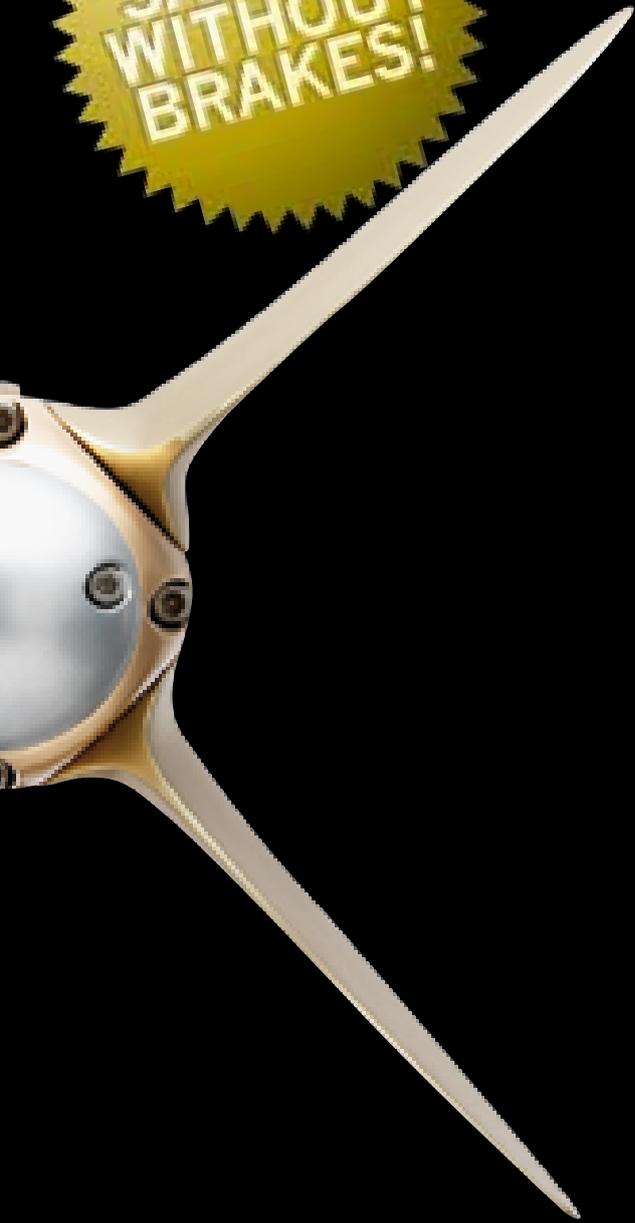


VARIPROP
FEATHERING PROPELLERS

SAILING
WITHOUT
BRAKES!



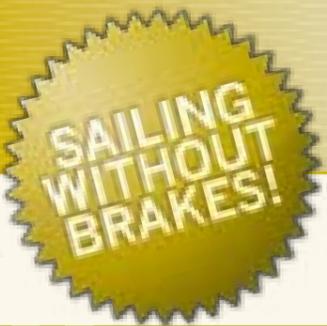
SPW GmbH
SAIL PROPELLER- UND WELLENBAU

DO YOU DRIVE YOUR CAR WITH THE HANDBRAKE ON?

VARIPROP
FEATHERING PROPELLERS

**SIMPLY THE FINEST AUTOMATIC
FEATHERING SAILING PROPELLER IN THE WORLD!**

MAXIMUM PERFORMANCE
MADE IN GERMANY



**Basic Features and Benefits
of MOST Feathering Propellers**

1. **When the engine is turned off, the waterflow rotates the blades automatically into the feathered position.**

2. **When shifting into reverse, less than one shaft rotation turns the leading edge of the blades 180 degrees.**

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.

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:
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, maneuverability 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. **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, 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

3. **Gears are 35% - 50% larger than competing props**

BENEFIT:
Substantially extended service life. With proper service props can last for decades, not just a few years.

Unique Features of VARIPROP

4. **Precision engineering**

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

Quality is assured by compliance with DIN EN ISO 9001 international manufacturing standards and approved according to the standards of the "Germanischer Lloyd".

5. **Comes fully assembled and tested**

BENEFIT:
VARIPROP mounts on your shaft just like a solid prop. No disassembly, no shaft modifications

6. **Balanced by Hand**

As a final step, each propeller is dynamically balanced by hand to perfection

BENEFIT:
Smoother, quieter running with absolutely zero vibration

7. **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.

