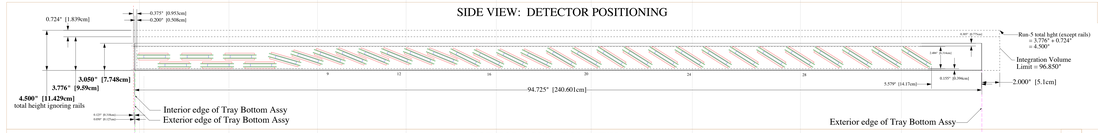
STAR TOF Tray

W.J. Llope, 713-348-4741
llope@physics.rice.edu

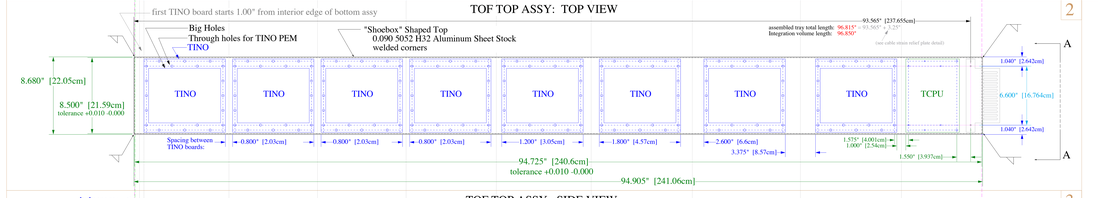
Parts:
1. One (1) BOTTOM ASSY.....H5052, 50mil-thick, welded edges
2. Two (2) FEET.....H5052, 90mil-thick
3. One (1) TOP ASSY.....H5052, 50mil-thick, welded edges
4. One (1) COVER ASSY.....H5052, 50mil-thick, welded edges, un perforated
5. Eight (8) STANDARD UPPER BRACKETS.....H5052, 63mil-thick
6. One (1) SPECIAL UPPER BRACKET.....H5052, 63mil-thick
7. Eight (8) LOWER BRACKETS.....H5052, 63mil-thick

Notes:
- Large Parts (bottom, top, & cover) to be stamped with a serial number
- Parts to be degreased and wrapped in plastic.
- Top Assy should fit onto Bottom Assy smoothly & without undue force.
- PEM nuts and studs to be cleaned before installation in Top Assy.
- Parts shipped as attached assemblies (Bottom+Top+Cover)

SIDE VIEW: DETECTOR POSITIONING

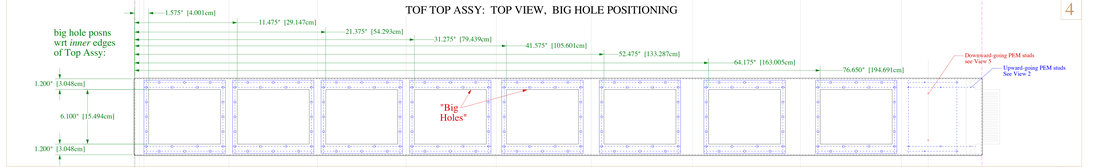


TOF TOP ASSY: TOP VIEW

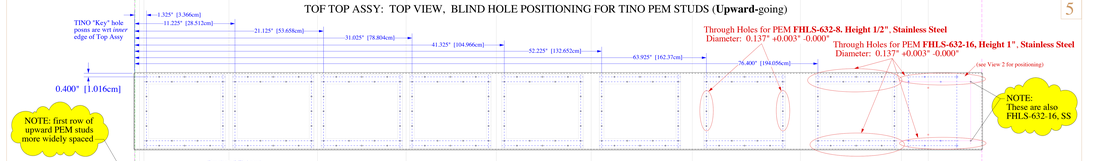


TOF TOP ASSY: SIDE VIEW

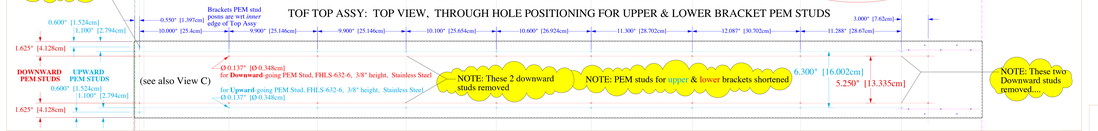
TOF TOP ASSY: TOP VIEW, BIG HOLE POSITIONING



