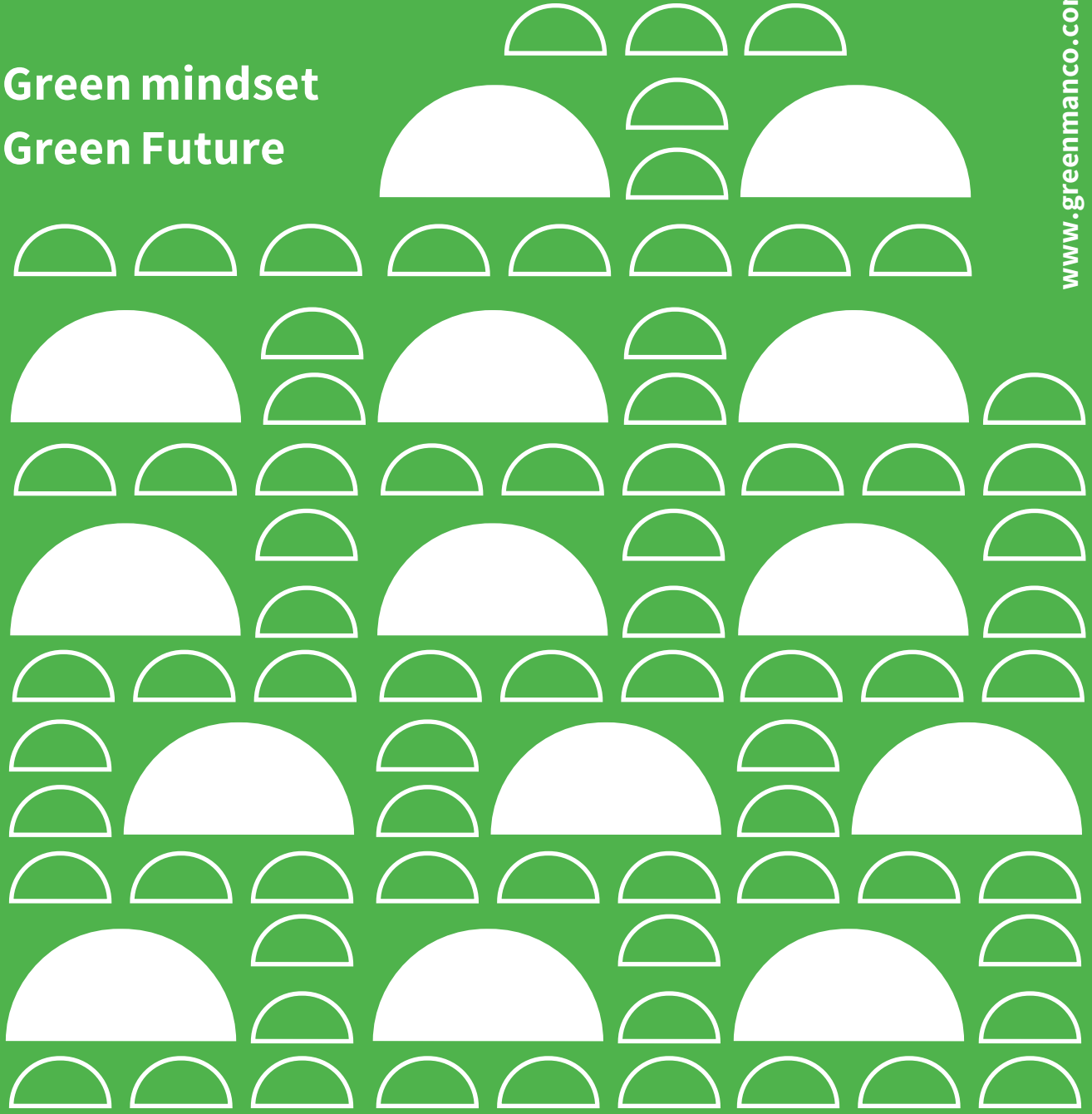


**Green mindset  
Green Future**



[www.greenmanco.com](http://www.greenmanco.com)



