

Tungsten Electrodes

Accessories

10/2011 AY 5.0



- Seven industry-standard types: Pure, 2% Ceriated, 1.5% Lanthanated, 2% Lanthanated, Rare Earth, 2% Thoriated and Zirconiated
- Seven-inch lengths in five industry-standard diameters: 0.040", 1/16", 3/32", 1/8" and 5/32"



A line of premium tungsten for the most demanding TIG welding applications!

Available in seven types and five industry-standard diameters, Weldcraft's premium line of tungsten electrodes have undergone rigorous testing to ensure the highest quality and durability. Packages of ten seven-inch (175 mm) tungsten electrodes are color-coded and feature three languages—English, Spanish and French.

Note: Refer to manufacturer MSDS sheets for proper preparation and safety. Use proper ventilation/capture during preparation. Refer to manufacturer warning regarding ventilation.

Type	Diameter in. (mm)	Part #	Applications	Alloying Element	Composition	Materials Welded
Pure (EWP)						
Forms a clean, balled end when heated and provides good arc stability for AC welding with a balanced or unbalanced squarewave or sine wave.	0.040 (1.0)	WP040X7	AC	None	99.5% Tungsten 0.5% Other	Aluminum Magnesium
	1/16 (1.6)	WP116X7				
	3/32 (2.4)	WP332X7				
	1/8 (3.2)	WP018X7				
	5/32 (4.0)	WP532X7				
2% Ceriated (EWCe-2)						
Performs well in DC welding and arc starting at low-current settings, and offers excellent performance in AC processes.	0.040 (1.0)	WC040X7	DC AC inverters	Cerium	97.3% Tungsten 1.8–2.2% Cerium 0.5% Other	Carbon Steel Stainless Steel Nickel Alloy Titanium Aluminum
	1/16 (1.6)	WC116X7				
	3/32 (2.4)	WC332X7				
	1/8 (3.2)	WC018X7				
	5/32 (4.0)	WC532X7				
1.5% Lanthanated (EWLa-1.5)						
Provides excellent arc starting, arc stability and re-ignition, and is less prone to tip wear.	0.040 (1.0)	WL040X7	DC AC inverters	Lanthanum	97.8% Tungsten 1.3–1.7% Lanthanum 0.5% Other	Carbon Steel Stainless Steel Nickel Alloy Titanium Aluminum
	1/16 (1.6)	WL116X7				
	3/32 (2.4)	WL332X7				
	1/8 (3.2)	WL018X7				
	5/32 (4.0)	WL532X7				
2% Lanthanated (EWLa-2)						
Substitute for 2% Thoriated. Similar characteristics to 1.5% Lanthanated with better arc starting, arc stability and less tip erosion.	0.040 (1.0)	WL2040X7	DC AC inverters	Lanthanum	97.3% Tungsten 1.8–2.2% Lanthanum 0.5% Other	Carbon Steel Stainless Steel Nickel Alloy Titanium Aluminum
	1/16 (1.6)	WL2116X7				
	3/32 (2.4)	WL2332X7				
	1/8 (3.2)	WL2018X7				
	5/32 (4.0)	WL2532X7				
Rare Earth (EWG)						
Combines the best of all alloying elements and provides excellent arc stability in AC or DC welding.	0.040 (1.0)	WG040X7	DC AC inverters	Cerium, Lanthanum, Yttrium, and Others	97.3% Tungsten Balance: Cerium, Lanthanum, Yttrium, and Others	All
	1/16 (1.6)	WG116X7				
	3/32 (2.4)	WG332X7				
	1/8 (3.2)	WG018X7				
	5/32 (4.0)	WG532X7				
2% Thoriated (EWTh-2)						
Offers good arc starting and is ideal for high-current requirements. Also good for low-amperage AC applications using a modified point.	0.040 (1.0)	WT040X7	DC	Thorium	97.3% Tungsten 1.7–2.2% Thorium 0.5% Other	Carbon Steel Stainless Steel Nickel Alloy Titanium Copper
	1/16 (1.6)	WT116X7				
	3/32 (2.4)	WT332X7				
	1/8 (3.2)	WT018X7				
	5/32 (4.0)	WT532X7				
Zirconiated (EWZr-1)						
Balls up easily in AC applications. Handles higher current with less splitting. Improved arc starts and arc stability. Offers minimal tungsten contamination.	0.040 (1.0)	WZ040X7	AC	Zirconium	98.6% Tungsten 0.7–0.9% Zirconium 0.5% Other	Aluminum Magnesium
	1/16 (1.6)	WZ116X7				
	3/32 (2.4)	WZ332X7				
	1/8 (3.2)	WZ018X7				
	5/32 (4.0)	WZ532X7				

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WELD The TIG Welder's Choice
CRAFT

Triad™ Tungsten Grinder



Triad™ Tungsten Grinder (TTG Plus)

This tool provides operators with the versatility and accuracy needed to prepare tungsten for both orbital welding and hand-held applications. Its grinding, cutting and facing capabilities eliminate the need and cost for additional preparation tools. Plus, it features the most robust, reliable motor available in the marketplace.

Includes a sturdy powder-coated steel carrying case, medium-finish grinding wheel, electrode holder, Torx T20 screwdriver and mounting plate to convert to bench model. (Refer to Index Sheet AY 6.0 for more information.)

Typical Current Ranges for Tungsten Electrodes*

Electrode Diameter	Gas Cup I.D.	Direct Current (Amps)		Alternating Current (Amps)			
		DCEN	DCEP	Unbalanced Wave AC		Balanced Wave AC	
		EWX-X	EWX-X	EWP	EWX-X	EWP	EWX-X
0.040 in.	3/8 in.	15–80	N/A	20–60	15–80	10–30	20–60
1/16 in.	3/8 in.	70–150	10–80	50–100	70–150	30–80	60–120
3/32 in.	1/2 in.	150–250	15–30	100–160	140–235	60–130	100–180
1/8 in.	1/2 in.	250–400	25–40	150–200	225–325	100–180	160–250
5/32 in.	1/2 in.	400–500	40–55	200–275	300–400	160–240	200–320

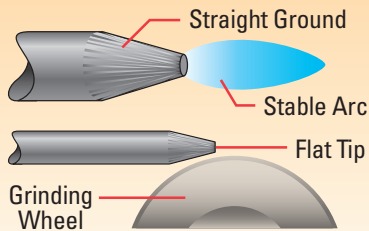
*All values are based on the use of argon as a shielding gas. Other current values may be employed depending on the shielding gas, type of equipment and application.

TIG Tip

Tungsten Preparation

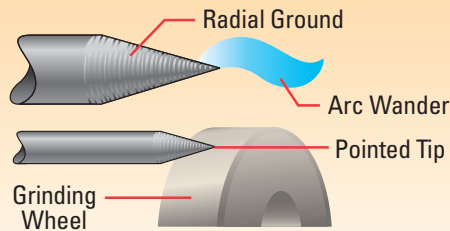
CORRECT

Ideal Preparation — Stable Arc



INCORRECT

Wrong Preparation — Wandering Arc



Note: Do not use wheel for other jobs or tungsten can become contaminated and cause lower weld quality. Use pointed tungsten when welding AC or DC with most inverters.

WELD The TIG Welder's Choice
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