

**LOCTITE**<sup>®</sup>

# Henkel's Solutions for the Elevator Industry



Excellence is our Passion



### Global Leadership

Henkel is the global leader in brands and adhesive technologies with the widest product range sold through an extensive sales and distributor network.

### Cost Savings & Reliability

Our solutions are more cost efficient and create competitive advantages for our customers.

### Value-Added Partnership

Our experienced team of engineers provide the support needed in developing reliable and sustainable solutions.

### Superior Product Performance

Henkel's adhesives, sealants, and surface treatments are recognized as the best performing products in the industry.

### End-User Training

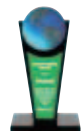
We provide professional training programs to customers enabling them to identify opportunities and improve process efficiency, quality and costs.

**Henkel has the world's leading brands of industrial adhesives & sealants covering the widest scope of applications. Our solutions reduce cost and increase reliability.**

## Sustainability

### Achieving more with less

Our commitment to leadership in sustainability is deeply embedded in our values. With our Sustainability Strategy for 2030, we are building on our strong track record. At the same time, we are aiming to address one of the central future challenges: to decouple growth from resource consumption. At the heart of this strategy is therefore the simple, yet challenging, ambition: to achieve more with less. It aims to create more value for our customers, consumers, communities and the company alike, while simultaneously reducing the impact on our environment.





## The Solution Partner for the Elevator Industry



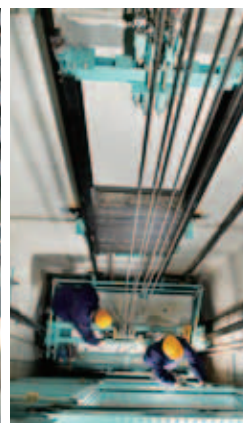
# Henkel products offer reliable and sustainable solutions for the whole elevator life cycle



▶ DESIGN



▶ MANUFACTURING



▶ INSTALLATION



▶ SERVICE

### CUSTOMER BENEFITS

- More efficient elevators through significant weight reduction
- Optimized manufacturing processes
- Innovative and sustainable solutions for safer elevator factories
- Increased reliability, reducing repair time, labor cost and downtime
- Overall cost reduction

Henkel's expertise in the elevator industry helps customers improve their products' performance and achieve cost savings in their manufacturing plants. Henkel's solutions are extensively used in every stage of the elevator life cycle by:

- Allowing ecological, innovative and appealing designs with a broader choice of shapes and materials
- Reducing manufacturing costs and improving workers' health and safety during assembly
- Offering installation alternatives that contribute to a more reliable elevator operation
- Reduces repair time, labor costs and downtime

### HENKEL'S SOLUTIONS

**CARS AND DOORS**  
Assembly and Finishing

**TRACTION DRIVES**  
Construction and Assembly

**METAL STRUCTURES**  
Surface Protection and Rust Prevention

**ELEVATOR SUB-COMPONENTS**

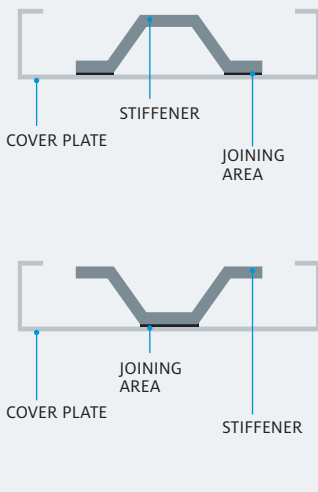
# CARS AND DOORS



## Assembly and Finishing

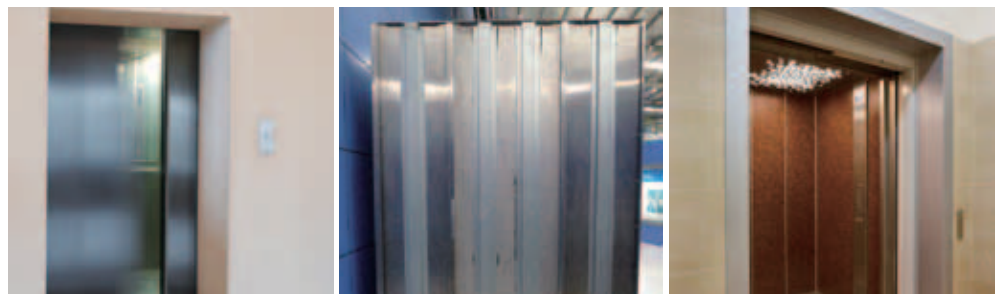
### STIFFENER DESIGN

Example of two typical panel configurations using bonded stiffeners:



