



INNSJØ

Manufacturer of hydronic radiant cooling ceilings

Elevating indoor climate

Indoor thermal comfort

Unlike air conditioners or fan coil units, which cool the air while causing intense circulation in the room, INNSJØ ceiling cooling is mostly achieved through radiation. Approximately 70% of the heat energy is transferred to the cool ceiling in the form of radiation in the infrared spectrum, and 30% through natural convection.

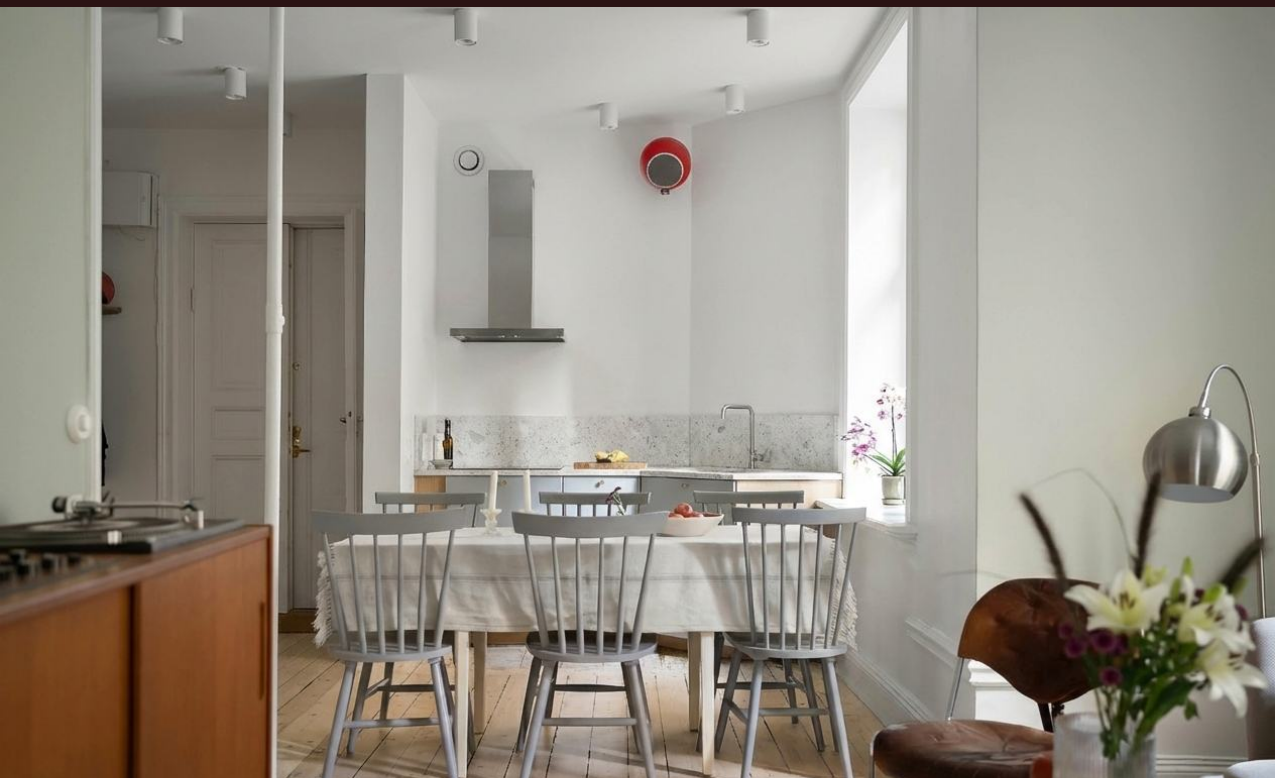
Its intensity and share are so insignificant that it remains imperceptible to humans. This fundamental difference in the physics of the process means that ceiling cooling does not cause unpleasant air movement forced by fans. All surfaces and users' bodies are cooled in a natural, subtle and quiet way – similar to how it happens in nature.

INNSJO passive cooling

What is ceiling cooling?

INNSJO ceiling cooling is a water-based system that works in conjunction with a heat pump or similar device. Low-temperature water circulates through a network of pipes installed above the ceiling, cooling its surface. The ceiling then absorbs heat from the people and objects in the room, providing natural thermal comfort.

This creates an environment that is pleasant for both us and our pets. INNSJO ceiling cooling operates silently in the background without creating any air movement, even at night, guaranteeing an undisturbed night's sleep.



Which spaces feature INNSJO ceiling panels?

Ceiling cooling is a universal solution that works perfectly in residential, commercial and public buildings, providing comfort without noise or draughts:

- detached houses
- premium apartments, temporary accommodation buildings - hotels, guesthouses, holiday cottages
- medical facilities and places with increased hygiene requirements
- commercial premises (business centres, consulting rooms, conference rooms)
- public buildings (schools, lecture theatres, computer suites)

Two functions - one system



The INNSJO ceiling installation is a year-round solution – it cools effectively in summer and can be used for low-temperature heating in winter. As a result, a single, simple hydraulic system combined with a heat pump provides full control over the indoor climate throughout the entire year, offering a modern alternative for contemporary low-energy and passive buildings.

Cooling

During the summer heat, the system will provide pleasant cooling of the rooms – silently and without draughts.

