

GEBERIT SUPERTUBE

# THE SPACE GAINING SYSTEM

**KNOW  
HOW**  
INSTALLED



- More living and floor space
- Simple planning and installation
- Smaller, consistent pipe diameter
- No additional ventilation pipes
- Horizontal pipelines without slope\*

\* Up to 6 metres

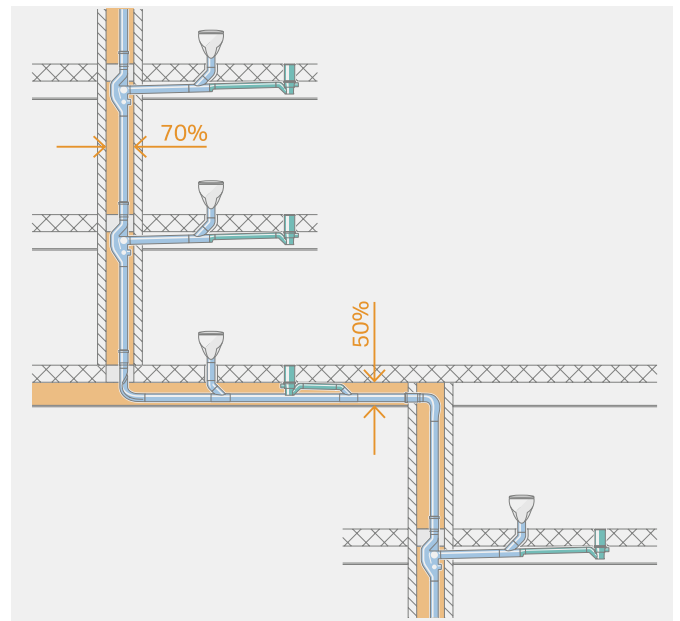
# **MORE SPACE** AFFORDED BY OPTIMISED HYDRAULICS

The ingenious, flow-optimised Geberit SuperTube technology creates a continuous column of air in the discharge pipe, meaning a parallel ventilation pipe installation is no longer required.

The pipelines with smaller dimensions, which cope entirely without ventilation pipes, require significantly smaller pipe ducts. What's more, the horizontal pipelines can be laid to a length of up to 6 metres without a slope to save on space. As a result, the Geberit SuperTube creates more usable living space.

SOPHISTICATED HYDRAULICS

# EVERYTHING AN EFFICIENT DRAINAGE SYSTEM NEEDS



## **GEBERIT SUPERTUBE**

Space-saving drainage technology with high capacity of 12 l/s, dimensions of d110, and horizontal pipelines of up to 6 metres without any slope.

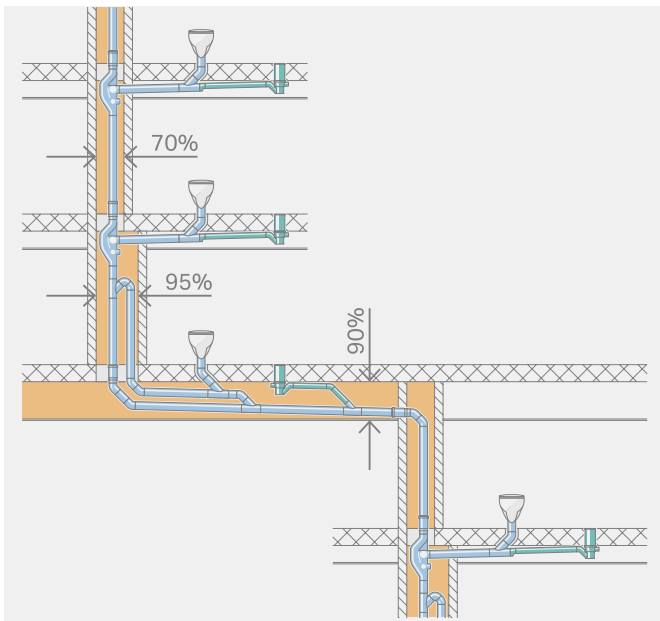
With its maximum discharge capacity of 12 l/s and a consistent pipe diameter of d110, Geberit SuperTube offers a comparable performance to a conventional system with considerable reductions in space and material requirements.

