



# Geomembrane Welding Machine

**CX Series**

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# PROFILE

CX series geomembrane welding machines are equipped with copper or brass hot wedges to ensure efficient and accurate welding process and meet the welding requirements of membranes of different materials. The bearings of the whole machine are imported from Germany, with excellent stability and durability, which effectively extends the service life of the equipment and ensures long-term stable operation. The welding machines are suitable for welding geomembranes with a thickness of 0.3-4.0mm. They are easy to operate and have excellent performance. They are ideal choices for geomembrane welding projects. The hot air guns are equipped with replaceable different welding nozzles to adapt to different welding needs. It adopts imported heating elements to ensure long-term stable work at high temperature.



CIRCULAR FISH POND



RESERVOIR TANK



LANDFILL

# CX SERIES



CX300



CX500S



CX500L



CX600



CX700



CX900



CX1600S



CX1600S BL



# GEOMEMBRANE WELDING MACHINE


MORE STABLE

MORE SWIFT

MORE ROBUST


The CX300 has a power of 1400W and a weight of 7kg. This is a dual-purpose welding machine, support the same side into the film, that is, the two films are welded from the left side, the same side into the film unilateral welding, generally used for biogas pond, landfill cover, circular aquaculture pond welding, normal can also be both sides into the film, left and right into the film lap welding.

## CX300 Product Features




**1 Main Frame Design**

The main frame is made of aviation aluminum, die-cast, and painted on the surface, which is light and strong.




**2 Precision Bearings**

The bearing position and screw holes are CNC machined, using Japanese IKO needle roller bearings and German NSK deep groove ball bearings.




**3 Digital Display Screen**

The temperature and speed are controlled by computer chip programming, and the LCD screen digitally displays the temperature and speed.




**4 Pressure Adjustment**

The double handle design is ergonomic, and the pressure nut is equipped with a high-strength spring for easy adjustment.



**5 Hot Wedge**

Equipped with a copper hot wedge, the thermal conductivity of copper is 4 times than that of brass. Copper has good viscosity and the fixing screws are not easy to loose.



**6 Heating Cartridge**

The wading depth of the machine is 50mm (water less than or equal to 50mm will not burn the machine). The heating cartridge adopts a curved tube design.

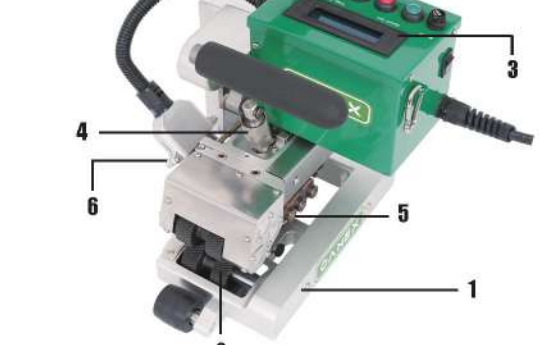


Diagram showing the machine components and welding process. Labels include: 1 (Main Frame), 2 (Heating Cartridge), 3 (Digital Display), 4 (Pressure Adjustment), 5 (Hot Wedge), 6 (Precision Bearings). The diagram also shows the welding process with labels: Upper Layer, Overlap Width, Welding Seam, Leakage Interior Cavity, and Lower Layer.

**CX300 Product Specifications**

Voltage:	220V
Frequency:	50Hz
Power:	1400W (hot wedge length 70mm)
Welding speed:	0-8m/min
Heating temperature:	0-450°C
Welding material thickness:	0.5mm-1.5mm
Welding seam width:	15mm×2, Interior Cavity 12mm
Welding seam strength:	≥85% of original material
Overlap width:	100mm
Net weight:	7kg

**CX1600S Hot Air Gun**

**124.306 Pressure Testing Needle**

**Booster EX2**

**Booster EX3**

# GEOMEMBRANE WELDING MACHINE

MORE STABLE

MORE SWIFT

MORE ROBUST

The CX500L is a dual purpose welding machine, allowing for single sided welding by feeding the geomembrane from the same side, typically used for capping biogas tanks and landfills. Additionally, it supports overlap welding, where the geomembrane can be fed from both sides (left and right). This versatile machine boasts a power output of 1800W and weighs just 9.5 kg.

## CX500L Product Features



**1 Main Frame Design**

The main frame is made of aviation aluminum, die-cast, and painted on the surface, which is light and strong.



**2 Precision Bearings**

The bearing position and screw holes are CNC machined, using Japanese IKO needle roller bearings and German NSK deep groove ball bearings.