External pitch adjustment

The patented pitch adjustment device allows you to adapt the propeller pitch individually to your sailing requirements without having to dismantle the VARIPROP – it can be easily optimized while mounted. An easy-to-understand manual and the necessary tools are provided with every VARIPROP.



SoftStop™ shock absorber

The integrated mechanical shock absorber reduces unpleasant operating noises. The pitch stops are substantially protected against wear..

WHAT DO OUR CUSTOMERS SAY?

» After owning "Windigo" (C&C 40) for 12 years this is the first year I have been able to achieve proper RPM's (2600) instead of 2100 or 2200 with little or no vibration. I have tried just about everything, such as replacing engine mounts, new flange and coupling, cutless bearing and realining my strut. I have changed propellers from a MARTEC to a FLEXO-FOLD. I even tried a MAX-PROP. All these changes and expense did not help my vibration and the harmonics. What a surprise when I put my 3-bladed VARIPROP on.... Vibrations are gone, I have much greater punch going into strong seas and lose considerably less speed... My stopping power has been greatly increased and my docking has been made easier with the way WINDIGO's stern walked to port. Bottom line is, I am very pleased with my prop. It's the single best investment I have made to the boat.. <<

Dick Emmerson, owner of the Windigo / Saint John, NB.



photo: Angus Yachts



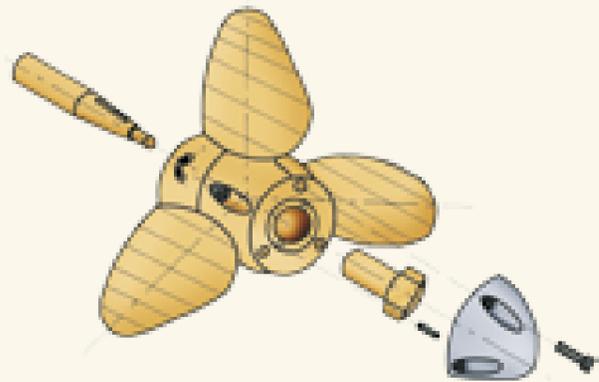
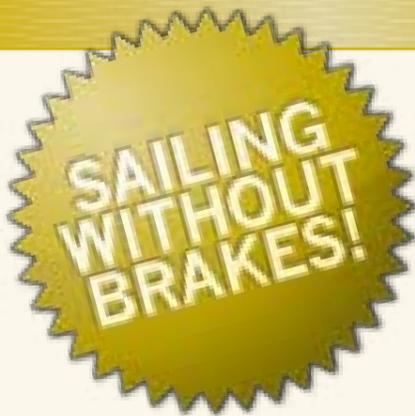
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EASY INSTALLATION



STANDARD PROPELLERS

LARGER SIZES UP TO 50 INCHES ON DEMAND



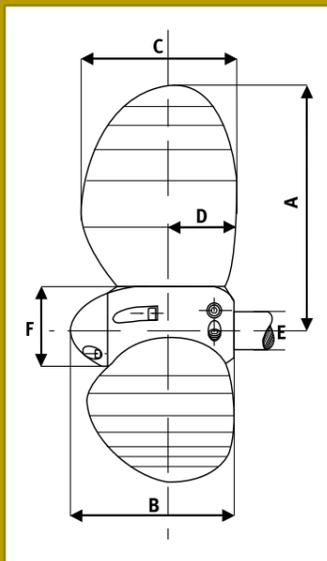
» The VARIPROP is mounted on your tapered shaft or saildrive shaft exactly like a fixed blade propeller. No disassembly of any part of the VARIPROP is necessary unlike other feathering propellers found on the market. Secure locking of nut is attained by using LOCTITE to place a grub screw in a position that makes it impossible for the nut to come off. Finally the zinc cap is mounted and you are ready to go.

Some of the Boats using Propellers of the VARIPROP Series DF-80 - DF-140:

- | | | |
|--------------|------------------|-----------------------|
| Amel | Halberg Rassy | Schionning catamarans |
| Baltic | Hunter | Southerly |
| Beneteau | Ionic | Sparkman and Stevens |
| Bristol | Island Packet | Swan |
| Bruckmann | Jeanneau | Sydney Yachts |
| Buizen | Lagoon | Tartan |
| C&C Yachts | Luffe | Tasman |
| Catalina | Malö | Van der Stadt |
| Cheo Lee | Maxi | Vancouver |
| Comfortina | Mirage | Vindö |
| Contessa | Moody | Wauquiez |
| Contest | Morgan | X-Yachts |
| Comfortina | Najad | ... and many more |
| CS Yachts | Nauticat | |
| Dehler | Nonsuch | |
| Dufour | OE | |
| Elan | Oyster | |
| Etap | Perry Catamarans | |
| Faurby | Reinke | |
| First | Redford | |
| Grand Soleil | Saga | |
| Hanse | Salona | |



