VACUUM GLAZINGUK

DATA TABLES

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www.vacuumglazing.co.uk

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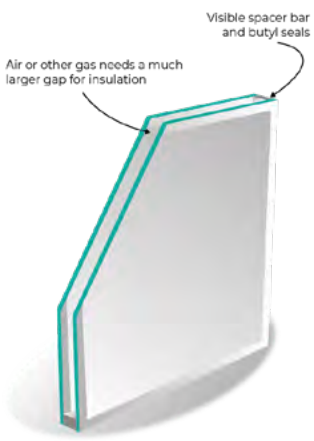
WHAT IS VACUUM GLAZING?

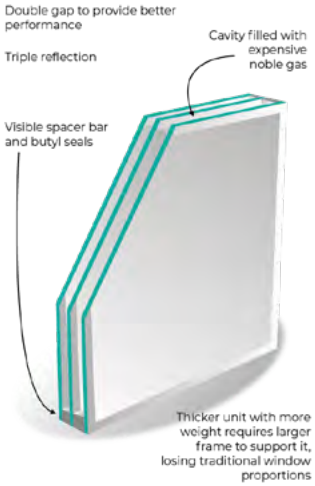
Vacuum Glazing is highly efficient double glazing. Like standard double glazing, it is made with two panes of glass separated by a cavity. However, instead of the usual gas or air-filled cavity, all air is extracted, and the unit is completely sealed.

The effectiveness of the vacuum means that the gap between the two panes can be incredibly narrow – around 0.3mm. This narrow gap makes Vacuum Glazing the perfect choice for heritage windows which emulate single glazing. When incorporated into triple glazing, performance is increased without requiring changes to window profiles.

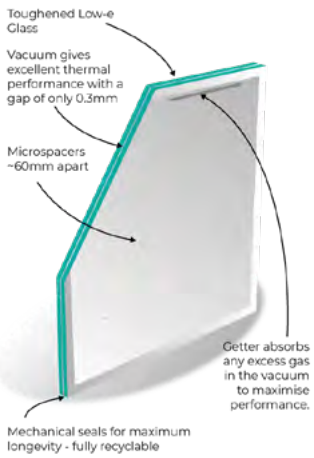
DOUBLE GLAZING



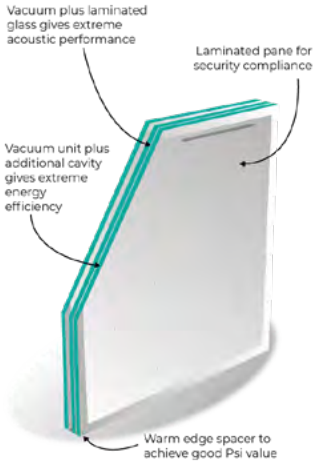
TRIPLE GLAZING



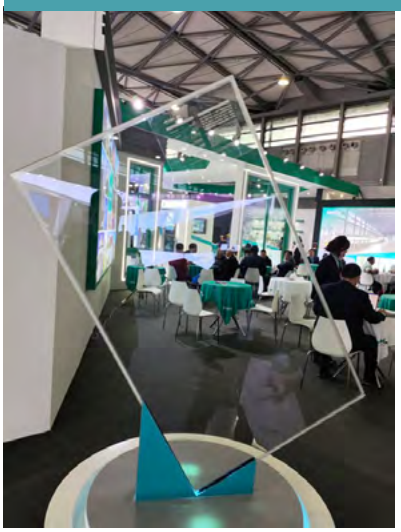
ENHANCE VACUUM GLAZING



OPTIMUM VACUUM GLAZING



VACUUM GLAZING vs TRADITIONAL GLASS



Even compared to Triple Glazing, Vacuum Glazing has:

- ✔ Higher energy efficiency
- ✔ Noise reduction
- ✔ Better light transmission
- ✔ Slimmer profile
- ✔ Longer Service Life

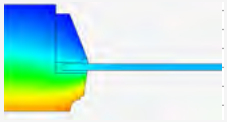
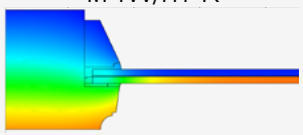
NOT ALL VACUUM GLASS IS THE SAME

LandVac has:

