

# Efficient drive solutions for your container handling

For an industry that moves heavy loads



# Customized drive solutions for your application

## Maximum performance and reliability for port logistics

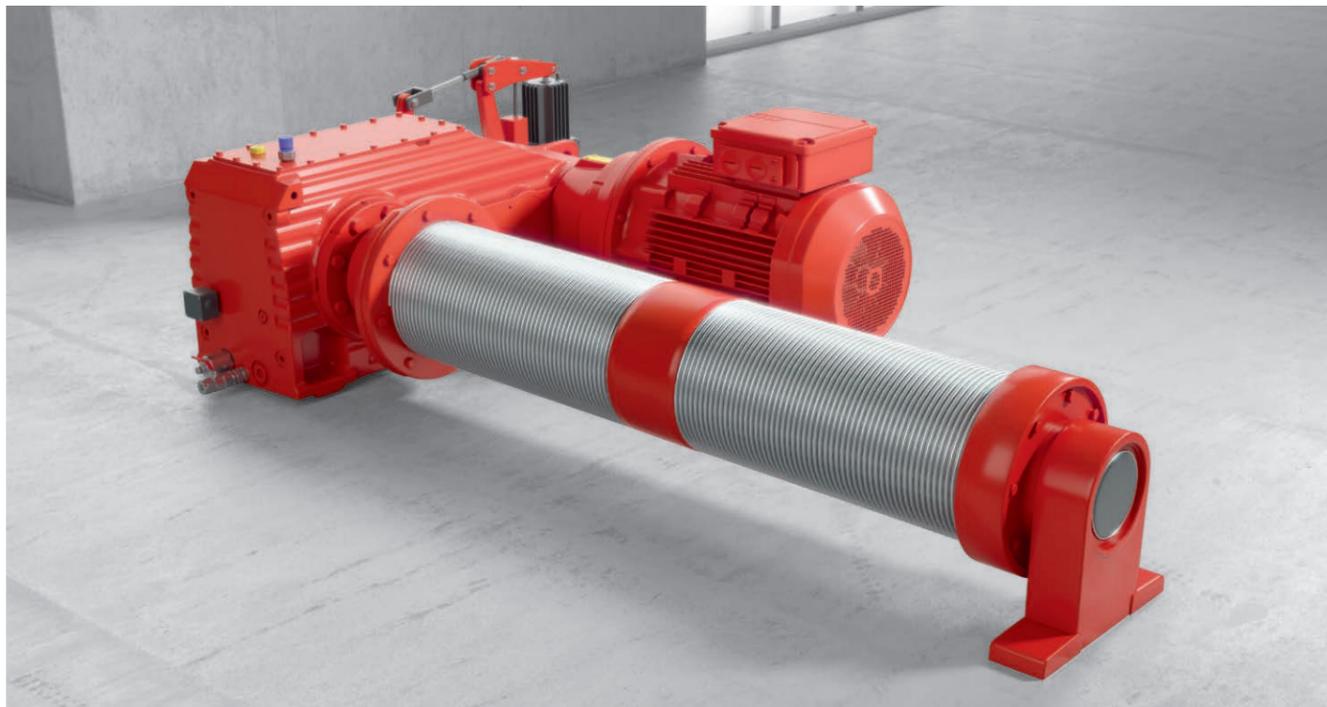
SEW-EURODRIVE drives the industry.

The ports of the world are the gateway to millions of containers. It is complex to have a smooth handling of the loads and that's why it is important an interaction between the different parts involved on the process. SEW-EURODRIVE is the motor in the industry that moves these heavy loads.

Not only because we are one of the market leaders in drive and automation technology, but also because we have been dedicating to develop the best possible concept for our customers for over 90 years.

## We think and act holistically.

- As a family-owned business that takes quality and responsibility seriously.
- As an innovation driver that precedes the company with pioneering ideas and plays a key role in shaping the future of drive technology.
- And no matter what your wishes and requirements are, we are at your side with comprehensive consulting and services.



## We are your reliable partner and always close to you.



55 countries



> 22 000 employees



110 000 active customers



20 Mio. spare parts/month at > 100 locations



525 600 minutes available for you every year



Solutions for many different industries



# Big challenges need great ideas

The era of classic ports is over. In times of change, modern container handling needs future-proof technologies for efficient processes to keep up with the rapid pace.

Dynamics such as changing demographics, rapid technological development and high sustainability requirements have heralded a turning point.

We rethink port management and investments in infrastructure, anticipate trends and prepare ourselves for the requirements of the future with innovative concepts.



## Ecology and sustainability

Time is pressing. The climate is changing, and political pressure is growing. The goal for container handling is to use sustainable energy so that transport in, to and from ports will be CO<sub>2</sub>-free in 2050.

SEW-EURODRIVE knows the requirements. Together with the ports of the world, we are working to minimize the carbon footprint and increase energy efficiency.



## Increasing handling volume

More and more goods are circulating around the world and storage capacities in ports are becoming smaller. We consistently develop and optimize concepts that enable port logistics companies to meet this challenge.

Together, we ensure faster handling of consumer and industrial goods, thereby creating more space on the quay, in the warehouse and on the track.



## Optimization of value creation

Every day, millions of goods are loaded from the overseas ports onto inland waterway vessels, rails and roads. Systematic planning and preparation are essential to ensure that the enormous quantities of transported goods reach their destination safely and completely by rail or truck.

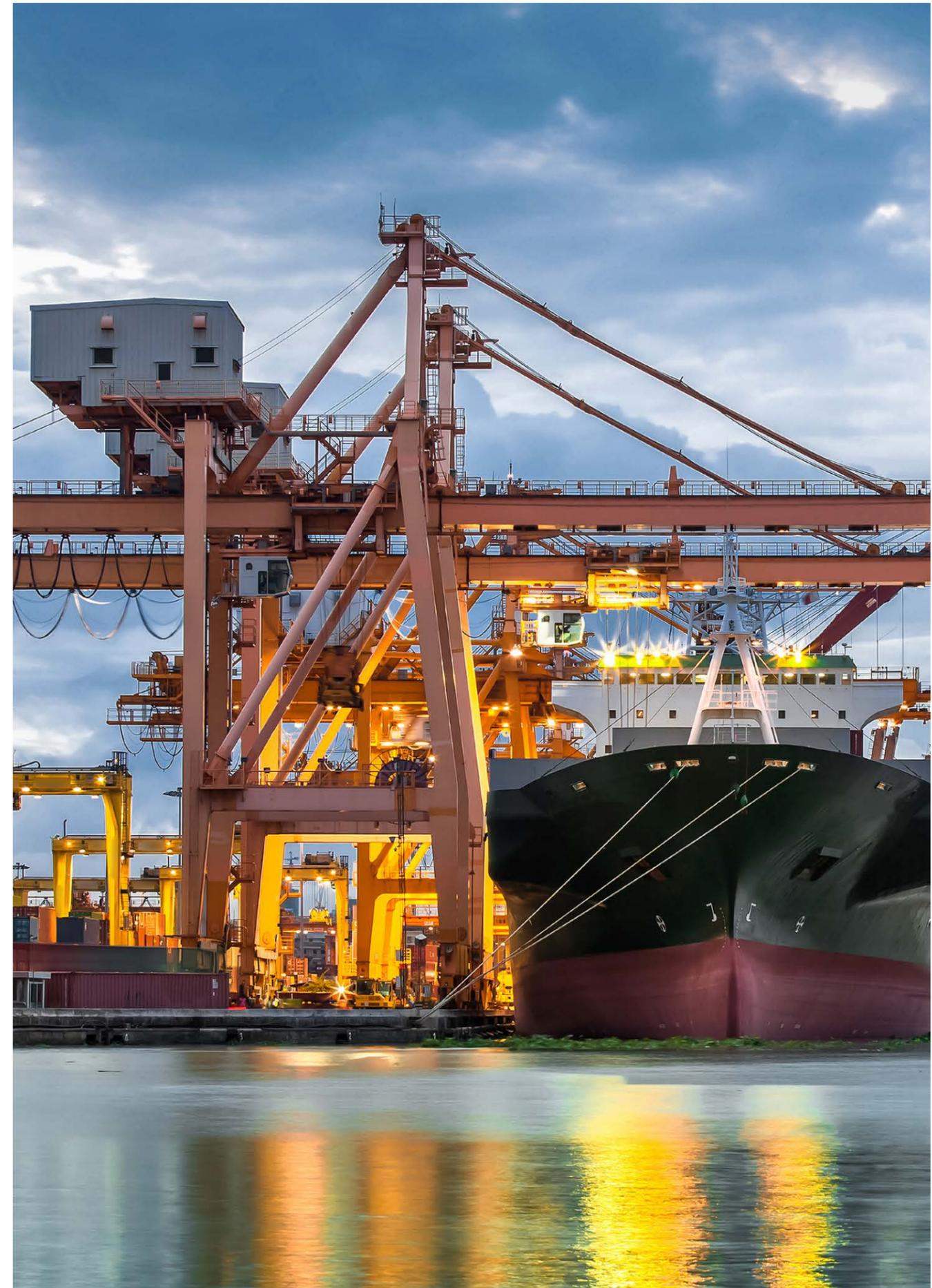
SEW-EURODRIVE is your partner for these high requirements and supports you along the entire value creation chain.



