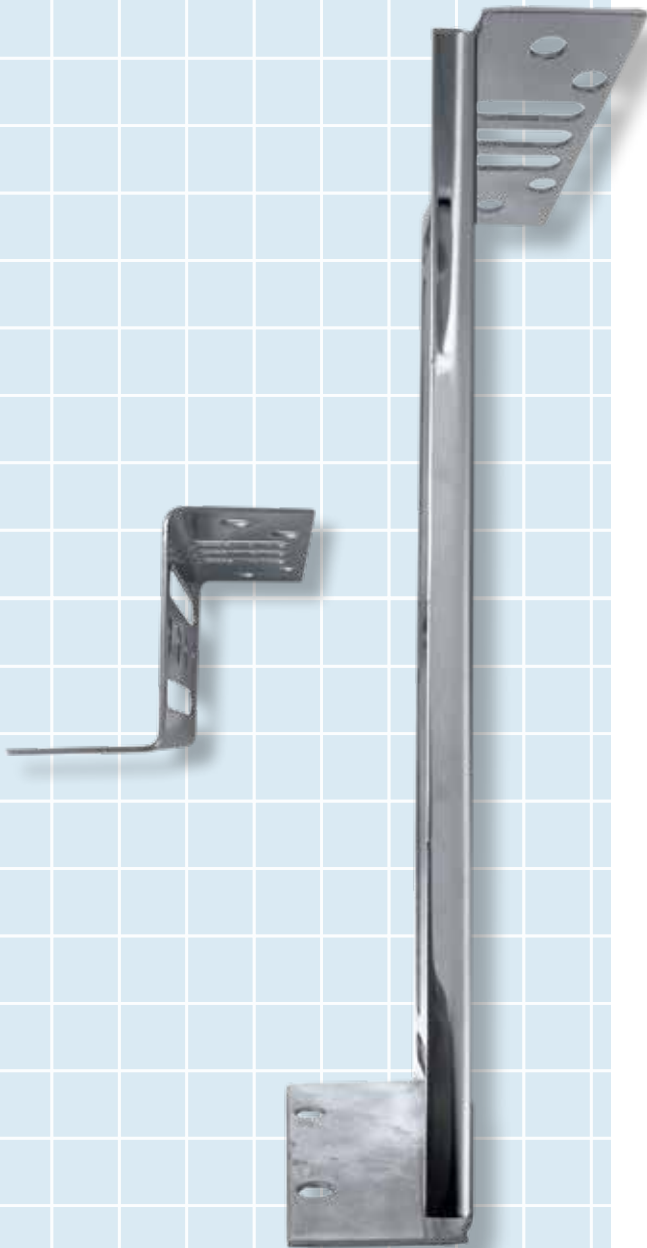


LKMē

# UTb

## The Ultimate Thermal Bracket





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## Complex problems sometimes have simple solutions.

As the largest producers of carbon emissions in the world, buildings represent the largest part of a complex environmental problem: how to increase energy efficiency and life span. As new standards to combat these issues are introduced (ex. Passivehouse, Built GREEN, Step Code, LEED), architects and engineers are challenged to find creative solutions yet still remain within budget. The UTb is our simple solution to a small part of this complex problem.

The Ultimate Thermal Bracket (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 to use, cost effective and yet extensively tested for performance. Simple to use, designed to perform.

## Structural Performance

Structural testing has been completed using 3D structural analysis and validated with physical destructive testing. This is to ensure that the UTb can be specified with confidence into any application and utilized to support 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. Further detailed technical information can be obtained by contacting 604-980-6414 or sales@LKMe.ca

## Max. Tributary Area per Clip (ft<sup>2</sup>)

Clip Size	5psf cladding						10psf cladding						15psf cladding					
	Wind Load (psf)						Wind Load (psf)						Wind Load (psf)					
	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

