

VARIFOLD

FOLDING PROPELLERS



A product of



in cooperation with





VARIFOLD

FOLDING PROPELLERS



Varifold 2-Blade:
up to **50 hp**



Varifold 3-Blade:
up to **350 hp**



Varifold 4-Blade:
up to **750 hp**



Perfect Propulsion

2-Blade

- » Diameter 305 mm to 432 mm or 12" to 17"
- » For engines rated to 50 hp
- » Available for shafts & saildrives
- » Blades fold completely together for minimum drag
- » Modern blade design with substantial blade area for smooth running and minimum noise & vibration
- » Rubber bump stops minimise blade , opening impact

3-Blade

- » Diameter 432 mm to 813 mm or 16" to 32"
- » For engines rated to 350 hp
- » Available for shafts & saildrives
- » Latest blade design incorporates high skew and cambered blades for smooth operation
- » Pitch reduction at the tip to reduce pressure pulses on the hull

4-Blade

- » Diameters up to 1,016 mm or 40"
- » For engines rated to 750 hp
- » Designed for high power sailboats, to minimise noise & vibration
- » Incorporates the latest low noise blade design
- » High blade area minimises cavitation and thrust breakdown at full power giving improved efficiency and speed

The remarkable VARIFOLD propeller range has grown from a single two blade model to include three and four blade versions in a very short space of time. VARIFOLD is the propeller of choice for many highly respected yacht manufacturers and their customers. For years, owners of yachts equipped with folding propellers have suffered from a multitude of problems to which there seemed no solution.

High noise, vibration and cavitation levels, poor astern performance and unreliable blade opening degraded the enjoyment of ownership. Today, with a three model range covering all sizes of yacht, owners can enjoy the benefits that VARIFOLD brings.

This site will tell you more about the unique design features which find VARIFOLDS being fitted to Swans, Baltic Yachts, Wally's and Moody's to name but a few.

To get the whole story, do contact us and we will be very happy to discuss the right model and size for your yacht.

VARIFOLD Design

VARIFOLDS are designed to solve problems which have affected folding propellers since they were first introduced. Working with SPW, and other companies in the Bruntons group, who design and manufacture propellers for vessels as diverse as nuclear submarines and luxury motor yachts, the designers have achieved their objectives.

The resulting range of propellers share design features which are little short of revolutionary. VARIFOLD marries virtually all the benefits of a fixed propeller when motoring, to those of a low drag folding propeller when sailing.

VARIFOLD's very low noise and vibration characteristics are achieved by state of the art blade design and proper helical pitch distribution, including pitch reduction towards the blade tip. This radically reduces cavitation and, in combination with the skewed blades, greatly reduces noisy pressure pulses against the hull.

No other manufacturer offers this full package on such a wide range of folding propellers. Putting the technicalities to one side it's very simple - VARIFOLDS work!

Varifold sailing

VARIFOLD, in all its versions – two, three and four blade, is an exceptional low drag racing propeller. Unlike some folding propellers, on most installations VARIFOLDS do not rotate when sailing, even at higher speeds.



Varifold astern

Varifolds open when you go astern! This is again a feature of the design which relies on hydrodynamics as well as inertia to assure reliability. Thrust is greater than other folders by virtue of the design.

»... We installed a VARIFOLD 4 blades with smaller radius, folding, with a new blade design and built in high strength NIBRAL Alloy material. Which is much stronger and especially for ice regions certificated. No more noises, vibrations, soft running, Makoré passed from 6,5 knt to 7,3 at cruising speed, and becomes much more powerfull at acceleration. ... <<

Fabrice und Isabelle, Weltumsegler mit der Makoré II

» Perfect! <<

PG Johansson of Baltic Yachts on the **4-Blade VARIFOLD** fitted to a Baltic 147 (45 m, 75 to).



Dimensions | Varifold 2-Blade:



Dimensions | Varifold 3-Blade and 4-Blade

D mm	d mm	Konus	NBL mm	Gewinde	W mm	A mm
20	15	1:10	50	M14 x 1,5	6	105
22	16,5	1:10	55	M14 x 1,5	6	110
25	19	1:10	60	M16 x 1,5	6	115
30	22	1:10	80	M20 x 1,5	8	135

D mm	d mm	Konus	NBL mm	Gewinde	W mm	A mm
30	22	1:10	80	M20x1.5	8	150
35	26	1:10	90	M24 x 2	10	160
40	30	1:10	100	M24 x 2	12	170
45	34	1:10	110	M30 x 2	14	180

D inch (mm)	d inch	Konus	NBL inch	W inch (mm)	A inch (mm)
7/8"	0.71"	1:12	2"	3/16"	4.2" (106 mm)
1"	0.81"	1:12	2 1/4"	1/4"	4.4" (112 mm)
1 1/8"	0.92"	1:12	2 1/2"	1/4"	4.7" (119 mm)
1 1/4"	0.99"	1:12	3 1/8"	5/16"	5.3" (135 mm)

D inch	d inch	Konus	NBL inch	W inch (mm)	A inch (mm)
1.125"	0.92"	1:12	2.5"	1/4"	5.2" (132 mm)
1.25"	0.99"	1:12	3.13"	5/16"	5.8" (148 mm)
1.38"	1.1"	1:12	3.25"	5/16"	5.9" (150 mm)
1.5"	1.21"	1:12	3.5"	3/8"	6.1" (155 mm)
1.63"	1.31"	1:12	3.75"	3/8"	6.4" (162 mm)
1.75"	1.39"	1:12	4.38"		7/16" (177 mm)

