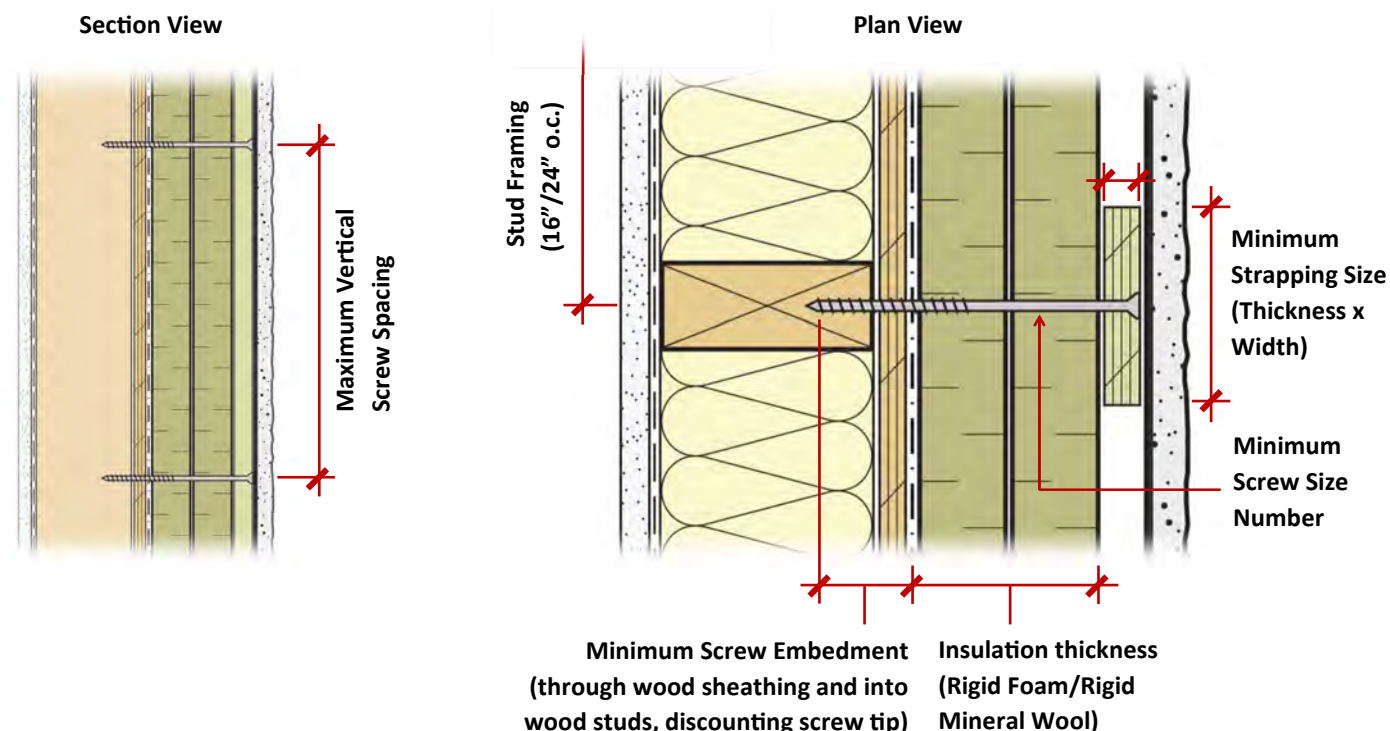


Cladding Support & Fasteners Through Exterior Insulation

Fastener Tables

The following pages include the structural requirements for attaching strapping over exterior insulation using long screws. The tables are organized by cladding weight, with fastener requirements shown for insulation thicknesses up to 8". Illustrations of each aspect of the fastener and strapping installation requirements are shown below. See the documents listed in the Additional Resources section of this guide for more guidance and specific calculation examples for the structural design of cladding support using fasteners through exterior insulation, and for guidance on systems that use more than 8" of exterior insulation.



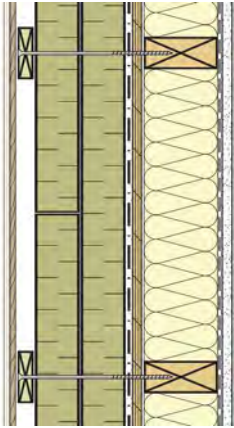
The table below outlines the assumed structural properties for the materials used in this cladding support system.

