



Digital learning 2024

MAN PrimeServ Academies

MAN PrimeServ Academy
Augsburg

Keep everyone learning

Our mission to supply the best quality education solutions and products to our customers around the globe has not changed. Nevertheless, we are convinced that only change leads to progress. That is why we are determined to continue developing our essential PrimeServ training portfolio. Digital learning is necessary to complement MAN PrimeServ Academy's course offers.



eLearning

- Short interactive learning nuggets consisting of 10-30 min
- Typically combined with a more extensive course
- No hands-on training just interactive exercises respectively with quizzes
- Completed by participants on their own using their own computer without the need of an instructor
- Can be done at anytime and anywhere



Tailor-made instructor led online courses

- Full day courses and several day courses
- Web-based instructor led courses
- Comparable to our on-site courses at the Academy - with the benefit of joining from any location
- Complete courses which include the option of hands-on training
- Interactive learning through direct communication between instructors and participants (no. of participants is limited to 10)
- Training hardware (simulator) can be provided by the Academy and sent to the customer
- Some courses can be carried out using customer equipment (e.g. using spare parts from stock)
- Adaptable to the different customer time zones allowing flexible time planning
- Tailor-made courses for one-to-one lessons
- Fully established courses also available
- We are open to any customer suggestions for developing additional courses to our already established online courses



Open instructor led online courses

- Full day courses and several day courses
- Web-based instructor led courses
- Comparable to our on-site courses at the Academy - with the benefit of joining from any location
- Highly interactive courses thanks to the limited number of participants
- Fixed time with fixed content
- Only courses which do not include hands-on training

eLearning: knowledge on demand

MAN Energy Solutions PrimeServ Academy Augsburg has developed a wide range of eLearning courses which include a variety of subjects. This platform covers areas such as SaCoS_{one}, common rail, variable valve timing, SCR catalyst and engine fluids.

eLearning is a flexible, self-paced method for acquiring the information that is most essential for specific roles or areas where you feel the need to extend existing knowledge and competencies.

Get a first glimpse of our comprehensive eLearning platform and take part in the demo versions of our courses which you can access free of charge right here:

<https://eacademy.man-es.com/login/primeserv>

Username: eacademy
Password: MANeAcademy!1

Benefits of eLearning

- Flexible
- Self-paced
- Interactive
- Available anytime, anywhere
- Online via our eAcademy
- Fun to learn
- Sustainable

Engine fluids

Learn to apply the correct specification for fluids, understand the characteristics of a fuel and lube oil analysis as well as draw the right conclusions, select the proper lubricant for a particular application and ensure the right quality of cooling water – all you need to know about engine fluids for medium-speed engines can be obtained from our eLearning course.

Fuels for diesel engines (8 modules)



- The crude oil refining process
- Fuel specifications
- Fuel characteristics defined by ISO 8217
- Additional fuel characteristics
- ECA fuel
- Fuel treatment
- Bio fuels
- Gas

Lube oil for diesel engines (7 modules)



- Purpose of diesel engine lube oil and lube oil formulation
- Approval of lube oils for MAN engines
- Lube oil degradation
- Selection of lube oil
- Specific application: Biofuels
- Specific application: Dual fuel
- Specific application: Gas

Cooling water for diesel engines (1 module)

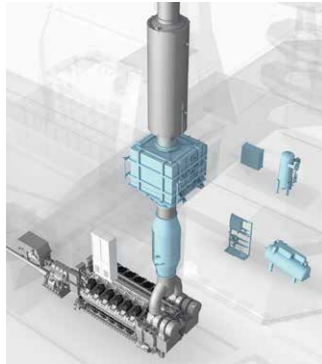


- Qualification requirements for fresh water and cooling water treatment

Additional eLearning courses

The following portfolio shows a range of further online courses available to provide you with the essential information for a safe and reliable operation of your engine.

SCR (Selective Catalytic Reduction) (4 modules)



- Rules and regulations, functional principles
- Air path
- Urea path
- Control system

SaCoS_{one} (5 modules)



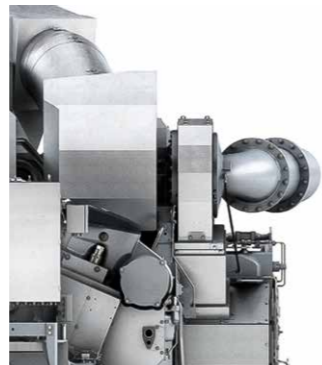
- Architecture
- Components
- Exchange of modules
- Device manager
- Expert tool

Common Rail and Variable Valve Training (2 modules)