**GREENMAN**

Green mindset, green future



**HEATCO**

**Hot water boiler with carbon dioxide enrichment package**

powered by **PACKMAN** industrial group



# ABOUT GREENMAN

[www.greenmanco.com](http://www.greenmanco.com)



## About Greenman

Packman Company started its activity by five graduates of Technical Faculty of Tehran University with the aim of improving the level of technical knowledge of the country in 1975. With a strong background in equipment production and service provision, Packman Company has been engaged in the field of technical knowledge in various industries such as power plant, petrochemical and oil, hospital, construction, agriculture, etc. Relying on the capabilities of its expert forces, this company has always been a leader among the industries of the country.

There is a special opportunity for the development of the agricultural industry in Iran due to the country's climatic and geographical situation and the need for non-oil exports.

Considering the traditional growth of the agricultural industry, which causes the country's water storages and energy resources to be wasted, this group has entered into the design of agricultural industrial systems, and in this regard, GREENMAN has been established as a new department. GREENMAN is proud to be present in all fields of engineering design and equipment manufacturing by relying on its capabilities in engineering, research and development, product production and process optimization.

### **Our field of activity include the following:**

- Heating, cooling, ventilation and humidity facilities
- Water treatment and irrigation facilities
- Carbon dioxide enrichment system
- Energy systems and optimal design
- Climate control system, electrical engineering and artificial lighting
- Cold storage and product storage



Scan to Visit the GREENMAN Website



## About Greenman

GREENMAN specializes in agriculture and industrial greenhouses. Considering the importance and delicacy of greenhouse issues, this group is proud to cooperate with a group of expert and experienced engineers in the fields of engineering and agriculture. Some of the engineering services provided by GREENMAN are as follows:

- Design and modeling of cooling, heating and air conditioning systems with specialized greenhouse standards using ANSYS FLUENT, TRNSYS and ENERGYPLUS software and...
- Designing all parts of CO<sub>2</sub> dosing system according to the conditions of greenhouse cultivation and structure
- New greenhouses design with special and energy-optimized systems using ANSYS FLUENT, TRNSYS software and the home made code developed exclusively in GREENMAN
- RO water treatment system design and fertilizer and chemical dosing package
- 3D modeling and presentation of piping maps for greenhouse facilities





# HEATCO

PACKMAN  
500

ایران ساخت

PACKMAN  
Industrial Group





## HEATCO

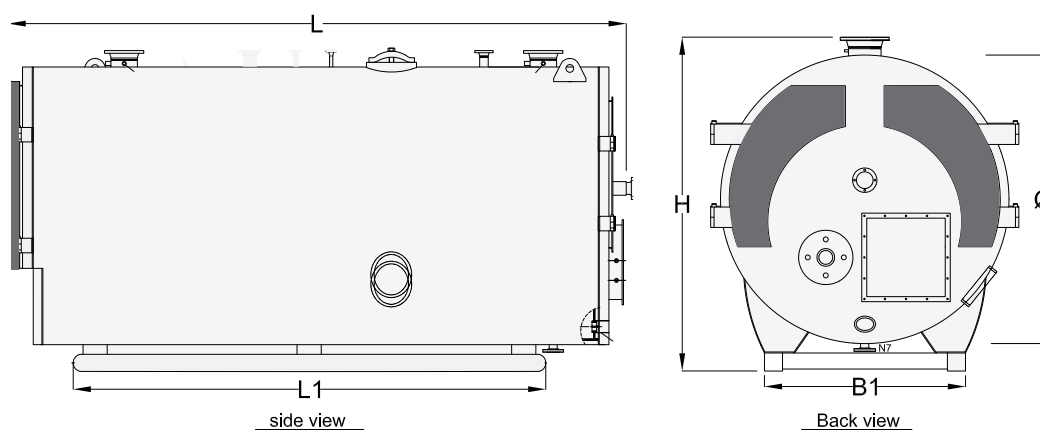
### Hot water boiler with carbon dioxide enrichment capability

