

FEATURES OF HOLON BUILDING



HI-TECH REALTY GROUP

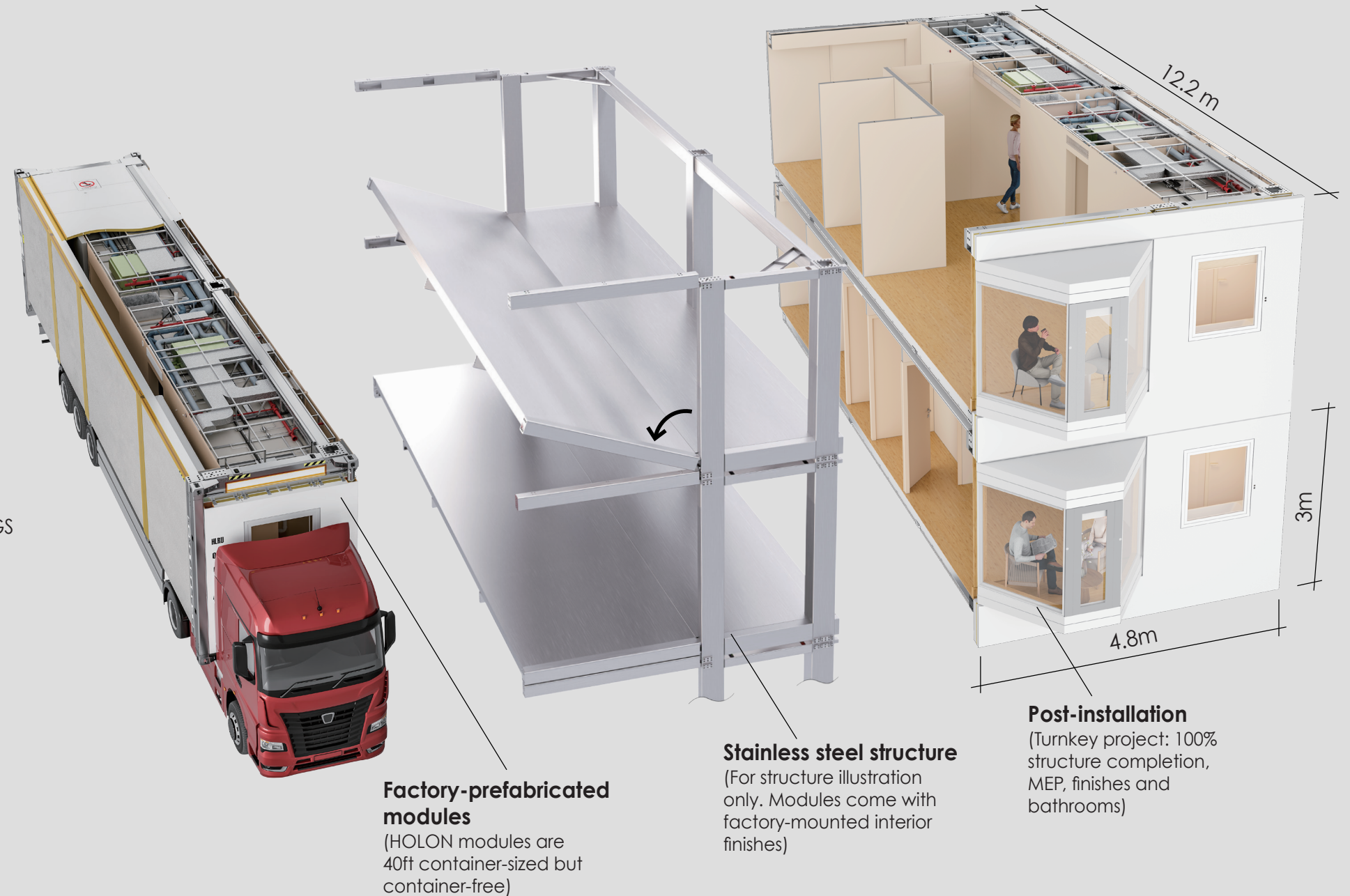
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HTR Group holds the priority development rights for the HOLON real estate projects in major cities with 1M+ population in developed countries



HOLON BUILDING'S 16 KEY FEATURES

- 1. PREFABRICATED**
BUT WITH THE HIGHEST QUALITY
- 2. MODULAR**
BUT SPACIOUS
- 3. STANDARDIZED**
BUT CHANGEABLE AFTER MOVING IN
- 4. SMALL UNITS**
BUT WITH LUXURIOUS EXPERIENCES
- 5. LIVING IN HIGH-RISES**
BUT NOT WORRYING ABOUT NEIGHBORING NOISES
- 6. ULTRA-HIGH-RISES**
BUT AT THE SIMILAR LOW-RISE COST
- 7. CONJOINED TOWERS**
MAKE ULTRA-HIGH-RISES SAFE & COMFORTABLE
- 8. A VERTICAL CITY**
ENHANCES URBAN QUALITY
- 9. STAINLESS STEEL**
PRESERVES LIFE AND PROPERTY WITH UNIQUE TECHNOLOGIES
- 10. EXTREMELY MONEY-SAVING**
90% MORE ENERGY-EFFICIENT THAN CONVENTIONAL BUILDINGS
- 11. TRULY HEALTHY**
100 TIMES CLEANER AIR THAN OUTDOORS
- 12. STREAMLINED PREFABRICATION**
ENSURES HOMOGENEOUS QUALITY AND HIGH EFFICIENCY
- 13. MINIMUM CONSTRUCTION ON-SITE**
3 FLOORS PER DAY
- 14. AFTER-SALE SERVICE**
LETS RESIDENTS BE WORRY-FREE FOREVER
- 15. GLOBAL ACCESSES**
WITH EU/US/UK/CA/AU/JP/KR STANDARDS
- 16. EXTREME INNOVATION**
16-YEAR R&D BY OVER 1,000 EMPLOYEES



1. PREFABRICATED BUT WITH THE HIGHEST QUALITY

Many Assume Modular Buildings Are Coarse, Shabby And Not Durable, But HOLON Is The Opposite.

1. R&D: Only prefabricated buildings can motivate enterprises to invest huge R&D resources. HOLON Building has the highest R&D investment in the global construction industry — 5 times more than the second highest. Over 16 years, over USD1.1 billion has been invested with over 1,000 R&D professionals.
2. Materials: HOLON uses a lot of premium materials rarely seen in traditional construction, for example, structure S32001 stainless steel, water supply S316 stainless steel pipe with fluororubber seals, ultra-clear glass windows, and the finishing materials are carefully selected from zero-VOC, zero-heavy-metal, zero-radiation base and surface materials. All materials are tested with the world's most sophisticated instruments at BROAD HOLON Lab (an officially authorized competent body) and traced digitally.
3. Equipment: HOLON modules are equipped with world-class central air-conditioning, fresh air system, hot water, elevators, etc., all assembled, commissioned & tested before the factory shipment.
4. Production: 100% factory-prefabricated, HOLON Building ensures quality control like automobile and aircraft making. It eliminates common issues in traditional construction, such as leaks, blockages, electrical failures, and cracks, freeing residents from costly maintenance and endless hassles.
5. Experience: HOLON designers have extensively studied living habits in over 30 developed countries, setting the highest global standards for functionality, spatial experience, visual aesthetics, comfort, health, safety, privacy, and social needs, allowing every family to enjoy an elegant life for generations.



Bedrooms With Wide-Open Views

It would be a waste to use bedrooms solely for sleeping. HOLON allows people to stay in bedrooms all day long! The huge bay windows extend beyond the walls, making you feel like staying outdoors; the 4-paned ultra-clear glass windows combined with sunshades and thermal curtains,

completely blocking extreme temperatures and urban noises. The thermal curtains also feature aluminum foil layers, blocking against electromagnetic radiation and light, making daytime naps feel like nighttime ones. If one day, your family gathered by the windows, overlooking the bustling city — what dreams might you envision?