**3 Hot Wedge**

Equipped with a copper hot wedge, the thermal conductivity of copper is 4 times than that of brass. Copper has good viscosity and the fixing screws are not easy to loose.



**4 Guide Rail Part**

The lower support rail is an eccentric wheel, the upper pressure wheel has a spring, and the guide rail is a copper sleeve stainless steel shaft with strong durability.



**5 Pressure Adjustment**

The double handle design is ergonomic, and the pressure nut is equipped with a high-strength spring for easy adjustment.



**6 Adjustable Eccentric Wheel**

Can be adjusted according to film thickness.



Diagram showing the machine components and welding process. Labels include: 1 (Main Frame), 2 (Heating Cartridge), 3 (Digital Display), 4 (Pressure Adjustment), 5 (Hot Wedge), 6 (Precision Bearings). The diagram also shows the welding process with labels: Upper Layer, Overlap Width, Welding Seam, Leakage Interior Cavity, and Lower Layer.

**CX500L Product Specifications**

Voltage:	220V
Frequency:	50Hz
Power:	1800W
Welding speed:	0-6m/min
Heating temperature:	0-450°C
Welding material thickness:	0.8mm-3mm
Over width:	120mm
Welding width:	15mm×2, interior cavity 16mm
Seam strength:	≥85% base material
G.N. Weight	16.2KG/9.5KG

**CX1600S Hot Air Gun**

**124.306 Pressure Testing Needle**

**Booster EX2**

**Booster EX3**



# GEOMEMBRANE WELDING MACHINE


MORE STABLE

MORE SWIFT

MORE ROBUST


The CX500S has a power of 1800W and a weight of 10kg. This is a dual-purpose welding machine, support the same side into the film, that is, the two films are welded from the left side, the same side into the film unilateral welding, generally used for biogas pond, landfill cover, circular aquaculture pond welding, normal can also be both sides into the film, left and right into the film lap welding.

## CX500S Product Features




**1 Main Frame Design**

The main frame is made of aviation aluminum, die-cast, and painted on the surface, which is light and strong.




**2 Precision Bearings**

The bearing position and screw holes are CNC machined, using Japanese IKO needle roller bearings and German NSK deep groove ball bearings.




**3 Digital Display Screen**

The temperature and speed are controlled by computer chip programming, and the LCD screen digitally displays the temperature and speed.




**4 Pressure Adjustment**

The entire bearing of the machine is imported from Germany.



