



Geomembranes Welding Machine

Geomembrane welding machine is one of many welding equipments. The main welding objects are: HDPE, PVC, LDPE, ECB, EVA, etc. Geomembrane welding machine with mechatronics integration design, small size, light weight, strong operability of on-site scene operations, double weld lap welding, high temperature control accuracy, high welding strength, good sealing effect, missed welding in the middle of the weld seam, automatic crawling can achieve inclined, vertical, and inverted automatic welding.

[Geomembranes Welding Machine-700]

Function introduction:

1. Electric heating system: The heating temperature of the electric wedge adopts closed-loop control, and the temperature can be continuously adjusted. Adjust to the corresponding pressure position according to the thickness of the material for welding.
2. Welding pressure adjustment system: capable of continuous adjustment.
3. Transmission system: Adopting dual wheel synchronous drive of upper and lower pressure rollers, with electronic continuously variable speed control. The automatic control system is equipped with a speed measuring generator to adjust the welding speed to maintain a constant state, unaffected by load changes. Power is transmitted to the transmission/pressure wheel through a three-stage planetary gear reduction.



[Geomembranes Welding Machine-900/900D]

Geomembranes Welding Machine Features:

- High fusion strength, The strength of the welding joint is basically the same as the strength of the raw material;
- Environmental protection and energy saving, using electric heating fusion technology, the welding process is non-toxic, harmless, odorless and pollution free;
- Simple operation, only need to adjust the working temperature and the position of the welding head;
- Wide scope of application, geomembrane welding machine can be used to weld various types of membrane materials;
- High reliability, It can perform multiple continuous operations and ensure normal operation in harsh environments.



[Geomembranes Welding Machine-GM1]



[Geomembranes Welding Machine-GM2]

The technical requirements for the construction of geomembrane engineering are very strict. Geomembranes welding machines can provide very reliable welding quality in harsh working environments.



[Geomembranes Welding Machine-800/800D/810/820]

Welding Products: GEOMEMBRANES WELDING MACHINE

APPLICATION

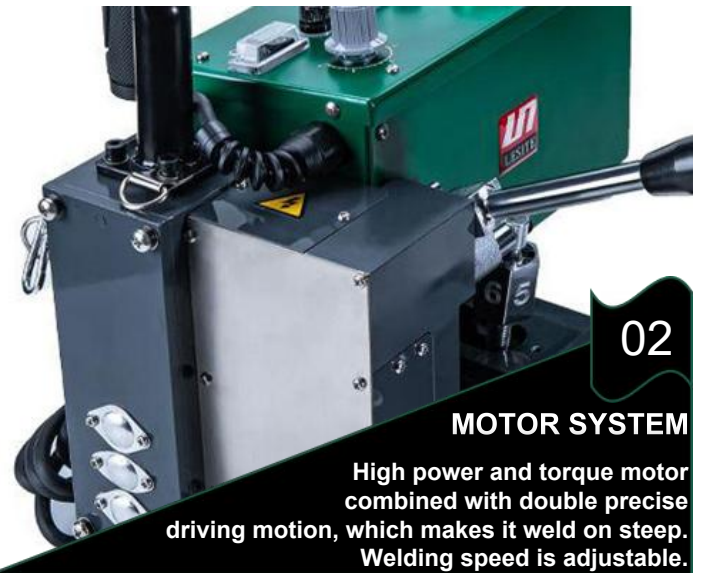
Geomembranes welding machine is suitable for materials such as LDPE, PVC, HDPE, EVA, ECB, PVC, etc.

Application covers refuse landfill anti-seepage project, sewage disposal anti-seepage project, lake anti-seepage project, water conservancy anti-seepage project, tunnel anti-seepage project, minerals place anti-seepage project, cultivation pond anti-seepage project, roofing waterproofing project etc.

SPECIFICATIONS OF DIFFERENT MODELS GEOMEMBRANES WELDING MACHINE

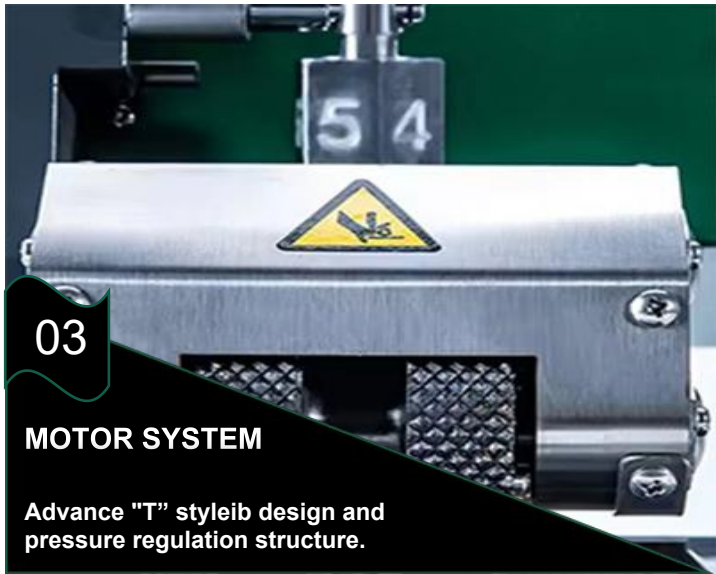
1. HEAVY-DUTY GEO HOT WEDGE WELDER - 900/900D

