

TRAINING 2025

Course catalog

Dubai – United Arab Emirates













Foreword

Welcome to the 2025 Manitowoc Middle East Training Catalog. You will find our complete offering that covers the Introduction courses, as well as six Rough Terrain and eight All Terrain courses.

We are also pleased to introduce you to our new E-Academy learning platform, which allows you to book all training courses online if you so wish. You can find more information on this new learning management system on page 28.

As always, if you need any clarification or have special requests for custom made courses, you know where to find me.

Looking forward to another year of training and learning to **Build Something Real**

Best regards,

Jaco

Manitowoc Middle East Training Center Dubai, UAE

Contact and Trainers



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Training Coordinator
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Overview

Location

Jebel Ali Free Zone, Dubai, United Arab Emirates.

Languages spoken

- English, Dutch
- Other languages with interpreters
- Other languages, if available on local subsidiaries



Location

Our Certifications

 All conducted training courses are accredited by Manitowoc Training Centers in the United States and Germany.

Our profile

- Hunderds of trainees from the region and the world pass through the training center annually. Lectures are conducted in the English language (other languages available on demand)
- Bilingual instructors (English & Dutch)

Our global offer

 Fourteen 1-week training modules covering; Crane Foundation, Operator, Rough Terrain Cranes and Custom designed courses according to your needs.

Our equipment

- Training on various Rough Terrain and All Terrain Cranes are available
- Training rooms with state-of-the-art smart boards
- · Practical lessons on simulators and cranes

Find our brochure on our website

https://www.manitowoc.com/technical-learning-center



Practical Information

Costs

- Refer to schedule
- Please inform all trainees, that hotel rooms, meals, telephone, bar, weekend trips, taxi etc. are not included in the course fee and must be paid by the trainee.

Travel arrangements

• Please inform the Training Center of the trainees' travel arrangements. If they are flying into Dubai, we can assist with hotel bookings, transportation, visa applications, etc. (at extra cost), if this is requested before arrival.

Registration

You will find enclosed "registration purchase order" forms which must be filled out and returned to the Training Center for confirmation, or you can directly register via E-Academy, then follow up on page 28.

- Trainees must be over 18 years old and must be declared fit to work at heights
- Manitowoc denies responsibility for accidents and/or illnesses that might occur during the training courses. We therefore request, that you cover your trainees against any kind of risks and provide them with the necessary insurance certificates and forms
- Note that dates are tentative, and registration is based on a "first come, first serve" basis with a priority to confirmed (prepaid) orders.

Clothing

Most of our training programs involve numerous practical exercises outside.
 Please inform the trainees that they must bring their PPE and weatherproof clothing. Safety shoes are mandatory. We can support safety glasses and helmets to the trainees

Cancelation

 In case of cancellation, please inform the training Center immediately in order to avoid extra charges

Laptop PC

• Please refer to page 27

Contact us

Email address kavungal.firoz@manitowoc.com

Our Facilities



Dubai, UAE:

Our site offers a state-of-the-art classroom. A large hands-on simulator lab to include simulators of multiple generations of Grove Rough Terrain, GMK All Terrain and Manitowoc Crawler operating systems. A multiple bay training building is also used to accommodate multiple products for troubleshooting. On-location training is also available.





Available lab workstations:

- Two generations of GMK simulators to include RCL's
- Four generations of Grove Rough Terrain RCL simulators
- Four generations of Grove Rough Terrain simulators
- EPIC & CANBUS Hydraulic/Electrical Simulators
- Hydraulic and Electrical workstations

Notes

Course summary

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Section 2	Rough Terrain Courses	Page 12 - 18
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Section 3	All Terrain Courses	Page 19 – 25
GMK 1.1 GMK 2.1 GMK 3.1 GMK 4.1 GMK 5.1 GMK 6.1 GMK 7.1 GMK 8.1	Operational Aspects Electric and Hydraulic ECOS Technology & Diagnostics EKS 4 & 5 Technology & Diagnostics CCS Technology & Diagnostics MTU/MB Engine & Transmissions Steer by Wire systems (MTW & ME) GMK 6400-1 Tech. & Diag. CERTIFICATION	Dubai, UAE Dubai, UAE Dubai, UAE Dubai, UAE Dubai, UAE WHV,Germany Dubai, UAE WHV, Germany WHV, Germany

