

ALTURA - ILLUMINATED HANDRAIL REIMAGINED...

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INNOVATE | INTEGRATE | ILLUMINATE



Image credit:
Behind The Lens Media

ILLUMINATING SAFETY WITH STYLE

The Altura LED handrail system is proudly manufactured in the UK. Designed for both internal and external applications, each handrail system is built using 316-grade stainless steel, delivering a robust, sleek and corrosion-resistant finish suitable for even the most demanding environments.

With state-of-the-art processes, every handrail achieves the highest standards of quality and performance.

ISO 9001 accreditation and a full 5-year warranty gives you peace of mind, backed by UK-based manufacturing, engineering, and customer support.

PRECISION MANUFACTURING

Altura handrails are produced using the latest technologies to deliver exceptional quality:

- > Burr-free precision finish
- > Wrinkle and corrugation-free curves
- > Precision assembly ensured
- > Strong, seamless joints
- > Flawless surface quality
- > Consistent, durable results

This level of attention to detail guarantees that every handrail is built for strength and durability.

FINISHES & STYLING OPTIONS



The finishes of the Alutra handrail can be tailored to match the style of your project. Options include:

- > Polished stainless steel
- > Bead blasted
- > Satin/brushed finishes
- > Polyester powder coating (PPC) in any RAL colour – with a 'warm-to-touch' option for external or public realm use
- > Bespoke finishes available on request



EDUCATION



SPORTS/LEISURE



INFRASTRUCTURE



PUBLIC REALM



COMMERCIAL



RESIDENTIAL

CREATING THE PERFECT SOLUTION

With Altura, you can mix and match to create the ideal handrail:



This flexibility results in a tailored system, engineered and prepared for seamless installation.

CUSTOMER SUPPORT EVERY STEP OF THE WAY

TRT Lighting offers a complete turnkey package, providing expert guidance and support at every stage:

- › Lighting design – calculations for light levels, uniformity, and mounting positions
- › On-site surveys – detailed assessments to ensure a smooth installation
- › Engineering & project management – managing every detail from concept to completion
- › Installation support – ensuring your handrail system is fitted to the highest standards

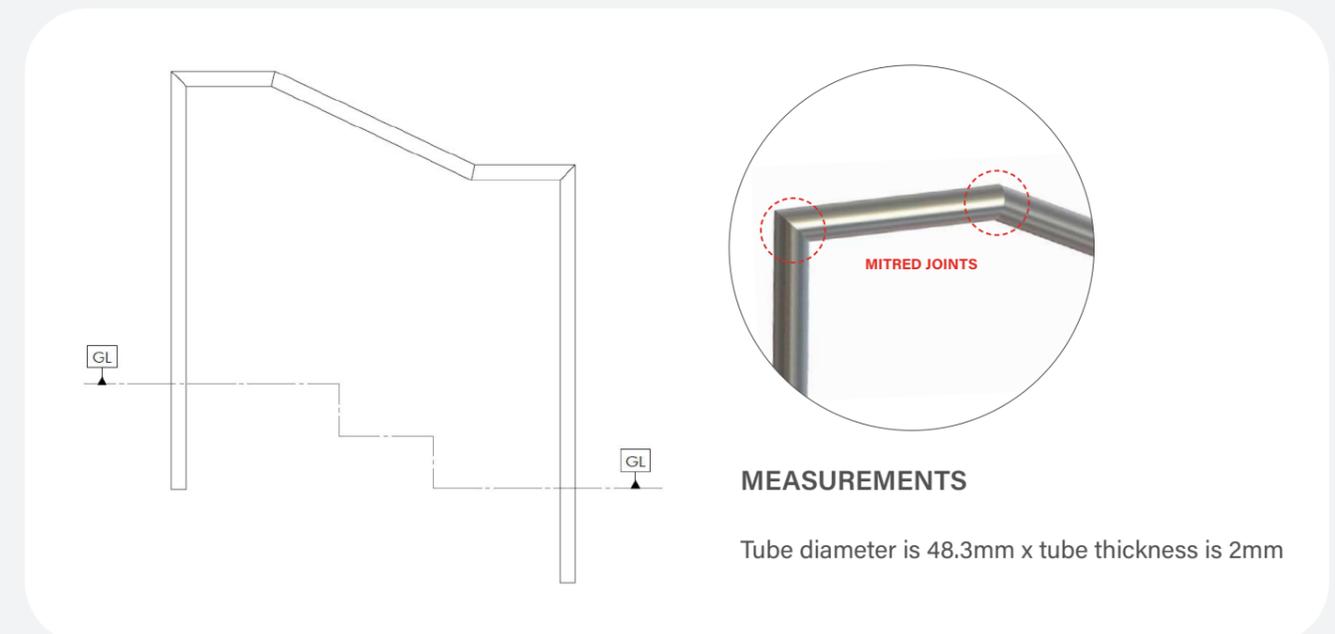
Our skilled team of designers and engineers ensures your project is delivered accurately.

