SKYMECH ION BOILER

A EUROPEAN INNOVATIVE SUPERHEATING SYSTEMS

MAKE IN INDIA







SKYMECH® Engineers Pvt. Ltd.

IGBC MEMBER

Complete System Warranty 2* Years

upto 52% Cost Saving

ABOUT SKYMECH

SKYMECH Engineers Pvt. Ltd. Jaipur is an India based company with experience of over 25 years in business. We are firm in our commitment and flexible to meet and fulfil the satisfaction level of our valued client base as per the need and requirement in Water and Space Heating, Prevention & Cure of Hard water scaling and all type of water heating solutions. We are the Sole & Exclusive business Partner of Fluid Dynamics Int. Ltd. (UK) in India for hard water solution.

We **SKYMECH Engineers Pvt. Ltd.,** Jaipur has collaborated with **Stafor Ltd. Latvia, Europe** for manufacturing of **"SKYMECH ION BOILERS".**

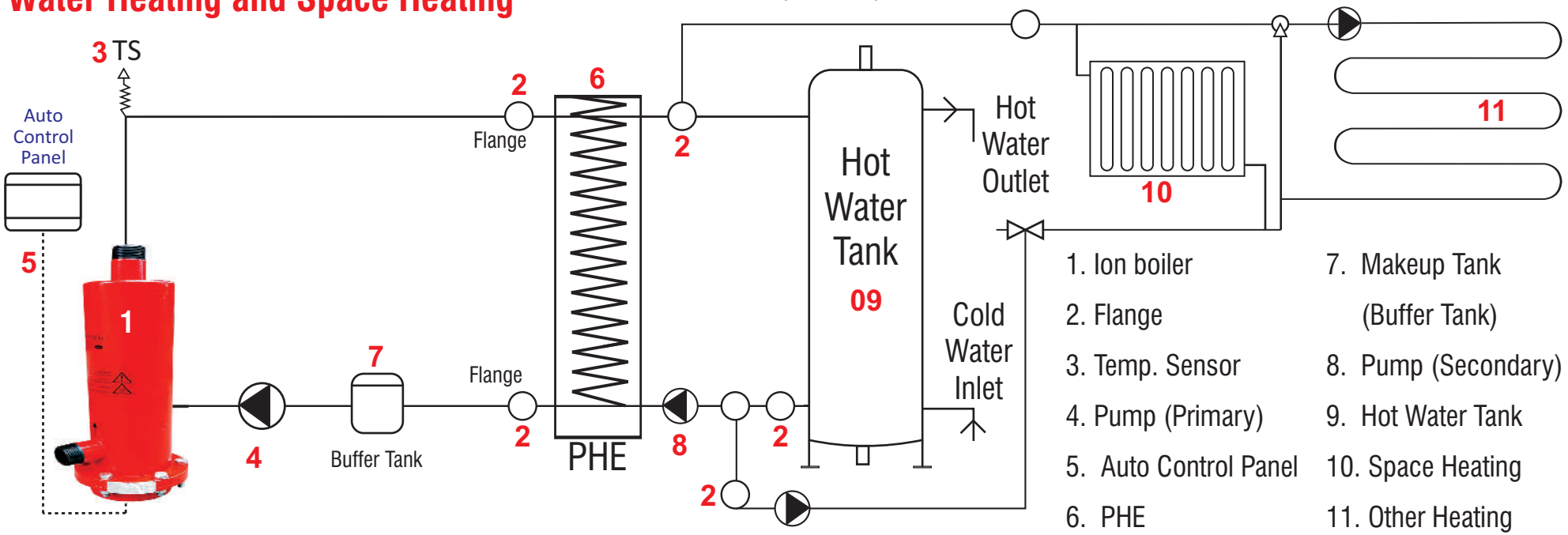
ABOUT ION BOILERS

The Ion boiler is a revolutionary product in **Europe.** This was used in submarines for the USSR navy before 1995. Then USSR navy handed it for civil research programs to develop compact systems.

Working principle of ion boilers- Ion boilers work on the direct interaction of heat carrier, which occupies space between anode and cathode. When electricity flows in the boiler, positive and negative ions begin to move randomly. Positive ones move towards a negatively charged electrode, and negative ones move towards a positively charged one. Because ions are constantly moving in this environment and encounter resistance, the heat carrier heats up quickly. This is facilitated by the fact that the electrodes are constantly changing roles - **every second their polarity changes 50 times: so, each electrode will be the anode 25 times and the cathode 25 times within 1 second.** They are connected to 50 Hz alternating current.

