

Recipe for Omax

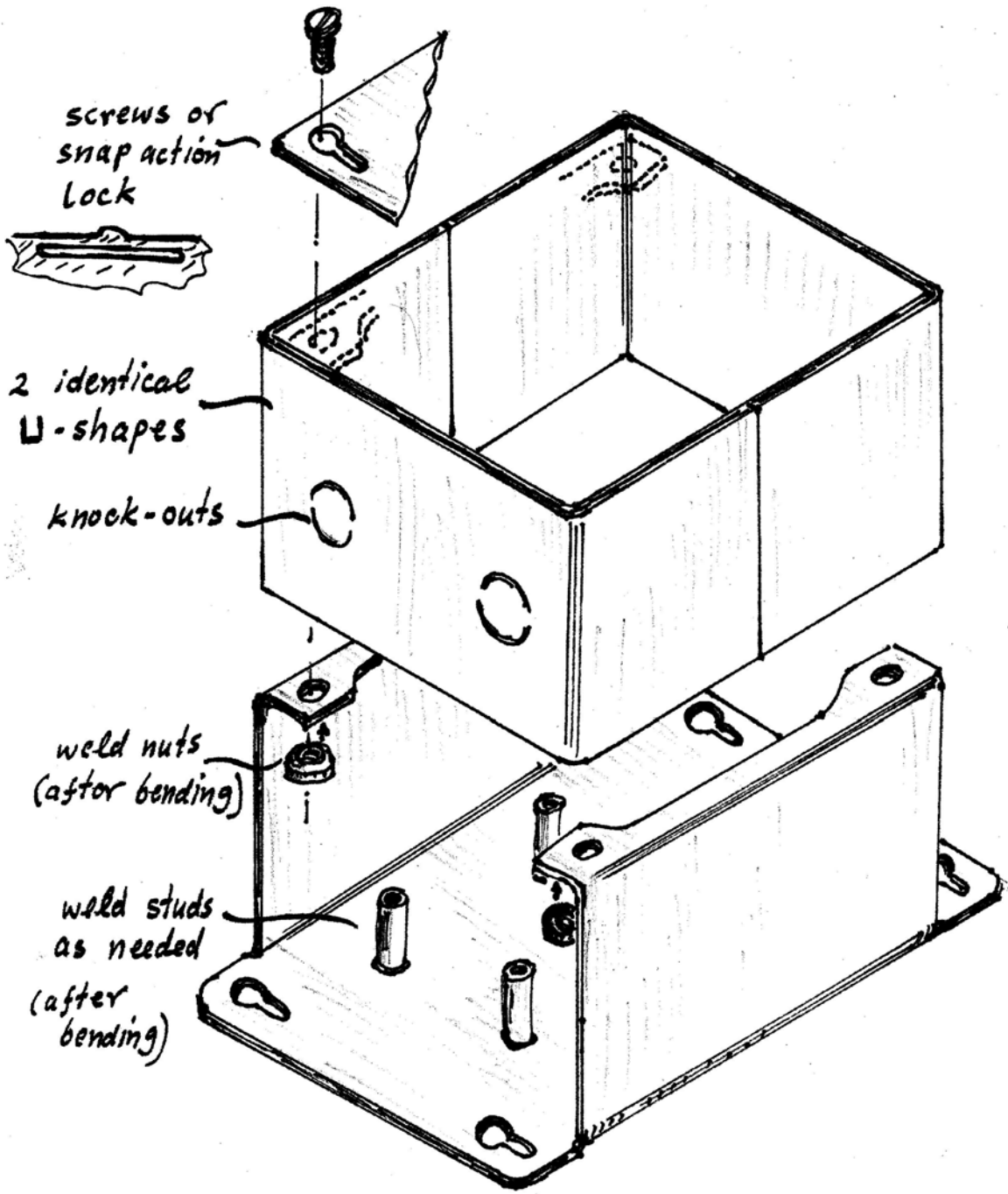
1. *File/import* from other CAD (if necessary)
2. Erase all extra detail by: *Select all->deselect -> Window-erase selected*
3. *Size*; convert mm to inches
4. *Clean*: set all to 0.1mm
5. *Quality -> all -> 1*; some critical areas edit to 2
6. Repeat part for multiples
7. *Load I/O ;> automatic -> Go*. Verify that lead in/out do not cut other parts.
8. *Save*
9. *Path*, then *Save*

