

**PREMIARC TG-X308L** [AWS A5.22 R308LT1-5]

**PREMIARC TG-X347** [AWS A5.22 R347T1-5]

**PREMIARC TG-X309L** [AWS A5.22 R309LT1-5]

**PREMIARC TG-X2209** [N/A]

**PREMIARC TG-X316L** [AWS A5.22 R316LT1-5]

## Features and typical fields of application

- Flux Cored TIG rod for open root pass without requiring back purging creating slag to protect the back side bead from the oxidation of weld metal.
- Compatible with conventional GTAW welding equipment with DCEN polarity and straight Argon shielding gas.

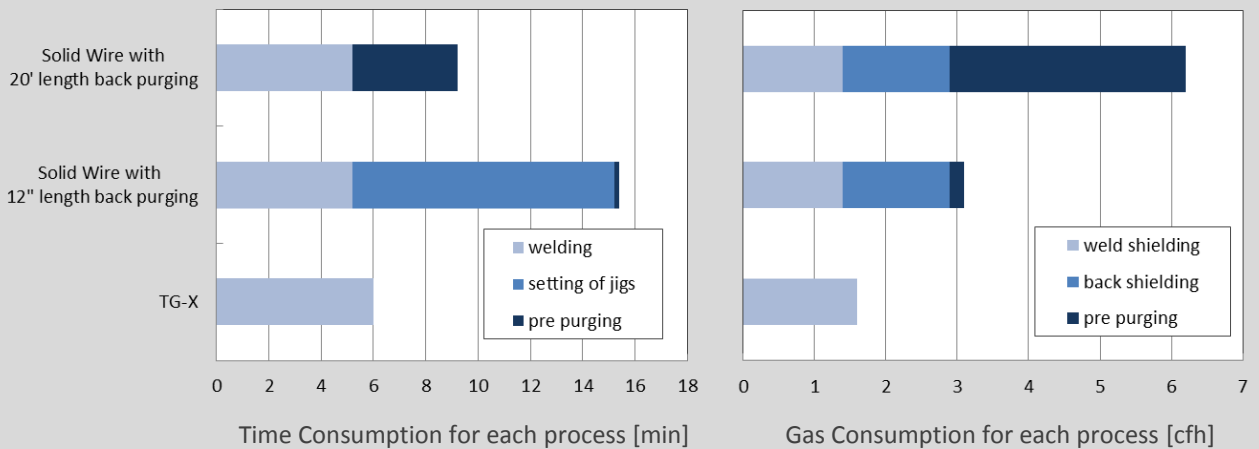


TG-X weld appearances without back purging: back bead (left/middle), face bead (right)

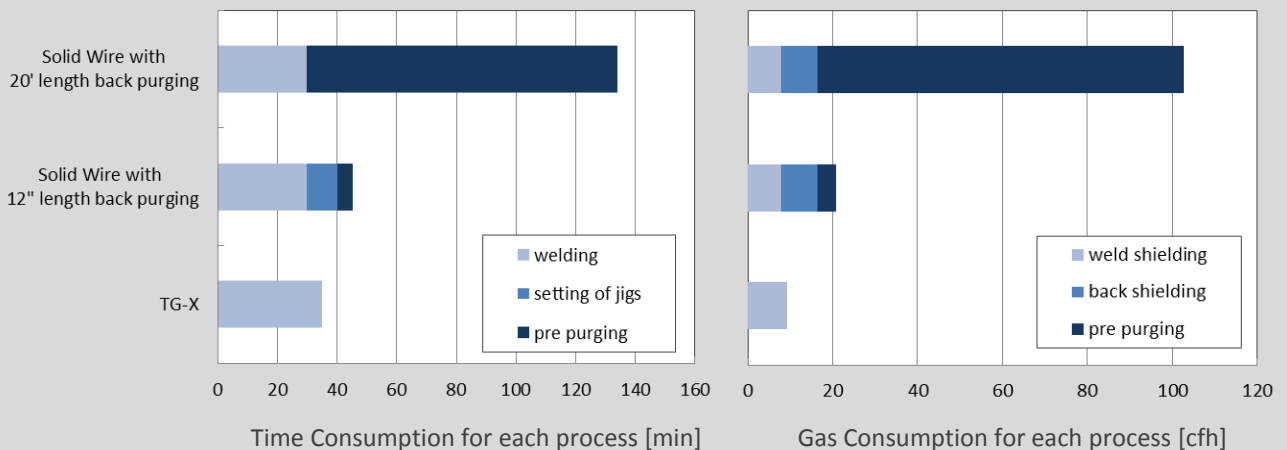
## Comparison of Time and Shielding gas Consumption

