



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 140 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 140 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.

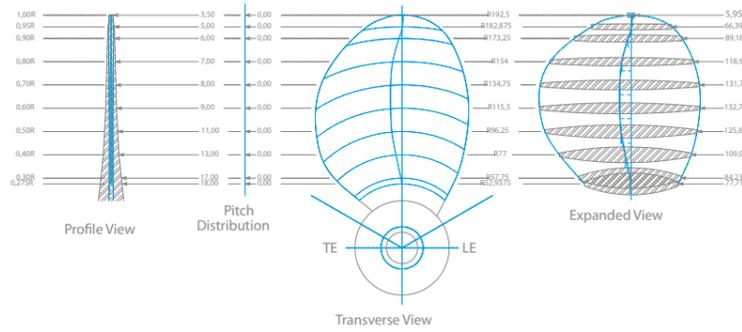
Contact us and let us help you choose the right propeller for your boat.

OPTIMIZED FOR MACHINES UP TO 140 HP



86 517-09 DE-HH
GL Rules I, Part 1, Chapter 2, Section 6





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.

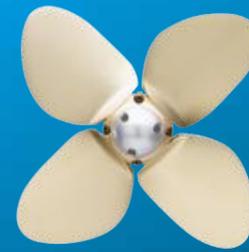
Secondly: To increase stopping power dramatically for stress free maneuvering and docking. When shifting into reverse, the leading blade edge turns 180 degrees. Reverse thrust is then equal to forward, 30% to 40% higher than with any fixed blade standard propeller. You can stop the boat on the proverbial "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 and in 3 blade version up to 140 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.



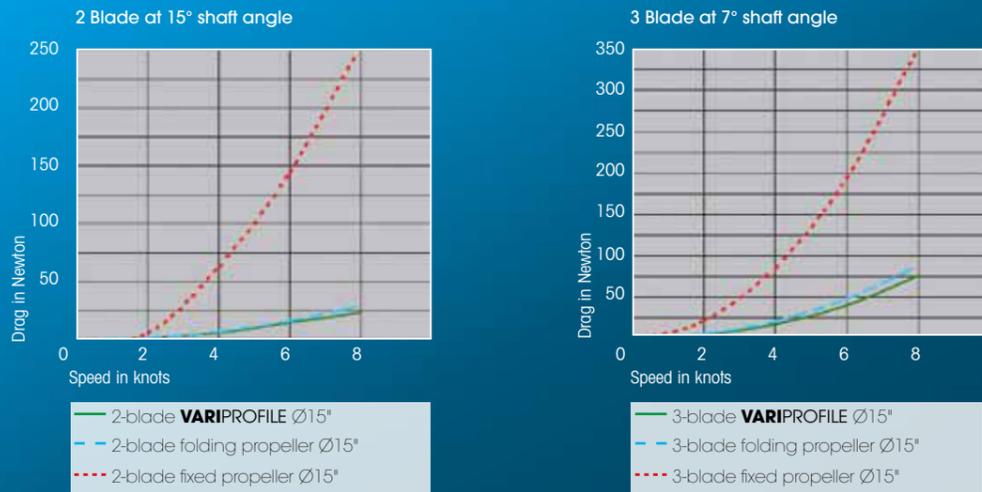
VARIPROP: THE BIG BROTHER.

For larger applications and those with restrictive apertures, the well known and respected custom made big brother VARIPROP with it's short beefy hub, will continue to be your propeller of choice, especially the **unequaled 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.



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.