HOLE SIZE CHART FOR WELDABLE NUTS AND STUDS

Thread Size	NUT Shoulder Diameter
6-32	N/A
8-32	5.4mm
10-32	6.2mm
¼-20	7.9mm
M4	6.0mm
M6	7.9mm

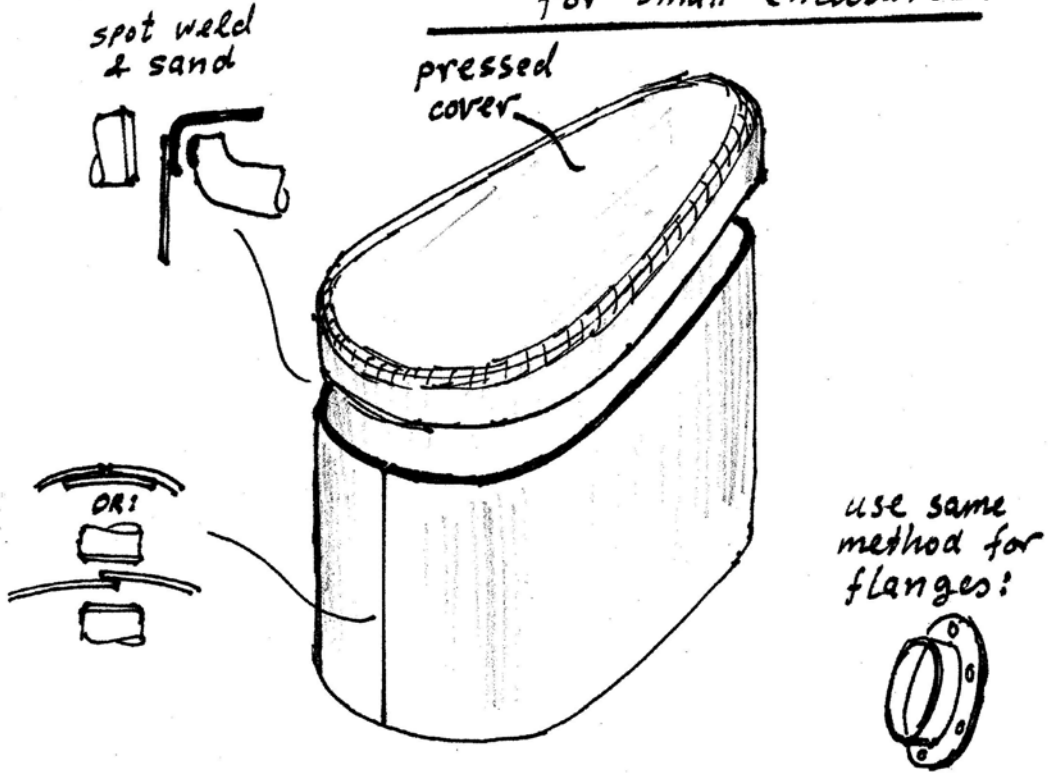
Thread Size	STUD Shoulder Diameter
6-32	3.5mm
8-32	4.1mm
10-32	4.8mm
¼-20	6.3mm
M4	Centre punch mark only
M6	Centre punch mark only

BOXES:

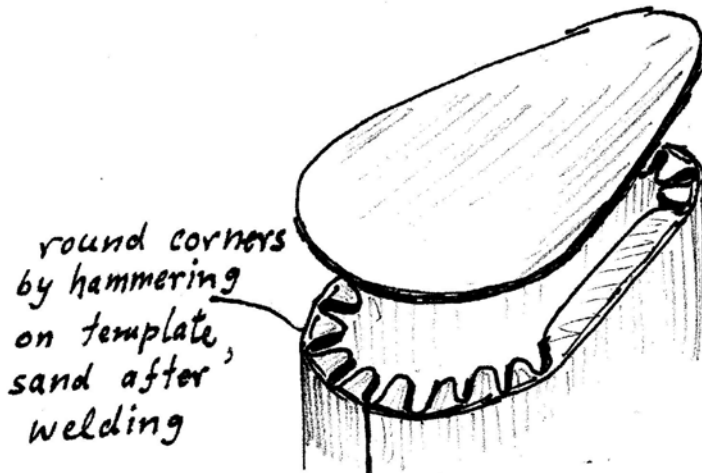


ENCLOSURES :

