

Producing vehicle windows and doors since 1935

since 1935

Over the course of time.



### 1935

#### 1935:

... The US brewery Schlitz presents the first beverage can in Richmond +++ Leonard Keeler tests a lie detector for the first. time in an experiment +++ An aircraft is located for the first. time during a radar field test in Daventry, UK +++ W. H. Carothers succeeds in developing nylon while working with DuPont +++ The first transparent adhesive film is developed ...

In 1935, Carl Wilhelm Cleff founded his company in Wuppertal for mouldings and fittings for vehicle fitting and the shopfitting sector. His idea: To produce and market price-effective, self-developed products with the highest level of quality.

The economy boomed in these dark times and the demand for hquality products was high. The company developed rapidly, and as it grew, it hired new employees and expanded its production area.



### In the beginning there was an idea

Carl Wilhelm Cleff was an "old-school" businessman: Full of ideas, energy and drive, his dealings were characterized by flexibility – and he was a hard yet fair negotiator.

He pushed things forward, stood up for his employees and created a strong community from his workforce that best catered to their customers' needs.





At Cleff, customers and suppliers always found themselves greeted with a classic corporate philosophy in which a promise counts and is sealed by a handshake.

#### 1955:

... At the Frankfurt IAA, Magirus-Deutz presents the first prototype of a front-wheel steering truck with tiltable driver's cab +++ The first atomic clock goes into operation in England +++ The Volkswagen factory celebrates the completion of its millionth car of the popular "beetle" +++ First accidental discovery of the snow cannon +++ First artificial production of a diamond ...

The war did not leave the Cleff company unscathed, but it quickly managed to make a fresh start. Following the currency reform and the reconstruction of Germany, the company was able to establish international contacts, and it was the fifties that accelerated the growth of the company. The international growth in individual transport, the increase in prosperity and the ensuing desire to travel brought even more growth in the manufacture of buses and trains, which ultimately also increased the demand for vehicle windows.



### Reconstruction and the economic miracle

It was the time of the petticoats andteapoys, a generation was on the move and the signs of the times were pointing to economic success - and that was exactly what they were working on in Wuppertal. For the spectrum of all commercial vehicles in the world. Vehicle windows were quickly supplemented by engine room, entrance and partition doors. Window manufacturing developed ever more complex and convenient solutions, e.g. for sliding and top-hung windows, so that a complete product range was soon available and constantly further developed.





The Economic Miracle also resulted in new tasks and challenges for Cleff. Things were going well.

1970:

... After 57 days on the Atlantic Ocean, Thor Heyerdahl and his crew reach the Caribbean island of Barbados on the Ra II papyrus boat +++ The first rescue helicopter in Germany is put into operation +++ The German football team finishes third at the Football World Cup in Mexico +++ For the first time, a land vehicle reaches a speed of more than 1000 kilometres per hour +++ The Apollo 13 mission lands ...

The company grew dynamically, acquired land and built new production facilities. It has always remained loyal to its home town of Wuppertal, thus professing its support for Germany and its people – despite many disadvantages. Cleff made sensible investments, created its own developments and launched ground-breaking patents and products.

The ability to build vehicle windows had opened up the international market for commercial and special vehicles, coaches, city buses and rail vehicles of all kinds.



# **Expert knowledge from Wuppertal**

In the meantime. Cleff brand vehicle windows were on the road and on railways in 25 nations around the world. Whether passengers folded them or pushed them, locomotive drivers opened them or bus drivers closed them, a child was protected from the sun by them, a subway passenger walked through a partition door or an accident had fewer consequences thanks to safety glass all products had one thing in common: They all originated from the recognised and owner-managed manufacturer of vehicle windows in Wuppertal - Cleff.





Cleff may not always have been able to do more than others, but it has always done its job well, reliably and at a reasonable price.

#### 1990:

... the final demolition of the Berlin Wall begins and the unification treaty is signed +++ The Charter of Paris declares the Cold War's division of Europe into East and West over +++ The Hubble Space Telescope is launched into orbit +++ The DFB team wins the finals of the Football World Cup with a score of 1:0 through foul penalties against Argentina and becomes world champion ...

