

| **FSS** |



IWMI
URBAN
NOISE
CONTROL

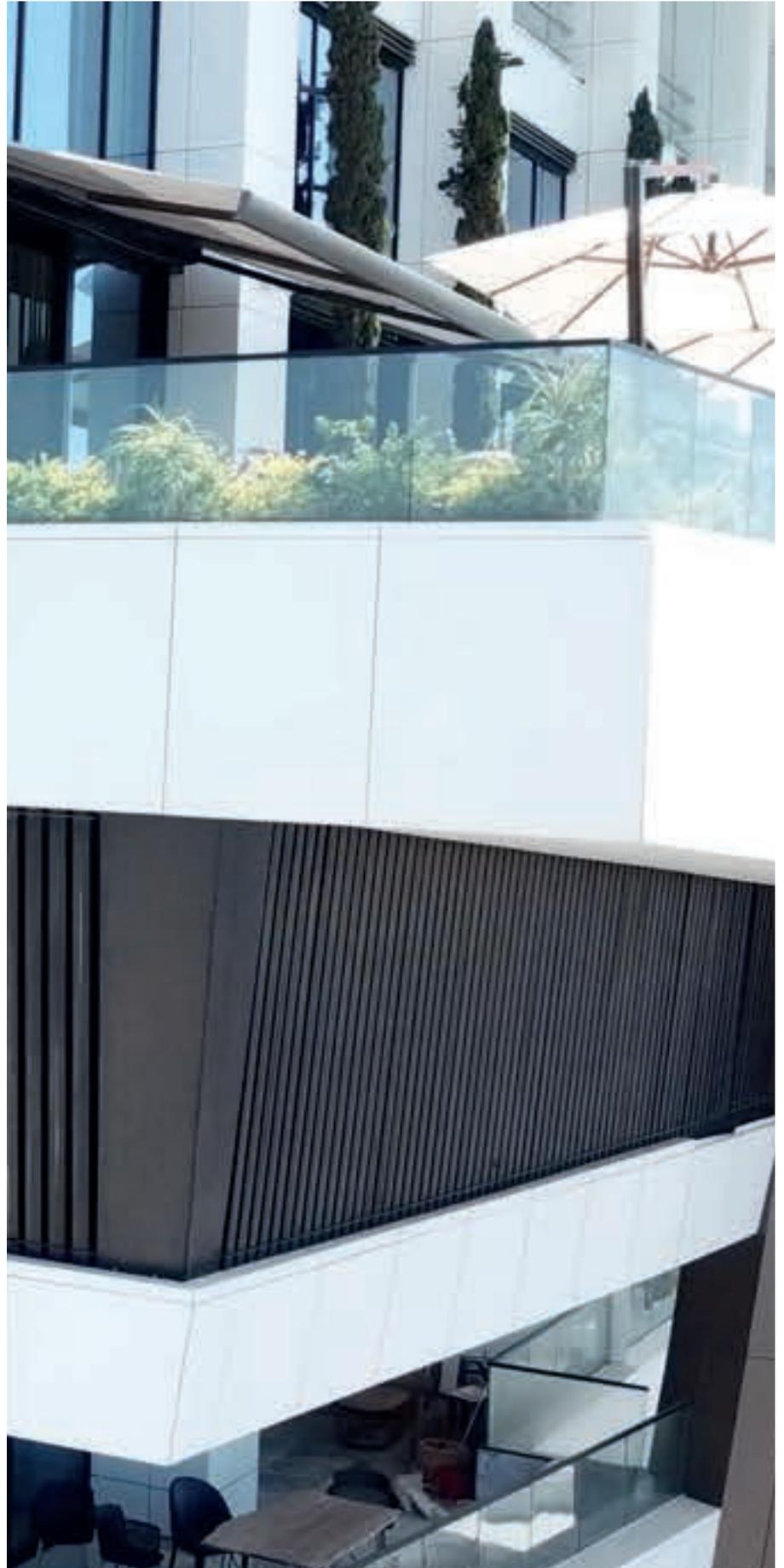
FSS

The Splitter Silencer System (FSS) is engineered for high-performance sound attenuation and natural ventilation in plant rooms, mechanical levels, and equipment areas. The system combines aluminum silencers with a galvanised steel supporting structure for durability and structural integrity.