Panels used to manufacture cars and doors may have different configurations. Henkel helps elevator manufacturers reduce panel weight, improve elevator performance (strength and sound deadening) and achieve large savings in terms of manufacturing costs when assembling and installing:

- Car / landing doors
- Wall panels
- Interior cladding



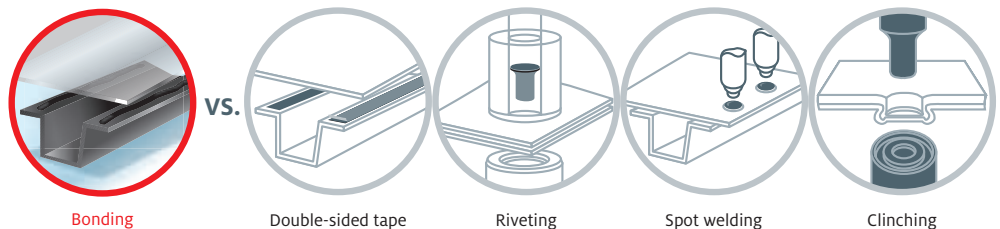
Landing doors

Car side-wall panels

Interior cladding

When manufacturing door and car panels, stiffener bonding offers major advantages over other assembly methods. Additionally, our door and car interior cladding bonding solutions enable customer to minimize production times while absorbing wider part tolerances.

### OUR SOLUTION VS. TRADITIONAL METHODS



### Customer Benefits

- Room temperature, one step process
- Fast fixture while allowing part re-alignment during assembly
- Versatile and compatible with most finishings
- Aesthetic solution — bridges part tolerances while maintaining panel and cladding flatness
- Improved corrosion protection
- Joints bonded and sealed at the same time
- Sound deadening and fire resistant solutions available

# TRACTION DRIVES

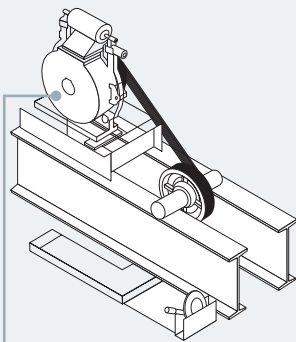


## Construction and Assembly

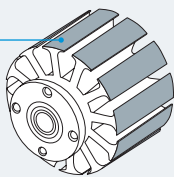
The assembly of geared and gearless traction drives relies on different adhesive techniques to guarantee a robust operation. Threadlockers, gasketing products and retainers are commonly used for this purpose.

However, it's in the motor construction where adhesive play a major role to improve the traction drive performance and significantly reduce assembly times. Often occurring bottlenecks in the assembly of permanent magnets can be overcome by using Henkel's magnet bonders.

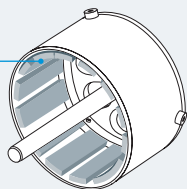
### ELECTRIC MOTOR



Option 1:  
Magnets on  
the rotor



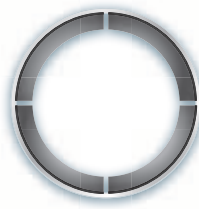
Option 2:  
Magnets on  
the stator



## Magnet Fixation

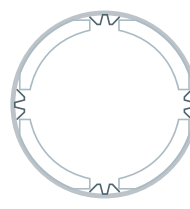
General bonding applications are usually characterized by the use of an adhesive as the only means of structurally joining two parts that have a relatively small gap between them, typically 0.05 mm to 2.5 mm. Henkel's modern magnet bonders offer the best solution to assemble motors. These adhesives meet the highest requirements while enabling process automation and reducing overall costs.

