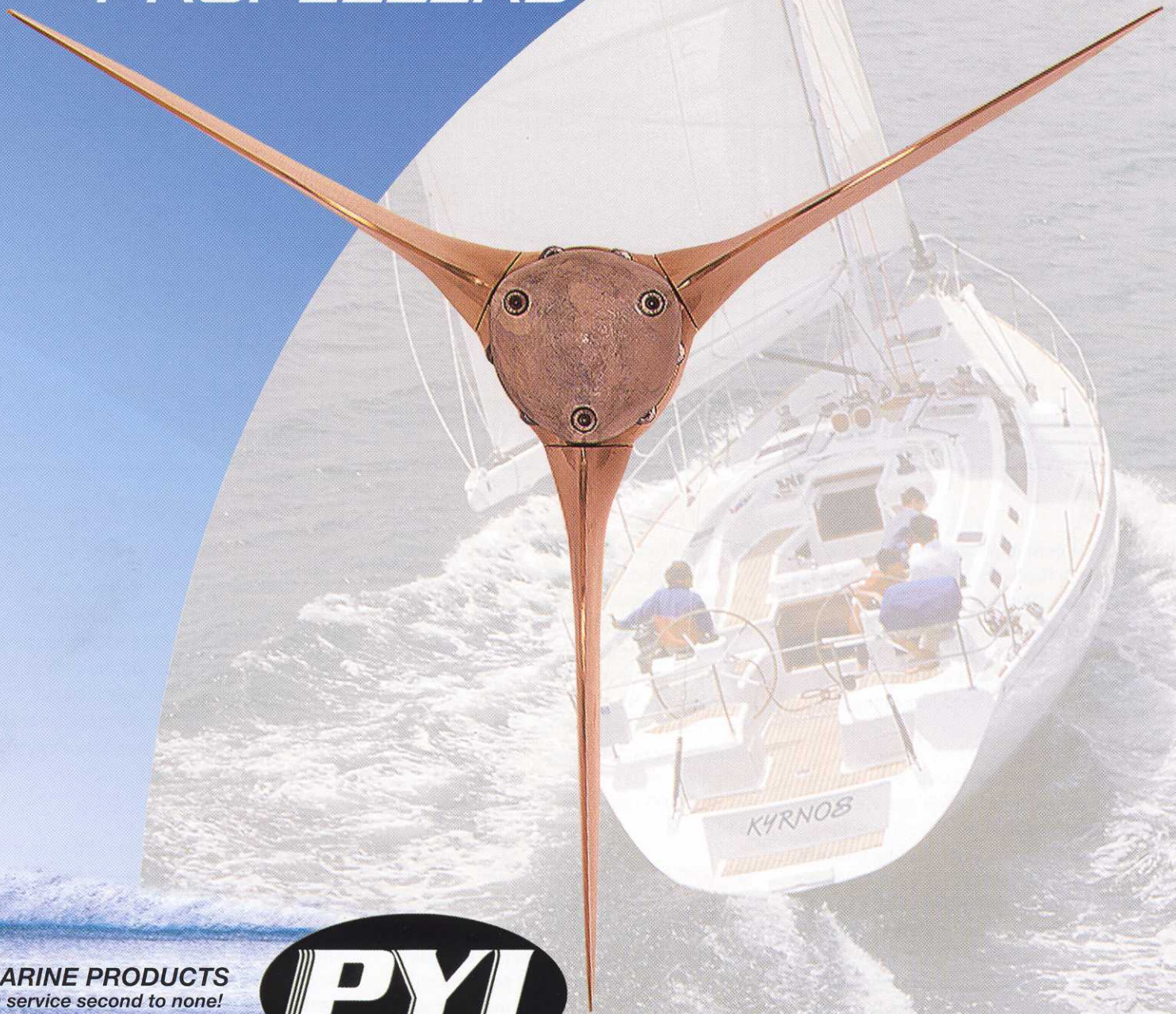


# MAX-PROP

AUTOMATIC  
FEATHERING  
PROPELLERS



**MARINE PRODUCTS**  
with service second to none!



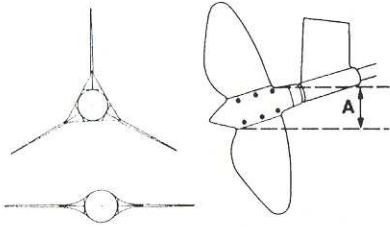
12532 Beverly Park Road  
Lynnwood, WA 98037  
Office (425) 355-3669

