



Quality Management System
in accordance with
ISO 9001:2000
Cert # 05-R0925

SUPERFLOW[®] AP-CO₂ 71T-1 Carbon Steel

U.S. ALLOY CO.
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ALLOY DESCRIPTION AND APPLICATION:

SUPERFLOW[®] AP-CO271T-1C is a flux cored wire designed for single or multi pass welding having a smooth arc transfer, low spatter, flat to slightly convex bead contour, with a high deposition rate and easily removal slag. This all-position wire has excellent feeding and low fume generation using 100% CO₂ making it a good choice for mild steel and higher strengths steels. Argon - CO₂ gases may be used if tested with application.

TYPICAL FCAW WELDING PROCEDURES; DCEP OPTIMUM IN BOLD (FLAT)

Wire Diameter	Wire Speed (ipm)	Amps	Volts	Electrical Stickout	CO ₂ (cfh)
0.035	275- 580 -780	130- 200 -260	23- 27 -30	3/8-3/4"	35-40
0.045	200- 450 -600	150- 250 -335	22- 29 -33	1/2-1"	35-45
0.052	150- 400 -600	140- 275 -390	19- 28 -35	1/2-1"	40-50
1/16"	150- 330 -490	150- 330 -475	23- 30 -38	1/2-1"	40-50
5/64"	120- 250 -300	250- 385 -450	26- 29 -32	3/4-1 1/4"	40-50
3/32"	110- 185 -275	300- 425 -550	25- 29 -34	3/4-1 1/4"	40-50

Procedures may vary with change in position, base metals, filler metals, equipment and other changes.

TYPICAL WELD METAL CHEMISTRY (%) AND WELD METAL PROPERTIES;

	AWS Spec.	SUPERFLOW 71T-1C		BASED ON 100% CO ₂	
				AWS Spec	Typical
Carbon	0.12 max	0.03		70-95,000	89,000
Manganese	1.75 max	1.48	Tensile Strength (psi)	58,000 min.	80,000
Silicon	0.90 max	0.75	Yield Strength (psi)	22 % min.	28%
Phosphorus	0.030 max.	0.012	Elongation in 2"	20 ft·lbs min.	48 ft·lbs
Sulfur	0.030 max.	0.009	Charpy V-notch at 0°F		
Copper	0.35 max.	0.022			
Nickel	0.50 max.	0.030	Chromium	0.20 max.	0.039
Molybdenum	0.30 max.	0.010	Vanadium	0.08 max.	0.020

AVAILABLE SIZES: TCF 71T-1= Spools of .035, .045, .052, 1/16, 3/32

SPECIFICATIONS; ANSI/AWS A5.20 E71T-1C
ASME SFA A5.20 E71T-1C
(Formerly classified as E71T-1)

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