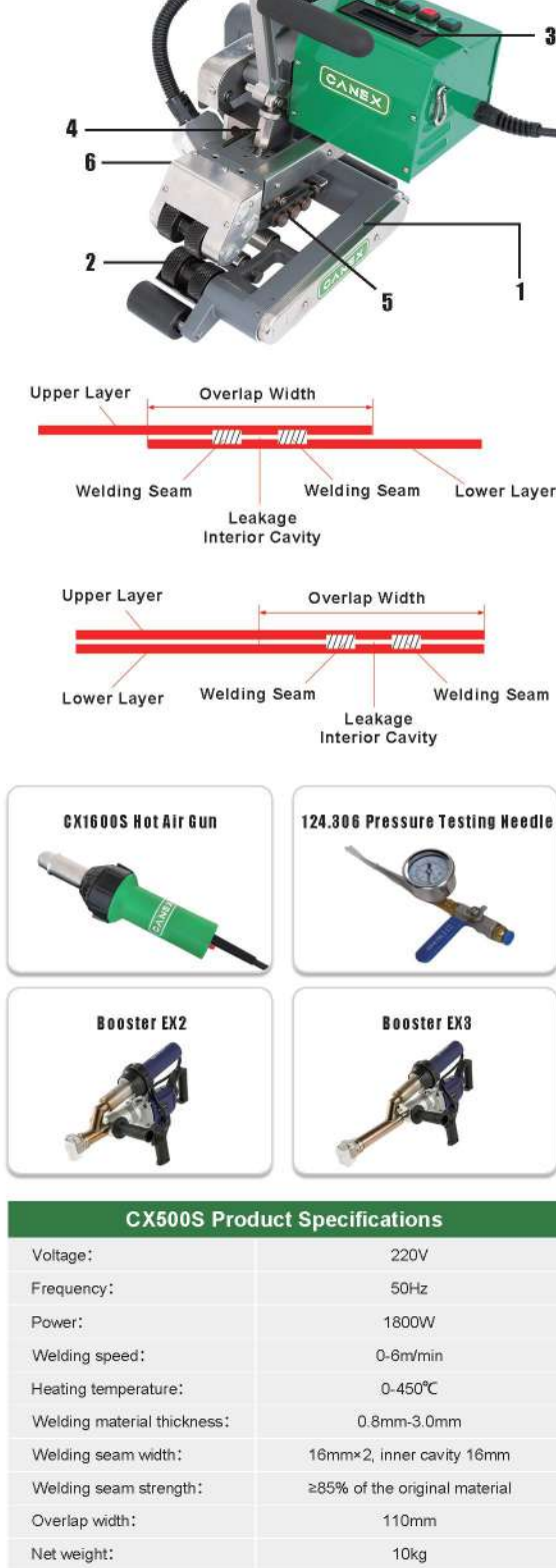
**5 Hot Wedge**

Equipped with a copper hot wedge, the thermal conductivity of copper is 4 times than that of brass. Copper has good viscosity and the fixing screws are not easy to loose.



**6 Heating Cartridge**

The wading depth of the machine is 50mm (water less than or equal to 50mm will not burn the machine). The heating cartridge adopts a curved tube design.



**CX500S Product Specifications**

Voltage:	220V
Frequency:	50Hz
Power:	1800W
Welding speed:	0-8m/min
Heating temperature:	0-450°C
Welding material thickness:	0.8mm-3.0mm
Welding seam width:	16mm×2, inner cavity 16mm
Welding seam strength:	≥85% of the original material
Overlap width:	110mm
Net weight:	10kg

# GEOMEMBRANE WELDING MACHINE

MORE STABLE

MORE SWIFT

MORE ROBUST

The CX600 has a power of 2100W and a weight of 11.5kg. The main frame of this machine, the material used is aviation aluminum, the characteristics of this material, light weight, high strength, no deformation, and we use the die casting process, (not foundry die casting), is open steel mold, the use of 1500 tons of die casting machine die casting molding, after forming, the surface is painted treatment, spray paint after processing.

## CX600 Product Features



**1 Main Frame Design**

The main frame is made of aviation aluminum, die-cast, and painted on the surface, which is light and strong.



**2 Precision Bearings**

The bearing position and screw holes are CNC machined, using Japanese IKO needle roller bearings and German NSK deep groove ball bearings.



**3 Digital Display Screen**

The temperature and speed are controlled by computer chip programming, and the LCD screen digitally displays the temperature and speed.



**4 Pressure Adjustment**

The double handle design is ergonomic, and the pressure nut is equipped with a high-strength spring for easy adjustment.



**5 Hot Wedge**

Equipped with a copper hot wedge, the thermal conductivity of copper is 4 times than that of brass. Copper has good viscosity and the fixing screws are not easy to loose.



**CX600 Product Specifications**

Voltage:	220V
Frequency:	50Hz
Power:	2100W (hot wedge length 100mm)
Welding speed:	0-8m/min
Heating temperature:	0-450°C
Welding material thickness:	0.8mm-4.0mm
Welding seam width:	16mm×2, inner cavity 16mm
Welding seam strength:	≥85% of original material
Overlap width:	120mm
Net weight:	11.5kg

CX1600S Hot Air Gun



124.306 Pressure Testing Needle



Booster EX2



Booster EX3





# GEOMEMBRANE WELDING MACHINE


MORE STABLE

MORE SWIFT

MORE ROBUST


The CX700 weighs 11.5kg and has a power of 2400W. The main frame of this machine, the material used is aviation aluminum, the characteristics of this material, light weight, high strength, no deformation, and we use the die casting process, (not foundry die casting), is open steel mold, the use of 1500 tons of die casting machine die casting molding, after forming, the surface is painted treatment, spray paint after processing.

## CX700 Product Features




**1 Main Frame Design**

The main frame is made of aviation aluminum, die-cast, and painted on the surface, which is light and strong.




**2 Precision Bearings**

The bearing position and screw holes are CNC machined, using Japanese IKO needle roller bearings and German NSK deep groove ball bearings.




**3 Digital Display Screen**

The temperature and speed are controlled by computer chip programming, and the LCD screen digitally displays the temperature and speed.




**4 Pressure Adjustment**

The entire bearing of the machine is imported from Germany.



**5 Hot Wedge**

Equipped with a copper hot wedge, the thermal conductivity of copper is 4 times than that of brass. Copper has good viscosity and the fixing screws are not easy to loose.



**6 Heating Cartridge**

The wading depth of the machine is 50mm (water less than or equal to 50mm will not burn the machine). The heating cartridge adopts a curved tube design.