Model	900	900D
Input Voltage	230 V/120 V	230 V/120 V
Frequency	50/60 Hz	50/60 Hz
Power	1800 W/1650 W	1800 W/1650 W
Welding speed	1-5 m/min	1-5 m/min
Heating temperature	50-450 °C	50-450 °C
Weld pressure	100-1000 N	100-1000N
Welding material thickness	1.0 mm-3.0mm (Single layer film thickness)	1.0 mm-3.0 mm (Single layer film thickness)
Lap width	12 cm	12 cm
Weld width	15 mm*2, cavity 15 mm	15 mm*2, cavity 15 mm
Weld strength	≥85% Base material (Shear direction tensile strength)	≥85% Base material (Shear direction tensile strength)
Overall weight	13.0 Kg	13.0 Kg
Digital display function	Temperature display	Dual display of temperature and speed



Geomembranes welding machine-900/900D is also known as “Heavy-Duty Geo Hot Wedge Welder”. This welding machine adopts an advanced hot wedge structure, which has better heating efficiency and faster welding speed, making it particularly suitable for HDPE membrane material with a thickness of 1.0-3.0 mm is used in waterproofing and anti-seepage engineering in fields such as water conservancy, aquaculture, landfill, chemical and mining, sewage treatment, and roof construction.

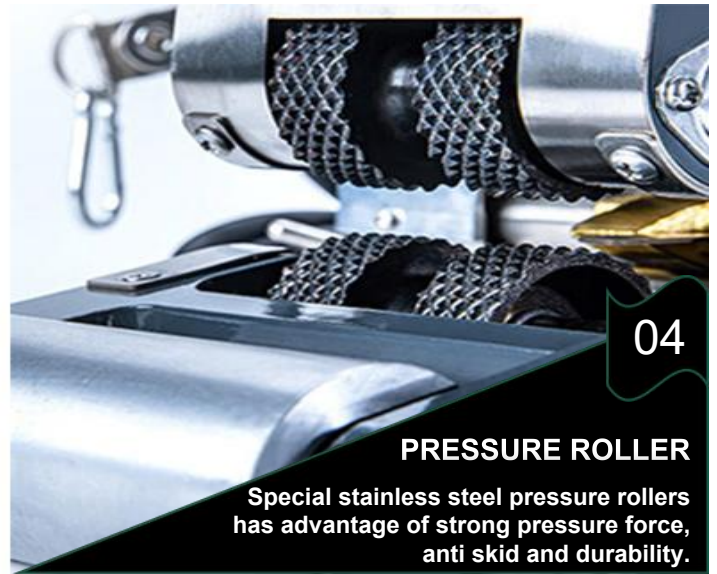
Welding Products: GEOMEMBRANES WELDING MACHINE



03

MOTOR SYSTEM

Advance "T" style design and pressure regulation structure.



04

PRESSURE ROLLER

Special stainless steel pressure rollers has advantage of strong pressure force, anti skid and durability.

2. GEOMEMBRANES WELDING MACHINE - 800/800D/810/820

Model	800	800D	810	820
Input Voltage	230 V/120 V	230 V/120 V	230 V/120 V	230 V/120 V
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Power	800 W/1100 W	800 W/1100 W	800 W/1100 W	800 W/1100 W
Welding speed	0.5-5 m/min	0.5-5 m/min	1-5 m/min	0.5-5 m/min
Heating temperature	50-450 °C	50-450 °C	50-450 °C	50-450 °C
Welding material thickness	0.2 mm-1.5 mm (Single layer film thickness)	0.2 mm-1.5 mm (Single layer film thickness)	0.2 mm-1.5 mm (Single layer film thickness)	0.2 mm-1.5 mm (Single layer film thickness)
Lap width	10 cm	10 cm	15 cm	20 cm
Weld width	12.5 mm*2, cavity 12 mm	12.5 mm*2, cavity 12 mm	12.5 mm*2, cavity 12 mm	12.5 mm*2, cavity 12 mm
Weld strength	≥85 % Base material (Shear direction tensile strength)	≥85 % Base material (Shear direction tensile strength)	≥85 % Base material (Shear direction tensile strength)	≥85 % Base material (Shear direction tensile strength)
Overall weight	5.0 Kg	5.0 Kg	5.5 Kg	6.0 Kg
Digital display function	Temperature display	Dual display of temperature and speed	Temperature display	Temperature display



01

STANDARDIZED PRODUCTION

Moulding process, precise installation, stable quality and long life.