**TAKING THE GEBERIT HDPE SOVENT FITTING TO THE NEXT LEVEL**

The Sovent fitting has already allowed Geberit to succeed in offering a space-saving solution for high-rise buildings by making it possible to do away with a parallel ventilation pipe. The Geberit SuperTube technology is now taking this concept one step further. Changes in direction have always required an additional ventilation pipe in the past, but the SuperTube has now made this surplus to requirements.

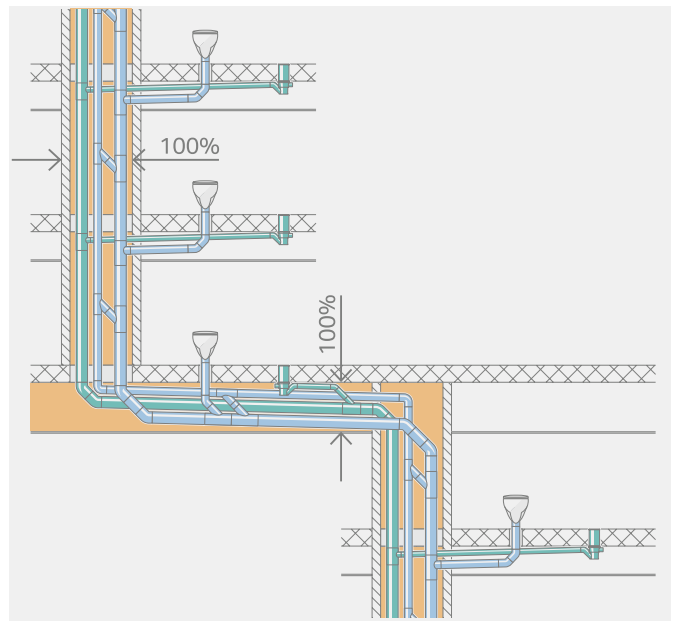
**SPACE-SAVING INSTALLATION**

Geberit SuperTube saves space in every direction. The ability to do without the additional ventilation pipe reduces spatial requirements in both the vertical stack and in horizontal pipelines, for example with an offset or collector pipe. What's more, there is also no need for a slope any more in horizontal pipelines of up to 6 metres in length. This makes it possible, for example, to install ceiling suspensions extremely close to the concrete ceiling at an offset.



**OPTIMISED SYSTEM WITH THE GEBERIT SOVENT FITTING**

Offers a performance of 12 l/s and dimensions of d110 with pressure relief pipe and 0.5-5% slope in the case of horizontal pipe layout.



**CONVENTIONAL SYSTEM**

Requirement for 12 l/s (soil d160, waste d160, vent d100) and 0.5-5% slope in case of horizontal pipelines





- 1 The outflowing water is set in rotation in the Geberit PE Sovent fitting.
- 2 The annular flow becomes a layered flow in the Geberit PE BottomTurn bend.
- 3 The layered flow becomes an annular flow once again in the Geberit PE BackFlip bend.

**The result:** A continuous column of air from the top floor to the collector branch pipe.

## COMPONENTS

# FITTINGS THAT PUT A WHOLE NEW SPIN ON THINGS

The Geberit SuperTube technology is based on the perfect interplay between four system components. Three clever fittings coupled with the tried-and-tested Geberit PE discharge pipe with its high load-bearing capacity combine to create an innovative hydraulic solution that also brings clear additional benefits. These components are permanently welded to ensure a tight connection in the long term.



### **GEBERIT PE SOVENT FITTING D110**

The optimised product geometry of the Geberit PE Sovent fitting guides the water into the stack and sets it in rotation, which causes it to press against the pipe wall. The resulting annular flow creates a stable, continuous column of air on the inside, which facilitates a discharge capacity of 12 l/s



### **GEBERIT PE BOTTOMTURN BEND**

With the Geberit PE BottomTurn bend, a change in direction causes the wall of water to break and the annular flow to become a layered flow without disrupting the column of air. This change significantly reduces impulse losses compared with conventional solutions



### **GEBERIT PE BACKFLIP BEND**

The twisted Geberit PE BackFlip bend causes the layered flow of water to swirl, which allows it to rotate through the vertical pipeline as it drains away in an annular flow. The inner air column in the subsequent stack is maintained

- Large range of products and wide range of dimensions
- High temperature and chemical resistance
- Robust and shockproof
- Various connection options
- Environmentally friendly plastic





GEBERIT HDPE

# ROBUST RESISTANCE NO MATTER WHAT

The Geberit HDPE drainage system defies temperatures, pressure and aggressive media. The robust pipes are available in all common diameters from d32 to d315, and the range of fittings including the special fittings is nearly comprehensive. The polyethylene piping material is very light yet unbelievable tough, and the connection technologies guarantee permanent tightness and high tensile strength. The system includes detail-tested components and practical tools for the building site and workshop.



