

HELICOPTER REFUELLING SYSTEM HRS WITH PRECICONTROL TECHNOLOGY



Alfons Haar



SAVE 35% SPACE SAVE 20% WEIGHT



ADVANTAGES

- Standardised HRS design with a large choice of ready-made modules as building blocks for a complete system: All technical data available from the earliest moment of the project phase of a new ship
- PreciCONTROL architecture eliminates the typically separate control cabinets and significantly reduces wiring effort for the yard
- Safe operation by menu-based control terminal on each module
- Continuous flow rate based differential pressure monitoring for filter water separator and other safety features protect the fuelling process without the need of operator interaction.
- Future-proof by full compliance with international standards and unrestricted upgrading
- Integrated digital communication interface to connect to ship's IMCS (integrated monitoring and control system)

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The Alfons Haar PreciCONTROL HRS helicopter refuelling system offers a very compact, weight reduced and complete solution for Helicopter refuelling applications on ships from yachts up to aircraft carriers.

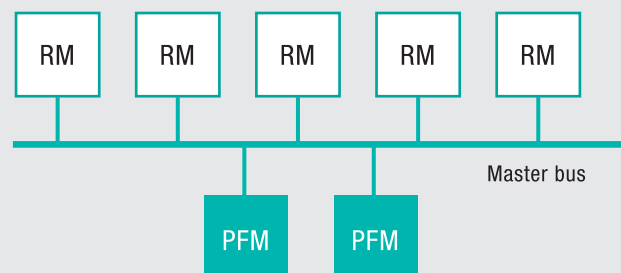
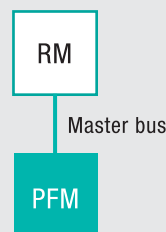
The new standard with its flexible modular concept presents five size classes of Pump-Filter-Modules PFM from 100 l/min to 2360 l/min and three size classes of Refuelling-Modules RM.

All modules are available with numerous options and can be individually combined with each other to tailor a complete system.

Each module has its own ARU-Master microprocessor control with screen making it independent from the others. At the same time, all modules are perfectly interconnected with each other through a master bus system. The structure allows full scalability and features from remote control up to full redundancy.



EXAMPLES



FEATURES

- Overwing / underwing refuelling, defuelling and flushing
- Service filtering, intertank transfers and loading/bunkering
- Tank control for automatic tank selection, fill level monitoring, overfill prevention etc.
- Fully automatic multi-stage pump control, pump vacuum control, flow and temperature monitoring
- Integrated metering with optional temperature-volume-compensation
- Continuous flow rate based differential pressure monitoring for filter water separator with filter life status indication.
- Filter water sump monitoring with automatic water draining
- Filter draining and refilling functions for fast and safe filter service
- Optional remote controller at loading/bunker station for operator guidance

STANDARDS

Alfons Haar, ISO 9001 certified, manufactures the essential components and produces HRS as a factory assembled and tested into-plane refuelling system.

Tested into-plane refuelling system. It comes ready-for-operation to be integrated in the ship.

The system is designed according to EC directive, ATEX and IEC as well as JIG regulations and classification society rules GL and LRS.