MULTIPROCESS

● Heavy Industrial ● Medium Industrial **8Pro421-MpTp**

What more could you expect from a welding machine?

Built today. Ready for tomorrow

The **8Pro421-MpTp** is a high-performance multiprocess **AC/DC welding system** engineered for demanding industrial environments where **power, versatility, and reliability** are essential. Delivering up to **420 A**, it integrates advanced welding technology, exceptional weld quality, and intuitive operation across a complete range of welding processes**—with each process designed as a fully featured, high-end solution rather than a simplified add-on.** From advanced **TIG AC/DC Pulse** to high-performance **MIG and Pulse MIG**, the system delivers uncompromised functionality, precision, and control in every mode, offering outstanding performance and maximum flexibility in one powerful, future-ready platform.

Supported welding processes

- MIG welding
- Pulse MIG welding
- Flux-Cored welding
- Brazing
- Arc Air Gouging
- TIG AC/DC Pulse welding
- Stick (MMA) welding

Designed for **carbon steel, stainless steel, aluminum, and related alloys**, the system combines robust electrical performance with **a modular, expandable architecture**, making it ideal for a wide range of industrial applications.

Built for harsh conditions, the **8Pro421-MpTp** is rated for **continuous** operation at 40°C (104°F) and delivers one of the highest duty cycles in its class:

- 420 A @ 35%
- 350 A @ 60%
- 305 A @ 100% (40°C / 104°F)

This ensures uninterrupted heavy-duty welding without compromise.

Manufactured in Canada, the system complies with Canadian and IEC standards and is backed by a 4-year Canaweld warranty, delivering long-term operational value and confidence.

Key Highlights & Advanced Technologies

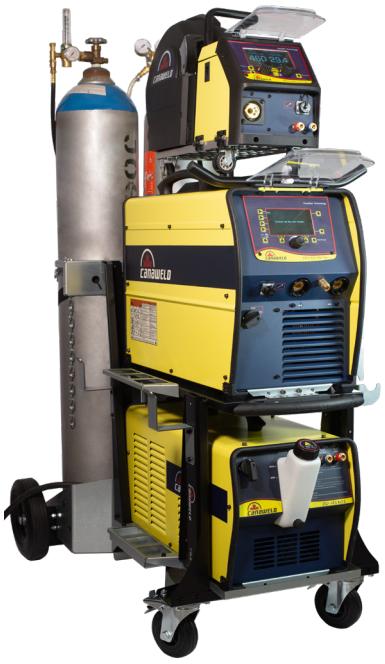
Fast setup. Easy control. Full visibility.

- **Exceptional welding quality** engineered for heavy-duty industrial applications
- **Robust, durable construction** designed for long service life in demanding environments
- **Wire feeder LCD control panel** for fast parameter adjustment and clear, real-time feedback
- **Central press-and-turn control** with an intuitive, user-friendly interface

TIG PULSE | TIG Lift | MIG PULSE | LCD | TIG AC/DC | MIG SYNERGIC MANUAL | STICK AC/DC | SAVE JOB | CC CV | HF | VRD PROTECTION STICK | Gouge | FAN AUTO CONTROL | 3 PHASE 575 V 50/60 HZ | IEC

CSA / CE PS Certified

WARRANTY 4 YEAR WARRANTY



PROCESSES

TIG	GTAW (AC/DC) , HF and no HF
MIG	GMAW - SOLID WIRE FCAW - FLUX - CORE WIRE
PULSED	PULSED
STICK	SMAW
STICK GOUGING	Gouge

- **Program memory** to save and recall welding programs for consistent, repeatable results
- **Metric and imperial units** supported for seamless North American operation
- **Auto-controlled fan cooling** to reduce noise, dust intake, and energy consumption
- **Wind-tunnel cooling system** for enhanced component protection and extended service life
- **Compact & mobile design:** Trolley-mounted and crane-ready for maximum flexibility

Ready for the future

Maximum modularity. Maximum adaptability.With its modular platform, easy expandability, and uncompromised weld quality across multiple processes, the **8Pro421-MpTp** remains intuitive to operate and ready for **manual, semi-automated, and future welding applications—**protecting your investment for years to come.

Robotic and Cobotic Welding Capability (Optional)

The modular design of the **8Pro421-MpTp** allows seamless integration with **robotic and cobotic welding systems.** Advanced penetration control and arc-length stabilization ensure consistent arc performance and highly repeatable weld quality in automated applications, with system control managed directly through the power source for fast setup and reliable operation.

