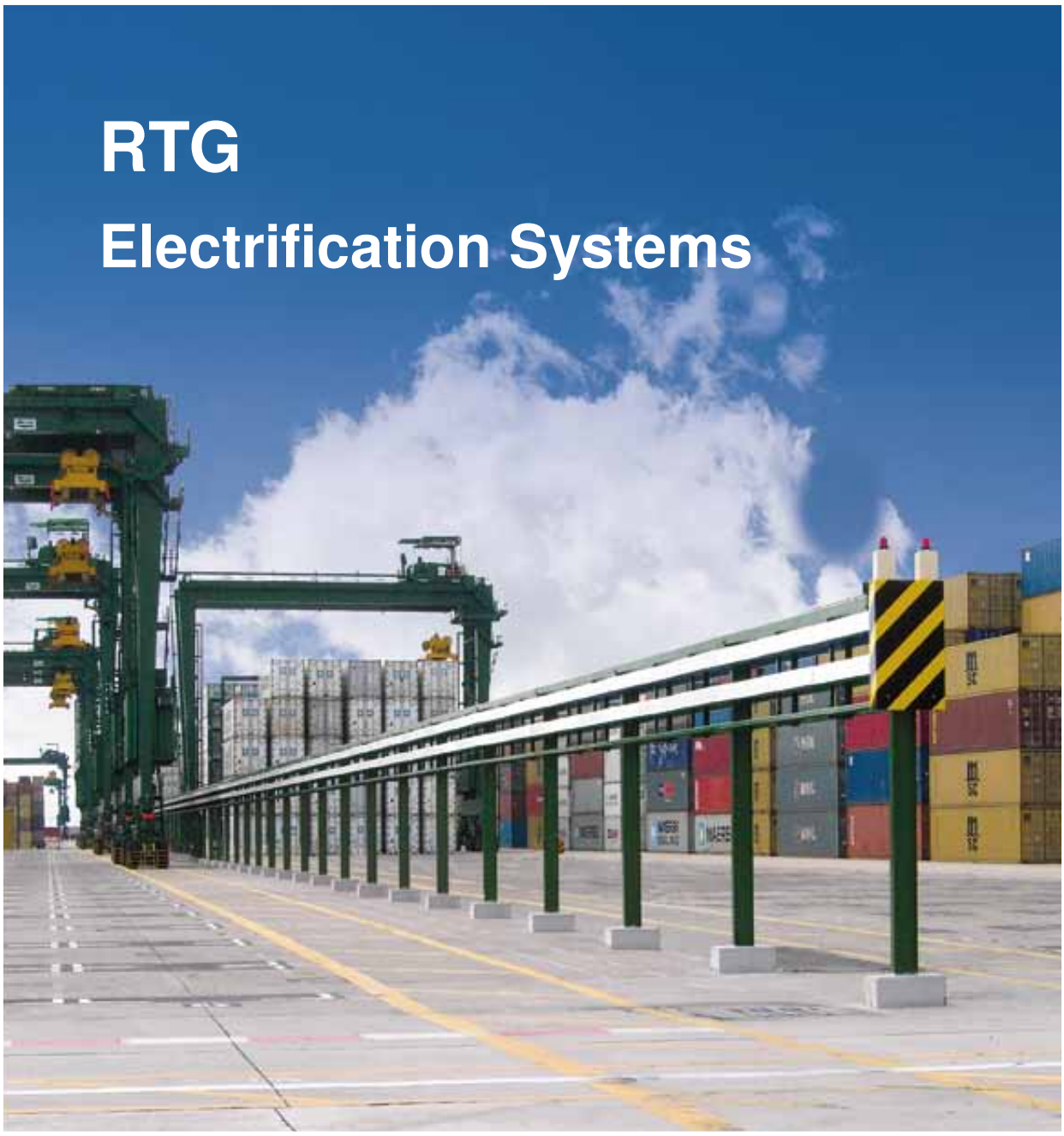
STEMMANN-TECHNIK

Fandstan Electric Group

RTG

Electrification Systems



STEMMANN APPLICATIONS

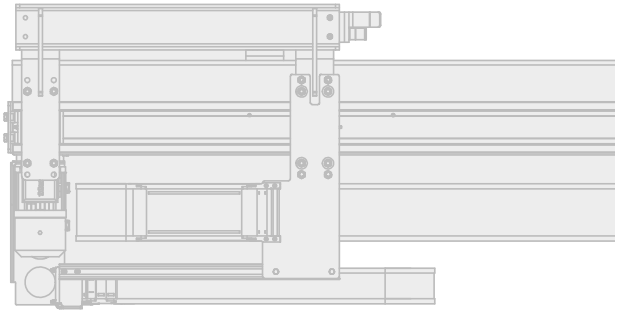
ENGLISCH

Electrification of Rubber Tyred Gantry Cranes

Due to constantly rising fuel prices, the time needed to refuel the crane, increased maintenance costs for the diesel-electric drives, the resulting standstill periods and increasing environmental obligations crane manufacturers and port operators are rethinking the power supply for RTGs.