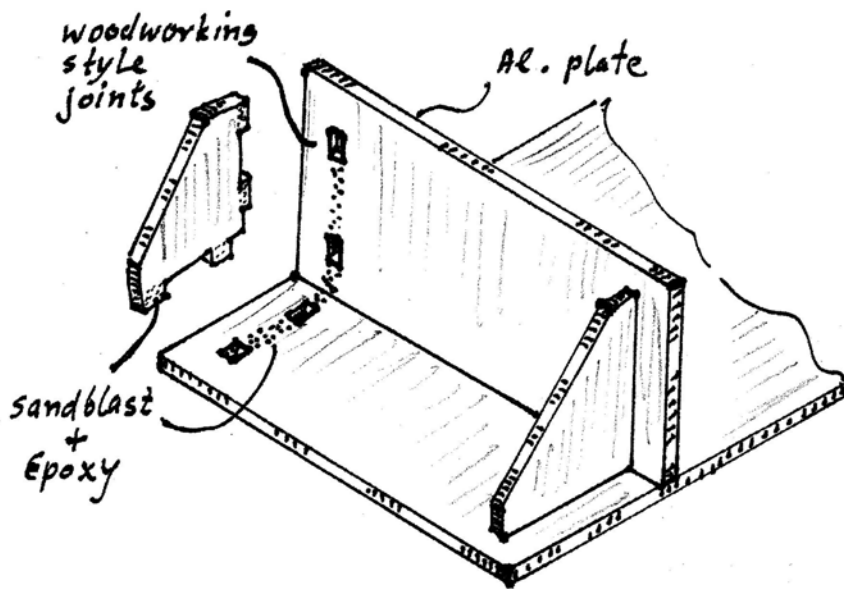
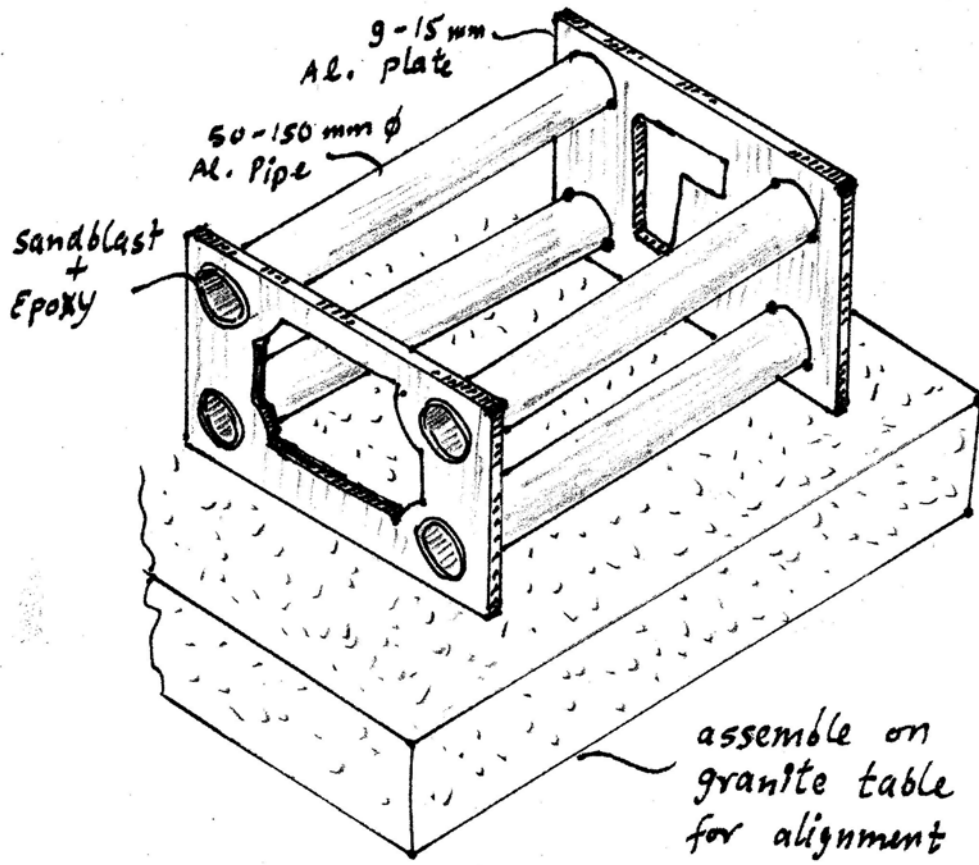
for small enclosures:



for large enclosures:

