

ULTIMATE SOLUTIONS ON RAIL

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EDITORIAL

ULTIMATE is a benchmark for being the best possible, with a wide product portfolio, and impresses with forward thinking and market presence. That is our primary goal when developing, producing and delivering our products for the railway and other industries. Learning from the best to become even better and providing Ultimate solutions for doors, gangways and interiors for the benefit of our customers.

Our product range is not just limited to deliveries of system solutions; it also covers total cost considerations, including logistics planning, optimizing assembly, waste management, environmental care, etc.

Since its foundation in 1979, products as well as locations are constantly expanding – ULTIMATE has become a brand name in the railway market.

We combine our engineering know-how with international production sites to offer the best choice at a competitive price in the best time. We go the "extra mile" for customers by offering customised engineering services and cutting-edge technologies.

That's why we are looking forward to constructive collaboration with our customers and partners every day.

Irwin Tsai Group President Manfred Teufl General Manager Ultimate Europe

Doors, Gangways, Interiors

ULTIMATE WORLDWIDE DEVELOPMENT

SYSTEM SUPPLIER

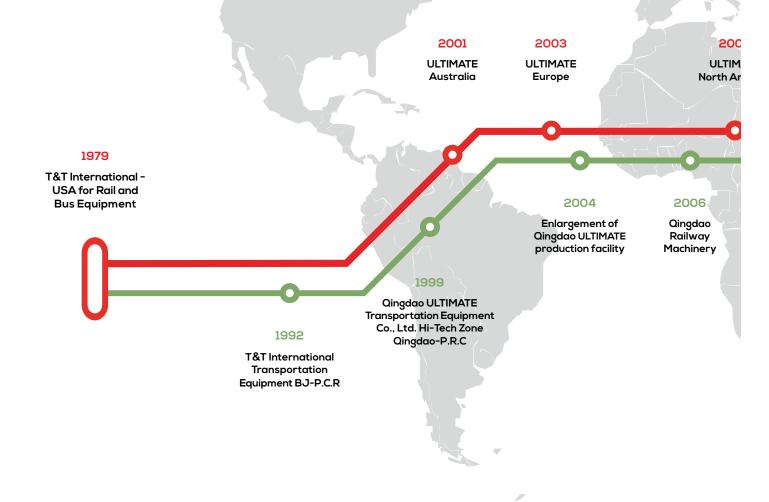
Starting from the engineering through validation to the
finished product, Ultimate
operates as a full range system
supplier from light rail to high
speed and mobility applications
in general. Various logistics hubs
enable Ultimate to provide justin-time deliveries with reusable
packaging.

INTERNATIONAL

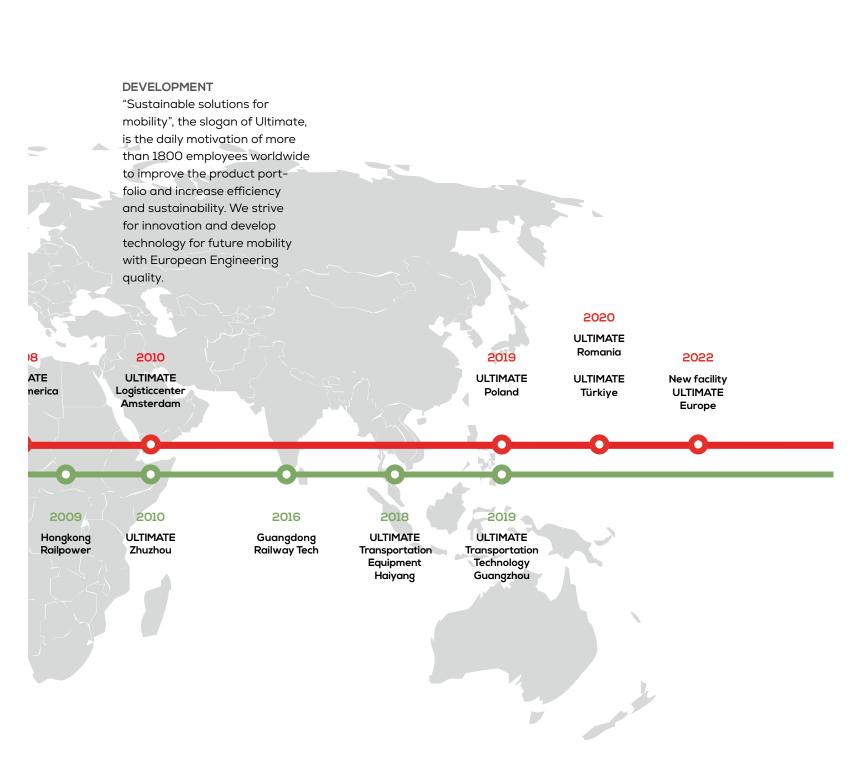
Ultimate has set up worldwide production, service and sales subsidiaries. Each subsidiary is specialised in localisation requests and an expert in local standards and demands, enabling it to serve international customers in the best way. We offer customized tailormade solutions for the mobility industry all over the world.