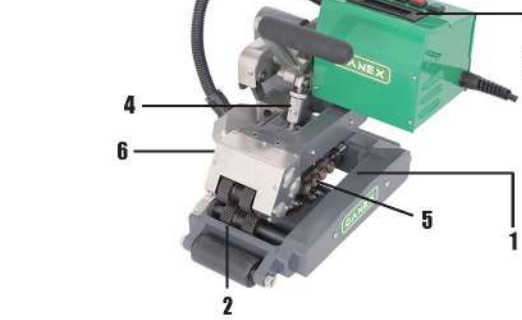





Diagram showing the welding process with labels: Upper Layer, Overlap Width, Welding Seam, Leakage Interior Cavity, Lower Layer.




**CX1600S Hot Air Gun**



**124.306 Pressure Testing Needle**



**Booster EX2**



**Booster EX3**

CX700 Product Specifications	
Voltage:	220V
Frequency:	50Hz
Power:	2400W (hot wedge length 120mm)
Welding speed:	0-8m/min
Heating temperature:	0-450°C
Welding material thickness:	1.0mm-4.0mm
Welding seam width:	16mm×2, inner cavity 16mm
Welding seam strength:	≥85% of the original material
Overlap width:	120mm
Net weight:	11.5kg

# GEOMEMBRANE WELDING MACHINE

MORE STABLE

MORE SWIFT

MORE ROBUST

The temperature control of CX900 Hot Wedge Welder adopts automatic constant temperature PID control, which has Precise temperature; the speed control adopts pulse width modulation (PWM) automatic voltage and speed stabilization circuit; the DC servo motor drive has large output torque can maintain a constant speed when climbing.

## CX900 Product Features



**1 Main Frame Design**

The main frame is made of aviation aluminum, die-cast, and painted on the surface, which is light and strong.



**2 Precision Bearings**

The bearing position and screw holes are CNC machined, using Japanese IKO needle roller bearings and German NSK deep groove ball bearings.



**3 Hot Wedge**

The hot wedge is available in copper and brass. 1800W Sufficient power, fast welding speed, and the fixing screws are filled with silicone shields.



**4 Guide Rail Part**

The lower support rail is an eccentric wheel, the upper pressure wheel has a spring, and the guide rail is a copper sleeve stainless steel shaft with strong durability.



**5 Pressure Adjustment**

The double handle design is ergonomic, and the pressure nut is equipped with a high-strength spring for easy adjustment.



Diagram showing the welding process with labels: Upper Layer, Overlap Width, Welding Seam, Leakage Interior Cavity, Lower Layer.



**CX1600S Hot Air Gun**



**124.306 Pressure Testing Needle**



**Booster EX2**



**Booster EX3**

CX900 Product Specifications	
Voltage:	220V
Frequency:	50Hz
Power:	1800W
Welding speed:	0-6m/min
Heating temperature:	0-450°C
Welding material thickness:	0.8mm-3.0mm
Overlap width:	120mm
Welding width:	15mm×2, interior cavity 16mm
Seam strength:	≥85% base material
G.N. Weight	17.4KG/11KG



# CX800A Hand Extrusion Welder

The CX800A Hand Extrusion Welder is a lightweight, high-efficiency machine designed for welding materials including PE, PP and PVDF, etc. It boasts stable performance, convenient operation, and is particularly advantageous for welding narrow gaps and corners that are difficult to access.



## Application

This extrusion welder is suitable for welding and repairing geomembranes, plastic pipes, plastic sheets made of PP, PE and other materials, as well as welding and manufacturing of various tanks and grooves. Its adaptability and effectiveness in handling different types of plastic materials ensure that it is a reliable choice for a multitude of projects.

CX800A Product Specifications	
Input voltage	230V/120V
Frequency	50/60Hz
Extruding power	800W
Hot air power	1600W
Welding rod heater power	800W
Air temperature	20-620°C
Extruding temperature	50-380°C
Extruding volume	2-2.5 Kg/h
Welding rod diameter	3-5mm
Driving motor	HIKOKI
Materials thickness	1-20 mm
G./N.Weight	14.0 Kg/6.5 Kg

## Features

Dual heating systems

LCD temperature controller

Motor cold protection

800W Japan HIKOKI extruding auger

360°rotatable welding head or 2 different angle welding head

## Welding Shoes



CL14 Round  
Welding Shoe

K5/6 Right Angle  
Welding Shoe

K8/10 Right Angle  
Welding Shoe



UBL30 Overlapping  
Welding Shoe

V8/10  
Welding Shoe

Blank  
Welding Shoe



Overlapping  
Welding Shoe

Right Angle  
Welding Shoe

Round  
Welding Shoe

# CX800B Hand Extrusion Welder

The CX800B is specially Extrusion Welder used for thermoplastic welding, and used for welding PP, PE, PVDF and other hot melt materials, with large extrusion volume and high efficiency, and is more suitable for welding narrow gaps and corners that are difficult to reach.