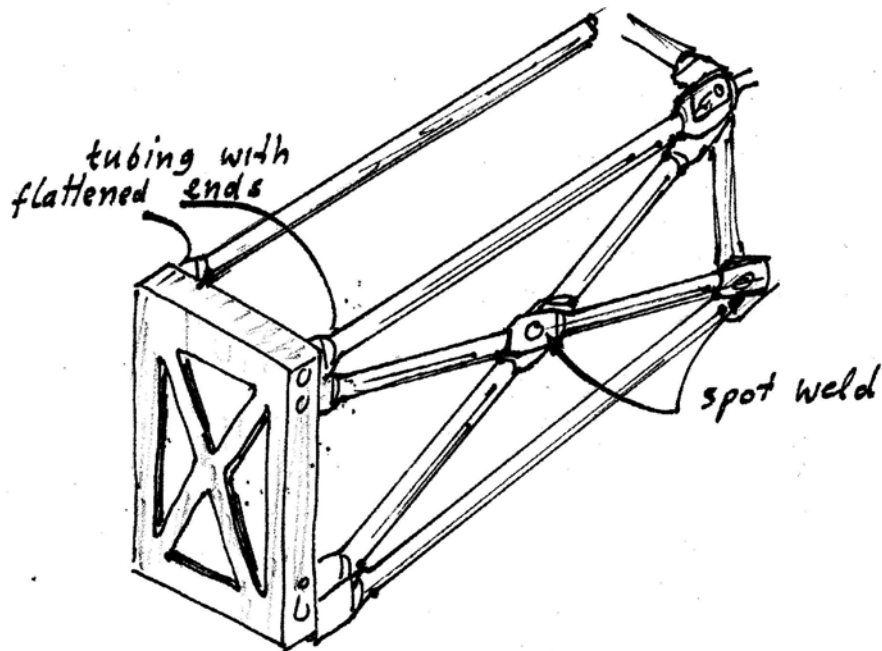
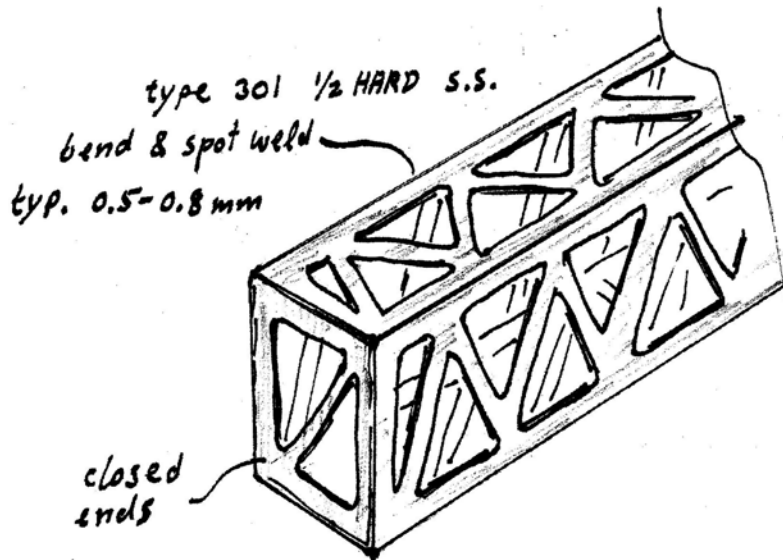


LARGE STRUCTURES:



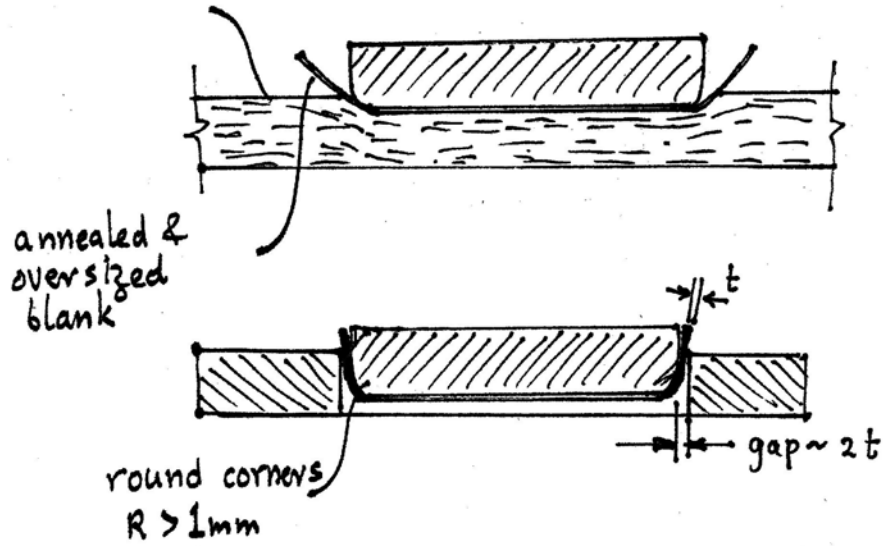
LIGHT STRUCTURES

(For high stiffness/weight ratio)



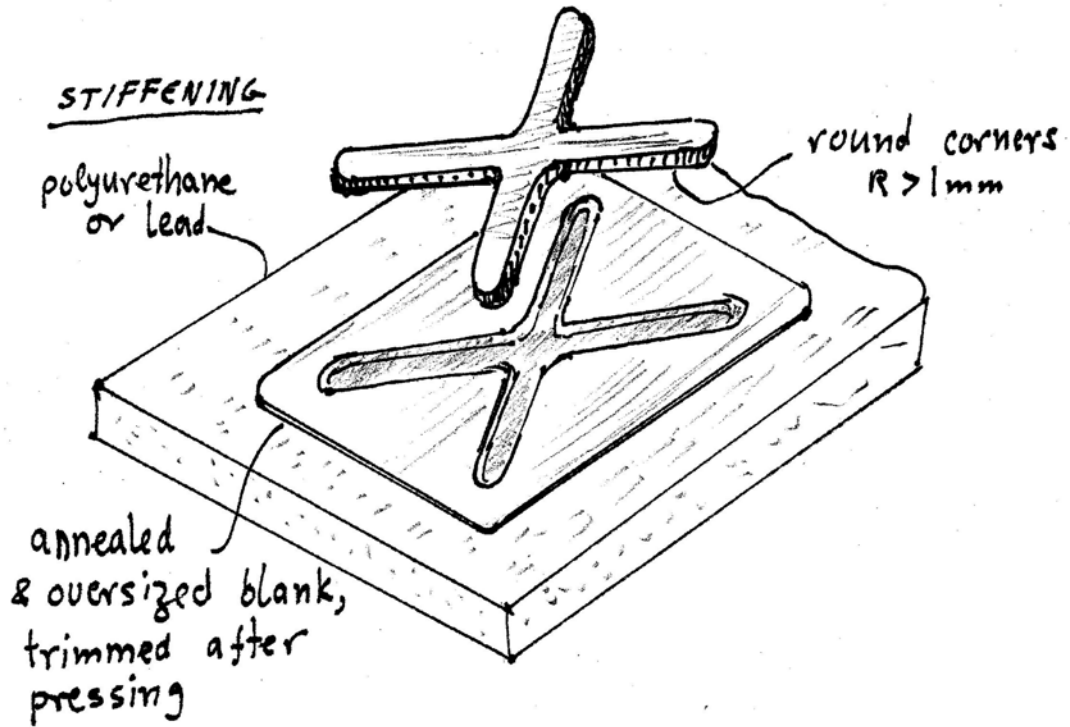
COVERS

polyurethane or lead



STIFFENING

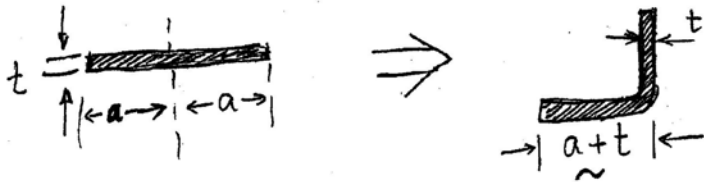
polyurethane or lead



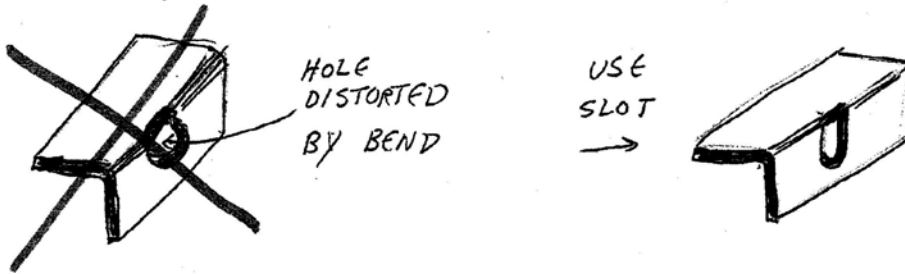
DESIGN RULES:

