

Prop Shop

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Endless Propeller Solutions (EPS)



Yamaha's Endless Propeller Solutions is the symbol of Yamaha's on-going commitment to supplying customers with solutions to fit any boater's propeller needs. At Yamaha, we strive to offer you the best performance and value in today's propeller technologies. We are always working to streamline our offering to give you the best choices to satisfy today's variety of boating needs.

Endless Propeller Solutions by Yamaha Marine			
LARGE BOATS	MEDIUM / SMALL BOATS	FAMILY AND WATERSPORTS	BASS / BAY / FLATS BOATS
Applications <ul style="list-style-type: none"> • Express Cruisers • Large Center Console (CC) Open • Walkarounds • Approx. 10,000 lbs. & up 	Applications <ul style="list-style-type: none"> • Small Trawls • Day Cruisers • Tiller Handles / Jan Boats • Dinghies 	Applications <ul style="list-style-type: none"> • Deck Boats • Pontoon • Fish & Ski 	Applications <ul style="list-style-type: none"> • Bass Boats • Day Boats • Flats Boats
Solutions <ul style="list-style-type: none"> • Most Popular • Reliance™ - SDS™ • Yamaha Series 10™ - SDS™ (F350) • Offshore 1 (4-Stroke) 	Solutions <ul style="list-style-type: none"> • Most Popular • Reliance™ - SDS™ • Yamaha Series 10™ - SDS™ • Aluminum 	Solutions <ul style="list-style-type: none"> • Most Popular • Reliance™ - SDS™ • Yamaha Series 10™ - SDS™ • Aluminum / Dual Thrust™ 	Solutions <ul style="list-style-type: none"> • Most Popular • Y-MAX STXP (ventless) • TXP™ (4-Stroke) • TXP™ (2-Stroke)
Select Applications <ul style="list-style-type: none"> • Yamaha Series 10™ - SDS™ (F350) • Yamaha Series 10™ - SDS™ (F350) • Offshore 1 • Yamaha Series 10™ - SDS™ • Fusion 4 	Select Applications <ul style="list-style-type: none"> • Quest™ (3- or 4-Stroke) • Position Performance • Painted Stainless Steel • F1X4 • Ultima 4 	Select Applications <ul style="list-style-type: none"> • Performance 3 • Talon SS™ - SDS™ • Yamaha Series 10™ - SDS™ • 242 TH • Vector • Quest™ (3- or 4-Stroke) • Painted Stainless Steel 	Select Applications <ul style="list-style-type: none"> • Pro • Performance XT™ • Performance 4 • Offshore 1 • Ultima 4 • Fusion 4 • TXP™ (4-Stroke) • TXP™ (2-Stroke)

Yamaha introduces stainless SDS™ propeller for large mid-range outboards

Yamaha recently released the first aluminum propeller to feature SDS, the Talon™ propeller. This was the first propeller for larger mid-range engines to feature Yamaha's Shift Dampener System (SDS™), and it's been a rousing success since its introduction. The success of the Talon left boaters begging the question, "When will this technology be available in a stainless steel propeller?"



Introducing the Talon SS propeller featuring SDS. This new SDS propeller for the "K" size gearcase (F70-F115, T50/T60) is a solid all-around performer that also benefits from the smooth shifting and quiet in-gear operation of SDS. Like the Talon, the Talon SS does not require any special hardware for installation*, making SDS available not only for new engine models, but also an easy retrofit for older models. Talon SS is an excellent choice for mid-range powered bass or flats boats as well as many "deep V" and "mod V" aluminum boats powered by Yamaha's large mid-range outboards.

*Always follow Yamaha installation instructions.

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What's news?

- Endless Propeller Solutions (EPS)
- Updated SDS for XL props
- Yamaha introduces Talon SS propellers featuring SDS
- Additional Reliance propeller pitches
- The Application Chart Turbo® TXP™
- Propping at altitude



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➤ Yamaha introduces stainless SDS™ propeller for large mid-range outboards | continued

The Talon SS features a 13 1/8" diameter and will be available in 14", 16", 18", 19", 20", 22", and 24" pitches in right-hand and select left-hand rotations.