GENERAL TERMS

- Every training course requires a minimum of 3 participants
- All trainings can be performed on a weekly fee basis
 Example: If you have more than 3 participants per training, we will offer a week or group fee in Dubai. Weekly fee in Dubai → 7.000 US\$
- All trainings can be performed as an "on-site" course in your facility. Special offer on-site fee
 consists weekly fee, without flight, hotel and expenses → 7.500 US\$

If you have any questions or special wishes, please do not hesitate to contact us.

Introduction Courses

Course Name	Page
Crane System Theory	10
Crane Technology & Operation	11





This course is designed to provide a basic understanding of hydraulic, electrical and pneumatic principles and how they are applied on the different Manitowoc product lines and will be used as a prerequisite for all introductory level courses.

Program

This course will consist of classroom time utilizing programs covering the basics of hydraulic, electrical and pneumatics along with their components and how these components operate and interact with each other. Schematics are used to help the students gain an understanding of schematic layouts and component symbols used on the different product lines.

Teaching methods

4.5 days theory and practice in hydraulic, electrical and pneumatic schematics and systems. Hydraulic and Electrical test benches are incorporated into the course to help give the student a better understanding of the hydraulic and electrical theories learned in the classroom portion of the training

Prerequisites

- Trainees must be over 18 years old
- · Trainees have to bring their PPE

Duration

- 4.5 days
- Monday 08:00 am to Thursday 04:00 pm Friday 8:00am to 12:30pm* (*trainer notification)

Number of participants

6 participants



Equipment

- Training room
- · Technical documents
- Simulators
- Hydraulic & Electrical Test Benches

Validation of knowledge

- · Daily tasks and homework
- Final Test
- Handover of certificate

Dates

- 27.01.2025 31.01.2025
- 21.04.2025 25.04.2025
- 04.08.2025 08.08.2025
- 03.11.2025 07.11.2025

- Training fee \$ 1,650.00*
 - *Training conducted in the UAE is subject to 5% VAT



Provide an in-depth overview of Grove RT, TMS, and All Terrain crane terminology and technologies in relationship to crane systems. Load charts are explained along with exercises to expose the students to how load charts are constructed and how to properly read and interpret them.

Rated Capacity Limiting systems programming and operation is covered using RCL simulators. This allows the student to apply load chart theory learned earlier in class to how the RCL works.

Machine hands-on session will allow the students to experience how to properly set up and operate a Grove RT crane. This will give students a working knowledge of a Grove crane and the foundation to continue their studies in Grove hydraulic and electrical systems.

Program

Safety Devices, Load capacity charts, Outrigger loads, Wind loading, Operator Manuals, Crane terminology & symbols, PAT and EKS/RCI appreciation, swingaway-lattice, power tilt jib, luffing jib, Mega wing lift

Teaching methods

4.5 days of theoretical classroom instructions and hands-on exercises.

Prerequisites

- Trainees must be over 18 years old
- · Trainees have to bring their PPE

Duration

- 4.5 days
- Monday 08:00 am to Thursday 04:00 pm Friday 8:00am to 12:30pm* (*trainer notification)

Number of participants

6 participants



Equipment

- Training room
- Technical documents
- Simulators

Validation of knowledge

- Daily tasks and homework
- Final Test
- Handover of certificate

Dates

- 03.02.2025 07.02.2025
- 28.04.2025 02.05.2025
- 11.08.2025 15.08.2025
- 10.11.2025 14.11.2025

Cost

• Training fee \$ 1,650.00*

Rough Terrain Courses

Course	Name	Page
Grove 1.1	Intro to CANBUS	13
Grove 2.1	Service Tool & CanLink	14
Grove 3.1	Orchestra	15
Grove 4.1	Hybrids	16
Grove 5.1	CCS	17
Grove 6.1	Flashing	18





Have the basic understanding of LMI systems and circuits. Properly check the systems voltage supplies and circuit measuring points. Be able to properly replace main boards, pressure transducers and perform basic system adjustments. Receive the PAT LMI Error code viewers.