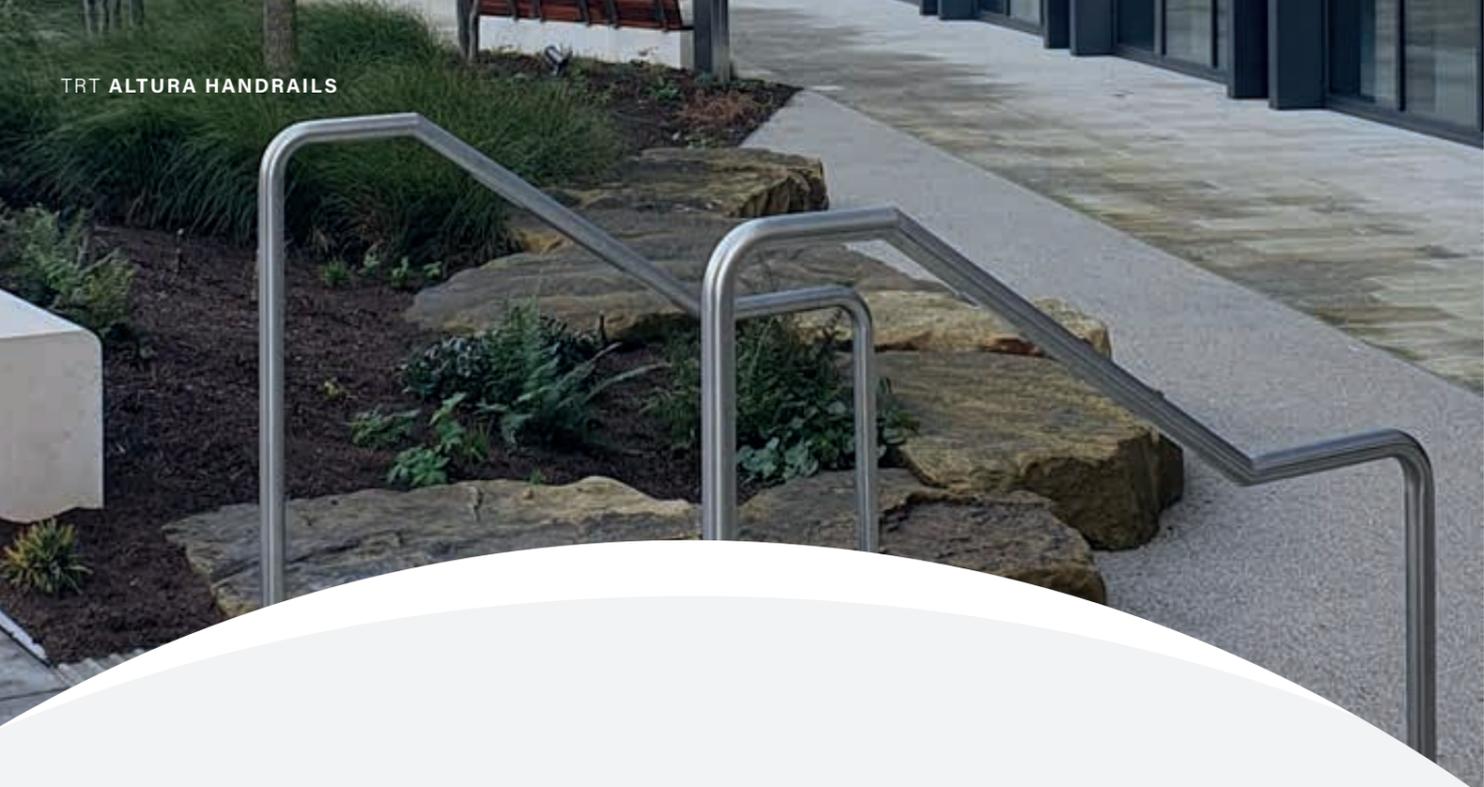
MITRED LED HANDRAIL

The mitred LED handrail features a symmetric design, making it ideal for areas with defined edged surfaces throughout the design. It provides crisp, fully mitred and polished transitions precisely tailed to site measurements and CAD drawings. The bespoke stainless-steel fabrication and metal finishing provides a striking solution.

FEATURES

- › Fully symmetrical design
- › Simple installation
- › Fully welded and polished
- › No visible joint lines
- › Manufactured in grade 316 stainless steel



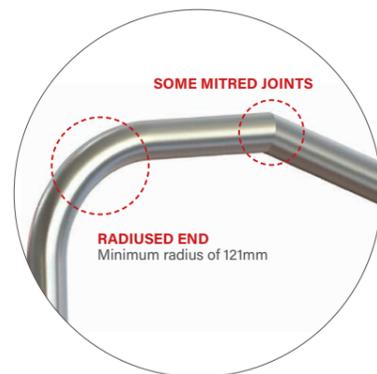
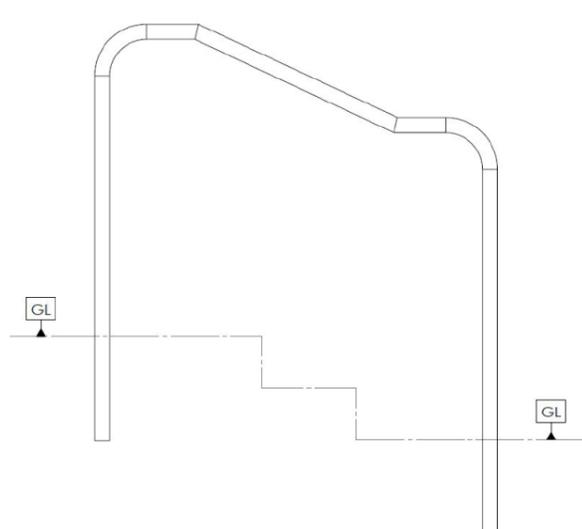


RADIUSED LED HANDRAIL

The radiused LED handrail provides the same quality as the mitred version but with the added benefit of a smooth transition from upright to top rail. Manufactured using a British made CNC mandrel tube bender ensures the inner tube face remains free from unsightly corrugation or distortion. With the ability to create complete semi-circles or partial bends to a minimum radius of 121mm, this design delivers limitless possibilities with a flawless finish.