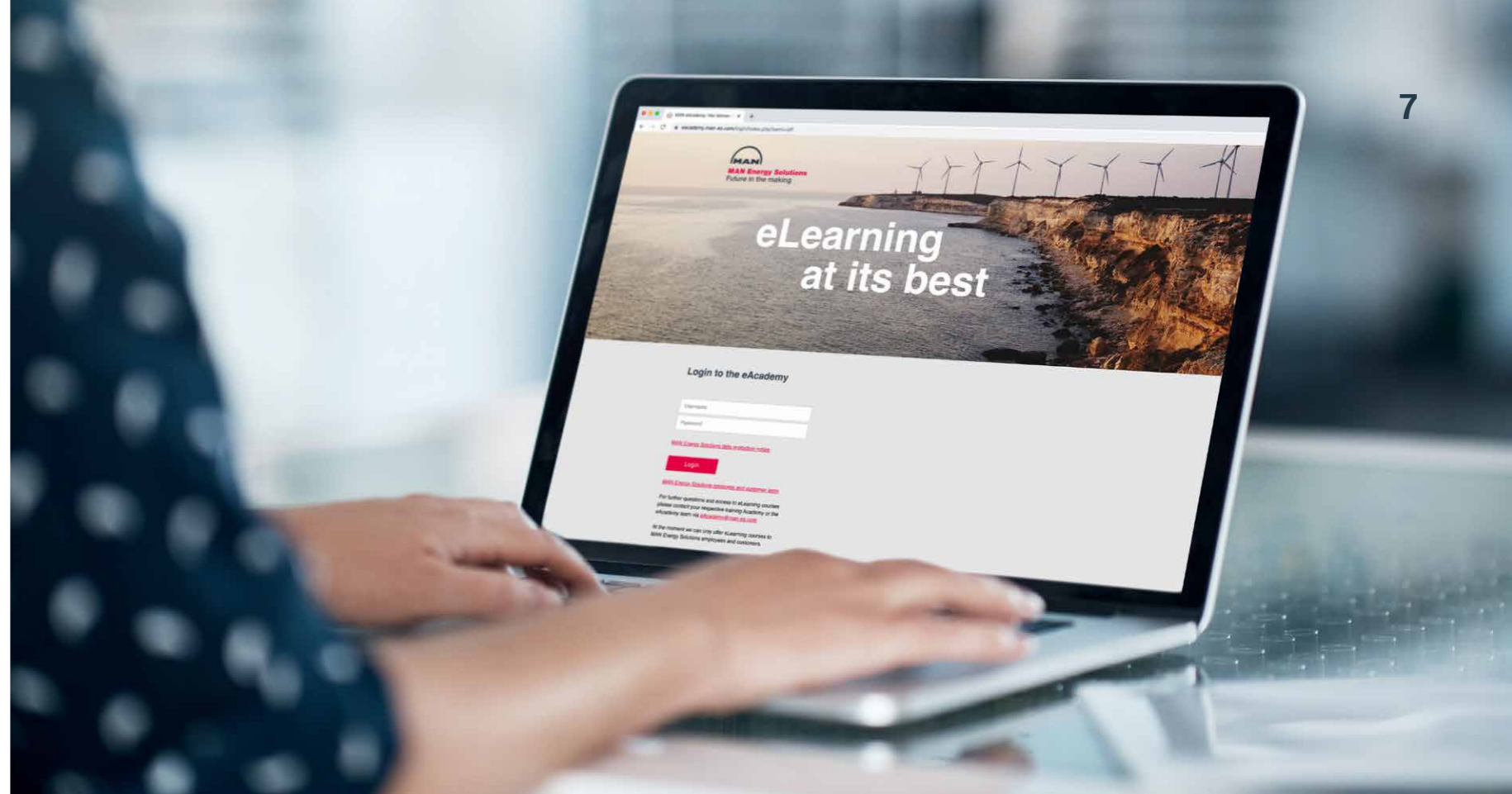


- Common Rail system, functional principles
- Variable Valve timing, functional principles

Turbocharger design, operation and trouble shooting (7 modules)



- Introduction
- Fundamentals
- Design features
- Turbocharger on the engine
- Maintenance during operation
- Trouble shooting
- Case studies: Malfunctions and root cause analysis



Order your license

so you can participate in these comprehensive eLearning courses

The license, which is personal and non-transferable, is valid for 3 months and allows the authorized participant repeated access to the eLearning course.