QUALITY

Extensive tests and state-of-the-art machines secure a high quality standard of our products. Ultimate products correspond to the valid standards for components of the rail and bus industry and are certified acc. IRIS, ISO9001, ISO14001, EN15085CL1 and DIN6701 A1.



The ULTIMATE Group supplies complete solutions at competitive prices for doors, gangways, as well as interiors and exteriors for transport equipment, from design to the finished product.



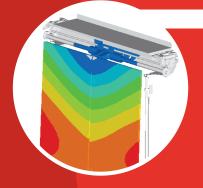
Doors, Gangways, Interiors

FROM ENGINEERING TO THE FINISHED PRODUCT



SALES

- Customized technical and commercial solutions
- Quick and flexible tender department
- Vast variety of references



DEVELOPMENT

- Innovation and ongoing development have highest priority
- State-of-the-art analysis and production methods
- Steadily increasing number of patents
- Product optimization such as weight and life-time
- FEM calculations from an early project stage



ENGINEERING

- 3D working stations
- In-house movement analysis software to simulate motion sequences
- Embedded software engineering



PRODUCT / PROJECT MANAGEMENT

- Main contact person for the overall project
- Project documentation and professional validation procedures
- Safety and reliability analysis (RAMS/ LCC)

CUSTOMER SUPPORT

- 24 h service hotline
- Worldwide service support, which is handled by local subsidiaries or agents
- The local offices also take care of spare parts and after-sales activities



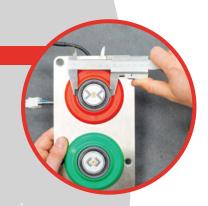
LOGISTICS

- Worldwide logistic centers
- "Just in time" delivery directly to the customer's production line
- Customized re-useable packing



QUALITY CONTROL

- Certified acc. ISO9001/ ISO14001/ IRIS / DIN6701 A1 / EN15085 CL1
- Constantly expanding to latest national and international standards
- 3D component measuring



PRODUCTION

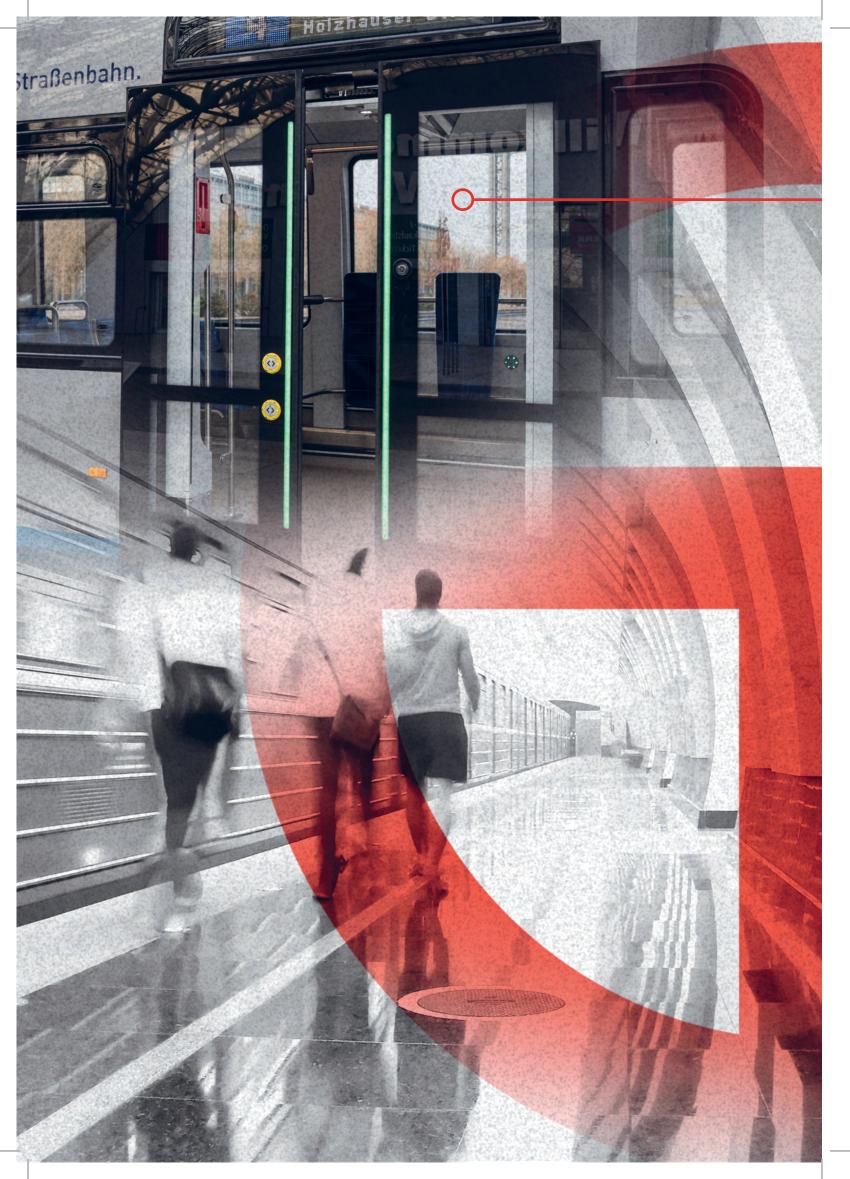
- Internationally audited & validated
- Automated production and assembly lines
- In-house metal and bellow production
- In-house GRP and mould production
- Surface technology (coating / painting / bonding)



