ASPECT 375 AC/DC

TIG WELDING MACHINE

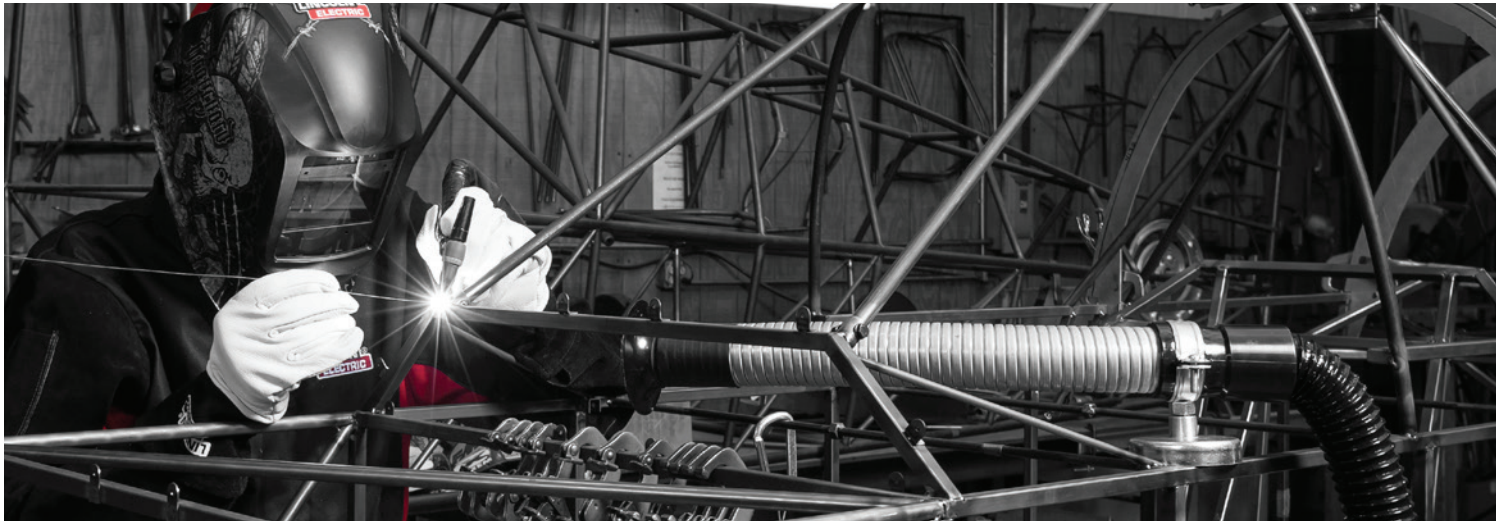
LINCOLN ELECTRIC

Base Model Shown (K3945-1)

Advanced Technology
Made Simple.

A quality weld is always important. In some industries and applications, lives may even depend on it. If this is the challenge you face every day, choose a TIG welding machine that meets the demanding quality standards of the aerospace, motorsports, shipbuilding, education and fabrication industries.

The Aspect® 375 is the perfect choice for mission critical welds, especially on applications that must stand up to the most rigorous testing requirements.



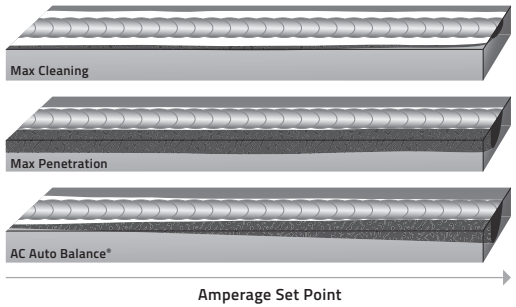
Auto or Manual: The Choice is Yours

Effortless arc control

Extremely fast arc response and stability for the smoothest and most efficient weld possible.

Simplicity when you want it

Activate Intellistart™ technology to automatically provide for softer starts and minimal distortion on thinner materials and hotter starts required for thicker materials. Optional AC Auto Balance® technology offers simplicity by automatically providing the optimal mix of cleaning and penetration when welding aluminum.



Customization when you need it

AC Wave Shape control enables you to customize the arc for critical aluminum welding requiring:

- A higher degree of penetration on thicker materials.
- Increased cleaning action in breaking through heavy oxide layers.
- Narrower arc profile enhancing control around corners and other tight configurations.

Processes »
Stick, TIG

Applications »
Aerospace, Motorsports, Shipbuilding, Education, Fabrication

Output »

Input »

Product Number »

- K3945-1 Base Model
- K3946-2 Ready-Pak®

Aspect 375
Controls »

1. Polarity
2. Process
   - High Frequency TIG
   - Touch Start TIG
   - Stick - Soft Mode
   - Stick - Crisp Mode
3. Output
   - 2 Step
   - 4 Step
   - ON
4. AC Wave Shape
   - AC Auto Banance®
   - AC Frequency
   - AC Balance
   - EP/EN Offset
5. Sequencer
   - Pre Flow
   - Starting Amperage
   - Initial Slope
   - Amperage
   - Final Slope
   - Finishing Amperage
   - Postflow
   - Percent Peak Current (When Pulse Active)
   - Pulses Per Second (When Pulse Active)
   - Background Current (When Pulse Active)
6. Memory Settings
7. Amperage/Exit Button
8. Encoder Knob
9. Pulse