D inch	d inch	Konus	NBL inch	Gewinde	W inch	A inch (mm)
7/8"	0.71"	1:16	2 5/8"	5/8" UNC -11G	1/4"	4.8" (122 mm)
1"	0.81"	1:16	3"	3/4" UNC - 10G	1/4"	5.2" (132 mm)
1 1/8"	0.92"	1:16	3 3/8"	3/4" UNC - 10G	1/4"	5.5" (141 mm)
1 1/4"	1.02"	1:16	3 3/4"	7/8" UNC - 9G	5/16"	6.5" (166 mm)

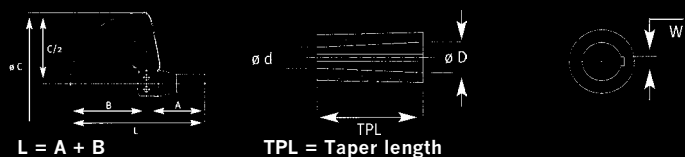
D inch	d inch	Konus	NBL inch	Gewinde	W inch	A inch (mm)
1.125"	0.92"	1:16	3.375"	3/4" UNC	1/4"	6" (152 mm)
1.25"	0.99"	1:16	3.75"	7/8" UNC	5/16"	6.4" (162 mm)
1.38"	1.12"	1:16	4.125"	1" UNC	5/16"	6.8" (172 mm)
1.5"	1.22"	1:16	4.5"	1 1/8" UNC	3/8"	7.1" (180 mm)
1.75"	1.42"	1:16	5.25"	1 1/4" UNC	7/16"	7.8" (198 mm)

C inch (mm)	B inch (mm)
12" (305 mm)	5.3" (135 mm)
13" (330 mm)	5.8" (148 mm)
14" (355 mm)	6.3" (160 mm)

C inch (mm)	B inch (mm)
15" (381 mm)	6.8" (173 mm)
16" (406 mm)	7.3" (185 mm)
17" (432 mm)	7.8" (198 mm)

C inch (mm)	B inch (mm)
16" (406 mm)	6.7" (170 mm)
17" (432 mm)	7" (180 mm)
18" (457 mm)	7.7" (195 mm)
19" (483 mm)	8" (205 mm)

C inch (mm)	B inch (mm)
20" (508 mm)	8.7" (220 mm)
21" (534 mm)	9" (230 mm)
22" (559 mm)	9.7" (245 mm)
23" (585 mm)	10.2" (260 mm)
24" (610 mm)	10.6" (270 mm)



A product of



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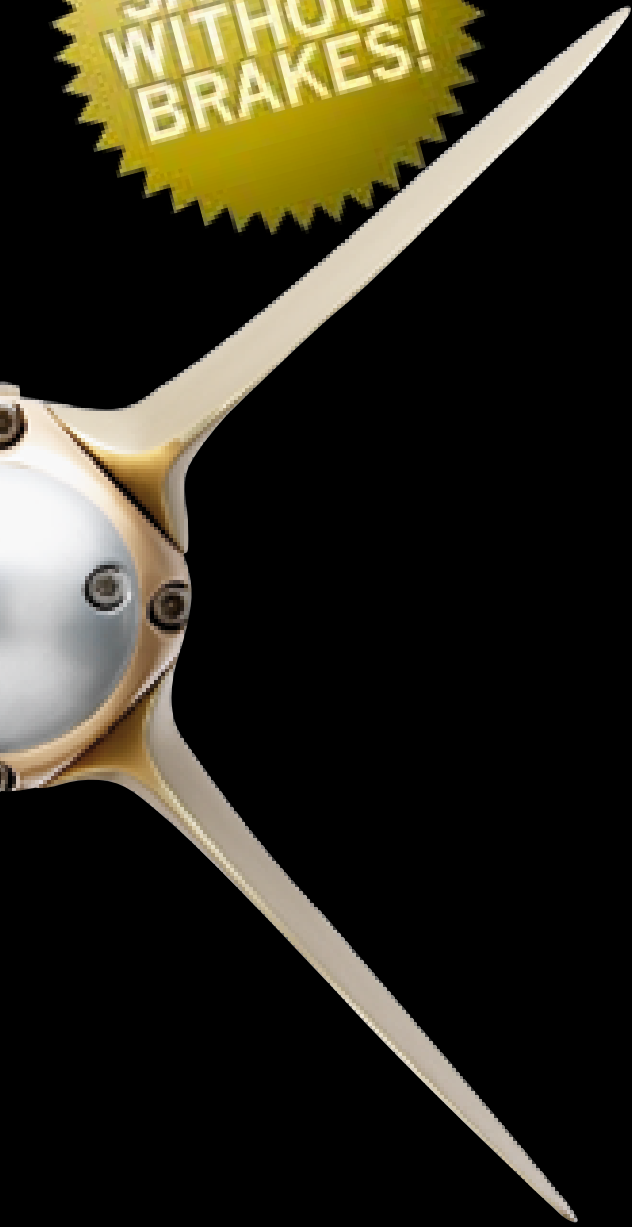
Distributed by:



VARIPROP

FEATHERING PROPELLERS

SAILING
WITHOUT
BRAKES!



