



# Precision TIG 275/375

TIG WELDING MACHINE

**LINCOLN**  
**ELECTRIC**



K2618-1 Precision TIG 275 Ready Pak  
K2624-1 Precision TIG 375 Ready Pak

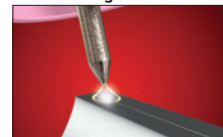
# The Best of Both Worlds: Utility and range of thickness

The Precision TIG® 275 is a versatile shop machine ideal for any type of TIG or Stick welding maintenance application, including the use of 5/32-in. (4.0 mm) stick electrode. The 275 features the patented Micro-Start™ II technology, which enhances starting and arc stability, and provides for more precise welds and crater fills.

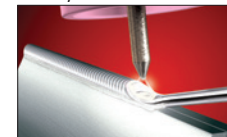
When it's time for thicker materials and heavier jobs, choose the Precision TIG® 375 which provides for the highest duty cycle in its class. The Precision TIG 375 also features the patented Micro-Start II technology, and a built-in TIG pulser, that can be activated to help control heat input in the weld and reduce distortion and burn-through on thin materials.

MICRO START™ II  
TECHNOLOGY

Great Starting



Stable, Focused Arc



Precise Crater Fill





## Simplicity, Control and Range

### Simplicity through technology

AC Auto Balance® automatically provides for the optimal mix of cleaning and penetration for welding on Aluminum. When welding thicker material requiring increased penetration, or when requiring increased cleaning action to break through heavy oxide layers, bypass AC Auto Balance and adjust manually for full control.

### Advanced Pulse Control panel

Enable the TIG pulser to minimize material distortion from excessive heat input. The TIG pulser can also help moderate filler metal deposition for consistent bead appearance. (Optional on the Precision TIG 275, standard on the Precision TIG 375).

### Wide output range

Tackle either end of the material thickness spectrum with an amperage range of 2 to 340 amps with the Precision TIG 275, and 2 to 420 amps with the Precision TIG 375.

### Side-mounted torch holder and connections

Enables simple cable management and protection, and a place for your torch when not in use.



Neat/organized cable management with integrated torch holster.

#### Processes »

Stick, TIG

#### Applications »

Fabrication, Aerospace, Production, Motorsports, Vocational Education

#### Output »



#### Input »



#### Product Number »

Precision TIG 275:

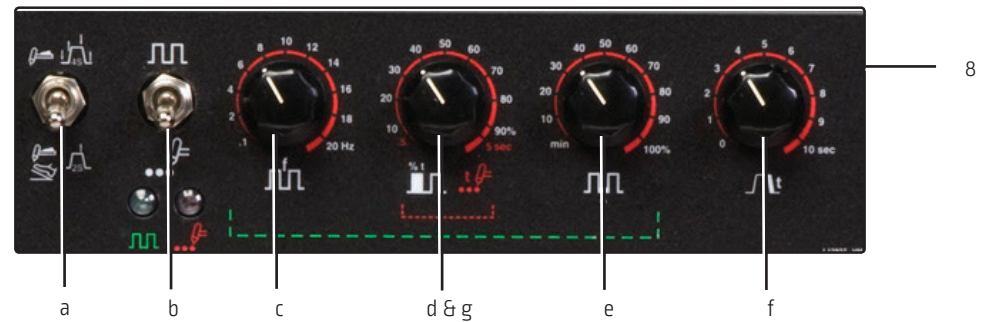
- K2619-1 Base Model
- K2619-2 Base Model
- K2620-1 Base Model
- K2618-1 Ready-Pak® w/ cart

Precision TIG 375:

- K2622-1 Base Model
- K2622-2 Base Model
- K2623-1 Base Model
- K2624-1 Ready-Pak w/ cart

# Precision TIG 275 Controls »

1. Minimum Output Control & Display Switch  
(Also displays output voltage)
2. Set-Up Menu
3. Digital Meter
4. Local/Remote Current Control Switch
5. Maximum Output Control
6. Post Flow Time
7. Thermal Shutdown Light
8. Optional Advanced Control Panel
  - a) Trigger Switch (2-step/4-step)
  - b) Pulse/Spot Time Mode Switch
  - c) Pulse Frequency Control
  - d) Pulse % On Time Control
  - e) Pulse Background Current Control
  - f) Downslope Time, In Seconds
  - g) Spot Time
9. Polarity Switch
10. Power Switch
11. AC Balance Control
12. Mode Switch



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12. Pulse Frequency Control
13. Polarity Switch
14. Power Switch
15. Pulse/Spot Time Mode Switch
16. Trigger Switch [2-Step/4-Step]
17. AC Balance Control
18. Mode Switch
19. Remote Receptacle (not shown)