## Digitalization and condition monitoring

Automated processes, supported by smart digital applications, are the innovation driver of modern container handling. Our hardware and software packages, such as DriveRadar® for industrial gear units, are perfectly matched to each other.

Prevent possible system failures by detecting at an early stage.



# The right drive for your container handling

## We are there for you in all areas of a port

From the quay to the rail and the road

Drive technology from SEW-EURODRIVE for the modern processes of today and tomorrow – from gearmotors and industrial gear units to tailor-made solutions – we use our experience to create concepts for efficient, sustainable, future-proof port logistics and container handling.

- 1 Quay area
- 2 Container handling and storage



# Quay area

## STS crane

STS: Ship to shore crane



- 1 Main hoist
- 2 Trolley travel
- 3 Boom hoist
- 4 Gantry travel

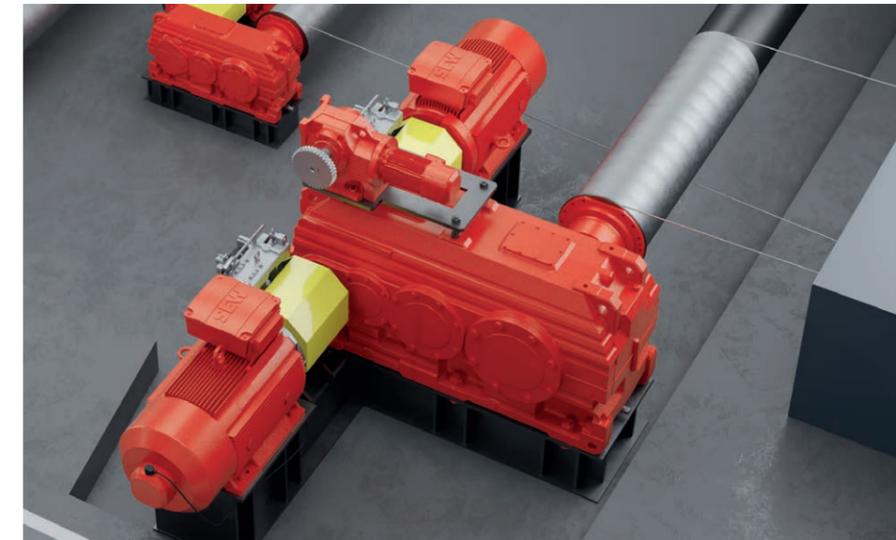
The cranes on the quay area are the interface between the ship and the terminal. They lift the goods or containers from the ship to land or vice versa. There are different crane types depending on the material that needs to be transported: Containers or bulk materials.

No matter which terminal they are located in – whether inland or overseas ports – SEW-EURODRIVE has the right solution for safely and precisely moving cranes and their loads.

### 1 Main hoist

Drive unit consisting of gear unit, motor, coupling, brake and rope drum for lifting and lowering the containers. High safety and reliability requirements apply, as heavy masses are lifted to high altitudes.

The gear units are designed according to the customer's specifications to meet the safety requirements and at the same time to avoid oversizing the gear units.



#### Your requirements

- Safety and reliability
- High torques
- Weight optimization
- Large center distance to avoid collision between drum and motor
- Increased bearing service life and housing strength to absorb high radial loads

#### Our solutions

- **Helical or bevel-helical gear units**  
From our standard modular system for nominal torques up to 2 500 000 Nm
- **Application gear units**  
With increased center distance and weight optimization
- **Customized gear units**  
Especially for every customer requirement
- **Special housing according to load requirements**  
In various materials and designs optimized for customer specific loads and radial forces
- **Gear unit design and calculation**  
Based on the required loads, safety factors and the specified service life
- **Customer specific solutions**  
Such as auxiliary drive, brake bracket, and much more

## STS cranes

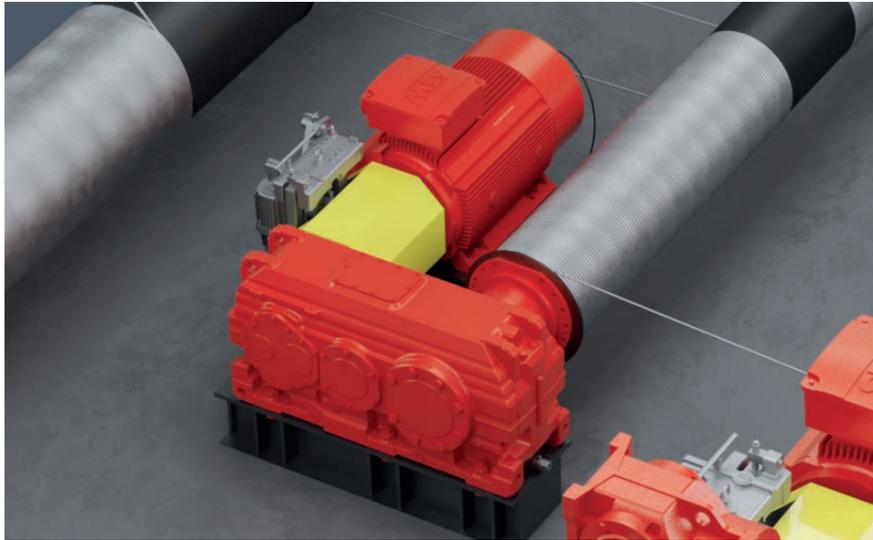
Quay area

### 2 Trolley travel

**The market demands different drive options:** Mounting the drive on the drum or directly on the wheels. SEW-EURODRIVE has the ideal solution for both mounting types.

#### Mounting the drive on the rope drum

The trolley travel units are required for the horizontal movement of the containers. They ensure fast transport of containers from ship to land and from land to ship.



#### Your requirements

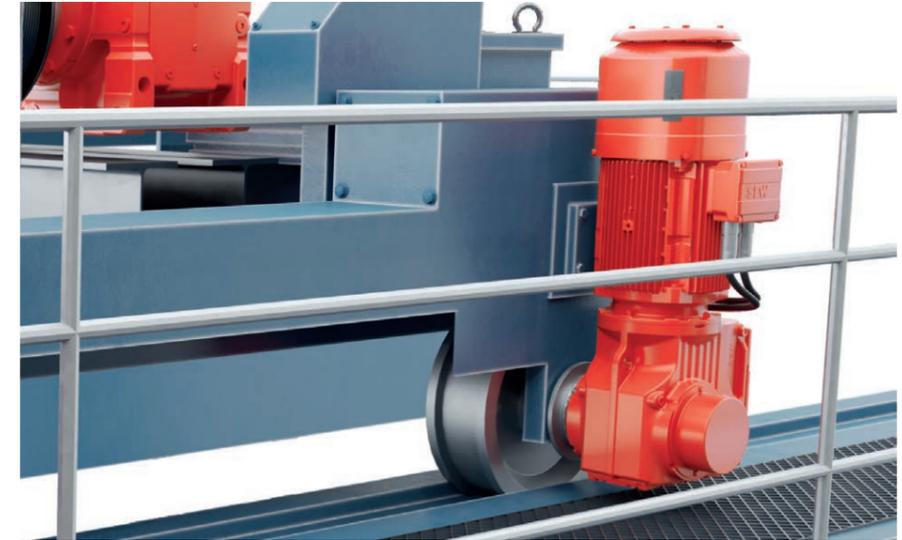
- Safety and reliability
- High torques
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#### Our solutions

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- **Application specific solutions**  
Such as auxiliary drive, brake bracket, and much more

#### Mounting the drive on the wheels

Acceleration, travel, and deceleration are in addition to the highly demanded efficiency and reliability, the main tasks of these drives. Whether mounted on a rope drum, directly on the wheel or using a cardan shaft – we deliver the right drive.



