

Knowledge
Based

Since 1975



PACKMAN
Industrial Group



Condensing Combination
Boiler (Optima Series)

powered by PACKMAN industrial group



Condensing Combination Boiler (Optima Series)



Product Description

The modulating premix burner and the proven stainless steel boiler body ensure a standard efficiency of up to 98 % (Hs)/109 % (Hi). This reduces heating costs and protects the environment. All ground condensing boilers from Packman, COMBI-OP is equipped with a stainless steel Boiler, Burner, Pumps, Expansion Tank & Piping, and Instruments, presenting all the benefits offered by its heat transfer principle.

With its modulation from 1:5, the Premix burner saves energy and reduces emissions, with its extremely clean combustion.

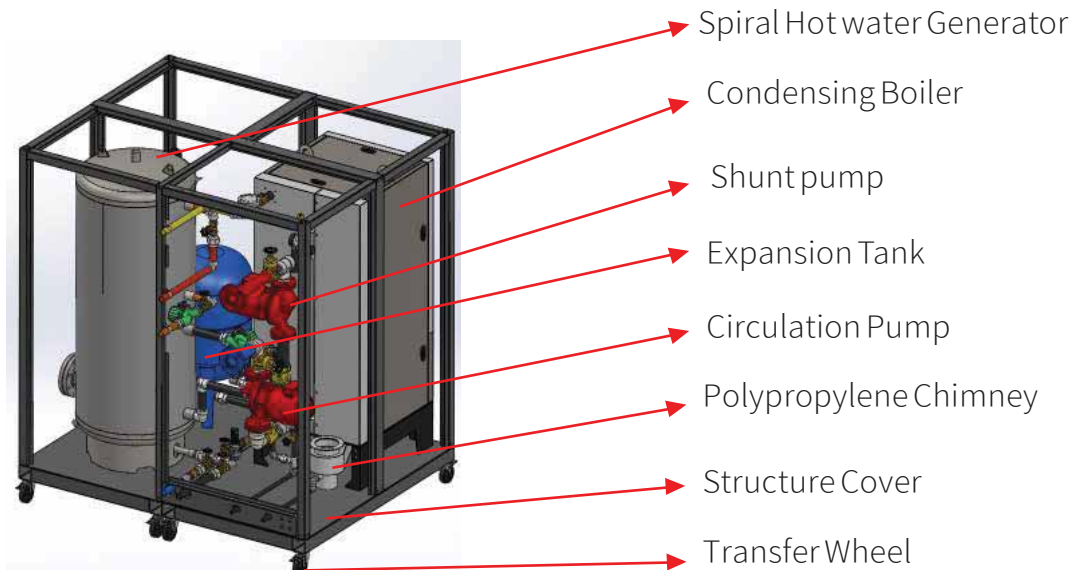
The COMBI-CO is equipped with an intelligent Control combustion controller that guarantees permanently optimized combustion.

Condensing Boiler

- Fire tube stainless steel boiler.
through the flue gas and the condensate flowing in the same direction.
- Excellent corrosion resistance through high-grade stainless steel & Modulating Premix burner.
- Clean combustion.
- Long service life through the stainless steel mesh.
- Optimized match between the boiler and the burner & Pro Control combustion controller.
- Consistently high efficiency, even in case of fluctuating gas composition and air pressure.
- Consistently low emissions.
- Low combustion noise through low fan speed & even more compact dimensions and low weights.
- up to 300 kW Package.
- Particularly easy to install, maintain and service, due to modular design & a large wiring chamber.
- Particularly quiet, even suitable for living spaces.
- Space-saving, because no service clearances at the package sides are required.



Specifications



Condensing Boiler: The condensing technology of boilers and water heaters features an advanced high efficiency and convenient that produces installation, operating, and lifetime cost

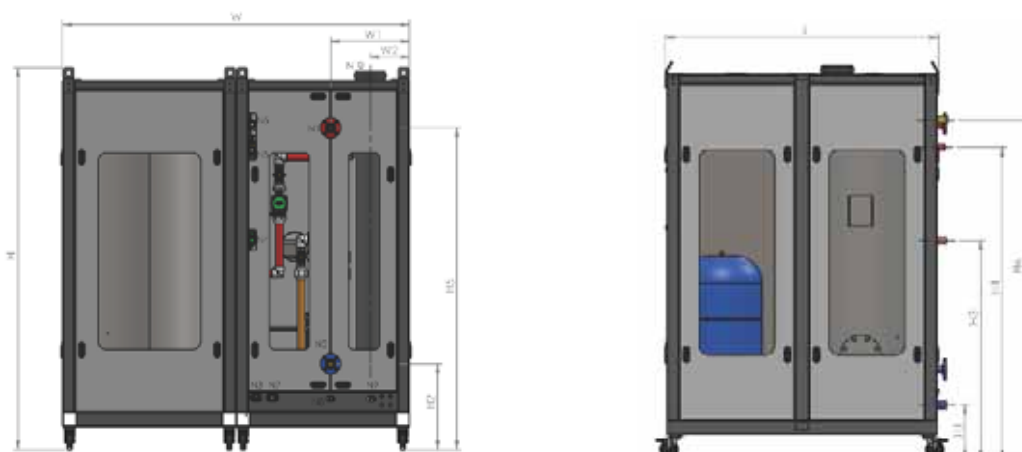
Spiral Domestic Hot Water Tank: Domestic hot water tank is used for supplying clean hot water, for building and industries.

