

STEAM BATH

ALSO KNOWN AS A STEAM ROOM

Inspired by the Roman caldarium, the steam bath is a high-humidity thermal space where water is vaporised as steam to create a soothing, enveloping environment for deep relaxation and wellness.

The room operates with 100% relative humidity (saturated air), delivering a moist-heat experience that differs from the drier heat of a sauna.

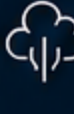


Steam rooms can reach 100% relative humidity, creating a different type of heat experience compared to a sauna.



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TEMPERATURE
42–47°C
(110–118°F)
EN 18164 RANGE:
40–49°C MAX.
- 

HUMIDITY
100%
RELATIVE HUMIDITY
(SATURATED AIR)
- 

EXPERIENCE
STEAM / FOG
DEEP RELAXATION
ENERGIZING EFFECT
- 

AROMATHERAPY
OPTIONAL AROMA DOSING
ENHANCES RELAXATION
AND WELLNESS BENEFITS

HOW DOES A STEAM ROOM WORK?



1. STEAM GENERATION

A steam generator heats water to ~100°C (212°F) and produces steam at minimal positive pressure ("pressurless steam").



2. STEAM DELIVERY

Steam travels through an insulated pipe and enters the cabin via a visible low-level inlet. The steam disperses throughout the room, increasing humidity and temperature.



3. CLIMATE CONTROL

The room is maintained at 42–47°C (110–118°F) and 100% RH. The control system regulates steam production to maintain the required room climate. The exhaust/drying cycle is coordinated with the steam-room control strategy.



UNLIKE SAUNAS, TEMPERATURES ARE MORE CONSISTENT THROUGHOUT THE CABIN.
Benches are typically on a single level, though two-tiered layouts can also be used.

DESIGNING & BUILDING A STEAM ROOM

01



CALCULATE THE HEAT LOAD

- Size the steam generator based on cabin volume, materials, usage and recovery time.
- Proper sizing ensures stable climate, guest comfort and energy efficiency.

02



ENGINEER THE STEAM DELIVERY

- Use insulated copper piping with a silent, open steam outlet (low-level, visible and accessible).
- Ensure reliable condensate drainage and safe routing.

03



SELECT THE RIGHT MATERIALS

- Waterproof construction is essential.
- Options: foam boards with reinforced cement coating, porcelain tile, stone, glass mosaic, granite, acrylic.

04



CONTROL THE CLIMATE

- Maintain 42–47°C (110–118°F) and 100% RH.
- Activate exhaust only during drying/purge cycles to preserve humidity and efficiency.

05



DETAIL FOR SAFETY & DURABILITY

- Slope floors to drains (min. 1–2%).
- Use heat- and water-resistant grout.
- Ensure accessibility, ventilation and maintenance access.

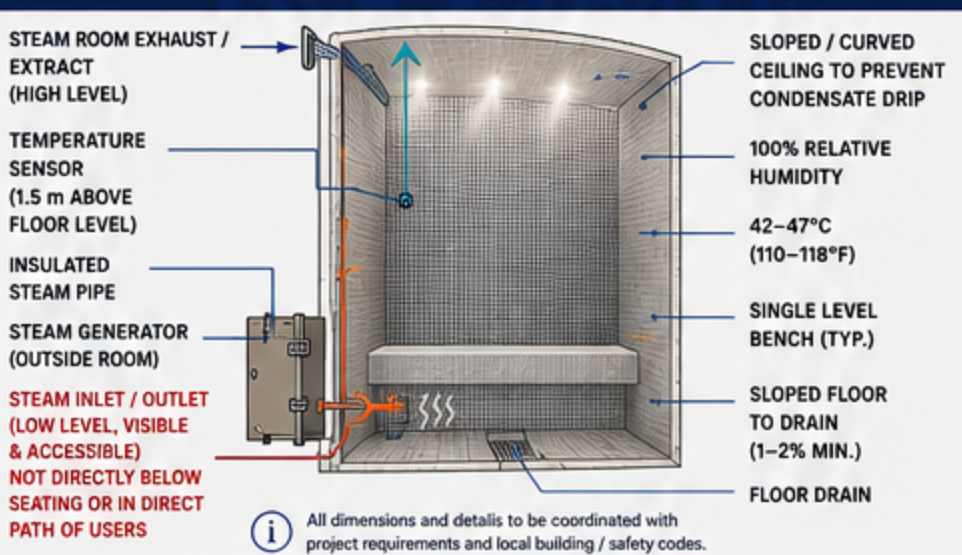
06



PLAN ACCESS & MAINTENANCE

- Provide access to generator, valves, controls and drainage points.
- Design for cleaning, descaling and component service.

TYPICAL STEAM ROOM SECTION (PRINCIPLE)



COMMON MISTAKES IN STEAM ROOM BUILDS

- Using non-waterproof materials or improper construction.
- Incorrect sizing of the steam generator (too small or oversized).
- Poor or inadequate drainage / insufficient floor slope.
- Incorrect ventilation—exhaust running while steam is on.
- Steam inlet located under benches or blowing on users.
- Using grout not designed to withstand heat, water and cleaning.
- No thermal insulation—loss of energy and higher operating costs.
- Poor steam outlet location causing condensation or discomfort.
- Neglecting maintenance access and service clearances.
- Not accounting for disabled access in a commercial project.

ADDITIONAL DESIGN BEST PRACTICES



VENTILATION & DRYING
Provide mechanical exhaust during drying (after steam is off) to remove moisture and dry the room.



CEILING DESIGN
Use a curved or sloped ceiling to prevent drip condensation and promote run-off.



DOORS
Self-closing doors with sealed frames to retain steam and temperature. Minimise door openings.



LIGHTING & AUDIO
Use IP-rated, low-voltage lighting. Discreet audio systems enhance the relaxation experience.



AROMATHERAPY
Aroma dosing system can be integrated with the steam generator (steam-proportional).



ACCESSIBILITY
Provide level access, handrails where needed and adequate turning space where required.