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



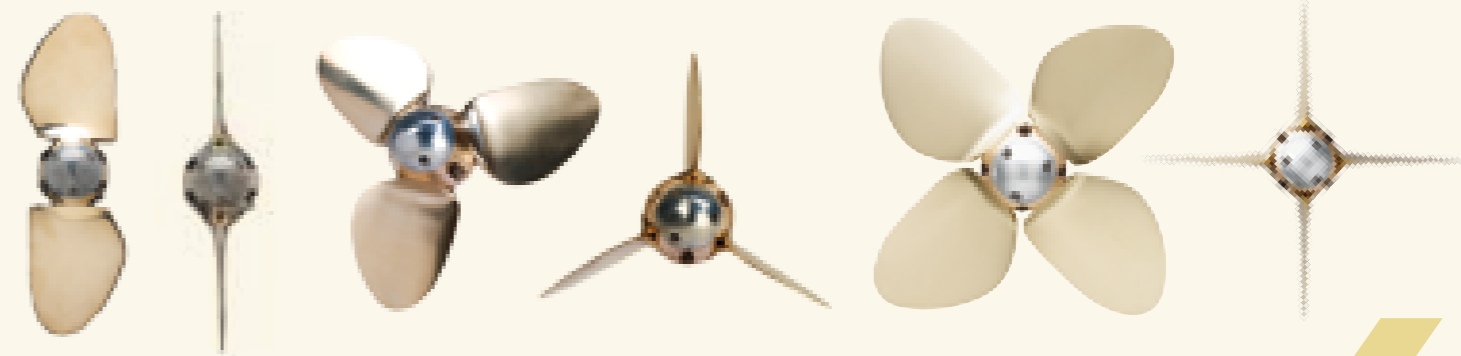
Basic Features and Benefits of MOST Feathering Propellers

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**

2. **SoftStop™ Shock Absorbing Multidisc Brake (patented) built into the VARIPROP hub**

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.)

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

VARIPROP allows you to customize that balance for optimum control, maneuverability and safety

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

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

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".

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

5. **Comes fully assembled and tested**

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

7. **Shortest hub**

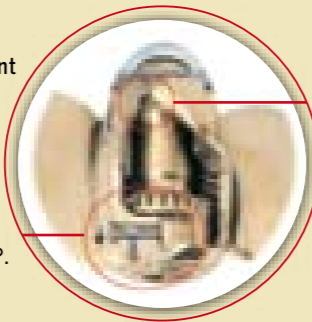
VARIPROP's hub is flush with the forward edges of the blades, and barely protrudes past the aft edges

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



SPW GmbH
SAIL PROPELLER- UND WELLENBAU

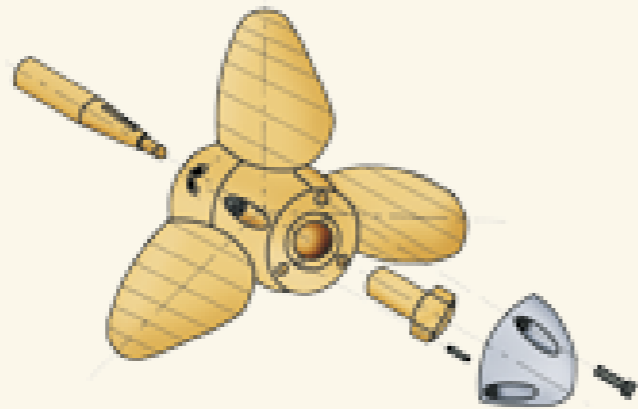
EASY INSTALLATION



STANDARD PROPELLERS

LARGER SIZES UP TO 50 INCHES ON DEMAND

SAILING WITHOUT BRAKES!



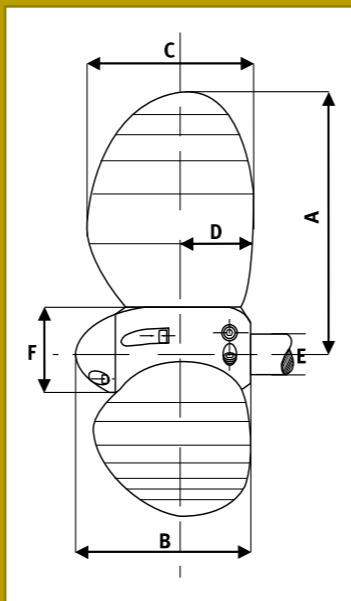
The VARIPROP is mounted on your tapered shaft or saildrive shaft exactly like a fixed blade propeller. No disassembly of any part of the VARIPROP is necessary unlike other feathering propellers found on the market. Secure locking of nut is attained by using LOCTITE to place a grub screw in a position 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

