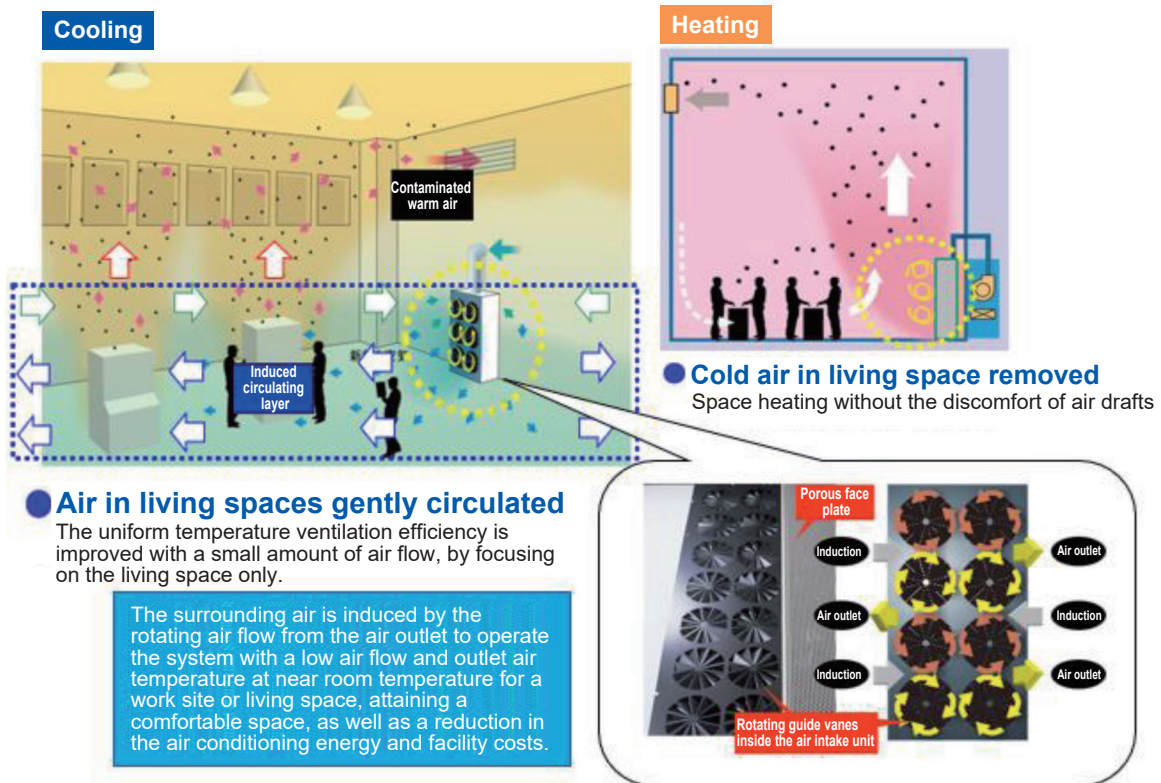


Swirling Induction Type HVAC System SWIT®/TCR-SWIT®

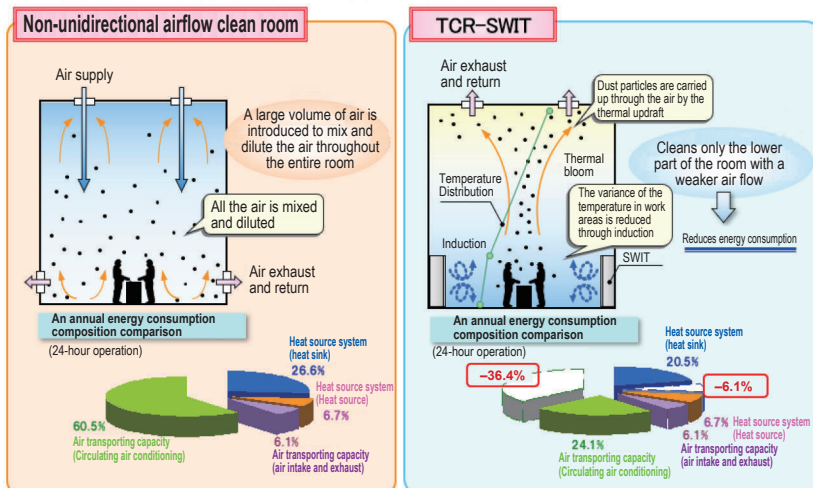
Features

- ◆ The SWIT® (Swirling Induction type TAKASAGO HVAC System) is a swirling induction type HVAC system that leverages the natural phenomenon of warm air rising and cold air sinking in a confined space.
- ◆ Many swirling rotational flows are triggered to significantly increase the induction rate near air outlets. The temperature of the living space is sustained at a uniform level, even with a gentle air flow.
- ◆ The air flow is weaker than fluid mixing air conditioners, as the temperature is controlled with the outlet of air at near room temperature for air conditioning, which results in energy savings and lower costs.