2. MODULAR BUT SPACIOUS

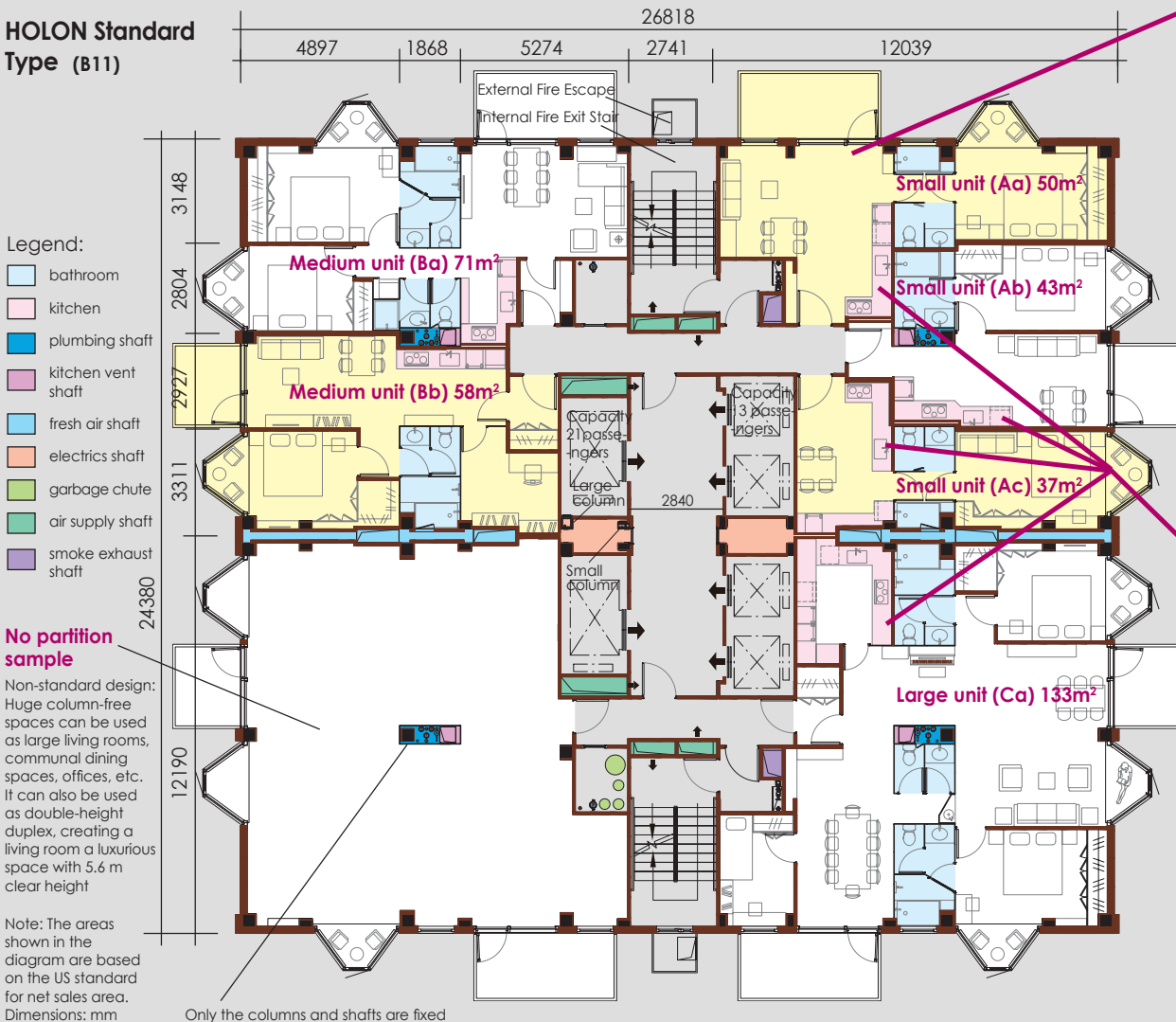
HOLON Features Large Column-Free Space Up To 60m²

Contrary to the common assumption that modular design leads to cramped spaces, HOLON Building is quite the opposite:

1. 12m x 4.8m column-free space, allowing flexible room partition
2. A clear height of room is 2.6m, bathroom 2.3m, and the ceiling is flat and beamless
3. Steel structural columns are smaller than concrete ones, resulting in a 2% to 5% higher space efficiency in HOLON Building

- Ultra-High-Rise HOLON Building Standard Model: Type B11
Max Floors: 40F for a single building, 140F for conjoined towers
- Standard Unit Layouts: 6 options (can coexist in one single building, small units can also function as hotel rooms)
- Gross Floor Area: 677m²/F (excluding balconies)
Net sales area: US 522m²/F, UK 495m²/F
Note: In the US and most countries, net sales area includes demising walls and exterior walls, while the UK standard excludes those

HOLON Standard
Type (B11)



Flexible Configuration

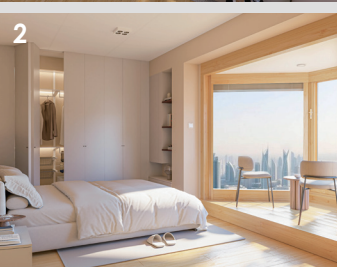
Prefabricated buildings must be standardized to achieve streamlined production. HOLON Building has created the "flexible room & fixed bathroom" model: bathrooms, MEP, and piping systems are fixed, while room layouts are flexible.

Flexible Kitchen Placement

HOLON Building is designed with multiple kitchen water supply points, allowing sinks, dishwashers, and range hoods to be conveniently connected near bathrooms. Residents can choose their preferred kitchen location and even relocate it as family sizes change. Additionally, residents are recommended to use electricity instead of gas for enhanced safety, as many countries have already banned residential gas.

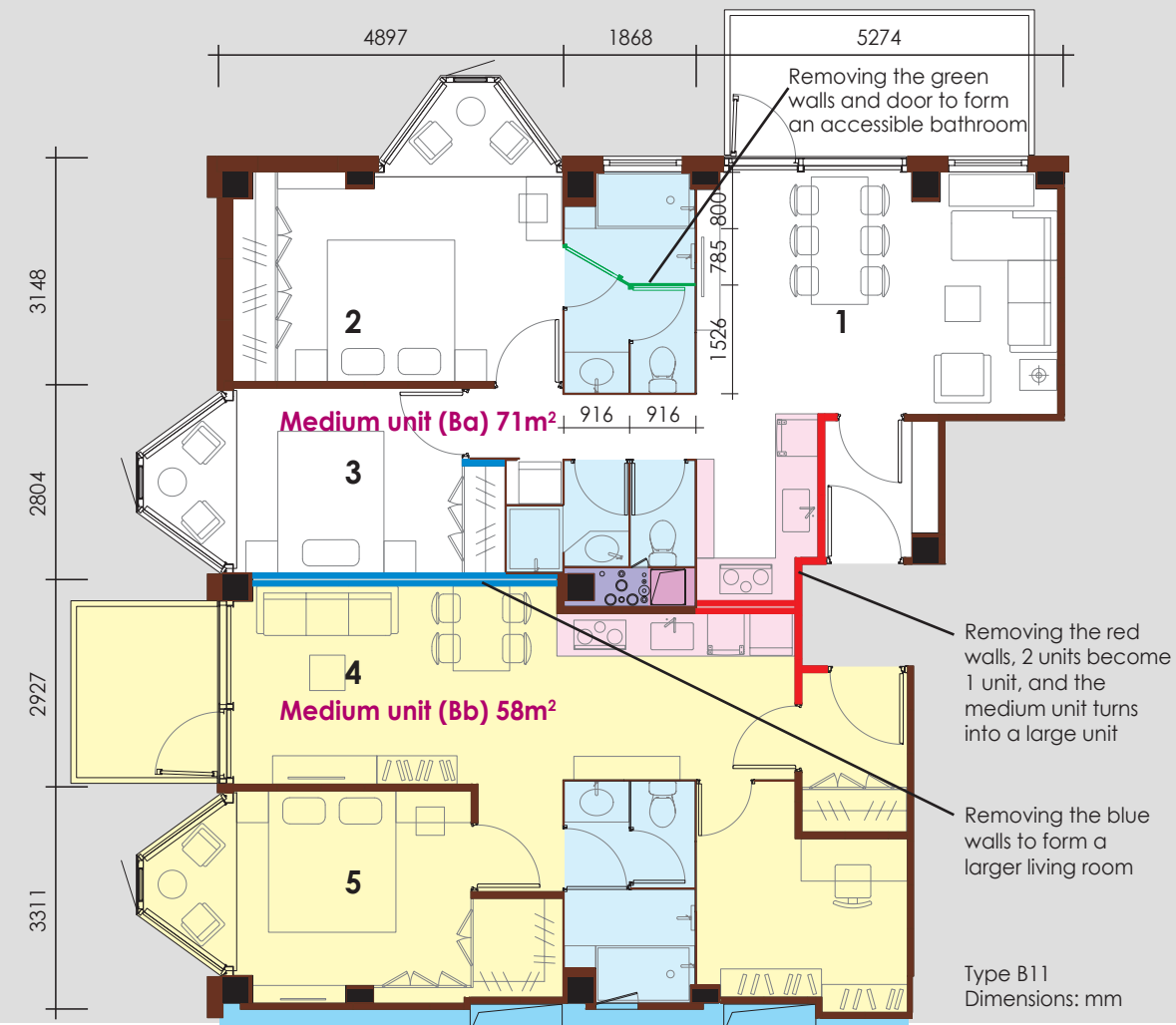


3. STANDARDIZED BUT CHANGEABLE AFTER MOVING IN



After Moving In, Rooms Can Be Further Changed To Suit Personal Habits Or Aesthetic Preferences