VARIPROP on sail-drive



» DF-80

Propeller dia.		A	B	C	D	E		F	Output Horse Power Range	Prop net weight
inch	mm	mm	mm	mm	mm	mm	inch	mm	hp/kw	kg
12	305	152	155	105	60	20-25 and saildrive	3/4" - 1" and saildrive	dia. 80	max. 6.5 to. 5-30 / 3.6-22	4.8
13	330	165		110						5
14	355	178		120						5.5
15	380	190		130						6
16	406	203		135						6.5
17	432	216	145	7						

» DF-107

Propeller dia.		A	B	C	D	E		F	Output Horse Power Range	Prop net weight
inch	mm	mm	mm	mm	mm	mm	inch	mm	hp/kw	kg
15	380	190	170	115	70	20-35 and saildrive	1" - 1 3/8" and saildrive	dia. 107	max. 14 to. 30-80 / 22-59	8
16	406	203		125						8.5
17	432	216		135						9.5
18	457	229		145						10.5
19	483	242		155						11.5
20	508	254	160	12						

» DF-112

Propeller dia.		A	B	C	D	E		F	Output Horse Power Range	Prop net weight
inch	mm	mm	mm	mm	mm	mm	inch	mm	hp/kw	kg
20	510	255	215	165	85	35-40	1 3/8" - 1 1/2"	dia. 112	max. 20 to. 60-120 / 45-88	17
21	533	286		175						17.5
22	560	280		180						18
23	584	292		185						19
24	610	305		190						20
25	635	318	195	21						

» DF-128

Propeller dia.		A	B	C	D	E		F	Output Horse Power Range	Prop net weight
inch	mm	mm	mm	mm	mm	mm	inch	mm	hp/kw	kg
24	610	305	245	215	100	40-50	1 1/2" - 2"	dia. 128	max. 26 to. 100-140 / 73.5-103	26
25	635	318		225						26.5
26	660	330		235						27
27	685	343		240						27.5
28	715	358		250						28

» DF-140

Propeller dia.		A	B	C	D	E		F	Output Horse Power Range	Prop net weight
inch	mm	mm	mm	mm	mm	mm	inch	mm	hp/kw	kg
24	610	305	256	195	112	max. dia. 55 mm	max. dia. 2 1/4" flat key	dia. 140	max. 50 to. 180 / 132	26
26	660	330		210						28
28	715	356		230						32
30	762	381		250						39
32	813	406		275						40

All VARIPROP are made out of high-strength NIBRAL material for long life.



photo: Bruckmann Yachts



photo: Angus Yachts



photo: Angus Yachts



photo: Swans Yachts Sale



photo: Swans Yachts Sale

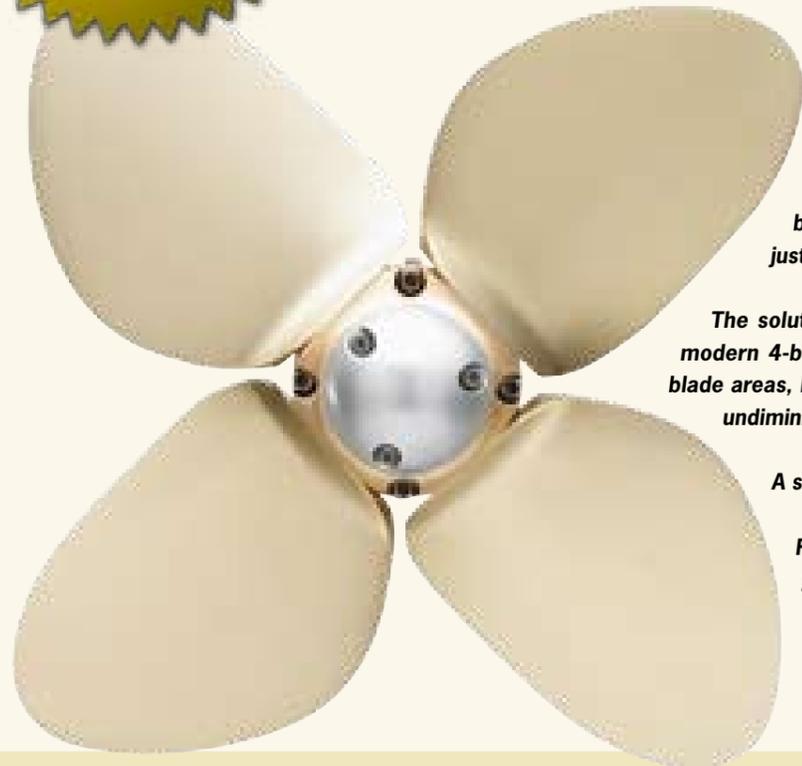


photo: Swans Yachts Sale

4 BLADED POWER: THE VARIPROP "BLUE WATER"

VARIPROP XLS EXTRA LARGE AND EXTRA STRONG!