By building the "solar tower" and new halls with solar systems, the company consistently focused on the use of solar energy. In addition, a new anodising plant was erected that was fed with well water.

These measures were and continue to be a part of a corporate philosophy that has always aimed at harmonising high productivity with nature and the environment.



# **Supporting challenging projects**

The development potential of the Cleff brand has always been demonstrated in its future-oriented projects, such as the development of windows for the Lirex experimental train, the development of a wide variety of "flush window" designs, the flush window that combines technical requirements with a high level of comfort, and of course in many complex solutions for driver's cab windows.

New ideas and the demand for further in-house developments shaped the Cleff brand – both yesterday and today.



Not only its customer relationships, but Cleff's know-how had also matured further. Manufacturers of commercial vehicles often came to us to ask for a solution.



# Restructuring 2014 – 2015

#### 2015:

... 100th birthday of US actor Frank Sinatra +++ Angela Merkel is named Person of the Year by US news magazine Time +++ Lithuania becomes the 19th member of the Eurozone +++ 2015 is the warmest year in the world ever recorded since 1880 +++ After more than nine years, Vladimir Klitschko loses his title as world heavyweight boxing champion to Tyson Fury ...

In 2014, the time had come for restructuring, which was able to be done in an extremely positive manner. The company was "rejuvenated" and brought its products and production processes up to the latest state of the art. There were also decisive cuts in terms of cost structure. As a result, customers of the Cleff brand benefit from greater costeffectiveness, flexibility and an attractive price structure.

The company was now well positioned to meet the challenges of the future.



### Cleff – a reliable partner

If standing still means taking a step backwards, then the company has done quite a few things right during this time: During this important phase of the company, focus was always placed on further development – with regard to the commitment of the workforce and the restructuring of internal processes, the future viability of production and its processes, as well as the modernization of the company buildings.





Developing and building vehicle windows, designing and manufacturing vehicle door systems, offering system solutions and spare parts – these are the central pillars of the Cleff brand.

#### 2017:

... The 104th Tour de France starts in Düsseldorf for the first time +++ Resolution to introduce a proposal for same-sex marriage in the German Bundestag +++ 100th birthday of the US jazz singer Ella Fitzgerald +++ Lewis Hamilton becomes Formula 1 World Champion for the fourth time +++ The first hydrogen-powered train (Alstom Coradia iLint) goes into regular service +++ Opel Automobile GmbH and Vauxhall Motors are taken over by the PSA Group

New customers were acquired and several new projects successfully brought to a close. The company did not shy away from any challenge and took on new and even more technically demanding tasks. Small and large quantities were manufactured. We devoted much attention to niche markets, thus making it possible to manufacture windows for excursion ships and nostalgia trains.

A particularly prestigious project was the sophisticated window construction for the Wuppertal suspension railway, with which the municipal utilities organisation entrusted the traditional manufacturer.



### Setting out into tomorrow's markets

With its system solutions, Cleff provides end-to-end systems that set the trend for tomorrow's markets.

For vehicle doors, this means the complete implementation of a complex door system with frame, seals, lock, door and window mechanics.

System solutions for vehicle windows also often require a special handle mechanism. "Everything from a single source" has become a matter of course for the window and door experts at Cleff.





Highly complex door and window systems for all types of vehicles: The design alone poses a challenge here. After all, numerous factors such as safety, pressure-tightness and a permanently reliable mechanical system have to be taken into account.

#### 2021:

... the year is strongly influenced by the COVID-19 pandemic that broke out the previous year +++ The first 3D-printed house made of a clay mixture is completed +++ The first cover picture of the Tintin comic "The Blue Lotus" achieves the record value of 3.2 million euros at an auction +++ The pilot project of the first selfdriving conventional train begins in Hamburg +++ Tesla boss Elon Musk becomes the richest person in the world after Jeff Bezos ...