#### Your requirements

- Movement of heavy masses
- Compact, space-saving design
- Weight optimization
- Brake mounting with easy maintenance
- Energy-efficient motors

#### Our solutions

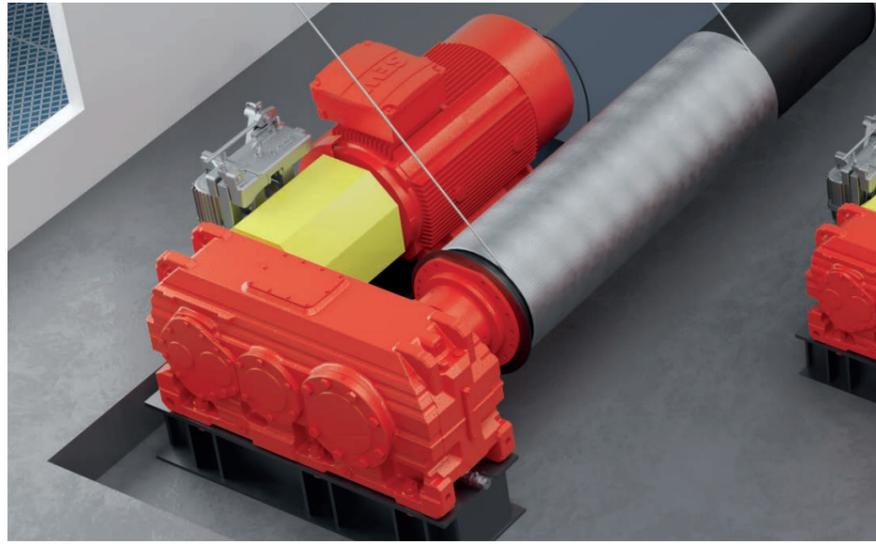
- **Gearmotors**  
With numerous options
- **Helical or bevel-helical gear units**  
From the standard modular system for each nominal torque
- **Combination of gear units, motors and brakes**  
From the standard modular system from SEW-EURODRIVE
- **Separate electromagnetic brake**  
Mounted directly on the motor with wear monitoring and easy maintenance
- **External brake mounting**  
Such as disk brakes
- **SEW-EURODRIVE encoder**  
Or any manufacturer
- **Torque arm**
- **Output shaft with TorqLOC® clamping connection**  
For easy attachment of the drive as an alternative to the classic hollow shaft with keyway, shrink disk or solid shaft
- **Energy-efficient motors**

## STS cranes

Quay area

### 3 Boom hoist

The boom hoist lifts and lowers the boom so that the container ships can be safely and unhindered positioned on the quay. Our drive technology also offers the right solution for this safety-relevant application.



#### Your requirements

- Safety and reliability
- High torques
- Weight optimization
- Large center distance to avoid collision between drum and motor
- Increased bearing service life and housing strength to absorb high radial loads

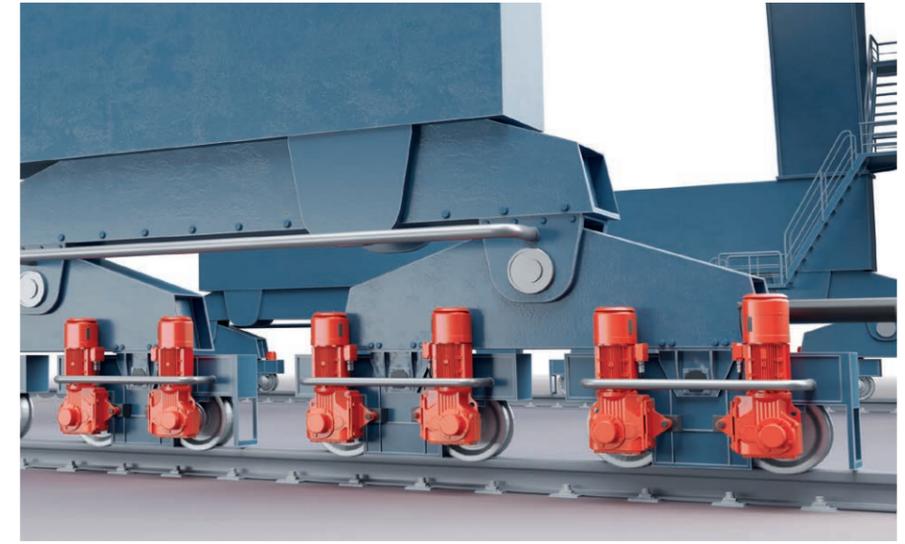
#### Our solutions

- **Helical or bevel-helical gear units**  
From our standard modular system for nominal torques up to 2 500 000 Nm
- **Application gear units**  
With increased center distance and weight optimization
- **Customized gear units**  
Especially for every customer requirement
- **Special housing according to load requirements**  
In various materials and designs optimized for customer- specific loads and radial forces
- **Gear unit design and calculation**  
Based on the required loads, safety factors and the specified service life
- **Application- specific solutions**  
Such as auxiliary drive, brake bracket, and much more

### 4 Gantry travel: Option 1

To move the crane, gentle acceleration and deceleration are required so that it does not vibrate.

We meet this requirement with our gearmotors. Our motor brakes ensure a safe stop during the work process.



#### Your requirements

- Movement of heavy masses
- Compact, space-saving design
- Weight optimization
- Brake mounting with easy maintenance
- Energy-efficient motors

#### Our solutions

- **Gearmotors**  
With numerous options
- **Combination of gear units, motors and brakes**  
From the standard modular system from SEW-EURODRIVE
- **Separate electromagnetic brake**  
Mounted directly on the motor with wear monitoring and easy maintenance
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Such as disk brakes
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Or any manufacturer
- **Torque arm**
- **Output shaft with TorqLOC® clamping connection**  
For easy attachment of the drive as an alternative to the classic hollow shaft with keyway, shrink disk or solid shaft
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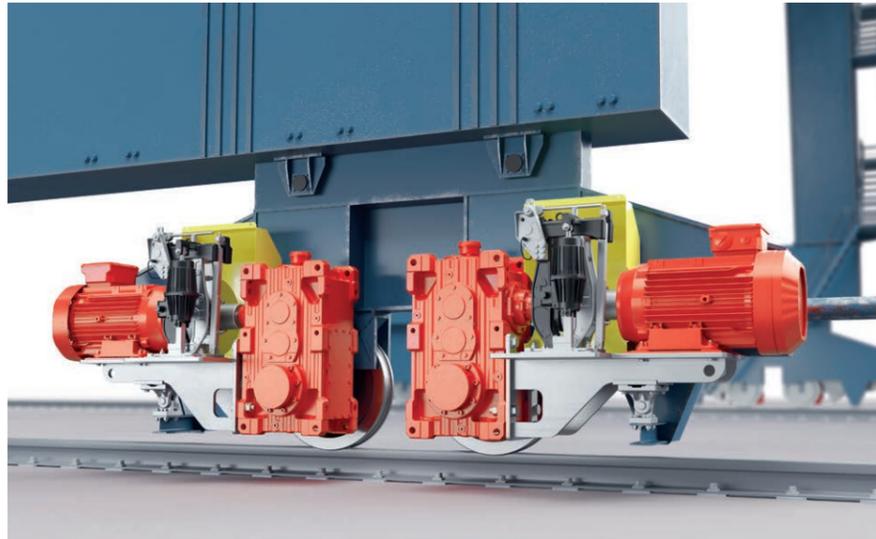
## STS cranes

### Quay area

#### 4 Gantry travel: Option 2

To move the crane, gentle acceleration and deceleration are required so that it does not vibrate.