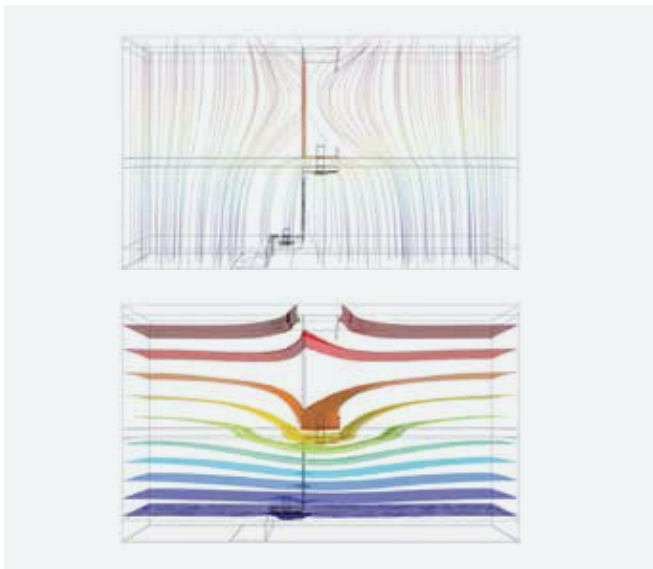
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## Thermal Performance

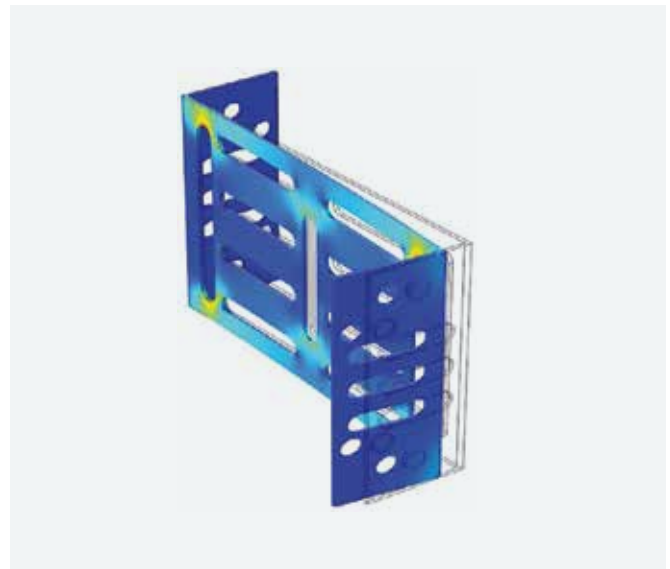
The UTb has been extensively tested for thermal and structural performance. Depending upon the substrate, the UTb's superior structural performance requires fewer wall or roof panel penetrations, which further improves the UTb's already industry-leading thermal capabilities.

Tables 1A and 1B are just a small representation of the testing completed for the UTb. We have assembled the most common modes of

construction and can demonstrate how the UTb can improve your building's performance while meeting almost any engineering challenge presented. In addition to rigorous performance testing, the UTb also offers substantial cost savings over its competitors.



Heat Flux - Steel Stud Wall Assembly



3D structural analysis

**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
	24"	16	2.7	7.8	11.1	14.4	17.2	20.3	23.4	26.5	29.5	32.5
		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				

