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High-quality living space is precious and should be optimised for maximum benefit. This is where Geberit SuperTube technology provides space-saving benefits for discharge pipes without compromising on highly sound-insulating. Geberit Silent-db20 SuperTube allows for efficient and secure drainage in high-rise buildings, with no need for additional ventilation pipes and no unnecessary background noise.

- More usable, acoustically insulated space
- Straightforward planning without ventilation pipes
- Faster, more streamlined installation than conventional systems
- High discharge capacity of 12 l/s with d110 dimensions
- Horizontal pipelines of up to 6 metres without slope



**Safety made simple with BIM**  
All fittings are available in the Geberit BIM Plugin. The wizard feature makes it easy to transform existing plans from Geberit PE SuperTube to Geberit Silent-db20 SuperTube with just a click.



Geberit Silent-db20 with SuperTube technology



Highly sound-insulating drainage system

GEBERIT SILENT-DB20 SUPERTUBE  
**FOR MORE  
SILENT SPACE**

**KNOW  
HOW  
INSTALLED**



# GEBERIT SILENT-DB20 SUPERTUBE

## PEACE AND QUIET FOR EVERYONE



### 1 GEBERIT SILENT-DB20 SOVENT FITTING

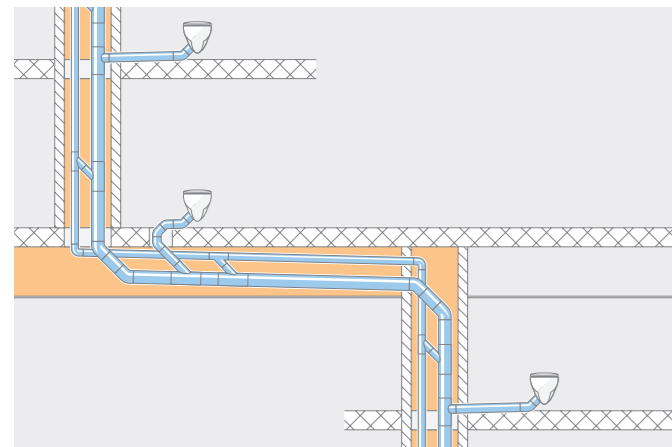
The optimised geometry of the Geberit Silent-db20 Sovent fitting guides the water within the stack, sets it in rotation, and causes it to press against the pipe wall. The resulting annular flow creates a stable, consistent column of air inside, which facilitates a high discharge capacity.

### 2 GEBERIT SILENT-DB20 BOTTOMTURN BEND

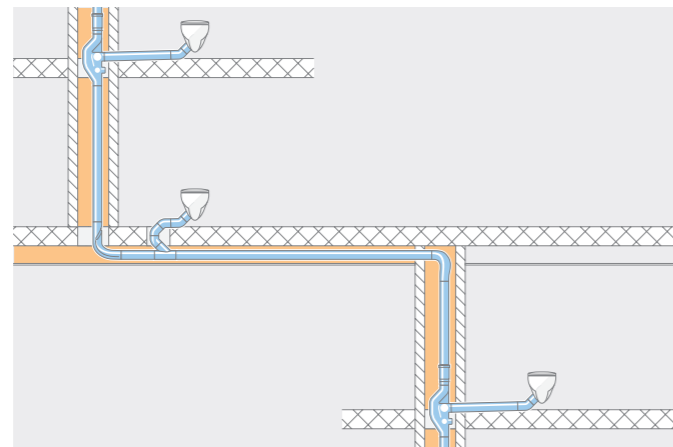
With the Geberit Silent-db20 BottomTurn bend, a change in direction causes the wall of water to transition from an annular flow to a layered flow without disrupting the column of air. This direction change significantly reduces impulse losses compared to conventional solutions.

### 3 GEBERIT SILENT-DB20 BACKFLIP BEND

The twisted design of the Geberit Silent-db20 BackFlip bend redirects the layered flow into a swirling annular flow, ensuring the column of air is maintained in the extending stack.



**CONVENTIONAL SYSTEMS**  
A conventional discharge pipe with dimensions of d160 and an additional d90 ventilation pipe for a discharge capacity of 12.4 l/s. Horizontal pipelines must be installed with a slope between 0.5% and 5%.



