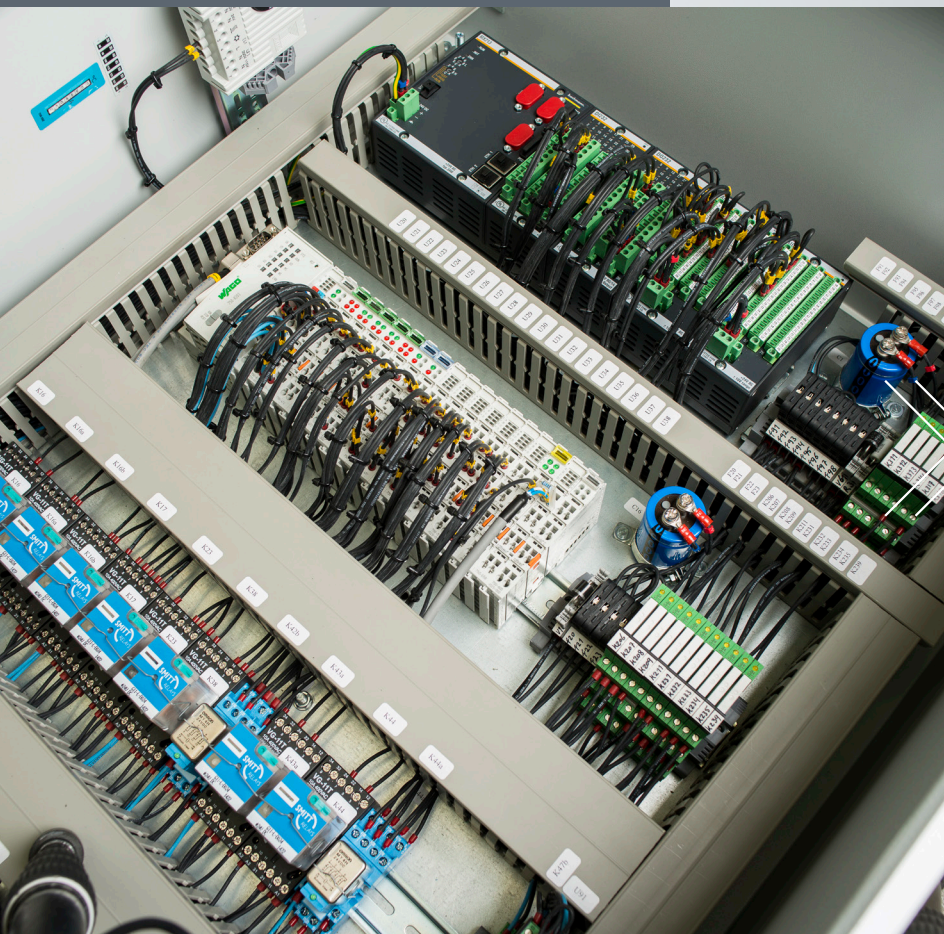
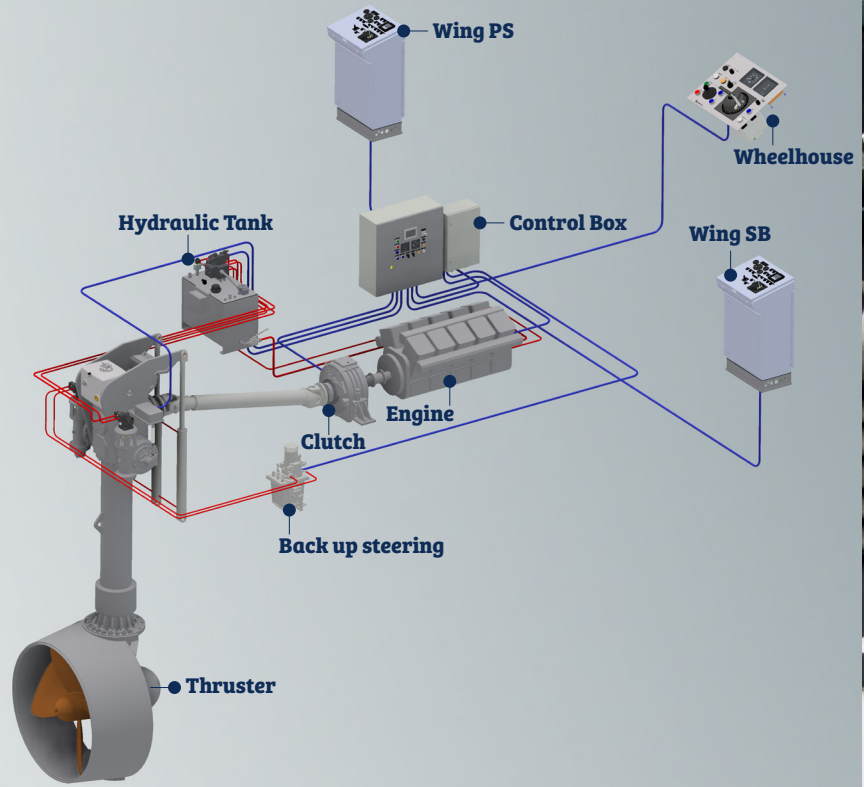