FEATURES

- > Smooth transition to top rail
- > In-house CNC mandrel bending
- > Fully welded and polished
- > No visible joint lines
- > Manufactured in grade 316 stainless steel



MEASUREMENTS

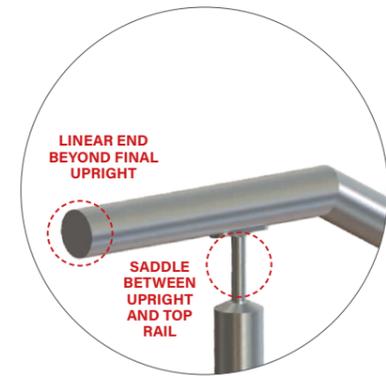
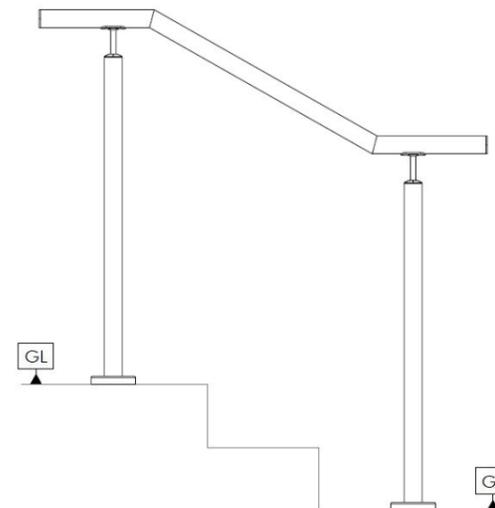
Tube diameter is 48.3mm x tube thickness is 2mm

LINEAR LED HANDRAIL

The linear LED handrail offers a clean, minimalist design that complements any setting while providing a strong directional emphasis. The horizontal fixing uses a saddle connection to the upright post, positioned just before the mitred handrail transition, ensuring structural integrity. Every handrail is finished on an automatic polishing line, delivering a consistent satin grain finish (as standard) throughout.

