



HOLON LEADS THE GLOBAL ARCHITECTURAL REVOLUTION

BROAD has been engaged in the systematic research and development of factory-made high-rise buildings since 2009. BROAD has devoted 1,000+ employees and invested over 1 billion USD to successfully develop the stainless steel-framed factory-made "Holon" building. Holon Building not only increases the speed of construction, it greatly extends a building's lifespan and preserves flexibility in architecture and design.

Holon Building has transformed the construction industry through an ultra-durable automated building structure designed to passive house principles.



Holon Building won the most important two awards in the world construction industry:

First Place in the Multifamily category at Modular Building Institute's Annual Convention "World of Modular" in 2022



Global Innovation Award from the Council on Tall Buildings and Urban Habitat (CTBUH):2013, 2022

In addition, Holon Building obtained CE certificate (EU), AISC Building Fabricator certification (US)

MATERIAL REVOLUTION

Stainless steel structure has an indefinite service life replacing **reinforced concrete** that can only be used for 60 years
 Our patented B-CORE slab, greatly reducing steel usage, and making stainless steel buildings less costly.



Stainless steel can be recycled without loss of strength.
 With a large number of stainless steel buildings being built,
 we save strategic materials.

When traditional reinforced concrete buildings are dismantled, they become construction waste, going into landfill which is unsustainable.

Enhanced Building Features

Glass: ultra clear glass. The transparency of 4-paned ultra clear glass exceeds that of a 1-paned ordinary clear glass.

Exterior wall: structural rock wool, galvalume steel plate, fluorocarbon paint, durable for 200 years.

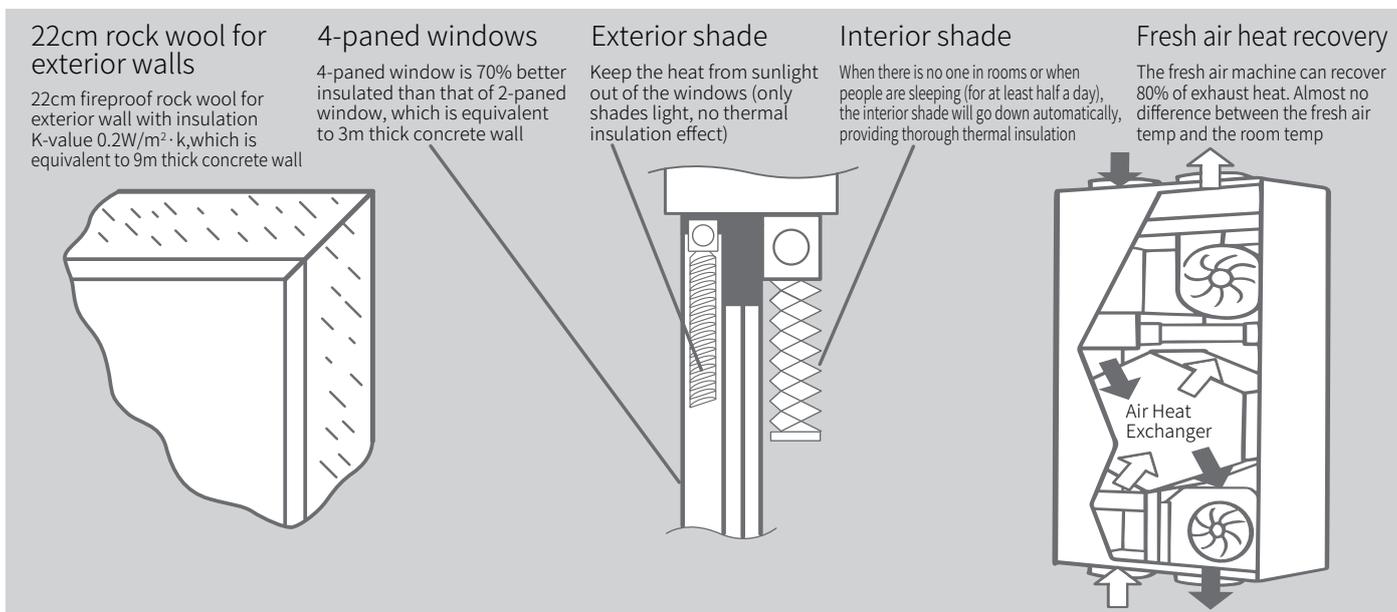
Interior wall and ceiling: structural rock wool galvalume steel plate with PE paint, zero formaldehyde, durable for 200 years.

Floor, door and window frame: original bamboo clappers, zero formaldehyde, durable for 100 years.

Water supply pipe: stainless steel pipe, fluorine rubber sealing ring, durable for 200 years.