All components are painted with Electrostatic Powder Coating for enhanced protection and longevity, to meet project requirements and environmental conditions. Additionally, a protective hood or wire mesh can be installed to prevent intrusion by birds and insects.

The system is scientifically designed to achieve an optimal balance of acoustic performance, low pressure drop, and rain protection, making it suitable for industrial environments. Its modular construction consists of custom-made splitter silencers, allowing flexible configurations for diverse industrial applications.

A laser-cut bracket system enables customized mounting on existing façade openings or pre-fabricated steel structures, simplifying installation and integration.



TECHNICAL SPECIFICATIONS



INSTALLATION

Installation is achieved by mechanically mounting metal brackets within a steel frame structure.



SUPPORTING STRUCTURE

Galvanised steel construction ensures durability, while brackets, stoppers, and clips provide stability and easy maintenance. Custom-designed to meet project and consultant requirements.



PRESSURE DROP – DIFFERENTIAL PRESSURE

Calculated for each project based on airflow, opening area, and relevant system properties.



MAINTENANCE

Can be cleaned using a dust broom, vacuum cleaner, or damp cloth.



WEATHER & COASTAL CONDITIONS

Suitable for outdoor installations, including exposure to coastal environments.



STRUCTURAL DESIGN

Structural calculations and analysis performed according to CYS and relevant standards.



TECHNICAL DOCUMENTATION

Technical brochures, material inspections, and specification certificates are available for each system component.



AVAILABLE SIZES

HEIGHT

Up to 285cm

DEPTH

60cm

SPLITTERS WIDTH

10cm

SPLITTER TO SPLITTER GAP

5cm

Facade opening area

33%

*Other sizes upon request

TYPICAL APPLICATIONS

Mechanical Rooms
Generator Rooms
Roof MEP Installations
Mechanical Levels Facade
Workshop Fresh Air Inlets/Outlets

MATERIALS AND COLORS

MATERIALS

Supporting structure and brackets-stoppers-clips are made of galvanized steel.

Steel structure design according to project needs and other consultants' specifications.