Course	Number of modules	Approximate duration	Price for a single license
Engine fluids	16	5h	350 €
SCR	4	2h	175 €
SaCoS _{one}	5	2h	200 €
CR/VVT	2	1h	100 €
Turbocharger	7	3h	280 €
Full package	34	13h	900 €

Number of ordered licenses	4 - 10	11 - 50	51 - 100	101 - 200	> 200
Discount	15 %	20 %	30 %	40 %	50 %

For further information and registration please contact:
PrimeServ.Academy-aug@man-es.com

Online learning solutions

In addition to eLearning, we can provide you with instructor led online courses including web based instructed hands-on lessons. We are also open to any customer suggestions for developing additional courses to our already established online courses. We really look forward to cooperating with you in determining the most suitable solution for your training demands.

Benefits of online courses

- Full course without travelling
- Invest in training, not in travelling
- Tailor-made option
- Highly interactive
- Led by an instructor
- Hands-on

Tailor-made instructor led online courses

SaCoS_{one} course

This course offers an overview of the SaCoS_{one} automation system and enables the participants to troubleshoot the automation system and exchange system components.

- 3 day course
- Lectures with exercises and hands-on practice
- Use of simulators sent to customers for hands-on training
- Hands-on: module exchange, device manager, expert tool
- Different versions: for CR, DF and conventional engines

SCR course

This course is designed for SCR system operators on power plants or ships. The course provides basic knowledge of NO_x-reduction technologies and describes the functional principle of the system and its components in detail.

- 2 day course
- Lectures with exercises

Dual fuel and gas engine technology course

This course is designed for customers' personnel who operate and maintain medium-speed gas or dual fuel engines. It covers the operational aspects of gas and dual fuel engines including safety requirements.

- 3 day course
- Lectures with exercises

Introduction course on combustion engines

This course is designed for individuals who require a broad basic knowledge of combustion engines and their application (e.g. individuals in commercial positions and managers).

- 2 day course
- Lectures with exercises

Cylinder head maintenance course

This course is designed for engine maintainers and covers the complete cylinder overhaul.

- 1 day course, mainly hands-on
- Requirement: spare cylinder head for hands-on training

Injection equipment maintenance course

This course is designed for engine maintainers and covers the entire maintenance of injection systems.

- 1 day course, mainly hands-on
- Requirements: spare fuel pump, injection nozzle and nozzle tester for hands-on training

We are also open to any customer suggestions for developing additional courses to our already established online courses.

**For further information and registration please contact:
PrimeServ.Academy-aug@man-es.com**

Open instructor led online courses

SCR standard operation

This course is designed for operators of SCR systems on power plants or ships. The course provides basic knowledge of NOx-reduction technologies and describes the functional principle of the system and its components in detail.

Nutshell courses

These courses are aimed at technical personnel requiring a comprehensive overview of specific technologies (e.g. managers and superintendents). Trainings cover SaCoS_{one}, common rail, dual fuel and gas engine technology as well as turbocharger and exhaust gas treatment.

For our worldwide customers, we offer these nutshell courses within one week, starting with a general engine introduction course. It is also possible to book just single days within the nutshell week. One course is scheduled to suit the eastern time zone while the other course is scheduled for the western time zone.

SCR standard operation online

April 2 – 3, 2024 starting at 2:00 pm CEST	A-24-012
August 12 – 13, 2024 starting at 6:00 am CEST	A-24-013

Nutshell course week online

Introduction to MAN combustion engine technology in a nutshell online

February 12, 2024 starting at 2:00 pm CET	A-24-041
July 1, 2024 starting at 6:00 am CEST	A-24-046

SaCoS_{one} in a nutshell online

February 13, 2024 starting at 2:00 pm CET	A-24-042
July 2, 2024 starting at 6:00 am CEST	A-24-047

Common rail in a nutshell online

February 14, 2024 starting at 2:00 pm CET	A-24-043
July 3, 2024 starting at 6:00 am CEST	A-24-048