WHAT'S INCLUDED	Product Number	Precision TIG 275 Ready-Pak (shipped fully assembled) (K2618-1)	Precision TIG 375 Ready-Pak (shipped fully assembled) (K2624-1)
Under-Cooler Cart Water Cooler	K1828-1	●	●
Foot Amptrol™ with 25 ft. (7.6 m) cable assembly.	K870	●	●
Harris® Gas Regulator/Flowmeter and 10 ft. (3.0 m) Hose Kit	3100211	●	●
PTW-20 250 amp water cooled TIG torch w/ 25 ft. (7.6 m) cable	K1784-4	●	●
Zippered Torch Cover with 25 ft. (7.6m) zippered torch cover	K918-2	●	●
Parts Kit for PTW-20 Series Torches contains a long back cap, 1/16 in., 3/32 in., 1/8 in. collets, 1/16 in., 3/32 in., 1/8 in. collet bodies, 1/16 in., 3/32 in., 1/8 in. 2% Ceriated tungsten, and three Alumina nozzles (5/16 in., 3/8 in., 7/16 in. orifices)	KP510	●	●
Water Hose (2 included)	S19558-4	●	●
15 ft. (4.5 m), 2/0 Work Cable and Clamp	K2150-1	●	●
Adapter for optional PTA-9 or -17 Torch (3/8 in.)	S20403-4	●	

● Included

## PRODUCT SPECIFICATIONS

Product Name	Product Number	Input Power	Rated Output Current/Duty Cycle (104 °F, 40 °C)	Input Current @ Rated Output	Output Range	H x W x D inches (mm)	Net Weight lbs. (kg)
<b>Precision TIG 275</b>	K2619-1	208/230/460/1/60	275A/40% 225A/60%	104/94/47A 40% Duty Cycle 86/78/39 60% Duty Cycle	DC: 2-340A AC: 2-340A Max. OCV: 75V	31 x 22 x 26 (787 x 559 x 660)	397 (180)
	K2619-2	460/575/1/60		47/38A 40% Duty Cycle 39/31 60% Duty Cycle			
	K2620-1	220-230/380-400/ 415/1/50/60		95/55/50A 40% Duty Cycle 80/46/42 60% Duty Cycle			
<b>Precision TIG 275 Ready-Pak Package</b>	K2618-1	208/230/460/1/60		104/94/47A 40% Duty Cycle 86/78/39 60% Duty Cycle		49.7 x 28 x 41 (1262 x 711 x 1041)	641 (291)
<b>Precision TIG 375</b>	K2622-1	208/230/460/1/60	375A/40% 350A/60%	112/102/51A 40% Duty Cycle with PFC 102/92/46 60% Duty Cycle	DC: 2-420A AC: 2-420A Max. OCV: 80V	31 x 22 x 26 (787 x 559 x 660)	507 (230)
	K2622-2	230/460/575/1/60		102/51/41A 40% Duty Cycle with PFC 92/46/37 60% Duty Cycle			
	K2623-1	220-230/380-400/ 415/1/50/60		119/69/63A 40% Duty Cycle with PFC 110/64/59 60% Duty Cycle			
<b>Precision TIG 375 Ready-Pak Package</b>	K2624-1	208/230/460/1/60		112/102/51A 40% Duty Cycle with PFC 102/92/46 60% Duty Cycle		49.7 x 28 x 41 (1262 x 711 x 1041)	751 (341)

