



WÄRTSILÄ SHORE POWER CONTAINER SYSTEM

Tightening environmental regulations are ramping up the pressure on ship operators and port authorities to minimise the impact of air pollution and noise emissions. The Wärtsilä Shore Power Container (SPC) system is a modular, containerised shore connection system that provides a vessel with a secure supply of electrical power from the local grid while the engines are turned off, completely eliminating exhaust emissions and noise pollution.

SPC is a simple and cost-effective modular system that complies with ICE/ICO/IEEE 80005-1 requirements. The key components in a typical configuration include a cable reel, a high-voltage switchboard and a control and monitoring device with an interface between ship and shore. The system can be delivered as a containerised solution or installed onboard a vessel as a single-component solution.

Our containerised solution includes all the necessary components inside a 40' high-cube container and can be installed in any suitable location on board. The solution is available for both new-build or retrofit installations and can be tailored for your needs. For example, a step-down transformer can

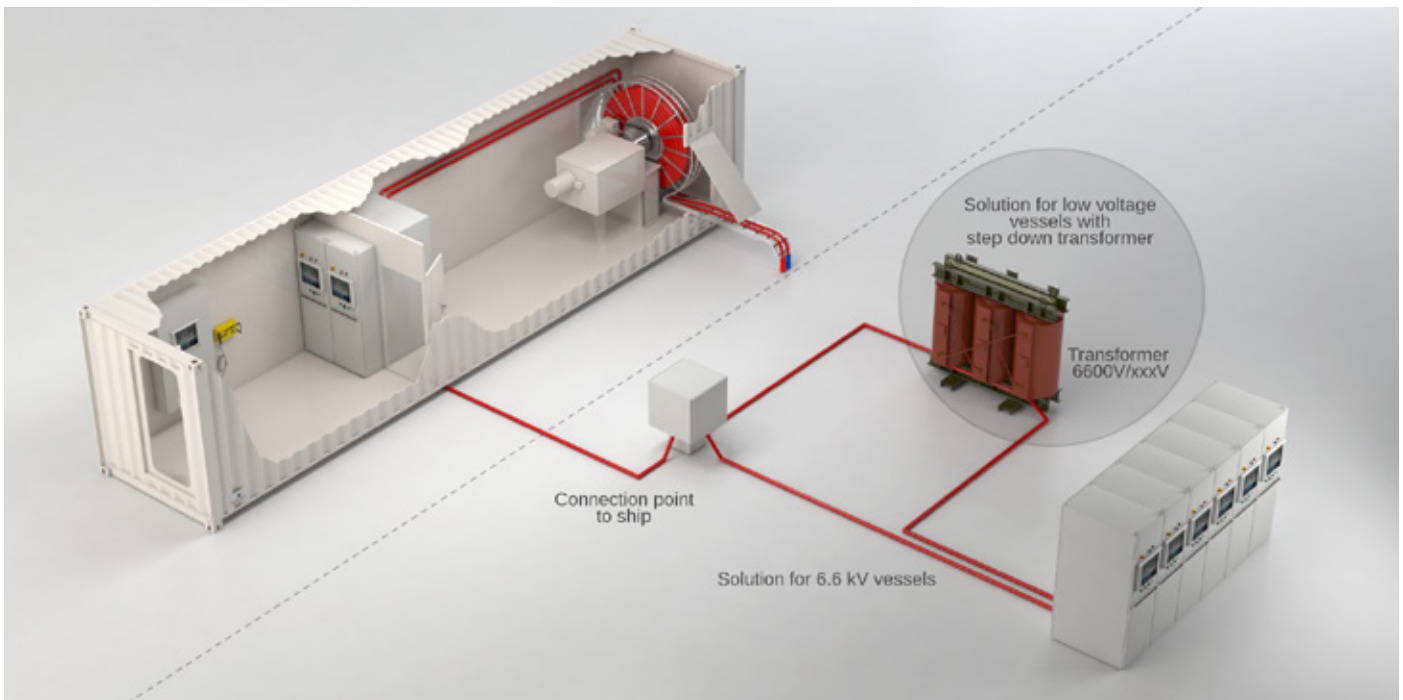
be installed for low voltage applications. For retrofit applications we perform a complete onboard installation with connection to the existing control panels and systems.

Customisable solutions to suit any application

Wärtsilä also offers a solution for projects that require a customised approach, with additional flexibility in terms of the installation locations for the main SPC components. For example, the shore cable reel can be installed in a 20' container on deck while the monitoring and control cabinet and high-voltage switchboard can be installed below deck or in a second 20' container.

KEY BENEFITS

- Reduce your environmental footprint
- Comply with port emission requirements
- Install without disrupting vessel operation
- Can be installed onboard or containerised



SPC features:

- Design according to IEC 80005-1
- Standard 40' high-cube container including classification and CSC certificate
- Max. 7.5 MVA transferable power at 6600 V, 60 Hz and 30 °C
- Usable on both port and starboard side of vessel
- Safe operation area and locked high-voltage area when operational
- Human-Machine Interface including operator guidance and alarm history
- Integrated fire alarm system
- Electric cable reel drive including tension control
- Insulated container with dehumidifier and heating to avoid moisture damage
- Maintenance-friendly technology

Scope of supply:

- Feasibility analysis
- Onboard inspection
- Engineering work and conversion planning, including:
 - Switchboard modification without affecting class approval certificate
 - Short circuit level check and coordination study plus any required adjustments
 - Integration of power and control circuits into existing switchboard
 - Clarification of the interface to automation and power management systems
 - Installation planning and coordination
- Conversion cost budgeting
- Installation services

Why choose Wärtsilä?

Wärtsilä has carried out more than 100 installations of the SPC solution for major global players in the shipping industry, with the majority of them being full EPC deliveries. Continuous research and development, as well as professional support from Wärtsilä's global network, ensure that you always get the latest applicable technologies and guaranteed reliability.

For more information about Wärtsilä Shore Power Container system visit us at [Wartsila.com/SPC](https://www.wartsila.com/SPC)



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