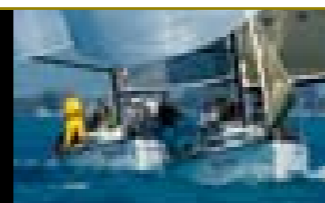


photo: Swans Yachts Sale

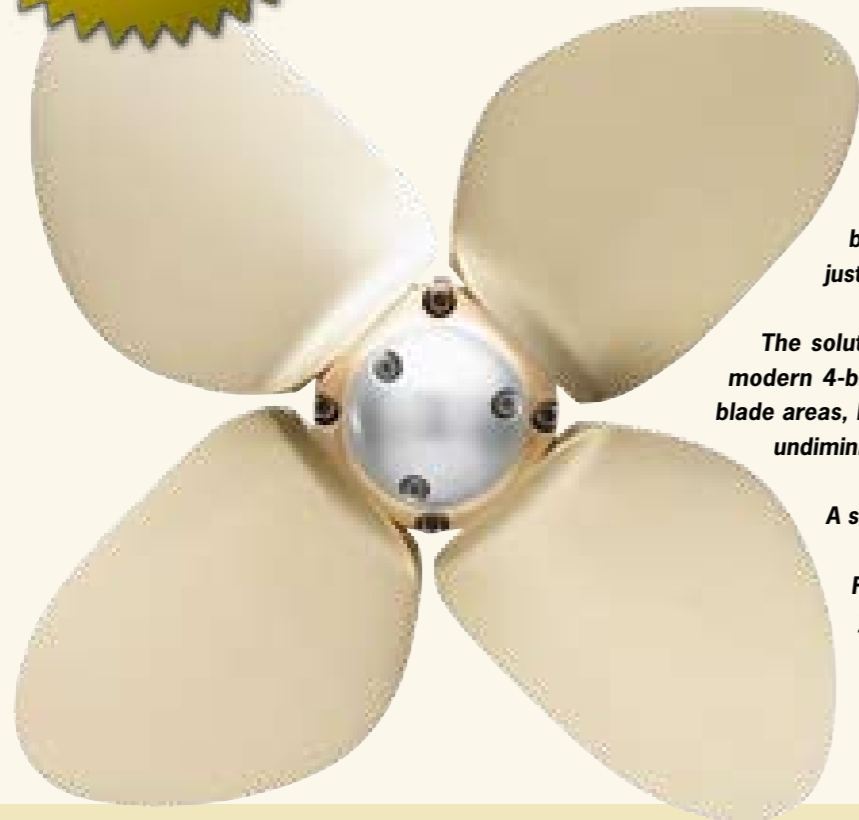


photo: Swans Yachts Sale

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.



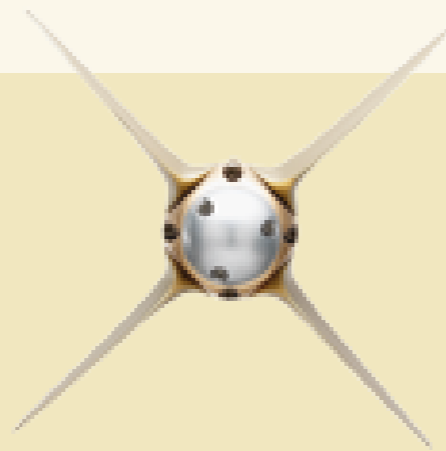
SIMPLY THE FINEST AUTOMATIC FEATHERING SAILING PROPELLER IN THE WORLD!

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



VARIPROFILE[®]
Feathering Propeller

GET TO KNOW THE NEW VARIPROFILE.

NEVER BEFORE HAVE YOU BEEN ABLE TO GET A FEATHERING PROPELLER OF SUCH QUALITY AND PERFORMANCE FOR SO LITTLE MONEY. TRULY AN ENGINEERING BREAKTHROUGH!

A product of

SPW GmbH
SAIL PROPELLER- UND WELLENBAU



The younger brother of the VARIPROP: The **VARIPROFILE** is available in a 2-blade or 3-blade version for sailing boats and yachts up to 75 HP.



VARIPROFILE® Feathering Propeller

THE IDEAL FEATHERING PROPELLER FOR THE MODERN YACHT

The new **VARIPROFILE** is the perfect feathering propeller for modern sailing boats and yachts up to 75 HP. Thanks to innovative design and mass production methods we can now offer the **VARIPROFILE** as an exceptional value, while continuing our tradition of highest quality standards.

The interchangeable hub and blade assemblies always fit. Running under power is highly efficient and very quiet. The slim design reduces drag to

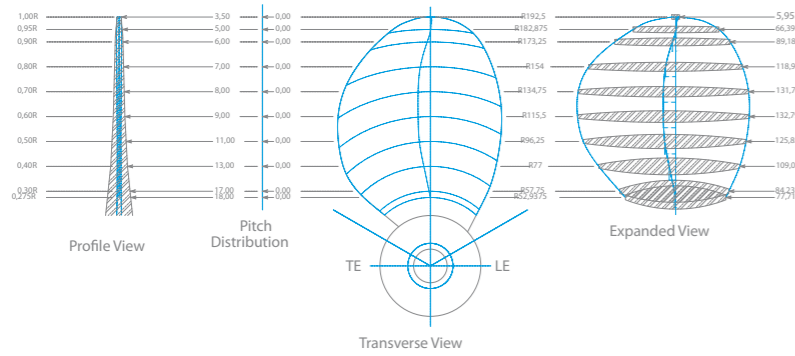
the vanishing point and mounting is fast and easy for the average sailor, including customizing pitch separately for forward and reverse.

SPW G.m.b.H., world's leading sailing propeller specialists, always combining latest technology with innovative design and precision engineering.

Contact us and let us help you choose the right propeller for your boat.