## IDEAL FOR PREFABRICATION

Due to the fixed connection technology, Geberit HDPE is perfectly suitable for prefabrication and thereby cost-effective production of series.

## DEFIES EXTREME TEMPERATURES

The high density of the material makes Geberit HDPE particularly robust. Hot water does not affect the material at temperatures of up to 80 °C – or even up to 100 °C in the short term and under certain conditions. In the event of cold, the tough material is even still shockproof at temperatures of - 40 °C.

## SHOCKPROOF AND FLEXIBLE

The pipes and fittings withstand shocks, drops, impacts or pressures of up to 1.5 bar without breakage or permanent deformation. This robustness provides, most notably, a guarantee during the construction stage that the pipeline will remain intact despite possible mechanical influences.

## GENTLE TO THE ENVIRONMENT

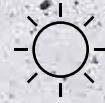
Polyethylene, the material used, is environmentally friendly, has a positive ecobalance and is 100 % recyclable. No toxic emissions whatsoever are released if processed correctly. Also, no problematic hydrochloric gases are created in the event of a fire.

## GEBERIT HDPE



### **PERMANENT SEAL**

The welding joints of Geberit HDPE pipes remain persistently leakproof for many years and offer building owners and plumbers a high degree of safety.



### **VARIED SOLUTIONS**

The comprehensive assortment of fittings with special fittings and accessories makes Geberit HDPE the universal solution for numerous drainage tasks. It is suitable, among other things, for use in industry, commerce, laboratory, for buried ground pipes and for roof drainage.

### **RESISTANT AGAINST CHEMICALS**

The Geberit HDPE drainage system is suitable for a multitude of applications in industry or laboratories. The material is resistant against most standard alkalis, acids and chemicals.

### **UV-RESISTANT**

The high-density polyethylene (PE) used by Geberit contains special additives which effectively protect against UV radiation. The weatherproof pipes can therefore also be stored outdoors.

### **IN THE WALL AND FLOOR**

The extraordinarily tough and robust Geberit HDPE pipelines can be embedded in concrete or laid in the ground in accordance with static and other recognised technical regulations without any concern.

### **CONNECTIONS FOR ALL CIRCUMSTANCES**

From butt welding to quick electrofusion sleeve coupling all the way to screw connection with flanges and pipe threads: Geberit HDPE pipes and fittings can be connected in a permanently sealed manner in many ways.

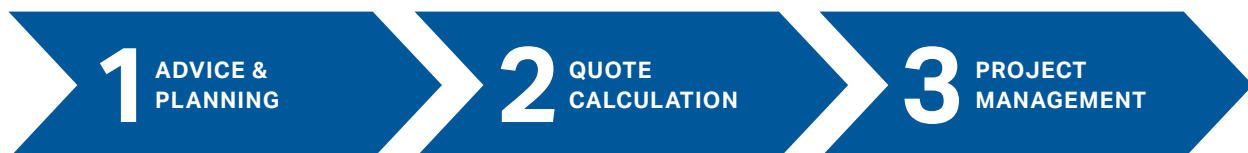


GEBERIT SERVICE

# HIGH AMBITIONS CALL FOR A STRONG PARTNER

Finding cost-effective and reliable drainage systems for high-rise buildings often presents a challenge for building owners, sanitary engineers and plumbers alike. With its consistent research into hydraulics and its own, in-house product development, Geberit is raising the bar not only on a technical level, but also when it comes to service.

Partnership and reliability are core values that our customers around the world can expect from us. Whether you are looking for sound initial advice, planning support, help with invitations to tender, or building site support, the Geberit team is always by your side when you need it.