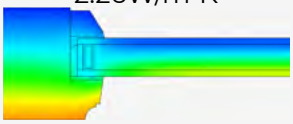
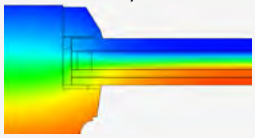
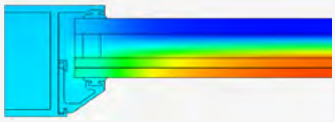
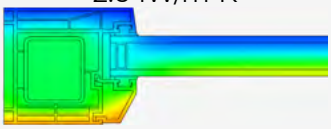
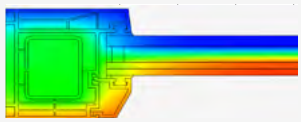
- ✔ 25 years of accelerated ageing tests with no loss in performance.
- ✔ The lowest U-value of any vacuum glass unit.
- The best acoustic value of any vacuum glass unit.
- ✔ No plugs, a neat and effective getter, and a consistent and neat edge seal.
- ✔ Always toughened safety glass as standard.
- ✔ The fewest and least visually distracting micropillars.
- ✔ Environmental product declaration available, and ROHS fully compliant.

THERMAL PERFORMANCE

Here are some typical performance inprovements for different frame materials, based on replacing single glazing with LandVac Enhance.

	Single Glazed (5.4W/m²K centre pane)	Reglazed with LandVac
Timber Frame	4.41W/m²K 	1.14W/m²K 
Steel Frame	5.46W/m²K	1.88W.m²K

Here are some typical performance inprovements for different frame materials, based on replacing early double glazing with LandVac Enhance.

	Early Double Glazing (2.8W/m²K centre pane)	Reglazed with LandVac Optimum (0.4W/m²K centre pane)
Timber Frame	2.26W/m²K 	1.01W/m²K 
Aluminium Frame	3.76W/m²K	2.22W.m²K 
uPVC Frame	2.64W/m²K 	1.07W.m²K 

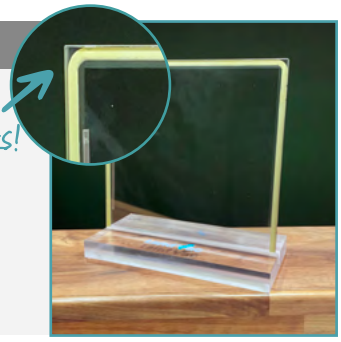
LANDVAC ENHANCE

Perfect for Heritage Restoration Projects and New Build Homes

LandVac Enhance is perfect for heritage and conservation projects. With its slim profile, centre pane U-value of 0.4, and toughened as standard durability, it is the ideal choice for preserving the authenticity of historical windows while enhancing energy efficiency. It is also perfect for newer properties where an historic aesthetic is important.

WHY CHOOSE ENHANCE FOR WINDOW RESTORATION?

- ✓ Lowest sightlines of any toughened vacuum unit
- ✓ Always toughened as standard
- ✓ 8x fewer microspacers than leading competitor
- ✓ Superior U-value and acoustic rating to any vacuum unit
- ✓ Neat and resilient metallic edge seal for longevity and performance
- ✓ Getter placed into glass slot to ensure consistency and quality



	Single Glazing	Low Sightline Slim Double Glazing	LandVac Enhance Vacuum Glazing
Overall Thickness	4mm	11 - 16mm	8.3mm
U-Value (W/m^2K)	5.8	1.2 - 1.9	0.4 - 0.49
Acoustic Reduction (RW)	25dB	29 - 31dB	36 - 39dB
Estimated Lifespan	50+ years	Less than 5 years	50+ years

STANDARD LOW-E COATING (SINGLE SILVER COATING S1.10)

Suitable for most applications

	U-Value (W/m^2K)	Visible Light Transmittance	SHGC (g-value)	Weighted Sound Reduction Index
*4TL+0.3V+4T	0.41	76%	0.58	36dB
5TL+0.3V+5T	0.41	75%	0.58	37dB
6TL+0.3V+6T	0.41	74%	0.58	39dB

*Figures for this unit have been tested to EN410 and EN674. Other performance data is simulated from this physical testing.

MID RANGE LOW-E COATING (DOUBLE SILVER COATING D80)

For reducing the G-Value in areas moderate solar gain.