02

CONTROL SYSTEM

Advanced digital display, accurate control and strong protection.

Geomembrane Products: GEOMEMBRANES WELDING MACHINE

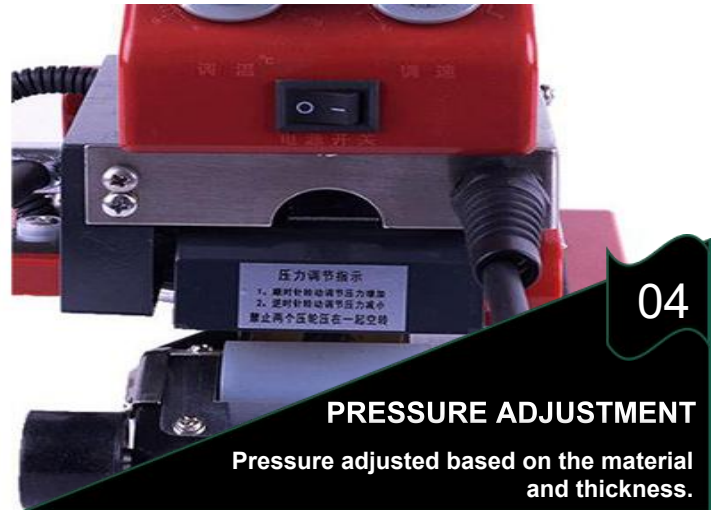
Geomembranes welding machine 800 series is hot wedge welder for welding HDPE, LDPE, EVA, PVC, ECB, PP thermo plastic materials, which is used in waterproofing projects like tunnels, subway, water conservancy, farming, solid waste landfills, chemical mining industry, sewage treatment, roofing and so on.



03

PRESSURE ROLLER

Imported silicone pressure roller of being flexible, heating resistance and wear resistance (steel pressure roller is special for welding over 1.0mm thickness)



04

PRESSURE ADJUSTMENT

Pressure adjusted based on the material and thickness.

3. GEOMEMBRANES WELDING MACHINE - GM1/GM2

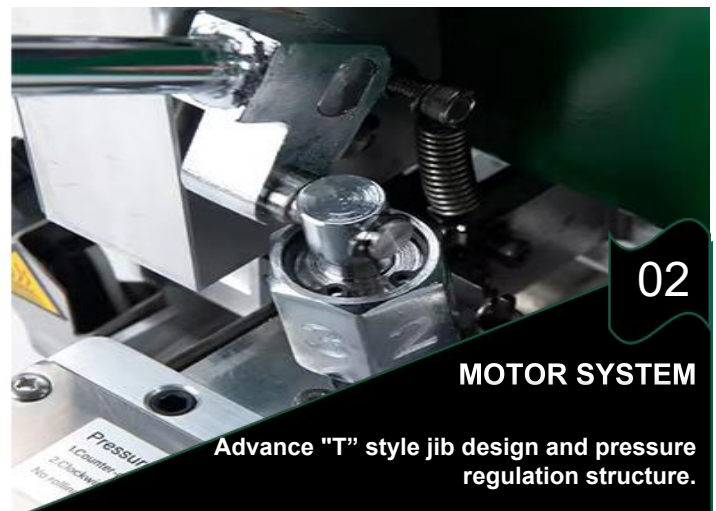
Model	GM1	GM2
Input Voltage	230 V/120 V	230 V/120 V
Frequency	50/60 Hz	50/60 Hz
Power	1400 W	600 W
Welding speed	0.5-6 m/min	0.5-5 m/min
Heating temperature	50-450 °C	50-450 °C
Welding material thickness	0.2 mm-2 mm (Single layer film thickness)	0.2 mm-2 mm (Single layer film thickness)
Lap width	12 cm	12 cm
Weld width	15 mm*2, cavity 15 mm	15 mm*2, cavity 15 mm
Weld strength	≥85 % Base material (Shear direction tensile strength)	≥85 % Base material (Shear direction tensile strength)
Overall weight	9.0 Kg	7.5 Kg
Film entry method	two-way film	unilateral in the same side of the film
Digital display function	Temperature display	Dual display of temperature and speed



01

CONTROL SYSTEM

Advanced digital display, accurate control and strong protection.



02

MOTOR SYSTEM

Advance "T" style jib design and pressure regulation structure.

