

PRODUCT BULLETIN

StoVentro™ Sub-construction

Product Numbers: 07025-09619



DESCRIPTION

StoVentro™ Sub-construction is an adjustable, thermally efficient structural system of brackets, rails, fasteners, and accessories for StoVentec Systems and other rainscreen wall cladding assemblies. Safe and long-lasting, the sub-construction absorbs both the wind loads and dead loads present on the facade. Alongside structural suitability, the design of the sub-construction incorporates corrosion resistance and a reduction in thermal bridging, while also being quick and easy to install.



StoVentro Sub-construction:

1. StoVentro Bracket
2. StoVentro T-Profile

FEATURES	BENEFITS
Structural	Carries dead load of cladding and resists wind load
Adjustable	Accommodates substrate irregularities for precise alignment of cladding elements and high aesthetic appeal
Stainless Steel Brackets	Low thermal conductivity minimizes thermal bridging
Sliding Point Connections	Accommodates thermal expansion and contraction
Intelligent Design from a Single Source	Simple installation, high performance, and single source warranty

STOVENTRO BRACKET – SS

StoVentro Bracket – SS is a stainless steel wall bracket. All brackets have a spring finger for insertion of StoVentro T or L-Profiles, except the 60mm (~2-3/8in) depth bracket. Large Brackets (FP) transfer dead loads and wind loads to the primary structure. Small Brackets (GP) transfer only wind loads to the primary structure.

	StoVentro Bracket-SS Large Brackets (FP)	StoVentro Bracket-SS Small Brackets (GP)
Thickness	2.5mm (~1/8in)	2.0mm (~1/16in)
Height	130mm (~5-1/8 in)	75mm (~2-15/16in)
Depth	60mm – 360mm depth in 20mm increments (~2-3/8in - 14-3/16in in 13/16in)	
Adjustability	30mm (~1-3/16in)	30mm (~1-3/16in)



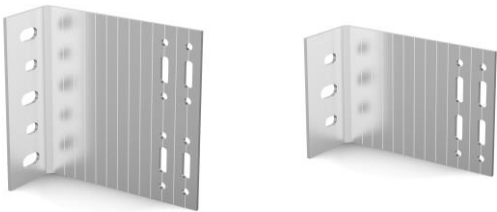
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STOVENTRO BRACKET – ALUM

StoVentro Bracket – ALUM is an aluminum wall bracket. Large Brackets (FP) transfer dead loads and wind loads to the primary structure. Small Brackets (GP) transfer only wind loads to the primary structure. A thermal break accessory is available with the brackets to minimize thermal bridging effects.

Thermal Blocking Element - 6mm (1/4in) thick thermal break accessory that isolates the wall bracket from thermal bridging effects of the primary structure, available in two sizes to match the footprint of the large or small bracket.

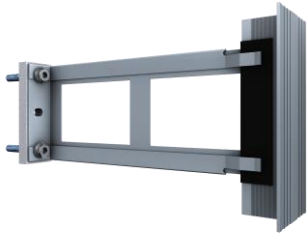
	StoVentro Bracket-ALUM Large Brackets (FP)	StoVentro Bracket-ALUM Small Brackets (GP)	
Thickness	3.2mm & 4.2mm (~1/8in & 3/16in)	3.2mm & 4.2mm (~1/8in & 3/16in))	
Height	135mm (~5-5/16 in)	95.5mm (~3-3/4in)	
Depth	40mm – 320mm depth in 20mm increments (1-9/16in – 12-5/8in in 13/16in)		
Adjustability	30mm (~1-1/16in)	30mm (~1-3/16in)	

STOVENTRO BRACKET – PHSS

StoVentro Bracket – PHSS is a specially designed bracket for Passive House wall construction that is free from thermal bridges and maximizes the thickness of insulation that can be used in the wall assembly.


Thermal Blocking Element – 10mm (3/8in) thick thermal break accessory that isolates the wall bracket from thermal bridging effects of the primary structure, in two sizes to match the footprint of the large or small bracket.

Thermal Sliding Element – 1mm (1/32in) thick thermal break accessory that isolates the StoVentro ‘T’ or ‘L’-Profiles from thermal bridging effects of the wall bracket.