Program

The course takes the students into the inner workings of the LMI systems through explanations of the overall schematics. In-depth sessions covering the individual circuits, digital inputs, measuring channels, and basic adjustments will give the student the foundation necessary for the troubleshooting phase. System induced provide problems will students opportunity to utilize the troubleshooting manuals and procedures learned diagnosis and repair the problems.

Teaching methods

Lectures and practical exercises (measurements & adjustments). Practical Trouble-shooting on an RT crane or simulators

Prerequisites

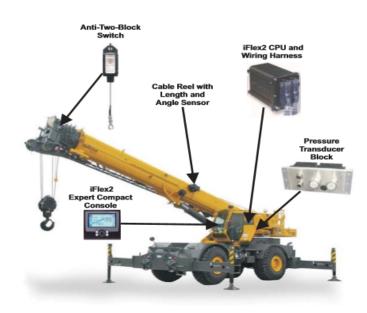
- Crane System Theory and
- Crane Technology & Operation

Duration

- 4.5 days
- Mon Thu 8:00am to 16:00pm
 Friday 8:00am to 12:30pm*
 (*trainer notification)

Number of participants

· 6 participants



Equipment

- Training room
- · Technical documents
- Simulators

Validation of knowledge

Daily homework, Daily tasks and Final test at the end of the training course. Presentation of certificate

Dates

- 10.02.2025 14.02.2025
- 05.05.2025 09.05.2025
- 18.08.2025 22.08.2025
- 17.11.2025 21.11.2025
- More dates on request

Cost

Training fee \$1.900.00*



Identify components used on the RT cranes and explain their basic function. Make system checks using recommended test procedures and be able to understand the indicated readings. Troubleshoot system problems utilizing schematics and service software.

Program

This program assumes basic knowledge of and hydraulic & operation. electrical systems as covered in the previous courses. Students will gain an understanding of components and systems through the intense study of system schematics. HED Service Software will be loaded onto student's laptops. The class is divided into groups and assigned to a crane to review hydraulic and electrical system components on that model. Students are required to conduct test procedures to troubleshoot and repair problems induced on their crane.

Teaching methods

Lectures and practical exercises (measurements & adjustments). Practical Trouble-shooting on an RT crane or simulators.

Prerequisites

• GROVE 1.1 (Intro to CANBUS)

Duration

- 4.5 days
- Mon Thu 8:00am to 16:00pm Friday 8:00am to 12:30pm* (*trainer notification)

Number of participants

· 6 participants



Equipment

- Training room
- Technical documents
- Simulators

Validation of knowledge

Daily homework, Daily tasks and Final test at the end of the training course.

Presentation of certificate

Dates

- 17.02.2025 21.02.2025
- 26.05.2025 30.05.2025
- 25.08.2025 29.08.2025
- 24.11.2025 28.11.2025
- More dates on request

- Training fee \$1.900.00*
 - *Training conducted in the UAE is subject to 5% VAT

Orchestra



Aim of training course

Identify components used on the RT cranes and explain their basic function. Make system checks using recommended test procedures and be able to understand the indicated readings. Troubleshoot system problems utilizing schematics and service software.

Program

This program covers CANBUS technology used on Orchestra Grove RT cranes. This gives the students a working knowledge of these systems and a foundation for proper troubleshooting techniques and test procedures. Orchestra Software will be loaded onto student's laptops for the purpose to conduct hands-on sessions covering proper software operation and trouble shooting techniques. A portion of the class will cover current OMS (Outrigger Monitoring System) systems used on RT and TM/TMS models.

Teaching methods

Lectures and practical exercises on simulator. Interactive presentations and use of test benches.

Prerequisites

GROVE 2.1 (Service Tool & CanLink)

Duration

- 4.5 days
- Mon Thu 8:00am to 16:00pm Friday 8:00am to 12:30pm* (*trainer notification)

Number of participants

6 participants



Equipment

- Training room
- Technical documents
- Simulators

Validation of knowledge

Daily homework, Daily tasks and Final test at the end of the training course.