1. Finishing materials such as wallpaper, tiles, marble, and wood can be added to the walls, floors, and ceilings
2. The interior walls can be added or removed to change the room layout (removing walls only requires unscrewing, while adding walls requires professional assistance)
3. Several walls can be removed to convert a "medium unit" into a "large unit", or vice versa
4. A wall can be removed to turn a "dry-wet separated bathroom" into "accessible bathroom", or vice versa
5. If necessary, you can entrust HOLON company with the balcony conversion into a bay window, or vice versa
6. Upgrade to larger bay windows or balconies (official planning approval required)



Dry-Wet Separated Bathroom

Every unit comes standardized with a dry-wet separated bathroom, which separates the sink, toilet, shower, and bathtub areas. This design significantly improves bathroom efficiency, allowing families to enjoy their time comfortably and elegantly while avoiding wet floors and slip hazards.

Accessible Bathroom

HOLON bathroom complies with the "accessible bathroom standards" of EU, US, UK, AU and other countries, meeting the needs of individuals with disabilities and the elderly (If already dry-wet separated, they can be converted to accessible bathroom).

4. SMALL UNITS BUT WITH LUXURIOUS EXPERIENCES

Large Balcony

The large balcony is 9m², and all balcony areas are excluded from net sales areas. During cold weather, residents can simply press a button to extend glass panels, shielding the balcony from cold winds.

Tropical Sunbathing

HOLON Building offers 6 standard unit types ranging from 37m² to 133m². Even the smallest unit includes a bay window, allowing residents to indulge in luxurious sunbathing. The 4-paned ultra-clear glass windows allow near-infrared lights to pass through for warmth while blocking harmful UV lights. Imagine what an extraordinary experience it would be for lying on a tropical beach even in a snowy, cold region.

Comfortable Vertical Transportation

Each standard HOLON Building is equipped with 6 elevators, including 2 large-capacity elevators designed to accommodate stretchers and oversized furniture. With multiple elevators, an "elevator group control system", and intelligent speed adjustment, even during morning rush hours, crowding is minimized. Thanks to the high-speed elevators, residents can reach the 160th floor in just 1 minute.

Note: Elevator speed increases with building height

≤40 F 3m/s	≤120 F 6m/s
≤70 F 4m/s	≤140 F 7m/s
≤100 F 5m/s	≤160 F 8m/s

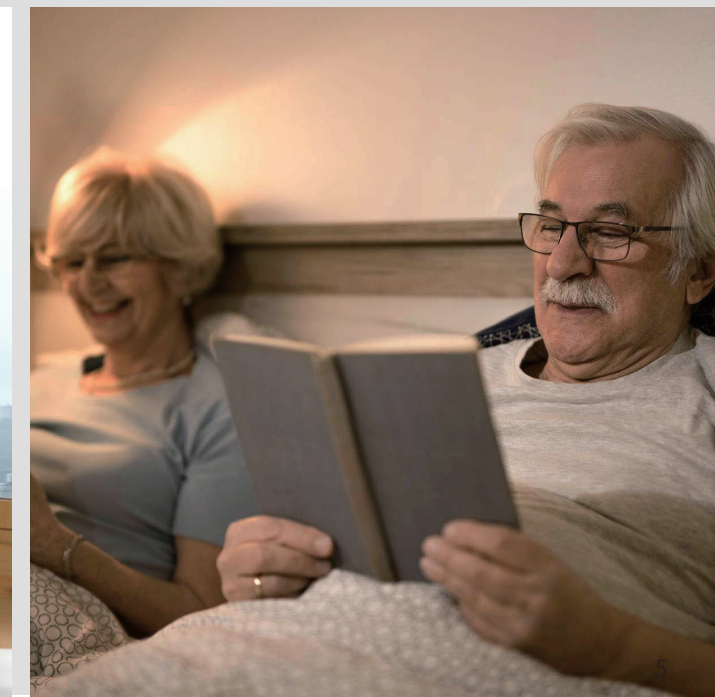


5. LIVING IN HIGH-RISES BUT NOT WORRYING ABOUT NEIGHBORING NOISES

HOLON's Rigid Acoustic Insulation Standards Exceed Those Of The EU & US

High-rise residents are often plagued by four common nuisances: footsteps from upstairs neighbors, noises from next door neighbors, urban clamor, and blocked sunlight or views. However, living in the HOLON Building eliminates these issues, offering a serene experience akin to residing in a countryside villa.

1. The exterior wall is made of double-layer steel plates with 220mm sound-absorbing rock wool, 4-paned glass windows with triple-sealed window frame, even if there is a thunder outside it is inaudible, completely eliminating one of the most common urban discomforts worldwide.
2. Double-layer demising walls between units with triple-sealed and double doors, even if the neighbors hold a concert, it won't disturb you.
3. The total thickness of the floor and ceiling is 400mm, with 4 layers of steel plates, 2 layers of rock wool, 1 fire-proof layer, and a 130mm cavity, achieving the ultimate acoustic insulation level, ensuring footsteps unheard even at midnight, and eliminating disputes between floors (Refer to P13: comparisons of mandatory building standards in developed countries).
4. Each unit with bay windows that extend beyond the wall, ensuring ample sunlight and wide-open views, even in less favorable orientations.



6. ULTRA-HIGH-RISES BUT AT THE SIMILAR LOW-RISE COST

HOLON Building Is 3~6 Times Lighter Than Traditional Buildings And Is Super Seismic-Resistant

HOLON is a stainless-steel structure with zero concrete, weighing only 0.35t/m², which is just 30% of traditional super-high-rise steel structure building and 15% of reinforced concrete building. It greatly reduces the construction cost and greatly enhances the seismic resistance (seismic force = earthquake intensity x building weight).

40-140 Floor HOLON Building Construction, Cost Similar To Low-Rise Buildings

Thanks to its unparalleled safety features such as absolute seismic resilience and reliable fire safety (with external fire escape), as well as low steel consumption, 100% factory prefabrication, and on-site installation of up to 3 floors per day, constructing 40-140 floor HOLON Buildings costs nearly the same as building low-rise structures. This proves a fundamental principle: true high-tech solutions must be cost-effective.

Benefits Of HOLON Ultra-High-Rises: Enhancing Urban Living

HOLON Building allows more residential units to be built on the limited land and transportation resources in old towns, and more green spaces can be freed up in newly developed cities. With its large-scale design, HOLON Building can support more shared amenities, such as cultural, recreational, and sports facilities as well as advanced infrastructure like rail transit and energy-efficient systems.

Disadvantages Of Traditional Ultra-High-Rise Buildings: High Cost

The market research shows that for traditional buildings with more than 15 floors, the unit cost increases by about 0.8 times for every 20 floors added. The construction time also increases exponentially. A 60-floor building takes 7~10 years to complete. Therefore, ultra-high-rise buildings are primarily limited to cost-insensitive projects like office towers and hotels, leaving residential developments unaffordable. This has led to low-rise, high-density urban sprawl in cities like London, Paris, Los Angeles, and Tokyo, forcing residents to endure long, polluted commutes every day.



The External Fire Escapes Guarantees Nearly 100% Successful Escapes

While complying with international fire safety regulations, HOLON Building incorporates two external fire escapes on each floor, doubling the protection for resident safety. The statistics from decade-long global fire incidents show that in over 2/3 of burning buildings, toxic smoke blocks internal staircases. Based on decades of experience in countries like Japan and the U.S., external fire escapes or ropes ensure nearly 100% successful escapes.

