

SPW GmbH

SAIL PROPELLER- UND WELLENBAU

The German company, SPW GmbH founded in 1988, is mainly involved with sailing propellers or so called feathering and folding propellers in the pleasure craft industry. Both brands, VARIPROP and VARIFOLD, are trademarks of SPW GmbH.

Beside these products, SPW is also involved with machine work for different industry sectors and offer their service for customizing propellers on order in response to customer's requirements. The engineering department at SPW are working with 3D-CAD/CAM and FEM computer programs to match the high demands of today's marine market.

The newest propulsion products that have recently been launched include the revolutionary VARIPROP - a 4 bladed feathering propeller. In the same year (2003) SPW GmbH designed and engineered the 4-bladed VARIFOLD folding propeller.

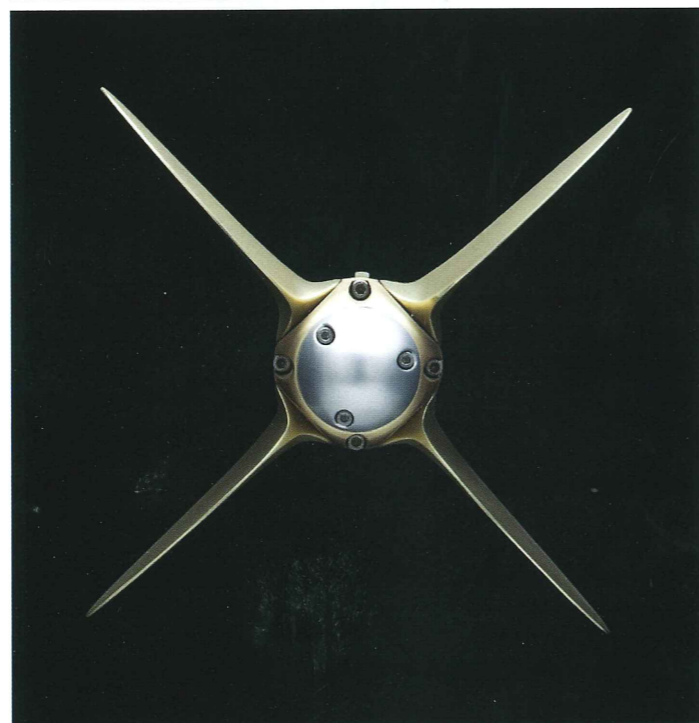
Recently, the VARIPROP, received from Yanmar Marine, the official approval permission for their Yanmar Saildrives SD20, SD30, SD40 & SD50.

This year SPW GmbH is planning to work and to improve on specific details of the VARIPROP and VARIFOLD brands. For example, this year the Company is looking to achieve type approval for the VARIPROP in accordance with the classification rules of "Germanischer Lloyd".

A while ago SPW GmbH formed a successful joint venture with Bruntons Propellers in England. This partnership started in 2002 and was effected with the selling of the product rights of 2, 3 and 4 blade VARIFOLD props to Bruntons in 2003. Since then both companies have worked closely together to promote and market the VARIFOLD brand worldwide. While SPW GmbH has made the design and engineering of the VARIFOLD as a two, three and four bladed propeller, Bruntons Propellers have been responsible for the manufacturing of the VARIFOLD in its complete available ranges.

Already SPW GmbH VARIPROP have established distributors in England, USA, Canada, Italy, France, Scandinavia, Argentina. This year the company also appointed a distributor for VARIPROP in Australia, namely Yard Engineering.

SPW GmbH are however seeking more distributors in several other countries, such as New Zealand and Spain.



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VARIPROP

VARIPROP is simply the finest Automatic Feathering Sailing Propeller in the World. When the engine is turned off, the waterflow rotates the blades automatically into the feathered position.

Basic Features and Benefits of Feathering Propellers:

1. When the engine is turned off, the waterflow rotates the blades automatically into the feathered position, resulting in the following benefits:

- * Drag is almost eliminated and speed increases 15% to 20%, depending on wind conditions.
- * Propeller turbulence vanishes and a substantially enhanced rudder effect is achieved.

2. When shifting into reverse, less than one shaft rotation turns the leading edge of the blades 180 degrees, resulting in the following benefits:

- * Efficiency (thrust) in reverse is equal to forward, 30%-40% more than all fixed propellers.
- * You get improved stopping power; however, this also increases "Prop Walk" (paddle wheel effect) unless reverse pitch can be adjusted independently for better control when docking.

Unique Features of VARIPROP

1. Independently adjustable external pitch control. Forward and Reverse pitches can be changed in just seconds- even underwater. Benefits include:

- * Custom fine tuning (in micrometer-small Increments) of reverse thrust vs. prop-walk. (For most owners, eliminating prop walk is more important than maximizing reverse thrust.)
- * VariProp allows you to customize that balance for optimum control, manoeuvrability and safety
- * Independent fine tuning of forward thrust means that VariProp delivers the best possible performance (speed, thrust, fuel economy) in forward without compromising reverse performance... and vice versa

2. Comes Fully Assembled. Benefit:

- * VariProp mounts on your shaft just like a solid prop. No disassembly or shaft modifications.

3. SoftStop™ Shock Absorbing Multidisc Brake (patented) built into the VariProp hub. Benefits:

- * Dramatically reduces shock loads on gearbox and drivetrain, permits shifting at higher speeds without damage and preserves preset pitches by eliminating hard limit stop impacts (the typical "clunks" of all others).
- * The entire drive train benefits: longer Cutless bearing life, minimized wear on gearbox, clutch plate, bearings.

4. Superb German precision engineering in a custom made prop vs. mass-produced competitors. Benefits:

- * Every VariProp is built to order - consistently 100% up to stringent specs for reliable, smooth and efficient operation.
- * Gears are 35% - 50% larger and stronger than competing propellers.
- * Quality is assured by compliance with DIN EN ISO 9001 international manufacturing standards.

5. As a final step, each propeller is dynamically balanced by hand to perfection. Benefit:

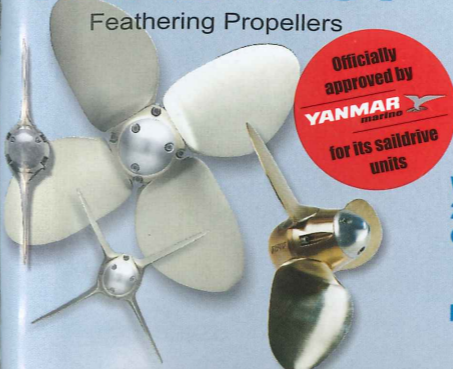
- * Smoother, quieter running with absolutely zero vibration.

6. Shortest hub: VariProp's hub is flush with the forward edges of the blades, and barely protrudes past the aft edges. Benefits:

- * VariProp will fit into the smaller prop apertures of older traditional "full keel" yachts- not possible with most competing propellers.
- * Line cutters- SPURS™ or solid types- can be mounted very close to the VariProp blades- the ideal position. This is a huge advantage for boats operating in areas with fields of lobster pots, crab pots and fish traps. With competing props, because of their much longer hubs, all such cutters must be mounted farther away from the prop blades, which drastically reduces their effectiveness.

VARIPROP

Feathering Propellers



Officially approved by
YANMAR
for its saildrive units

SPW GmbH

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all Propellers are available from 12" up to 50"

VARIFOLD

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