- Back shielding condition per AWS D10.12
- Welding time below includes grinding and tack welding with 50% of arc time percentage
- 50cfh for pre purging, 17cfh is for back shielding and 32cfh for welding is used for the following prediction

- Example #1: 2" diameter pipe (root gap; 1/16" for solid wire, 5/64" for TG-X)



- Example #2: 12" diameter pipe (root gap; 3/32" for solid wire, 7/64" for TG-X)



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### Typical result of weld metal test with 100%Ar

	C	Si	Mn	Cr	Ni	Others	0.2%PS (psi)	TS (psi)	EL (%)	CVN (ft-lbs)
TG-X308L	0.02	0.80	1.66	19.6	10.31	-	65,250	92,800	47	94 at 32F
TG-X309L	0.02	0.81	1.52	24.3	12.62	-	76,850	98,600	32	80 at 32F
TG-X316L	0.02	0.87	1.55	18.9	12.47	Mo:2.3	63,800	87,000	38	88 at 32F
TG-X347	0.02	0.80	1.60	19.1	10.21	Nb: 0.7	66,700	91,350	48	94 at 32F
TG-X2209	0.02	0.64	0.87	23.1	9.5	Mo: 3.3 N: 0.15	87,500	117,600	32	102 at -60F

### Recommended welding conditions and deposition rate

Plate Thickness	1/8" to 3/16"	1/4"-11/16"	over 3/8"
Root Gap	5/64"	3/32"	7/64"
Welding Current (DCEN)	80 – 90A	90 – 105 A	90 – 110A

Note;

- Formation of key-hole during welding is the key in order to supply slag onto reverse side bead.
- Use TG-X for root pass in single side welding only not for filler or cap passes.

groove preparation

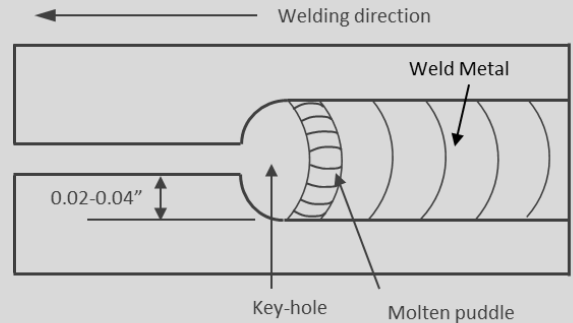
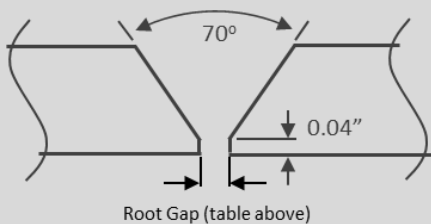


Table shown are approximate values that will vary depending on welding conditions (WESO, Cable length etc.). Arc voltage shown are for straight CO<sub>2</sub> shielding gas. For 75%Ar-25%CO<sub>2</sub> use two volts less than shown.

### Size /Packages

0.087" (2.2mm) diameter x 39" length in 11lbs polyethylene tube

#### DISCLAIMER

- Information in this material, such as chemical compositions and mechanical properties, is typical or an example for explaining the features and performances of our products, and it does not mean guarantee unless otherwise it is specified.
- Information contained herein is subject to change without notice. Please kindly contact Kobelco for latest information.



**WARNING:** This product can expose you to chemicals including Nickel and Titanium Dioxide, which are known to the State of California to cause cancer, and Chromium, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

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