

# "Low Hydrogen-V" Vertical-Down Electrode

## WASHINGTON ALLOY CO.

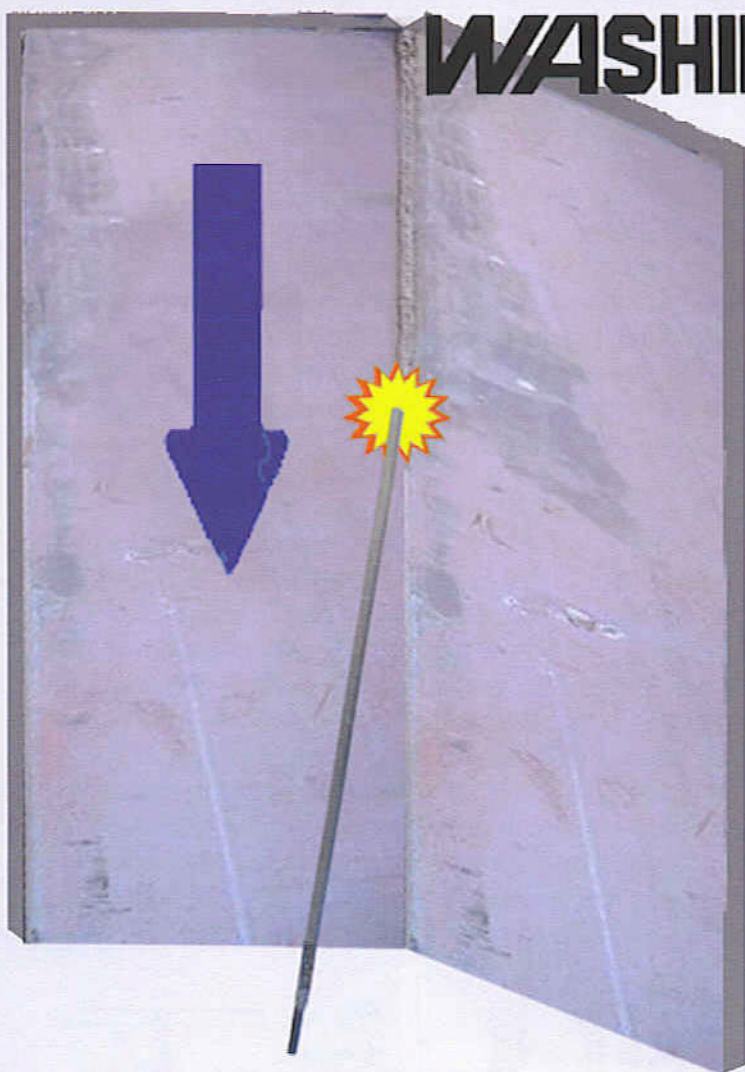
...now offering a TIME SAVING structural welding rod!!!

When the traditional method of "shelf-step" vertical-up welding is just too time consuming, Washington Alloy introduces the Low Hydrogen, vertical down, flux covered electrode....

The AWS A5.1, **E7048**.

Washington Alloy's E7048 is specifically designed for vertical-down, 70,000 psi, crack resistant, structural welding.

Available in 1/8", 5/32" and 3/16", the E7048 welds vertical down at higher travel speeds, thereby, greatly increasing welder efficiency and production cost savings.



**LOW HYDROGEN**  
Vertical Down Welding!

**ISO:9001**  
Certified Quality  
Management System

Technical data on reverse side



California:  
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Rancho Cucamonga, CA 91730  
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Texas:  
4755 Alpine Drive #100A  
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(281) 313-6332 F

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[www.weldingwire.com](http://www.weldingwire.com)

# LOW HYDROGEN-V E7048

AWS A5.1/ASME SFA5.1, E7048

JIS Z3213 D5016 AC/DC+

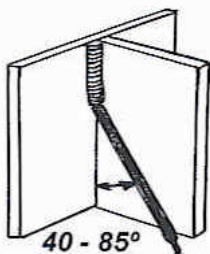
## Features

**Low Hydrogen - V, E7048** is designed to produce a vertical weld deposit that is equal to the E7018 class. The chemistry of Washington Alloy E7048 is formulated for vertical down deposition that penetrates, wets in and solidifies quickly to keep the weld puddle in place without running out of the joint and is designed *specifically* for vertical down welding, but can also be used in flat and horizontal fillet positions as well. E7048 finds it's use in pressure vessels, ship building and other structural applications where rods such as E7018 are currently used but lack the ability to run downhill, thereby taking more time to complete a satisfactory weld. Low Hydrogen-V, E7048 has excellent mechanical properties, crack resistance and easy slag removal. The enhanced travel speed makes this electrode a very efficient choice.

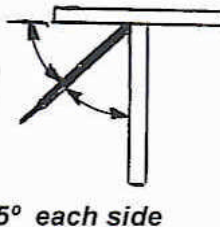
## Tips for welding with E7048

Welding with E7048 can save time and reduce production costs, but certain procedures should be closely followed to yield the best results. It's important to note that E7048 is known as a "Gravity Rod" and it will deposit the weld metal *where you aim it*. Therefore, it is important to keep a tight arc and hold the rod in proper position to get the best results (see figures below). The proper position on a fillet weld would be 45% from each base plate and angled into the direction of travel from 40-85 degrees. On a vertical butt-weld, the rod should be 90 degrees from the joint and 40-85 degrees into the direction of travel. As in all welding, a clean joint is best. Remove rust, paint, oil and water from surface prior to welding. To avoid pitting at the beginning of your weld, we recommend using the back step method, or start your arc on a strike plate. **Practice!** Experiment with travel speed and amperage settings until you obtain a consistent bead contour and get the feel of the rod. **CAUTION;** You may find if you adjust the rod angles *outside* the parameters shown below, you can experience poor weld penetration on one side of the weld which may leave slag inclusions in your weld. Staying within the specified rod angles is critical to insure the best results.

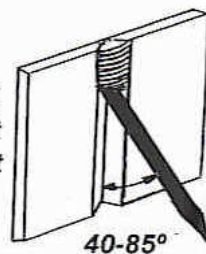
**Fig. 1**  
Vertical  
fillet  
joint



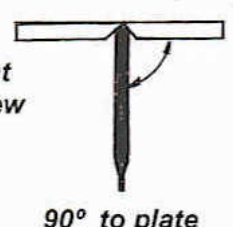
**Fig. 2**  
Fillet top  
view



**Fig. 3**  
Vertical  
butt  
joint



**Fig. 4**  
Butt joint  
top view



## Recommended Current Settings

Electrode Diameter -	1/8"	5/32"	3/16"	*1/4"	*7/32"
Amperage Settings V-down -	120-160	150-210	180-240	220-280	260-330

\*These diameters are available, but not stocked. please call for a quote.

### Typical Mechanical Properties

Tensile strength	79,650 psi
Yield point	64,005 psi
Elongation (in 2")	33%
Charpy V-notch	50 Ft lbs @ -20°F
Store opened rod in oven or re-dry @ 550-650°	
for 30-60 minutes prior to use	
(Store rods in oven at 150-200°F)	

### Typical Chemistry

Carbon	- 0.08
Manganese	- 0.90
Silicon	- 0.48
Phosphorous	- 0.013
Sulphur	- 0.010
Iron	- Bal.

## Sizes and packaging

1/8"	10 lb plastic tube, 60 lb master carton - Pt# TE 7048 02
5/32"	10 lb plastic tube, 60 lb master carton - Pt# TE 7048 03
3/16"	10 lb plastic tube, 60 lb master carton - Pt# TE 7048 04