Now, Cleff does not only stand for modern window solutions, but also increasingly for the development of complex door systems.

Areas have been opened up again, for example Cleff finds new access to the market in the area of ship windows. Current crises promoted innovative projects: in 2020/21, Cleff equipped approx. 4.000 driver workplaces with 100 different self-developed glass driver protection systems. This made public transport buses future-proof and economical in terms of safety and hygiene during the COVID-19 pandemic.



# New projects, new employees and new investments

The Cleff company has prepared itself for the future. With an expansion of the workforce, preparation for upcoming generational changes, and new plants and machines ...

Regular customer satisfaction surveys reveal potential for improvement. But they also show that now more than ever, the Cleff brand embodies customer orientation and reliability.

The focus is on the customer – here, his requirements and wishes are taken care of. And that quickly and without any complications.





As a supplier, Cleff has always established itself in a market niche. Highly specialised solutions in small or large series, well-engineered designs, extensive testing facilities and always customer-oriented, flexible action are keywords of the company's philosophy. Whether it's individual windows for circus trailers, glazing for a cable car or window solutions for a corporation's rail vehicles - Cleff does it.

# **Environmental protection – conservation of resources**

#### 2021:

... launch of the Landsat 9 environ-mental monitoring satellite +++ NOAA reports the largest recorded increase in methane emissions in 2020 +++ A study shows that air pollution is associated with significantly increased mortality even below WHO guideline levels +++ Scientists report that exposure to extreme heat tripled in about 13.000 cities between 1983 and 2016 ...

Innovative LED lighting concepts, energysaving machines, more efficient air purification systems and a 3,145 m<sup>2</sup> photovoltaic system ... These are all measures for the great challenges of the future. In 2022/23, the company developed all roof surfaces for the use of solar energy. Now, almost 1.700 solar modules ensure a CO<sub>2</sub> saving of almost 250.000 kg per year. This can cover the annual electricity consumption of 176 households.



### **Public transport**

The mobility transition is in full swing. Increased environmental awareness and the renunciation from inner-city individual transport are supporting the growth of local public transport, increasing its quality and the size of vehicle fleets on road and rail. Cleff accompanies this trend with its products in the initial equipment and refurbishment of older vehicles.





**The Association of German Transport Companies:** 

"... the VDV member companies transport 20 million passengers in Germany by bus and rail every day, saving 14 million car journeys. In 2020, the VDV companies transported 288 million tonnes of goods in public rail freight transport. That replaces around 67,000 fully loaded trucks on German roads every day. Every year, buses and trains save 10 million tonnes of greenhouse gas emissions …"

# The company today

The company no longer stands only for the development of vehicle windows but also for the development of complex door systems and partition walls. As in window construction, the company has developed further with numerous projects and has made a name for itself in these areas as a recognised system supplier.

The ultra-modern test centre provides an additional range of services. And the extensive range of spare parts in the "Spare Parts Competence Centre" offers interesting prospects for numerous vehicle operators, as it enables the refurbishing of vehicles at the highest level.



# Cleff - a constant partner for the future

Today. Cleff is more than ever focused on the essentials: as a modern company with environmentally-oriented, energyefficient plants and flat hierarchies, it creates customer-oriented solutions. Thinking under the sign of the Cleff rhomb is service-oriented and the modern production guarantees the flexible production of high-quality window and door solutions for a wide variety of vehicles. Cleff offers direct communication, quality, fair prices and reliability.

The brand "Cleff" is well positioned for tomorrow's markets.





Ask the Cleff company for your individual solution for vehicle windows, vehicle doors, partition walls or spare parts:

You will receive competent answers - today just as 88 years ago.

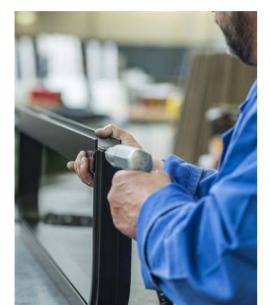
# **Impressions**















# **Products**



### Vehicle doors

















































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