## 1 GOOD ADVICE & PLANNING

- Support with checking the possible applications of Geberit SuperTube
- Complete planning service including construction plans
- Geberit Tool for SuperTube Planning
- Material planning
- Provision of BIM data for Autodesk® Revit® and CAD data

## 2 EASY, RELIABLE CALCULATIONS

- Support with preparing a quotation
- Creation of a material list
- Creation of complete packages (pipelines, fittings, tools) for Geberit SuperTube

## 3 ON SITE SUPPORT

- Building site training for plumbers
- On-site inspections by Geberit specialists
- Support with change planning
- Final project acceptance



### **GEBERIT SUPERTUBE DIMENSIONING TOOL**

Straightforward planning thanks to the dimensioning tool. The web tool guides you through the process of planning a one-dimensional discharge pipe step by step. The values and information obtained can then be collated and downloaded as a PDF file.



AMANORA GATEWAY TOWERS 100, PUNE, INDIA

# STATE-OF-THE-ART HIGH-RISE BUILDING DRAINAGE



“We were looking for a practical yet cost-effective solution to handle the drainage for the building complex. As soon as Technical Services told us about Geberit SuperTube, we knew that this technology would be just what we were looking for to handle the complex drainage requirements of the high-rise building.”

Rajendra Kenjalkar  
Chief Operating Officer of City Corporation Limited

## PROJECT OVERVIEW

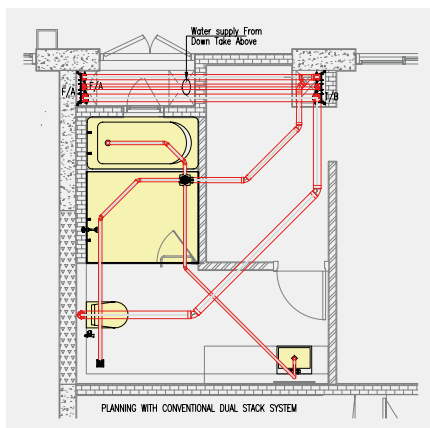
- **Project developer:** City Corporation Ltd
- **Architect:** P&T Consultants, Singapore
- **Interior designer:** Total Design Solutions, Bangkok
- **Owner:** City Corporation Ltd
- **Plumber:** Venkatesh Sanitation
- **Height:** 150 m
- **Floors:** 45
- **Completion:** 2020

## THE CHALLENGE

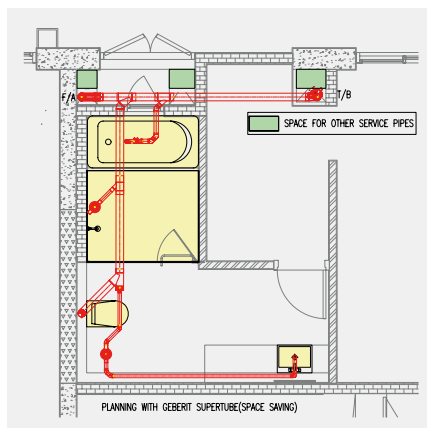
The schedule for laying the pipes was incredibly tight, which is why the support from Geberit was so crucial to the sanitary engineers and plumbers. Geberit technical advisors held various workshops to ensure the SuperTube was installed both correctly and in good time. They showed the plumbers how to handle PE pipes properly and gave them the opportunity to weld pipes together. The technical advisors also offered extra support on the building site.

## THE SOLUTION

The SuperTube technology is ideal for the Indian construction market, where high-rise buildings are becoming ever taller and more complex. In addition to offering significant space savings, the installation requires considerably less material. It is aspects such as these, along with its straightforward installation, that allows SuperTube to have such a positive impact on the installation time.



