

our ethos

The Motor Control Specialists



Simply **Reliable**

Table of Contents

Page 3 Introduction
Background and History

Page 4 Resources and Structure

- Design and Engineering
- Service, Spares and After Sales Back-up
- Training
- Quality Assurance
- Research and Development

Page 5 Major Activities

- Manufacturing and Testing
- Marketing (New Cranes and Mine Winders)
- Refurbishment (Existing Cranes & Mine Winders)

Page 6 Products

- Product List

Page 7 Reference List

Page 8 Contacts Page



Introduction

MH Automation is an international engineering company that specialises in design, manufacture and supply of electrical control solutions for production cranes, mine winders and other material handling equipment.

Our company has earned a reputation for simple, robust and reliable control solutions for production machinery operating in the most arduous and demanding environments.

For more than 25 years, our IGBT and Thyristor based control systems have been of value to customers in various industries around the world, providing reliability, reduction in maintenance costs and improvement in production availability.

Background & History

1970 - MH Automation is registered by former owners to supply Motor Control Solutions to the South African market.

1988 - MH Automation ownership is transferred to current owners to bring to the market expertise of over 65 man years, and the introduction of the 'Thyromat' Thyristor Control System to the South African market.

1988 - MH Automation is awarded first contract for Electrical Equipment for 2 x 25T/50T/25T Hot Metal Ladle Cranes for Copper Smelters at Palabora Mining Company.

1990 - MH Automation is awarded first contract for supply of Electrical Equipment for 2 x 90kW Vertical Material Mine Winders for the Mining Industry in South Africa.

1992 - MH Automation is awarded contract for the supply of 'Thyromat' Control Systems for 4 x 250/50/25 Ton Hot Metal Ladle Cranes at Iscor (ArcelorMittal) Newcastle B.O.F Plant.

1993 - MH Automation visits China to research market opportunities for already proven 'Thyromat' Control Systems.

1994 - MH Automation appoints agents MH Automation International Ltd in the United Kingdom to explore market opportunities across Europe.

MH Automation offers a range of products from AC Thyristor and IGBT Inverter Systems to DC Thyristor Control Systems, enabling us to custom design the best possible solution for individual application and environment.

Our technical and application expertise ensures that we stay at the forefront of motor control technology.

Since the formation of MH Automation we have supplied thousands of 'Thyromat' and Inverter Control Systems throughout South Africa, Africa, the United Kingdom and China, where our products and services have been well proven and respected.

MH Automation is committed to the quality of its products and the optimal performance of each installation and will continue to offer our customers the best possible control solutions they deserve.

1995 - MH Automation is awarded first order for Control Equipment in mainland China for 1 x 250/50T plus 1 x 130/10T Cranes for Dalian Crane Works.

1995 - MH Automation is awarded first order for Control Equipment to refurbish Billet Handling Crane at Tremorfa Steel Works in Cardiff, U.K.

1996 - MH Automation are appointed agents for the Vacon Inverter and introduce Inverter Control onto production cranes in the South African market.

1997 - MH Automation is awarded contract for the supply of Control Equipment for 2 x 250/50/25T Hot Metal Ladle Cranes at Benxi Steel Plant in China.

2001 - MH Automation supplies 2 x 2000A New Digital Thyromat Controllers to Tangshan Steel, Tangshan, China.

2004 - MH Automation is awarded contract for supply of 'Thyromat' Control Equipment for the refurbishment of 500T charging crane at Corus Steel Port Talbot, Wales.

2009 - MH Automation is awarded contract for supply of 1 x 600kW Single Drum Vertical Kibble Winder at Wessels Manganese Mine, Hotazel.

2014 - Since inception MH Automation has supplied over 10,000 Control units throughout South Africa, Africa, China and the United Kingdom, achieving significant growth in each market and providing reliable and robust control solutions for its customers.

Resources & Structure

Design and Engineering

Our design engineers have vast application experience and will ensure that the best possible control solution is custom designed to suit specific applications and environment.

When required, our engineers will design and interface selected control solutions with PLC, SCADA, Control Automation and monitoring systems.

We also undertake feasibility studies and condition reporting surveys.

All drawings are captured using Computer Aided Design and drawings and documentation are kept to an extremely high standard.

Complete Service, Spares and After Sales Back-up

As a service orientated engineering company, we provide comprehensive assistance with commissioning and maintenance. In addition to technical backup from service personnel, clients also have access to a full range of spares.

Training

Through training courses that focus on preventative maintenance and troubleshooting, we assist our customers to maintain MH Automation equipment more effectively.