	U-Value (W/m^2K)	Visible Light Transmittance	SHGC (g-value)	Weighted Sound Reduction Index
*4TL+0.3V+4T	0.40	70%	0.40	36dB
5TL+0.3V+5T	0.40	69%	0.39	37dB
6TL+0.3V+6T	0.40	68%	0.39	39dB

PREMIUM LOW-E COATING (TRIPLE SOLVER COATING S70)

For maximum thermal performance while minimising solar gain.

	U-Value (W/m^2K)	Visible Light Transmittance	SHGC (g-value)	Weighted Sound Reduction Index
*4TL+0.3V+4T	0.34	68%	0.32	36dB
5TL+0.3V+5T	0.34	67%	0.31	37dB
6TL+0.3V+6T	0.34	66%	0.31	38dB

SOLAR CONTROL COATING (XDTB0159)

Perfect for roofing or other areas of high solar gain.

	U-Value (W/m^2K)	Visible Light Transmittance	SHGC (g-value)	Weighted Sound Reduction Index
5TL+0.3V+4T	0.45	53%	0.33	36dB

ULTRACLEAR WITH SINGLE COATING S1.10

For areas where glass clarity is critical, or areas of lower solar gain.

	U-Value (W/m^2K)	Visible Light Transmittance	SHGC (g-value)	Weighted Sound Reduction Index
*4TL+0.3V+4TUC	0.49	83%	0.68	36dB

*Figures for this unit have been tested to EN410 and EN674. Other performance data is simulated from this physical testing.

LANDVAC PROTECT

Perfect for new builds or security conscious restoration projects where slim profile glazing is important.

LandVac Protect is specifically designed to achieve P1A security performance while also offering a slim profile, a centre pane. U-value of 0.4 and toughened durability. It's the ideal choice for authentic windows with extreme energy efficiency and security performance.

WHY CHOOSE LANDVAC PROTECT?

- ✓ Historic appearance with no double reflection.
- ✓ Part L compliant with centre pane U-value of 0.4 W/m2K.
- ✓ Part Q compliant with P1A laminate performance.
- ✓ Neat and resilient metallic edge seal for longevity and performance.
- ✓ Superior Acoustic Performance of 40dB.
- ✓ Slim 13.1mm width

	U-Value (W/m^2K)	Visible Light Transmittance	SHGC (g-value)	Weighted Sound Reduction Index
4TL+0.3V+4T(S1.10)+0.76P+4T	0.41	68%	0.55	40dB
4TL+0.3V+4T(D80)+0.76P+4T	0.40	58%	0.38	40dB
4TL+0.3V+4T (Solar Control) +0.76P+4T	0.40	43%	0.32	40dB
4TL+0.3V+4T (Ultra Clear) +0.76P+4T	0.49	75%	0.65	40dB

LANDVAC OPTIMUM

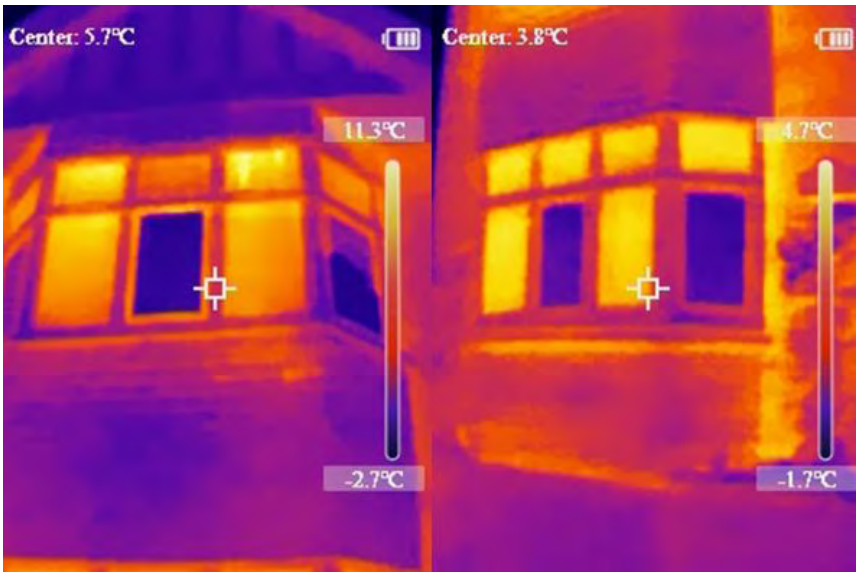
Advanced Glazing for New Builds & Retrofit Projects

Enhanced energy efficiency and aesthetics with high-performance glazing - ideal for new constructions or reglazing existing double-glazed windows and doors.