**Complicated:** Planning with a conventional drainage and ventilation system



**Simple:** Planning with Geberit SuperTube

## RESULTS

---

- Space savings in the installation duct and in terms of room height
- Simple, time-saving installation
- Reduction in raw material



ROYA NOVA RESIDENCE, TURKEY

# DRAINAGE SYSTEM FOR SMALL DUCTS



“Thanks to the space-saving Geberit SuperTube solutions, we were able to fit the drainage system in the narrow ducts in our building. At the same time, this system has allowed us to make real savings in terms of both materials and workmanship”

Kerem Durasi,  
Chairman of the Executive Board of Roya Construction

## THE CHALLENGE

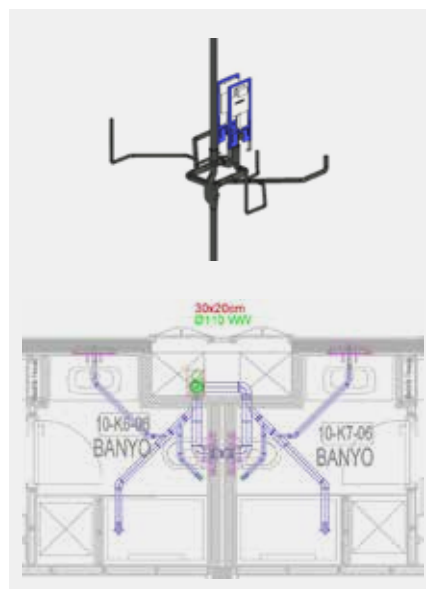
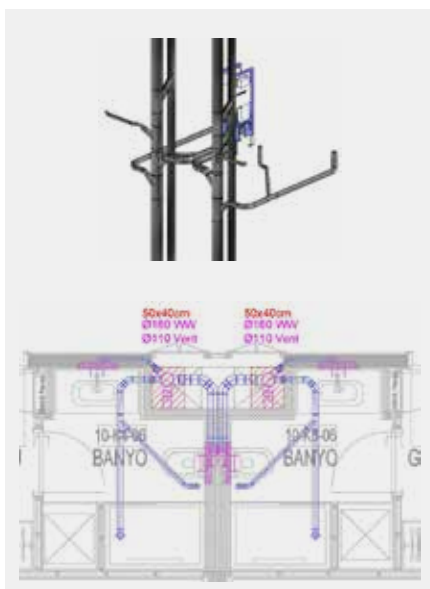
The main challenge posed by this project is that the ducts are very narrow. It was already almost impossible to fit just the plug-in PVC drainage system with ventilation pipes in the ducts, so installing other systems such as ventilation pipes in the same duct made the situation unbearable.

## THE SOLUTION

It was easy to convince the customer of the benefits of Geberit SuperTube technology when we were able to decrease the planned eleven d160 stacks and additional ventilation pipes to just five d110 stacks, which the planned duct sizes can easily accommodate. Gaining 0.3 m<sup>2</sup> in each duct made it possible to

install the drainage system within the building, plus we made huge savings in terms of money and time by doing without 1632 metres of pipe.

The planned drainage system that takes up 50x40 cm in each case with d160 waste water pipes and d110 ventilation pipes for eleven stacks  
→



The Geberit SuperTube solution only takes up 30x20 cm with a single d110 pipe for five stacks  
←



## THE PROJECT AT A GLANCE

---

- Architects: Tago Architects
- Owner: Roya Yapi
- Plumber: ABC Mekanik
- Height: 107 m
- Floors: 30
- Bathrooms: 255
- Completed: 2021

## THE RESULTS

---

- Total of 48 m<sup>2</sup> more space for all 30 floors
- Number of necessary stacks decreased from 11 to 5



NIMIT LANGSUAN, BANGKOK THAILAND

# SPACE-SAVING DRAINAGE OF ULTRA HIGH RISE BUILDINGS



By incorporating innovative products and ideas from around the world that combines aesthetics and function like Geberit Sovent, we strive to achieve our vision in delivering an unsurpassed essence of living to our clients."