Basic Concept or Summary

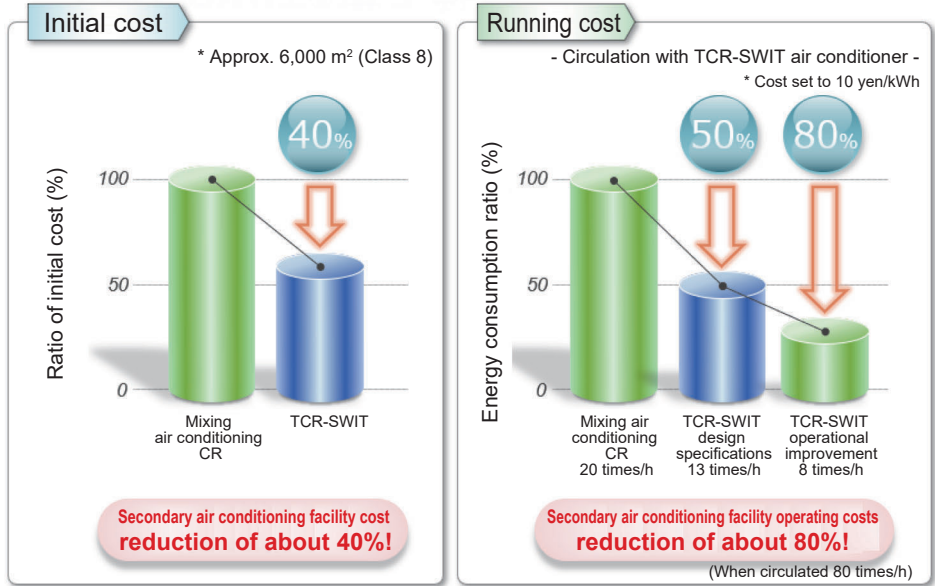
- ◆ The TCR-SWIT® (Takasago Clean Room Swirling Induction Type) is a next-generation clean room technology that leverages the SWIT to sustain the indoor environment of large clean rooms while saving energy, which was difficult to achieve in the past.



Fundamental principle

The characteristics of SWIT® is leveraged for a superior ventilation efficiency to maintain a heated environment and clean conditions with a weaker air flow. A compliance validation experiment has already been implemented in the ultrafine air conditioned clean rooms of JIS Class 5, resulting in a favorable operational history for the clean rooms of semiconductor manufacturing processes (preprocesses).

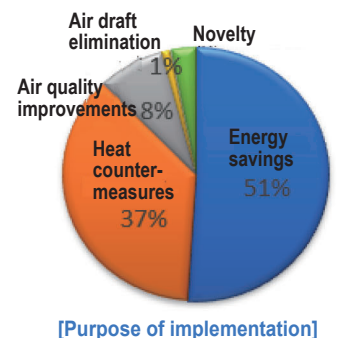
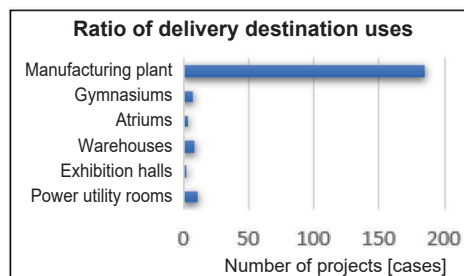
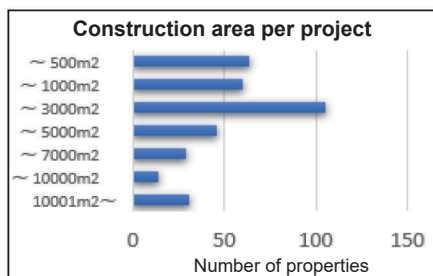
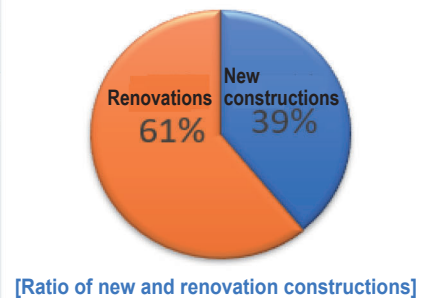
◆ Energy savings are realized, with savings on the initial outlay and running costs.



An example of an implementation at an organic EL manufacturing plant: Ambient condition: 23±2°C 55 ±10%; Cleanliness: C/L 100k (@0.3µm), equipment installation rate 100%

Installation in Practice or Schedule

Number of delivered projects	439 projects
Number of delivered units	10,938 units
Construction area	2,814,757 m ²
Delivery destination industry types	<p>Primary delivery destinations: Manufacturing plants Clean rooms, assembly processes, printing, book binding, iron casting, painting, semiconductors, circuit board parts and components, food products, automobile parts and components assembly, vehicle servicing, medical products, sewing machines, tires, battery and other manufacturing processes.</p> <p>Other delivery destinations Warehouses, gymnasiums, power utility rooms, exhibition halls, department stores, universities, atriums, research facilities, etc.</p>



* Data as of March 2021

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