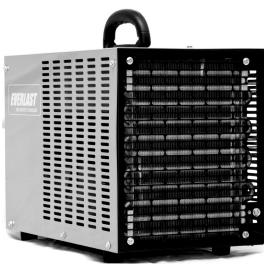


# TIG/MIG WATER COOLER





Operator's Manual for the PowerCool 300 GTAW/GMAW Safety, Setup and General Use Guide

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NOTE: Product Specifications and features are subject to change without notice. While every attempt has been made to provide the most accurate and current information possible at the time of publication, this manual is intended to be a general guide and not intended to be exhaustive in its content of safety, welding or of the operation/maintenance of this unit. Everlast Power Equipment LLC, does not guarantee the accuracy, completeness, authority or authenticity of the information contained within this manual. The owner of this product assumes all liability for its use and maintenance. Everlast Power Equipment LLC, does not warrant this product or this document for fitness for any particular purpose, for performance/accuracy or for suitability of application. Furthermore, Everlast Power Equipment LLC does not accept liability for damages, consequential or incidental, resulting from the use of the product or of the content found in this document or accept claims by a third party of liability.

## Dear Customer,

**THANKS!** You had a choice, and you bought an Everlast. We appreciate you as a customer and hope that you will enjoy years of use from your welder.

Please go directly to the Everlast website to register your unit and receive your warranty information. Your unit registration is important should any information such as product updates or recalls be issued. It is also important so that we may track your satisfaction with Everlast products and services. If you are unable to register by website, contact Everlast directly through the sales department through the main customer service number in your country. Your unit will be registered and warranty will be issued and in full effect. Keep all information regarding your purchase. In the event of a problem you must contact technical support before your welder can be a candidate for warranty service and returned.

<u>Please review the current online warranty statement and information found on the website of the Everlast division located in or nearest to your country. Print it for your records and become familiar of its terms and conditions.</u>

Everlast offers full technical support, in several different forms. We have online support available through email, and a welding support forum designed for customers and noncustomer interaction. Technical advisors are active on the forum daily. We also divide our support into two divisions: technical and welding performance. Should you have an issue or question concerning your unit, please contact performance/technical support available through the main company headquarters available in your country. For best service call the appropriate support line and follow up with an email, particularly if off hours, or you cannot reach a live person. In the event you do not reach a live person, particularly during heavy call volume times, holidays, and off hours, leave a message and your call will normally be returned within 24 hours. Also for quick answers to your basic questions, join the company owned forum available through the website. You'll find knowledgeable, helpful people and staff available to answer your questions, and perhaps find a topic that already addresses your question at http://www.everlastgenerators.com/forums/.

Should you need to call or write, always know your model name, purchase date and welder manufacturing inspection date. This will assure the quick and accurate customer service. REMEMBER: Be as specific and informed as possible. Technical and performance advisors rely upon you to carefully describe the conditions and circumstances of your problem or question. Take notes of any issues as best you can. You may be asked many questions by the advisors to clarify problems or issues that may seem very basic. However, diagnosis procedures MUST be followed to begin the warranty process. Advisors can't assume anything, even with experienced users, and must cover all aspects to properly diagnose the problem. Depending upon your issue, it is advisable to have basic tools handy such as screwdrivers, wrenches, pliers, and even an inexpensive test meter with volt/ohm functions before you call.

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Sincerely,

**Everlast Customer Service** 

Model number:	
Date of Purchase	
	<i>EVERLAST</i>

#### **Contact Information**

**Everlast US:** 

Everlast consumer satisfaction email: sales@everlastwelders.com

Everlast Website: everlastwelders.com

Everlast Technical Support: support@everlastwelders.com

Everlast Support Forum: http://www.everlastgenerators.com/forums/index.php

Main toll free number: 1-877-755 WELD (9353) 9am—5pm PST M-F

11am-4pm PST Sat.

FAX: 1-650-588-8817

**Everlast Canada:** 

Everlast consumer satisfaction email: sales@everlastwelders.ca

Everlast Website: everlastwelders.ca

Everlast Technical Support: sales@everlastwelders.ca

Telephone: 905-637-1637 9am-4:30pm EST M-F

10am-1pm EST Sat.