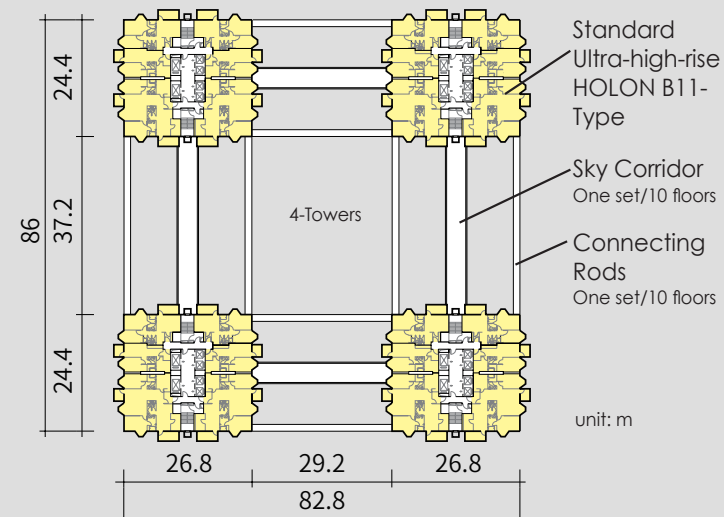
7. CONJOINED TOWERS

MAKE ULTRA-HIGH-RISES SAFE & COMFORTABLE

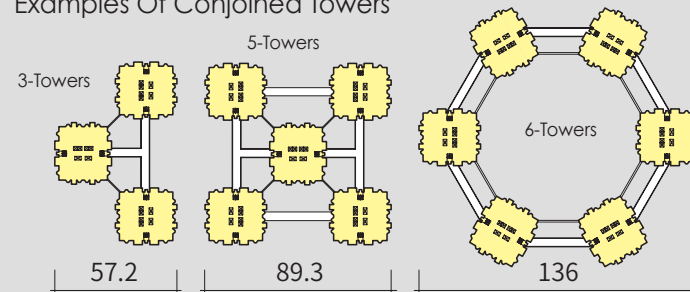
Ultra-high-rise buildings require large floorplates for stability, but this often results in dark zones unsuitable for small and medium-sized residential units. Even in deluxe units, extensive dark areas can create discomfort. HOLON Building addresses this by adopting a conjoined-tower model, allowing small and medium-sized units to be built tall with excellent natural light, views, and stability. In the event of a fire, residents can escape to adjacent towers via connecting corridors, solving the critical challenge of fire evacuation in ultra-high-rise buildings.

Conjoined Towers Requirements

For buildings exceeding 40 floors, the conjoined-towers are mandatory. The maximum height limits: 3 towers – 80 floors, 4 or more towers – 140 floors. A podium up to 40 floors can be added to the base of HOLON Building.



Examples Of Conjoined Towers



8. A VERTICAL CITY

ENHANCES URBAN QUALITY

Reducing Commuting Distance, The Future Urban Direction

One of the biggest challenges in modern cities is long commuting. By inclusive living, working, education, shopping, entertainment, and healthcare within a single community, or even a single building, it will significantly improve residents' life quality, boost productivity, and reduce carbon emissions.

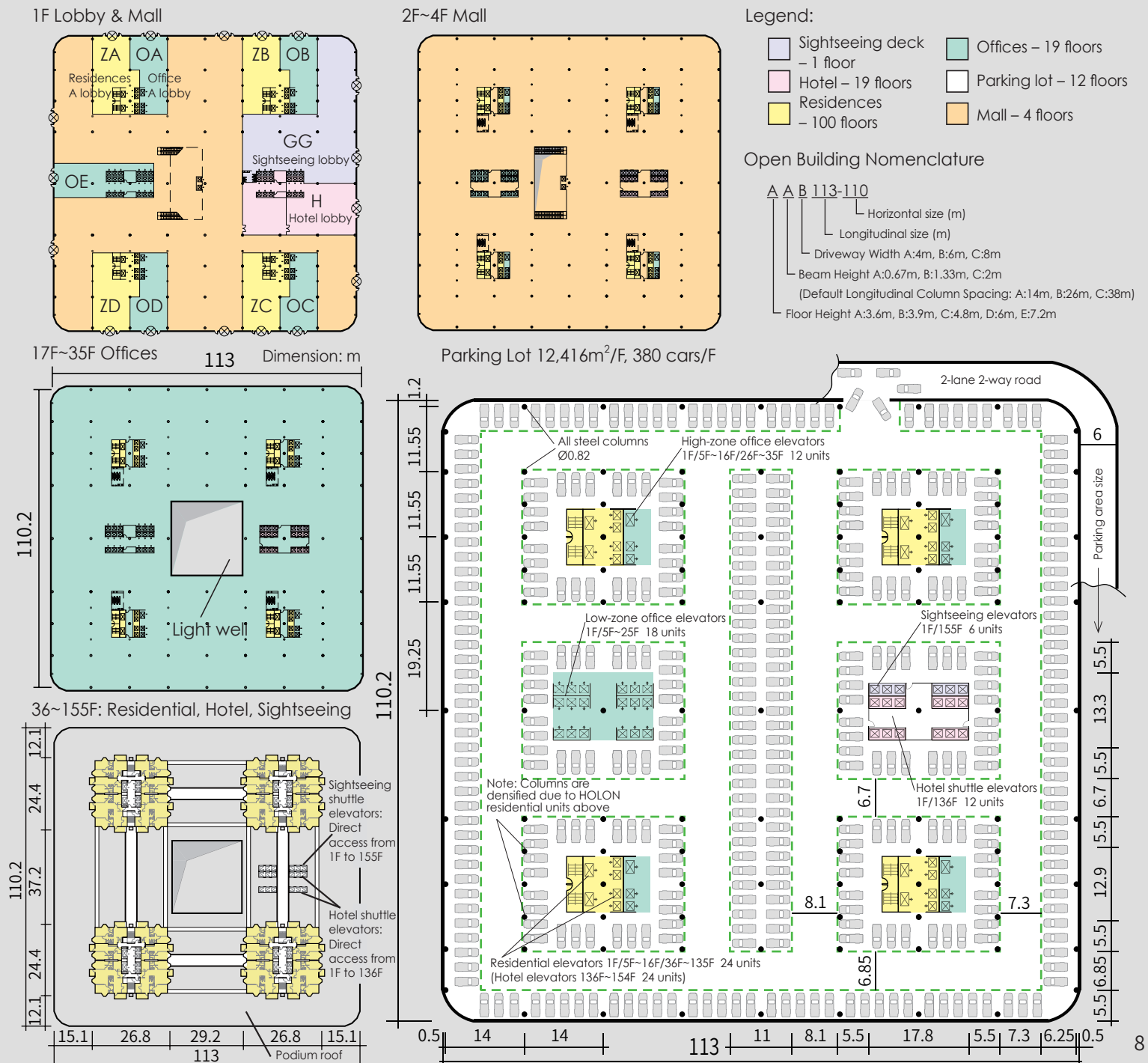
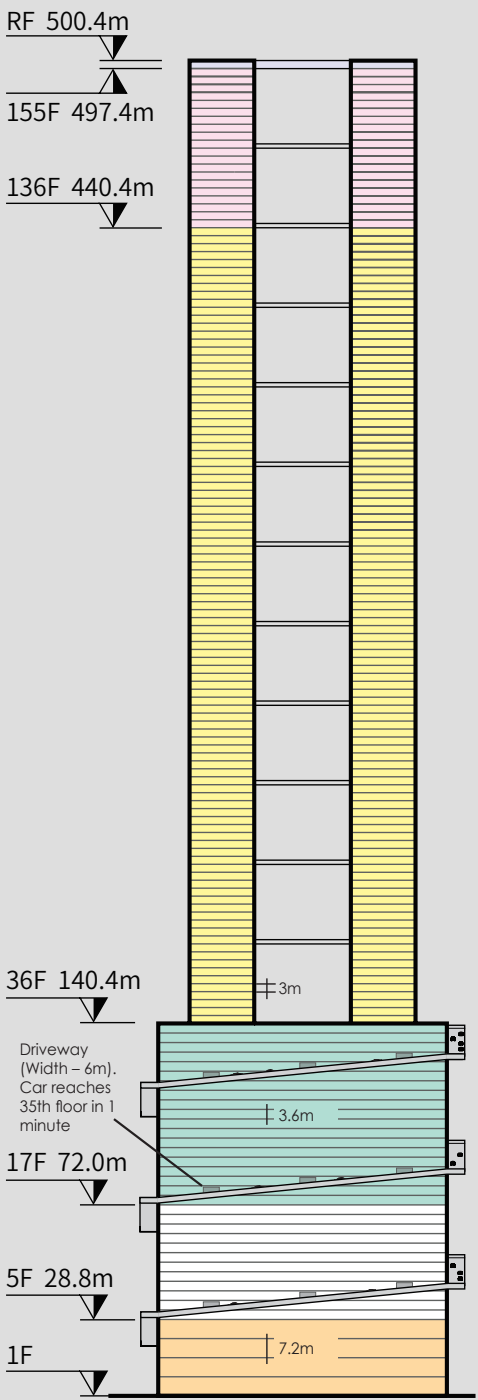
Case Study

