

Two-Stroke Diesel & X-DF Engines

Training Courses



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A valuable investment

WinGD training courses improve the technical and engine operational skills of marine engineers and technical personnel for Ship Owners, Operators and Charterers.

With a deeper understanding of the main engine and its applied technologies, operators and supervisors of various levels will be able to enhance the performance of the engine room by increasing its efficiency and reliability, while reducing maintenance costs and lowering emission levels.

WIN GD
Simply a better different



WinGD Training – customized to suit your needs.

Course curriculum are structured based on STCW-95 guidelines. Courses are conducted by certified and experienced Technical Experts / Instructors.

Our instructors explain the **theory and functionality** of RT-flex, Generation X and the newest low-pressure dual-fuel X-DF engines using conventional training materials in the classroom and the modern W-Xpert engine simulation software.

During **advanced operational trainings**, with the help of W-Xpert Simulation Software and Full Mission Engine Room Simulators (FMS), trainers guide participants through operational aspects of the main engines as well as demonstrate certain procedures and troubleshooting routines.

Specialised courses offer a higher level of engine training. They are designed to improve the understanding of the engines and highlight specific topics, for example WinGD engine performance optimisation, piston running aspects or engine control systems used on WinGD engines.

In addition to the W-Xpert and the FMS, in certain locations, courses offer exercises on selected engine components and real hardware, including hardware control system simulators.

Training courses are offered at all WinGD Training Centres as well as alternate locations including: WinGD training partners, ship owners and/or crewing agency premises and even on-board the ship. Demonstration of hardware parts may be limited depending on location, but the simulation software ensures that the course content will be thorough and consistent, regardless of the course location.

Contact the WinGD Training Team today to discuss your training needs.

training@wingd.com

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W-Xpert Virtual Eng

The WinGD W-Xpert Engine Room Simulator and simulation software have been developed to familiarise marine engineers, from operational to management levels, with WinGD two-stroke engines. The relationship between the main engine and the various engine room systems are thoroughly explored and explained. W-Xpert is also a strong tool for maritime school programmes and can be used by various types of marine training centres.

WinGD is continually adding new products to the W-Xpert program. The simulator portfolio currently covers the following engine types: X35, X62, X72, X82, X92 and RT-flex50DF.

Deployment of virtual reality technology in training is not new. What makes the W-Xpert simulation software unique is the combination of high fidelity thermodynamic modelling featuring editable failure scenarios with fully controllable and interactive auxiliary machinery. Natural and ergonomic navigation within complex (virtual) engine room proprietary, state-of-the-art 3D graphical visualisation with a transition free phase between 2-dimensional diagrams and 3-dimensional virtual reality and realistic sound effects creates a complete engine room scenario in this professional training tool.

W-Xpert simulation software is recognised and approved by Classification Societies.

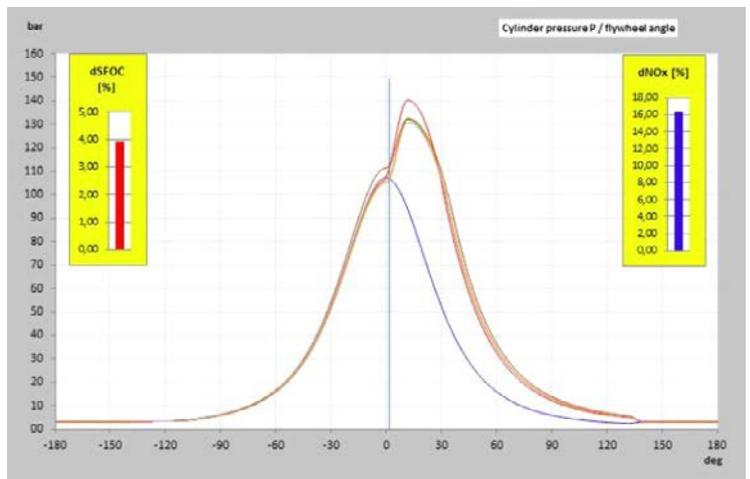


ine Room Simulator

Every WinGD W-Xpert simulation software package complies with STCW Code Section A-1/12 and Section B-1/12 and ISM Code Section 6 and Section 8.

Requiring a low demand of computer performance, the WinGD W-Xpert can be installed and operated on any Windows based PC or laptop and can be displayed on one or two monitors or projectors. The optimal utilisation of the W-Xpert software for the greatest learning outcomes can be achieved by combining it with specially designed hardware comprising several computers and many touch screens running multi-display simulations, such as the "W-Xpert Full Mission Simulator (W-Xpert FMS)", featured at several WinGD Training Centres. W-Xpert FMS is capable of simulating all machinery operations in the engine control room and machinery spaces and has been approved as "Machinery Operation Simulator Class A" according to DNV Standards for Certification.

"W-Xpert FMS" offers training for the entire engine crew as one team, to deal with WinGD two-stroke engines, and all engine room systems. A virtual main engine and engine room creates a realistic image of real machinery capable of simulating even the worst-case scenarios, impossible to replicate in on-board training.



Engine performance graph showing SFOC and NOx emissions



Example of control panel simulation.

WinGD operates four Training Centres in key global locations:

- Winterthur, Switzerland
- Athens, Greece
- Busan, Korea
- Shanghai, China

Contact training@wingd.com to learn more

Winterthur Gas & Diesel Ltd. (WinGD) is a leading developer of two-stroke low-speed gas and diesel engines used for propulsion power in merchant shipping. WinGD's target is to set the industry standard for reliability, efficiency and environmental sustainability.

WinGD provides designs, licences and technical support to manufacturers, shipbuilders and ship operators worldwide.

WinGD has its headquarters in Winterthur, Switzerland, where as one of the earliest developers of diesel technology, it began the design of large internal combustion engines in 1893 under the "Sulzer" name.

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