OPTIMIZED FOR MACHINES UP TO 75 HP





WHY SHOULD YOU CHOOSE A FEATHERING PROPELLER AS A PRIORITY?

No other purchase will enhance the performance of the boat as dramatically and for as long as will a low drag propeller.

Feathering Propellers in general have two main features to achieve these objectives:

Firstly: To enjoy faster sailing by practically eliminating propeller drag. When the engine is turned off, the waterflow automatically rotates the blades into the feathered position. Drag almost vanishes and sailing speed increases by 15% to 20% depending on wind conditions. On longer trips you gain hours, even weeks or more.

A further advantage is the elimination of propeller turbulence for a much enhanced rudder effect.

Secondly: To increase stopping power dramatically for stress free maneuvering and docking. When shifting into reverse, the leading blade edge turns 180 degrees. Reverse thrust is then equal to forward, 30% to 40% higher than with any fixed blade standard propeller. You can stop the boat on the proverbial "dime", typically in less than one boat length.

But the VARIPROFILE offers much more than that to make it an unsurpassed value:

- + **Hi-Tec blades with GAWN profile** to optimize thrust and efficiency while running much more quietly than others
- + **Exceptional sailing characteristics** through slim shape, light weight and GAWN profiled Hi-Tec blades.
- + **Separate external pitch adjustments** for forward and reverse to optimize performance and eliminate prop-walk.
- + **Robust construction** with enclosed helical gearing for long life
- + **Interchangeable hub**
- + **Easy mounting for the average sailor**
- + Made out of Hi-Tensile **NIBRAL-Bronze (Ice-Class)**
- + **CNC machined** for highest precision
- + **Available in 2-blade and 3-blade version up to 75 hp**



The VARIPROFILE is a unique feathering propeller and the first to incorporate the Hi-Tec GAWN/KAPLAN profile. This profile is primarily used for high performance fixed propellers, but also for rudder profiles and in the aircraft industry.



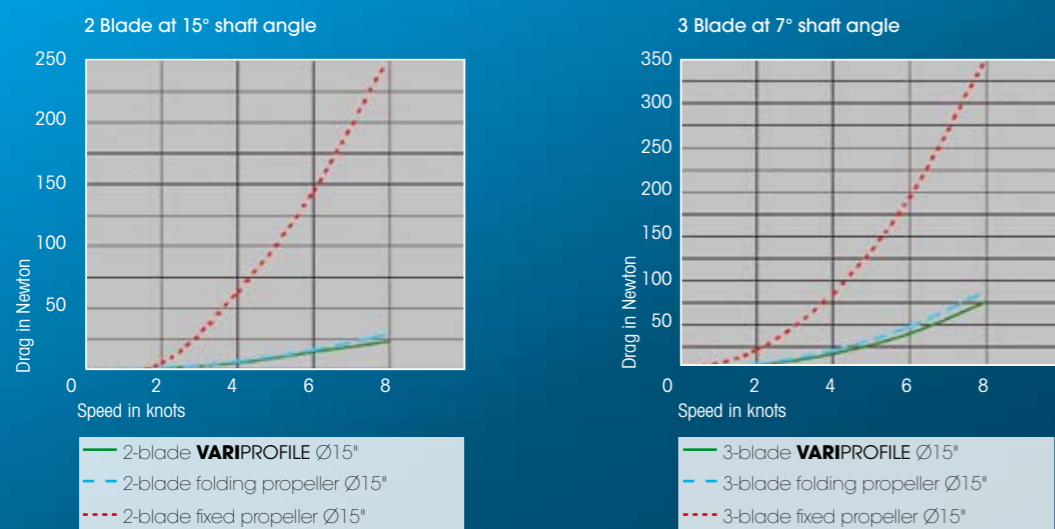
VARIPROP: THE BIG BROTHER.

For larger applications and those with restrictive apertures, the well known and respected custom made big brother VARIPROP with its short beefy hub, will continue to be your propeller of choice, especially the unequalled 4-blade "blue water" version.

