



EMERSON[™]
Industrial Automation

Drives for Port Cranes

Drive Systems & Modules
AC & DC
220V – 690V
up to 1.5 MW (2,000 hp)



**CONTROL
TECHNIQUES**

www.controltechniques.com

Control Techniques - Your Crane Drive Specialist

Your Technology Partner...

Control Techniques, an Emerson company, is a global leader in the design and manufacturing of AC and DC variable speed drive technology. With experience of applying drives to cranes and hoists since 1975, Control Techniques continues to develop leading technology to maximize port productivity.



R&D Facility in UK



Designing Solutions

...Wherever you work

Control Techniques supports an installed base of over 3 million AC & DC drives through over 50 Drive Centres and Application Centres located across 30 countries. With our qualified specialist drive engineers, based in key global regions, we are able to provide high quality assistance to Port Crane OEMs and Port Operators with optimized electrical drive solutions.



Maximise Port Productivity

Drive Components for your Dynamic Hoisting Applications...

As your cranes deliver their payload, our drives deliver our promise.

The Unidrive SP range of AC variable speed drives and Mentor DC drives deliver superior performance with an extensive power range designed to match your crane and hoist applications:



Power Components

- Global voltages as standard to 690 V and ratings up to 1.5 MW
- Harmonic reduction through sine-wave AC line regeneration for energy saving and AC supply compatibility
- Unique modular approach allows flexibility, redundancy and greater 'Up-time'
- Smooth constant power hoisting and rapid traveling - regardless of load



Container Cranes

- Ship-to-Shore
- Rubber Tire Gantry (RTG)
- Rail Mounted Gantry (RMG)
- Straddle Carriers

Bulk Handling

- Ship Unloaders
- Grab Unloaders
- Slewing Grab
- Barge Mounted Grab

Cargo

- Single Boom
- Double Boom
- Goliath Overhead

Focus on your Drive Systems...

“Control Techniques – we just make drives!”

Dedication to our core business strategy ensures that you get the best design support and advice, as well as quality products and after-sales attention and service.



STS Quay Cranes (x3)
for Ravenna Container
Terminal, Italy

Bulk Grab Crane, Amsterdam

Our knowledge enhances your capability

Training of site engineering personnel can be carried out with minimal disruption, our trainers are experienced qualified engineers. Performed at your site and in your language.

Proven Capability

Proven Service and Technology in thousands of applications

Control Techniques has the capacity to deliver drive solutions for both new crane projects as well as retrofit installations.

Our extensive international network of Drive Centres ensures that product support engineers skilled in crane applications are always on-hand.

The inherent quality-by-design drive product range combined with the experience of our engineers makes Control Techniques your first choice when up-time and reliability are the primary considerations.

Consider it solved...

Customers choose Control Techniques as a partner for the electrical systems for crane retrofits because of confidence in our technical appraisal and capability to deliver:


Our experience in crane drive equipment means that you receive the best information and solutions - delivering the lowest cost of ownership and the highest return on total capital (ROTC) invested.



At the Heart of your Control System - Control Techniques Crane Drives...


Control Techniques are leaders in both AC and DC drive technology. For new applications AC drives invariably offer the best solution, however for upgrades and retrofit projects on existing DC systems we can help you to determine the best technology route for your crane systems.

Unidrive AC Drive, 0.75kW to 1.5MW 200V, 400V, 575V and 690V

Unidrive  has all the flexibility which allows regenerative load control and greater power density - reducing the space and weight needed for the electrical installation.

The powerful on-board PLC functionality (IEC 61131-3 programming software tools) in each drive can either complement a supervisory PLC or take on the entire logic control of the crane itself.

The unique modular approach to installation layout allows designs incorporating redundancy to achieve greater equipment availability.

For further information please refer to the Unidrive  brochure or visit www.controltechniques.com



Unidrive  AC Drive

Mentor DC Drive, 7.5kW to 1.5MW 200V, 400V and 575V

Regenerative and non-regenerative models

Mentor allows a fast and straightforward upgrade or retrofit of cranes with troublesome older switchgear. Immediate productivity increases can be gained through both greater reliability and more efficient movement.

Crane operators appreciate the “feel” of the crane’s response to commands which can be tailored to emulate the replaced controls.

For further information please refer to the Mentor DC brochure or visit www.controltechniques.com



Mentor DC Drive

Emerson Drive and Motor Package

Patay/Leroy Somer are also a group company of Emerson, with more than a century’s experience in the design and manufacture of brake motors for lifting and materials handling.

Working with Leroy Somer we have many prestigious crane motor accomplishments such as the “Three Gorge” dam in China, Singapore Harbor, Marseille (France) Harbor, North Sea Oil platforms and many more.



AC & DC Brake Motors

Smaller, Smarter and more Reliable

The Unidrive **SD** has many advanced features providing benefits for the crane industry:

- Unique modular design and standard power modules allow greater up-time availability of the crane and reduces the need for spares
- Wireless Ethernet for connectivity to terminal management systems



- Internal load measurement to determine optimum hoisting and traveling speeds to maximise throughput
- Secure Disable for safety-related stopping to EN954-1 category 3 or 4 - saving switchgear components
- **SMARTCARD** parameter memory for simple non-skilled maintenance and changeover
- Connectivity to all major fieldbus protocols such as Profibus and DeviceNet
- 48-96 Vdc battery back-up supply connections. Return equipment to safe and secure positions in the event of a supply failure
- RFI (Radio Frequency Interference) Filter as standard

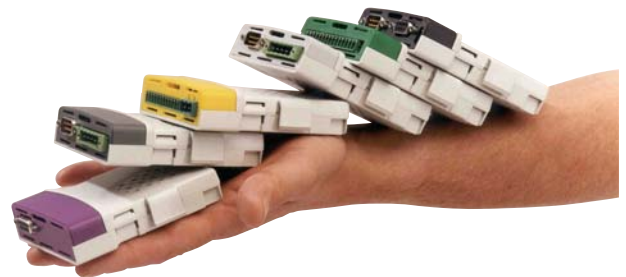
Speak with Control Techniques for your next project or retrofit installation

www.controltechniques.com/cranes



Dedicated Crane Control

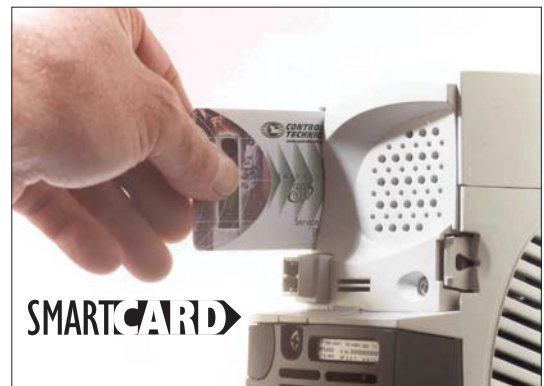
- Anti-sway control
- Differential GPS control for RTG automated steering systems
- Grab/Hoist co-ordinated control
- Constant power hoisting to optimise through-put
- Slew control giving operators greater 'feel'
- Operator control consoles and screens designed for clear information and operator comfort
- Energy saving functionality for cranes using diesel generator supplies



Ethernet



DeviceNet
CONFORMANCE TESTED



Drive & Application Centres

Centres of excellence for Cranes

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