Maintaining the comfort temperature of the plant for its optimal growth is one of the most important issues in the growth of greenhouse plants. Various heating and cooling systems for the greenhouse have been designed to this purpose. Using the central heating method is one of the most powerful methods for heating an commercial greenhouse unit. GREENMAN central heating boilers under the HEATCO brand are for heating greenhouses and are produced by Packman based on BS/EN 12953 standard. These boilers are equipped with a thermal shock protection system, an anti-condensate corrosion system, a redesigned combustion chamber for CO<sub>2</sub> injection, a LOW NO<sub>x</sub> burner with the lowest amount of emissions, and all electromechanical modules. They are produced in various capacities.

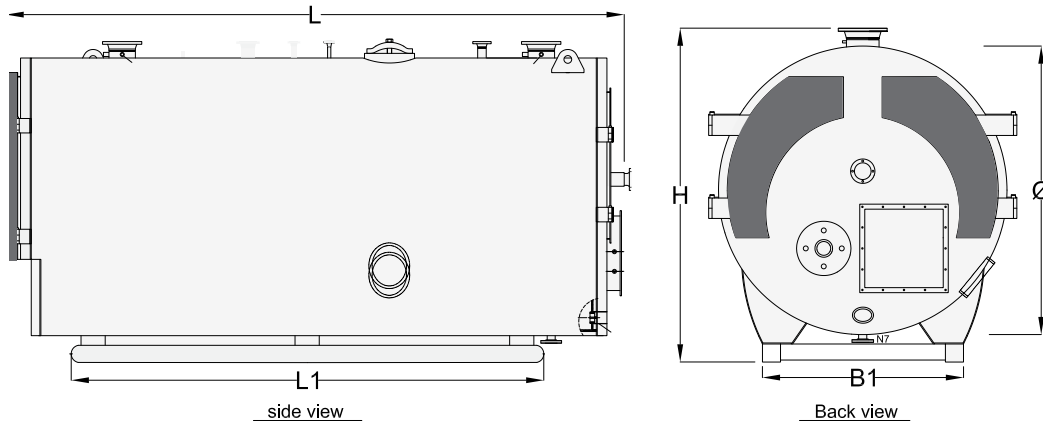
The variety of capacity from 1 to 15 MW makes it possible to use these boilers in the central heating system of the greenhouse.

These boilers can be well connected with the underfloor heating system (tube rail heating system) and CO<sub>2</sub> injection system and will not be damaged by thermal shocks caused by temperature differences.





HEATCO	Unit	HEATCO-3	HEATCO-4	HEATCO-5	HEATCO-6
<b>Technical Specifications</b>					
Thermal Capacity	KW	3000	4000	5000	6000
Length (L)	mm	5120	5450	5620	5960
Length 1 (L1)	mm	4000	4000	4000	4800
Diameter (ø)	mm	2080	2190	2340	2530
Length (B1)	mm	1400	1500	1600	1770
Height (H)	mm	2550	2700	2850	3070
Max. gas consumption from sea level	m3/h	300	400	500	600
Max. diesel consumption	Liter/h	250	333	417	500
<b>Material</b>					
Shell and furnace	17Mn 4 (17155 DIN)				
Fire Tube	St35.8 (17155 Din)				
Flange	150-16.5.FORGED STEEL ASME B				

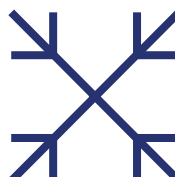
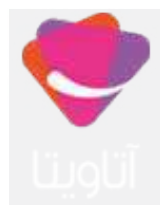