Dual fuel and gas engine technology in a nutshell online

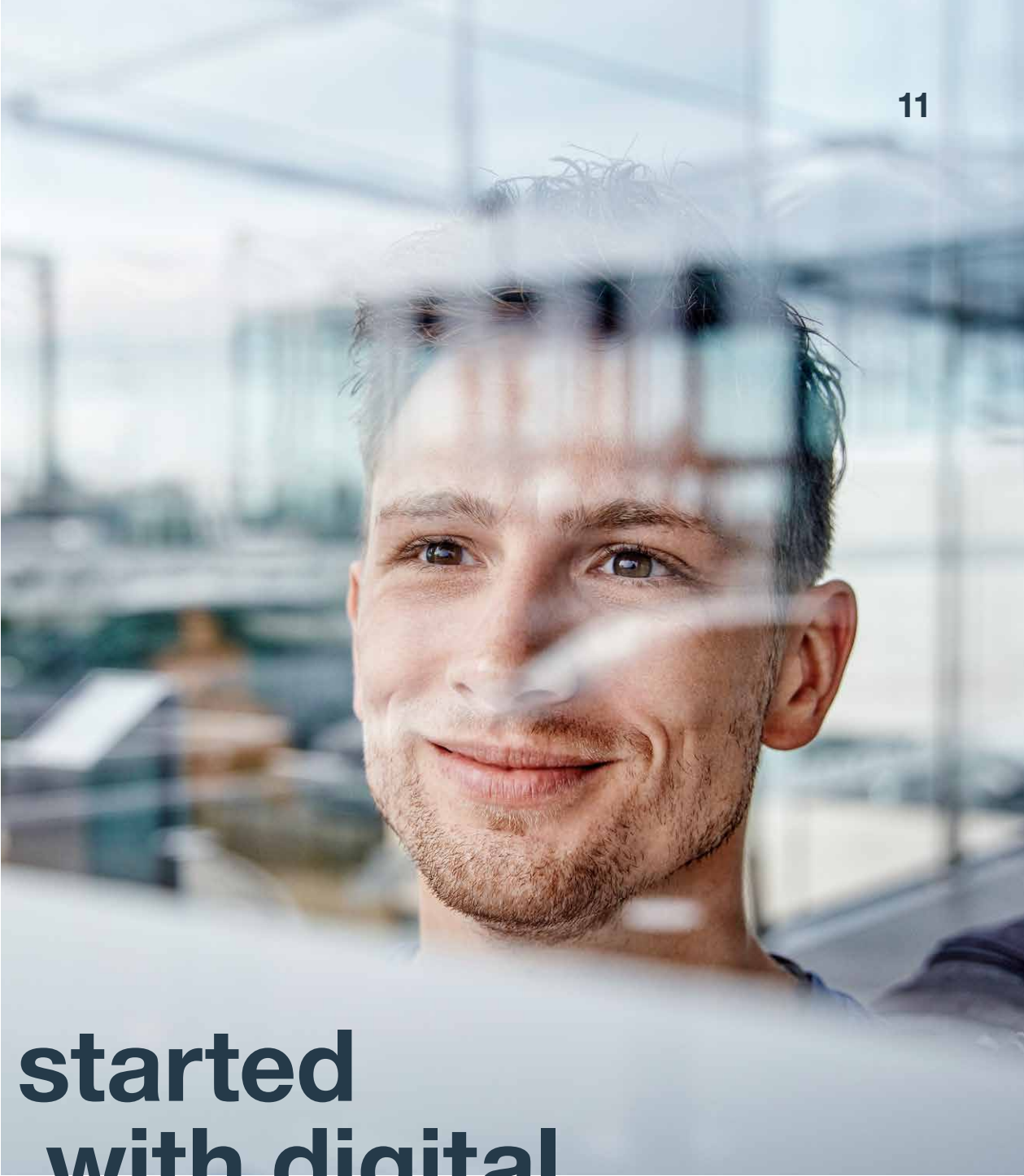
February 15, 2024 starting at 2:00 pm CET	A-24-044
July 4, 2024 starting at 6:00 am CEST	A-24-049

Exhaust gas treatment in a nutshell online

February 16, 2024 starting at 2:00 pm CET	A-24-045
July 5, 2024 starting at 6:00 am CEST	A-24-050

Turbocharger in a nutshell online

February 9, 2024 starting at 2:00 pm CET	A-24-014
June 28, 2024 starting at 6:00 am CEST	A-24-015



Get started with digital learning today

Just get in contact with us, let us know what your requirements are and we will engineer tailor-made online courses for you and your teams. We really look forward to cooperating with you in determining the most suitable solution for your training demands.

**For further information and registration please contact:
PrimeServ.Academy-aug@man-es.com**

MAN Energy Solutions

PrimeServ Academy

86224 Augsburg

P + 49 821 322-1397

F + 49 821 322-1170

primeserv.academy-aug@man-es.com

<https://www.man-es.com/services/training-qualification/course-finder>

All data provided in this document is non-binding. This data serves informational purposes only and is not guaranteed in any way. Depending on the subsequent specific individual projects, the relevant data may be subject to changes and will be assessed and determined individually for each project. This will depend on the particular characteristics of each individual project, especially specific site and operational conditions.

Copyright © MAN Energy Solutions.
D2366660-N8 Printed in Germany
I*AM-1023