



EMERSON[™]
Industrial Automation

Control Techniques RIS.GA. System

Fuel saving for
Rubber Tyre Gantry (RTG) cranes
and Mobile Harbour Cranes (MHC)



**CONTROL
TECHNIQUES**

www.controltechniques.com

Reduce fuel consumption, save money

With today's oil prices, maximising fuel efficiency is more important than ever. Control Techniques offers an innovative solution to reduce consumption. RIS.GA. is a compact low cost fuel saving system that can be easily installed on new or existing RTG and MHC diesel electric cranes. It reduces the speed of the diesel generator during the crane's stand-by mode and typically reduces total fuel consumption by 20%.

Diesel generators onboard RTG cranes usually run at a constant speed to supply the drive system and auxiliaries regardless of whether the crane is in operation or in stand-by mode. This means that during stand-by the system is highly inefficient as it consumes excessive fuel while producing minimal power. RIS.GA. manages the diesel generator allowing its speed to be reduced during stand-by, while still supplying power for auxiliary equipment.

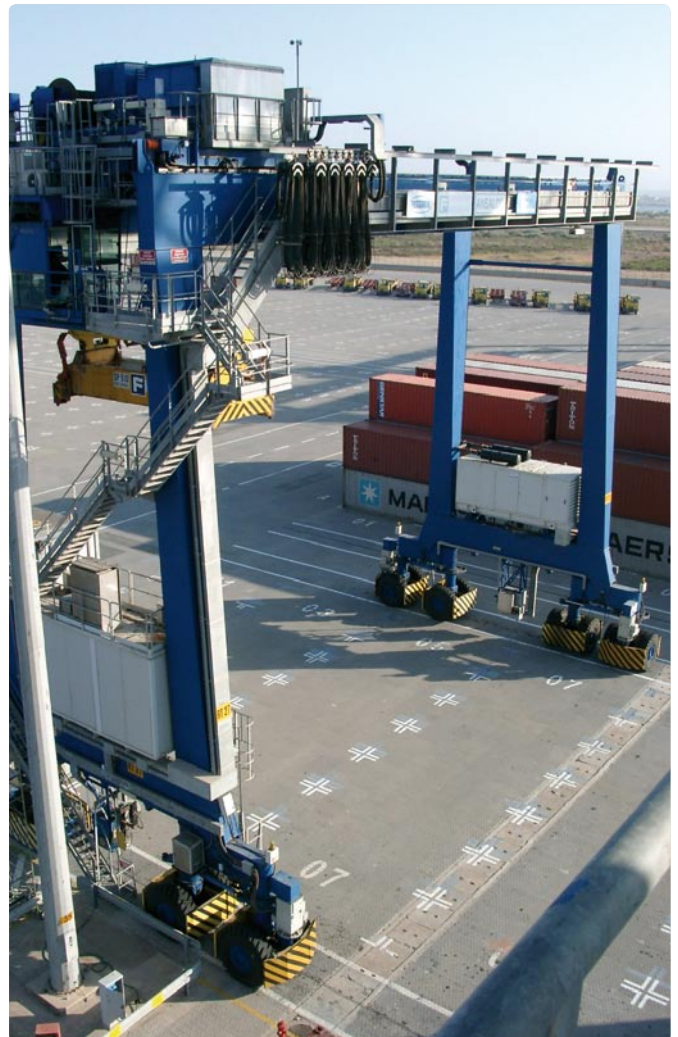
Reduce ownership costs, extend life

RIS.GA. reduces the Total Cost of Ownership for new and old RTG and MHC cranes

- Reduces operational costs
- Increases crane productivity by reducing the number of refuelling stops
- Reduces wear and stress, extending the life of the diesel engine, generator and electrical auxiliaries
- RIS.GA. is a static electronic system requiring no maintenance
- Eliminates diesel engine running at high speed in stand-by mode
- Reduces emissions

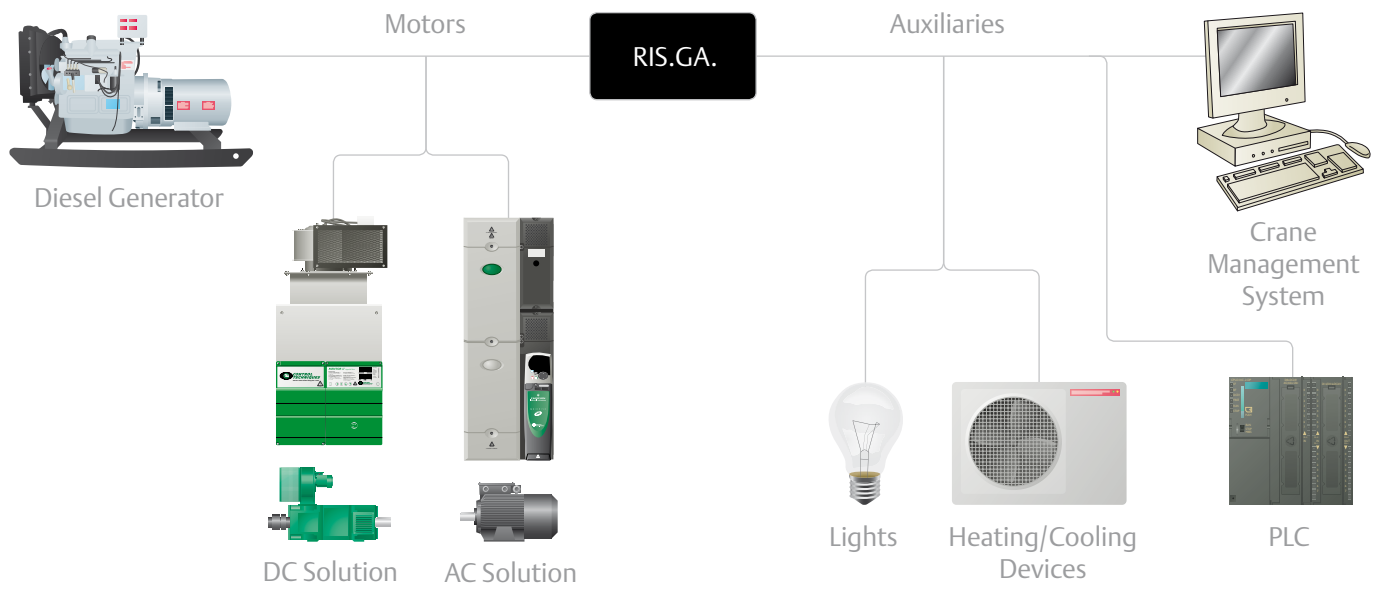
Fast return on investment (ROI)