We meet this requirement with our industrial gears. For flexible brake mounting solutions and other specific customer demands.

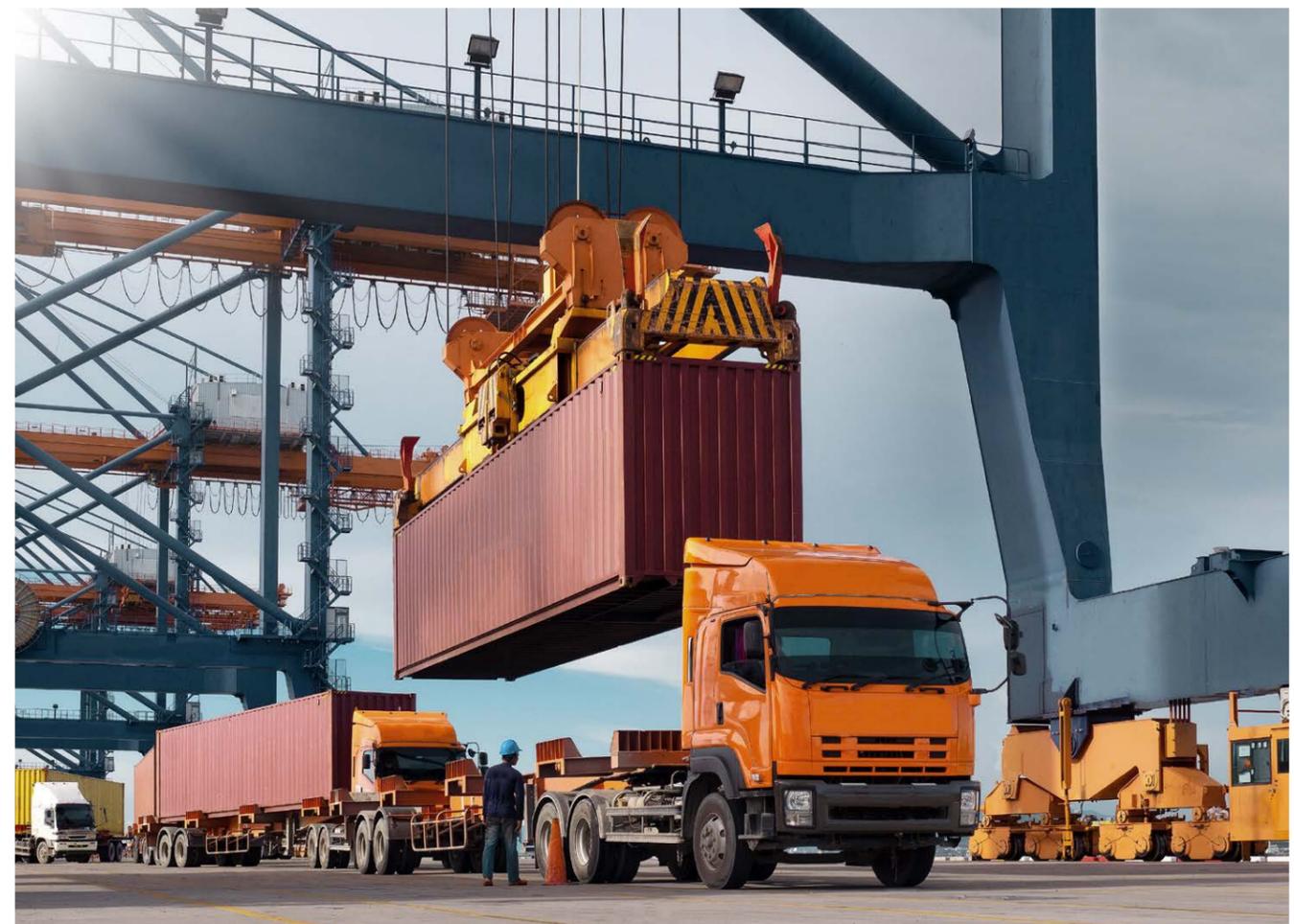
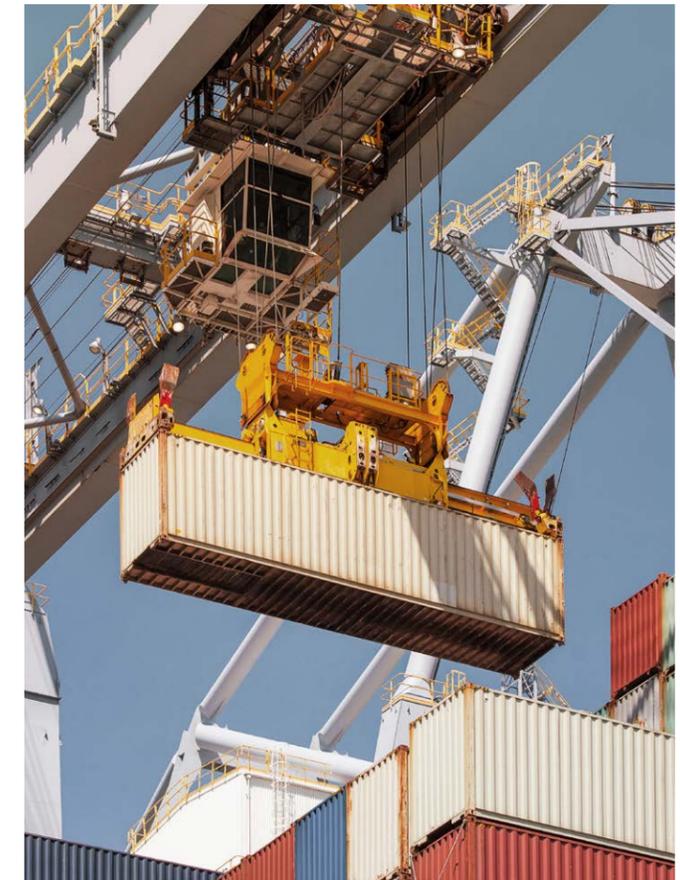


#### Your requirements

- Movement of heavy masses
- Compact, space-saving design
- Weight optimization
- Brake mounting with easy maintenance
- Energy-efficient motors

#### Our solutions

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- **Energy-efficient motors**