FOR BENDING:

- ① QD. GAIN \sim MATERIAL THICKNESS



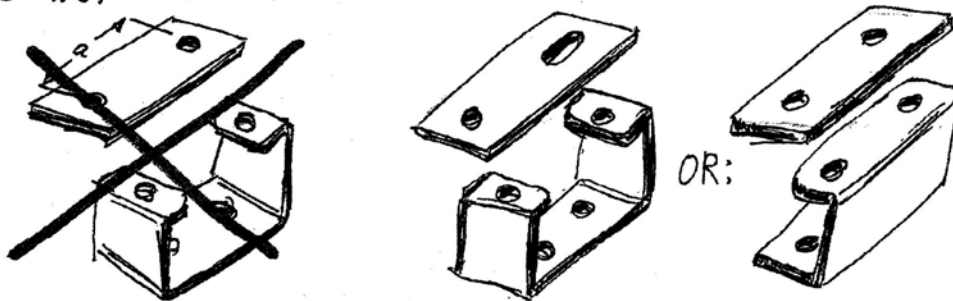
- ② DO NOT PLACE HOLES WITHIN $2t$ OF BEND. IF HOLE NEEDED, USE SLOT ACROSS BEND LINE



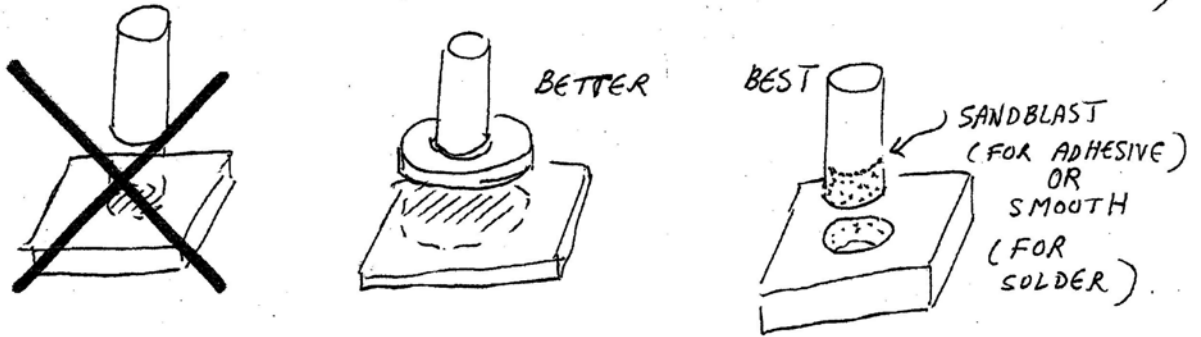
- ③ FOR BRITTLE ALLOYS USE RADIUS SHIM;



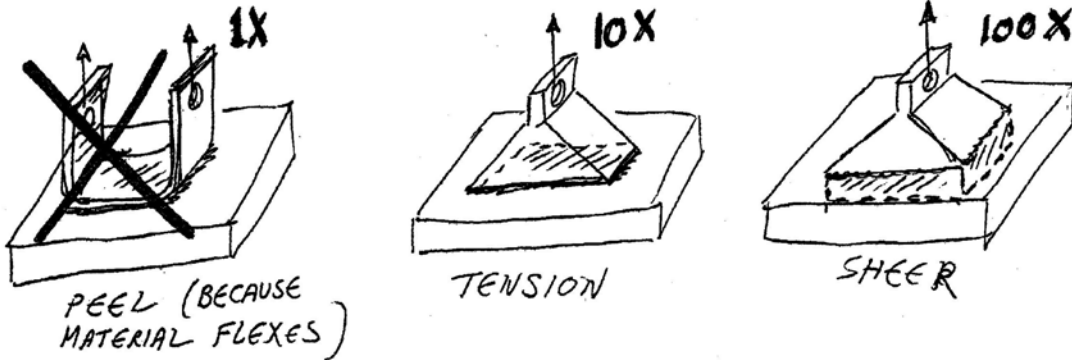
- ④ DO NOT USE TOLERANCES ACROSS BEND LINES;