The aim is to produce as little as possible of the power RTGs need for normal in-port operation with the combustion engine and for it to only be used when the crane has to leave its normal working area. The diesel-electric drive therefore needs to be replaced with flexible power transmission.

We offer effective systems for bringing electrical power to your RTG.



DRIVE-IN / DRIVE-OUT SYSTEM

The drive in/out system supplies the RTG with electrical energy via a telescopic pantograph in conjunction with a conductor line system. The conductor line is fastened on a steel rail structure parallel to the traveling track of the RTG.

If the RTG operator wants to change the block/lane or the whole yard he can disconnect the energy transmission automatically at both ends of the block in the drive in/out area. The drive in/out process is controlled via a touch panel in the operator cabin.

SYSTEM ADVANTAGES

- Ergonomic connection and disconnection to the conductor line via touch panel in the operator cabin
- Operation of many RTGs in one bay is possible
- No ground personnel needed

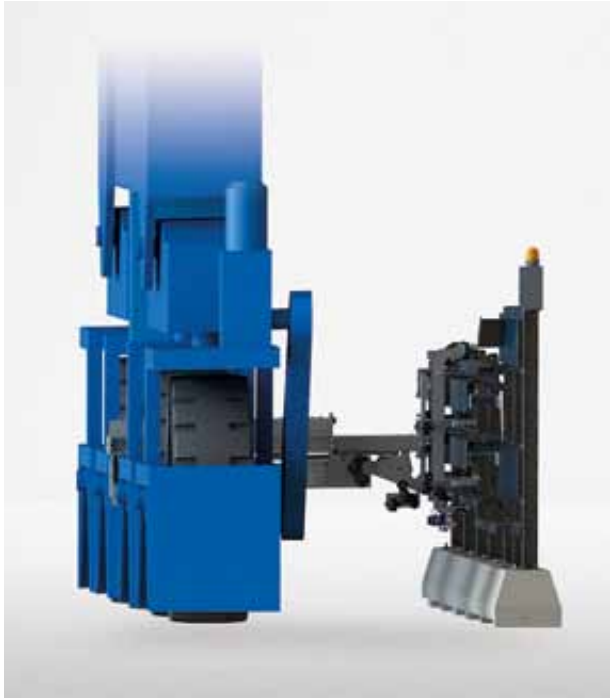
EXEMPLARY NEEDED EQUIPMENT

FIXED SIDE

- Substation and control cabinet
- Steel structure with conductor bar
- Flash light to show that the system is live

MOBILE SIDE (RTG)

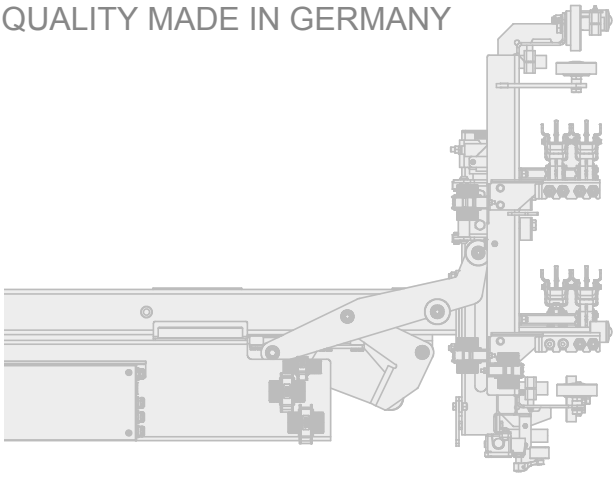
- Telescopic pantograph
- Control cabinet with PLC and transfer switch
- Touch panel in the cabin
- Safety system like auto steering or gantry end of block warning



Drive-In / Drive-Out system

RTG Electrification Systems

QUALITY MADE IN GERMANY



ECONOMIC ADVANTAGES

- Tremendous savings in diesel
- Reduced maintenance and operating costs
- Cost and time savings through reduction in fuelling stops
- Investment with a high profit
- Fast amortisation

ECOLOGICAL ADVANTAGES

- Reduced CO^2 emission
- Less exhaust gas pollution
- Low-noise operation

PLUG-IN / PLUG-OUT SYSTEM

As a solution for ports with low lane / block changes per day we offer the plug and socket connection for RTGs. This plug in / out system also uses a steel structure with a conductor line parallel to the traveling track from the RTG in the block.