Welding Products: GEOMEMBRANES WELDING MACHINE

Geomembranes welding machine-GM1/GM2 adopts advanced thermal structural structure with a small size, low weight, large power, large pressure, suitable for welding of various hot melt diaphragm of 0.2 to 2.0 mm, there is a two-way film and unilateral in the same side of the film, the product is applied to the water proofive and infiltration project in the tunnel, subway, water conservancy, breeding, biogas tank, garbage landfill, chemical mining, sewage treatment, roofing construction and other fields.



03

HEATING SYSTEM

Customized metal hot wedge with powerful heating elements which higher heating frequency and longer lie.



04

PRESSURE ROLLER

Imported silicone pressure roller of being flexible heating resistance and wear resistance.

4. GEOMEMBRANES WELDING MACHINE - 700

Model	700
Input Voltage	230 V/120 V
Frequency	50/60 Hz
Power	2800 W/2200 W
Welding speed	0.5-3.5 m/min
Heating temperature	50-620 °C
Weld pressure	100-1000 N
Welding material thickness	0.5 mm-2 mm (Single layer film thickness)
Lap width	16 cm
Weld width	15 mm*2, cavity 15 mm
Weld strength	≥85 % Base material (Shear direction tensile strength)
Overall weight	7.5 Kg
Digital display function	Dual display of temperature and speed



01

CONTROL SYSTEM

Advanced feedback intelligent digital control system, the temperature and speed are displayed intuitively on LCD screen. It has high control precision and strong protection function.



02

PRESSURE REGULATION

T-type cantilever head design and pressure adjustment mechanism to ensure the balance pressure, uniform welding seam, non-stop adjustable welding pressure.

Welding Products: GEOMEMBRANES WELDING MACHINE

Geomembranes welding machine-700 adopts advanced hot air heating system. With small, light and high speed, it perfects the welding quality even if corrosive materials and bad working environment. This machine is specially designed for tunnels, subway, water conservancy, aquaculture, biogas plants, landfills, chemical mining, sewage treatment, roof constructions and other waterproofing projects.

03

PRESS WHEEL MECHANISM

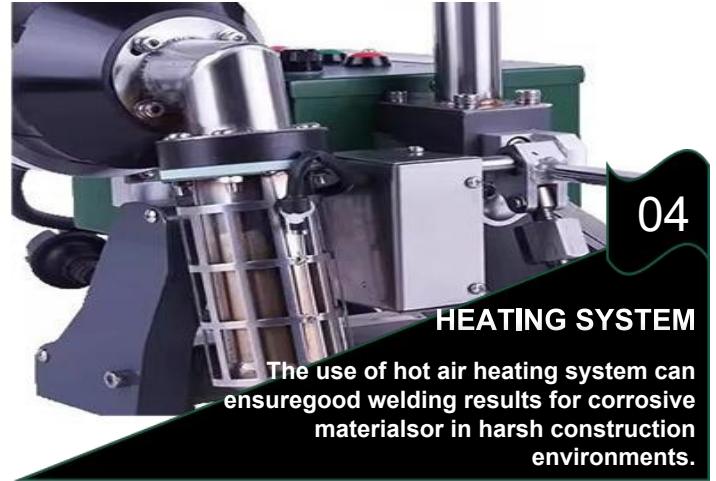
Special steel pressing wheel, strong pressing force, non-slip, durable.



04

HEATING SYSTEM

The use of hot air heating system can ensure good welding results for corrosive materials or in harsh construction environments.



PROJECTS CASE OF PVC GEOMEMBRANES WELDING MACHINE



[Landfill in Ecuador]



[Tailings in Colombia]



[Reservoir in Indonesia]



[Sewage Treatment Plant in Thailand]

Welding Products: GEOMEMBRANES WELDING MACHINE

INSTALLATION INSTRUCTIONS

1. Ground preparation: Before using the geomembrane welding machine, it is necessary to clean the oil, dust, and other debris on the ground to ensure that the welding surface is clean and tidy.
2. Welding parameter setting: Select appropriate parameters such as temperature, speed, and air pressure according to the required geomembrane material and thickness for welding, and make corresponding settings and adjustments to the geomembrane welding machine.
3. Cold cut edge treatment: Cut the edges of the two geomembrane surfaces that need to be welded into sharp right angle edges and clean them.



4. Hot air softening: Before hot melt welding of the geomembrane, the surface of the geomembrane needs to be treated with hot air softening to ensure the firmness of the interface.
5. Adhesive welding: Place two geomembranes flat on the prepared welding table, start the geomembrane welding machine for hot melt welding, until the interfaces of the two geomembranes are completely fused.
6. Quality inspection: After welding is completed, it is necessary to conduct a quality inspection on the welding interface to ensure that it is firm, free of bubbles, and has no water leakage issues.

