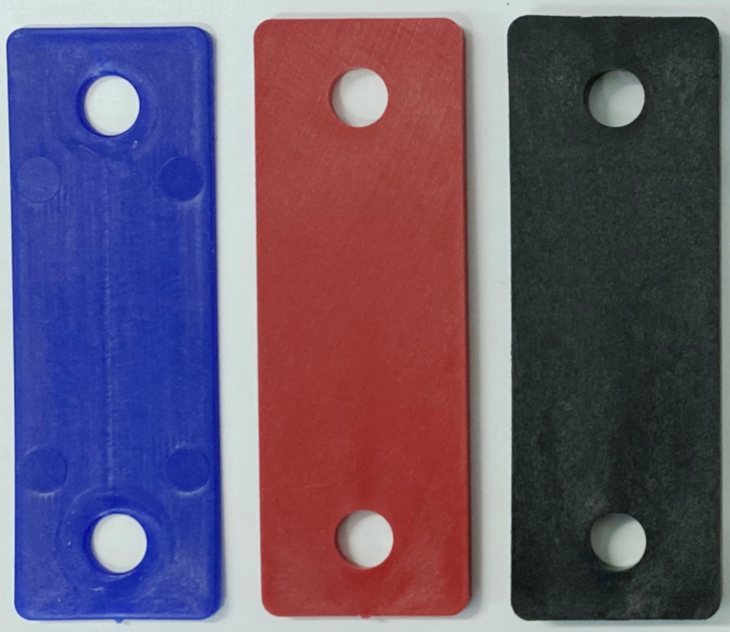
The UTb
Ultimate Thermal Bracket

by
LKMē

Complex problems, at times, require simple solutions. As the largest producers of carbon emissions in the world, buildings represent the largest part of an extremely complex problem - energy efficiency, energy usage, and life-span. As new standards to combat these issues are introduced (Passivehouse, Built GREEN, Step Code, LEED etc...), architects and engineers are challenged to find creative solutions but are still required to work within budgets. No small feat. In this environment, the UTb is our simple solution to a small part of this complex problem.

The UTb is a structural thermal bracket for use in rain screen wall and roof assemblies. Created by installers for installers, the UTb is simple to install, intuitive, cost effective and is extensively tested for performance. Simple to use, designed to perform.



The UTb

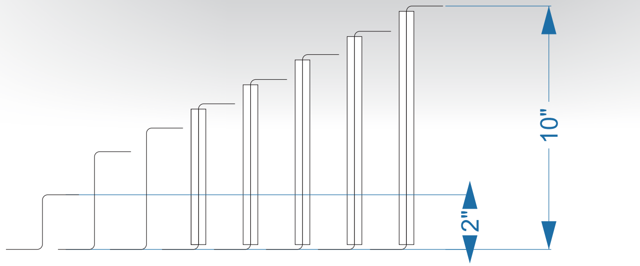
Ultimate Thermal Bracket

Available in sizes from 2"-10" in length (also in custom sizes for large quantities), the UTB is simple and versatile. Compatible with any fastener with a 3/8" shank, the UTB can easily adapt to any substrate.

Available Dimensions

Size in(mm)

2 (50.8)	2.5 (63.5)	3 (76.2)
4 (101.6)	5 (127)	6 (152.4)
7 (177.8)	8 (203.2)	9 (228.6)
	10 (254)	



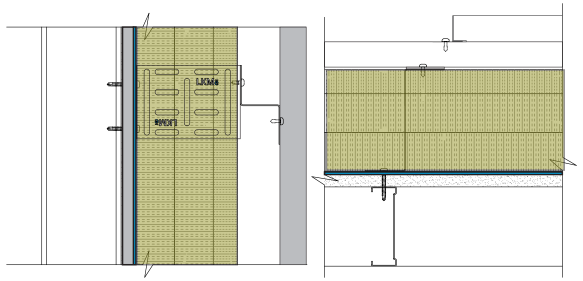


Table 1A – Thermal Performance – Effective R-Values m2K/W (ft2hr F/Btu)