OPTIONAL ACCESSORIES		Product Number	Precision TIG 275 (208/230/460) (K2619-1)	Precision TIG 275 (460/575) (K2619-2)	Precision TIG 375 (208/230/460) (K2622-1)	Precision TIG 375 (230/460/575) (K2622-2)
<b>GENERAL</b>						
Advanced Control Panel		K2621-1	●	●	●	●
Undercarriage		K1869-1	●	●	●	●
<b>STICK</b>						
Accessory Kit - 150 Amp: includes 20 ft. (6.1 m) of #6 electrode cable with lug, 15 ft. (4.6 m) #6 work cable with lugs, headshield, filler plate, work clamp, electrode holder and sample pack of mild steel electrode		K875	●	●		
Accessory Kit - 400 Amp: includes 35 ft. (10.7 m) of 2/0 electrode cable with lug, 30 ft. (9.1 m) 2/0 work cable with lugs, headshield, filler plate, work clamp and electrode holder		K704	●	●	●	●
Remote Output Control - 25 ft (7.6 m)		K857	●	●	●	●
Remote Output Control - 100 ft (30.5 m)		K857-1	●	●	●	●
<b>TIG</b>						
Hand Amptrol™ (Rotary Track Style) w/ 25 ft. (7.6 m) cable assembly		K963-3	●	●	●	●
Foot Amptrol with 25 ft. (7.6 m) cable assembly		K870	●	●	●	●
Wireless Pedal		K4217-1	●	●	●	●
Arc Start Switch with 25 ft. (7.6 m) cable assembly		K814	●	●	●	●
PTA-9 -17 One Cable Torch Adapter: adapts the 3/8 in. PTA-9 or -17 fitting to the 5/8 in. gas and power connection on machine		K2166-3	●	●	●	●
PTA-9 -17 -26 Two Cable Torch Adapter: Converts the 7/8 in. water and power connection on the machine to a 1/2 in. output stud for use with a two-cable air cooled TIG torch.		K2166-2	●	●	●	●
PTA-26 One Cable Torch Adapter: adapts the 7/8 in. PTA-26 fitting to the 5/8 in. gas and power connection on machine.		K2166-1	●	●	●	●
Harris® Gas Regulator/Flowmeter and 10 ft. (3.0 m) Hose Kit		3100211	●	●	●	●
Under-Cooler Cart water cooler		K1828-1	●	●	●	●
25 ft. (7.6 m) zippered cable cover		K918-2	●	●	●	●
12.5 ft. (3.8 m) zippered cable cover		K918-1	●	●	●	●

● Included  
● Optional

<b>OPTIONAL ACCESSORIES</b>	<b>Product Number</b>	<b>Precision TIG 275 (208/230/460) (K2619-1)</b>	<b>Precision TIG 275 (460/575) (K2619-2)</b>	<b>Precision TIG 375 (208/230/460) (K2622-1)</b>	<b>Precision TIG 375 (230/460/575) (K2622-2)</b>
PTW-18 350 amp water cooled TIG torch w/ 3 pc. 25 ft. (7.6 m) cable	K1784-2	●	●	●	●
PTW-20 250 amp water cooled TIG torch w/ 3 pc. 12.5 ft. (3.8 m) cable	K1784-3	●	●	●	●
PTW-18 350 Amp Water Cooled TIG torch w/ 3 pc. 12.5 ft. (3.8 m) cable	K1784-1	●	●	●	●
PTW-20 250 amp water cooled TIG torch w/ 3 pc. 25 ft. (7.6 m) cable	K1784-4	●	●	●	●
PTA-17 150 amp TIG torch w/ 2 pc. 25 ft. (7.6 m) cable	K1782-4	●	●	●	●
PTA-17 150 amp TIG torch w/ 1 pc. 25 ft. (7.6 m) cable	K1782-3	●	●	●	●
PTA-26 200 Amp air cooled TIG torch w/ 2 pc 25 ft. (7.6 m) cable	K1783-4	●	●	●	●
PTA-26 200 Amp air cooled TIG torch w/ 1 pc 25 ft. (7.6 m) cable	K1783-3	●	●	●	●
20H-320-25 TIG torch	K4168-2	●	●	●	●
Parts Kit for PTA-17 torches: contains a short back cap, 0.040 in., 1/16 in., and 3/32 in. collets, 0.040 in., 1/16 in., and 3/32 in. collet bodies, 0.040 in., 1/16 in., and 3/32 in. 2% Ceriated tungsten, and three Alumina nozzles (1/4 in., 5/16 in., 3/8 in. orifices)	KP508	●	●	●	●
Parts Kit for PTW-20 Series torches: contains a long back cap, 1/16 in., 3/32 in., 1/8 in. collets, 1/16 in., 3/32 in., 1/8 in. collet bodies, 1/16 in., 3/32 in., 1/8 in. 2% Ceriated tungsten, and three Alumina nozzles (5/16 in., 3/8 in., 7/16 in. orifices)	KP510	●	●	●	●
Parts Kit for PTW-18 & PTA-26 series TIG torches: contains a short back cap, 1/16 in., 3/32 in., 1/8 in. collets, 1/16 in., 3/32 in., 1/8 in. collet bodies, 1/16 in., 3/32 in., 1/8 in. 2% Ceriated tungsten, and three Alumina nozzles (5/16 in., 3/8 in., 1/2 in. orifices)	KP509	●	●	●	●
2-Year Extended Warranty - Precision TIG 275 (for K2619-x)	X2619	●	●		
2-Year Extended Warranty - Precision TIG 375 (for K2622-x)	X2622			●	●
Weld Fume Control System	See Fume Control Section	●	●	●	●
Cut Length Consumables	See C1.10	●	●	●	●



● Optional