Presentation of certificate

Dates

- 24.02.2025 28.02.2025
- 02.06.2025 06.06.2025
- 01.09.2025 05.09.2025
- 01.12.2025 05.12.2025
- More dates on request

- Training fee \$2,200.00*
- *Training conducted in the UAE is subject to 5% VAT



Have basic knowledge of operation, hydraulic & electrical systems of TMS9000E and RT9150E models.

Program

This program covers current
CANBUS technology used on
Grove hybrid cranes. Students
will gain an understanding of components
and systems through the intense study of
system schematics. A session will
familiarize the students with the operation
of the ECOS and EKS systems used on these
models. Sessions on reading ELAN
schematics and Service Software operation
will give students the basics for applying
trouble shooting techniques. Hands on
sessions will be conducted to re-enforce
classroom material on system operation and
diagnostics.

Teaching methods

Lectures and practical exercises (measurements & adjustments). Practical Trouble-shooting on an RT crane or simulators

Prerequisites

• GROVE 3.1 (Orchestra)

Duration

- 4.5 days
- Mon Thu 8:00am to 16:00pm Friday 8:00am to 12:30pm* (*trainer notification)

Number of participants

6 participants



Equipment

- Training room
- · Technical documents
- Simulators

Validation of knowledge

Daily homework, Daily tasks and Final test at the end of the training course. Presentation of certificate

Dates

On request

- Training fee \$2,200.00*
 - *Training conducted in the UAE is subject to 5% VAT



Have an understanding of CCS systems. Have the foundation to troubleshoot problems utilizina the system by schematics and service software procedures on current production CCS cranes.

Program

This course will cover the new operating system that will be across all Manitowoc products in the future. Only Shady Grove products will be covered. The course will walk the students through overall setup and navigation of new components such as the displays and all other cabin related CCS system setup. After the system itself is thoroughly understood, Students will be walked through the entire crane electrically and hydraulically with the aid of schematics. The final portion of the class will cover the new CST service software which will be used to diagnose electrical issues and calibrate sensors.

Teaching methods

Lectures and practical exercises (measurements & adjustments). Practical Trouble-shooting on an RT crane or simulators.

Prerequisites

GROVE 4.1 (Hybrids)

Duration

- 4.5 days
- Mon Thu 8:00am to 16:00pm Friday 8:00am to 12:30pm* (*trainer notification)

Number of participants

6 participants



Equipment

- Training room
- Technical documents
- Simulators

Validation of knowledge

Daily homework, Daily tasks and Final test at the end of the training course. Presentation of certificate

Dates

- 03.03.2025 07.03.2025
- 09.06.2025 13.06.2025
- 08.09.2025 12.09.2025
- 08.12.2025 12.12.2025
- More dates on request

- Training fee \$2,400.00*
- *Training conducted in the UAE is subject to 5% VAT



Have an understanding of Flashing and Calibration of all major components on past and current Grove Rough Terrain cranes.

Program

This course covers FLASHING & CALIBRATION of the following:

- 1.) Flashing / loading software for Gen.1, Gen.2 & Gen.3 HED based machines. Including loading of 770 charts, CAN open transducer calibration along with the use of Application Configurator program to upload error logs for diagnostics.
- 2.) Flashing of all Hirschman components. I-Flex 2 I-Flex 5 and the current Expert systems 2/5. All central units and displays will be covered.
- 3.) Flashing of all ECOS related control units, both ESX and GVIOM, RT9150 and TMS 9000 related.
- 4.) Flashing of Wylie I-4300, I-4500 LMI's for YardBoss and ShuttleLift.
- 5.) Flashing and Calibration of new Crane Control System (CCS)

Teaching methods

Lectures and practical exercises (Flashing of all Rough Terrain RCL and Operating systems). Practical on Rough Terrain cranes or simulators.

