



# becker marine systems



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## Schilling

The Schilling High-Lift Rudder offers improved manoeuvring for all sizes and types of vessels. It is available as a full spade design (Schilling MonoVEC) or, for larger vessels, in semi-spade configuration (Schilling Mariner).

### System Benefits:

- Exceptional full speed course-keeping ability
- Reduced rudder "hunting" under autopilot operation
- Significantly reduced overshoot angles
- Reduced head reach and lateral deviation
- Improved crabbing and zero-speed control, reducing reliance on tug assistance
- Enhanced turning capability with significantly reduced turning circles at speed
- Single-piece construction with no moving parts makes Schilling ideally suited for all ice notations





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## MonoVEC, Mariner, VecTwin



### MonoVEC

The rudder stock is designed for combined bending and torsional loads, the main rudder bearings are positioned to minimise bending moments. Can be supplied as full spade or with heel pintle as shown.



### Mariner

The fixed rudder horn and pintle provide increased rudder support. Efficient absorption of bending moments reduces the stock diameter and hence rudder blade thickness.



### VecTwin

The VecTwin system offers significant manoeuvring enhancement for single-screw vessels. Twin asymmetric Schilling rudders operate independently behind a single propeller, allowing full 360° vectoring of the propeller thrust.

## The Schilling concept

The Schilling Rudder is a high lift rudder, designed for vessels of any size, and supplied in single or multiple configurations. Being of a single piece construction with optimised shape and no moving parts, the Schilling Rudder dramatically improves both course keeping and vessel control characteristics.

With operating angles up to 70° port and starboard, the Schilling Rudder can control the propulsive force to achieve an efficient 'side thrust' effect at a ship's stern.

It is the enhanced levels of ship handling and control achieved with the Schilling Rudder system that gives ship owners and operators access to a range of long term operating, cost and safety benefits.

### The unique profile of the Schilling Rudder incorporates:

- A rounded leading edge promoting good flow properties at all rudder angles
- A fishtail trailing edge that accelerates the flow and recovers lift over the aft section of the rudder
- End and optional intermediate plates to control propeller slipstream
- High rudder balance optimizing propeller coverage
- Fully welded steel construction of the rudder blade
- Rudder blade to stock connection by keyless conical or flange coupling
- Single or multiple bearing support with no moving parts