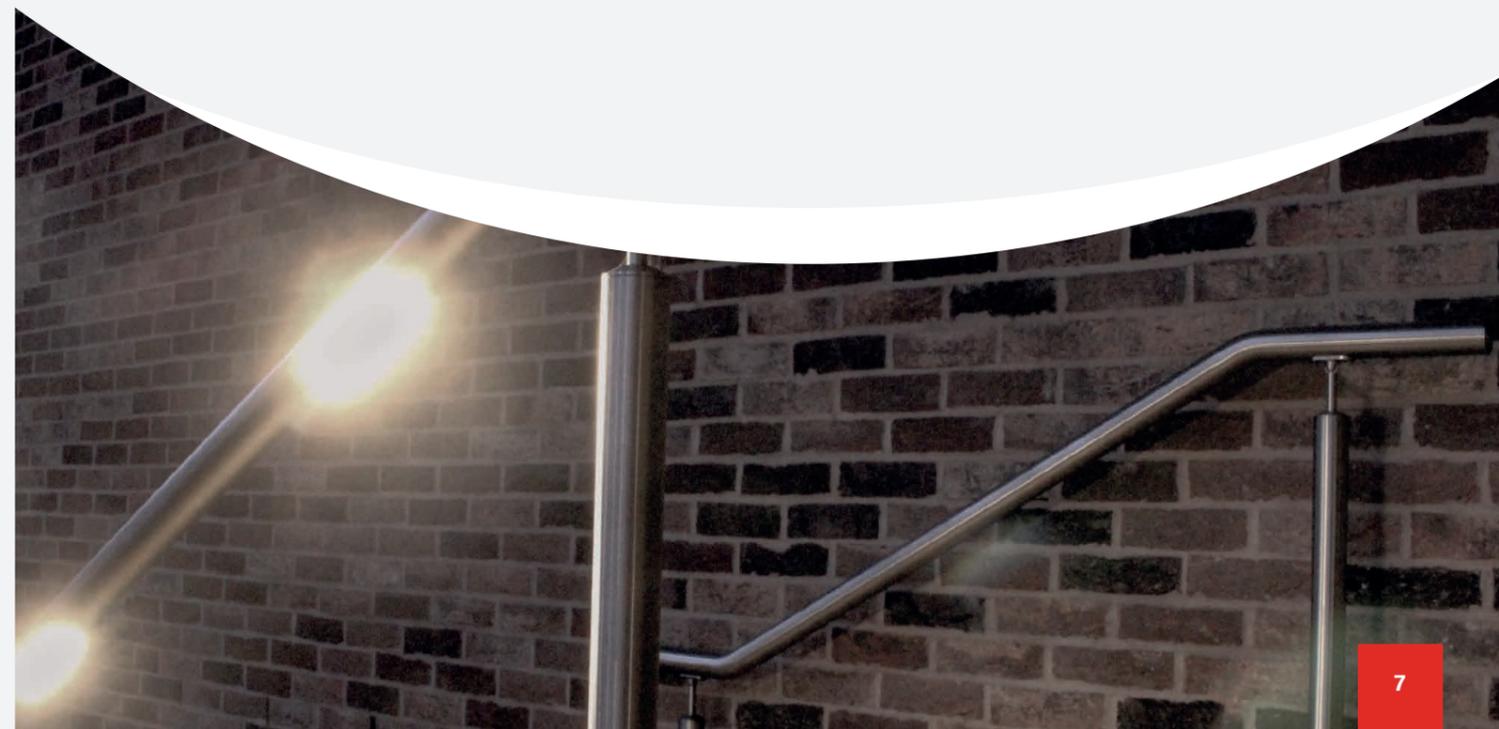
FEATURES

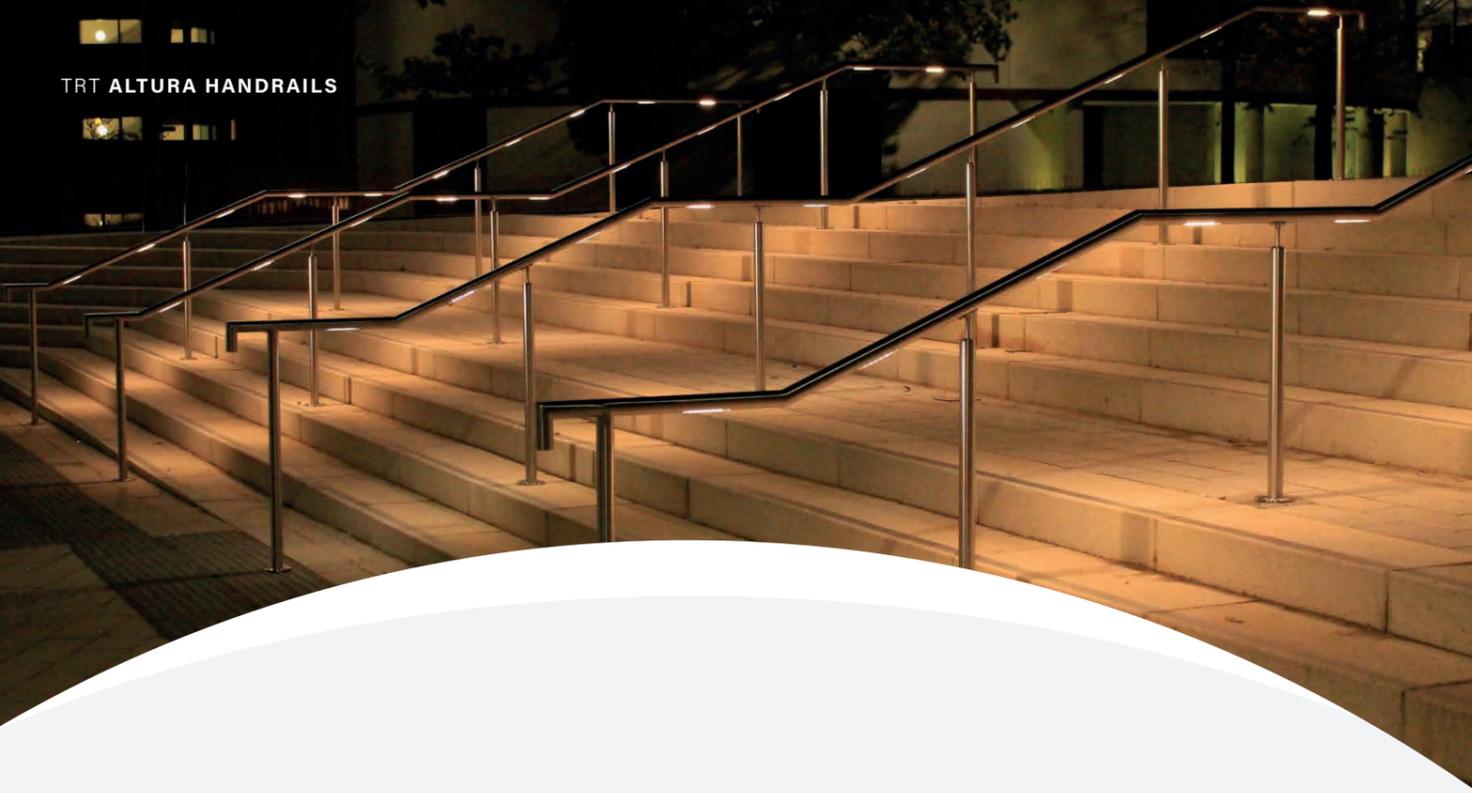
- > Simple design
- > Provides strong directional focus
- > Fully welded and polished
- > No visible joint lines
- > Manufactured in grade 316 stainless steel



MEASUREMENTS

Tube diameter is 48.3mm x tube thickness is 2mm





CRESCENT LED HANDRAIL

The crescent LED handrail shares the practical benefits of the squared design but features a fully radiused end, creating a smooth crescent-like profile which is positioned beyond the final upright. A supportive saddle connects the upright to the top rail, ensuring strength and stability. Precision-formed using a CNC mandrel bender, the radius is free from distortion, delivering a sleek and effective safety solution that flows seamlessly into the handrail. An automatic polishing line ensures a flawless satin finish (as standard), removing any trace of die tool marks.

A saddle sits between the upright and top rail for support.

FEATURES

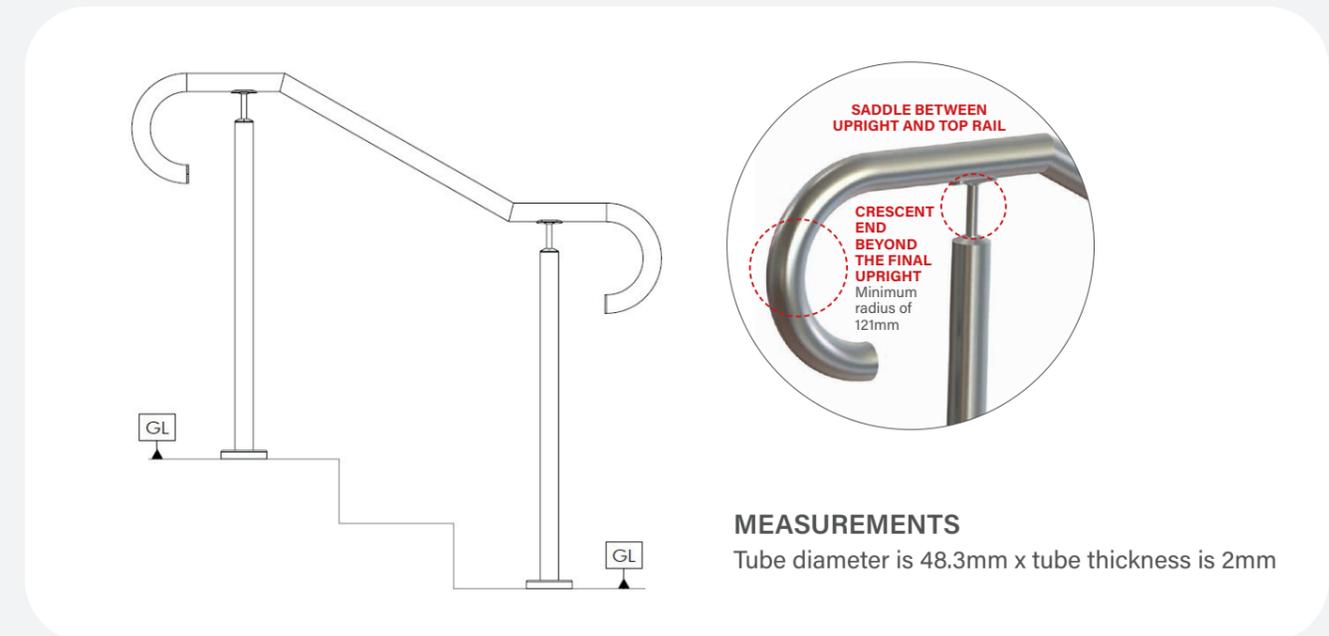
- > Crescent is free from distortion
- > Simple construction
- > Supportive saddle connections
- > Flawless surface finish
- > Manufactured in grade 316 stainless steel