Heating

In the winter months, the same panels will heat the interior, responding immediately to the needs of users.

Radiant ceilings key benefits

Absolute silence

Cooling ceiling operates in absolute silence – without noise, vibration or air currents.

Invisible

The entire installation is integrated into the ceiling structure, becoming completely invisible.

Maintenance-free

The system has no moving parts, such as fans or motors, filters that require periodic replacement, mould removal or other costly maintenance. Once commissioned, it becomes a completely maintenance-free part of the building's infrastructure.

Health and hygiene oriented

An important advantage of a cooling ceiling is that it works on the principle of a dry cooler – there is no condensation of water vapour contained in the air on its surface. This has two benefits: firstly, it eliminates the humid environment conducive to the growth of microorganisms, and secondly, it allows rooms to be cooled without changing the humidity of the air, i.e. without dehumidifying it. It is precisely excessively dry air that is a common cause of discomfort and even respiratory diseases in people staying in rooms with conventional air conditioning.

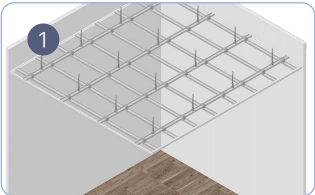
INNSJO panel construction



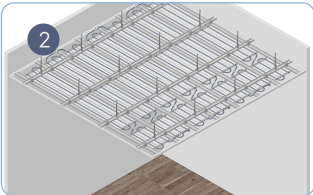
INNSJO cooling panels are designed for installation in a standard cross-suspended ceiling system. Their low weight does not require any additional reinforcement — the spacing of the main and secondary profiles remains standard. The only essential requirement is maintaining a 400 mm centre-to-centre spacing of the load-bearing profiles.

No mechanical parts

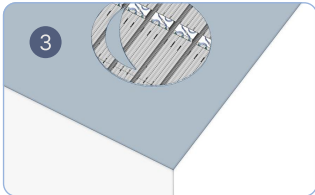
Cooling panels contain no fans or other mechanical components that force air movement. As a result, users do not experience unpleasant draughts.



Cross-suspended ceiling structure.



INNSJO ceiling panels installed within the ceiling structure.



Finishing plasterboard – view of the ceiling from inside the room.

Radiant cooling ceilings vs. standard AC units

Installation type	Air condition unit (supply air)	Passive cooling ceiling (radiant)
Aesthetics	visible	invisible
Heat exchange	forced convection	radiation
Thermal distribution	zoned	even
Noise level	17-50 dB(A)	noiseless
Maintenance	at least twice a year	no maintenance
Hygiene	low	high

About INNSJO

INNSJO is a Polish manufacturer of passive radiant ceiling cooling systems. We specialise in HVAC installations, with a particular focus on radiant heating and cooling.

Innsjø — in Norwegian, it means “lake.”

Large water bodies create an exceptional microclimate in their vicinity. Water absorbs the sun's energy and releases it slowly, softening extremes. Thanks to this, summers and winters become gentler, and sudden weather shifts or rapid temperature swings occur far less often. It's a natural thermal equilibrium.



In a world that moves ever faster, we choose harmony over haste. Great achievements are born from small, consistent actions — a principle nature has followed since the beginning. INNSJO draws inspiration from these mechanisms: subtlety, silence, and perfect balance.

INNSJO is an invitation to slow the rhythm of everyday life — to shape spaces that embrace you with calm and offer a place where your senses can truly rest.



Let's talk about yours

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Frequently asked questions

System control – ceiling cooling management

The safety and efficiency of a ceiling cooling system depend on one key factor: dynamic control of the supply-water temperature. Appropriate automation is essential to react to humidity changes in real time and protect the system from condensation forming on cooled surfaces. To meet the diverse expectations of investors, we recommend two control standards: the dedicated Olte system for those seeking ready-to-use, easy-to-install solutions, and the Loxone automation platform for users who require full Smart Home integration within a BMS environment.

The control system does not operate solely in a defensive manner. Its second, essential function is to maximise cooling capacity. Whenever room conditions allow it (low dew-point temperature), the control automation dynamically lowers the supply-water temperature, maximising the performance of the ceiling cooling system while maintaining full operational safety.

Ceiling finishing

Drywall panels, under which cooling panels are hidden, can be finished in any way. They can be painted, wallpapered, textured with plaster and stucco elements in accordance with the manufacturer's recommendations. In the case of large-area stucco elements made of plaster or foam-based materials or MDF, such as rosettes, it is recommended to bypass this area in the ceiling cooling installation diagram. To ensure optimal system performance and maintain the highest possible cooling efficiency, low-thermal-resistance drywall finishing boards should be used. Highly recommended are 10 mm plasterboard with increased thermal conductivity, or 10 mm boards containing graphite additives within their core.

Radiant cooling ceilings and other installations

The ceiling cooling system successfully coexists with other technical installations, such as lighting, ventilation and security systems, integrating into a single suspended ceiling plane. However, it is important to remember the overriding principle: larger ceiling cooling area, higher efficiency. Therefore, in order to achieve an optimal design, it is worth coordinating the placement of other elements in such a way as to maximise the area covered by cooling panels while maintaining their full functionality.



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