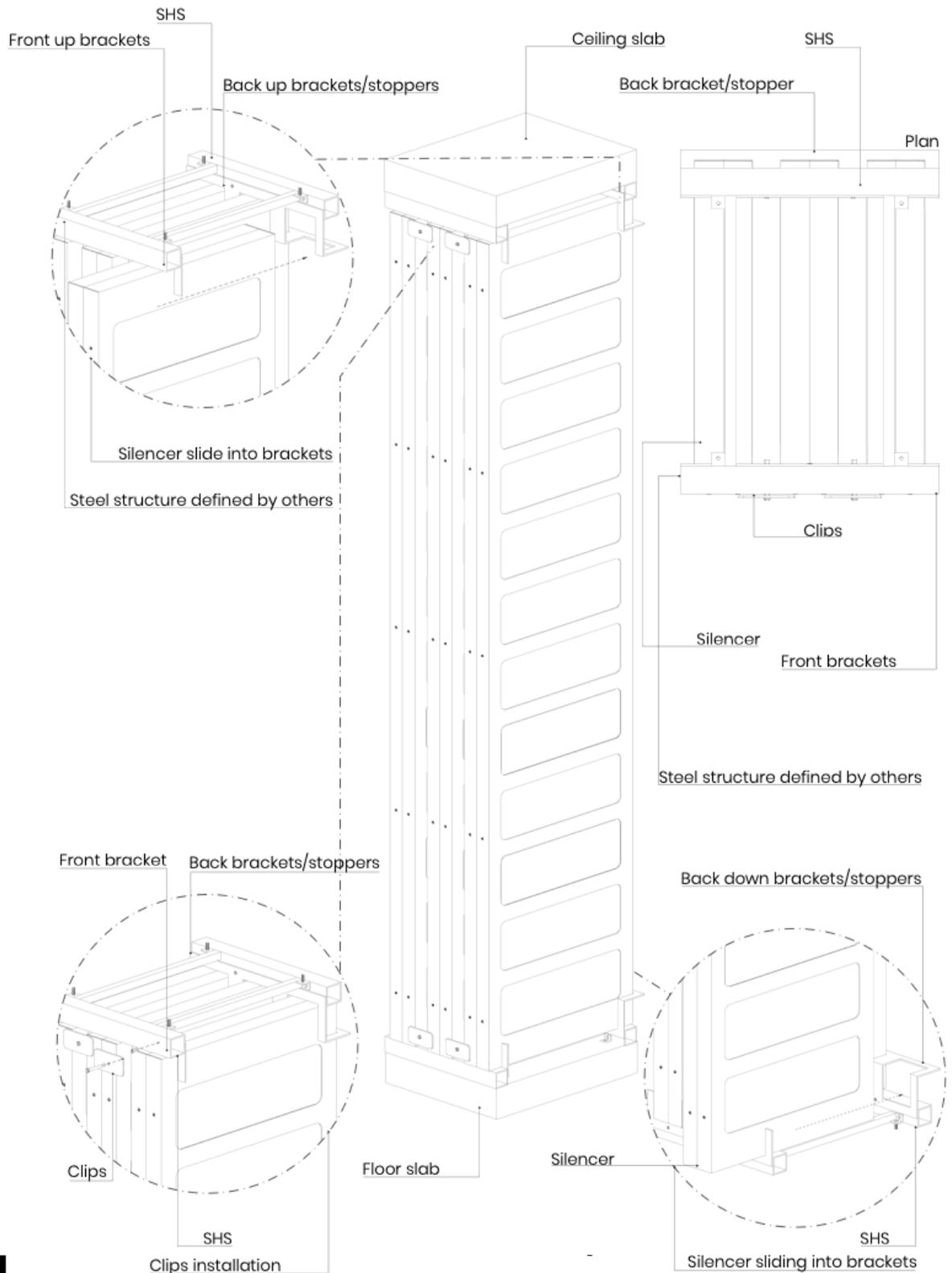
Brackets, stoppers & clips for stability and removal (maintenance) purpose.