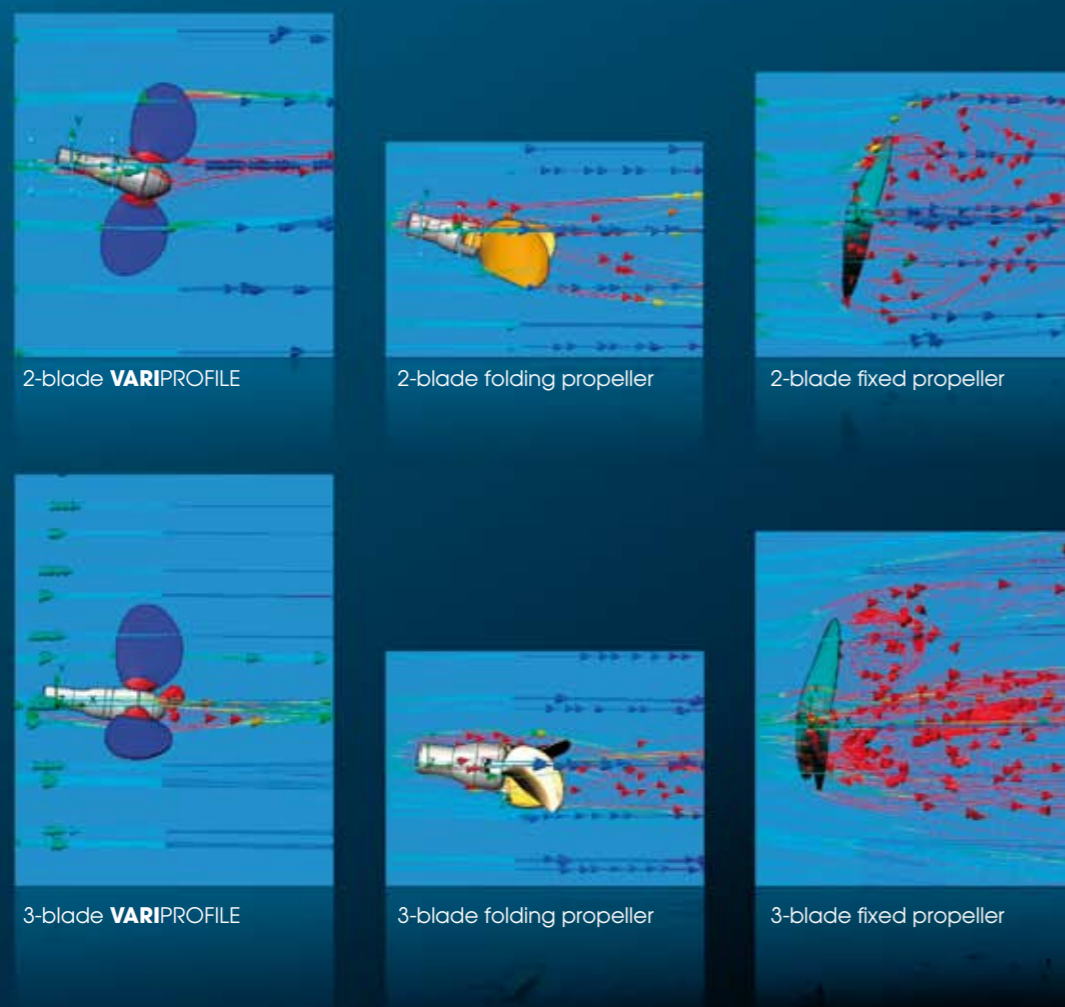


The external pitch adjustment is separate for forward and reverse. It allows easy, fast and precise, continuously variable pitch adjustments to your specific needs. No large and imprecise minimum steps as with others.

Drag of the **VARIPROFILE** compared to a folding - and fixed propeller.



Graphic stream display at 5 knots



THE **VARIPROFILE**® - A BREAKTHROUGH IN INNOVATIVE ENGINEERING

Under the leadership of Joerg Adamczyk, managing director and chief engineer of SPW G.m.b.H., our engineering team spent two years creating, defining and testing the **VARIPROFILE**.

Their task was to create a feathering propeller that would exceed the performance of all others, greatly simplify production, offer total flexibility, while maintaining the highest quality standards.

The results are spectacular and test results obtained from the Naval Testing Institute of Potsdam confirm the success of the design team in achieving all of their revolutionary goals.

The **VARIPROFILE** is a feathering propeller incorporating for the first time for sailing propellers the hi-tec GAWN blade profile. Presently used in the high performance power boat and aircraft industry the Gawn blade profile allows the **VARIPROFILE** to achieve an efficiency approaching and meeting that of a twisted blade folding propeller. This is another important nautical first for the SPW design team.

In combination with the slim hub the result is probably the lowest drag sailing propeller available today, even less than the traditional folding propeller, while running extremely quietly and efficiently under power. Truly the best of both worlds!

Just like his big brother VARIPROP, the **VARIPROFILE** allows continuously variable pitch adjustment, independently for forward and reverse, especially well suited to engines with different gear ratios such as used predominantly by Yanmar. Most importantly, this feature also allows the reduction/elimination of prop-walk for backing up straight and much safer docking and maneuvering.

All-in-all the **VARIPROFILE** is a prime example of latest technology and flexibility at an affordable price without compromising highest quality standards. Joerg Adamczyk has every reason to be proud of the achievement of his team

AN EXCELLENT ALLROUND PROPELLER THAT INSPIRES CONFIDENCE

Only actual sea trials can confirm how well a propeller really performs. Naval Dipl.-Engineer Matthias Broecker of the design office Judel/Vrolijk is a passionate racer and respected expert in his field. He installed a 2-blade **VARIPROFILE** on his yacht "Pyleia" and gives the younger brother of the VARIPROP top marks:

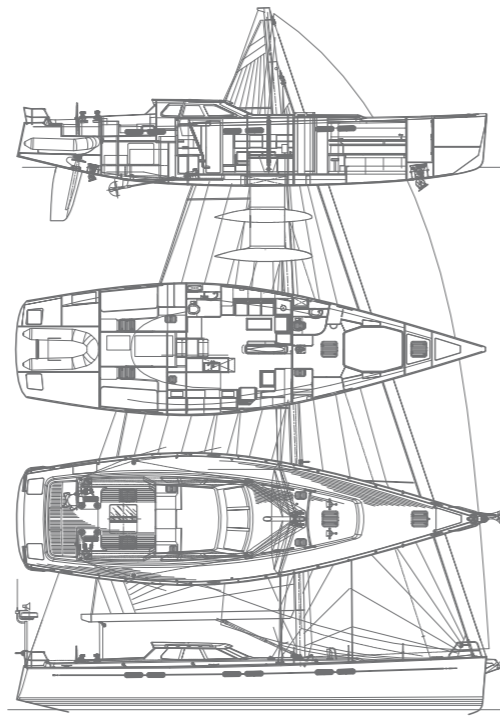
*"From the very beginning I was impressed by the small hub and the excellent hydro-dynamic design of the **VARIPROFILE**. As confirmed racer I can state that the **VARIPROFILE** performs incredibly well under sail.*