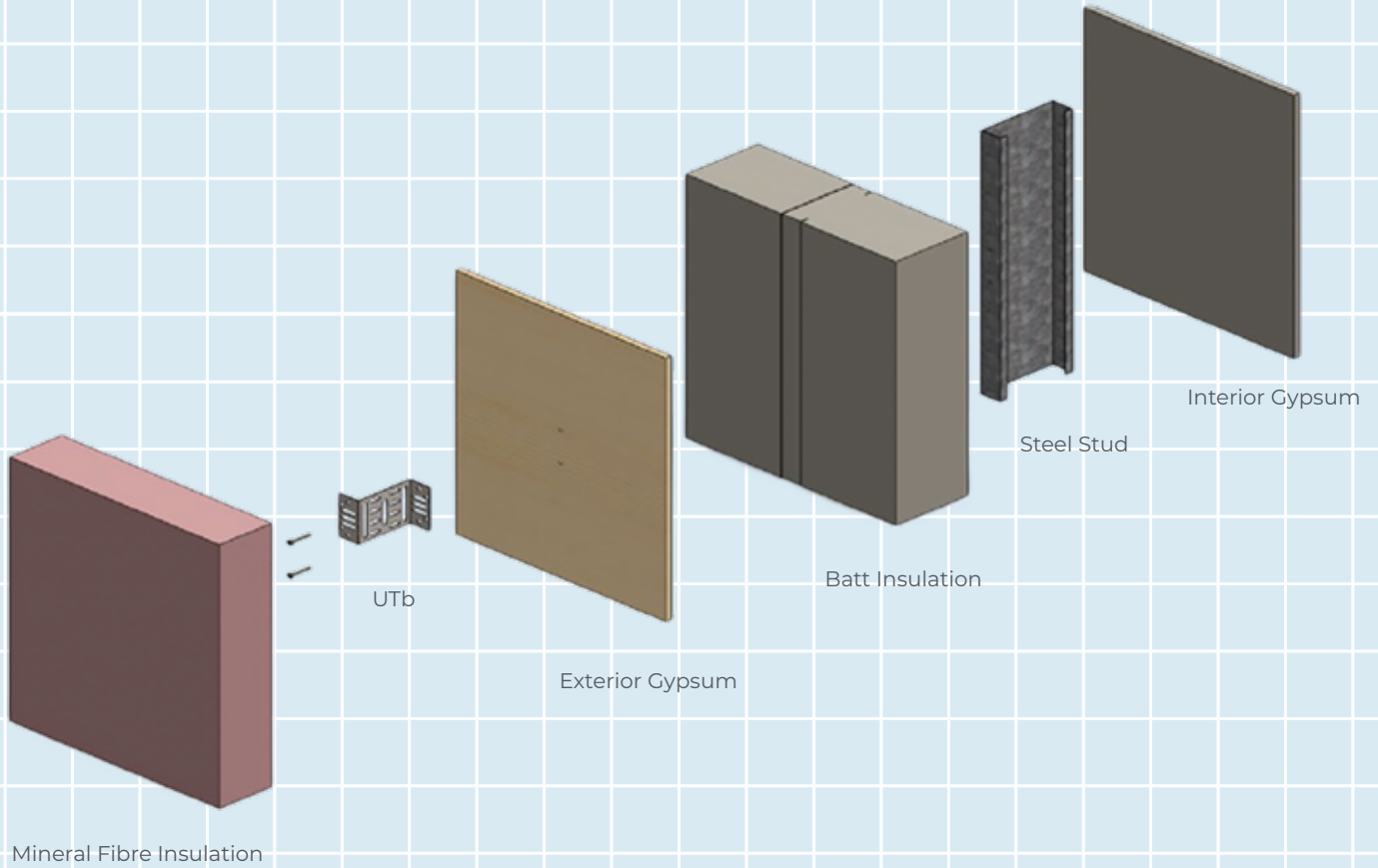
## Table 1B – Thermal Performance

### % Effective of Clip Through Exterior Insulation Layer Only

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	16"	16	1.8	97	96	95	93	92	91	90	89	89
		24	2.7	98	97	97	95	94	94	93	92	92
		36	4.0	99	98	98	97	96	96	95	95	94
	24"	16	2.7	98	97	97	95	94	94	93	92	92
		24	4.0	99	98	98	97	96	96	95	95	94
		36	6.0	99	99	99	98	97	97	97	96	96
Steel Stud Framed	16"	16	1.8	93	92	91	80	81	81	82	82	83
		24	2.7	95	94	94	88	88	88	89	89	90
		36	4.0	98	96	94	92	92	93	93	94	94
	24"	16	2.7	95	94	93	85	85	86	86	87	87
		24	4.0	94	93	92	90	90	90	91	91	91
		36	6.0	98	97	95	94	94	94	94	95	95
8" Concrete Wall	16"	16	1.8	95	93	91	87	86	85	84	83	83
		24	2.7	96	95	94	91	90	89	89	88	88
		36	4.0	97	96	96	94	93	93	92	92	91
	24"	16	2.7	96	95	94	91	90	89	89	88	88
		24	4.0	97	96	96	94	93	93	92	92	92
		36	6.0	98	98	97	96	95	95	95	94	94
				Non-Flanged Clip				Flanged Clip				