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[www.pyiinc.com](http://www.pyiinc.com)

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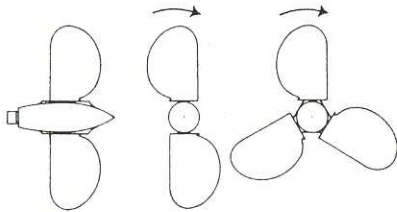
Boat Photo by: Andrew Scott

## MAX-PROP



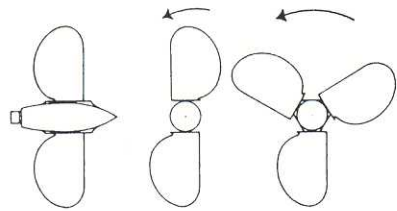
### UNDER SAIL...

A Max-Prop feathers to a low drag shape. Compared to a folding propeller, the extra wetted surface of the Max-Prop blades is offset by the reduction of projected area: A. Available in two & three blades



### IN FORWARD...

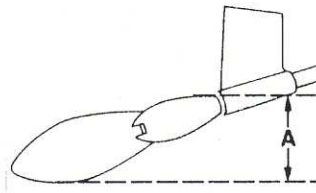
The torque of the prop shaft acting on the "differential" type design will open the blades in unison to the pre-seat pitch at any throttle setting. This will provide maximum efficiency (96% of same size fixed prop) plus eliminates the vibration problems of a folding prop.



### IN REVERSE...

As in forward, the torque of the shaft will rotate the blades 180 degrees in less than 3/4 of a shaft rotation, presenting the same leading edge and pitch in reverse. This provides better directional control and 80% greater power than a comparable fixed blade propeller.

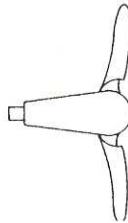
## FOLDING PROP



### UNDER SAIL...

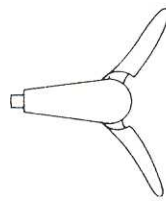
A folding propeller provides a low drag. The drag is directly proportional to the projected area: A.

Available only in two blades.



### IN FORWARD...

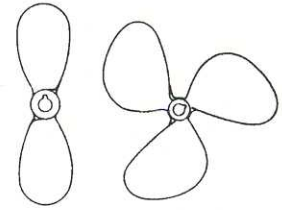
The blades will "slam" open and, if not perfectly aligned or true to each other, will cause vibration.



### IN REVERSE...

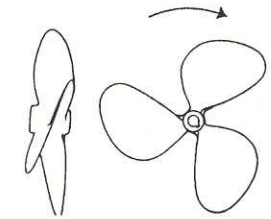
In that the blades will not open to the maximum diameter (and occasionally not at all), the reverse power is very poor (much less than a fixed blade prop).

## FIXED BLADE



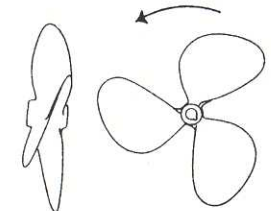
### UNDER SAIL...

A fixed blade propeller induces a tremendous amount of drag, reducing the boats speed an average of 15%.



### IN FORWARD...

A fixed blade propeller provides maximum efficiency as long as the pitch is correct.



### IN REVERSE...

A fixed blade propeller works with the trailing edge as a leading edge, reducing its efficiency by 50%.

## DRAG

One of the most important features of the Max-Prop is that it feathers automatically with the forward momentum of the boat. Once feathered, it provides the least possible drag (similar to a folding prop) improving the vessel's sailing speed by an average of 15% above a conventional fixed blade propeller.