Wall Type	Clip Spacing			Exterior Insulation Thickness (Mineral Wool)								
	Horiz.(in.)	Vert. (in.)	Trib Area (ft2)	2"	3"	4"	5"	6"	7"	8"	9"	10"
Wood Framed Wall w/R20 Cavity	16"	16	1.8	24.2	27.5	30.6	33.3	36.2	39.1	41.9	44.7	48.2
		24	2.7	24.5	27.8	31.1	34.0	37.1	40.2	43.4	46.4	49.4
		36	4.0	24.6	28.1	31.5	34.6	37.9	41.1	44.4	47.6	50.8
	24"	16	2.7	25.4	28.7	32.0	34.9	38.0	41.1	44.2	47.3	50.3
		24	4.0	25.5	29.0	32.4	35.5	38.8	42	45.3	48.5	51.7
		36	6.0	25.6	29.1	32.6	35.9	39.3	42.6	46.0	49.3	52.7
Steel Stud Framed Wall w/R20 Cavity	16"	16	1.8	17.0	20.1	23.3	24.3	25.4	31.9	33.9	36.5	39.4
		24	2.7	17.3	20.7	24.0	26.3	28.2	33.4	35.7	40.2	42.3
		36	4.0	17.9	21.6	24.2	27.3	30.1	34.1	37.9	40.0	45.3
	24"	16	2.7	19.6	22.9	26.3	25.9	32.2	30.9	37.5	41.2	41.1
		24	4.0	19.4	22.4	25.8	29.2	30.5	36.4	39.3	42.2	45.4
		36	6.0	20.4	24.6	27.3	30.3	33.6	37.3	40.8	43.6	47.4
8" Concrete Wall	16"	16	1.8	7.6	11.1	14.0	16.5	19.4	22.2	25.1	27.9	30.7
		24	2.7	7.8	11.1	14.4	17.2	20.3	23.4	26.5	29.5	32.5
		36	4.0	7.9	11.3	14.7	17.8	21.0	24.2	27.5	30.7	30.7
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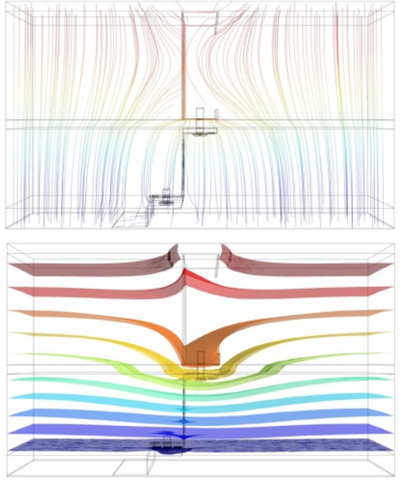
		36	6.0	8.0	11.4	14.9	18.1	21.5	24.9	28.2	31.5	34.9
				Non-Flanged Clip			Flanged Clip					

Thermal Performance

The UTb has been extensively tested for thermal and structural performance. Depending upon the substrate, the UTb's superior structural performance allows for fewer penetrations which further improves the UTb's already superior thermal capabilities. Below is just a small representation of the testing completed for the UTb. We have assembled what we believe to be the most common modes of construction and can demonstrate how the UTb can improve your buildings performance while meeting whatever engineering challenges are presented to it.

Structural Performance

Max. Tributary Area per Clip (ft2)																		Span Table
	5psf cladding						10psf cladding						15psf cladding					
	Wind Load (psf)						Wind Load (psf)						Wind Load (psf)					
Clip Size	10	20	30	40	50	60	10	20	30	40	50	60	10	20	30	40	50	60
2"	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
3"	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	4.0	4.0	6.0	6.0	6.0	6.0	6.0	6.0
4"	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	4.0	4.0	6.0	6.0	6.0	6.0	6.0	6.0
5"	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	4.0	4.0	4.0	4.0	4.0	4.0	2.7	2.7	2.7
6"	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	4.0	4.0	4.0	2.7	2.7	2.7	2.7	2.7	1.8
7"	6.0	6.0	6.0	6.0	6.0	4.0	6.0	6.0	4.0	4.0	4.0	2.7	2.7	2.7	2.7	2.7	1.8	1.8
8"	6.0	6.0	6.0	6.0	4.0	4.0	6.0	6.0	4.0	4.0	2.7	2.7	2.7	2.7	2.7	1.8	1.8	1.8
9"	6.0	6.0	6.0	4.0	4.0	4.0	6.0	6.0	4.0	4.0	2.7	2.7	2.7	2.7	1.8	1.8	1.8	1.8
10"	6.0	6.0	4.0	4.0	4.0	2.7	6.0	6.0	4.0	4.0	2.7	2.7	2.7	1.8	1.8	1.8	1.8	1.8