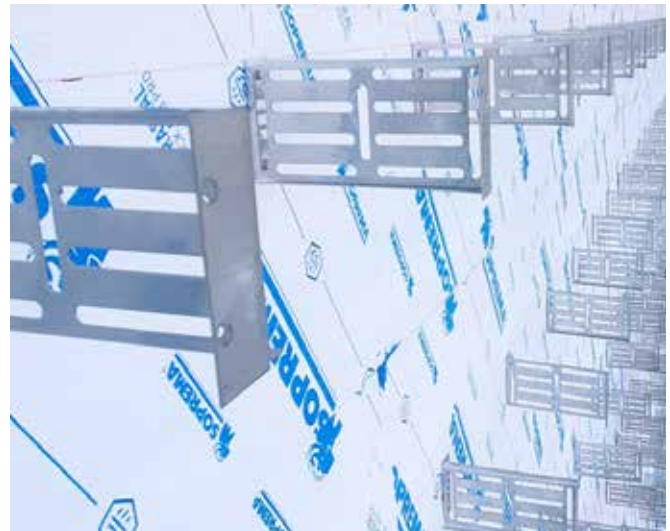
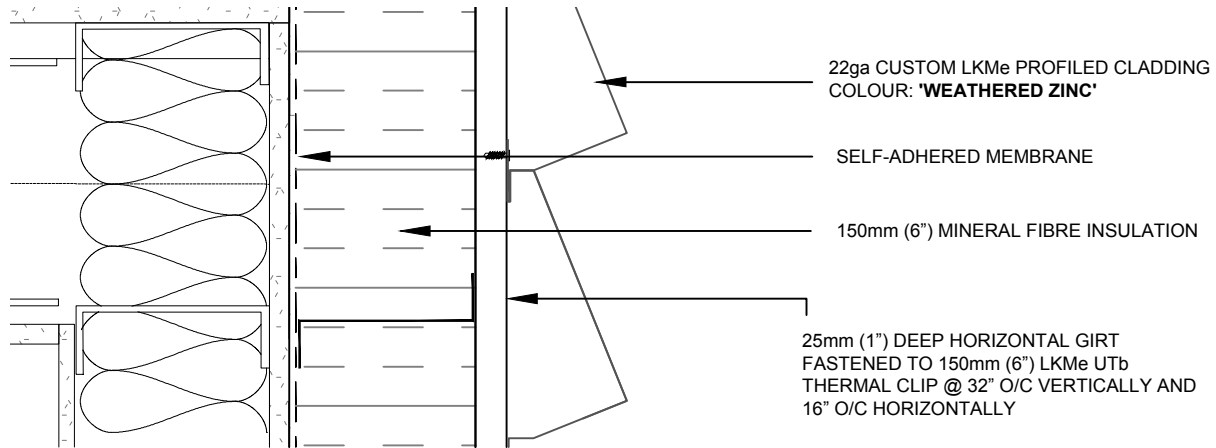
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# Exploded Assembly – Steel Stud Framed Wall