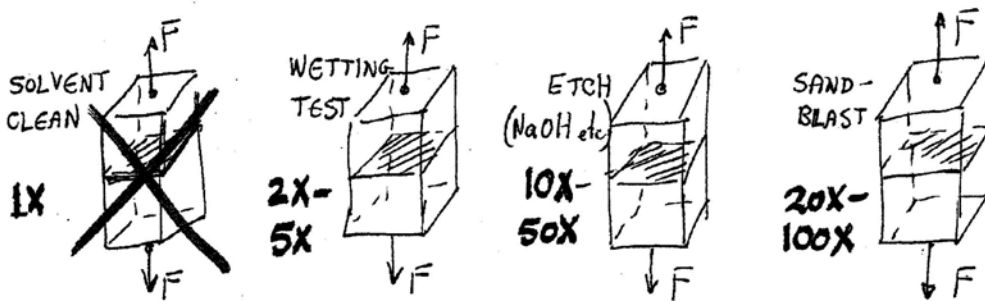
- ⑤ DESIGN ADHESIVE/SOLDER JOINTS FOR SHEAR, NEVER FOR PEEL;
 (IF MATERIALS ARE VERY THIN, PEEL CONDITIONS CAN HAPPEN)



SOLDER/ADHESIVE JOINTS:

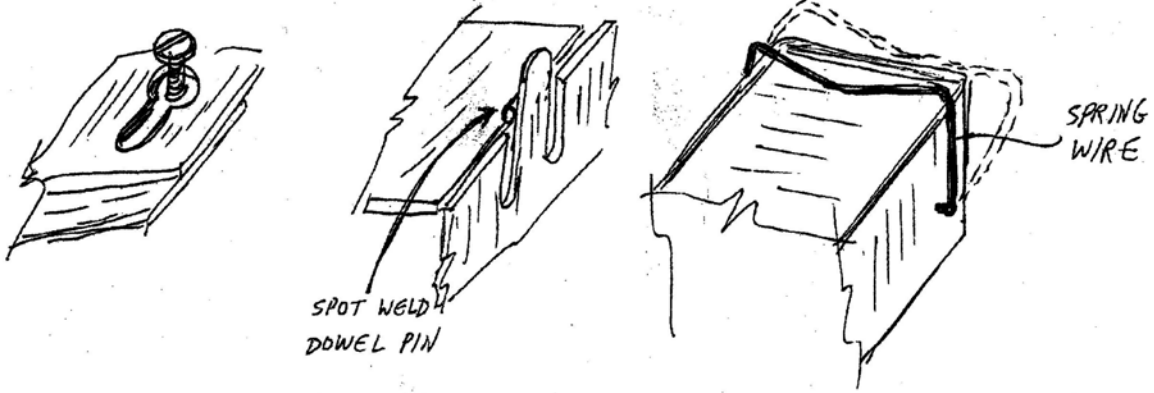


- ⑥ SANDBLAST OR ETCH BEFORE BONDING/PAINING.
 IF NOT POSSIBLE, CLEAN WITH COMET (TM) OR EQ.
 TILL FULL WATER SHEETING;