The steel structure rail is equipped with current collector trolleys which stay at the ends in the steel structure after disconnection of the RTG.

SYSTEM ADVANTAGES

- Easy retrofit, with low modifications on the RTG
- For ports with a low quantity of block- and yard changes per day
- Operation of many RTGs in one bay possible

EXEMPLARY NEEDED EQUIPMENT

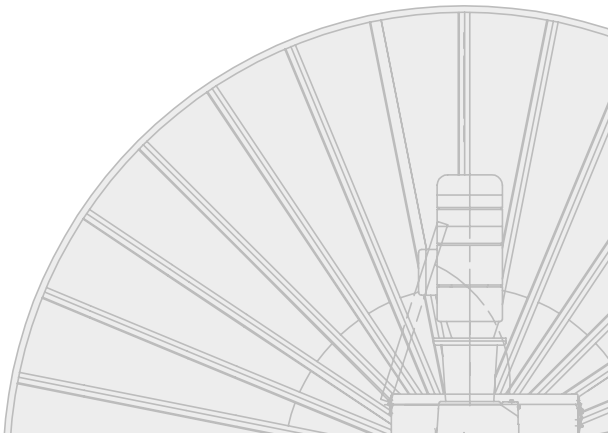
FIXED SIDE

- Substation and control cabinet
- Steel structure with conductor bar
- Flash light to show that the system is live

MOBILE SIDE (RTG)

- Current collector trolleys
- Control cabinet with PLC and transfer switch
- Socket on one or both sides of the RTG
- Safety system like auto steering or gantry end of block warning

Plug-In / Plug-Out system in RTG operation



Retrofit

We supply all the required modification works for your port.

MODIFICATION WORKS

- Civil works
- Steel works
- Modification of the RTG
- Commissioning
- Training
- Service

CABLE REEL SYSTEM

Our cable reels are used on many STS-Cranes and RMGs all over the world. For the RTG electrification we offer cable reels as a fixed version to use the RTG as an RMG or a plug and socket connection for an additional disconnection. Our cable reel system offers a good solution for ports with low space between the blocks or bad foundations.

The cable reel is installed on a steel support above the E-room or the diesel generator at the RTG. The cable can be layed in a safety cable channel or directly on the ground.

SYSTEM ADVANTAGES

- Our plug and socket system offers a good solution for ports with a low quantity of block changes per day
- The generator can optionally be removed by using our fixed cable reel system

EXEMPLARY NEEDED EQUIPMENT

FIXED SIDE

- Control cabinet with socket
- Tension reel on one or both ends

MOBILE SIDE (RTG)

- Cable reel with cable and diverting unit
- Control cabinet with PLC and transfer switch (only by plug and socket connection)
- Substation
- Safety system like auto steering
- Additional steel support for the cable reel & substation

Motor cable reel in RTG operation

From Planning to Production, All under One Roof

Corporate headquarters and manufacturing facility in Schüttorf, Germany

STEMMANN-TECHNIK is one of the world's leading manufacturers of energy and data transfer components and systems in industrial and transport technology.

Drawing on our 100 years of engineering and practical research, we manufacture high quality products required all over the world, and create special, innovative, customised solutions.

A fundamental key to success is our understanding of high quality in all areas of the company, ranging from customer-oriented advice to long-term service.

The quality of the STEMMANN-TECHNIK products and services is aimed at fulfilling our customers' requests, needs and expectations.

Every project and application is designed down to the finest detail, taking into account performance-related and economic aspects.

We guarantee high quality by upholding international standards and guidelines.

The quality management system is implemented based on standardised methods in conjunction with flexible structures for modelling and documenting all production and business processes.

QUALITY MADE IN GERMANY

INDUSTRIAL PRODUCTS · INDUSTRIEPRODUKTE

CABLE FESTOON SYSTEMS
LEITUNGSWAGEN-SYSTEME

CABLE REELS
LEITUNGSTROMMELN

SLIP RING ASSEMBLIES
SCHLEIFRINGÜBERTRAGER

CONDUCTOR LINES
SCHLEIFLEITUNGEN

RAILWAY PRODUCTS · BAHNPRODUKTE

ROOF-MOUNTED PANTOGRAPHS
DACHSTROMABNEHMER

THIRD RAIL SHOEGEARS
DRITTE-SCHIENE-STROMABNEHMER

frost® GROUND CONTACTS
frost® ERDUNGSKONTAKTE

STINGER SYSTEMS
STINGER-SYSTEME

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