This is a planned 155-floor building complex in Europe, with a total floor area exceeding 700,000m² and 98 elevators. Functions are as follows:

155F	Sightseeing Deck – 2,708 m ²	2,700 people
136~154F	Hotel – 51,452 m ²	1,200 people
36~135F	Residences – 270,800 m ²	7,800 people
17~35F	Offices – 222,775 m ²	14,000 people
5~16F	Parking – 148,992 m ²	4,630 vehicles
1~4F	Mall – 49,664 m ²	8,000 people
Total:	746,391 m ²	33,700 people

Podium Features

- Space: The podium utilizes BROAD's "Open Building" system. Longitudinal column spans of 14m, horizontal column spans of the multiple of 2m, and beam spans of 14x4m; typical floor height : 3.6m (clear height of 3.2m, beam clearance of 2.6m), with additional heights of 3.9m, 4.8m, 6m, and 7.2m available
- Structure: "Integral Slab - Mega Column System" with floors, beams, and driveways made of BROAD's thick Core Slabs: 262mm thick, 6mm top/bottom plates, Ø108x1.5mm core tube arrays, Plate Thickness Options: 4mm, 6mm, 8mm, selected based on load requirements. Column diameter: Ø820~Ø1440mm, thickness: 16~80mm, determined by load requirements. Material: carbon steel or stainless steel
- Driveways: A 6m-wide driveway spirals around the building at a 10% slope, allowing 2-way traffic at 20km/h. In this project, one loop covers 12 floors, with 2.8 loops reaching the 35th floor only takes 1 minute, it is 6 times fewer turns than traditional zigzag driveways
- Use: usually used as parking lots, office buildings, shopping malls with high-rises. Users can also change them according to their needs after the operation. For instance, exhibitions, art galleries, schools, hospitals, data centers, and even factories, indoor farms, and livestock farms
- Live load: average 0.6t~1.6t/m² (depending on the building use), partial live load 5t/m², can travel a 50t truck (Note: conventional residences, hotels, office buildings 0.2t/m²)

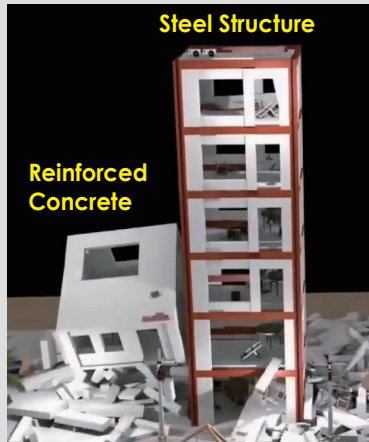


9. STAINLESS STEEL

PRESERVES LIFE AND PROPERTY WITH UNIQUE TECHNOLOGIES

Super Seismic Resistance

HOLON Building's structure uses zero concrete and is 100% stainless steel, with a ductility $\geq 40\%$. In the event of earthquake, it may be deformed at most but will never get collapsed. In contrast, concrete is with a ductility $\leq 1\%$, posing a significant risk of collapse during earthquakes.



Earthquake Simulation Test



Stainless Steel Core Tube Fracture Test

Super Durable

HOLON Building structure is of stainless steel with S32001 for columns and beams, and S304 for floor slabs. Corrosion resistance tests confirm that the stainless steel used in the HOLON Building has a lifespan exceeding 1,000 years.

Corrosion Resistance Test:

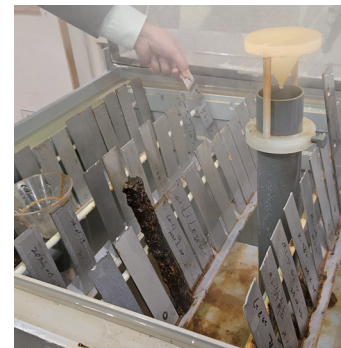
According to the international salt spray test standard "ISO 9227", one day in the test chamber is equivalent to one year of corrosion in the atmospheric environment. The test confirms: Stainless steel is over 100 times more corrosion-resistant than that of carbon steel.



Stainless steel test 1,467 days



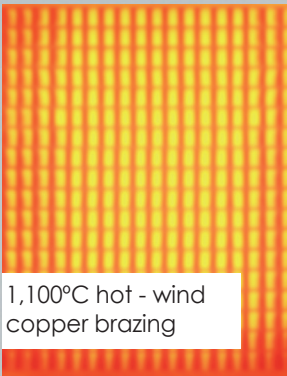
Carbon steel test 30 days



Salt spray test chamber

Original High-Tech Material — Stainless Steel Core Slab

HOLON Building uses BROAD's innovative Stainless Steel Core Slab for its floors, which is 10 times more rigid than traditional materials, significantly reducing steel consumption, making it cost-effective to construct the entire building with stainless steel — a global structure wonder.



10. EXTREMELY MONEY-SAVING

90% MORE ENERGY-EFFICIENT THAN CONVENTIONAL BUILDINGS

HOLON's Mission Is To Preserve The Climate And Life

The parental company of HOLON Co., Ltd - BROAD Group, is renowned for its traditional products like central air conditioning and fresh air machines, which have been very popular in over 80 countries for more than 30 years. BROAD has always upheld the mission of "preserving the climate with energy-efficient technology and life with clean technology", inventing hundreds of hi-tech products, with HOLON being one of the most important innovations.

Extreme Insulation Is The Key To The Ultimate Comfort

HOLON Building meets and some even exceeds the "Passive House Standard" in energy efficiency and comfort. For instance, passive houses typically use up to 3 layers of glass windows whereas HOLON Buildings adopt 4-paned glass windows plus thermal isolation shades. Some may see it as a paranoia, actually it is not. From merely an economic perspective, the additional insulation gets the payback within months through high energy efficiency. Just imagine the tremendous joy of watching snowfall outside windows while staying in the warm room.



Exterior wall insulation
Rock wool 220mm



Window frame with insulation sleeve

Sunshade
Aluminum alloy

4-paned air-filled glass
Ultra-clear glass, more transparent than single-paned glass

Thermal insulation shade
4-layer fiber paper, 2-layer aluminum foil

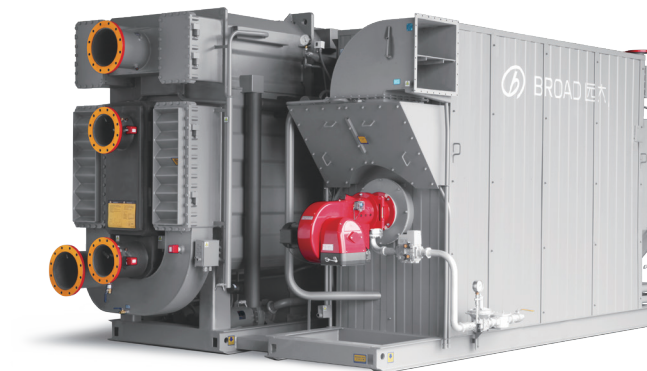
HOLON Building Is Equipped With The World's Leading Central Air-Conditioning System

HOLON Building is equipped with BROAD's innovative non-electric air conditioning. In areas with abundant wind and solar energy, BROAD magnetic bearing oil-free chillers can be used. Additionally, HOLON Building is also equipped with an off-peak electricity water energy storage system, promoting the development of renewable energy.