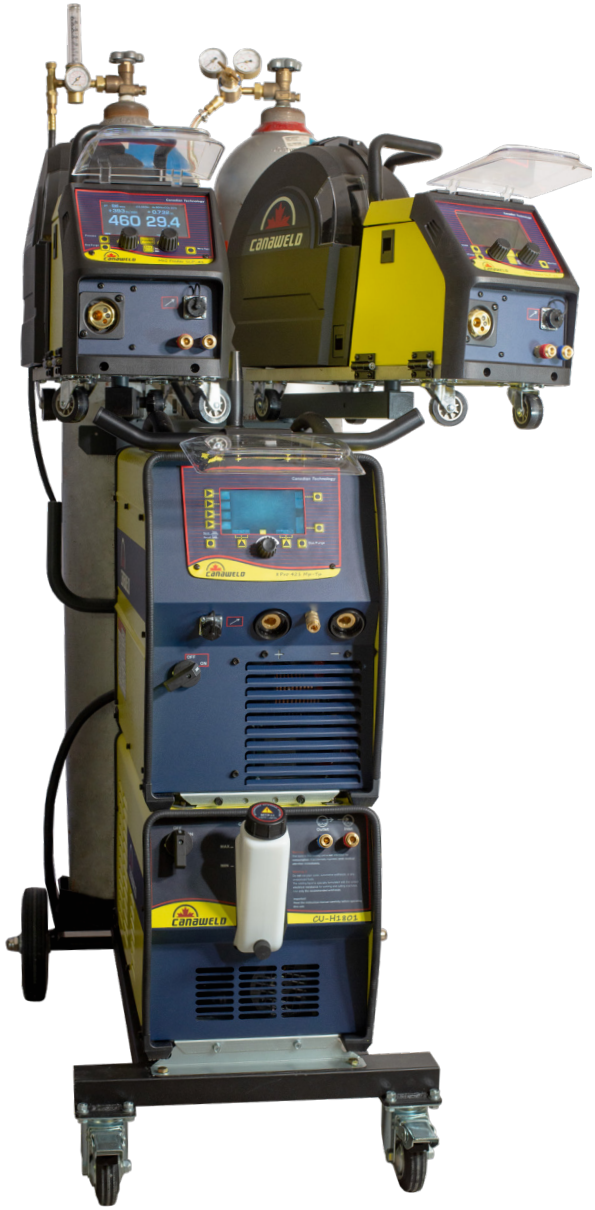
Dual Wire Feeder (Optional)

Higher productivity. Lower operating costs

The **8Pro421-MpTp** can be equipped with the optional **SLP-41 Dual MIG Wire Feeder** (available upon special order), ensuring the correct wire is always ready—whether using **two different filler materials or two wire diameters.**

By eliminating frequent wire spool and torch changes, the system r**educes downtime, lowers wear-part consumption, and significantly cuts operating costs.** Exceptionally stable wire feeding makes this solution ideal for **construction equipment manufacturing, shipbuilding, pressure vessel fabrication, automotive production, and pipeline welding**, without adding system complexity.

When paired with the **8Pro421-MpTp,** it forms a highly efficient welding solution that maximizes uptime and fully utilizes the machine's performance potential.



Easy Wire Change

Each wire feeder **rotates around its shaft**, improving ergonomics and enabling **fast, effortless wire changes**, even in demanding working conditions.

Support for wire diameters from **0.030 in (0.8 mm) to 1/16 in (1.6 mm)** ensures optimal filler selection for every application.

Productivity at the Touch of a Button

The welding process line can be switched **instantly via the torch trigger.** Transition between active process lines occurs within milliseconds, ensuring **uninterrupted workflow and maximum operational efficiency.**

Modular, Robust, and Flexible Design

Thanks to its **modular and robust construction**, the **SLP-41 Dual MIG Wire Feeder** can be configured precisely to match application requirements. Depending on the work environment, it can be **trolley-mounted or crane-suspended**, providing maximum flexibility for hard-to-reach welding locations.