Heat Flux – Steel Stud Wall Assembly

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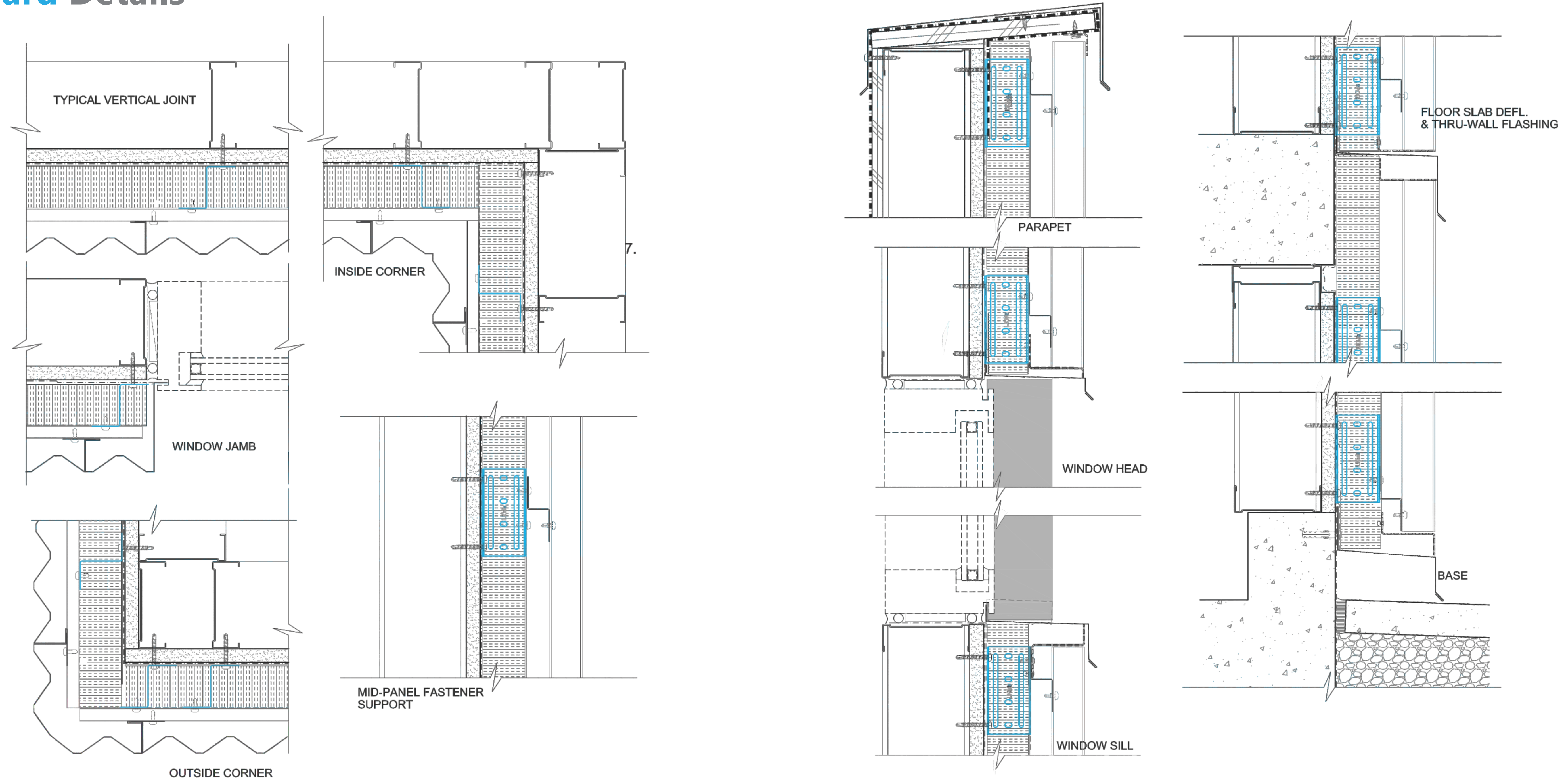
		24	4.0	7.9	11.3	14.7	17.8	21.0	24.3	27.5	30.7	33.9
		36	6.0	8.0	11.4	14.9	18.1	21.5	24.9	28.2	31.5	34.9
				Non-Flanged Clip			Flanged Clip					

Testing

Structural testing has been completed using 3 dimensional structural analysis and validated with physical destructive testing. This is to insure that our product can be specified with confidence into any application, beneath almost all cladding materials. If your project requires unique analysis, our engineers can review your project and make a quick determination of the viability of the UTB in your application.

Standard Details



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