Assumed Structural Properties		
Rigid foam minimum compressive strength	Rigid mineral wool minimum compressive strength	Stainless/galvanized steel screw allowable tensile strength
1440 psf (69 kPa) @ 10% compression, ASTM C165 testing	439psf (21kPa) @ 10% compression, ASTM C165 testing	60,000 psi (414 MPa)

Fastener Tables (cont.)

Cladding Support & Fasteners Through Exterior Insulation

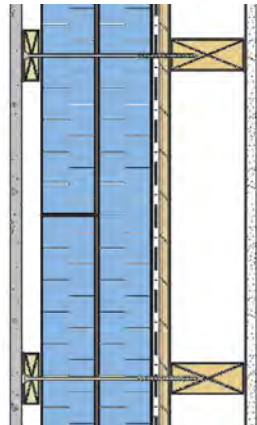
Light Weight Cladding



Fastener/Strapping Installation Requirements—Light Weight Cladding					
Thickness of Exterior Insulation	Maximum Vertical Screw Spacing	Minimum Screw Size	Minimum Screw Embedment	Minimum Strapping Size	
				Rigid Foam	Rigid Mineral Wool
Light Weight Cladding Below 5 lbs/ft² - 16" o.c. Stud Framing					
1" to 2" *	24"	#10	1"	3/8" x 1-1/2"	3/8" x 2-1/2"
>2" to 8"	16"				
Light Weight Cladding Below 5 lbs/ft² - 24" o.c. Stud Framing					
1" to 2" *	16"	#10	1"	3/8" x 2-1/2"	3/8" x 2-1/2"
>2" to 8"	12"				

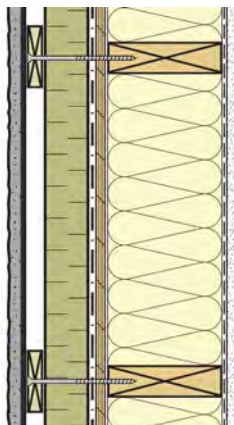
*Wall assemblies with light weight cladding and up to 2" of exterior insulation may use a drain mat rainscreen product in lieu of strapping where appropriate, with fasteners attached directly to the wall framing. Appropriateness of products and fastening configurations in this application to be confirmed with drain mat manufacturer and cladding manufacturer. This approach is unlikely to be suitable for insulation thickness greater than 2", or for heavier claddings.

Medium Weight Cladding



Fastener/Strapping Installation Requirements—Medium Weight Cladding					
Thickness of Exterior Insulation	Maximum Vertical Screw Spacing	Minimum Screw Size	Minimum Screw Embedment	Minimum Strapping Size	
				Rigid Foam	Rigid Mineral Wool
Medium Weight Cladding Between 5 lbs/ft² and 10 lbs/ft² - 16" o.c. Stud Framing					
1" to 4"	16"	#12	1"	1/2" x 2-1/2"	1/2" x 3"
>4" to 8"	12"				
Medium Weight Cladding Between 5 lbs/ft² and 10 lbs/ft² - 24" o.c. Stud Framing					
1" to 4"	12"	#12	1"	1/2" x 2-1/2"	1/2" x 3"
>4" to 8"	8"				

Heavy Weight Cladding



Fastener/Strapping Installation Requirements—Heavy Weight Cladding					
Thickness of Exterior Insulation	Maximum Vertical Screw Spacing	Minimum Screw Size	Minimum Screw Embedment	Minimum Strapping Size	
				Rigid Foam	Rigid Mineral Wool
Heavy Weight Cladding Between 10 lbs/ft² and 15 lbs/ft² - 16" o.c. Stud Framing					
1" to 2"	16"	#14	1-1/2"	1/2" x 3"	3/4" x 3"
>2" to 8"	12"				
Heavy Weight Cladding Between 10 lbs/ft² and 15 lbs/ft² - 24" o.c. Stud Framing					
1" to 2"	10"	#14	1-1/2"	1/2" x 3"	3/4" x 3"
>2" to 4"	8"				
>4" to 8"	6"				