BROAD Packaged Non-Electric Chiller

Energy sources: Waste Heat, Hydrogen, Natural Gas

- Can utilize any industrial or power generation waste heat above 70°C for cooling
- Can use water or atmosphere $\geq 10^{\circ}\text{C}$ as heat pump sources for heating
- Waste heat utilization efficiency: 160%~240%
- Hydrogen and natural gas cooling efficiency 150%
- Function: Cooling, heating, domestic hot water (DHW)
- Cooling capacity: 233kW~11,630kW



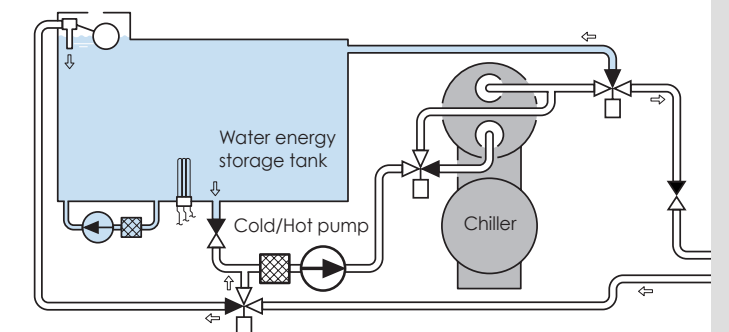
BROAD Packaged Power-Efficient Chiller

- The Integrated Part Load Value (IPLV) of the chiller is ≥ 10 , saving about 40% electricity compared with traditional electric air conditioners
- The packaged distribution system saves 50%~76% more electricity compared with traditional technology
- Maglev is oil-free and friction-free, significantly reducing the maintenance costs
- The condenser heat exchange tubes are made of titanium, which are resistant to any corrosive water, including seawater, with a lifespan of over 60 years
- Function: cooling, heating
- Cooling capacity: 520kW~4,200kW



Off-Peak Electricity Water Energy Storage System

- Air conditioning and domestic hot water (DHW) use the off-peak electricity water energy storage system, which is a cost-effective, reliable, low-maintenance, and long-lasting solution. In countries with utility time-of-use rates, electricity bill of air conditioning and DHW can be reduced by 60%~90%
- If there are ≥ 2 time-of-use rates in a day, the lower value can be applied
- The water storage tank can also be used as a fire water tank, ensuring a constant water supply for fire safety without compromising functionality
- Max storage temperature for heating is 95°C , and min for cooling is 2°C



11. TRULY HEALTHY

100 TIMES CLEANER AIR THAN OUTDOORS

Most People Are Indifferent To Air Quality

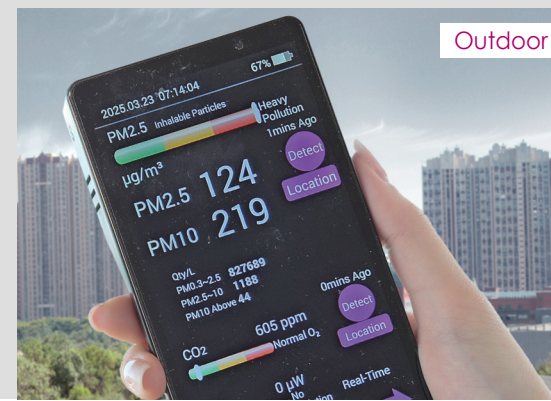
Most people can only feel the temperature of the air, while only a few can sense its cleanliness or pollution. In fact, with a little rational thought, you will come to notice air quality:

- If the house requires daily cleaning, it means the air is very dirty
- If you constantly want to open the window, it means insufficient ventilation
- If you visit a forest and feel instantly more relaxed, it shows how important quality air is for your health

Quality Air Is More Important Than Luxurious Decors

While most people prioritize luxury home decors, only a few recognize the importance of quality air. After living in HOLON Building for a few months, residents often notice improved health, better moods, and less need for cleaning — rooms stay dust-free even without cleaning for a month.

Air Quality Is Highly Perceptible: PM2.5 Monitoring (BROAD Air Monitor)



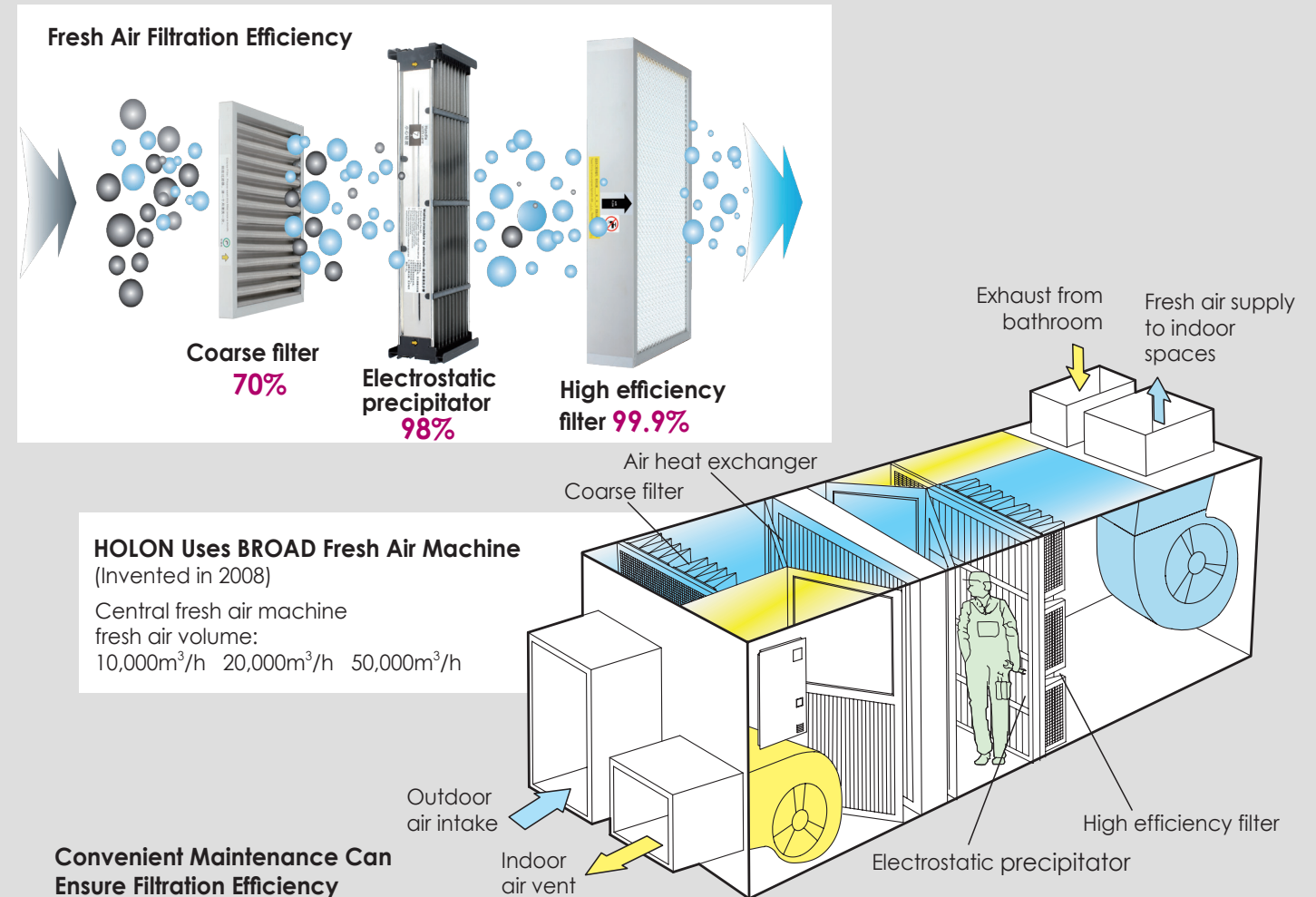
Outdoor



Indoor

Features Of The HOLON Building Fresh Air System

1. 100% fresh air, zero cross-contamination (Traditional fresh air systems follow the U.S. standard: 30% fresh air, 70% return air).
2. Three-Stage Filtration with 99.9% PM2.5 filtration efficiency (this extreme efficiency not only improves health but also prevents the accumulation of pollutants on the ducts, avoiding secondary contamination). The second stage of filtration is BROAD's unique electrostatic precipitator, which captures particles, viruses, pollens, and other microorganisms.
3. Fresh air and exhaust air heat exchange with 80% heat recovery efficiency. The heat exchanger uses heat pipes to ensure 100% separation between fresh air and exhaust air, preventing cross-contamination.
4. Correct arrangement of the terminal air duct of central fresh air system: fresh air enters the bedroom and living room, while exhaust air is expelled from the bathroom, ensuring indoor air is 100 times cleaner than outdoors.
5. The unit provides ample maintenance space, allowing for easy monthly removal and cleaning of the coarse filter and electrostatic cleaner. The high-efficiency filters are replaced every 2~3 years to ensure consistent filtration efficiency.