FAX: 1-905-639-2817

Everlast Austrailia:

Sydney: 5A Karloo Parade Newport NSW 2106

(02) 9999 2949

Port Macquarie: 2B Pandorea Place Port Macquarie

(02) 8209 3389

After hours support: 0413 447 492

Everlast Technical Support: support@pickproducts.com

Everlast is dedicated to providing you with the best possible equipment and service to meet the demanding jobs that you have. We want to go beyond delivering a satisfactory product to you. That is the reason we offer technical support to assist you with your needs should an occasion occur. With proper use and care your product should deliver years of trouble free service.



Safe operation and proper maintenance is your responsibility.

We have compiled this operator's manual, to instruct you in basic safety, operation and maintenance of your Everlast product to give you the best possible experience. Much of welding and cutting is based upon experience and common sense. As thorough as this welding manual may be, it is no substitute for either. Exercise extreme caution and care in all activities related to welding or cutting. Your safety, health and even life depends upon it. While accidents are never planned, preventing an accident requires careful planning.

Please carefully read this manual before you operate your Everlast unit. This manual is not only for the use of the machine, but to assist in obtaining the best performance out of your unit. Do not operate the unit until you have read this manual and you are thoroughly familiar with the safe operation of the unit. If you feel you need more information please contact Everlast Support.

The warranty does not cover improper use, maintenance or consumables. <u>Do not attempt to alter or defeat any piece or part of your unit, particularly any safety device.</u> Keep all shields and covers in place during unit operation should an unlikely failure of internal components result in the possible presence of sparks and explosions. If a failure occurs, discontinue further use until malfunctioning parts or accessories have been repaired or replaced by qualified personnel.



### Note on High Frequency electromagnetic disturbances:

Certain welding and cutting processes generate High Frequency (HF) waves. These waves may disturb sensitive electronic equipment such as televisions, radios, computers, cell phones, and related equipment. High Frequency may also interfere with fluorescent lights. Consult with an electrician if disturbance is noted. Sometimes, improper wire routing or poor shielding may be the cause.



HF can interfere with pacemakers. See EMF warnings in following safety section for further information. Always consult your physician before entering an area known to have welding or cutting equipment if you have a pacemaker.

### **SAFETY PRECAUTIONS**



These safety precautions are for protection of safety and health. Failure to follow these guidelines may result in serious injury or death. Be careful to read and follow all cautions and warnings. Protect yourself and others.



Welding and cutting processes produce high levels of ultraviolet (UV) radiation that can cause severe skin burn and damage. There are other potential hazards involved with welding such as severe burns and respiratory related illnesses. Therefore observe the following to minimize potential accidents and injury:



Use appropriate safety glasses with wrap around shields while in the work area, even under welding helmets to protect your eyes from flying sparks and debris. When chipping slag or grinding, goggles and face shields may be required.



When welding or cutting, always use an approved shielding device, with the correct shade of filter installed. Always use a welding helmet in good condition. Discard any broken or cracked filters or helmets. Using broken or cracked filters or helmets can cause severe eye injury and burn. Filter shades of no less than shade 5 for cutting and no less than shade 9 for welding are highly recommended. Shades greater than 9 may be required for high amperage welds. Keep filter lenses clean and clear for maximum visibility. It is also advisable to consult with your eye doctor should you wear contacts for corrective vision before you wear them while welding.



Do not allow personnel to watch or observe the welding or cutting operation unless fully protected by a filter screen, protective curtains or equivalent protective equipment. If no protection is available, exclude them from the work area. Even brief exposure to the rays from the welding arc can damage unprotected eyes.



Always wear hearing protection because welding and cutting can be extremely noisy. Ear protection is necessary to prevent hearing loss. Even prolonged low levels of noise has been known to create long term hearing damage. Hearing protection also further protects against hot sparks and debris from entering the ear canal and doing harm.



Always wear personal protective clothing. Flame proof clothing is required at all times. Sparks and hot metal can lodge in pockets, hems and cuffs. Make sure loose clothing is tucked in neatly. Leather aprons and jackets are recommended. Suitable welding jackets and coats may be purchased made from fire proof material from welding supply stores. Discard any burned or frayed clothing. Keep clothing away from oil, grease and flammable liquids.