ACCESSORIES	Product Number	Ready-Pak (shipped fully assembled) Aspect (K3946-2)
CoolArc 47 Water Cooling System	K3950-1	●
Inverter Cart	K3949-1	●
Caliber® 18 Series TIG Torch - Flexible, 25 ft (7.6 m)	K4843-18F-2	●
Zippered Cable Cover- 22 ft. (6.7 m)	K918-2	●
Twist Mate™ Torch Adapter - for Water Cooled TIG Torch	K1622-5	●
Caliber 17/18/26 Series TIG Torch Expendables Kit - 1/16 in. -1/8 in.	KP4760-HD	●
One Gallon of Low Conductivity Coolant (Two Gallons included Included with Ready-Pak)	KP4159-1	●
Foot Amptrol™ with 25 ft. (7.6 m) cable assembly	K870	●
Gas Regulator/Flowmeter and 10 ft. (3.0 m) Hose Kit	3100211	●
15 ft. Work Lead Assembly	K1803-3	●
Water Cooled TIG Torch Quick Connect Fitting for Cool Arc 47	9ST14557-27	●

Aspect 375 Ready-Pak with Foot Amptrol™ Shown (K3946-2)

● Included

PRODUCT SPECIFICATIONS

Product Name	Product Number	Input Power	Rated Output Current/Duty Cycle	Input Current @ Rated Output (208/230/400*/460/575)	Output Range	H x W x D in (mm)	Net Weight lb (kg)
Aspect 375	K3945-1	1 & 3 Phase 200-600/50/60	3 Phase GTAW 350A/24/30% GTAW 250A/20/100% SMAW 350A/34/30% SMAW 250A/30/100% 1 Phase GTAW 240A/19.6/30% GTAW 180A/17.2/100% SMAW 240A/29.6/30% SMAW 180A/27.2/100%	3 Phase 30% DC GTAW 32/29/17/15/12 100% DC GTAW 19/17/10/9/7 30% DC SMAW 46/41/24/21/17 100% DC SMAW 29/26/15/13/10 1 Phase 30% DC GTAW 32/27/17/15/12 100% DC GTAW 21/19/11/9/7 30% DC SMAW 47/43/25/21/17 100% DC SMAW 33/30/17/15/12	3 Phase: 2-375A 1 Phase: 2-250A	21 x 11.8 x 25.5 (533 x 300 x 648)	105 (47.6)
Aspect 375 Ready-Pak® Pkg.	K3946-2					47 x 23 x 45 (1,194 x 584 x 1,143)	290 (132)

*Includes 380 to 413 V

AC WAVE SHAPE CONTROLS

Setting	Range	Results	
AC Frequency	40-400 Hz	A lower frequency results in a wider bead.	A higher frequency results in a more focused bead.
AC Balance control	35-99% (EN%)	A lower AC Balance (EN%) results in an arc with increased cleaning action.	A higher AC Balance (EN%) results in an arc with higher penetration.
Electrode Positive (EP) and Negative Offset (EN)	2-375 Amps EP	A higher Electrode Positive (EP) current value results in intensified cleaning action.	
	2-375 Amps EN	A higher Electrode Negative (EN) current value results in intensified penetration.	

PULSE FUNCTIONS

Setting	Range	Results
AC Pulse Frequency	0.1-25% of AC output frequency setting in pulses per second	Alternating the current between peak and background helps better manage heat input and minimize material distortion. Provides for better arc control and faster freezing for uphill welding. Helps moderate filler metal deposition at low pulse frequencies (less than 10 pulses per second).
DC Pulse Frequency	0.1-2,000 pulses per second	

AC WAVE FORMS

Setting	Results
Soft Square	Increased puddle control
Sine	A soft sounding arc
Square	Faster travel speeds
Triangular	Reduced heat input on thinner materials. Also provides for better cleaning on anodized applications

ADDITIONAL ACCESSORIES	Product Number	Base Unit (K3945-1)	Aspect Ready-Pak (K3946-2)
TIG			
TIG Welding Gloves	K2981-M,-L,-XL	●	●
VIKING™ Back 2450 ADV Series Helmet	K3028-5	●	●
Arc Start Switch with 25 ft. (7.6 m) cable assembly 	K814	●	●
Hand Amptrol (Rotary Track Style) with 25 ft. (7.6 m) cable assembly 	K963-3	●	●
Wireless Pedal 	K4986-1	●	●
Parts Kit (KP509) for PTW-18 and PTA-26 series TIG torches	KP509	●	●
Twist-Mate™ Adapter for PTA-26 TIG Torch	K1622-3	●	●
PTA-26 200 AMP Air Cooled TIG Torch with 1pc 25ft. (7.6m) cable	K1783-3	●	●
Electrode Holder Kit with Ground Clamp and Twist-Mate™ Adapters	K2394-1	●	●
TIG Cut Length Consumables 	See publication C1.10	●	●
Tungsten Electrodes 	See publication E3.30	●	●

● Included
● Optional

CUSTOMER ASSISTANCE POLICY

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The Lincoln Electric Company
22801 St. Clair Avenue ▪ Cleveland, OH ▪ 44117-1199 ▪ U.S.A.
www.lincolnelectric.com