Diameter	Pitch	# of Blades	Rotation	Material	Hub Type	Part Number	Availability
13 1/8	14	3	RH	SS	SDS	6N7-45970-00-00	Fall 2014**
13 1/8	16	3	RH	SS	SDS	6N7-45972-00-00	Fall 2014**
13 1/8	18	3	RH	SS	SDS	6N7-45974-00-00	Fall 2014**
13 1/8	19	3	RH	SS	SDS	6N7-45976-00-00	Spring 2015**
13 1/8	20	3	RH	SS	SDS	6N7-45978-00-00	Fall 2014**
13 1/8	22	3	RH	SS	SDS	6N7-45930-00-00	Spring 2015**
13 1/8	24	3	RH	SS	SDS	6N7-45932-00-00	Spring 2015**
13 1/8	14	3	LH	SS	SDS	6N4-45970-00-00	Summer 2015**
13 1/8	16	3	LH	SS	SDS	6N4-45972-00-00	Summer 2015**
13 1/8	18	3	LH	SS	SDS	6N4-45974-00-00	Summer 2015**
13 1/8	20	3	LH	SS	SDS	6N4-45978-00-00	Summer 2015**

**Anticipated availability date. Subject to change without notice.

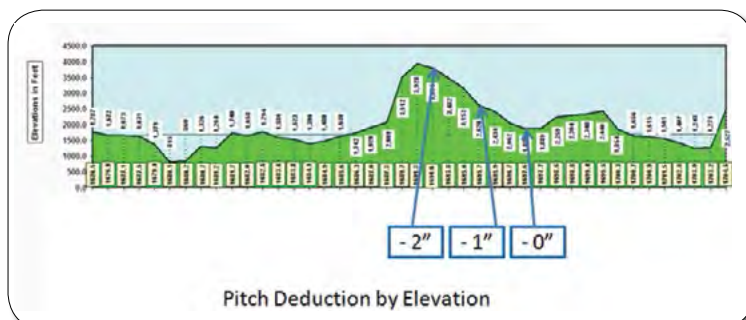
➤ Propping at altitude

Chances are the boats you buy are built in areas much closer to sea level, which is why they are typically propped for sea-level performance. Propping for most people is challenging enough, but throw in the altitude factor and it's a whole different ball game. At altitude, the engine is at a great disadvantage simply due to the atmosphere at high altitude. This disadvantage can be overcome with the correct prop and by following a few simple rules to get you over the altitude hump.

At altitude, there is much less oxygen in the air than at sea level. Just like an athlete, an engine needs to breathe in a lot of oxygen to make horsepower. If you deprive either of oxygen, performance suffers. Fortunately for the engine, we can



compensate for the lack of performance by changing the prop. As a general rule of thumb, for every 1000' over 1500', deduct one inch of pitch. So at 2500', deduct one inch of pitch from the current pitch, and at 3500' deduct two inches, and so on.



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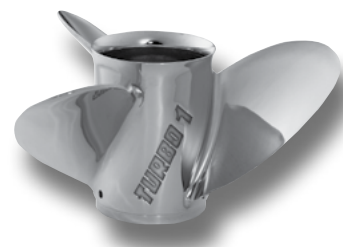
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➤ Propping at altitude | continued

This general rule of thumb is an excellent starting point, but what happens most often is that you run out of pitches to choose from or the diameter increases too much as the pitch goes down, especially with larger, heavier boats.

For example, Lake Tahoe is at 6200' of elevation. If you are boating at Lake Tahoe and you are pitched for sea level with a Saltwater Series II 17", you can go down to a Saltwater Series II 13" and recover some of your lost performance, but in most cases the boat will still be sluggish on hole-shot because of the larger diameter of this prop. Saltwater Series II 13" pitch props are 15 ¾" in diameter. The larger the diameter of a propeller the more horsepower it takes to turn it.

A good solution in this case would be to find a smaller diameter prop with a little more pitch. In our testing, we have found that the Turbo® 1 works very well at altitude especially on 4.2L Offshore outboards. Turbo 1 propellers are 14 ¼" in diameter, so they are much easier for the engine to spin. The lower diameter will also allow you to use a higher pitch, which will help you to maintain some of the top speed you may have lost at altitude. The Turbo 1 also utilizes a vented exhaust design to allow the propeller to slip slightly on acceleration and help the engine gain RPM more easily.



If a Turbo 1 is not right for your specific application, there are many other options with less diameter, including various four-blade options. A reputable propeller repair facility can also modify propellers with adjustable ventilation holes in the exhaust to help improve your hole-shot. This is a relatively simple modification and usually inexpensive.

Following these simple rules should help take the challenge out of high altitude propping issues. Turbo 1 propellers are available at over 2000 Yamaha marine dealers and 400 Turbo Propeller Dealers nationwide.

For more info please visit www.Turbo-Props.com

➤ Updated SDS™ for XL props

Yamaha's Saltwater Series XL® props, used exclusively with Yamaha's 5.3L F350 V8, now feature a new simplified Shift Dampener System (SDS™) hub, which eliminates the need for the traditional SDS aft spacer. The new SDS hub is now completely contained in the propeller hub and requires only the use of a traditional round aft spacer. For older F350s that may not currently use an SDS propeller, you can now retrofit this new simplified SDS directly to your engine with no additional hardware.