	StoVentro-PHSS Large Brackets (FP)	StoVentro-PHSS Small Brackets (GP)	
Thickness	1.5mm (~1/16in)	1.5mm (~1/16in)	
Height	135mm (~5-5/16in)	65mm (~2-1/2in)	
Depth	200-360mm in 10mm increments (~7-7/8in – 14-3/16in in 3/8in)		
Adjustability	30mm (~1-3/16in)	30mm (~1-3/16in)	

STOVENTRO T-PROFILES and L-PROFILES


StoVentro T and L-Profiles are aluminum rails/profiles. The profiles are the supporting sub-construction for StoVentec™ Carrier Board A+ and StoVentec Agraffe Profiles. StoVentro L-Profiles are also used to stiffen outside corners at cantilevered sections of StoVentec Carrier Board A+.

StoVentro T-Profile	StoVentro L-Profile	
Thickness: 2.7mm (~1/8in)	Thickness: 2.7mm (~1/8in)	
Bearing Surface: 90mm (~3-9/16in)	Legs: 40mm x 50mm (~1-9/16in x 2in)	
Insertion Leg: 52.7mm (~2in)		
Length: 3m and 6m (~9ft-10in and 19ft-7in)		

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STOVENTRO SUB-CONSTRUCTION SCREW

	<p>The StoVentro Sub-construction Screw is a self-drilling, hexagonal head stainless steel screw with a hardened drill point and overtightening protection for attachment of StoVentro T-Profiles and StoVentro L-Profiles to StoVentro Brackets.</p> <p>Size: 5.5mm x 19mm (~3/16in x 3/4in), 500 per box Size: 5.5mm x 22mm (~3/16in x 7/8in), 500 per box</p>
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STORAGE AND HANDLING

Store cartons and bundles of material inside in a dry area until ready for use on pallets. At the job site store off the ground on pallets in a dry location out of direct sunlight.

APPLICATION

Refer to StoVentec Design Guide and Detail Booklets, and Application Guides for installation information. Always accompany installation with shop drawings and engineering analysis to determine proper spacing of components and attachment to backup wall construction.

LIMITATIONS

- Use on ceilings or soffits requires special design consideration.
- Not intended for use on horizontal or low slope surfaces, below grade, roofs or roof-like surfaces, or in areas of water immersion, pooling or ponding water.

TECHNICAL DATA

INFORMATION	DATA	VALUE
StoVentro Bracket – SS	Type	Stainless Steel type: 304 or 316 Ti
StoVentro Bracket – SS	Thermal Conductivity	15 W/m•K (8.67 Btu/(ft•h•°F))
StoVentro Bracker – PHSS	Type	Stainless Steel type: 304 or 316 Ti
StoVentro Bracket – ALUM	Type	Aluminum type:6063-T66
StoVentro Bracket – ALUM	Thermal Conductivity	115-120 W/m•K (66.5-69 Btu/(ft•h•°F))
StoVentro T and L – Profiles	Type	Aluminum type: 6063-T66 or 6005A-T5
StoVentro T and L – Profiles	Tensile Strength	≥ 245 N/mm ² (35,534 lb/in ²)
StoVentro T and L – Profiles	Elasticity Limit	≥ 195 N/mm ² (28,282 lb/in ²)
StoVentro T and L – Profiles	Moment of Inertia	≥ 5.90 cm ⁴ (0.142in ⁴)

SUSTAINABILITY

A complete range of components are offered to minimize or eliminate thermal bridging effects and maximize thermal insulation with resulting positive environmental impacts on energy consumption and greenhouse gas emissions.

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ATTENTION

This product is intended for use by qualified professional contractors, not consumers, as a component of a larger construction assembly as specified by a qualified design professional, general contractor or builder. It should be installed in accordance with those specifications and Sto's instructions. Sto Corp. disclaims all, and assumes no, liability for on-site inspections, for its products applied improperly, or by unqualified persons or entities, or as part of an improperly designed or constructed building, for the nonperformance of adjacent building components or assemblies, or for other construction activities beyond Sto's control. Improper use of this product or use as part of an improperly designed or constructed larger assembly or building may result in serious damage to this product, and to the structure of the building or its components. **STO CORP. DISCLAIMS ALL WARRANTIES EXPRESSED OR IMPLIED EXCEPT FOR EXPLICIT LIMITED WRITTEN WARRANTIES ISSUED TO AND ACCEPTED BY BUILDING OWNERS IN ACCORDANCE WITH STO'S WARRANTY PROGRAMS WHICH ARE SUBJECT TO CHANGE FROM TIME TO TIME.** For the fullest, most current information on proper application, clean-up, mixing and other specifications and warranties, cautions and disclaimers, please refer to the Sto Corp. website, www.stocorp.com.