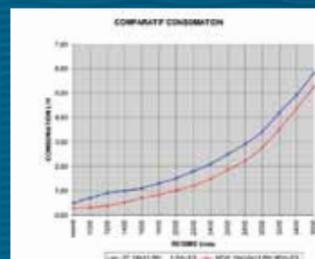
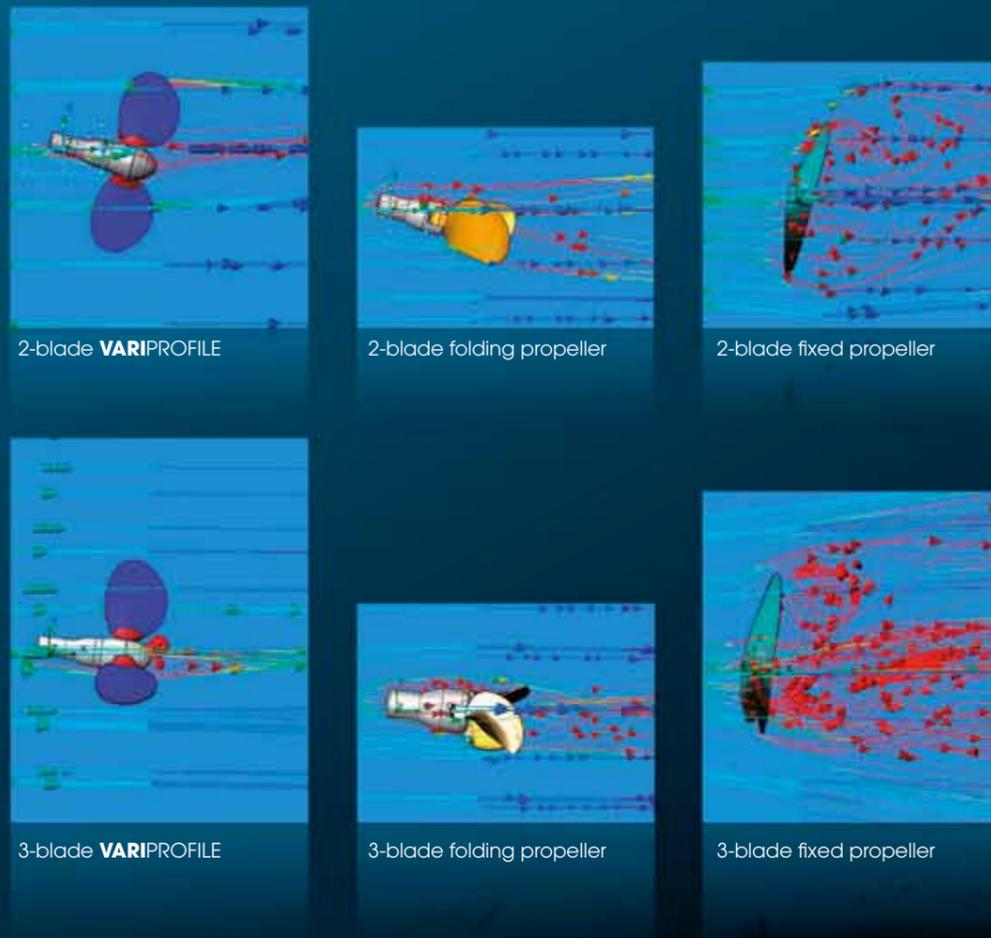
The **VARIPROFILE** is a feathering propeller incorporating for the first time for sailing propellers the hi-tec GAWN blade profile. Presently used in the high performance power boat and aircraft industry the Gawn blade profile allows the **VARIPROFILE** to achieve an efficiency approaching and meeting 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

Graphic stream display at 5 knots



The **VARIPROFILE**, with optimal pitch adjustment, not only provides more thrust in forward and reverse than other propellers, but amazingly also uses less fuel doing so.

Yanmar-France tested the fuel consumption of a 3-blade **VARIPROFILE** (red line) with a 3-blade ZF standard fixed prop (blue line), both on the same Jeanneau SUN ODYSSEY 30i.

The astounding results: Average fuel consumption with the fixed prop was 0.48 liter p. nautical mile vs. 0.32 liter with the **VARIPROFILE**, a reduction OF 33 %!



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:

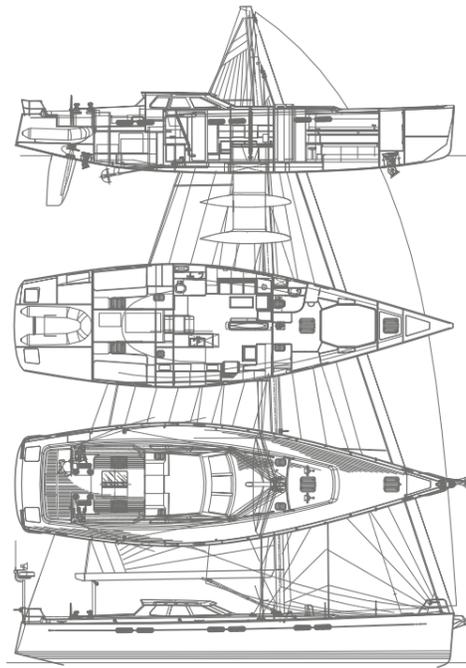
"From the very beginning I was impressed by the small hub and the excellent hydro-dynamic design of the VARIPROFILE. As confirmed racer I can state that the VARIPROFILE performs incredibly well under sail.