Expansion Tank: Expansion tank are required in a closed loop heating water HVAC systems to conserve the expanding fluid and limit the pressure within a heating system.

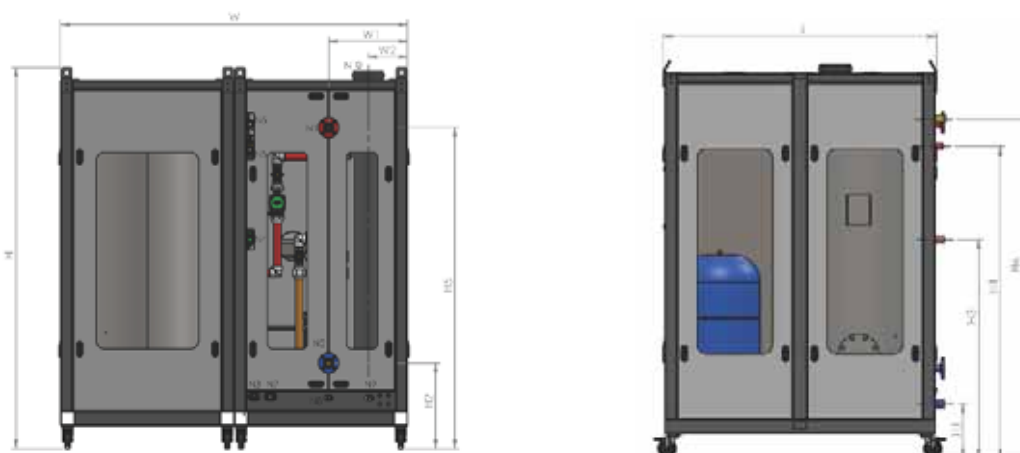
Shunt Pump: Shunt Pump to provide minimum flow of boiler we must use shunt line and pump on outside the boiler to connect outlet to inlet for circulating the water cross boiler.

Structure & Covering: Steel Structure and glass opening cover allows easy access to the operator for operation with the device.

Polypropylene Chimney: Due to the low temperature of the chimney in the condensing boiler, we can use polymeric materials such as polypropylene for the chimney of these boilers, which is both cheaper and easier to run in the system.



Model		Unit	100	150	200	250	300
Technical Data							
Max Heat Output		kW	100	150	200	250	300
Min Heat Output		kW	25	37.5	50	62.5	75
Efficiency	30/40	%	98				
	70/80	%	91				
Min & Max Working Pressure		bar	2-16				
Water Temperature Range		°C	30-80				
Recommended Water Flowrate		m³/hr	9	13.5	18	22.5	27
Water Head Loss in Primary Circuit		m	1	1.3	1.6	2.3	3.1
Boiler Water Content		Liter	89	122	154	165	197
Max Condensate		l/hr	12	18	24	30	36
Min Gas Pressure		mbar (psi)	18 (1/4)				
Max Gas Pressure		mbar (psi)	60 (2)			100 (2)	
Min Gas Consumption		m³/hr	2.3	3.45	4.6	5.75	6.9
Max Gas Consumption		m³/hr	9.2	13.8	18.4	23	27.6
Spiral Domestic Hot Water Tank Capacity		Liter	400	500	500	600	700
Spiral Domestic Hot Water Tank Continouse Flowrate		m³/hr	1.2	1.5	1.5	1.8	2
Expansion Tank Capacity		Liter	80		100		
Electric Supply		V/Hz/ph	220/50/1				
Electrical Power Consumption		W	900	1100	1150	1750	1750
Condensate PH		-	4-4.5				
Stack Material		-	Stainless Steel 304 L or plymer according to ISIRI 19279				



Model	Unit	100	150	200	250	300
Connection Size						
Heating Supply	in	1 1/2	1 1/2	1 1/2	2	2
Heating Return	in	1 1/2	1 1/2	1 1/2	2	2
Cold Water Inlet (DHWT)	in	1	1	1	1 1/4	1 1/4
Hot Water Return (DHWT)	in	1	1	1	1	1
Hot Water Supply (DHWT)	in	1	1	1	1 1/4	1 1/4
Stack & Air Intake	in	5	5	6	6	6
Condensate Discharge	in	1/2	1/2	1/2	1/2	1/2
Drain	in	1/2	1/2	1/2	1/2	1/2
Relief Valve	in	1/2	1/2	1/2	1/2	1/2
Gas Connection	in	1	1	1	1 1/4	1 1/4
Dimension						
Length (L)	mm	1395	1460	1510	1540	1580
Width (Wt)	mm	1780	1910	2010	2060	2140
Height (Ht)	mm	2035	2150	2220	2240	2310
W1	mm	400	435	460	470	490
W2	mm	215	235	235	235	245
H1	mm	300	300	300	300	300
H2	mm	500	500	500	500	500
H3	mm	1215	1215	1215	1225	1225
H4	mm	1515	1735	1735	1745	1900
H5	mm	1710	1790	1870	1900	1975
H6	mm	1750	1890	1890	1995	2090
Shipping Weight	kg	970	1080	1190	1310	1560

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



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GREENMAN



ROMAN



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