

# Guide To Spars



Where can I purchase a set of spars? - McLaughlin is the North American importer for all major brands of spars. You can find a complete listing of spars with pricing in our on line store. In addition your local Optiparts dealer can be very helpful. If you still have questions after reading what follows, give us a call and we will help you get the right set for your sailor. 1-800-784-6478

What should I be looking for? - Choosing the right spars for your Optimist can be a confusing task. You should consider these major factors when choosing a spar set. Skill and ambition is a determining factor as to which set to buy. It is pointless to spend \$700 on racing spars for a child that cannot sail to windward. On the other hand, if a sailor is a beginner and shows a commitment to improve their racing skills and continue sailing, then it is probably a good idea to "cure the upgrade bug" and get a top notch racing spar set early on. It will make a difference.

**Skippers Weight - Most Optimist sailors will achieve better performance from a stiffer spar set. Strong, stiff spars allow the sailor to trim the sail without the spar distorting, giving the sailor more control over the shape of their sail. The exceptions to the stiffness rules are very light sailors. (Under 70 lbs.) Although a stiff mast is still very important, a bendy boom can help lighter sailors control the boat in heavy winds. A boom that flexes more can help de-power the sail by allowing the outboard end to bend in the puffs, opening the leach, spilling the wind and de-powering the sail. Because of this the Blackgold spar set is available with 4 different diameter booms for different conditions and styles of sailing. The club spar set comes with a 32 mm boom because most beginning sailors are also lightweight. (See "Sailing**

in Heavy Air” under FAQ for more tips for a light weight sailor.)

**What is the difference between a club and racing set? -** The defining characteristic of a club set is the permanently attached sprit halyard block on the front of the mast and the permanent lacing eyes at the head of the mast. These permanently attached fittings mean that the sail cannot be removed from the mast without untying all the sail ties along the luff of the sail. It also means the club spar set has no parts that can be misplaced or dropped in the water because it is self-contained. With the club spar set the sail is typically left on the spars during storage. Although this is a fast, easy way to store your spars and sail, it is hard on the sail. Club sails are constructed to hold up to this kind of abuse and can still be expected to last many seasons. Racing sails, however, are very delicate and are generally rolled on the boom or separately from the spars to avoid creases, wrinkles and damaged. Racing spars are fitted with a hook-in-block and a wind pennant plug masthead system. These two features allow all the fittings to be removed. The sail is now free to slide on and off of the mast. It should be noted that the silver spar set has been design to achieve all the features of the racing spar set with a price more comparable to the club spar set. The silver spar set comes with the stiffer 40 mm boom as a standard feature.



**What is the difference between racing sets? -** The difference resides mainly in the quality, diameter and manufacturing method of the aluminum tubing used in the spars. Quality is a function of the series number of the aluminum. 7,000 series is an aviation grade, higher in tensile strength than 6,000 series. Coincidentally as the series number goes up, so does the cost. The diameter of the aluminum tubing also affects both the performance and cost. Larger diameter tubing is stiffer and more expensive. The manufacturing process also impacts the cost and quality of the spar. A rolled tube with welded seam is cheaper to produce than an extruded one. (Extruded means that it is formed in one continuous piece) Theoretically, an extruded spar is both stronger and stiffer. The chart below compares mast stiffness.

Booms are available in different diameters as mentioned above. There are 55mm, 45mm, 40mm, and 32mm diameter racing booms. These can be used by different skipper weight ranges or specific sailing conditions. Another unique feature is found in the Black Max boom. It does not have a bridle, just a single attachment point. This benefits a tall sailor in that there is more room

under the boom making it easier to tack. Sprits are available in 27mm and 29mm.

Most coaches have preferences and will usually recommend a specific boom or sprit if they feel it will complement your skippers sailing style. The 40 mm boom is considered standard and sail makers test their sails with this boom. With all the confusion and so many choices if you have any doubts get the standard 40 mm boom.

Racing Spar Comparison Chart						
	Manufacturer	Aluminum	Mast	Boom	Sprit	Pennant
<b>Club</b>	Optiparts	6000 Series	Extruded	32 mm	27mm	No
<b>Silver</b>	Optiparts	6082 Series	Extruded	40 mm	27mm	Yes, low friction
<b>MKIII</b>	Optimax	7000/6000	Extruded/Welded	40 mm	27mm	Yes, flag type
<b>MKIV</b>	Optimax	7075 Series	Extruded	45mm	27 or 29mm	Yes/flag type
<b>Giulietti</b>	Giulietti	7075 Series	Extruded	40, 45	27mm	No
<b>Black Gold</b>	Optiparts	7075 Series	Extruded	32,40 45,55	27 or 29mm	Yes, low friction