LandVac Optimum is a hybrid vacuum unit that combines LandVac vacuum glazing with a traditional cavity and an additional glass pane. It can be customised to any configuration of thickness and performace criteria. Local assembly ensures EN1279 compliance with maximum flexibility.

What does it look like in a House?

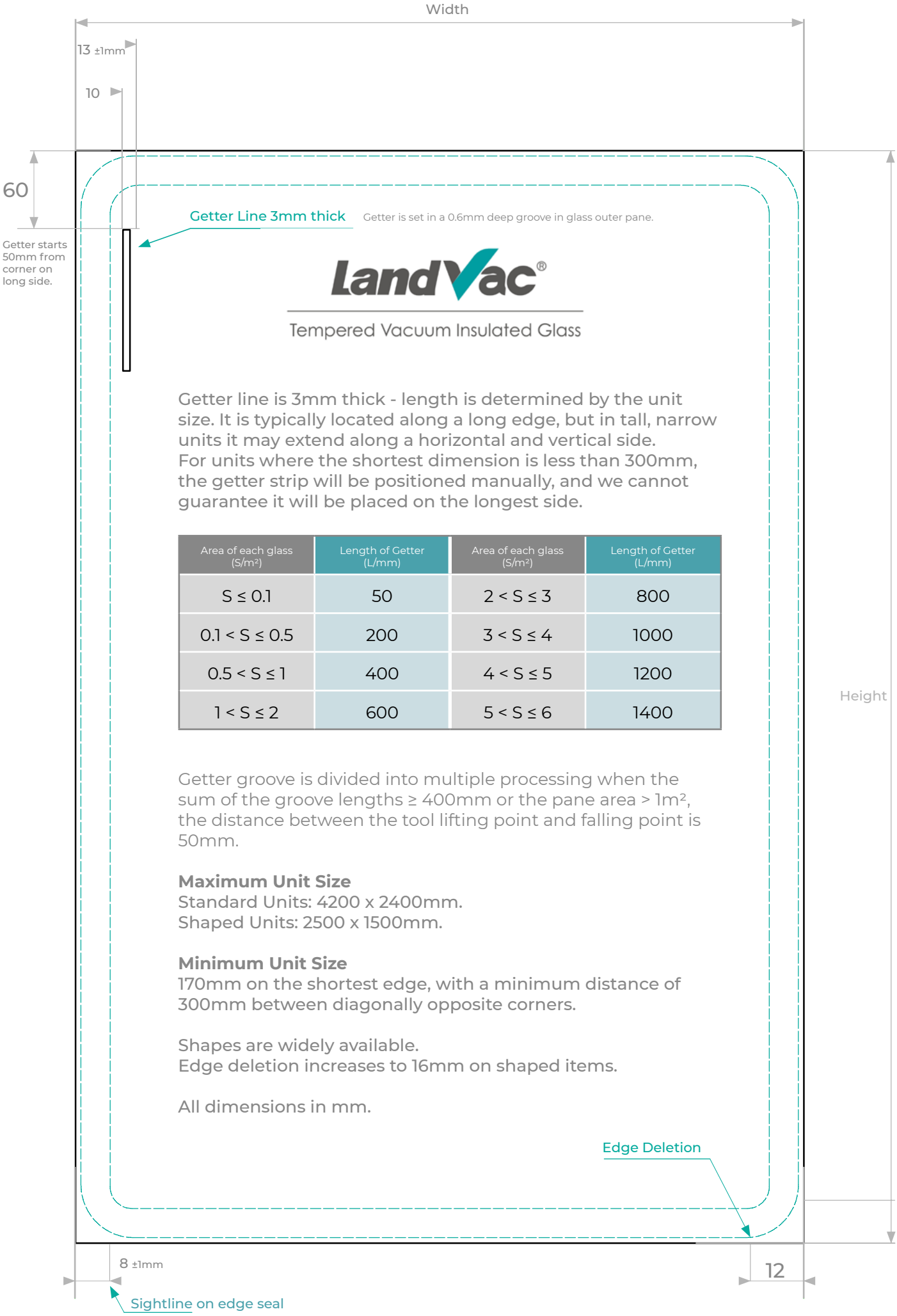
Here are some thermal camera images after the replacement of older double glazing in a timber frame with LandVac Optimum Glass



