

# WE PRODUCE SAFETY GLASS

# WHEREVER YOU MOVE









## SHAPE OF EXCELLENCE

Jaakko-Tuote Oy produces safety glass for various vehicles such as trains, trams, busses, coaches, agricultural machines, crain cabins, ships and boats. Our products fit in surroundings that require a high level of safety. Our products are being used in numerous vehicles all over the world.



#### **VDL BRT**

Curved laminated windscreens and corner glass with heating and screenprinting. Curved laminated destination glass with screenprinting.

Tempered double-glazed sideglass with screenprinting.

Tempered baccklights with screenprinting. Tempered interior glass with screenprinting.



Kuva Pasi Tiitola / Tampereen Raitiotie Oy

Skoda Transtech Tram (Tampere) Tempered double-glazed sideglass and doors with screenprinting.

Tempered laminated screenprinted interior glass.



**Skoda Transtech Railway ICS Wagon (VR)** Tempered double-glazed sideglass with screenprinting and framework. Tempered interior glass with screenprinting.



Sargo Explorer Tempered laminated windscreens and sideglass with heating and screenprinting. Tempered sideglass with screenprinting. Tempered interior glass.



**Honda F1 Hospitality Trailer** Curved laminated glass with screenprinting. Tempered double-glazed sideglass with screenprinting.



Lännen Tractors Curved laminated windscreens with heating and screenprinting. Tempered sideglasses and backlights with screenprinting. Curved tempered backlights with screenprinting.

#### Basic idea of the company

**Jaakko-Tuote Oy** was founded in 1971 and has adapted a policy of a personal service to its customers. The long experience and high quality has made us one of the leading companies in the glass processing industry.

**Jaakko-Tuote Oy** has been able to specialize in several fields such as automotive, marine, railways, architectural, furnishing, etc.

### **Processing and applications**

**Jaakko-Tuote Oy** offers glass solutions for the automotive, marine, railway and tram sector, always meeting the highest quality requirements demanded by national and international level. The production process of laminated and tempered glass in its multiple versions is highly specialized and according to customer's requirements.

Our CAD/CAM equipment for cutting and processing the glass allow endless possibilities to specific requirements. Silkscreen printing allows us to decorate glass with different patterns and logos remaining unaltered through the time.

Finished products in various versions; flat, curved, laminated or tempered, single or double insulating panes meet the high mechanical strength and safety requirements.

### **Quality and testing**

Vehicle glass manufactured by **Jaakko-Tuote Oy** is made of installation-ready parts that comply with the **ECE** and **AS** standards. Glass for marine industry comply with the quality requirements of the **ISO 614** standard.

Factory does have several testing equipment of its own which quarantee continuous high quality of the products. Such tests as;

- artifical head dropping equipment	ECE43R
- optical distortion testing equipment	ECE43R
- secondary image testing, windscreen optics	ECE43R
- light transmission measuring equipment VTT	ECE43R
- metal ball dropping equipment 27 m	ECE43R
- metal ball dropping equipment 1,512,5 m	EN 356
- metal ball dropping equipment 4 m	EN 14449
- laminated glass, moisture test	EN 14449
- train insulating glass, tightness testing equipment	<b>UIC 566</b>
- railway rolling stock tempered testing equipment	NF F 31 129

Besides the factory's own quality control, the quality is monitored among others by the **Eurofins Expert Services** and the **Finnish Vehicle Administration (TRAFI**).

#### J-T safety glass applications

**J-T windscreens** are installation-ready parts manufactured according to customer requirements and design. J-T windscreens are normally manufactured from laminated glass.

**J-T side glass** is flat or curved and manufactured from tempered or laminated glass. It can also be manufactured as insulating glass, normally used as side glasses for busses and trams.

**J-T safety glass** can also be used in bus and railway carriage partitions, as well as in railings and other interior features.

**J-T safety glass for machinery cabins** is either laminated, tempered, or a combination of both. It can also be manufactured as insulating glass to provide excellent thermal insulation and protection from outside noise. Tempered glass is suited best for openable glass and emergency exit hatches, as well as places subject to torsional stress.

J-T safety glass for ships and boats can be laminated, tempered or a combination of both.

6 -19 mm tempered glass complies with the the quality requirements of the **ISO 614** standard.

J-T safety glass is always manufactured according to the customer's drawings and specifications.

### Manufacturing and information



## Τυοτε

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### Jaakko-Tuote Oy in numbers

Operations began	1971
Personnel	150
Premises (heated)	30 000 m <sup>2</sup>
(unheated)	6 000 m <sup>2</sup>
Transformers	16 MW
Power connection	7 MW

#### **Updated version 2022**