Leather boots or steel toed leather boots with rubber bottoms are required for adequate foot protection. Canvas, polyester and other man made materials often found in shoes will either burn or melt. Rubber or other non conductive soles are necessary to help protect from electrical shock.



Flame proof and insulated gauntlet gloves are required whether welding or cutting or handling metal. Simple work gloves for the garden or chore work are not sufficient. Gauntlet type welding gloves are available from your local welding supply companies. Never attempt to weld with out gloves. Welding with out gloves can result in serious burns and electrical shock. If your hand or body parts comes into contact with the arc of a plasma cutter or welder, instant and serious burns will occur. Proper hand protection is required at all times when working with welding or cutting machines!



**WARNING!** Persons with pacemakers should not weld, cut or be in the welding area until they consult with their physician. Some pacemakers are sensitive to EMF radiation and could severely malfunction while welding or while being in the vicinity of someone welding. Serious injury or death may occur!



Welding and plasma cutting processes generate electro-magnetic fields and radiation. While the effects of EMF radiation are not known, it is suspected that there may be some harm from long term exposure to electromagnetic fields. Therefore, certain precautions should be taken to minimize exposure:

- Lay welding leads and lines neatly away from the body.
- Never coil cables around the body.
- Secure cables with tape if necessary to keep from the body.
- Keep all cables and leads on the same side the body.
- Never stand between cables or leads.
- Keep as far away from the power source (welder) as possible while welding.
- Never stand between the ground clamp and the torch.
- Keep the ground clamp grounded as close to the weld or cut as possible.



Welding and cutting processes pose certain inhalation risks. Be sure to follow any guidelines from your chosen consumable and electrode suppliers regarding possible need for respiratory equipment while welding or cutting. Always weld with adequate ventilation. Never weld in closed rooms or confined spaces. Fumes and gases released while welding or cutting may be poisonous. Take precautions at all times. Any burning of the eyes, nose or throat are signs that you need to increase ventilation.

- Stop immediately and relocate work if necessary until adequate ventilation is obtained.
- Stop work completely and seek medical help if irritation and discomfort persists.



WARNING! Do not weld on galvanized steel, stainless steel, beryllium, titanium, copper, cadmium, lead or zinc without proper respiratory equipment and /or ventilation.



WARNING! This product when used for welding or cutting produces fumes and gases which contains chemicals known to the State of California to cause birth defects and in some cases cancer. (California Safety and Health Code §25249.5 et seq.)



WARNING! Do not weld or cut around Chlorinated solvents or degreasing areas. Release of Phosgene gas can be deadly. Consider all chemicals to have potential deadly results if welded on or near metal containing residual amounts of chemicals.



Keep all cylinders upright and chained to a wall or appropriate holding pen. Certain regulations regarding high pressure cylinders can be obtained from OSHA or local regulatory agency. Consult also with your welding supply company in your area for further recommendations. The regulatory changes are frequent so keep informed.



All cylinders have a potential explosion hazard. When not in use, keep capped and closed. Store chained so that overturn is not likely. Transporting cylinders incorrectly can lead to an explosion. Do not attempt to adapt regulators to fit cylinders. Do not use faulty regulators. Do not allow cylinders to come into contact with work piece or work. Do not weld or strike arcs on cylinders. Keep cylinders away from direct heat, flame and sparks.

#### continued





WARNING! Electrical shock can kill. Make sure all electrical equipment is properly grounded. Do not use frayed, cut or otherwise damaged cables and leads. Do not stand, lean or rest on ground clamp. Do not stand in water or damp areas while welding or cutting. Keep work surface dry. Do not use welder or plasma cutter in the rain or in extremely humid conditions. Use dry rubber soled shoes and dry gloves when welding or cutting to insulate against electrical shock. Turn machine on or off only with gloved hand. Keep all parts of the body insulated from work, and work tables. Keep away from direct contact with skin against work. If tight or close quarters necessitates standing or resting on work piece, insulate with dry boards and rubber mats designed to insulate the body from direct contact.



All work cables, leads, and hoses pose trip hazards. Be aware of their location and make sure all personnel in area are advised of their location. Taping or securing cables with appropriate restraints can help reduce trips and falls.