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 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	D inch (mm)	C (mm)
	Inch	mm	Inch	mm	Inch	mm					
Metric	----	20	1:10	----	50	M14 x 1,5	85	148	12" (305)	125	
	----	22	1:10	----	55	M14 x 1,5	90	153	13" (330)	128	
	----	25	1:10	----	60	M16 x 1,5	95	158	14" (355)	131	
	----	30	1:10	----	80	M20 x 1,5	115	178	15" (381)	136	
SAE	3/4"	19.05	1:16	2.16"	55	UNC 1/2" - 13 tpi	90	153	16" (406)	140	
	7/8"	22.00	1:16	2.56"	65	UNC 5/8" - 11 tpi	105	168	17" (432)	142	
	1"	25.40	1:16	2.95"	75	UNC 3/4" - 10 tpi	120	183	18" (457)	146	
	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			



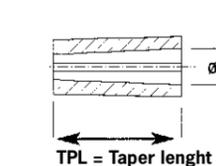
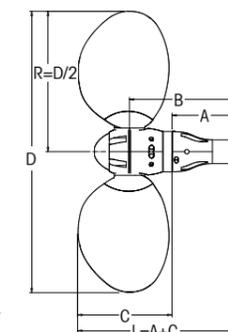
VP-76 (2-BLADE AND 3-BLADE)

	Taper Ø (D)		Taper		Taper length		Thread	A mm	B mm	D inch (mm)	C (mm)
	Inch	mm	Inch	mm	Inch	mm					
Metric	----	30	1:10	----	80	M20 x 1,5	120	196	17" (432)	157	
	----	35	1:10	----	90	M24 x 2	130	206	18" (457)	161	
SAE	1-1/8"	28.20	1:16	3.15"	80	UNC 3/4" - 10tpi	125	201	19" (483)	164	
	1-1/4"	31.10	1:16	3.35"	85	UNC 7/8" - 9tpi	135	211	20" (508)	167	
	1-3/8"	34.00	1:16	3.55"	90	UNC 1" - 8tpi	145*	221	21" (534)	171	
Imperial	1-1/8"	28.58	1:12	2.5"	63.5		103	179	22" (559)	175	
	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			

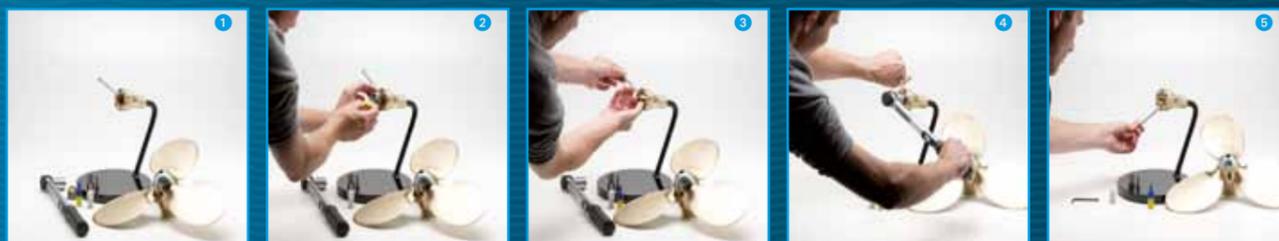


VP-104 (3-BLADE)

	Taper Ø (D)		Taper		Taper length		Thread	A mm	B mm	D inch (mm)	C (mm)
	Inch	mm	Inch	mm	Inch	mm					
Metric	----	30	1:10	----	80	M20 x 1,5	120	220	20" (510)	190	
	----	35	1:10	----	90	M24 x 2	130	230	21" (535)	194	
	----	40	1:10	----	100	M24 x 2	145	245	22" (560)	198	
	----	45	1:10	----	110	M30 x 2	155	255	23" (585)	202	
	----	50	1:10	----	120	M30 x 2	165	265	24" (610)	206	
SAE	1-1/4"	31.75	1:16	3.35"	85	UNC 7/8"	130*	230	25" (635)	211	
	1-3/8"	34.93	1:16	3.54"	90	UNC 1"	135*	235	26" (660)	219	
	1-1/2"	38.10	1:16	3.94"	100	UNC 1-1/8"	145*	245			
Imperial	1-3/4"	44.45	1:16	4.53"	115	UNC 1-1/4"	160*	260			
	1-1/4"	31.75	1:12	3.15"	80		125	225			
	1-3/8"	34.93	1:12	3.35"	85		130	230			
	1-1/2"	38.10	1:12	3.74"	95		140	240			
	1-3/4"	44.45	1:12	4.33"	110		155	255			



*length of cotter Pin at SAE shaft must be cut



The **VARI**-Family



VARIPROP
FEATHERING PROPELLERS



VARIPROFILE
FEATHERING PROPELLER



VARI FOLD
FOLDING PROPELLERS

For further informations visit
www.variprofile.com



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