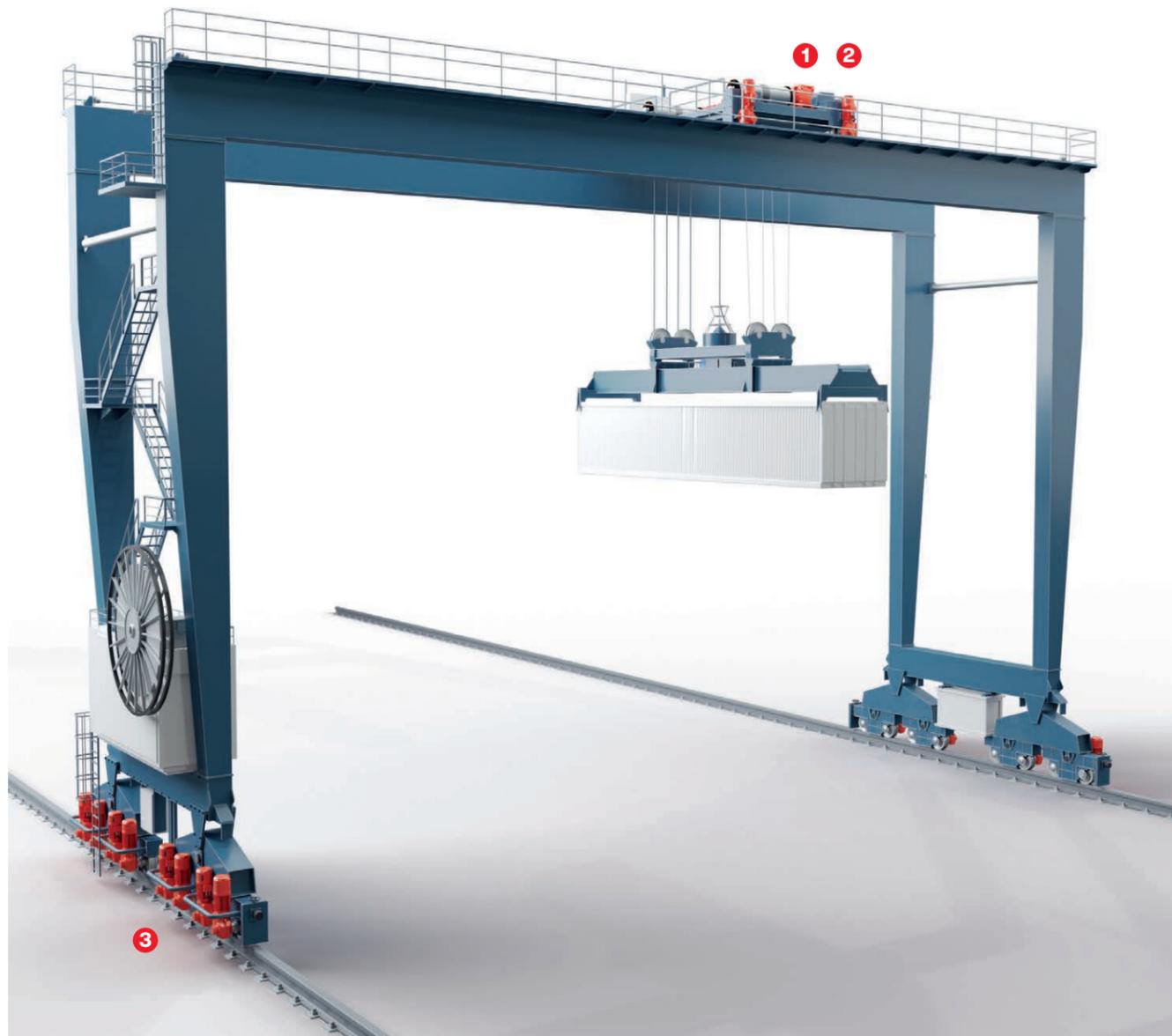


# Container handling and storage

## RMG, ASC, RTG and intermodal crane

- RMG: Rail mounted gantry
- ASC: Automated stacking crane
- RTG: Rubber tyred gantry
- Intermodal crane
- SC: Straddle carrier

- 1 Main hoist
- 2 Trolley travel
- 3 Gantry travel



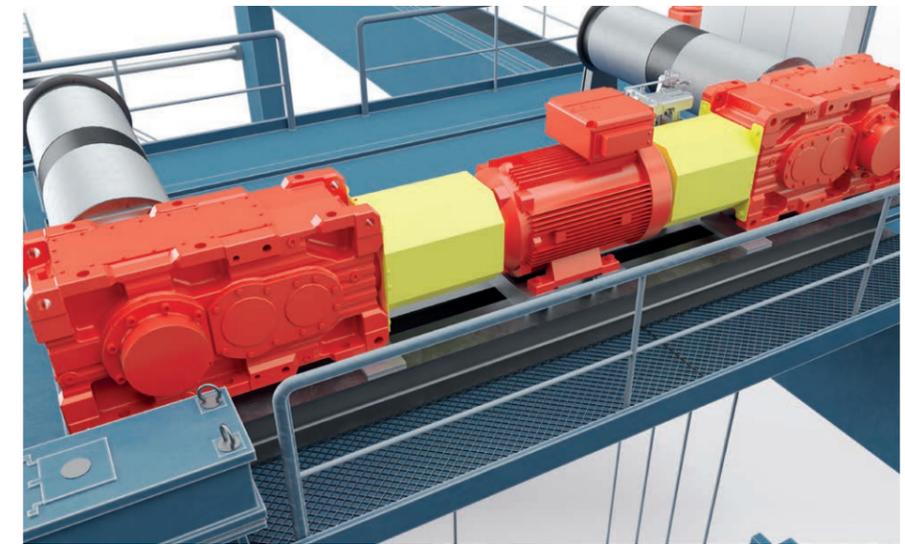
Container handling plays a crucial role in the global trade chain. Careful planning and integration of the technology ensures efficient storage and smooth transportation

With strong and precise drive solutions, SEW-EURODRIVE helps you optimize your logistics system.

### 1 Main hoist

Drive unit consisting of gear unit, motor, coupling, brake and rope drum for lifting and lowering the containers. High safety and reliability requirements apply, as heavy masses are lifted to high altitudes.

The gear units are designed according to the customer's specifications to meet the safety requirements and at the same time to avoid oversizing the gear units.



#### Your requirements

- Safety and reliability
- High torques
- Weight optimization
- Large center distance to avoid collision between drum and motor
- Increased bearing service life and housing strength to absorb high radial loads

#### Our solutions

- **Helical or bevel-helical gear units**  
From our standard modular system for nominal torques up to 2 500 000 Nm
- **Application gear units**  
With increased center distance and weight optimization
- **Customized gear units**  
Especially for every customer requirement
- **Special housing according to load requirements**  
In various materials and designs optimized for customer-specific loads and radial forces
- **Gear unit design and calculation**  
Based on the required loads, safety factors and the specified service life
- **Customer-specific solutions**  
Such as auxiliary drive, brake bracket, and much more

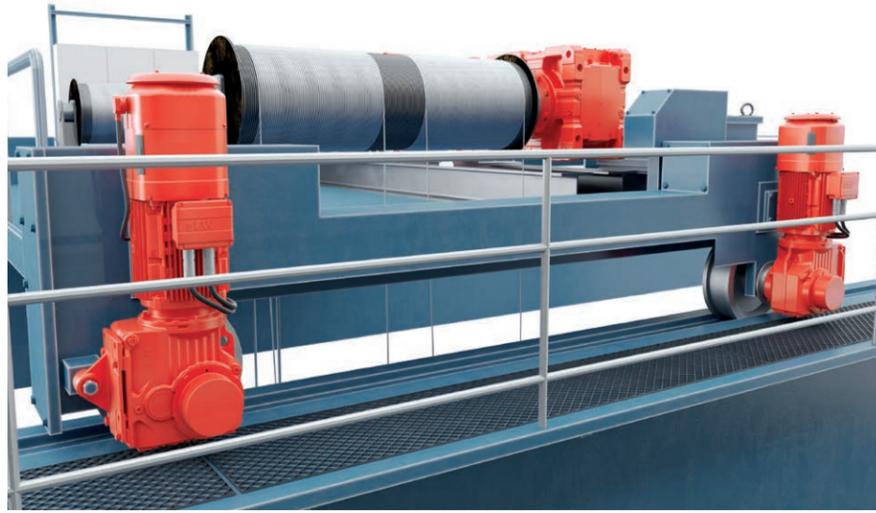
## RMG, ASC, RTG and intermodal crane

### Container handling and storage

#### 2 Trolley travel

The trolley travel units are required for the horizontal movement of the containers. They ensure fast transport of containers from ship to land and from land to ship.

Acceleration, travel and deceleration are in addition to the highly demanded efficiency and reliability, the main tasks of these drives. Whether mounted on a rope drum, directly on the wheel or using a cardan shaft – we deliver the right drive.



#### Your requirements

- Movement of heavy masses
- Compact, space-saving design
- Weight optimization
- Brake mounting with easy maintenance
- Energy-efficient motors

#### Our solutions

- **Gearmotors**  
With numerous options
- **Helical or bevel-helical gear units**  
From the standard modular system for each nominal torque
- **Combination of gear units, motors and brakes**  
From the standard modular system from SEW-EURODRIVE
- **Separate electromagnetic brake**  
Mounted directly on the motor with wear monitoring and easy maintenance
- **External brake mounting**  
Such as disk brakes
- **SEW-EURODRIVE encoder**  
Or any manufacturer
- **Torque arm**
- **Output shaft with TorqLOC® clamping connection**  
For easy attachment of the drive as an alternative to the classic hollow shaft with keyway, shrink disk or solid shaft
- **Energy-efficient motors**

#### 3 Gantry travel: Option 1

To move the crane, gentle acceleration and deceleration are required so that it does not vibrate.