WARNING! Fire and explosions are real risks while welding or cutting. Always keep fire extinguishers close by and additionally a water hose or bucket of sand. Periodically check work area for smoldering embers or smoke. It is a good idea to have someone help watch for possible fires while you are welding. Sparks and hot metal may travel a long distance. They may go into cracks in walls and floors and start a fire that would not be immediately visible. Here are some things you can do to reduce the possibility of fire or explosion:

- Keep all combustible materials including rags and spare clothing away from area.
- Keep all flammable fuels and liquids stored separately from work area.
- Visually inspect work area when job is completed for the slightest traces of smoke or embers.
- If welding or cutting outside, make sure you are in a cleared off area, free from dry tender and debris that might start a forest or grass fire.
- Do not weld on tanks, drums or barrels that are closed, pressurized or anything that held flammable liquid or material.



Metal is hot after welding or cutting! Always use gloves and or tongs when handling hot pieces of metal. Remember to place hot metal on fire-proof surfaces after handling. Serious burns and injury can result if material is improperly handled.





WARNING! Faulty or poorly maintained equipment can cause injury or death. Proper maintenance is your responsibility. Make sure all equipment is properly maintained and serviced by qualified personnel. Do not abuse or misuse equipment. Keep all covers in place. A faulty machine may shoot sparks or may have exploding parts. Touching uncovered parts inside machine can cause discharge of high amounts of electricity. Do not allow employees to operate poorly serviced equipment.

Always check condition of equipment thoroughly before start up. Disconnect unit from power source before any service attempt is made and for long term storage or electrical storms.



Further information can be obtained from The American Welding Society (AWS) that relates directly to safe welding and plasma cutting. Additionally, your local welding supply company may have additional pamphlets available concerning their products. Do not operate machinery until your are comfortable with proper operation and are able to assume inherent risks of cutting or welding.

POWER COOL 300 (WC 300)	Specification
Processes	GTAW/GMAW
Input Voltage/Hz	220/240 V/ 50/60 Hz
Maximum Input Amps (I1MAX)	1.1 Amps
Coolant Flow Rate	1 lpm/ .26 gpm
Cooling Capability @ 40° C (104° F)	1.7 Kw/ 5800 btu/hr
<b>Operating Pressure</b>	.339 MPa/45-57 psi
Suggested Maximum Cooling Amperage	350 A
Water Ingress Protection Rating	IP21
Pump Construction Type	Stainless Housing/Impellor/ Italy
<b>Motor Construction Type</b>	Sealed Industrial/Italy
Fan Motor Pump Construction	Direct Drive beltless construction
Radiator/Heat Exchanger Type	Copper Construction with Protectively Coated Cooling Fins
<b>Coolant Connection Type</b>	9mm quick connect
<b>Coolant Capacity</b>	2 gallon (nominal)
Coolant Type	Distilled Water/Ethylene Glycol (non automotive type) or Coolant designated as TIG/MIG water cooler coolant.
Reservoir Construction Type	Durable Plastic
Dimensions	10" W X 14" W X 18" L
Weight	30 lbs.

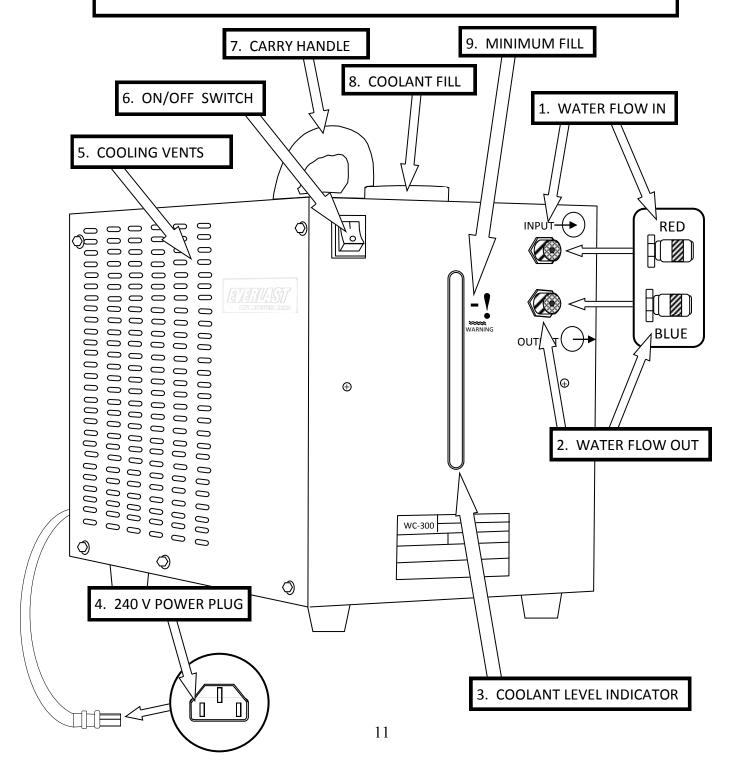
This manual has been compiled to give an overview of operation and is designed to offer information centered around safe, practical use of the water cooler. Only YOU, the operator, can ensure that safe operating practices are followed, through the exercise of common sense and training. Do not operate this machine until you have fully read the manual.