### OUR SOLUTION VS. TRADITIONAL METHODS

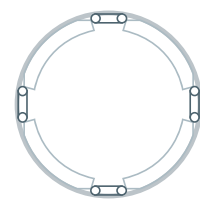


Bonding

VS.



Clips



Spring

## Customer Benefits

- Increased output by using long open time fast curing products\*
- Ultra-fast automated production lines feasible
- Prevents magnet damage (no chipping, corrosion free\*)
- Meets the most demanding customer requirements (e.g. strength, shock resistance, thermal resistance and durability)
- Prevents vibration noise leading to improved motor performance

\* For selected products only; please contact our technical service department for details.

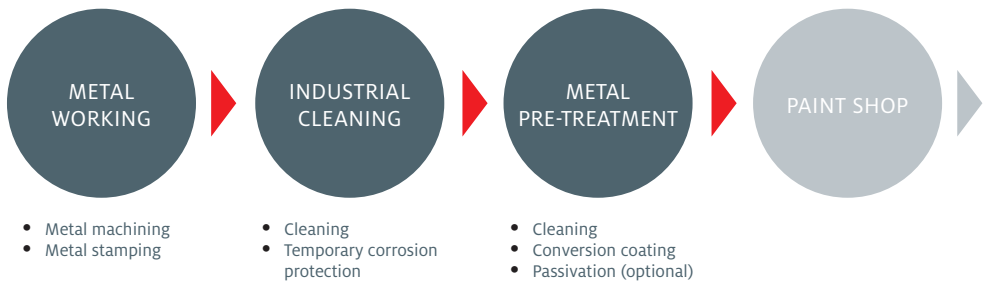
# METAL STRUCTURES



## Surface Protection and Rust Prevention

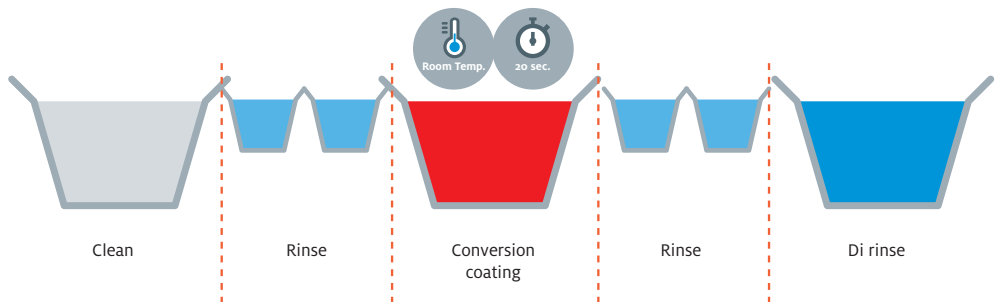
Henkel offers a variety of coatings to provide excellent corrosion protection on metal surfaces. We work in partnership with our customers to improve design, productivity, quality and profitability.