We meet this requirement with our gearmotors. Our motor brakes ensure a safe stop during the work process.



#### Your requirements

- Movement of heavy masses
- Compact, space-saving design
- Weight optimization
- Brake mounting with easy maintenance
- Energy-efficient motors

#### Our solutions

- **Gearmotors**  
With numerous options
- **Combination of gear units, motors and brakes**  
From the standard modular system from SEW-EURODRIVE
- **Separate electromagnetic brake**  
Mounted directly on the motor with wear monitoring and easy maintenance
- **External brake mounting**  
Such as disk brakes
- **SEW-EURODRIVE encoder**  
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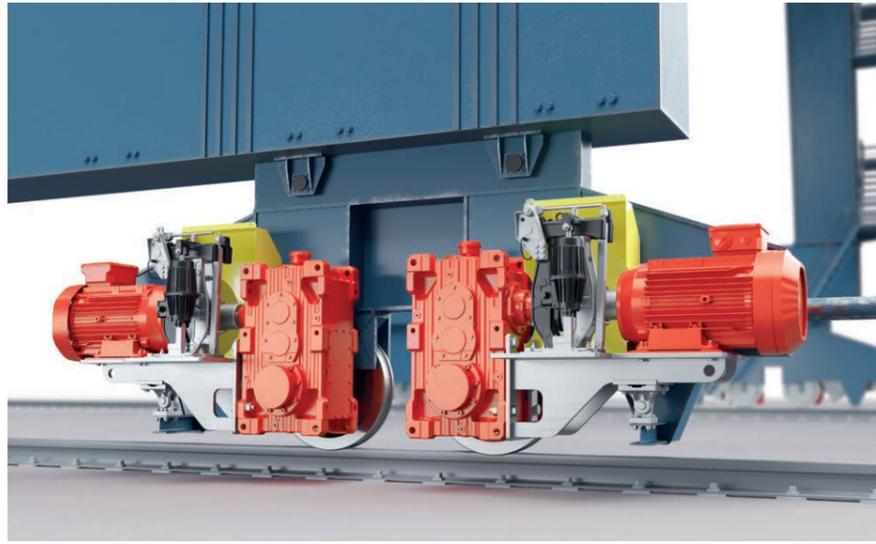
## RMG, ASC, RTG and intermodal crane

Container handling and storage

### 3 Gantry travel: Option 2

To move the crane, gentle acceleration and deceleration are required so that it does not vibrate.

We meet this requirement with our industrial gears. For flexible brake mounting solutions and other specific customer demands.

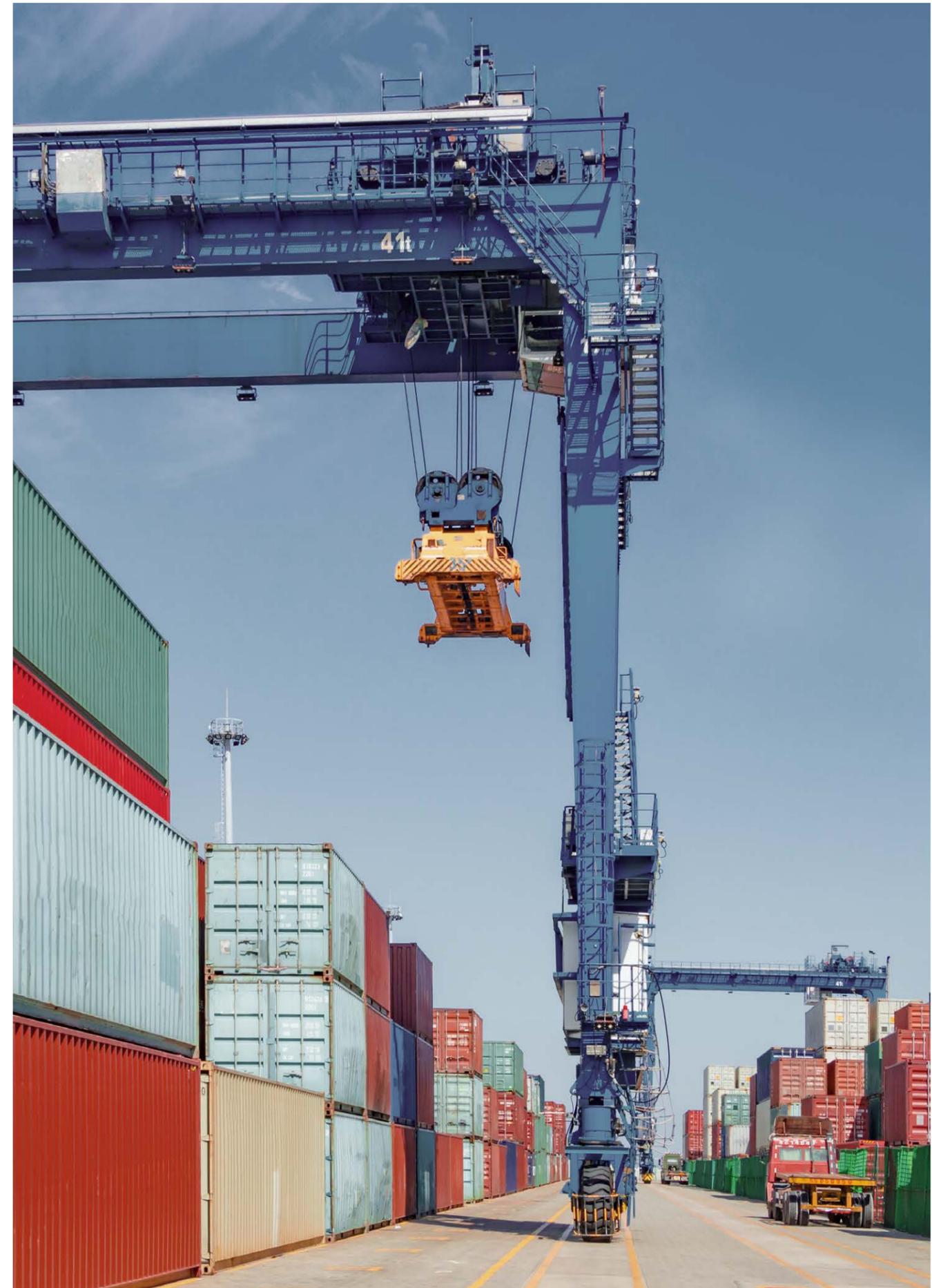


#### Your requirements

- Movement of heavy masses
- Compact, space-saving design
- Weight optimization
- Brake mounting with easy maintenance
- Energy-efficient motors

#### Our solutions

- **Helical or bevel-helical gear units**  
From the standard modular system for each nominal torque
- **Combination of gear units, motors and brakes**  
From the standard modular system from SEW-EURODRIVE
- **Separate electromagnetic brake**  
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## Straddle Carrier

Container handling and storage



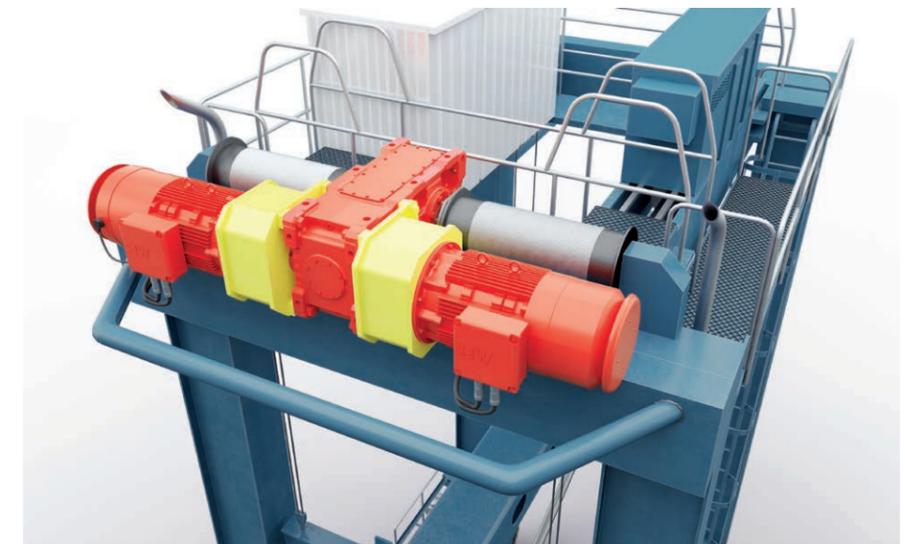
To move a container in different areas of a port, the straddle carriers are often used. They first position their long structure above the container. When this is done, the spreader locks and lift the container.