## EFFICIENCY

In forward: the Max-Prop will offer 96% of the efficiency of a fixed blade propeller of the same diameter and pitch. The 4% loss in power can usually be eliminated by precisely matching the pitch of the Max-Prop to fit the boat and engine combination.

In reverse: the Max-Prop provides 80% more power than a comparable fixed blade propeller. The Max-Prop utilizes the same leading edge in forward as it does in reverse giving the propeller the same thrust in both directions, whereas, on a fixed blade propeller in reverse the trailing edge becomes the leading edge therefore reducing its efficiency by 50%.

## RELIABILITY

The Max-Prop uses a "differential" type design so that the blades cannot fail to open in forward or reverse. This positive system eliminates the problem associated with a folding propeller and its use of centrifugal force to open the blades. In a recent survey of Seven Sea Cruising Association readers, the Max-Prop received a perfect rating on no failures (one of only two products to receive such high praise).

About 23,000 Max-Prop are in operation today!

## VERSATILITY

The Max-Prop offers the possibility of pitch adjustment without external controls. Changing the pitch is very simple; it is done by changing the setting of the gear inside the propeller (usually upon a haul out). The ability to adjust the pitch will help achieve the maximum efficiency from the engine without having to purchase a new propeller. On the V.P. model the pitch is adjustable externally.

## INSTALLATION AND MAINTENANCE

The Max-Prop will fit directly onto your existing shaft when the boat is hauled for installation. The Max-Prop will be matched to your specific shaft taper and can even be fitted on a Sail-Drive unit. The only required maintenance is to grease the propeller at least every other year (all the new Max-Prop are fitted with grease fittings).

## RACING

Worldwide, a large percentage of the top racing boats have opted for the Max-Prop solution.

## CRUISING

The two or the three blade Max-Prop is the propeller of choice for the cruising sailor. The combination of low drag, increased speed, outstanding backing power, safety and maneuvering, and fail safe design makes the Max-Prop the ideal cruising propeller.

# TWO BLADE CLASSIC

The original two blade Max-Prop was designed in the early 70's for the high tech racing boat. Since proving itself in the racing arena, the two blade classic Max-Prop has earned its way into the mainstream market as a leader of low drag propellers. Today you will find the classic two blade Max-Prop equipped on a wide range of vessels from high tech maxi race boats to modest 25 foot daysailers. While satisfying the racer with low drag, its efficiency under power in both forward and reverse is sure to please all.

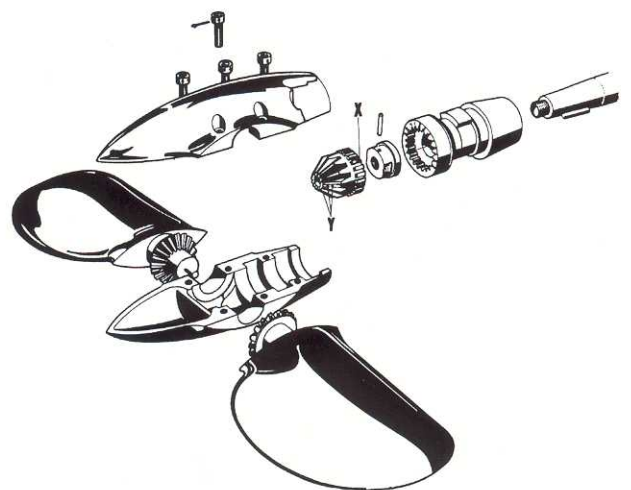
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Recent Surveys by the "Seven Seas Cruising Association" show that the Max-Prop has an incredible 0% Failure rate.