LANDVAC OPTIMUM (Hybrid Vacuum Glass)

	U-Value (W/m²K)	Visible Light		SHGC (g-value)	Shading Coefficient	Weighted Sound Reduction Index
		Transmittance	Outdoor Reflectivity			
4T+0.3V+4TL (S1.10) + 9Ar + 3 + 0.76P + 3	0.4	72%	18%	0.59	0.68	41dB
4T+0.3V+4TL (D80) + 9Ar + 3 + 0.76P + 3	0.4	63%	19%	0.46	0.53	41dB
4TL (S1.10) + 0.3V+4TL (S1.10) + 9Ar + 3 + 0.76P + 3	0.4	70%	15%	0.48	0.55	41dB
4TL (D80) + 0.3V+4TL (D80) + 9Ar + 3 + 0.76P + 3	0.4	54%	16%	0.32	0.37	41dB

A full range of laminates, coatings, glass types and cavities are available to construct a customised solution. Contact us to start the specification process.



LandVac®

Tempered Vacuum Insulated Glass

Getter line is 3mm thick - length is determined by the unit size. It is typically located along a long edge, but in tall, narrow units it may extend along a horizontal and vertical side.
For units where the shortest dimension is less than 300mm, the getter strip will be positioned manually, and we cannot guarantee it will be placed on the longest side.

Area of each glass (S/m²)	Length of Getter (L/mm)	Area of each glass (S/m²)	Length of Getter (L/mm)
S ≤ 0.1	50	2 < S ≤ 3	800
0.1 < S ≤ 0.5	200	3 < S ≤ 4	1000
0.5 < S ≤ 1	400	4 < S ≤ 5	1200
1 < S ≤ 2	600	5 < S ≤ 6	1400

Getter groove is divided into multiple processing when the sum of the groove lengths ≥ 400mm or the pane area > 1m², the distance between the tool lifting point and falling point is 50mm.

Maximum Unit Size
Standard Units: 4200 x 2400mm.
Shaped Units: 2500 x 1500mm.

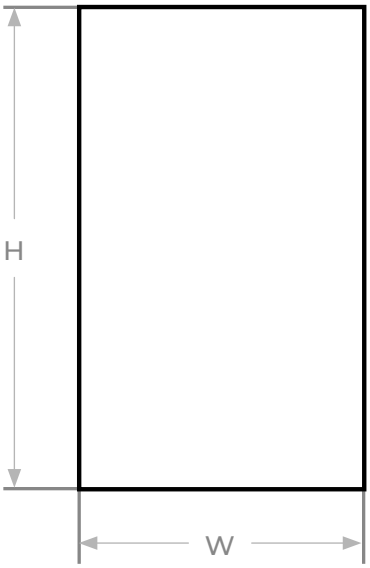
Minimum Unit Size
170mm on the shortest edge, with a minimum distance of 300mm between diagonally opposite corners.

Shapes are widely available.
Edge deletion increases to 16mm on shaped items.

All dimensions in mm.

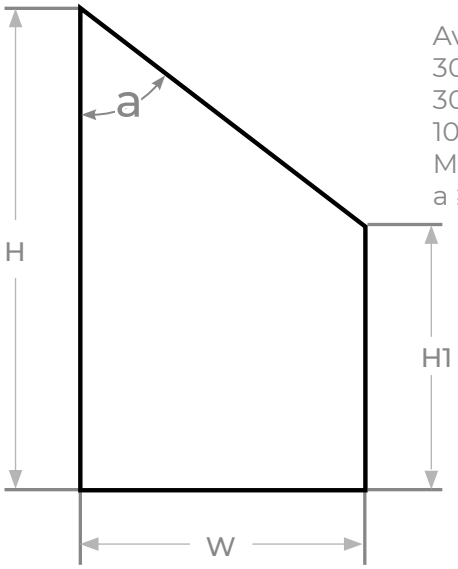
Shapes Available

Rectangle



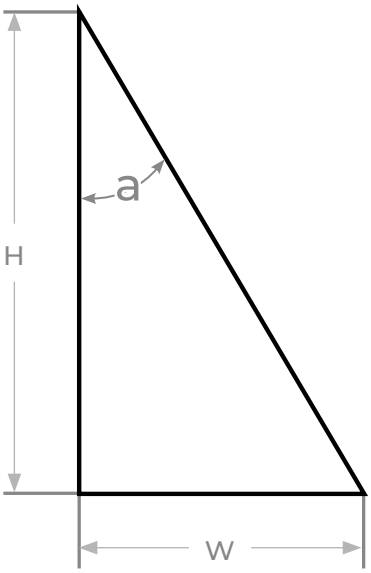
Available Sizes:
300 ≤ H ≤ 4200
300 ≤ W ≤ 2400