- 1. To ensure that your Everlast Power Cool 300 is in top condition, carefully inspect it for damage upon opening arrival, looking for damage on the surface of the unit and to the cooler itself and all its accessories. Do this immediately upon receipt of product. Any damage issues must be resolved right away. The product should be tested at the same time for proper operation, even if it is to be stored for a while. Check to make sure all passages, connections and fittings are clear of any packing material or other obstruction. Failure to test and check the unit may result in denial of shipping damage and warranty claims. Record the serial number on the page provided in this manual. Include purchase date for warranty reference. Serial numbers are located on the top, side or rear of the machine, wherever the specification sticker is located (may vary). Be sure to register your unit online as well. Please, locate, download and read your current warranty statement found online at www.everlastgenerators.com, listed under "terms and policy".
- 2. The Power Cool 300 is designed for day to day fabrication and repair activities. Overall function and design has been geared toward simple, trouble free operation. The units offers fast and easy connection of the TIG or MIG torch. The connectors are 9mm quick connect male couplings available from Everlast and many other sources found in welding stores and online sources.
- 3. The unit should be filled only with distilled water or with an approved antifreeze that is rated for TIG/MIG water cooler use (ethylene glycol). The antifreeze designed for TIG/MIG use has algae growth preventers which keep the small passages in a TIG or MIG torch clear. Use of automotive-type antifreeze can cause other long term damage to the cooler. It also creates an electrically conductive circuit which can make starting the arc difficult while the HF start is in use. The warranty does not cover freezing, clogging or corrosion of components due to improper antifreeze.
- The unit should be stored in a dry place for long term storage and drained of coolant. Humid/

- wet conditions can contribute to the eventual decay of the circuitry in the machine. For safety reasons, do not use this machine directly in the rain or with soaked clothing or damp protective gear. The service rating for this unit is IP21, sufficient for dripping water protection, but is not recommended for wet environment use.
- 5. Make sure that the cooling fan and exhaust vents are kept free of obstruction. Before every operation, inspect the unit for unexpected obstructions. From time-to-time cleaning of the machine with low pressure air and a small plastic bristle brush will be necessary to ensure long life. On these occasions only, unplug the water cooler and remove the main cover to access the interior. Do not remove the front panel. Keep a minimum of 12 inches distance from any obstruction on the front, rear and sides of the unit during operation. Unplug the unit first!
- 6. This unit runs constantly while it is switched on. Failing to turn the unit on can result in damage to your water cooled TIG torch. The receptacle found on the Everlast PowerTIG series is always live (at time of publication). Because of this, turning the welder off will not turn the water cooler off. For best results after heavy use, allow the torch to continue cooling for a minute or two with the unit turned on after welding has ceased. Some torches on the market use a "fused" connection which will prevent torches from burning up if the cooler is not connected. Running a water cooled torch without the cooler turned on, even for brief periods of time can cause damage to the torch.
- 7. This unit is 220/240 V only. Do not use it with 110/120 V circuits! If this cooler is to be used with units other than Everlast TIG machines fitted with the IEC 60320-1 c-13/14 setup, the plug must be removed and a new one installed. Consult a licensed electrician and local electrical codes before attempting any modification of the wiring of the water cooler or power circuit.
- 8. Refer to the following pages for specifications. Note that product specifications are subject to change without notice due to product improvements. If any additional information is needed contact Everlast. As with any product, some changes in specifications do occur that do not affect overall scope and function of the machine, and may not be noted until a major production change occurs. NOTE: On some versions the positions of the power switch and the location of the input/output connectors may be reversed.