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*Available from 11" to 44"  
for shafts  $\frac{3}{4}$ " to 2  $\frac{1}{2}$ " or  
metric equivalent.*

- **VERY LOW DRAG**
- **PROVEN PERFORMANCE**
- **UNEQUALLED RELIABILITY**
- **OUTSTANDING REVERSE**
- **INTERNAL ADJUSTABLE PITCH**



# THREE BLADE CLASSIC

With the increased popularity of the cruising vessel, Max-Prop introduced in the early 80's its three blade classic model which soon became a must within the cruising community. The three blade Max-Prop will enhance a vessel's performance both under power and sail while helping to minimize bothersome vibrations. With its unsurpassed powering ability in both forward and reverse the three blade classic Max-Prop has become a legend among the sailing community. While standard equipment on some of the world's most famous yachts (Swan, Little Harbor, Hinckley, Alden, Baltic, etc.), the three blade classic is also a proven choice for the more modest common cruiser.

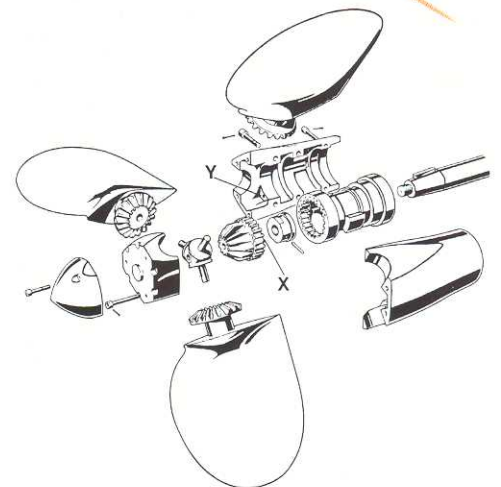
- **BEST FORWARD POWER**
- **REDUCES VIBRATIONS**
- **OUTSTANDING REVERSE**
- **UNEQUALLED RELIABILITY**
- **VERY LOW DRAG**
- **INTERNAL ADJUSTABLE PITCH**

Available from 11" to 44"  
for shafts  $\frac{3}{4}$ " to 3" or  
metric equivalent.

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Bob Perry on Max-Prop: "I am always surprised by the number of sailors intent upon good sailing performance who are willing to accept less than maximum speed under sail as well as under power... in my mind the Max-Prop is the finest tool for the job..."

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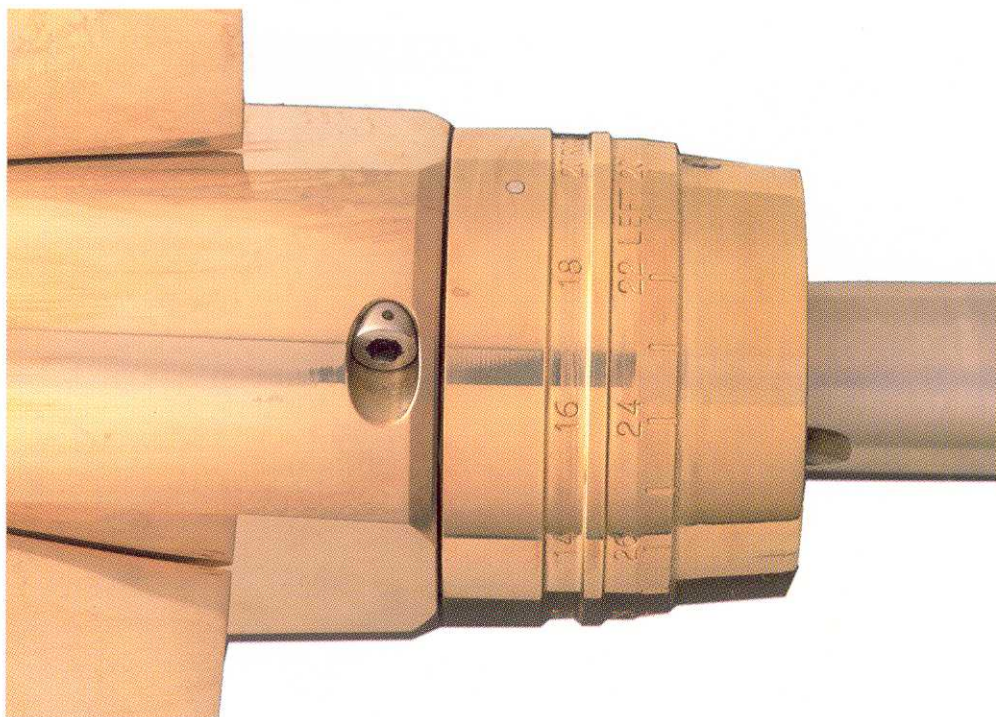
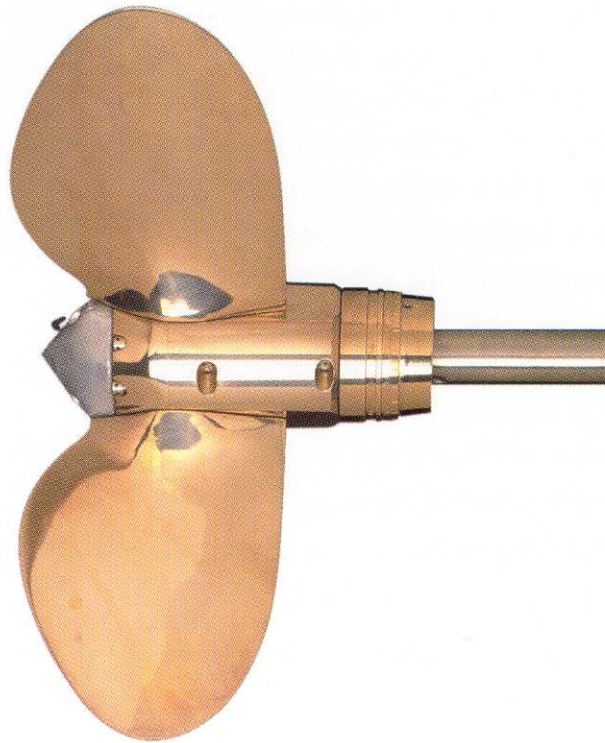