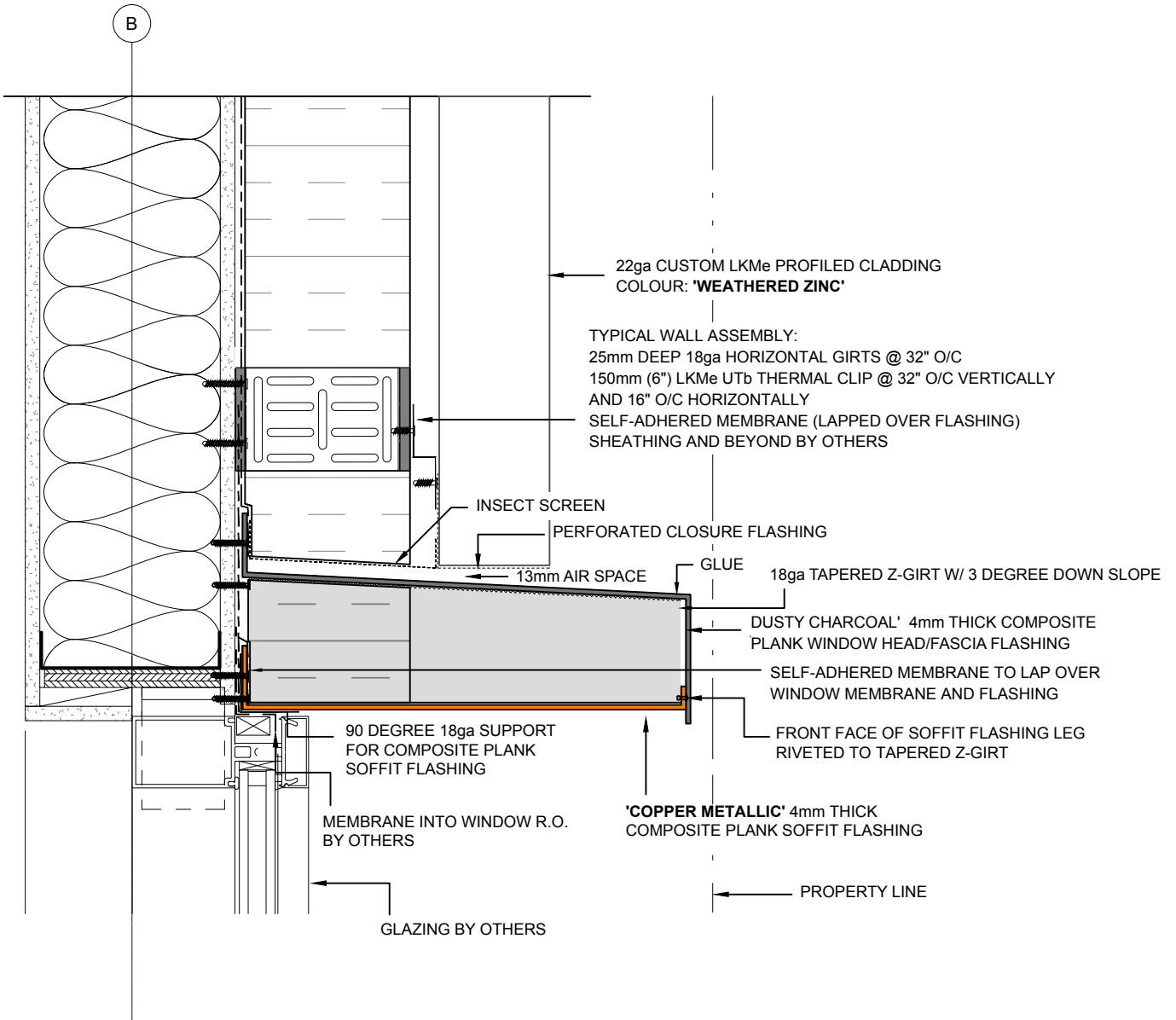


## Standard Details

Need assistance with detail design? We can help.







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## Cost effective, simple to use, designed to perform.

Available in 17 sizes from **2" (50.8 mm) to 10" (254 mm)** in length, in half inch increments, the UTb is simple and versatile. Also known in industry parlance as a "clip", the UTb is suitable for use with any fastener with a  $\frac{3}{8}$ " shank, and easily adapts to any substrate.

Custom sizes are also available for large orders.



**Discover  
Unlimited  
Possibilities**



# Long life span meets energy conservation for the ultimate thermal protection.

The UTb Ultimate Thermal Bracket by LKMe  
Visit [LKMe.ca](http://LKMe.ca) or call 604-980-6414

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