Prerequisites

• GROVE 5.1 (CCS)

Duration

- 4.5 days
- Mon Thu 8:00am to 16:00pm
 Friday 8:00am to 12:30pm*
 (*trainer notification)

Number of participants

6 participants



Equipment

- Training room
- · Technical documents
- Simulators

Validation of knowledge

Daily homework, Daily tasks and Final test at the end of the training course. Presentation of certificate

Dates

- 20.01.2025 24.01.2025
- 16.06.2025 20.06.2025
- 15.09.2025 19.09.2025
- 15.12.2025 19.12.2025
- More dates on request

- Training fee \$2,400.00*
- *Training conducted in the UAE is subject to 5% VAT

All Terrain Courses

Course	Name	Page
GMK 1.1	Operational Aspects	20
GMK 2.1	Electrics & Hydraulics	21
GMK 3.1	ECOS Tech. & Diag.	22
GMK 4.1	EKS 4 & 5 Tech. & Diag.	23
GMK 5.1	CCS Tech. & Diag.	24
GMK 7.1	Steer by Wire (MTW & ME)	25





This course is designed for individuals who are new to GMK cranes but would also be an excellent refresher course for more experienced technicians. The course covers the setup and operation focused on current production GMK cranes. The course will be approx. 40% classroom and 60% practical.

Program

The course features a GMK crane and will cover the carrier controls and proper use of transmission and driving controls, outriggers, suspension and rear steering system. Superstructure cab controls will be covered including the proper setup of the ECOS & EKS or CCS systems. Handson operation of the boom in semiautomatic and automatic modes. Each student will be expected to demonstrate proficiency in all aspects of crane setup and operation. Each student will also be given tasks to complete during the week to include load chart, outrigger pad load, maintenance manual, and operator's manual exercises.

Teaching methods

Lectures and practical exercises on GMK cranes and simulators.

Prerequisites

- Crane System Theory and
- Crane Technology & Operation

Duration

- 4.5 days
- Mon Thu 8:00am to 16:00pm Friday 8:00am to 12:30pm* (*trainer notification)

Number of participants

· 6 participants



Equipment

- Training room
- · Technical documents
- Simulator
- · GMK crane

Validation of knowledge

Daily homework, Daily tasks and Final test at the end of the training course.

Presentation of certificate

Dates

- 10.03.2025 14.03.2025
- 23.06.2025 27.06.2025
- 22.09.2025 26.09.2025
- More dates on request

- Training fee \$2,250.00*
 - *Training conducted in the UAE is subject to 5% VAT



Designed as a guideline through the technology of GMK cranes. The student will gain a deeper knowledge of the electric and hydraulic systems of the cranes and get instructions for logic troubleshooting of this systems.

Program

- Overview of the electrical function groups, navigating through the electrical schematics (ELAN and SEE), connections between electric, hydraulic and pneumatic schematics, tasks of troubleshooting in electrical systems.
- Overview of hydraulic components and their schematic symbols. Navigation through the hydraulic schematics.
- Overview of the carrier hydraulic and pneumatic systems. Overview of the superstructure hydraulic system.

Teaching methods

Lectures and practical exercises on GMK cranes and simulators.

Prerequisites

• GMK 1.1

Duration

- 4.5 days
- Mon Thu 8:00am to 16:00pm Friday 8:00am to 12:30pm* (*trainer notification)

Number of participants

6 participants



Equipment

- Training room
- Technical documents
- Simulators

Validation of knowledge

Daily homework, Daily tasks and Final test at the end of the training course.

Presentation of certificate

Dates

- 17.03.2025 21.03.2025
- 30.06.2025 04.07.2025
- 29.09.2025 03.10.2025
- More dates on request

- Training fee \$2,200.00*
 - *Training conducted in the UAE is subject to 5% VAT



This course will show the technology (design and function) and the diagnostic (troubleshooting, adjustment, flashing) of ECOS "Electronic Crane Operating System". This training shows the detailed theory of the operating system and its control application for particular functions and in the practical part the logical trouble-shooting with help of the service SW for adjustment, flashing and configurating.

Program

- ESX modules, I/O boards, GVIOM, display, HMI, AMG/AMM, joysticks, level sensor, precision length sensor
- Digital outputs, PWM outputs
- · Digital and analog inputs
- CAN-Bus systems
- Sensors and actuators
- Introduction of logical troubleshooting and error code diagnostics
- Adjustment of inputs and outputs with service software
- Flashing / updating of displays and ESX modules

Teaching methods

Lectures and practical exercises on GMK cranes and simulators.

