

Overview of the most common mistakes in sauna planning and sauna equipment usage and servicing

1. Root cause: 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,
Effect: no or little air circulation in the cabin, unfavourable heat distribution and heating phase

2. Root cause: Air-in and air-out openings too small for heater capacity, air throughput not of required volume, target: volume of air (m³) should exchange 5-7 times an hour.
Effect: no or little air circulation in the cabin, unfavourable heat distribution and heating phase, heat accumulates in the heater, i.e. heater overheats.

3. Root cause: 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.
Effect: control unit fails to turn off, heating limited by STB

4. Root cause: Heater capacity too small for the cabin volume, large glass fronts not considered or designed too large,
Effect: cabin takes too long to heat up / STB initiated too soon

5. Root cause: Heater(s) walled in or covered without taking account of how this affects the required volume of air throughput.
Effect: heat accumulates in the terminal box, side wall warp, fire precautions are rendered ineffective, etc.

6. Root cause: Stones filled in too densely instead of being loosely filled thereby much obstruction air throughput,
Effect: shorter life of tubular heating elements
Best practice: Commercial operators should not check the stones once a year but every 3 to 4 months. 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.

7. Root cause: No maintenance intervals particularly for commercial heaters or maintenance intervals too long with regard to terminals, stone basket/stones, etc.,
Effect: heater/heater function fails or is restricted

8. Root cause: 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,
Effect: vaporizer heating element destroyed, sometimes corrosion, serious damage to sauna heater.

9. Root cause: Vaporizer not used as intended with regard to its filling level and the ban of adding essences, etc.,
Effect: corrosion, vaporizer heating element destroyed, sometimes serious damage to sauna heater.

10. Root cause: Too much water poured on at too short intervals,
Effect: water escapes from the sauna heater, excessive load on the heating elements - reduced life

11. Root cause: 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.
Effect: damage and staining of the sauna cabin, sometimes provoking a fire hazard.

12. Root cause: Combination of unsuitable components (third-party make) without verifying their compatibility.
Effect: particularly when combining power circuit breakers and control units, the components should be carefully matched because otherwise the relays will fail very quickly.

13. Root cause: Use of unshielded sensor cable and a non-professional extension of sensor cables.
Effect: "interference" caused by noise sources may provoke malfunctions.