

# COMMON MISTAKES IN SAUNA PLANNING

## Sauna equipment usage and servicing



Root cause	Effect
Air-in and air-out openings in wrong position, e. g.: air-in opening under the sauna door and heater 1-2m away from it.	No or little air circulation in the cabin, unfavourable heat distribution and heating phase. Target temperature not reached.
Air-in and air-out openings too small for heater capacity, air throughput not of required volume, target: volume of air (m <sup>3</sup> ) should exchange 5 - 7 times an hour.	No or little air circulation in the cabin, unfavourable heat distribution and heating phase, heat accumulates in the heater, i.e. heater overheats. Target temperature not reached.
Wrong position of heater and bench sensors, e. g.: bench sensor placed under the bench or at same level as top bench in the cabin.	Control unit fails to turn off, heating limited by STB. Possible fire hazard!
Heater capacity too small for the cabin volume, large glass fronts not considered or designed too large.	Cabin takes too long to heat up. Target temperature not reached.
Heater(s) walled in or covered without taking account of how this affects the required volume of air throughput.	Heat accumulates in the terminal box, side wall warp, fire precautions are rendered ineffective, etc. Insufficient convection.
<p>Stones filled in too densely instead of being loosely filled thereby much obstruction air throughput.</p> <p><b>Best practice:</b>                      Commercial operators should not check the stones once a year, but after 1000 - 1500 operating hours.                      Chief sauna operators use 8 litres of water 12 times a day = 96 litres                      96 x 360 days (company closed on 5 days) = 34,560 litres a year. Even smaller commercial saunas where just 4 litres are poured over the stones every hour still consume 17,280 litres a year in the process.</p>	<p>Shorter life of tubular heating elements. Heat damage to the sauna heater. Target temperature not reached. Increased energy requirements.</p>
No maintenance intervals particularly for commercial heaters or maintenance intervals too long with regard to terminals, rock store / stones, etc.	Heater / heater function fails or is restricted. Wear of heating elements. Increased energy requirements.
Intervals of de-scaling combination heaters do not or not properly comply with supplier instructions regarding the degree of hardness and any on-site de-scaling procedures, as appropriate.	Vaporizer heating element destroyed, sometimes corrosion, serious damage to sauna heater. Clogged water drain openings.
Vaporizer not used as intended with regard to its filling level and the ban of adding essences, etc.	Corrosion, vaporizer heating element destroyed, sometimes serious damage to sauna heater. Overboiling or foam formation.

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Too much water poured on at too short intervals.	Water escapes from the sauna heater, excessive load on the heating elements – reduced life.
Distance between heater and guard rail (or bench) not as specified. Frequent cause: ready-made guard rails that fit only „approximately“ or non-compliance with the safety information in the installation instructions..	Damage and staining of the sauna cabin, sometimes provoking a fire hazard.
Combination of unsuitable components (third-party make) without verifying their compatibility.	Particularly when combining power circuit breakers and control units, the components should be carefully matched because otherwise the relays will fail very quickly. Malfunctions or even failure of safety-relevant circuits.
Use of unshielded sensor cable and a non-professional extension of sensor cables.	„Interference“ caused by noise sources may provoke malfunctions..

### ATTENTION!

Please have your sauna system serviced regularly by a licensed specialist.

Work on the electrical system of the heater, on wiring etc.  
may only be carried out by a trained and licensed electrician!