8Pro421- MpTp

8Pro421-MpTp Technical Specification

Process	Unit	TIG		Stick Electrode	Gouge	MIG
		AC	DC	AC / DC	DC	DC
Input Voltage, Three Phase, 50/60 Hz	V	575(-15%,+10%)				
Primary Current@ Rated Maximum Welding Current(@575V)	A	23	23	28	28	27
Maximum Primary Effective Current (I1 eff max)(@575V)	A	15.5	15.5	19	19	18
Programming and Saving Parameters						
Welding Current Range	A	10 - 420	10 - 420	10 - 420	10 - 420	30- 420
Duty Cycle @ Rated Maximum Welding Current at 104^{O} F (40^{O}C)	A	35%@420A	40%@420A	35%@420A	35%@420A	35%@420A
Welding Current @ 100% Duty Cycle in 104^{O} F (40^{O}C)	A	305	315	305	305	305
Welding Current @ 60% Duty Cycle in 104^{O} F (40^{O}C)	A	350	360	350	350	350
Open Circuit Voltage	V	97		97	97(14.5)	97
Stick and Gouge Parameters						
Stick Modes				AC and DC		
Arc Force				0 – 10		
Hot Start				0 - 10		
MIG Parameters						
Tigger Mode						2T, 4T, Spot
Pre Flow						0.0 - 5.0s
Post Flow						0.0 - 10.0s
Burnback						0-10
Softstart						0-5
Spool Gun						OFF - ON
TIG Parameters						
Ignition		TIG HF , TIG Lift				
TIG Process Modes		Pulse, No-Pulse, Tack, Cold Tack, Stitch(HF Mode), Cold Stitch (HF Mode)				
TIG Output Control		2T , 4T , Foot Pedal				
Pre-flow	sec.	0.1 – 5				
Initial Amperage	A	10 – 420				
Initial Slope	sec.	0.0 – 20				
Peak Welding Amperage	A	10 – 420				
Final Slope	sec.	0.0 – 20				
Final Amperage	A	10 – 420				
Post flow	sec	0.1 – 25				
Tungsten diameter adjustment		Yes				
Base Amperage	A	10 – 420				
Pulses Frequency	pps	0.5 – 999				
Pulse Duty Cycle	%	5 – 95				
TIG AC Parameters						
AC Wave Shapes		Advanced Square Wave, Sine wave, Triangular wave				
AC Controls		Frequency , Balance				
Balance	%	30-90%				
Frequency	HZ	50 – 250				
TIG Sequence Control Parameters						
ON Time(Cold Tack, Cold Stitch, Tack ,Stitch)	sec.	0.1 – 10.0				
OFF Time(Stitch and Cold Stitch)	sec	0.1 – 10.0				
Maximum Material Thickness (TIG)		11/16 in (17mm)				
Maximum Electrode Diameter (Stick)		1/4 in. (6.4mm)				
Torch Cooling		Water				
Minimum Power of Generator	KVA	30 KVA				
Weight	lb. (Kg)	128 lb (58 kg)				
Dimensions Including Handle (D, W, H)	in. (mm)	28.7 x 12.6 x 21.2 inch (730 X 320X 540 mm)				

8Pro421-MpTp: TIG AC/DC Mode

The Power of Pulse

The **8Pro421-MpTp** is equipped with an advanced **TIG AC/DC Pulse module** engineered for demanding industrial applications. Despite its robust performance, the system remains intuitive and easy to operate. With advanced pulse waveforms, full professional functions, and HF start, it delivers precise, high-quality TIG welds on both thick and very thin materials with minimal distortion.
Key performance advantages include:

- **Heat control** – minimizes distortion and burn-through
- **Thin metal capability** – precise control for very thin materials, including aluminum
- **Arc stability** – smooth, consistent arc in all welding positions
- **Penetration** – strong, reliable welds on thicker materials
- **Flexibility** – adapts to different joints, positions, and material thicknesses
- **Electrode life** – extended tungsten durability
- **Superior weld quality** – reduces re-welding and excessive cleanup

High-Performance TIG Capabilities

- **Maximum output: 420 A at 40% duty cycle, 350 A at 60% duty cycle**
- Capable of TIG welding **aluminum and steel up to 11/16 in (17 mm)** thickness
- **Adjustable AC balance settings**, providing full control over cleaning action and penetration during aluminum welding
- **HF Start** delivers reliable, contactless arc ignition, prevents tungsten contamination, extends tungsten life, stabilizes the arc, and supports smooth puddle formation
- **Hot Start** improves arc ignition, enhances tungsten durability, stabilizes the arc, and increases weld quality at start-up
  - Once tungsten diameter is set on the control panel, **Hot Start is automatically adjusted**
- **Remote amperage control via foot pedal**, available in both **wired and wireless** versions for maximum flexibility

Setting a New Standard in TIG Welding

- **TIG AC welding,** with or without advanced Pulse
- **TIG DC welding,** with or without advanced Pulse