Propulsion control system

Quality and precision

The vessel's propulsion drives may vary from diesel engines to electric motors. Schraven is specialised in the development of 100% custom-built control systems for thrusters and can provide an electric-hydraulic control system as well as a full electric control system.

Steering system (Azimuth thruster)
Steering system is an Full Follow-Up (FFU) remote control system. The steering is controlled by a lever which allows the operator to control the steering angle, engine speed and clutch (dis)engagement by one hand. This steering system operates proportional. This means that a small steering angles will be electronically transformed in smooth steering movements and big steering angles will be transformed into fast steering movements including an acceleration and deceleration ramp. The system can be switched over to a Non Follow-Up (NFU) control system.



Schraven control systems available for:

- Azimuth/steerable thrusters
- Navigator units
- Retractable azimuth thrusters
- Combi thrusters, Retractable azimuth/transverse thrusters
- Pump jets
- Transverse thrusters
- Controllable pitch propellers

Our control systems can be equipped with an electrical shaft system. The purpose of an electrical shaft system is to synchronize the control levers of all operating positions, such as Port wing, Bridge control station and Starboard wing.

Our control systems are adapted to connect to external systems, such as Autopilot-Systems, DP-Systems, central monitoring/alarm systems and VDR-systems.



**Wasa Dredging,
Sinann & Boann**





The control panels are customized to the owner's requirements, such that these fit in the available space.

Characteristics:

- User friendly
- Standard available in 3 languages (NL, DE or EN) or with pictograms
- User specific requirements possible
- Fully dimmable panels

We are one of the few market leaders with our concept that systems and (safety) mechanisms should serve people and not otherwise.

That is why we make a number of notable customer-oriented choices during the engineering and development process and our custom service continues where that of others stops.

Retrofit

Is your control system outdated, does it no longer meet the current standards and/or requirements?
 Is it becoming increasingly difficult to obtain the right service or replacement parts?
 Then you can consider to renew your current control system. This is also called Retrofit!

Schraven has years of experience in various types of thrusters for all kinds of applications, regardless of the brand of the thruster concerned. Our engineering and R&D departments are particularly well suited for this type of projects. In order to come to a specific project design, both the propulsion and control system as well as the accompanying preconditions for the design are taken into account.

These projects include the entire process, such as; engineering, programming, hardware realisation and the commissioning on site.



Uniworld, River Princess



Van Oord, Jan Leegwater & Jan Blanken



**Schraven is a family company for more than 40 years
that offers worldwide:**

- ✿ CUSTOM-BUILT NAVIGATOR UNITS
- ✿ CUSTOM-BUILT STEERING SYSTEMS
- ✿ SERVICE OF ALL AZIMUTH THRUSTERS
- ✿ SERVICE OF ALL BOW-THRUSTERS
- ✿ SUPPLY OF SPARE PARTS

You can find our workshop and warehouse here:

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