Saltwater Series XL propellers are available in 15", 17", 19", 21", and 23" pitches in right- and left-hand rotation and will be available at over 2000 Yamaha Marine Dealers nationwide.



Diameter	Pitch	# of Blades	Rotation	Material	Hub Type	Part Number	Availability
16 1/4	15	3	RH	SS	SDS	6AW-45970-20-00	Spring 2015*
16 1/4	15	3	LH	SS	SDS	6AX-45970-20-00	Spring 2015*
13 1/8	17	3	RH	SS	SDS	6AW-45972-20-00	Spring 2015*
13 1/8	17	3	LH	SS	SDS	6AX-45972-20-00	Spring 2015*
13 1/8	19	3	RH	SS	SDS	6AW-45974-20-00	Spring 2015*
13 1/8	19	3	LH	SS	SDS	6AX-45974-20-00	Spring 2015*
13 1/8	21	3	RH	SS	SDS	6AW-45976-20-00	Spring 2015*
13 1/8	21	3	LH	SS	SDS	6AX-45976-20-00	Spring 2015*
13 1/8	23	3	RH	SS	SDS	6AW-45978-20-00	Spring 2015*
13 1/8	23	3	LH	SS	SDS	6AX-45978-20-00	Spring 2015*

*Anticipated availability date. Subject to change without notice.

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Additional Reliance® Propeller Pitches

Yamaha's Reliance Series of propellers is expanding! This very popular propeller line will now feature 13" and 14" pitches. The 14" pitch will be available in both right- and left-hand rotation, while the 13" will only be available in right-hand rotation. Both continue to feature Yamaha's exclusive Shift Dampener System (SDS) for smooth, clunk-free shifting and quiet in-gear operation. Yamaha's Reliance Series propellers are ideal for most applications using the Yamaha F150, F175 and F200 in-line four cylinder engines.



NEW

68F-45932-10-00 14 ¼ X 13 RH

68F-45930-10-00 14 ¼ X 14 RH

68G-45930-10-00 14 ¼ X 14 LH

These additional pitches will be available in Spring 2015.*



*Anticipated availability date. Subject to change without notice.

The Application Chart | Turbo® TXP™

This month's application chart features the Turbo TXP propeller. The TXP offers excellent performance, particularly for high-performance two-stroke craft. Very popular among bass boaters, the TXP delivers blistering top speeds and is a go-to choice for many boaters running very light, high horsepower, high-speed applications. The TXP features very aggressive pitch and a high rake angle with aggressive cupping, which make this propeller great for surface-piercing applications. This propeller is an excellent replacement for applications that were previously running the Yamaha V MAX® Vented series propellers. The Turbo TXP comes in a universal hub design and is also available with standard or adjustable ventilation ports in select right-hand pitches from 21" to 32". Note: Due to the TXP's design, it will typically perform best at higher engine mounting heights than the Yamaha V MAX series propeller.



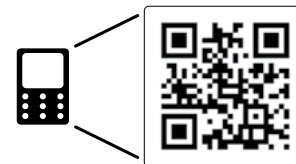
Diameter	Pitch	Blades	Rotation	Material	HUB	Part No.
TXP						
14 3/4	21	3	RH	SS	See Hub Chart	MAR-14721-XR-E0
14 3/4	23	3	RH	SS	See Hub Chart	MAR-14723-XR-E0
14 3/4	24	3	RH	SS	See Hub Chart	MAR-14724-XR-E0
14 3/4	25	3	RH	SS	See Hub Chart	MAR-14725-XR-E0
14 3/4	26	3	RH	SS	See Hub Chart	MAR-14726-XR-E0
14 3/4	27	3	RH	SS	See Hub Chart	MAR-14727-XR-E0
14 3/4	28	3	RH	SS	See Hub Chart	MAR-14728-XR-E0
14 3/4	29	3	RH	SS	See Hub Chart	MAR-14729-XR-E0
14 3/4	30	3	RH	SS	See Hub Chart	MAR-14730-XR-E0
14 3/4	31	3	RH	SS	See Hub Chart	MAR-14731-XR-E0
14 3/4	32	3	RH	SS	See Hub Chart	MAR-14732-XR-E0

BOLD type indicates most popular pitches.



If you'd like more information about which Yamaha propeller is right for your needs, contact your local authorized Yamaha Marine Dealer at yamaha-motor.com/outboard/dealers/dealerhome/home.aspx.

For short videos on Yamaha propellers, including proper installation, maintenance, and more, scan this symbol using your smart phone or tablet.



Message and data rates may apply. May not be available on all devices.

Also, please join us on Facebook at facebook.com/yamahaoutboards. We'll be happy to help you get pointed in the right direction.

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