SEW-EURODRIVE has the right concept for making straddle carrier container handling reliable and efficient.

### 1 Main hoist

Drive unit consisting of gear unit, motor, coupling, brake and rope drum for lifting and lowering the containers. High safety and reliability requirements apply, as heavy masses are lifted to high altitudes.

The gear units are designed according to the customer's specifications to meet the safety requirements and at the same time to avoid oversizing the gear units.



#### Your requirements

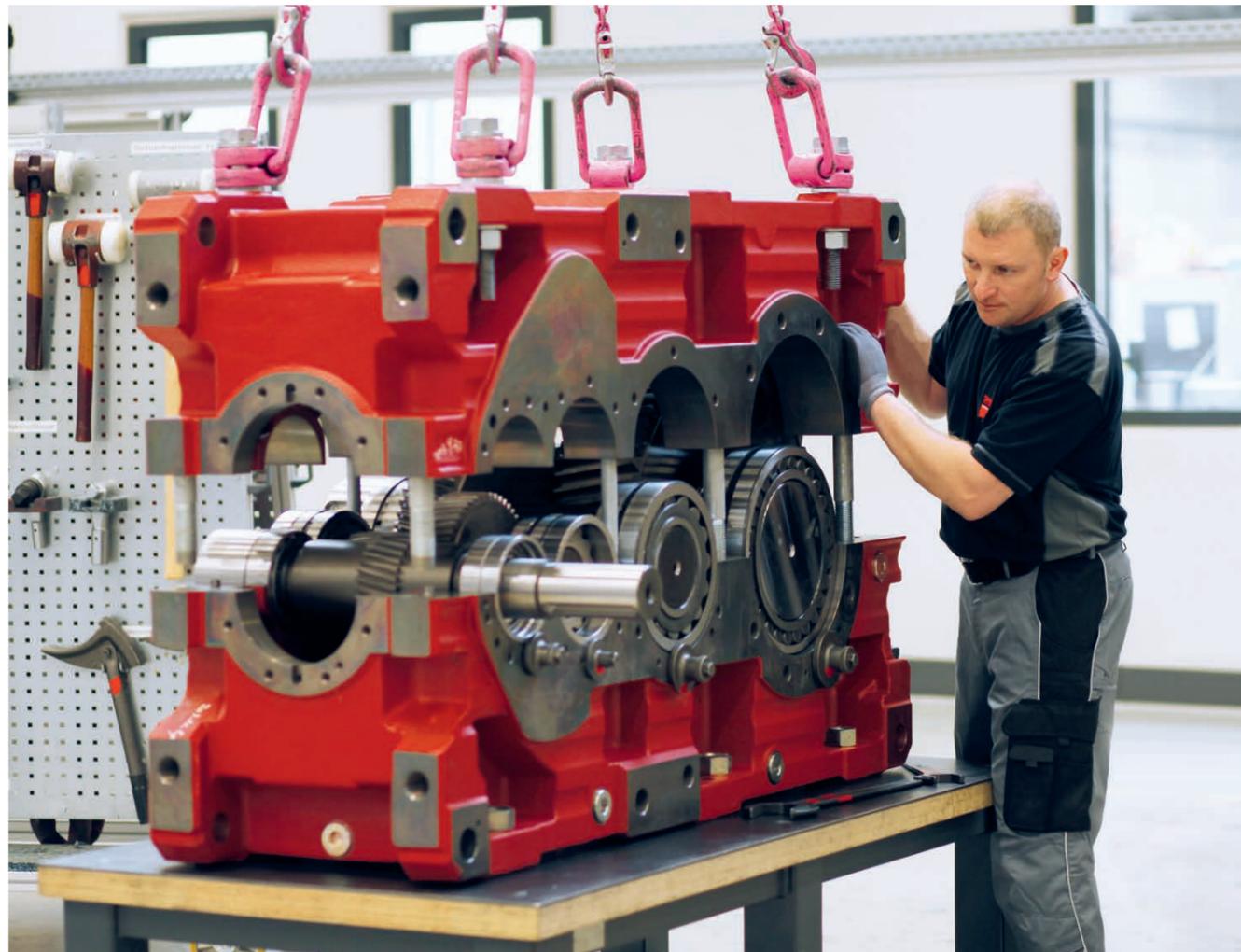
- Safety and reliability
- High torques
- Weight optimization
- Large center distance to avoid collision between drum and motor
- Increased bearing service life and housing strength to absorb high radial loads

#### Our solutions

- **Helical or bevel-helical gear units**  
From our standard modular system for nominal torques up to 2 500 000 Nm
- **Application gear units**  
With increased center distance and weight optimization
- **Customized gear units**  
Individually according to customer requirements
- **Special housing according to load requirements**  
Optimized in various materials and designs for customer-specific loads and radial forces
- **Gear unit design and calculation**  
Based on the required loads, safety factors and service life

# Services for Industrial gear units at a glance

From initial consultation to maintenance and modernization of your machines and systems: We support you with the appropriate services and tools.

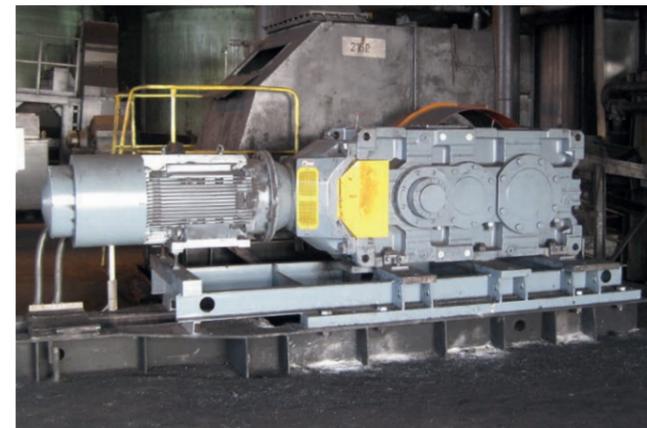


## Industrial gear units to go delivery time program

The scope of this service includes extremely short delivery times for both standard drives and drive packages with special options.

## Retrofit

If you would like to modernize your systems, we can provide customized solutions that will meet your requirements in terms of installation space, energy efficiency, and maintainability.



Retrofit: A practical example

## Repair

With our repair service, we offer various services, such as emergency repair, function repair and new-value repair with a long liability. This also applies to products from other manufacturers. And if it has to go fast: Order a repair by rush order or our on-site repair.

## In-house lubricant

The high-quality GearOil by SEW-EURODRIVE ensures optimum lubrication for your machines and systems in order to extend their service life.