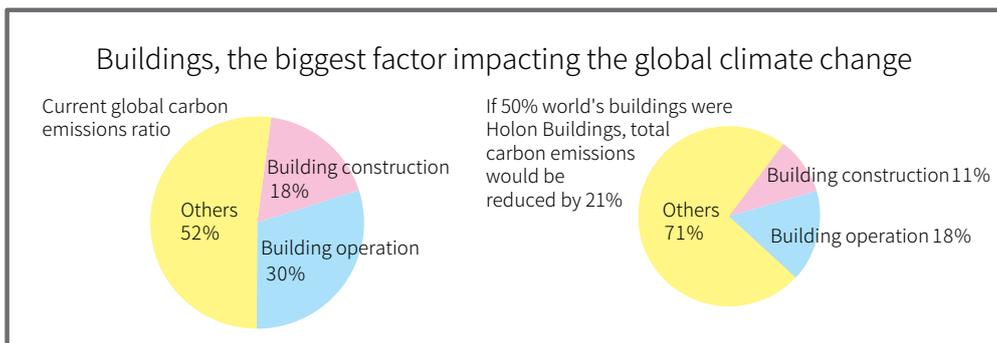
ENERGY EFFICIENCY REVOLUTION

Meets the China “Nearly Zero Energy Buildings Standard” and the German “Passive House Standard” with original reliable and durable technologies. Miraculously achieved **90% more energy efficiency** than that of conventional buildings.



Holon Building achieves the highest level of comfort while ensuring the highest level of energy efficiency:

- Even in the severe cold area of minus 40°C, with constant in-flow of fresh air, room warmth is continuously and cost effectively maintained.
- Holon Building, completely thermal insulated, has fundamentally reduced cooling costs during summer months and heating during winter months, and eliminates moisture condensation on walls, windows or floors from traditional buildings.
- Under a 24°C constant temp throughout a year, the air conditioning load is 90% less and so is its electricity cost.



SAFETY REVOLUTION

Stainless steel is a ductile material, elongation >40%, extremely light in weight. In case of a high magnitude earthquakes,

it will deform at most but never collapse.

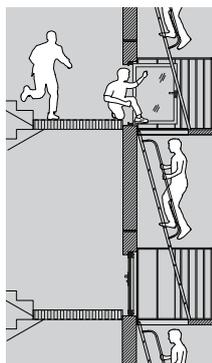
Concrete is a brittle material, elongation <1%, and is more prone to collapse in earthquakes.



"Holon building will never collapse."

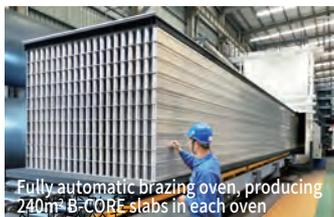
- The elongation of stainless steel used in Holon Building exceeds 40%, which means that columns, beams and floor slabs can be twisted and elongated by 40%.
- A Holon Building weighs only 10% of a concrete building.
- In case of poor geological conditions, the risk of subsidence is greatly reduced due to the light weight, and a foundation cost is also greatly reduced.
- Holon Building is 100% factory-made, **removes** quality defects and phenomenon of cutting corners and materials that are easy to occur in conventional construction site.

Fire Safety Option: External fire escape.



PRODUCTION REVOLUTION

Holon Building is 100% factory-complete, each module adopts standard container dimensions for transportation. The only procedure to be conducted on site is bolt connection, 3 floors/day. It's truly **quality, cost and construction time controllable.**