Prerequisites

• GMK 1.1 & 2.1

Duration

- 4.5 days
- Mon Thu 8:00am to 16:00pm Friday 8:00am to 12:30pm* (*trainer notification)

Number of participants

6 participants



Equipment

- Training room
- · Technical documents
- PC with service software
- Simulators

Validation of knowledge

Daily homework, Daily tasks and Final test at the end of the training course.

Presentation of certificate

Dates

- 24.03.2025 28.03.2025
- 07.07.2025 11.07.2025
- 06.10.2025 10.10.2025
- More dates on request

Cost

Training fee \$2,200.00*



This training will show the RCL systems EKS4 and EKS5, the principles and technology.

In this training course the participants will attain the diagnostic level of EKS4 and EKS5.

Program

- History of EKS systems
- Crane physics, RCL technology
- EKS4 & EKS5, bus node cards, Tilt I/O boards, pressure transducers, slewing sensors, standard display / graphic display
- CAN-Bus system for sensors
- Communication to FCOS
- Error codes diagnostics & diagnostic tools
- Addressing of sensors and Tilt I/O boards
- Flashing of graphic display, flashing of EKS5
- Adjustment of RCL system with service software

Teaching methods

Lectures and practical exercises on GMK cranes and simulators.

Prerequisites

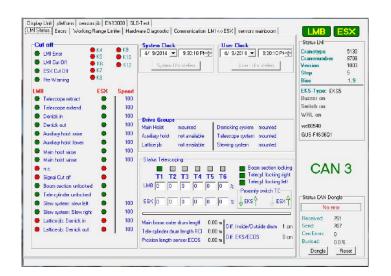
• GMK 1.1 - 3.1

Duration

- 4.5 days
- Mon Thu 8:00am to 16:00pm
 Friday 8:00am to 12:30pm*
 (*trainer notification)

Number of participants

6 participants



Equipment

- Training room
- · Technical documents
- PC with service software
- Simulators

Validation of knowledge

Daily homework, Daily tasks and Final test at the end of the training course.

Presentation of certificate

Dates

- 31.03.2025 04.04.2025
- 14.07.2025 18.07.2025
- 13.10.2025 17.102025
- More dates on request

Cost

Training fee \$2,200.00*



This course will show the technology (design and function) and the diagnostic (troubleshooting, adjustment, flashing) of CCS "Crane Control System". This training shows the detailed theory of the operating system and its control application for particular functions and in the practical part the logical trouble shooting with the help of service software for calibrations, flashing and configurating.

Program

- CCS modules, display, joysticks, jog dial, HMI, level sensor, precision length sensor
- Digital outputs, PWM outputs
- · Digital and analog inputs
- CAN-Bus systems
- Sensors and actuators
- Introduction of logical troubleshooting and error code diagnostics
- Adjustment of inputs and outputs with service software or via CCS display
- Flashing / updating of CCS modules and displays
- GroveConnect (Telematic system)

Teaching methods

Lectures and practical exercises on GMK cranes or simulators.

Prerequisites

• GMK 1.1 - 4.1

Duration

- 4.5 days
- Mon Thu 8:00am to 16:00pm Friday 8:00am to 12:30pm* (*trainer notification)

Number of participants

6 participants



Equipment

- Training room
- · Technical documents
- PC with service software
- Simulators

Validation of knowledge

Daily homework, Daily tasks and Final test at the end of the training course.

Presentation of certificate

Dates

- 07.04.2025 11.04.2025
- 21.07.2025 25.07.2025
- 20.10.2025 24.10.2025
- More dates on request

Cost

Training fee \$2,400.00*



The "Steer by Wire" course will provide detailed knowledge of this specific system.

Due to legal regulations work and/or repair on SBW systems is only authorized to those, who have successfully completed this course.