**SAILING
WITHOUT
BRAKES!**



with all the advantages of her 2 & 3 bladed sisters the 4 bladed Variprop has a lot to offer.

Especially in blue water conditions, excessive blade loading causes cavitation noises, bubbles on blades and resulting loss of power, just when you need it most in the trough.

The solution is the VARIPROP, to-date worlds most modern 4-blade feathering propeller, with 30% larger blade areas, less blade loading, much greater thrust and undiminished power.

A smaller diameter fits where others cannot.

Fit a 4 blade VARIPROP. The cost is less than you might think. The results are simply amazing. Smooth running, under all conditions tremendous power, no vibration.

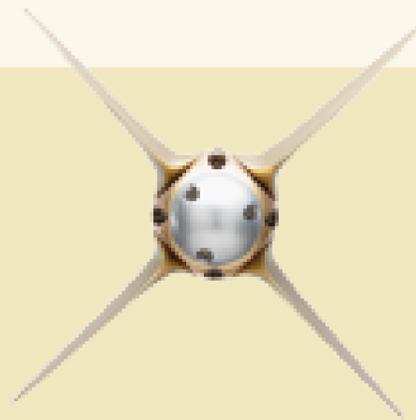


SIMPLY THE FINEST AUTOMATIC FEATHERING SAILING PROPELLER IN THE WORLD!

Unique Features of VARIPROP XLS

- » Independently adjustable external pitch control (patented). Forward and Reverse pitches can be changed in just seconds even underwater.
- » Integrated shock absorber (patented) built into the VARIPROP hub
- » All XLS-VARIPROP are sealed to avoid loss of grease from the housing during operation. This ensures long life of the mechanical parts and also substantially extends service intervals.
- » Massive gearings last for decades of utterly reliable and trouble free services.
- » Comes fully assembled VARIPROP mounts on your shaft just like a solid propeller. No disassembly.

VARIPROP "BLUE WATER"
the ultimate cruising yacht propeller:
Sail ... without "towing a bucket"
Power ... into head seas like a tugboat



» Refer to complete Data on web-site (www.variprop.de)

Altair
Length: 39 m,
Weight: 161 to,
Engine: Gardner, 275 HP

3 blade VARIPROP DF 230
Diameter: 34"
Pitch: 25" / 22"

Eleonora
Length: 36 m,
Weight: 240 to,
Engine: Baudouin, 460 HP

4 blade VARIPROP DF 310
Diameter: 46"
Pitch: 38" / 36"

More large sailing vessels using the stunning VARIPROP XLS:

SY "ALTAIR"	SY "ORION"	Oyster 63
SY "DORIANA"	SY "SHABAB OMAN"	Oyster 82
SY "ELEONORA"	SY "SENTA"	Moody
SY "LULWORTH"	Scharping 60	Northwind 68
SY "KENTRA"	Baltic	Swan
SY "ASTRA"	Oyster 56	



photo: Pierre Lang



photo: Swans Yachts Sale



photo: Franco Pace



photo: Franco Pace



photo: Meer & Yachten (05/2003)

SPW GmbH
SAIL PROPELLER- UND WELLENBAU

**SAILING
WITHOUT
BRAKES!**

**Power ... into head seas like a tugboat
Sail ... without "towing a bucket"**

- » Near zero sailing drag.
- » Powerful thrust in head seas.
- » Incredible control in reverse.
- » Reduces or eliminates "propwalk" in reverse.
- » External, and separate, pitch adjustment for forward AND reverse.
- » Massive gearings last for decades of utterly reliable and trouble free service.
- » Soft Stop™ MultiDisc Brake prevents impacts when reversing blades.
- » 2, 3 and 4 blade models.
- » Shortest hub length. Fits smallest apertures.
- » Delivery fully assembled, balanced and tested. Ready to install on any shaft with no modifications necessary.

**Simply the finest sailing
yacht propellers in
the world.**

MADE IN GERMANY

SPW GmbH
SAIL PROPELLER- UND WELLENBAU