Sorapoj Techakraisri  
CEO, PACE, Thailand

## PROJECT OVERVIEW

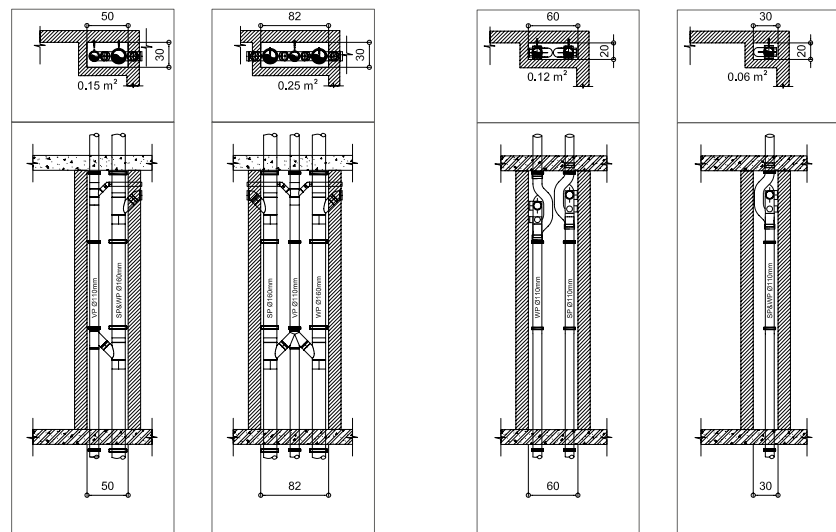
- **Developer:** Pace Development Corporation Public Company
- **Architects:** The Beaumont Partners Co., Ltd
- **Owner:** Pace Development Corporation Public Company
- **Consultant:** Turner Consulting (Thailand) Co., Ltd.
- **Contractor:** Bouygues-Thai Ltd.
- **Sub Contractor:** GME Co., Ltd.
- **Height:** 210 m.
- **Floors:** 55 Floors
- **Bathrooms:** 450 Bathrooms
- **Completion:** 2021

## THE CHALLENGE

The Nimit Langsuan project initially started with a conventional triple stack design with a single ventilation pipe. The project is situated in an exclusive area in Bangkok, the service areas were shrunk down in size to optimize the overall cost of the project. However, this posed several challenges for the extremely tight installation process and hinders ease of access for maintenance and servicing in the future.

## THE SOLUTION

The Sovent System saved space by taking the vent pipe away and reducing the diameter of the stacks from 160mm to 110mm. The solution saved approximately 50% of the space in every stack and more than 200 square meters for the entire project. By reducing more than 35% of the material BOQ, the proposed solution saved material cost as well as total installation time for the project.



Planning with 3 parallel stacks consist of soil pipe, waste pipe and ventilation pipe

Planning with Geberit Sovent



## RESULTS

---

- Saved 50% of space in every stack
- Saved more than 200 sqm
- Reduction of more than 35% of materials

# NEW ALAMEIN TOWERS, ALAMEIN CITY, EGYPT

# BUILDING WITH A

# RELIABLE PARTNER



"We were the ones who recommended this solution to the developer and got them on board and it didn't take much convincing! But since SuperTube offers nothing but benefits for the entire construction team as it takes up less space, uses less material and the fact that it is easy to install, speeds up the whole process. To put it simply, SuperTube is a real treat for everyone on site. It is worth every penny for the resulting gains in time, space and material."

Hany Fouad  
Project Director ORASCOM

## THE PROJECT AT A GLANCE

- **Developer:** New Urban Communities Authority
- **Architects:** Pavillion, Concord, Yasser Beltagy, ECG Consultants
- **Interior designers:** Pavillion, Concord, Yasser Beltagy, ECG Consultants
- **MEP consultants:** Shaker, Mito Consultants
- **Contractors:** Orascom, Hassan Allam, CCC; Redcon; Dorra, Emco, Arb. contractors and Siac
- **Towers:** 18
- **Height:** 224m
- **Floors:** 32-44
- **Bathrooms:** 15,000
- **Completed:** 2023

## THE CHALLENGE

Comprising no fewer than 18 high-rise buildings, the New Alamein Towers project is one of epic proportions. Time was of the essence in every aspect of

this fast-track project by the Egyptian government, so a rapid installation time was high on the priority list. The ducts for the towers were planned to be extremely narrow, which meant that it was almost impossible to install a conventional drainage system in eight of the towers. The client also wanted great quality at a reasonable price from a single reliable partner that would handle every stage of this demanding project.

## THE SOLUTION

The answer to these high demands came in the form of Geberit SuperTube, which made it possible to switch from a conventional triple stack to a single stack system, thereby saving on materials, costs and taking up less space in the ducts. Not only did this make it easier to work in the ducts, but it will also facilitate maintenance in future. The Geberit SuperTube system was a more cost

effective solution for the client due to the reduced stack number and duct size. The client also benefited from the full Geberit support package, which includes everything from design support and on-site assistance through to aftersales services.