Waveform Control

- **Advanced Square Wave**

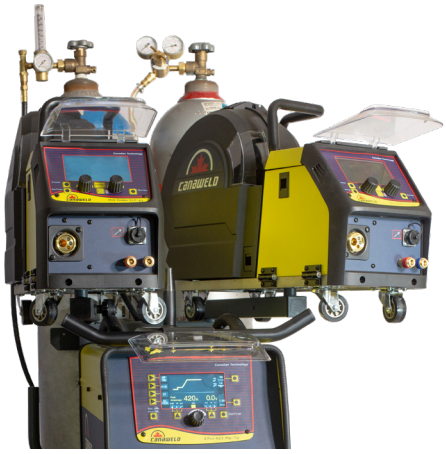
  Provides deeper penetration, higher torch travel speed, and rapid cooling of the weld pool

- **Sine Wave**

  Simulates a conventional power source and produces a quieter arc sound

- **Triangular Wave**

  Minimizes heat input and distortion on thin aluminum, enabling faster travel speeds.



Advanced Pulse Parameter Control

All pulse parameters are easily accessible via the **LCD interface**, including:

- Pre-flow
- Initial amperage and slope
- Peak and base amperage
- Pulse frequency and pulse width
- Final amperage and slope
- Post-flow

Specialized TIG Processes

Cold TIG Welding

Cold TIG provides a precisely controlled TIG process with significantly reduced heat input. It improves control on thin or heat-sensitive materials, reducing distortion and the risk of burn-through.This process is especially effective for **butt joints and delicate welding applications**, offering more precise control with reduced reliance on manual heat modulation.

Cold Tack TIG Welding

Produces short, accurate tacks with minimal heat input, improving alignment during fit-up and reducing distortion and clamping requirements.

Stitch TIG Welding

Stitch TIG creates **short weld segments separated by small gaps**, allowing the joint to cool between passes. This reduces heat input and distortion on long seams and thin sheet metal and is ideal for edge joints and lap joints.