COLORS

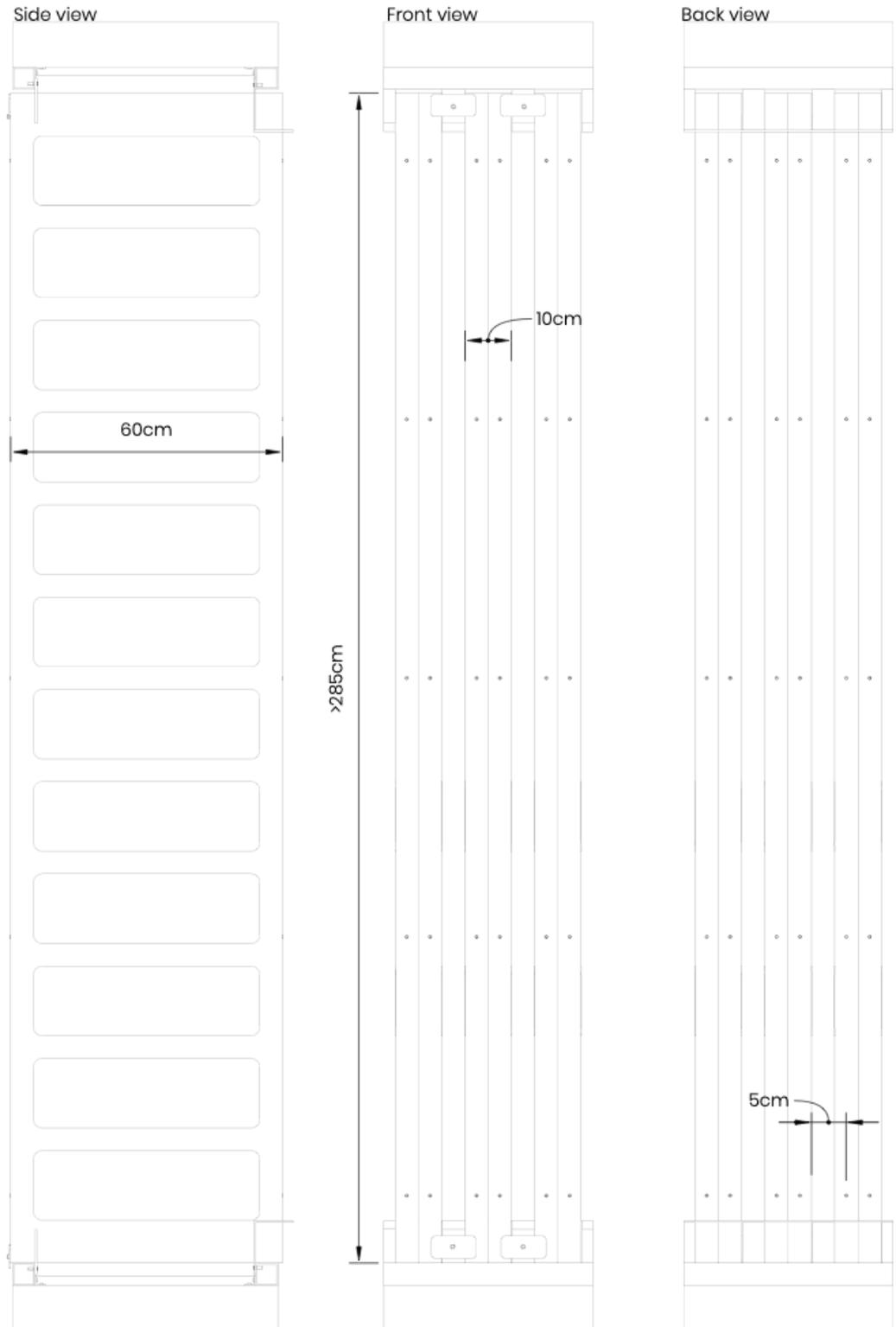
As per client and project needs.