## RESULTS

- Reduction from 162 stacks to 54
- Approx. 50 % saving on stack installation time
- Overall space saving of 210 m<sup>2</sup> (4760 USD/m<sup>2</sup>)
- Up to 34 % saving on material costs compared to a conventional system



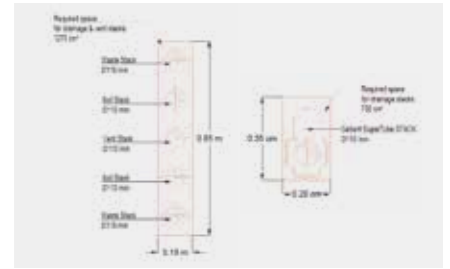
**ORIGINAL PLAN WITH PVC PIPES**

The original plans featured extremely narrow ducts, which made it virtually impossible to install a conventional drainage system in eight of the towers.



**CONSTRUCTION WITH GEBERIT SUPERTUBE**

With Geberit SuperTube, they only used one third of the originally planned stacks and the gained space brought additional square metres per floor.



**COMPARISON OF DUCT SPACE**

The original plan featured three d110 pipes for waste, ventilation and soil that would have taken up 0.1275 m<sup>2</sup> of space (left), while the stack with Geberit SuperTube only requires a single d110 pipe covering 0.07 m<sup>2</sup> (right). That results to space saving amount of nearly 45%.



# QUALITY AND COST SAVINGS **IN THE LONG RUN**

The Geberit SuperTube system is the ideal choice whenever the situation calls for a durable and space-saving solution. What's more, the system offers a whole host of additional benefits in applications where the focus is on the entire life cycle of the building process. Geberit SuperTube also presents real cost savings in the long run, as this system is faster to install and requires less maintenance than its conventional counterparts.

### PROJECT INFORMATION

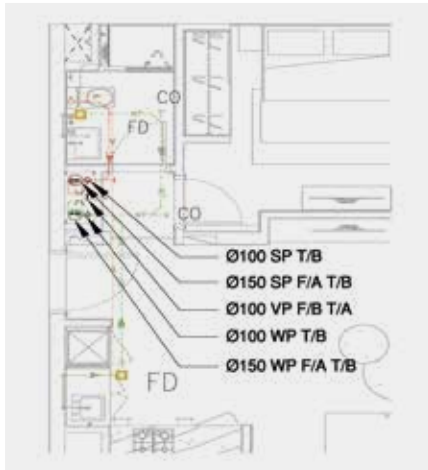
Typical residential upper mid segment project in the UAE:

- 24 floors
- 33 bathrooms per floor
- Apartment sizes from 69 to 275 m<sup>2</sup> (742 to 2960 ft<sup>2</sup>)

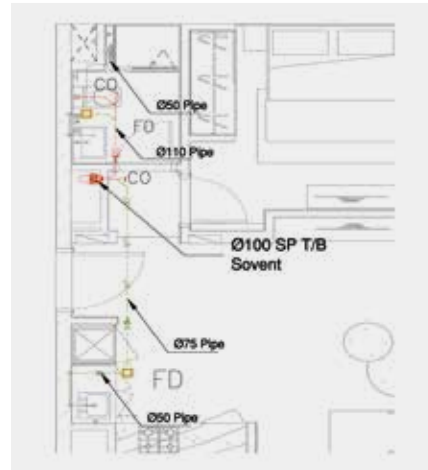
### PROJECT SUMMARY

- Cutting down the number of stacks from 3 to 1
- Original duct size: 100%
- Duct with optimal Geberit Sovent planning: 35%
- Space gained per floor: 8 m<sup>2</sup> (86 ft<sup>2</sup>)

