



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

**8015-B6, 8016-B6  
8018-B6  
Low-Alloy  
Steel Electrode**

U.S. ALLOY CO.  
dba Washington Alloy  
7010-G Reames Rd.  
Charlotte, NC 28216  
[www.weldingwire.com](http://www.weldingwire.com)



**ALLOY DESCRIPTION AND APPLICATION;**

USA 801X-B6 (formerly 502 family) is a Cr-Mo covered electrode commonly used in the oil and chemical industries and where base metal such as 5% Cr, 1/2% Mo steels are found. Typical base metals found in this group are ASTM grades: A182-F5/F5a, A336-F5/F5a, A199-T-5, A200-T5, A213-T5, A335-P5, A369-FP5, A426-CP5, A217-C5, and A387-Gr5.

**TYPICAL WELDING PROCEDURES; OPTIMUM IN BOLD**

	3/32"	1/8"	5/32"	3/16"	1/4"
Diameter	3/32"	1/8"	5/32"	3/16"	1/4"
Length	14"	14"	14"	14"	18"
Amps Flat	70- <b>90</b> -100	90- <b>140</b> -160	130- <b>170</b> -220	190- <b>235</b> -290	265- <b>325</b> -400
Vertical up & Overhead	60- <b>85</b> -90	80- <b>110</b> -120	110- <b>145</b> -170		

Arc Length = Very short arc, Flat use 15° angle from 90°, Vertical up & Overhead use weaving techniques within puddle  
8015-B6 = Low-hydrogen sodium coating /DCEP  
8016-B6 = Low-hydrogen potassium coating /DCEP or ac  
8018-B6 = Low-hydrogen potassium, iron powder coating /DCEP or ac

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

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

	AWS Spec.	USA 8016-B6		AWS Spec	Typical
Carbon	0.05-0.10	0.059			
Manganese	1.00 max	0.649	Tensile Strength (psi)	80,000 min.	101,800
Silicon	0.90 max	0.277	Yield Strength (psi)	67,000	90,300
Phosphorus	0.030 max.	0.017	Elongation in 2"	19 % min.	21%
Sulfur	0.030 max.	0.005	(Post weld heat treatment 1375°F for 1 hour)		
Nickel	0.40 max	0.015			
Chromium	4.00-6.00	5.733			
Molybdenum	0.45-0.65	0.517			

**AVAILABLE SIZES:** TE 801X-B6 = 10 # containers of 3/32, 1/8,  
Other sizes may be available – please inquire

**SPECIFICATIONS;** ANSI/AWS A5.5 E8015-B6 , E8016-B6 , 8018-B6  
ASME SFA A5.5 E8015-B6 , E8016-B6 , 8018-B6  
(Formerly AWS A 5.4, Class E502-15 , E502-16 , N/A FOR -18)

EAST COAST	GULF COAST	WEST COAST
7010-G Reames Rd Charlotte, NC 28216 Tel (888) 522-8296 Fax (704)598-6673	4855 Alpine Drive #190 Stafford, TX 77477 Tel (877) 711-9274 Fax (281)313-6332	8535 Utica Ave Rancho Cucamonga, CA 91730 Tel(800)830-9033 Fax (909)291-4586



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Warehouse Distribution Center – Dayton, Ohio

Head Office – Puyallup, Washington

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