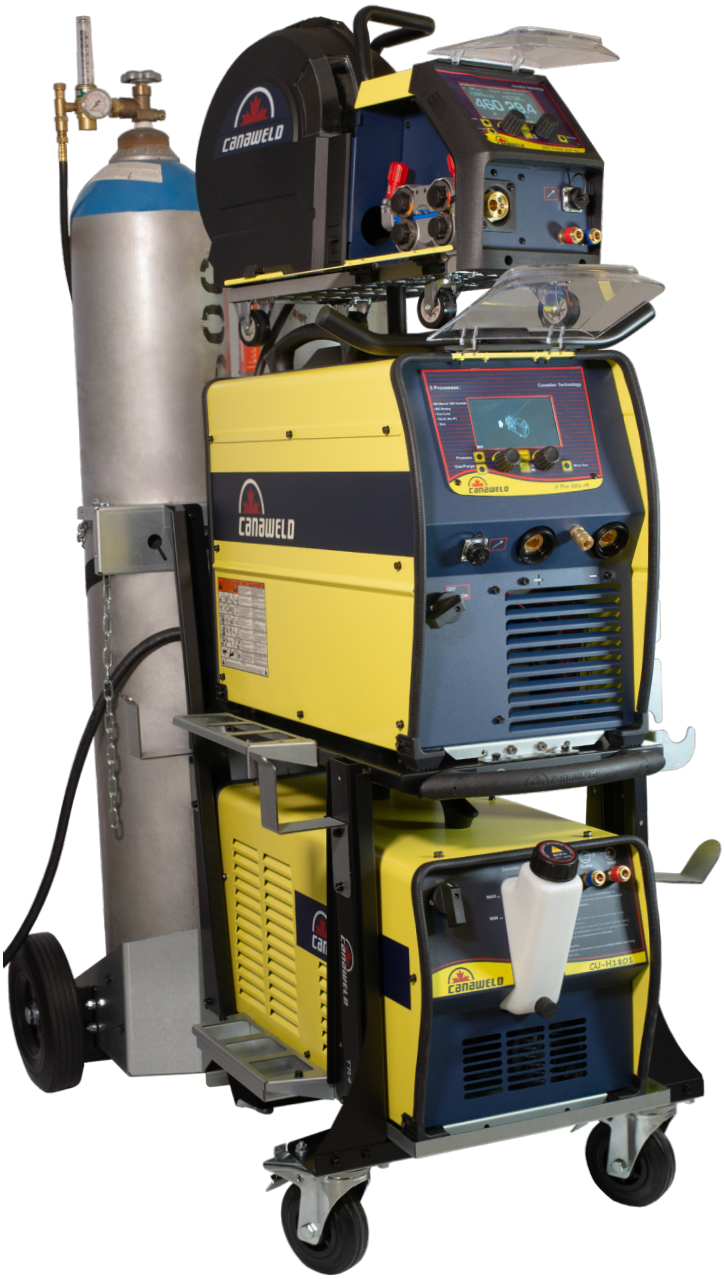
Cold Stitch TIG Welding

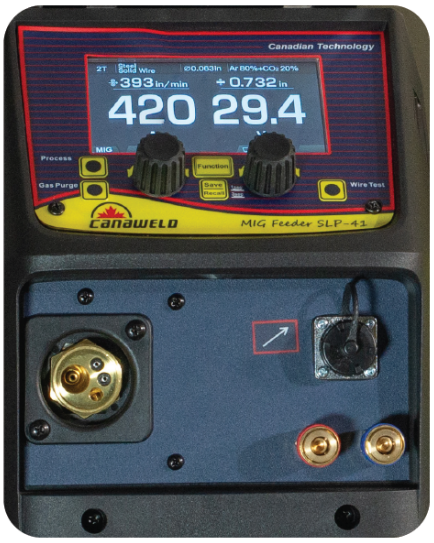
Uses low-heat pulsed TIG to deposit controlled weld beads in sequence, reducing heat input and producing cleaner, stronger joints on thin or heat-sensitive materials.

User Interface & Productivity

- 5-inch LCD screen for fast, intuitive setup
- Simplified parameter selection with reduced setup errors
- Suitable for both experienced welders and beginners
- Program memory stores up to 10 welding jobs for quick recall

8Pro421-MpTp: MIG/MIG Pulse/Flux Cored/brazing Mode





Key Features:

- **8Pro421-MpTp functionality:** Supports **MIG (Synergic & Manual), MIG Brazing, Flux-Cored welding, TIG DC (Lift Start, no HF), Arc Air Gouging**, and **Stick welding**, offering maximum flexibility for a wide range of industrial applications.
- **Canaweld Professional Wire Feeder:** Heavy-duty design ensures precise, consistent wire feeding. Supports both **4-roll and 2-roll configurations** for maximum performance.
- **Comprehensive MIG controls:** Full control over **wire speed, voltage, trigger mode (2T / 4T), burnback, pre-flow, post-flow, slow feed**, and **adjustable inductance** for fine tuning.
- **Push-Pull capability (Optional)** ensures reliable feeding of soft wires such as aluminum, especially with longer torches. The machine synchronizes wire feed speed with the gun motor for smooth, stable delivery.
- **MIG Synergic Technology:** Automatically adjusts optimal welding parameters for **MIG, MIG Brazing**, and **Flux-Cored welding** after entering basic data such as **material thickness, shielding gas**, and **welding process**. Enables fast setup while maintaining superior performance.
- **Rugged and Modular design:** Durable metal front panel with easy access to controls; ideal for **shop use**, **on-site work**, and **field environments.**
- **Versatile polarity options:** Manual switching between **gas and gasless wires.**

8Pro421-MpTp: Stick Welding Mode

The **8Pro421-MpTp** delivers outstanding stick welding quality across all industrial electrodes, including **cellulosic types**. Advanced **Arc Force, Soft Start, and adjustable Hot Start** ensure optimized arc behavior, easy ignition, and stable performance.

Integrated **VRD (Voltage Reduction Device)** enhances operator safety by reducing idle open-circuit voltage without compromising welding performance. Support for both **AC and DC stick welding** provides maximum flexibility for a wide range of industrial applications.

8Pro421-MpTp : Arc Air Gouging

The system offers **full control of arc air gouging parameters directly from the control pane**l, ensuring precise adjustment, consistent performance, and reliable results across various gouging applications..

