#### Standard ROTAROC B4-2,B6-2,or C6-3 power Plans page 1 (Design & assembly) Balsa BT-20 Drawings show model which would rotate nose cone counter-clockwise as viewed from above. 3/16" by 1.5" PARTS: light 3/32" balsa (fins & rotor slot to vent supports), Medium light stiff 3/32" balsa ejection charge or very light 1/8" for rotors), 18" and 4.5" 4.5" (not facing a BT-20, tube coupler, BT-20 nose cone, rubber band) Klett RK2 model plane hinges (3), pins or model railroad spikes, rubber bands Hinge line location and tube joint Klett RK2 hinge Rotors are 1.5" wide (chord), 18" long. halves glued to Made from medium-light stiff 3/32" or Rubber band size and tube & wrapped light 1/8" balsa. Balsa should be strength as necessary with thread, with for proper deployment somewhat stiff so it will not bow outward glue applied to tension much when folded for boost. thread last Rotors are fragile and easy to 18" to end of tube damage or break while sanding the trailing edge. Below is how to sand the 18" trailing edge of all rotors before cutting **BT-20** out from balsa sheet. Middle arrows point in direction of leading edge. Top view for models rotating counter-clockwise Top View of rotation Launch rod goes between blades, fin, and body. No 18" launch lug is 1 2 used. Two holes for 36" 18" burning thread, 1/16" diameter 1 2 3 4 4.0" 듕

How to tie elastic

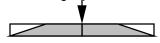
thread to hold

rotors for boost

Pull snug, then tie knot

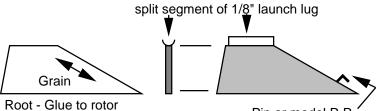
Layout for shaping and cutting 3 rotors plus spare from one sheet of balsa.

Sand trailing edges to shape before cutting apart at middle



### Standard ROTAROC Plans page 2 (with full size templates & details) Power: B4-2, B6-2, C6-3 BOOST FRONT VIEW OF **MAJOR PARTS** (NOT TO Leading Edge R SCALE) 1.25 0 o Grain t Full size fin (three) 1.5 3/32" light balsa Double size airfoil shape (3" chord) ROTOR AIRFOIL Actual size airfoil Trailing Edge .25"

Full size rubber band standoff & dihedral angle support (3 from 3/32" hard balsa, note grain)



### Construction:

For best performance, build model carefully so that parts are not grossly out of alignment and so it will deploy and rotate properly.

Keep model lightweight in selection of parts, wood, and in construction. Use Cyanoacrylate glue.

For finish, use only 1 coat of thinned clear dope on fins and nose cone, 1-2 coats of clear thin dope on rotors. Do not use any paint. For coloring, use magic marker.

Pin or model R.R. spike to anchor rubber band

# Optional Rotor tip shape

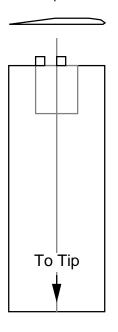
(Full size, top view)

Leading Edge

Trailing Edge

# Perpendicular hinge mount

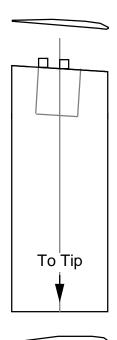
Blade flat at root, must be angleddown out towards tip to rotate



Down angle achieved by twisting outer portion of blade

# Skewed hinge mount

Blade angled at root, will rotate fine without any additional work.



Twist tip of blade up nearly horizontal for more efficiency, but will work OK if blade is same angle all across