HEATCO	Unit	HEATCO-7	HEATCO-8	HEATCO-9	HEATCO-10
<b>Technical Specifications</b>					
Thermal capacity	KW	7000	8000	9000	10000
Length (L)	mm	6160	6670	6540	7000
Length 1 (L1)	mm	5000	5000	5000	5500
Diameter (Ø)	mm	2670	2740	3030	3250
Length (B1)	mm	1860	2000	2150	2300
Height (H)	mm	3200	3400	3570	3780
Max. gas consumption from sea level	m <sup>3</sup> /h	700	800	900	1000
Max. diesel consumption	Liter/h	583	667	750	833
<b>Material</b>					
Shell and furnace	17Mn 4 (17155 DIN)				
Fire Tube	St35.8 (17155 Din)				
Flange	150-16.5.FORGED STEEL ASME B				





# Some Of Our CUSTOMERS





# PACKMAN GROUP

## History

The Packman Company was founded in February 1975, and was soon afterwards registered in companies Registration Office. In early years the Packman construction and service branch focused on building installations. Different mega power plants were built by cooperating with Brown Boveri and Asseck companies in 1976.

The company started its official activities in construction of High-Pressure Vessels such as Hot-Water Boilers, Steam Boilers, Storage Tanks, Softeners and Heat Exchangers from 1984.

Packman Company is one of the first companies which supplied the high quality and standard hot water boilers to the customers.

Packman has exported its products to countries such as Uzbekistan, United Arab Emirates and other countries in the Middle East. It is one of the largest producers of hot-water and steam boilers in the Middle East.

Now we are proud to announce that the Packman industrial group has five major sub-brands that have product titles in all field of HVAC equipment and engineering services, and we do not know this success except with the help and support of our customers.

1. Construction Services Industry Association
2. Industry Association
3. Construction Companies' Syndicate
4. Technical Department Association
5. Mechanical Engineering Association
6. Engineering Standard Association

### Departements:

#### Sales Deps:

- ∩ Power Plant & Petrochemical
- ∩ Industrial
- ∩ Hospitality Service
- ∩ Commercial & Residential
- ∩ Sport Complex & Pool

#### Technical Deps:

- ≡ Manufacturing R&D
- ≡ Innovation Center
- ≡ EPC Execute Unit
- ≡ Product Develop Unit
- ≡ Sales Engineering Dep.

#### Others:

- ≈ After Sales Service
- ≈ Project Control
- ≈ Financial Office
- ≈ Commercial Office
- ≈ Marketing Department



# PACKMAN GROUP Brands



**PACKMAN**  
Industrial Group

Designer & manufacturer of Condensing, Hot Water, Steam, Hot Oil & Waste Heat Boilers, Heat Exchangers, Autoclave Pressure & Storage Vessels & etc



**GREENMAN**  
Green mindset, green future

Engineering & Designing Commercial Greenhouse Plant, CO2 Dosing System, Flue gas Condenser & Special HVAC Systems, Sustainable Agriculture & etc



**ROMAN**  
Water solution

Designer & manufacturer Reverse Osmosis Plant & Package, Water Treatment, Softener & Filters and Chemical Dosing Systems & etc



**RAADMAN**  
a look to the future

Designer & manufacturer of Industrial Mono & Dual Block Gas, LPG, Light & Heavy Oil Burners, Premixed & Postmixed Burners, Watertube burners, Process burners, Special application burners & Combustion Solutions & etc



**CHILLMAN**  
Coolest hvac around

Designer & manufacturer of Air & Water Cooled Chillers, Air Handling Units, Fancoil, HVAC Equipment, Cold Storage Room & etc



1. Isfahan Factory



2. Vilashahr Factory



3. Parand Factory



4. Parand (2) Factory



5. Bonyad Factory



# SOME OF Certificates are



www.greenmanco.com



# Green mindset Green future



**PACKMAN**  
Industrial Group



**GREENMAN**  
Green mindset, green future



**ROMAN**  
Water solution



**RAADMAN**  
a look to the future



**CHILLMAN**  
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