Convenient Maintenance Can Ensure Filtration Efficiency



Air heat exchanger



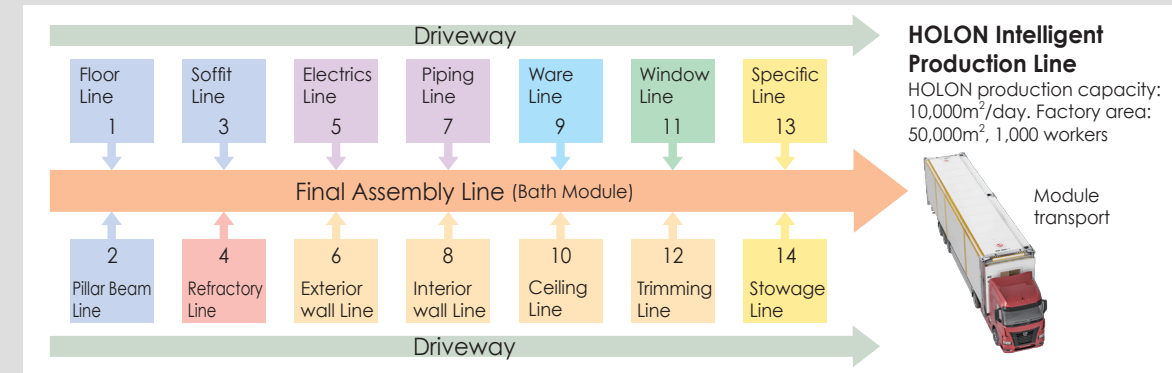
Electrostatic precipitator



High efficiency filter

12. STREAMLINED PREFABRICATION ENSURES HOMOGENEOUS QUALITY AND HIGH EFFICIENCY

- HOLON Building is 100% factory-prefabricated, minimum construction required on-site such as tightening bolts, caulking & pipe connection
- The HOLON streamlined production operates similarly to an automotive production line, but with over 7 times more components - 50,000+ parts and 3,000+ components. The factory has established higher management standards than car production lines to ensure homogeneous quality
- Each standard production line produces 10,000m² per day, and the average daily output per person is 10m², which is 20 to 50 times more efficient than traditional on-site construction
- Every material, component, and process is inspected and documented to ensure full traceability (including outsourced and purchased parts)
- By 2024, one streamlined production has been successfully established, marked as a significant breakthrough from zero to one. Plans are underway to build 20 production lines worldwide by 2028, contributing uniquely to solving the global housing shortage, enhancing living standards & energy efficiency, reducing CO₂ emissions



HOLON R&D Base & First Production Line

Located in Xiangyin, Hunan. It covers an area of 1.5 km², with 230,000m² workshops and 120,000m² offices and residential areas built in 2010

13. MINIMUM CONSTRUCTION ON-SITE

3 FLOORS PER DAY

HOLON Modular Design Vision: Simple & Reliable

- 1) Maximize the floor area per module to reduce shipping costs
- 2) 100% factory prefabrication to minimize on-site work
- 3) Minimize on-site construction difficulty to utilize socialized labor force
- 4) Minimize reliance on the diligence of on-site workers to ensure consistent quality across every HOLON Building and every detail
- 5) Zero construction waste

Containerized Transport: Low Cost & Damage-Free

HOLON modules are designed per a 40ft container and have obtained CSC certification from the International Maritime Organization (IMO), ensuring compliance with global transport standards for containerized transport via trucks, rails and vessels. The modules are tightly sealed, ensuring they are weatherproof during transportation.



Structure Installation 3 Floors Per Day

Structure installation only requires module hoisting, bolting, and waterproof gluing, with no complicated processes such as welding. Proven by the installation of dozens of buildings, HOLON Buildings can be installed at the speed of 3~10 floors per day.

Error-Free For MEP Installation

Before the factory shipment, the HOLON Building's central systems — including public power distribution, fire protection, air conditioning, fresh air, hot water, water supply, and elevators — are designed as modules, assembled, tested, and inspected on the production line. Indoor pipelines and electrical systems are also installed, tested, and inspected. On-site, only vertical plumbing and power lines for each floor need to be connected. Pipe joints use grooved gaskets, ensuring no leaks when bolts are tightened; electrical connectors are color-coded for foolproof installation.

Eliminating Safety Risks Associated with High-Altitude Work

HOLON Building's installation process minimizes high-altitude work to eliminate safety risks. For example, bay windows are pre-installed with 2 large hinges at the factory. On-site, workers simply push the window into place, secure it with 28 bolts, and remove the hinges. Balconies are installed onto modules at ground level and then hoisted into position by cranes.

HOLON Building Installation Preps

1. Planning: 2 months before construction begins, develop a detailed plan, assemble a team, equipment, and logistics, and ensure the site meets construction requirements
2. Labor: 100 workers per 30,000m² of floor area
3. Training: 5~10 days on-site training by HOLON Building engineers for new workers unfamiliar with HOLON Building installation
4. Foundation: Ensure foundation, power, water, and septic system are completed before the HOLON modules' arrival

14. AFTER-SALE SERVICE

LET'S RESIDENTS BE WORRY-FREE FOREVER

HOLON is a heavily-invested industrial product, differs drastically from traditional construction. Unlike conventional contractors who disengage after a project delivery, HOLON Co., Ltd. is committed not only to a successful delivery but also to the lifelong product quality assurance. The performance of the HOLON Building is not just a corporate responsibility but also the reputation, determining the company's long-term survival and growth. The company's services include:

1. Service network: Establish HOLON service centers in every city where the project is delivered, equipped with after-sale service engineers, operational technicians, and a full set of spare parts
2. Resident training: Educate residents on the HOLON Building's features, proper usage and maintenance methods
3. Operational and maintenance personnel training: Thoroughly train staff on the building's technical principles, ensuring they can master correct operation, repair, and maintenance standards. Develop tailored systems for safety, comfort, energy efficiency, and air quality management
4. Quality warranty: Free warranties include 50 years for structure, 20 years for waterproofing, 2 years for MEP systems, and 2 years for interior finishes. After the warranty expires, lifelong supplies of consumables and spare parts are provided
5. Extended services: Upon the request, the HOLON Co., Ltd. can manage central air conditioning, fresh air systems, water and electrical systems, and fire protection systems. Life-long paid maintenance services are also available



15. GLOBAL ACCESSES

WITH EU/US/UK/CA/AU/JP/KR STANDARDS

1. One HOLON Building, Compliant With Global Standards

Despite the world's most advanced technologies, the HOLON Building must comply with local building standards (regardless of their scientific, advanced, or rational nature) to be constructed and used.

To ensure that HOLON modules from the streamlined production are globally applicable (like a car model that fits all countries), the HOLON Building adheres to the standards of the EU, US, UK, CA, AU, JP, KR. Where standards differ, the most stringent requirements are adopted. This was a significant challenge. After years of studying and adopting these standards, and completing a prototype HOLON residential building (Version 16.0), we found that the increase in construction costs was less than expected. However, safety and comfort levels improved significantly compared with using a single national standard (Refer to the table on the right).

2. Design And Construction In Compliance With Local Laws

The planning, design, and construction of HOLON Building projects are entrusted with licensed, reputable, and capable local design firms and contractors. The approval and permitting processes strictly follow local laws, regulations, and guidelines.

3. Providing More Affordable Housing For Governments

Thanks to its significant cost advantages, the HOLON Building can deliver more affordable housing. Developers are encouraged to offer 30% more affordable housing than legally required, addressing the high cost of housing in developed countries. This approach also accelerates the approval and permitting process for developers.

HOLON has obtained the EU CE certification



HOLON has obtained the US AISC certification



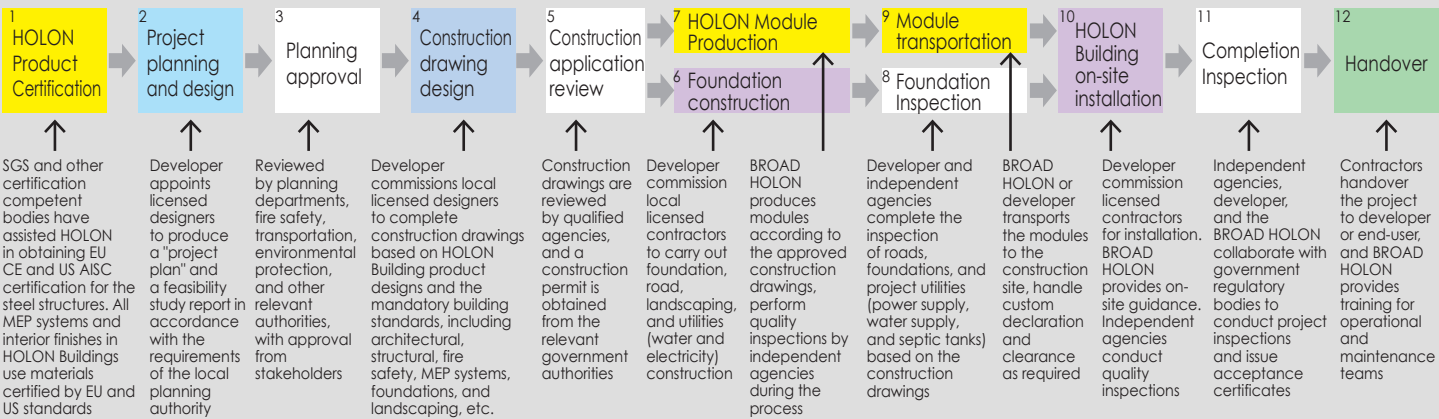
Comparison Table Of Differences In Mandatory Building Codes With Developed Countries (High-rise residential buildings, hotels ≥10F)