# THREE BLADE V.P.

The Max-Prop V.P. is an enhancement of its highly successful "Three Blade Classic".

The V.P. offers the unique feature of external pitch adjustment using a breakthrough patented system. This system allows for complete pitch adjustment by a diver without any tools.

*Available from 15" to 36"  
for shafts 1" to 2" or  
metric equivalent.*



## **EXTERNAL PITCH ADJUSTMENT**

- No tools required for pitch adjustment.
- Adjustable in or out of the water.
- Easier installation.

## **INCREASED MOTOR EFFICIENCY**

- Finer pitch adjustment.
- Better fuel economy.
- Optimize motorsailing.

## **VERY LOW DRAG UNDER SAIL**

- Comparable to the Classic Max-Prop.

## **LEGENDARY MAX-PROP REVERSE**

## **RELIABILITY**

- New patented technology allows the pitch adjustment mechanism to be isolated from the propeller load under way and when shifting.

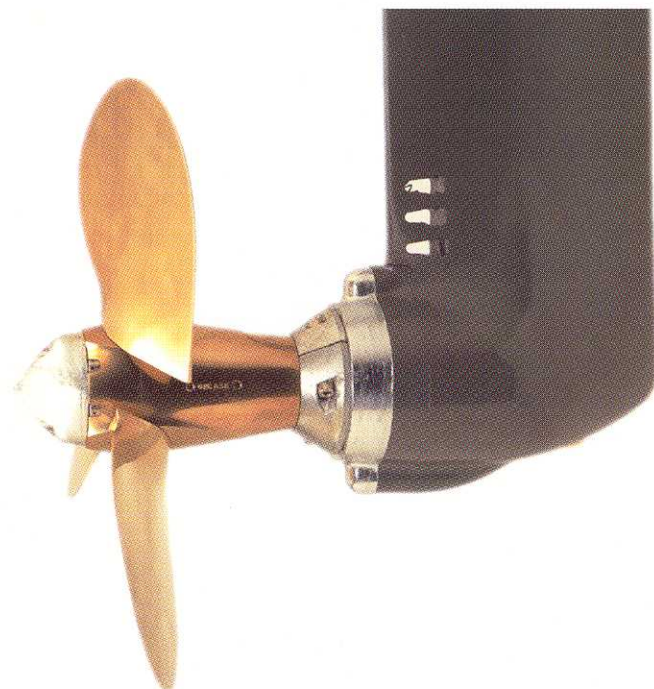
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...All Swan's have been equipped with Max-Prop since the early eighties. The world's most famous builder would use nothing less!.