Heat carrier is based on **Nanotechnology**. It helps the electrode to raise temperature rapidly. Heat release occurs due to that the heat carrier having some resistance. As a result of rapid, chaotic movements of ions, **friction arises**, due to this the heat carrier for electric heating boilers is quickly heated. So this is how it's provide **COP up to 204%** and **saves up to 52%** on electricity consumption.

Layout - SKYMECH Ion Boiler
For Water Heating and Space Heating



TECHNICAL SPECIFICATIONS

S. No.	PARAMETER	Unit	3-5 KW	5-10 KW	6-9 KW	10-20 KW	20-30 KW	50 KW	100 KW
1	Rated Voltage Single-phase/3-phase AC in	V	230 ± 10%	230 ± 10%	440 ± 10%	440 ± 10%	440 ± 10%	440 ± 10%	440 ± 10%
2	Nominal Power/Operating Current, not more than	kW/A	5/25	10/40	9/18	20/40	30/60	50/100	100/200
3	The Max. temperature at the outlet of the ion boiler	^{0}C	95	95	95	95	95	95	95
4	Class of protection against electric shock	-	1st	1st	1st	1st	1st	1st	1st
5	The degree of protection from moisture	-	IP44	IP44	IP44	IP44	IP44	IP44	IP44

KEY FEATURES OF SKYMECH ION BOILER

EFFICIENCY

There is an increased rate of energy conversion from electrical to thermal with COP/Heat from 1 to 2.04 (204%), depending on the application and operation mode.

ELECTRICAL SAFETY

The original, patented design of the boiler fundamentally enabled to use a principle of the separation of working and protective field ("Faraday Cell")

To date, it is the only ion (electrode) boiler of a flow type that is entirely consistent with the requirements of the European Community Low Voltage Directive Nº 73/23/ EEC on electrical safety and authorized for sale and use in the EU member states.

QUALITY AND RELIABILITY

A large margin of safety for materials is incorporated into the ion boiler during its design. The use of high-tech alloys and plastics (with heat resistance up to 700˚C with enhanced dielectric properties provides high quality and reliability of the boiler, making it preferable in compression with other manufacture's products.)

All materials used in the manufacture of the boiler have European quality certificates.

- The service life of the ion boiler subject to the rules of installation and operation is at least 20 years. Effective and reliable automation of ion boilers.

SKYMECH CONTROL PANEL

- Electronic ON & OFF of the ion boiler. The control circuit is operated by one or more powerful triacs
- Increase in equipment lifetime
- Automatic shutdown of the boiler at a "loss" of any incoming electrical phases and voltage up and down. Fully automated switch ON of the system when power is restored. This keeps the boiler in economy mode.
- Automatic voltage controller.
- Completely silent operation.
- Compact & small size
- Environmental merit
- Quick and easy installation
- No fire and explosion hazard
- Protection from freezing the system (ion boilers heat carrier are not frozen to -50°C)
- Class-I electrical safety (certificate Nr. T25D07, T37D08) in accordance with European Union standards.

CENTRAL HEATING IN HOTEL

Working perfectly in -50˚C temperature



OUTSIDE VIEW OF HOTEL



INSIDE VIEW OF SAME HOTEL

COMPARISON WITH OTHER SYSTEMS

S. No.	PARAMETERS	SKYMECH ION BOILER	DIESEL FIRED GENERATOR	GAS FIRED GENERATOR	ELECTRIC BOILER	HEAT PUMP
1	Average COP/Heat	upto 204% (on any temp.)	90%	90-95%	70% - 98%	Less than 150% (System failure blow 5°C in maximum cases)
2	Heat Carrier (Media)	Special Heat Carrier	Soft Water	Soft Water	No media	Refrigerant
3	Source of Energy	Electricity	Diesel & Electricity	Gas & Electricity	Electricity	Electricity
4	Temperature of Hot Water	up to 95°C (setting)	up to 90°C (setting)	up to 90°C (setting)	Depends on Thermostat	Max. upto 55°C
5	Control Panel	Auto / Manual	Auto / Manual	Auto / Manual	Auto / Manual	Auto / Manual
6	Climatic Constraints	No	Yes	Yes	No	Yes
7	Automatic Safety Control	Yes	No	No	No	NO
8	Air / Sound Pollution	No/ No	Yes / Yes	Yes / Yes	Yes / Yes	No / Yes
9	Space Required	Less Space	Big Space	Big Space	Big Space	Big Space
10	Required Fuel Storage Space	No	Yes	Yes	No	No
11	Maintenance	No	Yes	Yes	Yes	Yes
12	Warranty	2 Years	1 Year	No	No	1 Year