SQUARED LED HANDRAIL

The squared LED handrail features a symmetrical design that complements projects with sharp, defined edges. Beyond its striking visual impact, the squared end detail also serves as a safety feature, helping to prevent snagging from straps or garments. This design can be extended down to floor level with base fixings and cover plates. A saddle sits between the upright and top rail to provide additional support.

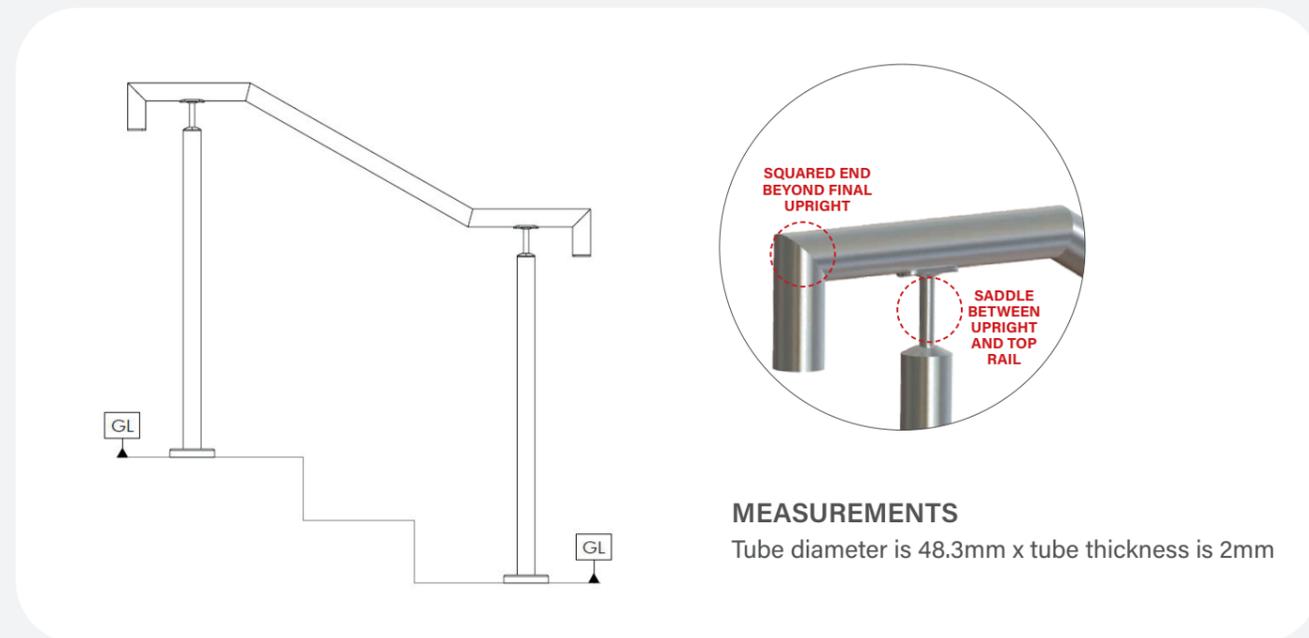
FEATURES

- > Fully symmetrical design
- > Visually striking impact
- > Mitred ends fully welded and polished
- > No visible joint lines
- > Manufactured in grade 316 stainless steel