Program

- Steer by Wire control units ESX 4 and 5
- Mobil Elektronik SLC's
- Introduction of sensors
- Laptop computer as a service tool with applied Steer by Wire – software
- Flashing of units
- Calibration and adjustment of the MTW and Mobil Elektronik SBW system
- Logical troubleshooting
- Error codes diagnostics and diagnostic tools

Teaching methods

- Detailed theoretical training
- Practical tasks on simulator
- Practical tasks on crane

Prerequisites

• GMK 1.1 - 6.1

Duration

- 4.5 days
- Mon Thu 8:00am to 16:00pm Friday 8:00am to 12:30pm* (*trainer notification)

Number of participants

6 participants



Equipment

- Training room
- · Technical documents
- Simulator
- GMK Crane

Validation of knowledge

Daily homework, Daily tasks and Final test at the end of the training course.

Presentation of certificate

Dates

- 14.04.2025 18.04.2025
- 28.07.2025 01.08.2025
- 27.10.2025 31.10.2025
- More dates on request

- Training fee \$2,400.00*
 - *Training conducted in the UAE is subject to 5% VAT

Notes

Administration

Laptop requirements

Laptops required for GMK training courses should be configured as follows

Must be of a "PC" type. Apple/Macintosh/I-book, Linux and Android based computers are not currently compatible with any training material and/or service software.

Windows 10 or 11 is acceptable in a 32-bit or 64-bit version, any existing Microsoft Office must be installed in the 32-bit version. For older Windows versions we don't give any support.

The PC and/or username must have only Latin letters and/or numbers (ASCII codes 48-57, 65-90, 97-172). *No special characters like ä, ö, ü, ß, é, è etc. are allowed.*

For PC's outside Latin characters' countries there could be some problems occur with the software tools. Here it is recommended to install the Windows as an English version and add after your local version.

It is also recommended that the laptop has the following specifications

- ✓ 1280 x 720 or higher display resolution
- √ x86 compatible processor
- ✓ minimum of 4GB RAM
- ✓ minimum of 150GB free HDD space
- ✓ 2 USB port type A or adapter to type A
- ✓ Integrated RS232 port or USB to RS232 adapter, configured to COM1

In addition to Windows 10 or 11, the laptop should have the following software installed

- > current Adobe Reader,
- > current Microsoft Access or Microsoft AccessDatabaseEngine, if MS Office is installed, it must be the 32bit version
- > 7-zip or other ZIP program,
- Media player configured to play the following types of video files and audio files wmv, .avi, .mpeg, .mp3, etc., and Quicktime

The user should also have full "Administrative rights" to add/install various software programs and software drivers used during and after training, especially the folders c:\Temp\ and c:\Manitowoc\ must be accessible without any restrictions.

It is highly recommended that most of Grove/GMK service programs utilize a DB-9 serial port connection to the crane configured as "COM1". If the laptop does not have a DB-9 serial port the recommended alternative is a PCMCIA Adapter Serial card (DB-9), configured as COM1. This is preferred over a USB to serial adapter. Any serial adapters may work but are not 100% reliable to work with all Grove/GMK service programs. For a better satisfaction, we recommend serial adapter with FTDI chip set. If USB serial adapters are used, the laptop must have a minimum of two (2) standard USB A ports available or an adapter to USB type A.

Manitowoc - Training is not responsible for providing or configuring any non-Manitowoc software and/or serial adapters of any type necessary for use with any service programs.

Manitowoc Training Center Virtual Access

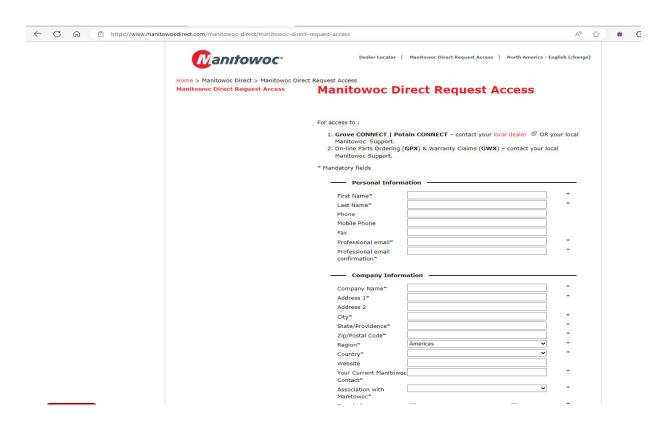
What will you find...