GearOil by SEW-EURODRIVE

# For the entire system life cycle

## Smart operation with our Life Cycle Services

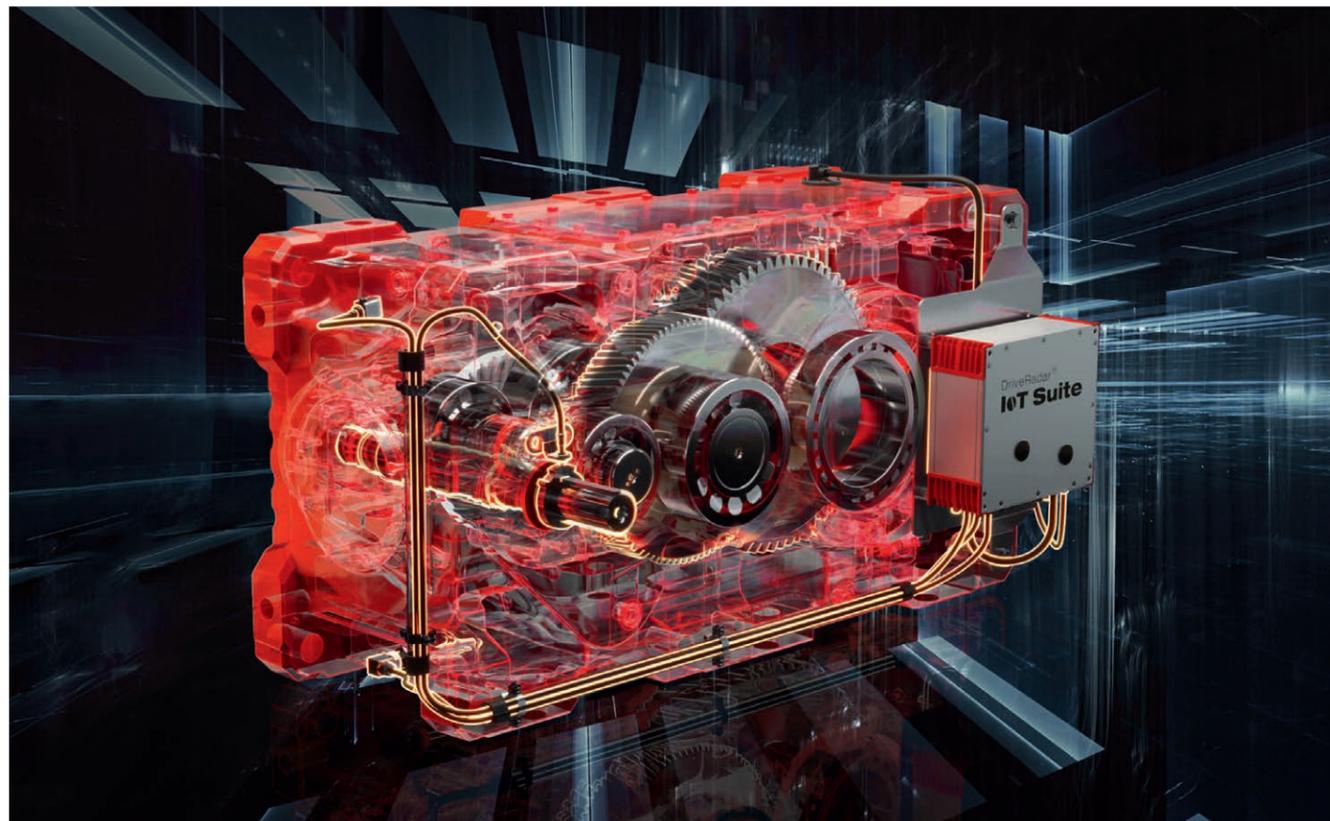
Starting with initial consultation and ending with the maintenance and modernization of your machines and systems. We would like to support you whenever you need. With the right services and tools.

**As a good partner, this is an important matter for us – even if everything is running smoothly.**

## Condition monitoring and predictive maintenance for industrial gear units

As a competent and reliable partner, SEW-EURODRIVE supports you with its innovative concept DriveRadar® IoT Suite. This makes it possible to reliably predict the

behavior of drives, plan maintenance and repair measures in advance, thereby avoiding unplanned downtime.



## Endoscopy

The scope of this service includes all services from the endoscopic inspection (e.g. gearing parts and rolling bearings) via visual inspection (e.g. oil leaks) up to the creation of a service report. We also provide documentation of any required recommendations for action, which we will be happy to support you in implementing.



## Thermography

The scope of this service includes identification, thermal testing and diagnosis of surface temperature abnormalities. A service report with recommendations for action is also created.



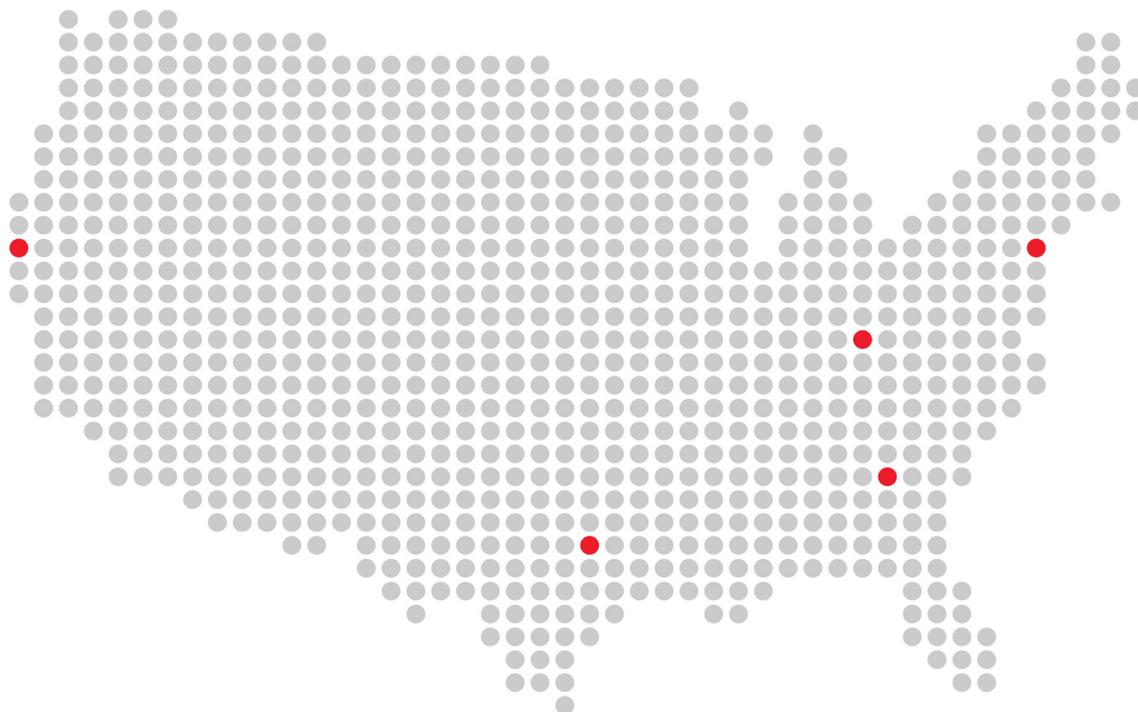
## Vibration analysis

The scope of this service includes all services, from inspecting the drive technology component (e.g. for external damage), performing the vibration measurement, to preparing a service report.



## Oil analysis

Identify by checking the oil regularly you can avoid hidden gear unit damage at an early stage. This means sudden failure of the gear unit and standstill of your system. You can also perform maintenance and plan oil change intervals depending on the condition.



## U.S. locations

### U.S. Headquarters/Southeast Region

SEW-EURODRIVE, Inc.  
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Wellford, SC 29385  
P: (864) 439-7537  
cslyman@seweurodrive.com

### Southwest Region

SEW-EURODRIVE, Inc.  
202 W. Daniieldale Rd.  
DeSoto, TX 75115  
P: (214) 330-4824  
csdallas@seweurodrive.com

### Western Region

SEW-EURODRIVE, Inc.  
30599 San Antonio St.  
Hayward, CA 94544  
P: (510) 487-3560  
cshayward@seweurodrive.com

### Midwest Region

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P: (937) 335-0036  
cstroy@seweurodrive.com

### Northeast Region

SEW-EURODRIVE, Inc.  
2107 High Hill Rd.  
Bridgeport, NJ 08014  
P: (856) 467-2277  
csbridgeport@seweurodrive.com

### Large Industrial Gears

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igssorders@seweurodrive.com