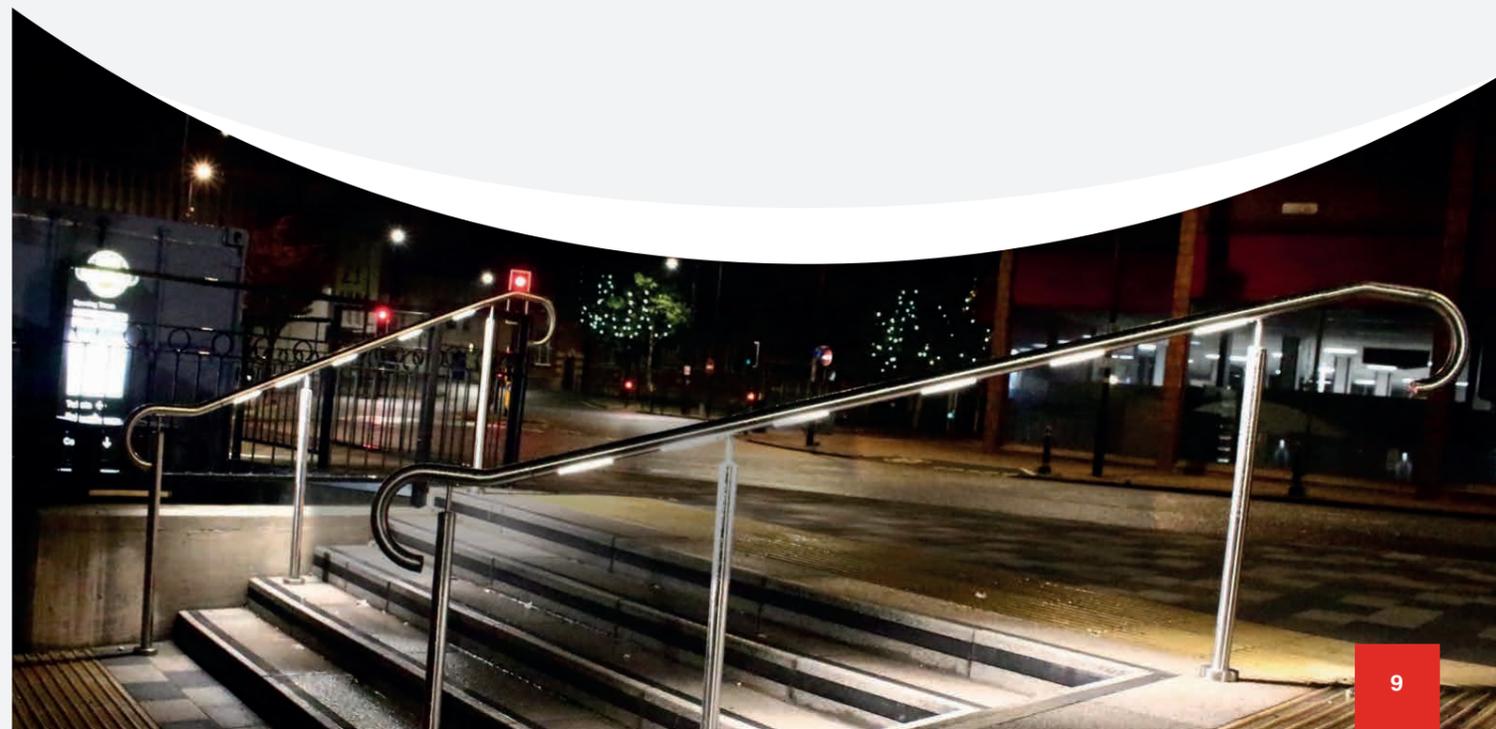
MEASUREMENTS

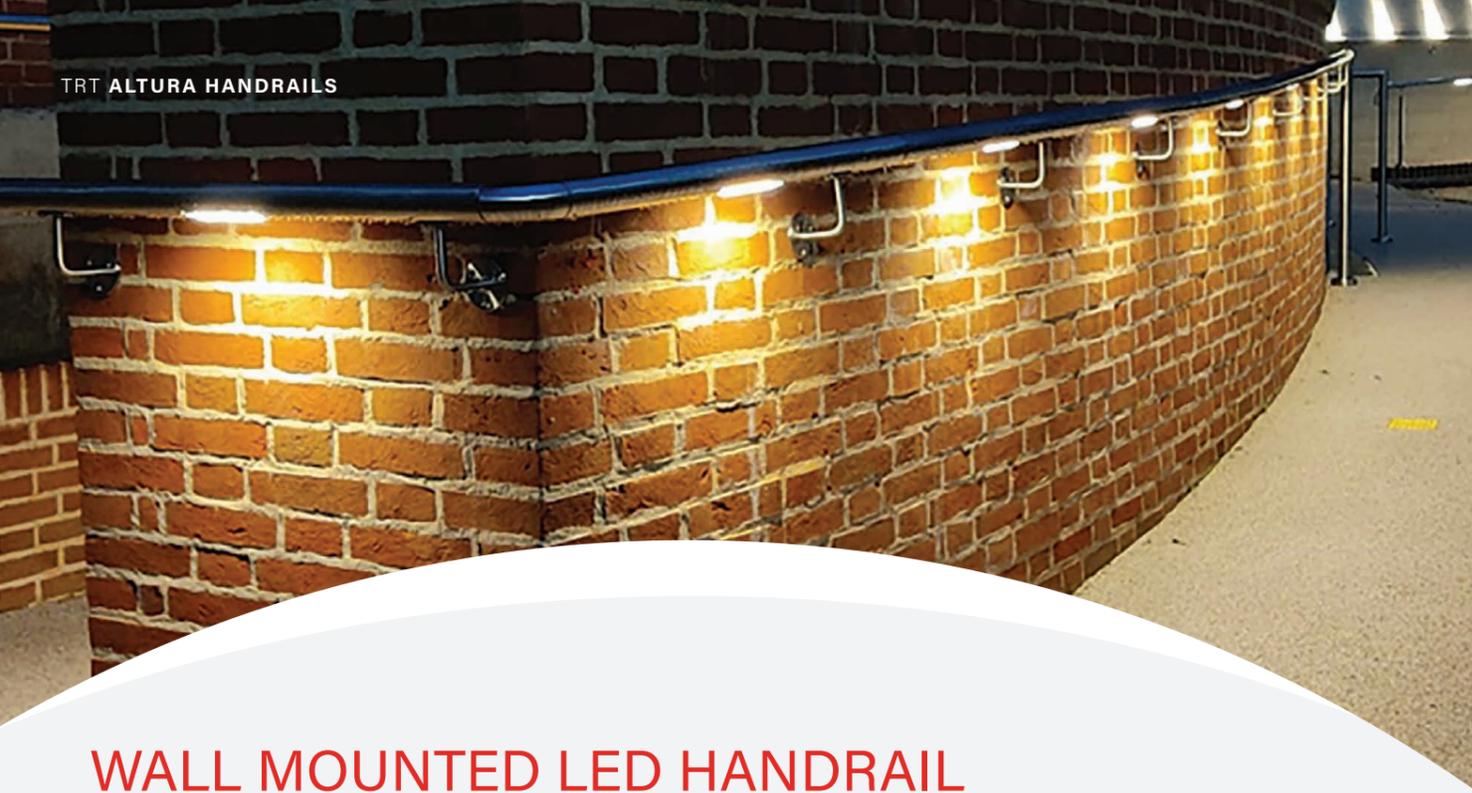
Tube diameter is 48.3mm x tube thickness is 2mm