**GEBERIT SILENT-DB20 SUPERTUBE**  
This technology facilitates a continuous discharge capacity of 12 l/s with pipe dimensions of d110, eliminating the need for a ventilation pipe. Horizontal pipelines of up to 6 metres can be installed without a slope.

## SOUND INSULATION PROPERTIES

### HIGHLY SOUND-INSULATED PIPING SYSTEM

Geberit Silent-db20 is characterised by its considerable inherent weight. The reinforced plastic significantly reduces natural vibrations, ensuring that sound is effectively insulated. What's more, the special sound insulation ribs serve to reduce noise development in the impact zones, meaning the product design itself contributes to noise reduction. These product characteristics are now also available with SuperTube technology.

A stack system featuring Geberit Silent-db20 SuperTube with a capacity of 12 l/s meets the same sound insulation requirements as a conventional with d160 and a bypass system with a capacity of 9.5 l/s.

### IMPROVED SOUND INSULATION WITH DIRECTION CHANGE

The flow behavior observed when redirecting from vertical to horizontal pipelines shows a much smoother transition with the Geberit Silent-db20 BottomTurn. In contrast, the significantly more turbulent flow in the conventional structure leads to greater levels of noise development. These disruptive noises were also detected in adjacent rooms in a series of tests conducted at the Geberit Building Technology and Acoustics Laboratory.



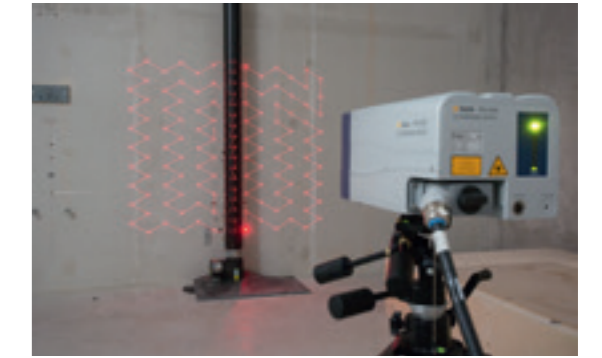
**CONVENTIONAL SYSTEMS**  
The direction change with two Geberit Silent-db20 45° bends in d160 dimensions creates turbulence in the pipe, which leads to increased noise development.



**GEBERIT SILENT-DB20 SUPERTUBE**  
The Geberit Silent-db20 BottomTurn bend transforms the annular flow from the stack into a layered flow.



Room acoustic measurement of the radiated airborne sound from a Geberit Silent-db20 Sovent fitting.



Non-contact and full-surface vibration measurement.

## TESTED UNDER REAL CONDITIONS

### FULFIL SOUND INSULATION REQUIREMENTS WITH CONFIDENCE

Geberit is the reliable partner you need for meeting sound insulation requirements. And when it comes to fulfilling specific criteria with the Geberit Silent-db20 SuperTube, we also provide project-specific documentation tailored to the specific room layout and required discharge capacity. We even offer support and advice on all issues relating to the fulfilment of structural sound insulation standards.

### MEASURE MORE TO HEAR LESS

Geberit conducts extensive sound insulation tests across different scenarios to simulate real-life conditions. To this end, Geberit's unique laboratory in Rapperswil-Jona provides a simulation of a genuine high-rise system. This facility allows for the measurement and assessment of sound in all

relevant rooms, making it possible to compare standard test benches with actual constructional situations. The methodology has been approved by the Fraunhofer Institute.

### ON TOP OF INTERNATIONAL STANDARDS

Geberit has the expertise to apply various measurement and evaluation methods to meet requirements across different countries.

### COMPREHENSIVE EQUIPMENT

The Building Technology and Acoustics Laboratory is equipped with specialist measuring technologies and a wide range of equipment for assessing sound from sanitary installations.



The Building Technology and Acoustics Laboratory is a multi-storey building that is acoustically decoupled from the outside world, where installations can be set up as needed over several floors. This allows systems to be acoustically tested in all relevant rooms. Geberit has also built its own drainage tower to simulate the Geberit Silent-db20 SuperTube under realistic conditions.