Quality Assurance

MH Automation is ISO 9001 certified. We practice Total Quality Management, and every staff member is committed to delivering products and services to a high standard including all aspects of design, production, supply and service.

Health & Safety

MH Automation is committed to the Health & Safety of all our employees, whether at our premises or on site and comply with the Occupational Health & Safety Act (85 of 1993). We strive to empower our employees to take responsibility for their health and safety through education, awareness and ongoing training.

Research and Development

MH Automation is committed to ongoing research and development to ensure that we are able to deliver the best value to our customers. This enables us to offer the best possible solution at competitive prices.

MH AUTOMATION (PTY) LTD.





Major Activities

Manufacturing

MH Automation provides a full range of manufacturing facilities that includes manufacture of PC Boards and power stacks for the Thyromat product range, panel building, assembly and testing of complete electrical control systems.

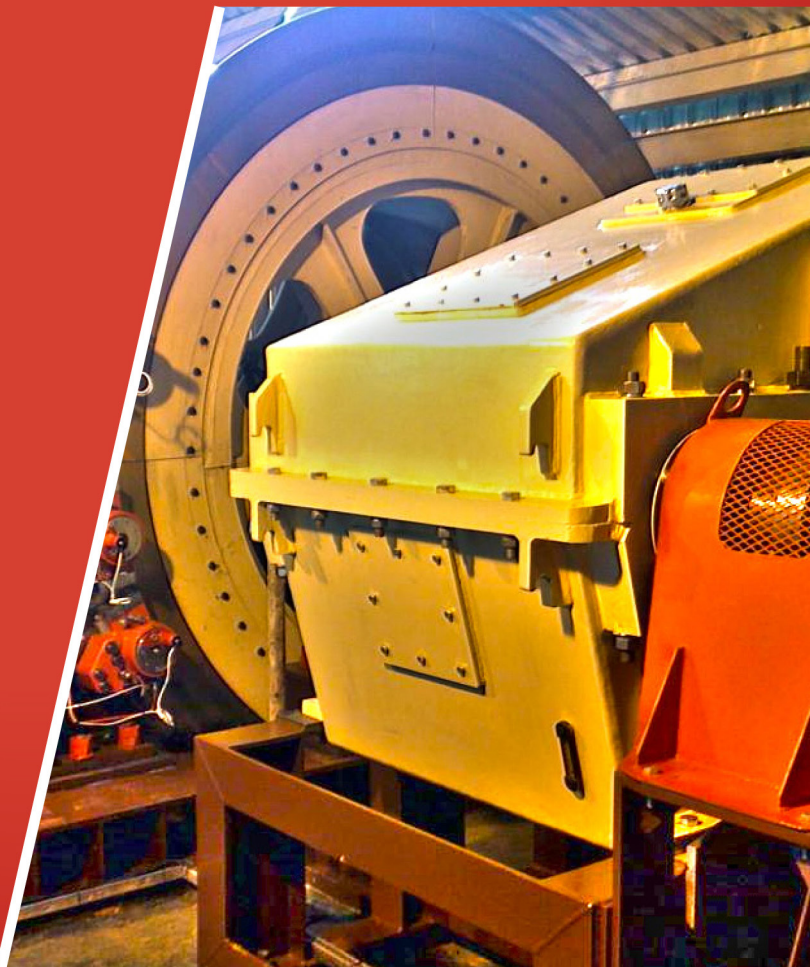
On site installation and commissioning is conducted by our site engineers and complies with all relevant occupational health and safety requirements.

Marketing (New Cranes & Mine Winders)

Marketing of our control systems for new equipment is done predominantly through original equipment manufacturers (OEM's). MH Automation has supplied equipment to most major OEM's in each region and in numerous cases our products are specified by the client's end-users.

Refurbishment (Existing Cranes & Mine Winders)

For the electrical refurbishment of existing cranes and mine winders we supply direct to the end users. Refurbishment offers great improvement in crane and mine winder safety, performance and reliability, plus reduction of electrical maintenance and improvement in mechanical performance. Extended life has been achieved for existing high cost capital equipment by economical investment in new control systems. MH Automation is particularly active in this refurbishment and modernisation sector.



ISO 9001:2008
Management
System

www.tuv.com
ID 9105031979



MH Automation Product Range



thyromat

THYROMAT BDH & BH, THYROMAT BDT & BT, THYROMAT BDW & BW
Digital and Analogue Hoist, Travel & Mine Winder Controller for Slip-ring Motors.



brakomat

BRAKOMAT D
Thyristor Controller for DC Brakes.



limit switch

LIMIT SWITCHES
Rotary Cam Limit Switches for Hoist Applications.