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# ***SAILDRIVE***

With the worldwide acceptance and use of saildrive units, Max-Prop developed both a two and three blade which adapts to the spline of the drive unit with no modifications. The user will experience the same advantages as a classic Max-Prop, low drag, superior forward propulsion and unsurpassed reverse power. The SD Max-Prop is adaptable to The Volvo, Yanmar or Bukh saildrive units.



# ***Additional Products***

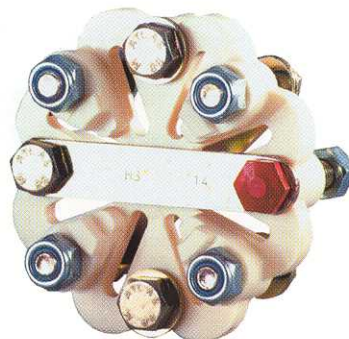


## ***PSS Shaft Seal***

P.S.S. Shaft Seal is a maintenance-free dripless stuffing box replacement for sailboat and power boat drivetrains. The PSS Shaft Seal is a mechanical seal that uses a self-aligning carbon-graphite flange to ensure a 100% watertight seal with proven reliability. This seal will eliminate shaft wear and minimize corrosion. Available for shafts from 3/4" to 3-3/4" (22mm to 95mm). Larger sizes are available.

## ***R & D Drivetrain Equipment***

R & D Drivetrain Solutions offer protection from shock load and vibration for marine engines and transmissions. The R & D Flexible Coupling will reduce vibration, compensate for some misalignment, and absorb shock loads. R & D Damper Drive Plates prevent gearbox rattle at low engine speeds, The R & D Engine Mounts are designed specifically for the rigors of marine applications, and help isolate drivetrain vibrations.

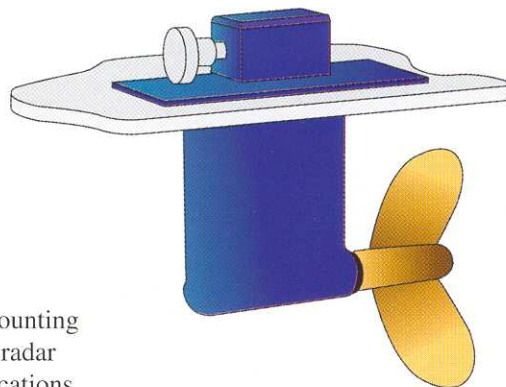


## ***Python Flexible Drives***

Python-Drive constant velocity drive units allow the propulsion system to push your boat, not your engine. This separates the vibration of the propeller from the vibration of the engine, decreasing noise to deliver a smoother ride and longer equipment life. The drives also eliminate the need for perfect shaft alignment. Systems are available for engines from 10 to 1000 horsepower.

## ***The DriveLeg***

The "DL 150" Drive leg unit offers efficient power delivery for up to 150 horse power. When compared to conventional shafting the DL 150 delivers thrust more efficiently, has lower drag for better sailing performance, and allows designers to optimize engine location.



## ***Scanstrut***

Scanstrut provides installation solutions for mounting marine electronics. Designed for all brands of radar antennas and satellite television and communications antennas. For Power or Sail, Scanstrut has a range of products to suit your needs.



## ***Broadwater Marine Stove***

Broadwater marine stoves are designed with features to make life on the high seas easier. Made entirely from stainless steel, copper and brass, these stoves leave nothing to chance in durability and appearance. Available in 2 and 4 burner models, including the Brigantine with the largest oven in the industry.



