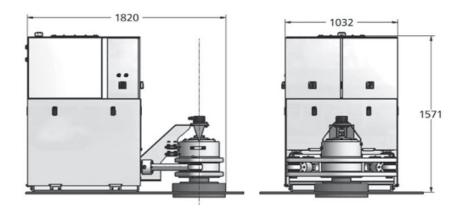
Steering gear

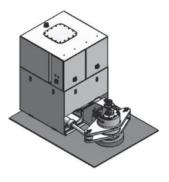
HATLAPA type DUOPAC



Structural features

- Compact design without assembly and piping / "Plug & Play"
- Shaft assembly without blueprint
- Cylindrical shaft for easy installation without hydraulic nut
- Integrated safe-tank
- Simple maintenance
- Simple and safe operation
- Compatible with all major brands of autopilot and rudder control systems
- Approved by all classification societies



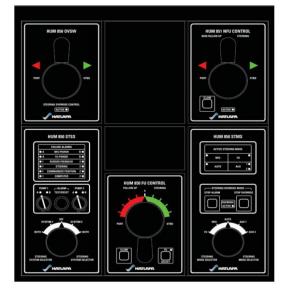


MACGREGOR

Technical data

Туре	40	44	50	57	70	75	92	95	106	109	118	140	150	160	190	202
Working torque	40	44	50	57	70	75	92	95	106	109	118	140	150	160	190	202
Tiller shaft diameter	140	180	180	190	190	180	190	190	220	220	220	240	700	240	220	280
Rudder angle	45°	50°	45°	45°	45°	45°	60°	60°	45°	50°	50°	45°	70°	45°	45°	45°

Hatlapa rudder control and steering gear alert systems are availble, offering simple bridge interface



Rudder Control System



SOTERIA Alert System touch panel

MacGregor shapes the offshore and marine industries by offering world-leading engineering solutions and services with a strong portfolio of MacGregor, Hatlapa, Porsgrunn, Pusnes and Triplex brands.

MacGregor is part of Cargotec. Cargotec's class B shares are quoted on NASDAQ OMX Helsinki.

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