**Terms & Conditions are Applicable*





APPLICATION & INSTALLATION

- Automobile & Process Industry
- Pharma Industry
- Dairy & Plating Industry
- Hotel & Hospitals
- Swimming Pool
- Space/Central Heating
- Domestic
- Application for All Types of Heating ...





Installation at : Varroc Engineering Ltd.,
Udham Singh Nagar (UK.)





Installation at :
Bajaj Auto Ltd, Pantnagar, Rudrapur (UK)





Installation at :
Hotel Kapish Smart, Banipark, Jaipur





Installation at :
Hotel Avishi Green, Manali

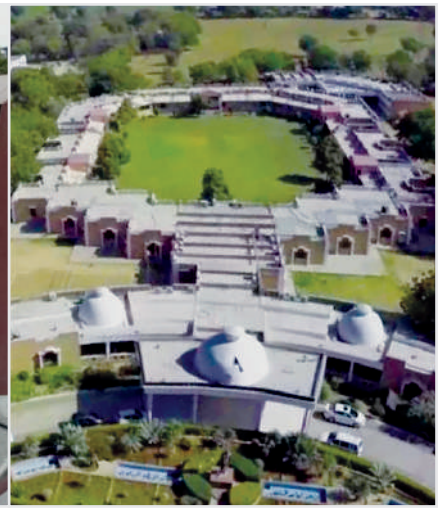
APPLICATION & INSTALLATION





Installation at :
Hotel Maharaja, Nainital





Installation at : LK Singhania School
(JK White Cement Ltd.), Gotan (Raj.)





Installation at : -
Kutchi Ashram, Haridwar





Installation at : Shekhawati Hotel
& Resorts, Churu (Raj.)



Installation at :
Shahpura Residency,
(A Unit of Hotel Shahpura House)
Tonk Road, Jaipur (Raj.)



Installation at :
Jay Shree Periwal House,
Jaipur (Raj.)



Installation at :
Ahmadiyya Muslim Jamaat
Qadian, Gurdaspur (Punjab)

Our Credentials

LK Singhania Education Center, Gotan

AHMADIYYA MUSLIM JAMAAT
INDIA
(Qadian, Gurdaspur, Punjab)

RAMADA
Dehradun Chakrata Road

Radisson BLU
HOTEL, LEIPZIG

BAJAJ

JAYSHREE PERIWAL
INTERNATIONAL SCHOOL

KAPISH
BANI PARK, JAIPUR

Cygnett Park B.L
hotels | inns | resorts

HOTEL D'VIJ INN, JAIPUR

RED LION HOTEL
CORPORATION

Varroc
Varroc Polymers Pvt. Ltd.

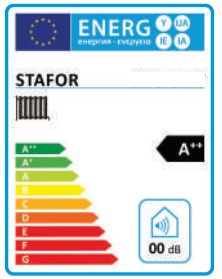
And many more...

Certifications & Approvals

- C E Approved (EN603351,EN60335-2-35)
- Class 1 electrical safety (certificate nr. T25d07, T37d08) in accordance with European union standards.
- A^{++} Energy Saving Certificate (European Union)
- Regulations of European Parliament & Council (EK) NR.1907/2006 (REACH)
- European Union approved center of Metrology, Protocol 016TP11.
- NMC T25D07 Riga, Latvia (EUROPE)

QUALITY MARK STAFOR INTERNATIONAL

Council of the European Union



SKYMECH Engineers Pvt. Ltd.

(An ISO- 9001:2015 Certified Company)

IGBC MEMBER

MSME सूक्ष्म, लघु एवं मध्यम उद्यम MICRO, SMALL & MEDIUM ENTERPRISES

एन एस आई सी NSIC ISO 9001 : 2015

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