*We did not notice any negatives vs. our racing folding prop. Driving the 2-blade **VARIPROFILE** under power we obtained just as good a performance as with our supposedly advantaged folding propeller with twisted blades.*

*Because of the turning blades of the **VARIPROFILE** maneuvering in harbour is easy and precise, and the stopping power has a very strong "grip".*

All-in-all a well designed sailing propeller for all sailors that appreciate fast sailing."

*Matthias Broecker, Naval Dipl.-Engineer
design offices of Judel/Vrolijk & Co.*

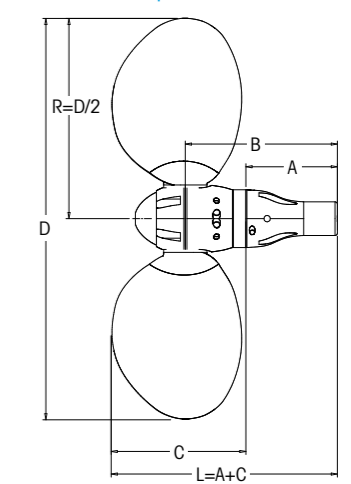
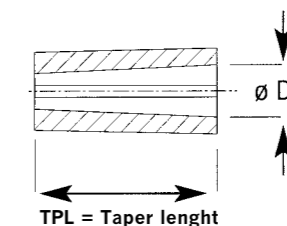
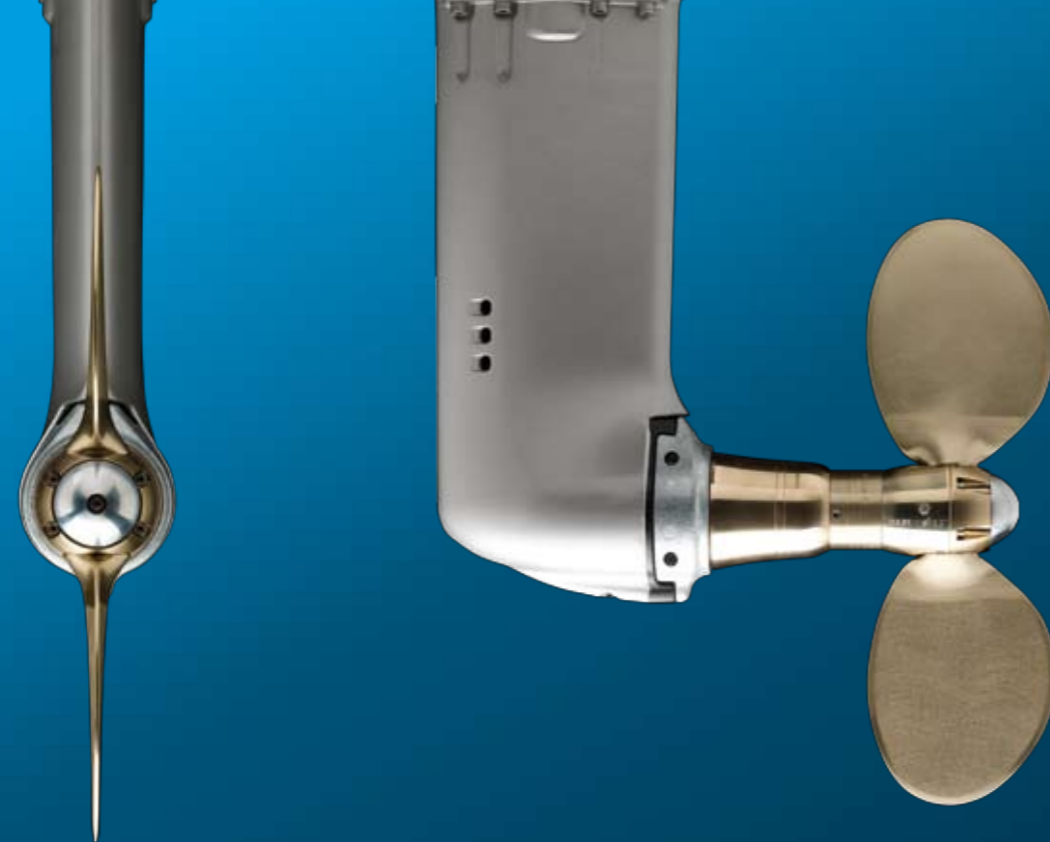


The design office Judel/Vrolijk & Co. is one of the few top names in the world for the design of fast and beautiful sailing yachts.



The "Pyleia" of the Naval Dipl.-Engineer Matthias Broecker





SIZE SELECTION AND INSTALLATION

- Figure 1:* Mounting the hub on the taper and insertion of the counter-screw.
- Figure 2:* Applying loc-tite medium (blue) to the shaft nut.
- Figure 3:* Installing of the shaft nut on the shaft
- Figure 4:* Tightening the shaft nut with a torque wrench, while holding the hub with the counter-screw.
- Figure 5:* Removing of the counter screw.