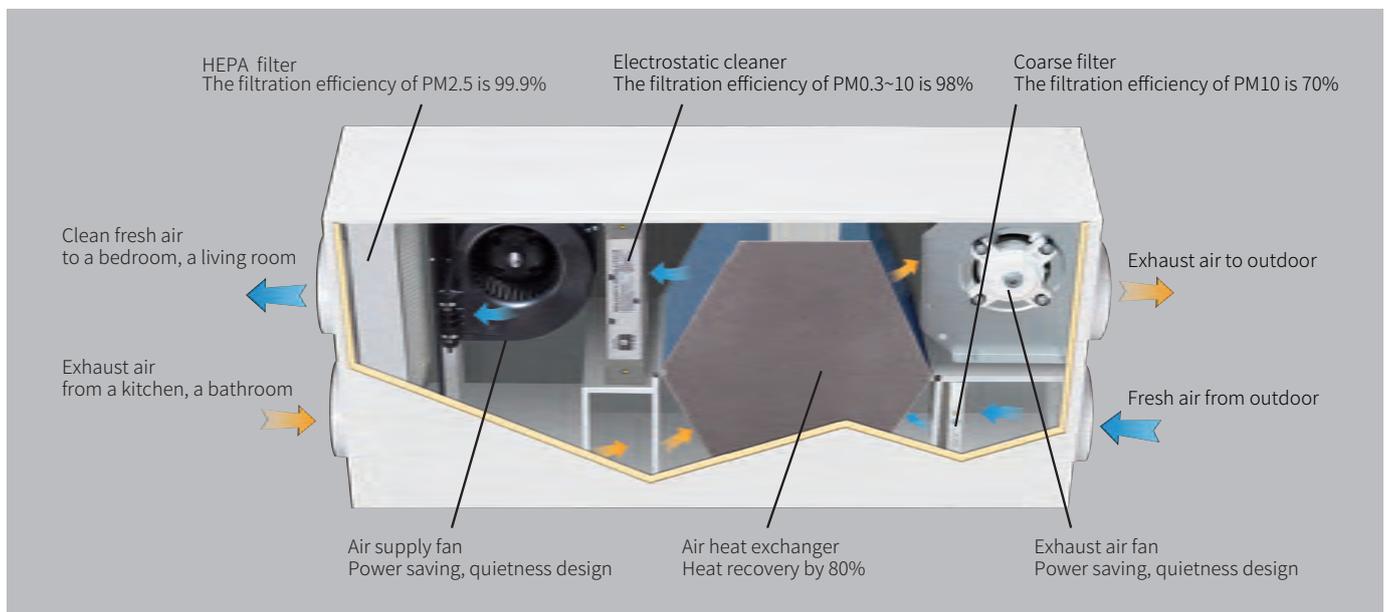


Holon architecture implements the "5 Principles" to achieve high quality and low price of buildings:

- 10 years+ in-depth R&D from conception to production line, achieving the building technology modernization.
- Widely selects suppliers and regularly conducts fixed-position inspections, achieving the systematic supply chain management.
- Adopts car-like large batch streamlined production, achieving product homogenization and streamlined production.
- Low-cost container mode transportation, achieving construction trade globalization.
- Minimal on-site installation, eliminating quality risks, and achieving rapid installation.

INDOOR AIR QUALITY

Holon Building is equipped with BROAD Energy Recovery Ventilation (ERV) System as a standard feature, filtering PM2.5 by 99.9%, 100% fresh air. It provides greatly **enhanced health benefits, and reduces cleaning intervals.**



We often don't think of air quality, as it is invisible, but in fact, air quality is of critical importance:

- **3-stage Filtration:** Thoroughly filtering dust and smoke in the atmosphere, indoor air is 100 times cleaner than that outdoors, keeping lungs clean, and desks can be dust-free without cleaning for a month.
- **Avoid Secondary Pollution of the Air Duct:** Thanks to the 99.9% filtration efficiency, it avoids the secondary pollution of the indoor air caused by dust and bacteria accumulated in the air duct, which often occurs with traditional low-efficiency fresh air machine.
- **Thoroughly Bacterial Killing:** Since BROAD fresh air machine is equipped with an electrostatic cleaner, 6000V high-voltage static electricity can instantly kill viruses, bacteria, pollens and other pathogens and allergens.
- **Thoroughly Discharge Indoor Formaldehyde:** Volatile chemical pollutants such as formaldehyde are mainly produced by decoration materials, furniture, textiles, etc. BROAD fresh air machine intakes 100% fresh air from outdoor to indoor with no mix of return air, the indoor formaldehyde is almost zero after its operation for about half an hour.
- **Sufficient Fresh Air:** Fresh air volume $\geq 4\text{m}^3/\text{m}^2 \cdot \text{h}$ ensures sufficient oxygen, and completely discharge the carbon dioxide exhaled by people and various unpleasant odors. The indoor air would be fresher than naturally ventilated air. Living in Holon Building is like being in a forest, the quality of life has been fundamentally improved.

OPERATING AND ENVIRONMENTAL IMPACT

The stainless steel building is ultra durable and
can be passed down for a thousand years.

Nearly zero energy consumption,
 90% reduction in air-conditioning costs for residents
 Energy saving, durable and no construction waste, **ensuring a clean
 and healthy earth for future generations.**



Living Experience Upgrading - Holon has no extravagant fittings, but it brings incomparable comfort to residents.

View Comfort: huge bay window with ultra clear glass, offering beautiful scenery and all-season sunshine; the exterior sunshade can be adjusted freely, and the interior shade is able to fully block light.

- Hearing Comfort: 4-layer steel plate and 2-layer rock wool floor slab, completely reduce noise transmission between floors; double-layer steel plate 22 cm rock wool exterior wall, 4-paned glass window, completely isolated from the hustle and bustle of a city (with BROAD clean fresh air machine continuously provides fresh air, the air is fresher without opening windows than leaving the windows open)
- Physical Sensation Comfort: all-season constant temperature, as the air conditioning load is reduced by 90%, and there is no sense of blowing; due to good heat insulation, there is no cold or heat radiation on walls and windows.
- Bath Comfort: each household is equipped with independent hot water, and the temperature does not fluctuate while turning on a faucet in neighboring rooms. The unique pipeline allows hot water to come out in 5 seconds.
- Mood Comfort: 100% factory-made, no worries about water leakage, electric leakage, cracking, no sound insulation, or even no ants can come in.
- Easy Maintenance: exterior walls with fluorocarbon paint can support no wall washing for 10 years. Interior wall with PE paint is washable, the finishing will look like new for decades thanks to the clean fresh air.
- Decoration as One Wishes: since the interior and exterior walls are made of rock wool sandwiched steel plate structure, residents can paste various kinds of decorative materials according to their own aesthetic needs.
- Re-modification with ease: after a building is completed, interior walls and doors can be moved, kitchens, bathrooms, balconies and bay windows can be increased or decreased. Floors can be added or removed per function or application changes. An entire building can be dismantled and rebuilt in another place if necessary.