With RIS.GA. field tests show that terminal operators can save up to 50% of fuel consumption during the crane's stand-by mode and more than 20% fuel consumption overall. This produces a fast ROI, typically one to two years (depending on the country oil cost) and long term savings.





Fuel saving system using RIS.GA.

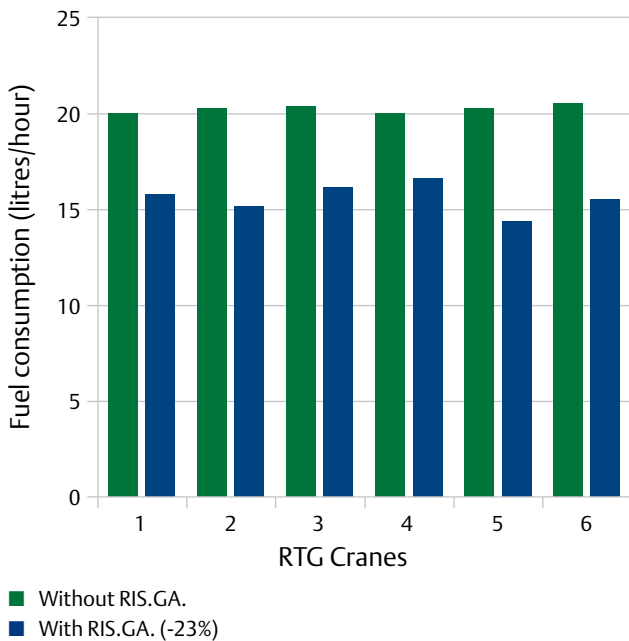




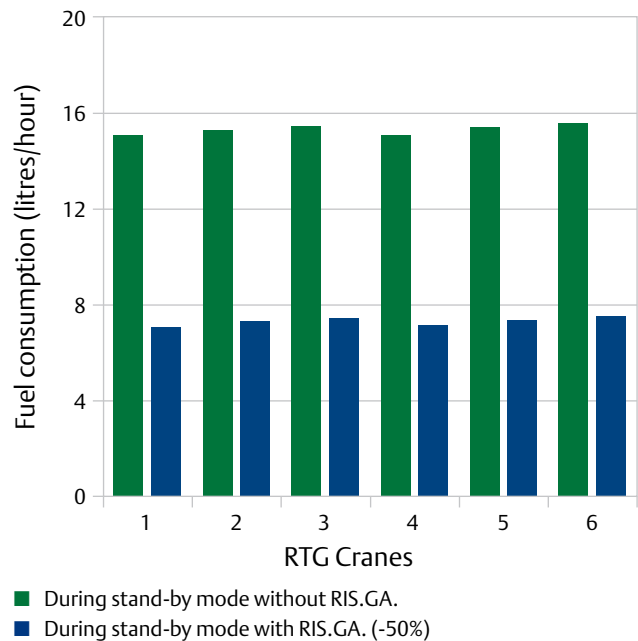
Reduced fuel consumption using RIS.GA.

The graphs below show the fuel consumption, in litres used per hour, of six different RTG cranes with and without RIS.GA. The readings were taken during one month and show both total fuel consumption and fuel consumption whilst in stand-by mode.

Total fuel consumption



Fuel consumption in stand-by mode



Further benefits

Simple installation

Space within RTG and MHC cranes is limited and so the size of the system is important. RIS.GA. is very compact, and can be easily integrated within new or existing cranes, with minimal down-time.

Complete crane automation systems

Control Techniques is a part of Emerson, and has almost 30 years experience supplying complete automation systems for port cranes. Our automation systems are proven in ports around the world and are supported through a global engineering network of Control Techniques Drive Centres.



Typical crane automation system



Proven benefits

RIS.GA. has been applied successfully in numerous ports around the world and installed on RTG cranes manufactured by ZPMC, Kalmar, MGM-OMG, Doosan and Fantuzzi Reggiane.

RIS.GA. environmental safety and electrical conformance

- IP20 NEMA rating, IP54 (NEMA 12) through panel mount
- Operating temperature from 0 to 50°C possible
- Enclosed panel mounted with maximum relative humidity 95%
- Tested in accordance to IEC 60068-2-34 (Vibration)
- Tested in accordance to IEC 60068-2-27 (Mechanical Shock)
- Electromagnetic Immunity complies with EN 61800-3 and EN 61000-6-2
- Electromagnetic Emissions complies with EN 61800-3

For more information on Control Techniques drive products and capabilities, refer to the following brochures:

- Unidrive SP
- Drives for Port Cranes

All brochures are available for download from www.controltechniques.com



DRIVING THE WORLD...

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