VALIDATION

- Test methods secure continuous development and high quality products
- In-house testing on 1:1 full size equipment (endurance tests, movement tests, water tests, ...)
- Independent test institutes perform shock & vibration tests, noise, fire, climate and paint tests





Make your Move

DOORS

ULTIMATE supplies door systems for a full range of different vehicle types: Plug Sliding Doors, Sliding Doors, Driver's Cab Doors, Interior Doors, Movable Steps and Ramps.

ENGINEERING

The design, function and physical characteristics such as sound insulation, fire protection and heat transfer properties are adapted to the respective customer specifications and are optimized in terms of cost.

MATERIAL TECHNOLOGY

Ultimate has in-depth know-how in the production of aluminium frame / full-glass door leaves, aluminium sandwich door leaves, stainless steel door leaves.

Ultimate doors meet all the latest applicable standards and regulations and are continuously adapted to use state-of-the-art technologies.







High-voltage test on plug sliding tram door system



Our door control units are available with all relevant data bus interfaces and support central software upload (Ethernet)



Sliding door with optional stainless steel door panels.



Plug sliding door for lightrail applications

TSI conform plug sliding door with heated sliding steps.





Interior doors with optional El15 fire properties.

Customized solutions

Lightweight

Reliable





Constant quality control with 3D measuring instruments.

FACTS/STANDARDS

TSI Interoperability Fire EN45545 EN14752 VDV111 EN50128 Door Software EN50129 Safety



Push the Limits

GANGWAYS

ULTIMATE offers a wide range of gangways for all types of articulated and non-articulated vehicles, which can be equipped with: Folding Bellows, Single Corrugated Bellows, Double Corrugated Bellows, Interior Panelling, Floor Systems, Air Ducts or Cable Support Systems, Compact Upper and Lower Articulation Systems for light rail.

ENGINEERING

Design, noise insulation, fire safety and thermal insulation are adjusted to the client's particular specification with a focus on best price for our clients.

MOVEMENT INVESTIGATION

Ultimate has developed a special movement analysis software, which can evaluate and simulate all envisaged vehicle movements, already in the design phase.

This software can also be used later on our special six axis test bench to confirm all results of initial evaluations through movement and endurance testing and finally proves the product safety and product liability.





Dynamic track testing including application of vibrations during type test



Customer specific

Proven solutions



Tram gangway with articulation system



Commuter train gangway with separately latchable inner bellow for maintenance access to jumper cables

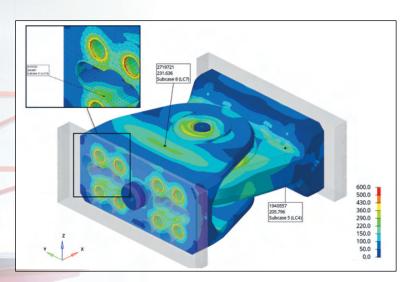


Metro gangway with flexible sidewall High-speed gangway with panels High-speed gangway with quick-latching middle frame









Strength verified by FEM calculations

FACTS/STANDARDS

TSI EN45545 Interoperability NFPA130 Door VDV111 EN16286 Gangway Noise EN16286



Select your Comfort

INTERIORS

Due to our wide spectrum of products, ULTIMATE is able to offer its clients interior solutions from engineering to the finished product for complete "Total Interior".

ENGINEERING

Based on technical specifications and carbody drawings, Ultimate offers complete engineering solutions for total interior applications. From fulfilling current standards over fast mounting concepts to flexible logistics flows, Ultimate engineers have a holistic view of the project.

MATERIAL TECHNOLOGY

Ultimate offers considerable expertise in the manufacturing of GRP parts, thermoplast parts and aluminium, sandwich construction, super lightweight solutions (Prepreg).