# POWER COOL 300 USA/CANADA

**NOTE:** Consult with a licensed electrician and local codes before installing this water cooler in a circuit other than an Everlast PowerTIG model with the pre-fitted receptacle.



- 2.1 **Upper Panel Features.** The Everlast PowerTig 185 Micro has a simple panel layout with basic, functional controls and features. See section 3 for more detailed explanation on welding functions and techniques.
- Water Flow In (Red): The hot water returns from the TIG torch through this connection. You can identify the return (hot) connection on by either looking for the red colored/sleeved line or by identifying the line that comes directly from the main power block/ Dinse-style connector. On some newer models of coolers, the connections employ quick connect fittings which are standard 9mm quick connect fittings found commonly on MIG torches and some TIG torches. Contact Everlast should you need additional male connectors to fit your torch. These fittings are also available from a number of other sources.
- 2. Water Flow Out (Blue): The cool water comes from the water cooler and goes to the TIG torch directly to the handle and the head. You can identify the cool water connection by either looking for the blue colored line that is connected to the torch handle, or identify the line that travels separately from the torch handle and does not attach to the power connector/Dinse-style fitting. On some newer models of coolers, the connections employ quick connect fittings which are standard 9mm quick connect fittings found commonly on MIG torches and some TIG torches. Contact Everlast should you need additional male connectors to fit your torch. These fittings are also available from a number of other sources.
- Coolant Level Indicator. The coolant level should always be visible through the translucent plastic viewing area. (See item 8)
- 4. 220/240 V Plug and cable. Most versions(unless specially ordered) use the IEC 60320-1 C-13/14 plug/recepctacle combination commonly found on computer power supplies. This allows the unit to be specially coupled to the Everlast PowerTIG 200DX/225LX/250EX welders and a select number of other Everlast products. The use of this plug prevents confusion with other type connections and prevent accidental 120V operation. If the unit must be rewired, keep in mind this is a 240 V only unit. Consult a licensed electrician and local codes before proceeding with any electrical modification to the water cooler or to the electrical power supply circuit.
- Cooling Vents. The cooling vents are located on the sides, rear and top of the welder. Free flow of

- air around the water cooler is necessary to keep the water cooler operating efficiently. Always keep 12 inches of open space around the sides and top of the welder. Do not block or restrict this flow in any way. This unit is not considered stackable and must be placed beside the welder if not located on a cart or a separate shelf. Air flow from this water cooler can disturb the welding arc, so careful placement is necessary to ensure contamination free welds
- 6. On/Off switch. This switch is a lighted switch to remind the operator that the water cooler is on. If the water cooler won't come on or the switch will not light, contact Everlast. Some versions may not use the lighted switch feature.
- 7. **Carry Handle.** Carry the water cooler around only by the handle.
- Coolant Fill. The wide mouth cap allows easy pouring of coolant/distilled water into the plastic reservoir. Always keep the cap tight as possible or evaporation and contamination of the coolant can occur.
- 9. Minimum Fill Indicator. The line with the "!" mark beside it indicates the minimum fill level for the water cooler. If the coolant level drops below this level, refill the reservoir until the coolant level reaches the top of the viewing area.

#### **NOTES:**

- After the cooler is filled for the first time, make sure there are no leaks and water is flowing correctly. It may take some time to fully prime. If the cooler does not prime, contact Everlast for proper bleed procedures.
- After running the cooler coupled to the TIG torch for 30 minutes, check the water cooler for dripping water or leaks. If leaks are suspected, remove the top cover and tighten the water clamps that are connecting the water lines to the reservoir. Periodically keep the unit checked for leaks.
- Anytime the cover is removed, the unit MUST be unplugged. Do not operate the water cooler with the cover off.
- 4. Do not operate the water cooler if leaks are present. Electrocution, or severe injury may result!
- Use only distilled water, ethylene glycol, or approved TIG/MIG water cooler coolant.
- 6. Always unplug the water cooler before servicing!
- Always double check that the cooler has been turned off after the welder has been turned off.
- 8. Parts of this water cooler may become extremely hot! Use extreme caution when handling the cooler during and after use.