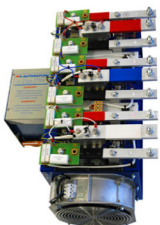
10BCC thyromat

THYROMAT 10BCC
Digital Thyristor technology that eliminates the need for reversing contactors.



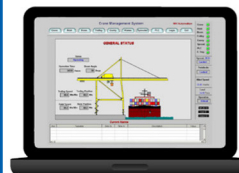
ZX20 resistor

ZX20 STAINLESS RESISTORS
Rotor Resistors for slip-ring motors.
Braking Resistors for variable speed drives (VSD's).



thyromat D

THYROMAT D
Analogue Crane Controller for DC Series & Shunt Motors.



MHCIMS

MH CRANE INFORMATION MANAGEMENT SYSTEM (CIMS)
Custom designed crane management and diagnostic system.



magnamat

MAGNAMAT
Thyristor Controller for Magnets.



VACON FREQUENCY CONVERTOR

Variable Speed Controller for Squirrel Cage Motors.

System integration with other leading frequency converter brands also available.



Mine Winder Control

AC & DC MINE WINDER CONTROL
Digital Control System for AC & DC Mine Winders.



SLIP-RING MOTORS

AC wound-rotor induction motors for high torque variable speed applications.

Reference List

FERRO-ALLOY SMELTERS

SAMANCOR CHROME

- FERROMETALS, WITBANK
- MIDDELBURG FERROCHROME
- TUBATSE FERROCHROME

MOGALE ALLOYS

- KRUGERSDORP PROCESSING PLANT

ASSMANG CHROME

- MACHADODORP WORKS
- CATO RIDGE WORKS

HERNIC FERROCHROME

- BRITS SMELTER

XSTRATA ALLOYS

- RUSTENBURG PLANT
- WONDERKOP PLANT
- LYDENBURG PLANT

SINOSTEEL

- ZIMASCO (ZIMBABWE)
- ASA METALS, STEELPOORT

SILICON TECHNOLOGY

- NEWCASTLE WORKS

SILICON SMELTERS

- POLOKWANE PLANT
- WITBANK PLANT

AMPLATS

- WATERVAL SMELTER
- MORTIMER SMELTER

TRONOX

- KZN SANDS
- NAMAKWA SANDS

RICHARDS BAY MINERALS

- RICHARDS BAY SMELTER COMPLEX

LONMIN

- LONMIN PROCESS DIVISION SMELTER

NORTHAM PLATINUM

- NORTHAM SMELTER

BASE METAL SMELTERS

RIO TINTO

- PALABORA MINING COMPANY

FIRST QUANTUM

- KANSANSHI COPPER MINE

VEDANTA RESOURCES

- KCM KONKOLA COPPER MINE
- KCM NCHANGA COPPER MINE

O.E.M.'S

CRANE MANUFACTURERS

- DEMAG CRANES & COMPONENTS
- MORRIS MATERIAL HANDLING
- WOLFF CRANES
- DHI.DCW GROUP, LIAONING
- TAIYUAN HEAVY INDUSTRY, SHANXI
- SHANQI HEAVY MACHINERY, SHANDONG

WINDERS

- ABB MINING & MINERALS
- WINCHES & WINDERS
- COILMECH
- DRA TECHNICAL SERVICES
- WORLEY PARSONS

MINING

GOLD FIELDS

- SOUTH DEEP GOLD MINE

METOREX

- KINSEDA COPPER MINE
- CHIBULUMA MINE
- MARANDA MINE

LONMIN

- WESTERN PLATINUM MINE
- EASTERN PLATINUM MINE
- KAREE PLATINUM MINE
- MIDDELKRAAL PLATINUM MINE

SASOL

- TWISTDRAAI WEST
- TWISTDRAAI EAST
- THUBELISHA SHAFT
- ZONDAGSFONTEIN MINE

AFRICAN RAINBOW MINERALS

- HARMONY KUSASALETHU GOLD MINE
- HARMONY BAMBANANI GOLD MINE
- HARMONY JOEL GOLD MINE

NORTHAM PLATINUM

- NORTHAM PLATINUM MINE

SIBANYE GOLD

- DRIEFONTEIN OPERATION
- BEATRIX GOLD MINE

AVNEL GOLD MINING

- KALANA MINE, MALI

PAPER

MONDI

- MEREBANK MILL, DURBAN

SAPPI

- SAICCOR MILL, UMKOMAAS

SHAFT SINKING

MURRAY & ROBERTS CEMENTATION AVENG GRINAKER-LTA MINING SHAFT SINKERS HOLDINGS

PETROCHEMICAL

SASOL

- SASOL SYNFUELS, SECUNDA

PORTS

TRANSNET

- TPT CAPE TOWN
- TPT DURBAN
- TPT EAST LONDON
- TPT RICHARDS BAY

NAMPORT

- PORT OF WALVIS BAY

ASSOCIATED BRITISH PORTS

- ABP PORT TALBOT (UK)
- ABP SWANSEA (UK)

