

# Aluminum Tube Spars

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For low cost, torsionally stiff wings ... four Coupes and a P-30 or so have had .1716" and larger diameter hard aluminum tubes as wing spars....Rib pitching was between one inch and 1.5 inches to gain the stiffness desired. The leading and trailing edges are quite slender in balsa only and do the job.

There is lengthwise bending observed, but to date, no disasters.

Ribs are 7.5 lb quarter grain. The holes are hogged through the plywood template first with a pilot drill (1/16") followed by shank and cutting end of round wood rasps—easy, fast, accurate. The tubes are \$2 from Model Research Labs, 25108 Marguerite #160, Mission Viejo, CA 92692) Raw lengths run about 30 inches. Cut with a Zona saw, scuff and sand before installing, and C/A glue in structure. Washout MUST be wedged in during the building for no amount of tweaking will coax it in after covering!