- Selection of all training courses
- Online registration in the LMS
- Dates of the training courses
- E- Learning Modules

Request an Account:

To register to attend a training class, students must have a Manitowoc Direct account with access to the Manitowoc e-Academy application. Please visit this website and complete the required fields:

http://www.manitowoccranes.com/en/manitowoc-direct/manitowoc-direct-request-access

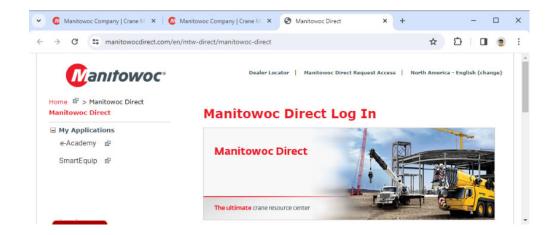


Accessing e-Academy

Once registered, users should login to Manitowoc Direct, click to expand My Applications, then select e-Academy to enter our website.

Manitowoc e-Academy:

Once logged in, you will see a Catalogue section where you will find our available courses, with upcoming dates listed.





Dashboard

Catalogue

My courses

For further instruction follow links below:

Requesting Access (Dealer) -

https://youtu.be/MEwqi2FwD1I



Enrolling in Instructor-Led Training -

https://youtu.be/awTQyvR4wtE



Enrolling in e-Learning -

https://youtu.be/U5LoOZJphkM



MANITOWOC CRANE GROUP FZE

Middle East Training Center

Jebel Ali Free Zone

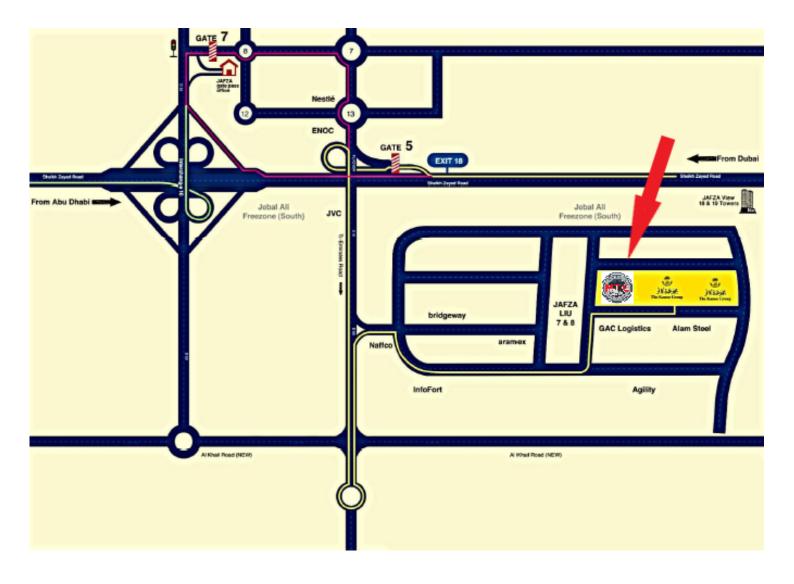
Dubai, United Arab Emirates

GPS 24°58′29.3"N 55°06′04.5"E

Phone +971 (0)4 8862677

E-mail <u>kavungal.firoz@manitowoc.com</u>





Administration

Registration - Purchase order

return to
MANITOWOC CRANE GROUP FZE
Middle East Training Center
P.O. Box 261734
Dubai, United Arab Emirates
Email: kavungal.firoz@manitowoc.com

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PPE is mandatory Safety shoes, proper outfit (no shorts), gloves, helmet and goggles.



Manitowoc Training Centers

Americas

Europe, Middle East, Africa

Shady Grove, Pennsylvania, USA Manitowoc, Wisconsin, USA Monterrey, Mexico Sao Paulo, Brazil Wilhelmshaven, Germany Dubai, United Arab Emirates



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