### SURFACE TREATMENT VALUE CHAIN PRIOR TO PAINTING



Pre-treatment of Metal Panels

### MODERN NANOTECH LINE SET-UP VS. TRADITIONAL IRON PHOSPHATING PROCESS



### Customer Benefits

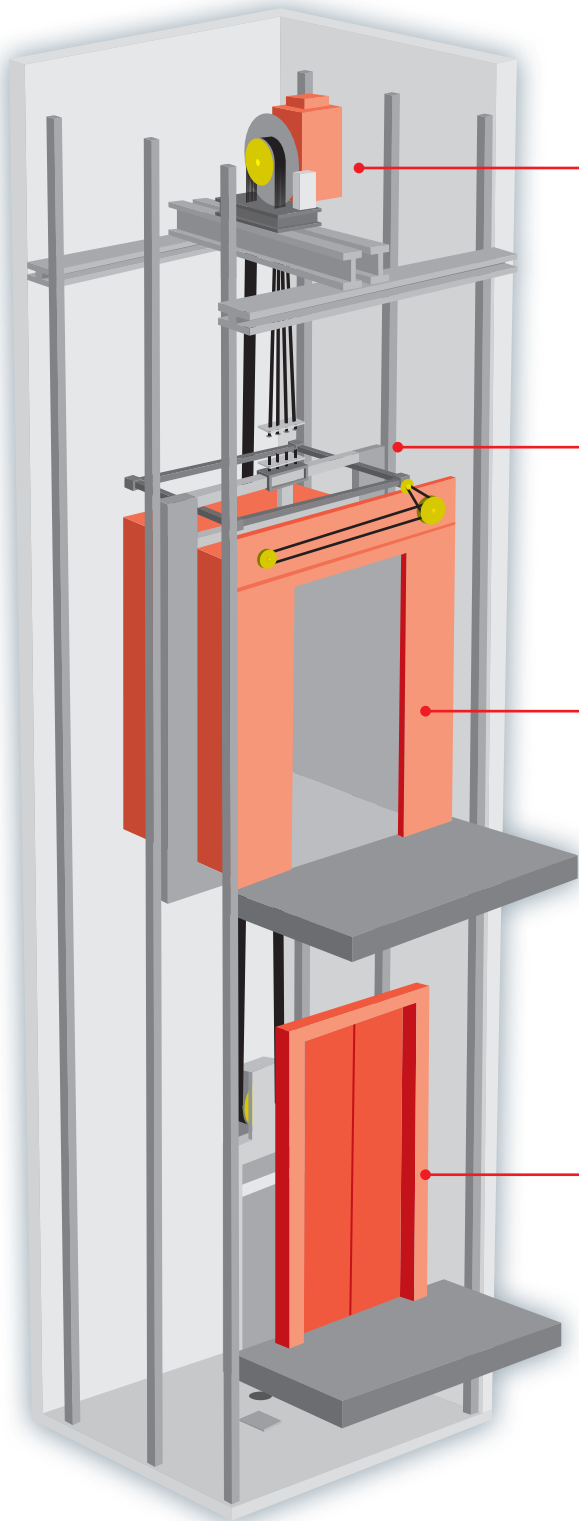
- Improved corrosion protection and paint adhesion at a lower cost
- Contains no organic ingredients, no phosphates and no toxic heavy metals, with zero COD and BOD
- Lower temperature, reduced contact time and one step less, which substantially reduces energy costs
- Major reduction in waste water treatment and water disposal



Painted Components



# APPLICATIONS AT A GLANCE



## TRACTION DRIVES

- Electrical motor construction
- Metal part precision machining
- Bolt loosening prevention
- Gasketing / flange reinforcement
- Shoe / pad brake bonding

## METAL STRUCTURES

- Structure corrosion protection
- Bolt anti-seizing

## CARS AND FRAMES

- Sidewall construction and finishing (cladding)
- Ceiling / roof construction
- Car door construction and finishing
- Window bonding and sealing
- Frame and panel corrosion protection
- Small part bonding
- Floor bonding
- Bolt loosening prevention
- Sound deadening and fire resistant systems

## LANDING DOORS

- Landing door construction and finishing
- Window bonding and sealing
- Bolt loosening prevention
- Small part bonding
- Sound deadening and fire resistant systems

## OTHER APPLICATIONS

### SHAFT COMPONENTS

- Corrosion protection
- Threadlockers and anti-seizes on bolts, studs and nuts
- Retaining of bearings

### ELECTRONICS AND ELECTRICAL CONNECTIONS

- Potting
- Molding control connections
- Bonding and sealing
- Cleaning

### DOOR MECHANISMS

- Anaerobic threadlockers and retainers
- Instant bonding of plastic / rubber parts



The data contained herein are intended as reference only. Please contact Henkel Technical Support Group for assistance and recommendations on specifications for these products.

Contact us at: [www.loctite.com](http://www.loctite.com) or mail us at: [info.marketing@henkel.com](mailto:info.marketing@henkel.com).

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