	No.	Standards	Unit	EU	US	UK	CA	AU	JP	KR	HOLON
Structural safety	1	Minimum Seismic Design Requirements		Small earthquake 24	Moderate earthquake 38	Small earthquake 24	Moderate earthquake 30	Small earthquake 28	Moderate earthquake 34	Small earthquake 26	Severe earthquake 38
	2	Minimum design wind speed	m/s								
	3	Axial compression ratio of load-bearing components	≤	0.6	0.5	0.6	0.5	0.6	0.4	0.4	0.4
	4	Building height-to-width ratio	≤	6.5	6.5	6.5	6.5	6.5	6.5	6.5	5
Fire safety	1	Column fire resistance	≥h	2	2, 3	2	2	1.5, 2	2, 3	2, 3	2, 3
	2	Beam fire resistance	≥h	2	2, 3	2	2	1.5, 2	2, 3	1.5, 2	2, 3
	3	Floor fire resistance	≥h	2	2	2	2	1.5, 2	1, 2	1, 1.5	2
	4	Fire sprinkler system	Yes √	√	√	√	√	√	√	√	√
	5	External fire escape	Yes √	√	√	√	√	√	√	√	√
Electrical safety	1	Lightning protection earthing resistance	≤Ω	10	25	10	10	10	10	10	5
	2	Circuit protection breaker current	mA	30	30	30	30	30	30	30	30
	3	RCD tripping time	ms	0.4	0.1	0.4	0.1	0.3	0.1	0.3	0.1
Building	1	Accessible bathroom turning space	≥0m	1.5	1.52	1.5	1.52	1.5	1.4	1.5	1.52
	2	Clear width of escape stairs	≥m	1.2	1.12	1.1	1.1	1	1.2	1.2	1.21
	3	Clear height in Living room and master bedroom	≥m	2.4	2.29	2.4	2.29	2.4	2.1	2.1	2.6
	4	Clear height in Bathroom and corridor	≥m	2.1	2.13	2	1.95	2.1	2	2.1	2.3
Acoustic insulation	1	External Wall	dB	Rw≥45	STC≥45	DnT,w≥40	STC≥50	Rw≥45	D≥40	Rw≥45	Rw≥52
	2	Artery Windows	dB	Rw≥35	STC≥30	DnT,w≥35	STC≥30	Rw≥35	D≥30	Rw≥35	Rw≥42
	3	Demising wall	dB	Rw≥50	STC≥50	DnT,w≥45	STC≥50	Rw≥50	D≥45	Rw≥50	Rw≥50
	4	Interior partition wall	dB	Rw≥30	STC≥35	STC≥35	STC≥35	Rw≥30	D≥35	Rw≥40	Rw≥40
	5	Entrance door	dB	Rw≥25	STC≥25	DnT,w≥30	STC≥25	Rw≥25	D≥30	Rw≥30	Rw≥32
	6	Bedroom door	dB	Rw≥25	STC≥20	DnT,w≥25	STC≥20	Rw≥25	D≥25	Rw≥25	Rw≥25
	7	Impact sound insulation	dB	L'n,w≤58	IIC≥50	L'nT,w≤62	IIC≥50	L'nT,w≤62	L≤45	L'nT,w≤58	L'n,w≤58
	8	Airborne sound insulation between floors	dB	Rw≥50	STC≥50	DnT,w≥45	STC≥50	Rw≥50	D≥45	Rw≥50	Rw≥52
Fresh air	1	Room fresh air	Yes √	√	√	√	√	√	√	√	√
	2	Fresh air PM2.5 filtration efficiency	≥%	50	50	60	70	50	60	80	99.9
	3	Heat recovery efficiency	≥%	70	65	70	65	60	60	60	80

Rated Parameter Table Of Residential Buildings

No.	Subject	Parameter	Remark
1	Module transportation dimensions	Length 12.2m Width 2.4m Height 3m	Modules in CSC-certified 40ft container size
2	Module transportation weight	≤20t	Including stowage materials and tools
3	Building height	3m	Non-standard 6m
4	Floor-to-ceiling height	2.6m	Bathroom 2.3m
5	Structural materials	Stainless steel: Column and beam: S32001 Slab: S304	The floor slab is "core slab" and the column & beam is rectangular tube
6	Building standards	Comply with EU, US, UK, CA, AU, JP, KR standards	Meet or exceed the standards of the country where the project is located
7	Energy efficiency standards	"International Passive House Standard"	Developed by the German Passive House Institute
8	HVAC configuration	Central air conditioning, fresh air, domestic hot water	Individual room temperature control
9	Environmental quality	Indoor temperature 20~26°C. PM2.5 is 100 times lower indoors. CO ₂ ≤1000ppm	Rated fresh air volume: 2.5m³/m²h (net sales area)
10	Standard deliverables	Turnkey project with structure, MEP, and finishes	Excluding foundation and works outside of HOLON Building
11	Free warranty period (Year)	Structure 50, waterproofing 20, MEP 2, finishes 2	Lifetime parts supply after the free warranty period

HOLON Residential Project Construction Process (12-Step Project Construction Method)



16. EXTREME INNOVATION

16-YEAR R&D BY OVER 1,000 EMPLOYEES

HOLON Won The Highest Awards In Global Architectural Technology

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

Modular Building Institute (MBI) **Multi-family Category First Place Award** (2022)



Background Of The HOLON Development

HOLON Building was initiated by BROAD Group, an enterprise founded in 1988 with over 3,000 employees. The company has invented hundreds of hi-tech electromechanical products, serving markets in more than 80 countries.

Greatly saddened by the widespread building collapses during the Wenchuan Earthquake in 2008, BROAD Group established BROAD HOLON Co., Ltd. in 2009. After countless trials and errors, testing tens of thousands of materials, parts and components in over 60 buildings, it took BROAD over 16 years, mobilized over 1,000 employees and cost over USD 1.1 billion to have finally invented the world's most comfortable, safe, economical and durable building through factory prefabrication — HOLON Building.

With innovations like the proprietary stainless steel Core Slab, expandable frame structure, and super-clean fresh air system, along with the development of an intelligent prefabricated streamlined production, HOLON has become the world's only hi-tech residential building.

2010

Prefabricated Steel Structure Buildings, The 3rd Building Of The 1st Generation: BROAD Pavilion At World Expo Shanghai

There were 13 corporate pavilions at the World Expo Shanghai, only BROAD Pavilion had been preserved for 15 years. In December 2024, it was relocated to Baoshan, Shanghai. This building was built in one day but has been life-time preserved for the green & technology heritage of the World Expo Shanghai for future generations

2011

The 4th Building Of The 2nd Generation: T-30 Hotel (30-Floor)

Built in 15 days, YouTube video clicks over 2 million/day

2013

More Than 30 Residential Buildings, Hotels And Office Buildings Were Built With The 2nd Generation

Located in 7 provinces in China and Mexico, all in operation

2014

202-Floor / 838m Building Designed With The 3rd Generation

On May 4, 2014, it received approval from China's "National Super High-Rise Review Committee". Over three years, USD150 million was invested in design, testing, approvals, and foundation work. However, due to concerns about market demand, the project was not constructed

2015

The 2nd Building Of The 3rd Generation: 57 Floors, Was Built In Just 19 Days

Youtube video clicks over 5 million

2020

HOLON Building V1.0 Of The 6th Generation

From March to May 2020, two negative-pressure isolation hospitals were built in South Korea to combat COVID-19. These were the first HOLON Buildings constructed using stainless steel Core Slabs

2021

HOLON V7.0 Residence

This building marks the maturity of HOLON residential building

2023

HOLON V12.0~15.0 Residential Building

More than 10 similar buildings have been built in China, Indonesia and the Philippines

2025

HOLON V16.0 Residential Building

To be built in UAE in June 2025

2026

HOLON V16.0 Residential Building

258-Floor / 1,037m

The design and wind tunnel tests have been completed and it is planned to be built in an Asian city in 2026