- Figure 6:* Applying loc-tite low (pink) to the hub set screw.
- Figure 7:* Securing of the shaft nut by tightening set-screw
- Figure 8:* Fastening propeller head assembly to the hub with three socket screws & washers, applying loctite medium (blue).
- Figure 9:* Applying loc-tite low (pink) to the small set screws securing the socket screws.

JOB DONE - ENJOY YOUR NEW VARIPROFILE

VP-64 (2-BLADE AND 3-BLADE)

	Taper Ø (D)		Taper	Taper length		Thread	A mm	B mm
	Inch	mm		Inch	mm			
Metric	----	20	1:10	50	----	M14 x 1,5	85	148
	----	22	1:10	55	----	M14 x 1,5	90	153
	----	25	1:10	60	----	M16 x 1,5	95	158
	----	30	1:10	80	----	M20 x 1,5	115	178
	3/4"	19.05	1:16	2.16"	55	UNC 1/2" - 13 tpi	90	153
SAE	7/8"	22.00	1:16	2.56"	65	UNC 5/8" - 11 tpi	105	168
	1"	25.40	1:16	2.95"	75	UNC 3/4" - 10 tpi	120	183
	1-1/8"	28.20	1:16	3.15"	80	UNC 3/4" - 10 tpi	125	188
Imperial	3/4"	19.05	1:12	1.89"	48		80	143
	7/8"	22.25	1:12	2"	50.8		85	148
	1"	25.40	1:12	2.25"	57.2		92	155
1-1/8"	28.58	1:12	2.5"	63.5		103	166	

D inch (mm)	C (mm)
12" (305)	125
13" (330)	128
14" (355)	131
15" (381)	136
16" (406)	140
17" (432)	142
18" (457)	146

VP-76 (2-BLADE AND 3-BLADE)

	Taper Ø (D)		Taper	Taper length		Thread	A mm	B mm
	Inch	mm		inch	mm			
Metric	----	30	1:10	80	----	M20 x 1,5	120	196
	----	35	1:10	90	----	M24 x 2	130	206
	1-1/8"	28.20	1:16	3.15"	80	UNC 3/4" - 10 tpi	125	201
SAE	1-1/4"	31.10	1:16	3.35"	85	UNC 7/8" - 9 tpi	135	211
	1-3/8"	34.00	1:16	3.55"	90	UNC 1" - 8 tpi	145*	221
	1-1/8"	28.58	1:12	2.5"	63.5		103	179
Imperial	1-1/4"	31.75	1:12	3.125"	79.4		125	201
	1-3/8"	34.93	1:12	3.25"	82.6		129	205

D inch (mm)	C (mm)
17" (432)	157
18" (457)	161
19" (483)	164
20" (508)	167
21" (534)	171
22" (559)	175

*length of cotter Pin at SAE shaft must be cut



The **VARI**-Family



VARIPROP
FEATHERING PROPELLERS



VARIPROFILE
FEATHERING PROPELLER



VARIFOLD
FOLDING PROPELLERS

For further informations visit
www.variprofile.com



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Sailing without Brakes!

innovative
propeller
designs



Do you drive your car with the handbrake on?



40 - 500KW



VARIPROP Maximum Performance

Simply the finest Automatic Feathering Sailing Propeller in the World!

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.

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

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

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

SPW GmbH
SAIL PROPELLER- UND WELLENBAU



VARIPROP

Designed by SPW
Maximum Performance

innovative propeller designs

- 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

Comes Fully Assembled BENEFIT:

- VARIPROP mounts on your shaft just like a solid prop. No disassembly, no shaft mods

SoftStop™ Shock Absorbing Multidisc Brake (patented) built into the VARIPROP hub

BENEFITS:

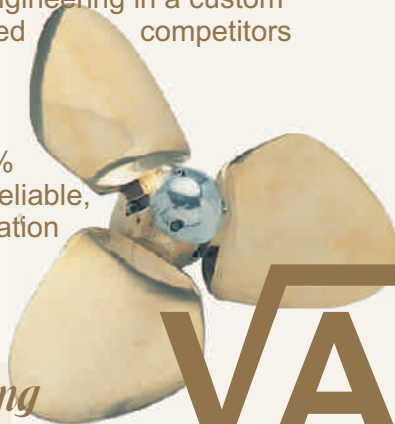
- Dramatically reduces shock loads on gearbox and drivetrain, permits shifting at higher speeds without damage, preserves preset pitches by eliminating hard limit stop impacts (the typical "clunks" of all others)
- The entire drive train benefits: longer Cutless bearing life, minimized wear on gearbox,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

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



- Gears are 35% - 50% larger and stronger than competing props
- Quality is assured by compliance with DIN EN ISO 9001 international manufacturing standards

Balanced by Hand

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

BENEFIT:

- Smoother, quieter running with absolutely zero vibration

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 - Sailing Without Brakes!

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VARIPROP

*...the ultimate cruising
yacht propeller.*

Power

... like a tugboat

Sail

... without "towing a bucket"

VARIPROP

Designed by SPW

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„ It's over to you now
we'll be delighted to answer your questions.“

SPW
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SAIL PROPELLER- UND WELLENBAU