Right Angled Trapezoid



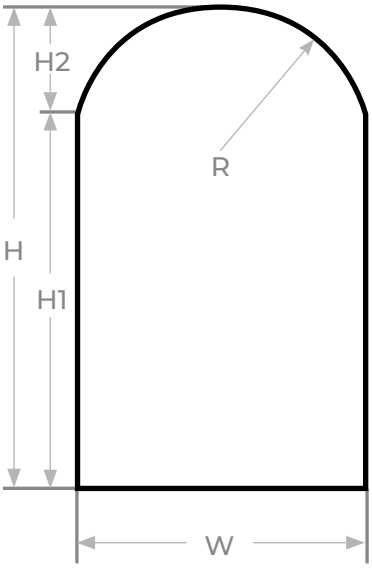
Available Sizes:
300 ≤ H ≤ 1600
300 ≤ W ≤ 1600
100 ≤ H1 ≤ H
Min (H&W) ≤ 1400
a ≥ 45°

Right Angled Triangle



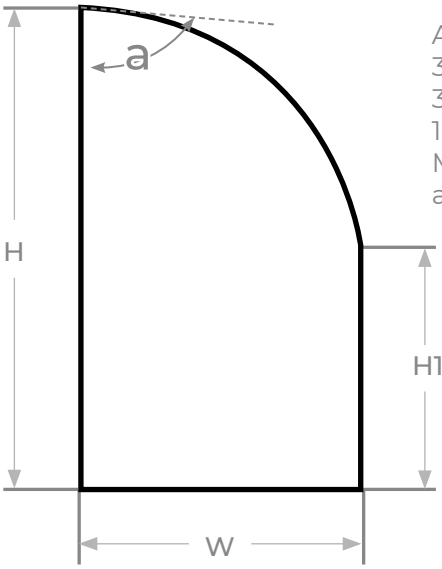
Available Sizes:
300 ≤ H ≤ 1500
300 ≤ W ≤ 1500
35° ≤ a ≤ 55°

Symmetrical Circular Arches



Available Sizes:
300 ≤ H ≤ 1600
300 ≤ W ≤ 1600
100 ≤ H1 ≤ H
H2 ≤ R
Min (H&W) ≤ 1400

Asymmetrical Circular Arches



Available Sizes:
300 ≤ H ≤ 1600
300 ≤ W ≤ 1600
100 ≤ H1 ≤ H
Min (H&W) ≤ 1400
a ≥ 60°

All dimensions in mm.

With an impressive annual capacity exceeding 400,000m², LandVac is produced in a cutting-edge Smart Factory, showcasing the scale of its operation. LandGlass, the manufacturer, has long been dedicated to continuous improvement and innovation, maintaining a leading position in the advancement of Vacuum Glazing technology for many years. Their unwavering commitment to Research & Development has culminated in the creation of the best performing and most aesthetically pleasing product available.

Vacuum Glazing UK Ltd. proudly serves as the exclusive distributor of LandVac glazing in the UK market. LandVac is accessible to manufacturers, glass suppliers, local installers, and the general public through our network of distribution partners across the UK. Whether for refurbishment or complete replacement, these companies possess extensive knowledge of the product and have established networks to ensure your glazing is delivered efficiently and cost-effectively.

1st Vacuum Glass Ltd

Speciality: All Types of Glass and Glazing

Area: South, East & Central England

CN Glass

Speciality: All Types of Glass and Glazing

Area: West & Central England, South Wales

Sagars 365

Speciality: All Types of Glass and Glazing

Area: North West England, North Wales

Wm. Mallen Glass

Speciality: Vacuum Insulated Glass

Area: Scotland and North of England

Vacuum Glazing NE

Speciality: Vacuum Insulated Glass

Area: North Eastern England

Nu.Gen Vacuum Glass

Speciality: All Types of Glass and Glazing

Area: South West England

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