Ultimate operates their own mould production for GRP products, which are checked by using state-of-the-art 3D measuring instruments.



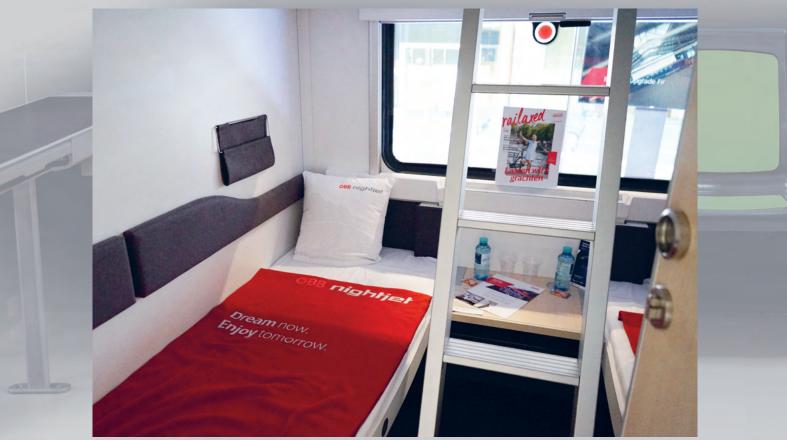
Business compartment fully equipped by Ultimate

- O DOOR COVERS
- **O** "INTELLIGENT" CEILING WITH LED LIGHTING
- LUGGAGE RACKS / TRUNKS
- O HANDRAILS
- O DRIVER CAB AND DESK
- TABLES / WASTE BINS
- O SIDE WALL / PARTITION WALL PANELLING
- O SEAT BOXES / GRP SEATS





Competent support during whole project life cycle.



© Molinari Rail



Light weight front mask made of prepreg-sandwich.



Individual folding table with cupholder and rattle-free hinges



Side wall table with waste bin solution and power socket.



Entrance steps and other exterior components.

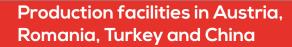


FACTS / STANDARDS

Fire EN45545
Door NFPA130
BS6853
NFF16-101
UN11170-3
Lighting EN13272
Bonding DIN6701
Welding EN15085

PRODUCT RANGE Ultimate Europe o

Ultimate Europe offers a very broad-based product portfolio. From single compartments to complete interior systems Ultimate brings your project to success.



European engineering and project handling

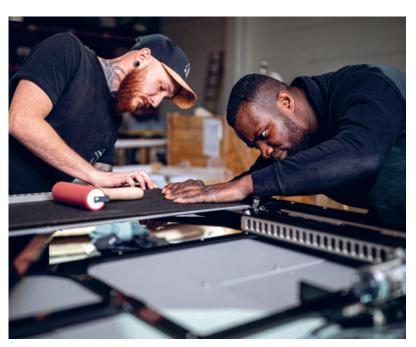
Individual customized solutions

Sustainable

Ultimate Services

LOGISTICS, OVERHAUL & REFURBISHMENT

Due to the broad product know-how and the long experience, Ultimate is an expert for OEM as well as for overhaul solutions. Combined with just-in-time logistics services we provide customized solutions that fit customer needs.



Experienced personal guarantee high quality of service.

Logistics centers in Europe

Just-in-time logistic services

OEM and refurbishments

Spare parts and consignment stock



Inhouse workshops enable fast reaction and repair times.

ENGINEERING

Our in-house engineering departments closely work together with our service teams to monitor delivered products over the whole product lifetime. During refurbishment projects, our technicians update the products based on field experience and according to the latest standards. These joint efforts ensure a reliable operation of the product.

LOGISTICS

With our logistics centers, we can offer various customerspecific solutions. For long-running projects, we can provide consignment and buffer stocks to ensure continuous production at customers' facilities. Ultimate can conduct additional quality checks tailored to customer requests and specifications. Pre-assembly of specified components and packing on reusable racking make just-intime solutions possible.



Working with Ultimate

THE ULTIMATE EXPERIENCE

The Ultimate Europe family is a diverse and international team that works closely together and supports each other. Together we reach ambitious goals and value the effort of every team member. We are highly-educated experts in our field of work and emphasize a professional and innovative appearance to reach the goals for our customers.

The growing number of worldwide public mass transport enables our children a greener future. Ultimate is contributing to this goal and therefore I am proud to be a member of the team."

The close and cooperative daily contact with our business partners all over the world is what makes work interesting and absorbing."

Project Manager Ultimate Europe To solve creative engineering challenges and satisfy the customers' needs is the daily motion and joy of my work."

Door engineer Ultimate North America

Sales Manager Ultimate Australia





ultimate-eur.com

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