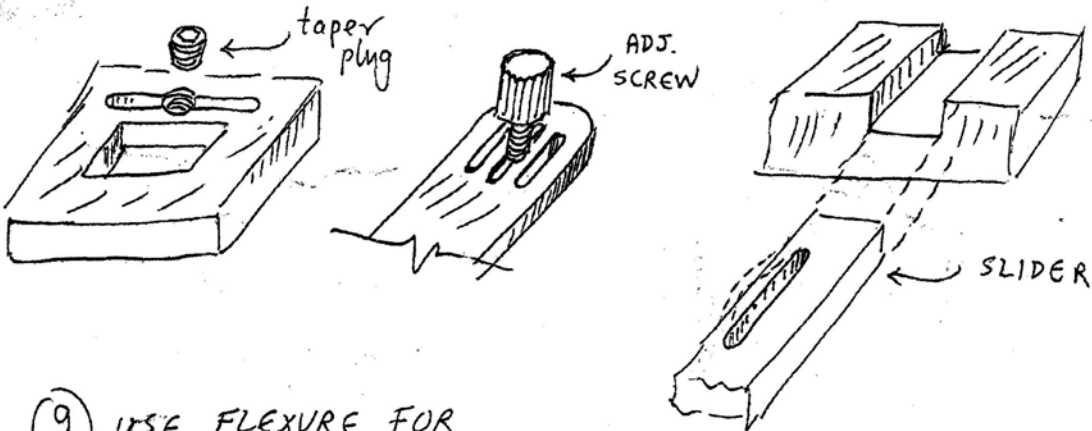


▷ FOR PAINTING WITHOUT SANDBLASTING: HEAT UP TO 300°C TO REMOVE CONTAMINATION, PAINT IMMEDIATELY WHEN COOL.

⑦ USE CAPTIVE FASTENERS!

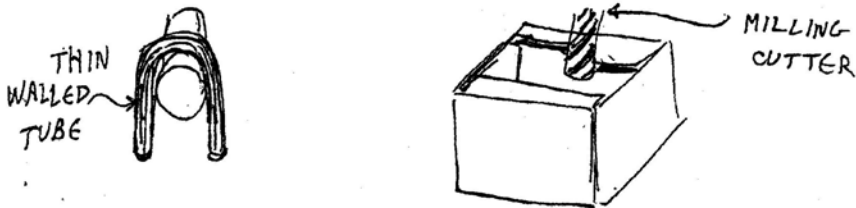


⑧ USE FLEXURE FOR CLAMPS AND FRICTION LOCKS!

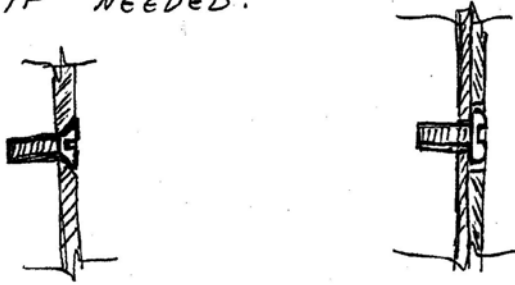


⑨ USE FLEXURE FOR LINEAR SLIDES UP TO A FEW mm MOVEMENT.

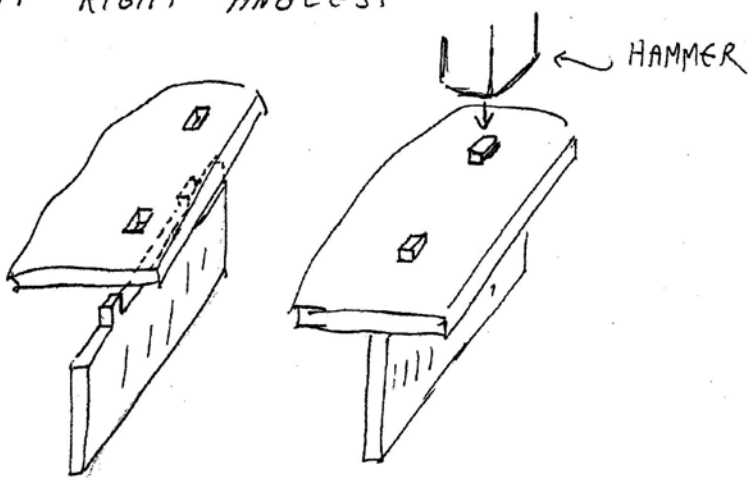
⑩ USE WOOD'S METAL TO STIFFEN THIN WALLED PARTS WHEN BENDING OR MACHINING.



(11) AVOID COUNTER-SINKING. USE DOUBLE WALL IF NEEDED:

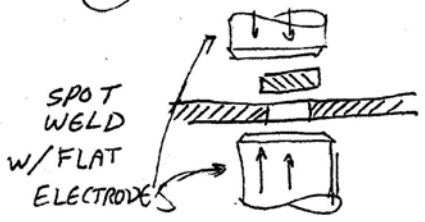


(12) USE STAKING OR RIVETTING TO CONNECT PIECES AT RIGHT ANGLES:



(13) USE RYLSAN (TM) AS BEARING COATING ON SLIDING SURFACES (LINKAGES ETC).

(14) TO PLUG A HOLE:



(15) FOR "NO MARKING" SPOT WELDING;