MEASUREMENTS

Tube diameter is 48.3mm x tube thickness is 2mm



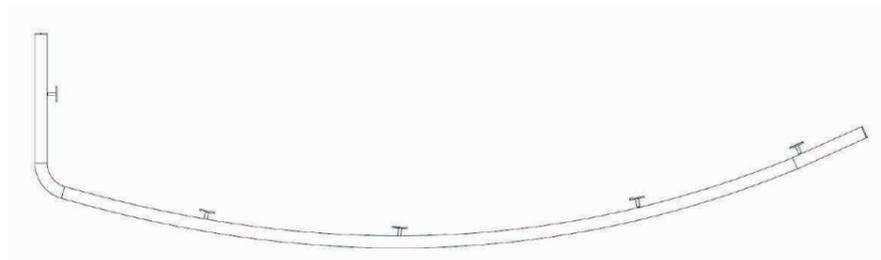


WALL MOUNTED LED HANDRAIL

The wall mounted LED handrail can combine many of the end designs of the previous handrails, while being securely mounted to a vertical surface. Each handrail is polished to eliminate any assembly marks. Power cables for the LED modules are discreetly routed through bespoke support brackets, with driver locations clearly detailed on site layout drawings following customer consultation. To guarantee performance, TRT Lighting engineers are available to provide guidance on the optimum layout and to minimise voltage drop.

FEATURES

- > Discretely routed cabling fixed through wall/surface
- > Guidance for efficient power design
- > Driver locations detailed on drawings
- > Bespoke support brackets
- > Any curve can be replicated



STRAIGHT SECTIONS

CURVED SECTIONS

SUPPORTS

MEASUREMENTS

Tube diameter is 48.3mm x tube thickness is 2mm

LED MODULES

Choose from 2 robust LED modules which integrate into the selected handrail. Each module is built tough with IK10 impact resistance and IP66 protection, making them ideal for constant use and exterior environments.

With 5 colour temperatures (PC-Amber, 2200K, 2700K, 3000K or 4000K), symmetric or asymmetric light distributions, and multiple control options, these modules offer flexibility for any project.

For added safety, each module has a built-in emergency function with a 3-hour battery backup and a parallel connection ensuring that if one module fails, the others remain operational.

MIDI

Small size module with high lumen output



MAXI

High lumen output meaning less modules required



LIGHTING

5W (Midi)

8W (Maxi)

1-200 lux (Midi)

15-300 lux (Maxi)

Asymmetric or symmetric distributions

Output up to 430 lumens (Midi)

Output up to 710 lumens (Maxi)

50,000 hour lifetime

CRI >80

PC-Amber, 2200K, 2700K, 3000K or 4000K

Non-dimming or DALI

EMERGENCY DATA

3-hour operation

CONSTRUCTION

140 x 22mm module (Midi)

300 x 22mm module (Maxi)

42.4mm diameter (suitable for 48.3mm diameter handrail)

Clear, diffused or coloured lens options

316 stainless steel (304 stainless steel option)

UV stabilised polycarbonate cover

Vandal resistant corrosion resistant fixings

100g (Midi)

175g (Maxi)



ALTURA ANTI CLIMB

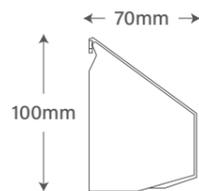
Engineered for safety and versatility, the Altura Anti-Climb light is a standalone, anti-access lighting unit ideal for high-risk or sensitive public areas. Crafted from robust grade 304 (also available in grade 316 marine grade stainless steel), it comes in three lengths and supports both Midi and Maxi LED modules. The angled design deters climbing, while tamper-proof screws ensure security.

SPECIFICATION

- › Angled design to prevent a foot or hand hold
- › Available as individual units or as a continuous length
- › Compatible with both Midi and Maxi LED modules
- › LED colour temperature PC-Amber, 2200K, 2700K, 3000K or 4000K
- › Colour rendering index >80
- › Rated life of 50,000 hours
- › Stainless steel (grade 304) (also available in grade 316 marine grade stainless steel)
- › Standard warm-to-touch RAL polyester powder coat finish (satin/brushed, bead blasted and bespoke finishes are optional)
- › Clear or diffused lens option
- › Impact resistant polycarbonate LED module
- › Asymmetric distribution
- › Ambient temperature 25°C
- › On/off or DALI lighting controls
- › Dimmable or non-dimmable driver options available
- › Emergency feature - 3hr battery back up
- › Parallel connection - all modules continue to function if one fails
- › Multiple fixings available
- › Vandal resistant tamper proof screws
- › Simple installation and maintenance



Based on the Anti-Climb individual 495mm unit



BESPOKE DESIGNS

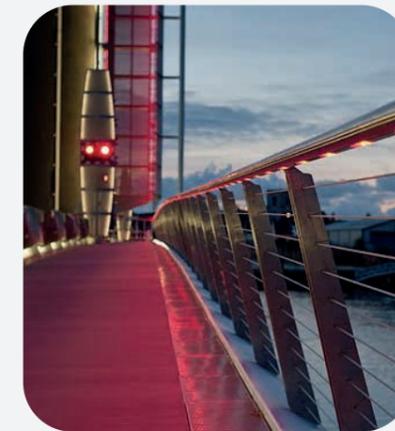
These projects highlight the versatility of the Altura illuminated handrail systems, each with its own set of special requirements. From customised mounting arrangements to complex architectural details, to pioneering new technology such as individually controlled lighting modules, every solution demonstrates TRT Lighting's commitment to innovation, precision, and design excellence.