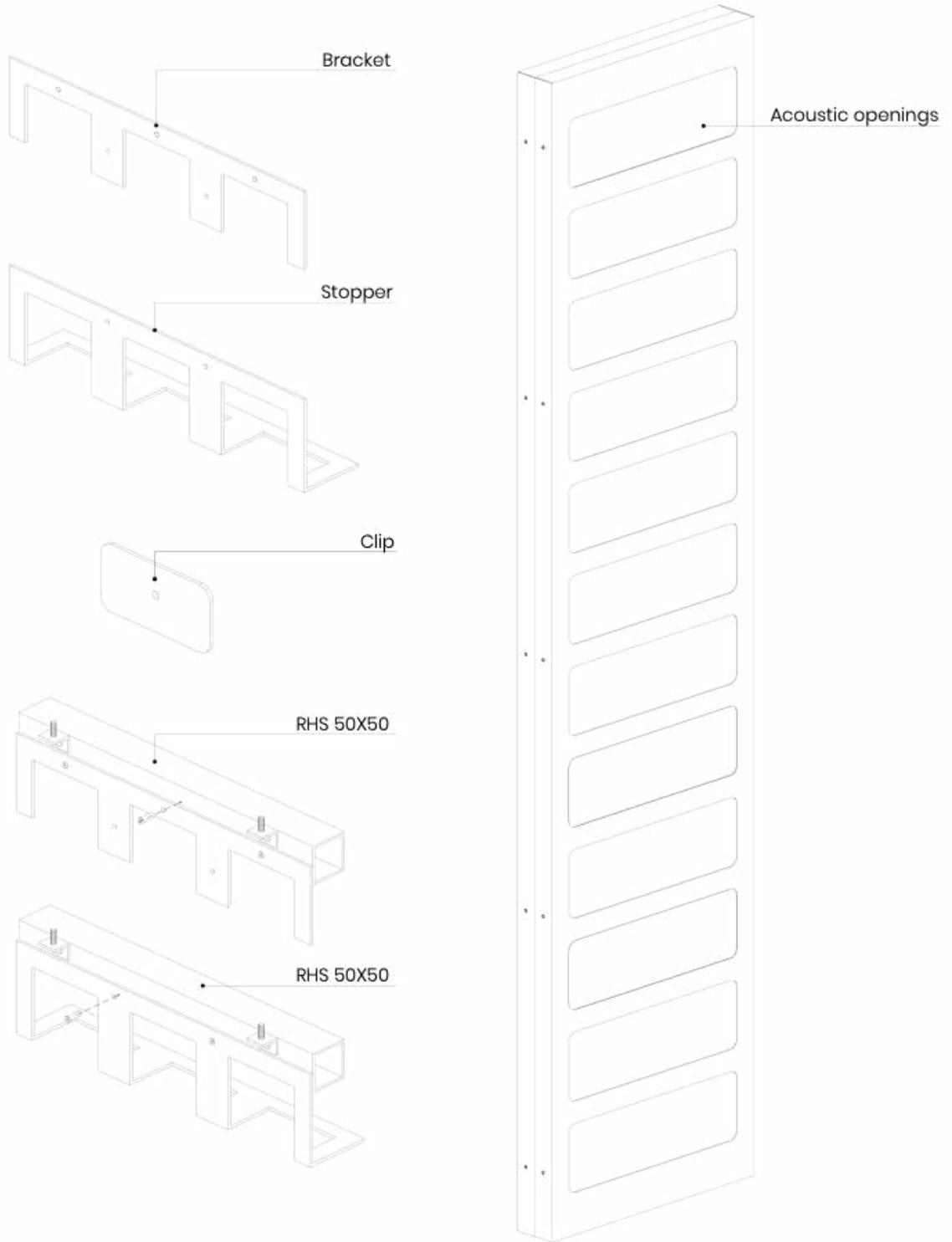
STANDARD DIMENSIONS AND TYPES



STANDARD DIMENSIONS AND TYPES

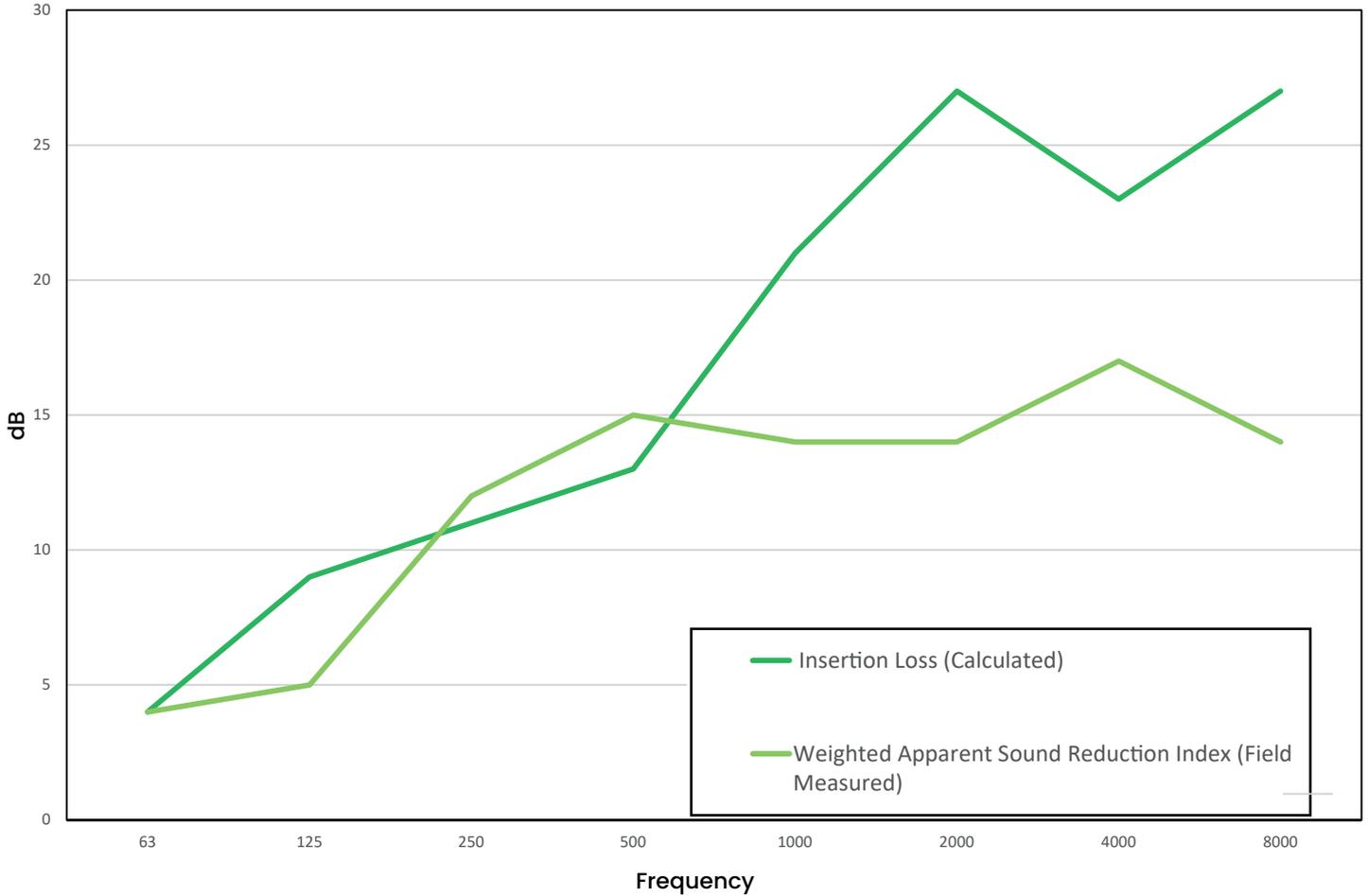


STANDARD DIMENSIONS AND TYPES



SOUND ATTENUATION

FSS OF STANDARD DIMENSIONS H-D-W-G: 2600-600-100-50MM



Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Insertion Loss (Calculated)	4	9	11	13	21	27	23	27
Weighted Apparent Sound Reduction Index (Field Measured)	4	5	12	15	14	14	17	14

SOUND ATTENUATION

ACOUSTIC CALCULATIONS								
Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Insertion Loss (dB)	4	9	11	13	21	27	23	17

(Based on calculation of specialized acoustic simulation software)

Splitters' width-gap: 100mm-50mm , Airflow: 30 600 m³/h

Differential Pressure: Lower than 5Pa , Airflow velocity in the airway: 2.6m/s, Opening Area: 33%

*Calculations are performed for each project based on the required dimensions.

FIELD MEASUREMENTS								
Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Weighted Apparent Sound Reduction Index (dB)	4	5	12	15	14	14	17	14

(Based on field measurements according to ISO 16283-3)

Splitters' width-gap: 100mm-50mm , Opening Area: 33%

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