### EXAMPLE OF STACK WITHIN THE PROJECT



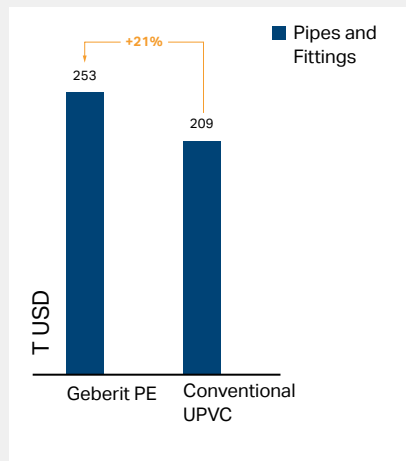
Conventional



Geberit SuperTube

## COMPARISON OF COSTS

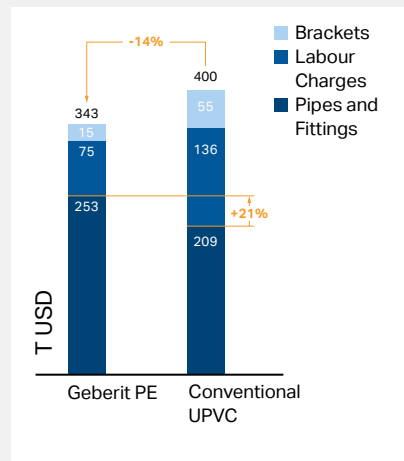
### Material costs



#### Higher material costs because of

- High-quality HDPE
- Innovative system
- Fully welded system

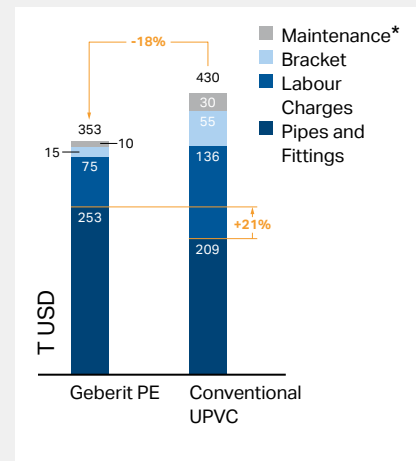
### Material costs and labour charges



#### Lower material costs because of

- Fewer and smaller brackets
- Faster installation
- Shorter construction time

### Lifetime cycle



#### Lower lifetime costs because of

- Permanently leakproof system
- Durable material
- Low maintenance

\* Estimated costs based on several projects

**Geberit South East Asia Pte Ltd  
Regional Headquarters**

Aperia Tower 1  
8 Kallang Avenue, #17-09  
Singapore 339509

T +65 6250 4011  
F +65 6250 4211  
sales.sg@geberit.com

[www.geberit.com.sg](http://www.geberit.com.sg)

**South Korea Office**

#301 JS Building, 213-5 Nonhyun-Dong,  
Gangnam-Gu, 135-090 Seoul,  
South Korea

T +82 2 543 4166  
F +82 2 543 4123  
sales.kr@geberit.com

[www.geberit.co.kr](http://www.geberit.co.kr)

**Hong Kong Office**

Unit B, 11th Flr, CKK Commercial Centre,  
289 Hennessy Road, Wan Chai  
Hong Kong

T +852 2575 5960  
F +852 2575 2667  
sales.hk@geberit.com

**Taiwan Office**

4F-6, No.57, Sec 1, Dunhua S. Road,  
Songshan Dist., Taipei City 10557,  
Taiwan

T +886 2 2579 8736  
F +886 2 2577 3365  
sales.tw@geberit.com

**Malaysia Office**

Q Sentral, Level 35-02 (East Wing)  
2A, Jalan Stesen Sentral 2, KL Sentral,  
Kuala Lumpur 50470  
Malaysia

T +60 3 2731 9228  
F +60 3 2731 9399  
sales.sg@geberit.com

**Thailand Office**

True Digital Park West, Unit SH572, 5th level 111  
Sukhumvit Road, Bangchak, Phra Khanong,  
TH-10260 Bangkok

T +66 85 368 5829  
sales.sg@geberit.com

**Philippines Office**

Unit 4104, Regus GT Tower, 41/F  
GT Tower Building, Ayala Ave., cor dela  
Costa St., Makati City, Metro Manila, 1224  
Philippines

T: +63 2 8651 6546  
F +63 2 840 6501  
sales.sg@geberit.com

**Vietnam Office**

23rd Floor – E. Town Central,  
11 Doan Van Bo Ward 12, District 4,  
Ho Chi Minh City  
Vietnam

sales.sg@geberit.com



Geberit Online Catalogue