

FLUSH INLET

This NACA inlet was designed within the published formula to fit the Long EZ. The 15" wide x 4" deep throat, less the 1 1/2" lip form, will provide enough area to cool the O320 Lycoming.

We use ~~two~~ ^{three} plys of glass cloth ~~and epoxy of exterior~~ all over and a fourth ply of glass where your access door will be cut out. We want a strong unit because the outside belly skin will be cut in one area and we use flox corners and re-inforcing tapes to tie it back together and give continuity of strength.

The cooling and strength have been proven in over 150 hours of use on Long EZ N81HM--O320 powered.

1. Mark a door in bottom of inlet throat. I used a 6" x 10" oval.

Place it between firewall and gear leg. Cut out the door smoothly. Duct tape edges of door at least 1" toward center from edge. Put door back in position and bridge over cut with sticks and bondo from what will become exterior side. Sand 1" around door and lay up 4-ply BID tape over cut line. Tapes should stick to inlet at least 1" outside cut line and lap over duct tape at least 5/8". Trim edge of flange and install nut plates and #8 countersunk screws. I used 6--one at each side, two forward, two aft.

2. Place the NACA unit on belly (fuselage upside down) and center on belly and firewall. Mark sides from 1" aft of speed brake to where belly ends with felt pin. Cut skin and pull off section where inlet will go. Pile off foam down to inner skin in places as necessary to submerge NACA inlet until front part is flush with skin.

3. Cut away foam under skin at cut edge for flox corner to inlet. Sand edge of glass 2" back for re-inforcing tapes--belly to inlet side. Sand necessary places on inlet and bottom of firewall inside for tape to tie inlet to firewall.