## Application

CX800B Hand Extruder is mainly used in plastic pipe welding, geomembrane sealing, chemical storage tanks welding, aquaculture facility construction and maintenance and other applications, etc. Its adaptability and effectiveness in handling different types of plastic materials ensure that it is a reliable choice for a multitude of projects

CX800B Product Specifications	
Input voltage	230V
Frequency	50/60Hz
Extruding power	1300W
Hot air power	1600W
Welding rod heater power	800W
Air temperature	20-620°C
Extruding temperature	50-380°C
Extruding volume	2-3 Kg/h
Welding rod diameter	3-4mm
Driving motor	METABO
Materials thickness	1-20 mm
G./N.Weight	14.0 Kg/7 Kg

## Features

Dual heating systems

LCD temperature controller

Motor cold protection

1300W Germany METABO extruding auger

360°rotatable welding head or 2 different angle welding head

## Welding Shoes



CL14 Round  
Welding Shoe

K5/6 Right Angle  
Welding Shoe

K8/10 Right Angle  
Welding Shoe



UBL30 Overlapping  
Welding Shoe

V8/10  
Welding Shoe

Blank  
Welding Shoe



Overlapping  
Welding Shoe

Right Angle  
Welding Shoe

Round  
Welding Shoe



CANEX

# HOT AIR WELDER CX1600S&CX1600S BL

MORE STABLE

MORE SWIFT

MORE ROBUST

The hot air guns CX1600S and CX1600SBL are suitable for welding various thermoplastic materials such as PE, PP, PVC, PVDF, TPO, etc., and are widely used in various industrial applications such as floor welding, membrane waterproofing welding, sheet welding, pipe welding, etc.

## Spare Parts



### CX1600S



#### CX1600S Product Specifications

Model:	CX1600S
Voltage:	220V
Frequency:	50/60Hz
Power:	1600W
Temp Adjusted:	20-620°C Adjustable Continuously
Air Volume:	Max 180L/min
Air Peressure:	2600Pa
Noise:	≤65 Db
Materials:	HDPE/PP/PVC/ABS/PVDF

### CX1600S BL



#### CX1600S BL Product Specifications

Model:	CX1600S BL
Voltage:	220V
Frequency:	50/60Hz
Power:	1600W
Temp Adjusted:	20-620°C Adjustable Continuously
Air Volume:	Max 180L/min
Air Peressure:	2600Pa
Noise:	≤65 Db
Materials:	HDPE/PP/PVC/ABS/PVDF

## CX1600S&CX1600S BL ATTACHMENT

The hot air guns CX1600S and CX1600SBL are suitable for welding various thermoplastic materials such as PE, PP, PVC, PVDF, TPO, etc., and are widely used in various industrial applications such as floor welding, membrane waterproofing welding, sheet welding, pipe welding, etc.





# GEOMEMBRANE TESTING TOOLS

Geomembrane testing, accurate and reliable - ensuring project safety!

In modern civil engineering, the sealing and strength of geomembranes are the key to ensuring the success of the project. Whether it is a landfill, mine anti-seepage, or aquaculture facilities, high-quality geomembrane testing tools are indispensable.

## COUPON CUTTER CX-001

Used to obtain test samples from the weld or membrane of the geomembrane, these samples can be used for tensile strength testing, tear strength testing, etc.



## AIR PRESSURE TESTER CX-002

Quickly detect the air tightness of the weld, easy to operate, and get accurate results.



## VACUUM HOOD CX-003

By covering the membrane surface with it and applying vacuum, observing the change in pressure inside the cover or whether bubbles appear, it can be determined whether the membrane has leakage.



# GEOMEMBRANE TESTING TOOLS

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## LEAK DETECTOR CX-7DJ

Use pulse voltage to identify leaks in large areas of geomembrane, can quickly detect and locate leaks, and a dripping alarm will sound when a leak is found.



## SPARK TESTER PST100

Use high-frequency sparks to detect the vacuum level of the geomembrane, which can quickly find tiny leaks.

## TENSIOMETER CX-TEN

By taking samples from the weld and performing tensile tests, the breaking force and elongation of the geomembrane can be tested.