BRISTOL PORT COMPANY

- PORT OF BRISTOL (UK)

POWER GENERATION

ESKOM

- APOLLO CONVERTOR STATION
- DUVHA POWER STATION
- HENDRINA POWER STATION
- KOEBERG NUCLEAR POWER STATION
- KRIEL POWER STATION
- MATLA POWER STATION
- TUTUKA POWER STATION
- KOMATI POWER STATION
- LETHABO POWER STATION

ZESCO

- KARIBA NORTH BANK HYDROELECTRIC POWER STATION
- VICTORIA FALLS HYDROELECTRIC POWER STATION

NAMPOWER

- RUACANA HYDROELECTRIC POWER STATION

CHINA POWER

- BAPANXIA HYDROELECTRIC POWER STATION

- QINSHAN NUCLEAR POWER STATION
- ZHANJIANG POWER STATION
- XINFENGJIANG HYDROELECTRIC POWER STATION

CAPE TOWN CITY COUNCIL

- STEENBRAS PUMPED WATER STORAGE SCHEME

RAIL & TRANSPORT

TRANSNET

- BELLVILLE DIESEL DEPOT
- DURBAN CX CONTAINER DEPOT
- SALT RIVER DEPOT
- KOEDOESPOORT DEPOT
- BRAAMFONTEIN DEPOT
- GERMISTON DEPOT
- SWARTKOPS DEPOT

STEELWORKS

ARCELORMITTAL

- VANDERBIJLPARK WORKS
- NEWCASTLE WORKS
- SALDANHA WORKS
- VEREENIGING WORKS
- PRETORIA WORKS

TATA STEEL

- ROTHERHAM WORKS
- SCUNTHORPE WORKS
- PORT TALBOT WORKS

EVRAZ HIGHVELD STEEL & VANADIUM

- WITBANK WORKS

CAPE GATE

- CAPE GATE VANDERBIJLPARK WORKS

SCAW METALS GROUP

- SCAW METALS GERMISTON PLANT

COLUMBUS STAINLESS

- MIDDELBURG PLANT

HEBEI IRON AND STEEL GROUP

- HANDAN WORKS, HEBEI
- WUYANG WORKS, HENAN
- TANGSHAN WORKS, HEBEI
- CHENGDE WORKS, HEBEI
- SHIJIAZHUANG WORKS, HEBEI

WUHAN IRON AND STEEL GROUP

- WUHAN WORKS, HEBEI
- KUNMING WORKS, YUNAN

SHAGANG GROUP

- SHAGANG WORKS, JIANGSU

SHOUGANG GROUP

- QIANAN WORKS, HEBEI
- CAOFEIDIAN WORKS, HEBEI
- GUIYANG WORKS, GUIZHOU

ANSTEEL GROUP

- ANSHAN WORKS, LIAONING
- PANZHILUO WORKS, SICHUAN

SHANDONG GROUP

- JINAN WORKS, SHANGDONG
- LAIWU WORKS, SHANGDONG

MA'ANSHAN

- MA'ANSHAN WORKS, ANHUI

BENXI STEEL GROUP

- BENXI WORKS, LIAONING

SUGAR

TONGAAT HULETT

- TRIANGLE SUGAR MILL
- HIPPO VALLEY SUGAR MILL

MEDINE

- MEDINE SUGAR MILL

TRIANGLE SUGAR

- TRIANGLE, ZIMBABWE

Contacts

Physical Address

MH Automation (Pty) Ltd.
31 Kyalami Boulevard
Kyalami Business Park
Kyalami
Midrand
South Africa

Telephone Number: +27 11 548 0600

Fax Number: +27 11 466 2266

Email Address: mhauto@icon.co.za

www.mhautomation.co.za

Postal Address

MH Automation (Pty) Ltd.
P.O. Box 30008
Kyalami
1684
South Africa

Where you can find us...



United Kingdom



mhai.co.uk

South Africa



mhautomation.co.za

China



mhd.com.cn