1C H8, E71T-1M H8, E71T-9C H8, E71T-9M H8



PRODUCT DESCRIPTION:

Tru-Core FC 71T is a flux cored, gas shielded, all-position electrode intended to weld carbon steel, as well as certain low alloy steels, where a minimum tensile strength of 70,000 psi is required. Tru-Core FC 71T is intended for single and multiple pass welding using 100% CO₂ or 75-80% Argon/balance CO₂ mixtures, for welding in all positions. Major advantages of this electrode include deep penetration, smooth stable arc transfer, low spatter levels and a slag system specially formulated for a high melting point. This provides a very quick freezing slag.

**Flux Cored, Gas Shielded,
Carbon Steel Electrode**

CLASSIFICATIONS & APPROVALS:

- AWS A5.20: E71T-1C H8, E71T-1M H8, E71T-9C H8, E71T-9M H8
- ASME SFA 5.20: E71T-1C H8, E71T-1M H8, E71T-9C H8, E71T-9M H8
- CWB W48-06: E491T-9-H8

PRODUCT FEATURES	
Flat bead geometry	Excellent feedability
Easy slag removal	Smooth arc transfer
Excellent mechanical properties	

TYPICAL APPLICATIONS :

Tru-Core FC 71T can be used for welding most carbon steels and certain low alloy steels. It is ideal for welding gauges varying from 10 gauge sheet metal to heavy plate sections. Some examples are:

- Structural Steel
- Heavy Equipment
- Railcar Construction
- Mining Machinery
- General Fabrication

MANUFACTURING ADVANTAGES:

- Patented forming, feeding and drawing equipment
- Consistent strip-to-core ratio
- Precise thermal treatment that controls the type, amount and uniformity of surface oxides on the wire
- Consistent diffusible hydrogen levels

TYPICAL APPLICATION SHIELDING GAS BLENDS:

- 75% Argon/25% CO₂
- 100% CO₂
- Flow Rate: 35-45 CFH

WIRE DIAMETERS (in):

.045	.052	.062
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WELDING POSITIONS:

All position welding is possible when using the correct shielding gas blends, welding process and parameters.

	AWS/ASME REQ.	100% CO ₂	75% Ar / 25% CO ₂
TYPICAL WELD METAL COMPOSITION			
CARBON (C)	0.12 (max.)	0.04	0.05
MANGANESE (Mn)	1.75 (max.)	1.54	1.41
SILICON (Si)	0.90 (max.)	0.41	0.45
SULPHUR (S)	0.03 (max.)	0.008	0.010
PHOSPHORUS (P)	0.03 (max.)	0.010	0.009
CHROMIUM (Cr)	0.20 (max.)	0.06	0.03
NICKEL (Ni)	0.50 (max.)	0.02	0.02
MOLYBDENUM (Mo)	0.30 (max.)	0.01	0.002
VANADIUM (V)	0.08 (max.)	0.016	0.017
COPPER (Cu)	0.35 (max.)	0.06	0.06
TYPICAL MECHANICAL PROPERTIES			
TENSILE STRENGTH (ksi)	70 – 95	83.6	80.8
YIELD STRENGTH (ksi)	58 (min.)	72.7	68.4
ELONGATION (% IN 2")	22 (min.)	29	29
CVN @ -20°F (-29°C)	20 ft-lbf	54.3 ft-lbf	41.6 ft-lbf
TYPICAL DIFFUSIBLE HYDROGEN – AWS A4.3 REQUIREMENTS			
ml/100g	4.0 (max.)	2.2	3.2

