



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

450HT Carbon Steel Flux-Cored Wire

U.S. ALLOY CO.
dba Washington Alloy
825 Groves Street
Lowell, NC 28098
www.weldingwire.com



ALLOY DESCRIPTION AND APPLICATION:

Washington Alloy 450 HT is designed for metal-to-metal abrasion involving impact such as rolling or sliding parts in earth moving equipment where lubrication is not possible. The weld deposits of 450 HT are martensitic in structure. Common uses would include printing and paper mill rolls, power shovel tumblers/ idlers, mine car wheels, brake drums, tractor rollers, Undercarriage Parts, Rollers, and Hook Rolls, etc.

IMPACT RESISTANCE ; Very Good ABRASION RESISTANCE ; Good
COMPRESSION ; Good

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

Wire Diameter	Wire Speed (ipm)	Amps	Volts	Electrical Stickout	CO ₂ (cfh)
0.045	195- 300 -475	125- 205 -265	20- 24 -28	1/2-1"	35-45
0.052	150- 270 -320	140- 255 -320	22- 25 -29	1/2-1"	40-50
1/16"	135- 240 -240	250- 310 -350	23- 25 -29	3/4-1.75"	40-50

Procedures may vary with change in position, base metals, filler metals, equipment, and other changes.
1-2 VOLTS LOWER USED WITH MIXED GAS

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

Carbon	0.217	Chromium	2.59
Manganese	1.57	Iron	Balance
Silicon	0.56	Molybdenum	0.44
Phosphorus	0.015		
Sulfur	0.008		
Hardness Rockwell C = 43-48			



AVAILABLE SIZES: THF 450HT= Spools of .045, 1/16"

Other sizes available – please inquire

10-22 DC

SPECIFICATIONS; Internal , JIS Z 3326-2007 YF2A-C-450

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