CAMLEY STREET, LONDON

FEATURES

- › Slimline rectangular hollow section uprights with circular tube top rail
- › Midi and Maxi modules used throughout this project to ensure a constant output of light
- › Long section handrails were supplied with an on-site hidden push fit connection
- › Post mechanically fixed to handrail by hidden connections



TWIN SAILS, POOLE

FEATURES

- › Individually controlled RGB modules means that when the bridge is raised lights turn red in a sweeping action
- › Handrail is controlled by an error detection system, notifying the user which module may be at fault
- › Handrail and balustrade all manufactured in-house
- › Using the Midi module 150 average lux was achieved



UNIVERSITY OF SOUTHAMPTON

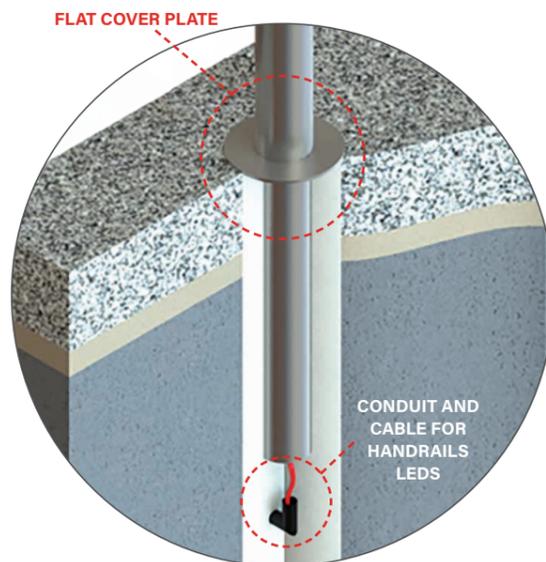
FEATURES

- › Bespoke end with curve and extended vertical all done by in-house CNC mandrel bender
- › Uprights mounted into side of concrete steps using bespoke fixing solution
- › Symmetrical LEDs only on central handrail to prevent light spill into the adjacent foliage

RANGE OVERVIEW

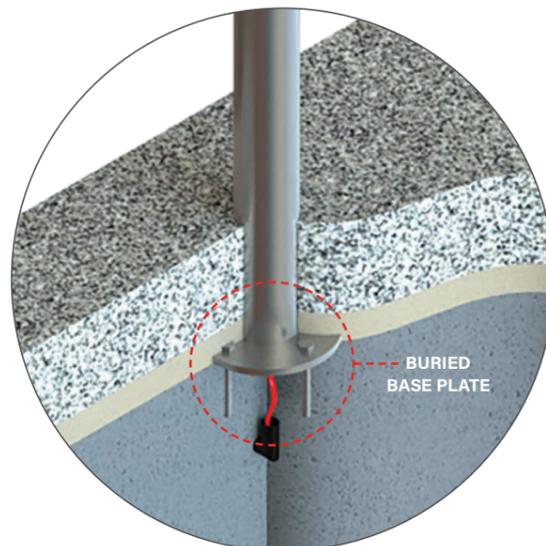
Type	Length	Qty of LED modules
Altura Anti-Climb individual 495mm unit	495mm	1 per unit
Altura Anti-Climb individual 1500mm unit	1500mm	2 or 3 per unit
Altura Anti-Climb continuous handrail	Made to length sections	1 to 3 per section

INSTALLATION OF LED HANDRAILS



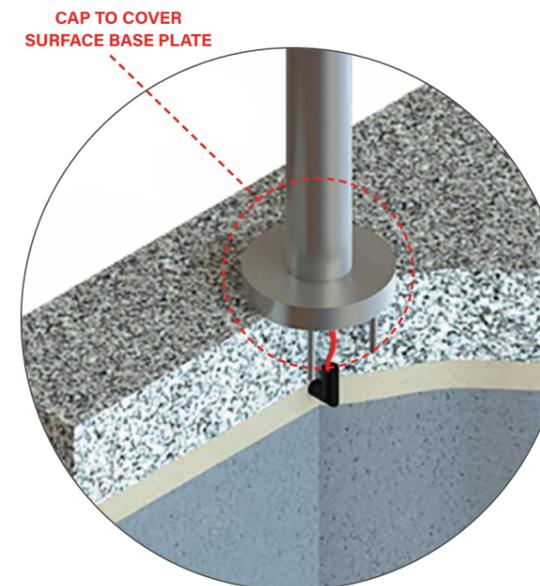
CORE DRILLED/CAST IN

- › Once handrail is on site, mark up locations of uprights making sure to conform with part M/K building regulations.
- › Core drill a hole at least 150mm deeper than the post length below GL (typically 300mm) and at least double the width of the tube dia.
- › Insert handrail and fill with approved filler.
- › Finish with a flat cover plate to hide core drilled hole.



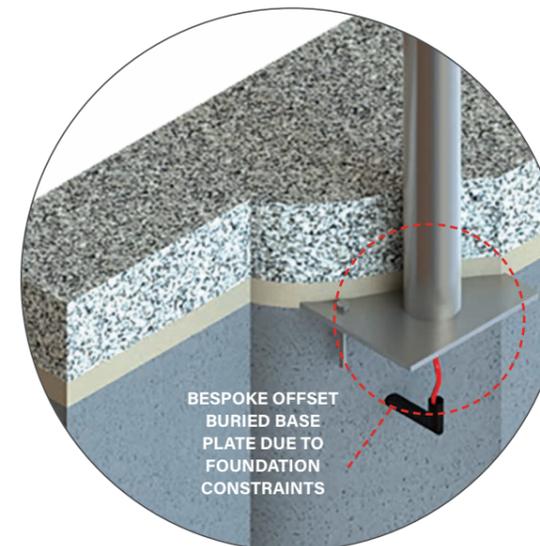
BURIED BASE PLATE

- › Once handrail is on site, mark up locations of uprights making sure to conform with part M/K building regulations.
- › Insert handrail and fix base plate to foundation (fixings not included).
- › Finally add sand and cut paving to fit perfectly around handrail.



SURFACE BASE PLATE

- › Once handrail is on site, mark up locations of uprights making sure to conform with part M/K building regulations.
- › Insert handrail and fix base plate to paving. Making sure fixings are deep enough to penetrate the below foundation (fixings not included).
- › Finally fix cap to cover and hide the surface base plate.



BESPOKE FIXINGS SOLUTIONS AVAILABLE

- › Bespoke fixings are structurally calculated to suit on site conditions.
- › Many different fixings can be manufactured if the site requires a different approach.



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