Weldable Metals (for 8Pro421-MpTp), in all process

- Aluminum and Aluminum Alloys
- Magnesium and Magnesium Alloys
- Carbon and Mild Steel
- HSLA Steel
- Alloy Steels, including Chrome-Moly (4130 / 4140, CrMo)
- Nickel-Based and Heat-Resistant Alloys
- Stainless Steels:
  - Austenitic (304 / 316)
  - Ferritic
  - Martensitic
- Copper and Copper Alloys, including:
  - Brass
  - Bronze
  - Silicon Bronze

What Is Included	
MULTIPROCESS 8PRO421-MpTp	
ITEM	**Quantity**
Power Source of Multiprocess 8Pro (3x600V)	1
Ground Clamp 500A	1
Electrode Holder 400A	1
Industrial welding trolley	1
Cooling Unit 1801	1
TIG Torch Super Cool SC400	1
Gas Hose	1
Gas Flow meter	1
Mixes/Argon gas Regulator, Flow meter	1
Wire Feeder for Dual MIG	2
Intercable Connection	2
MIG Torch, Heavy Duty, Air Cooled, 500A Tragaskiss	2
Foot Pedal	1

Water Coolant CU-H 1801 , CU-H 1501

Advanced Cooling Systems for Welding and Cutting

Efficient cooling is essential when working with powerful MIG, TIG, and Plasma machines. High welding currents generate significant heat in the torch, which can reduce performance, cause premature wear, and limit operator comfort. Our integrated cooling systems are designed to address these challenges by ensuring stable torch temperatures, even under heavy-duty conditions.

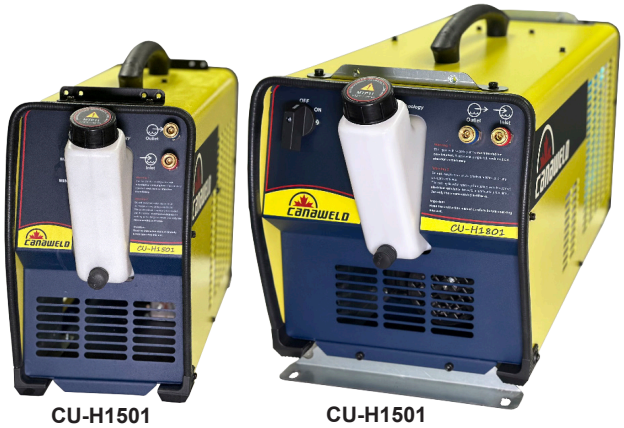
By circulating coolant through the torch and cables, these systems dissipate excess heat and protect key components. This allows welders to use lighter and smaller torches, improving maneuverability and reducing fatigue during long shifts. With less overheating, torches last longer, consumables stay in better condition, and maintenance costs are reduced.

Key Advantages:

- Maintains consistent torch temperature at high currents
- Extends torch and consumable lifespan
- Allows use of compact, lightweight torches for better handling
- Increases operator comfort and productivity
- Supports reliable performance in demanding MIG, TIG, and Plasma applicationsWhether in fabrication shops, heavy industry, or precision welding environments, a dependable cooling system ensures maximum efficiency, durability, and operator comfort.

Canaweld Water Coolant Systems

Canaweld water coolant systems provide efficient, reliable and Plasma applications. Built with cutting-edge design and signed for both light- and heavy-duty use, feature a compact power levels to match different torch capacities and cooling ble with most welding and cutting machines on the market.



CU-H1501 CU-H1501

Key Features:

- **Powerful fan** for effective heat dissipation.
- **High-efficiency heat exchanger** for maximum cooling performance.
- **Special filter** to absorb particles in the water circulation system.
- **Multiple protections,** including water circulation monitoring and pressure switch.
- **Brass regenerative turbine electric pump** provides reliable pressure and flow,even for long torches or high-altitude work.
- **Smart air-cooling design** ensures maximum efficiency with minimum volumeand weight
- **Special coolant liquid supplied** with the system, lubricating the pump and protecting gainst freezing in winter.
- **Available in different power levels**, depending on the required cooling capacity

CANAWELD Cooling Unit Series		CU-H1	CU-H1501	CU-H1801
Input Voltage Range (Single Phase, 50/60 Hz)	V		220	
Maximum Primary Current	A	1.3	1.4	1.4
Cooling Power at 1 l/min	W	1100	1400	1800
Rated Maximum Pressure	bar		50 HZ= 3.7 60 Hz= 4.7	
Tank Capacity	l	7	6	6
Weight	lb. (kg)	42 (19)	46 (21)	61 (28)
Dimensions Including Handle (D, W, H)	inch (mm)	26x9.2x15.7 (660x235x400)	26.5x8.2x16.5 (675x210x420)	30.3x12.2x15.7 (770x310x400)

The IEC-rated cooling capacity is specified for a 25°C (77°F) ambient environment, a flow rate of 1 L/min, and a 40°C (72°F) coolant temperature increase