## ***Jefa Rudder Bearings***

Jefa Rudder Bearings offer the ultimate feel and reliability in rudder bearings. Sizes are available for 30mm to 260mm for production and custom applications. Bearings are available in standard and self-aligning designs. Deck cover plates can be incorporated into any bearing. Thrust bearings can be supplied to take the weight of the rudder and post. The self-aligning design is offered with GRP or alloy housings. Over 15,000 boats around the world are using Jefa Rudder Bearings.

# PROPELLER RECOMMENDATION SHEET:

Name \_\_\_\_\_ Phone: Work (    ) \_\_\_\_\_  
 Address \_\_\_\_\_ Home (    ) \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_ Fax (    ) \_\_\_\_\_

## VESSEL INFORMATION

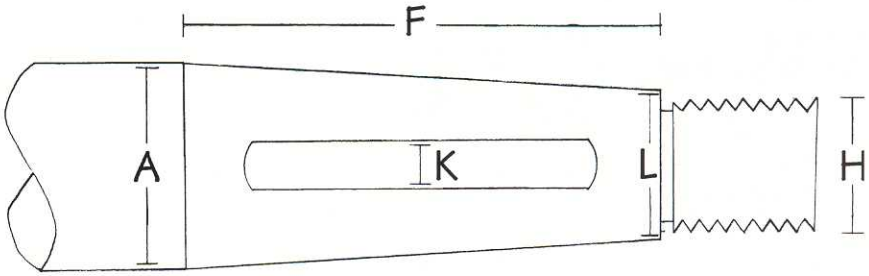
Manufacturer \_\_\_\_\_ \*Model \_\_\_\_\_  
 Weight/Displ \_\_\_\_\_ Length Overall \_\_\_\_\_ Waterline Length \_\_\_\_\_  
 Beam \_\_\_\_\_ Draft \_\_\_\_\_ Designed Hull Speed \_\_\_\_\_  
 Fin Keel \_\_\_\_\_ Full Keel \_\_\_\_\_ Multihull \_\_\_\_\_  
 \*Engine Mfg. \_\_\_\_\_ \*Model \_\_\_\_\_ \*Rated Horse Power \_\_\_\_\_  
 \*Max Rated RPM's \_\_\_\_\_ \*Transmission Reduction Ratio \_\_\_\_\_  
 Existing Propeller diameter and pitch \_\_\_\_\_ Two or Three Blade \_\_\_\_\_  
 \*Shaft Diameter \_\_\_\_\_ **(All items with a \* MUST be filled out to spec a Propeller)**

Please indicate any problems with the current propeller: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## SHAFT TAPER DIMENSIONS

If the vessel is other than U.S. Canadian, or European production boat, it may be necessary to provide the taper dimensions listed below.

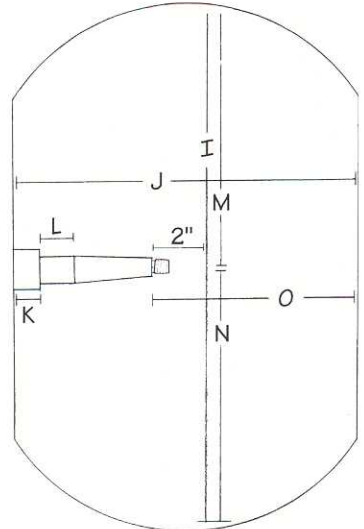
A = Shaft Diameter \_\_\_\_\_  
 F = Taper Length \_\_\_\_\_  
 L = Taper Small End \_\_\_\_\_  
 K = Keyway Width \_\_\_\_\_  
 H = Thread Diameter & Pitch \_\_\_\_\_ x \_\_\_\_\_



## APERTURE DIMENSIONS

Due to the extended length of the Max-Prop, it may be necessary to provide the aperture dimensions listed below, to ensure that the propeller will fit the boat.

I = \_\_\_\_\_ M = \_\_\_\_\_  
 J = \_\_\_\_\_ N = \_\_\_\_\_  
 K = \_\_\_\_\_ O = \_\_\_\_\_  
 L = \_\_\_\_\_



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