TOF TOP ASSY: TOP VIEW, BLIND HOLE POSITIONING FOR TINO PEM STUDS (**Upward**-going)

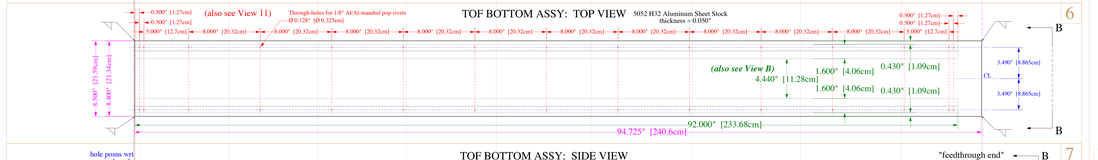


TOF TOP ASSY: TOP VIEW, THROUGH HOLE POSITIONING FOR UPPER & LOWER BRACKET PEM STUDS

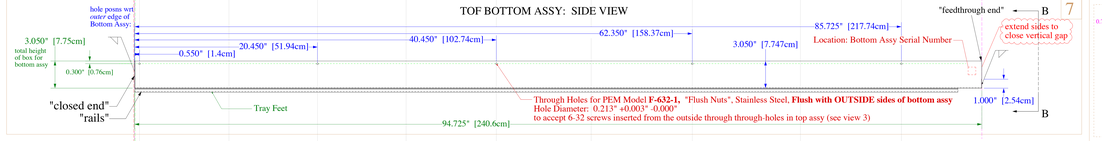


TOF BOTTOM ASSY: TOP VIEW

5052 H32 Aluminum Sheet Stock thickness = 0.050"

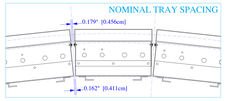


TOF BOTTOM ASSY: SIDE VIEW

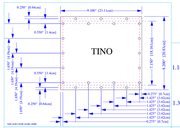


MRPCs

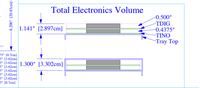
NOMINAL TRAY SPACING



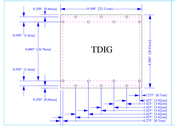
TINO



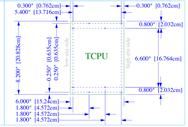
Total Electronics Volume



TDIG



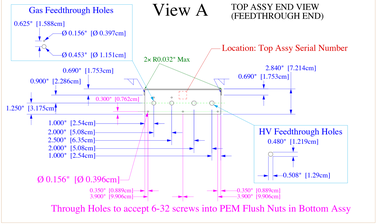
TCPU



Gas Feedthrough Holes

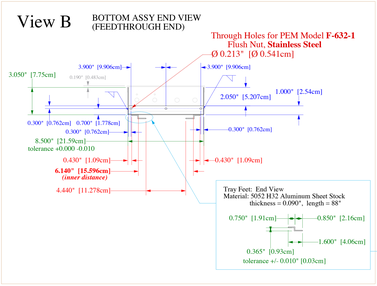
View A

TOP ASSY END VIEW (FEEDTHROUGH END)



View B

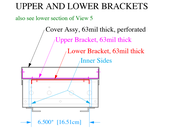
BOTTOM ASSY END VIEW (FEEDTHROUGH END)



View C

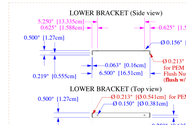
UPPER AND LOWER BRACKETS

also see lower section of View 5



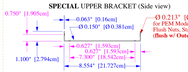
NOTE: Diameter of through-holes for (upper & lower) bracket mounting to top assy is 0.150"

LOWER BRACKET (Side view)

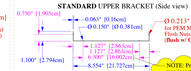


LOWER BRACKET (Top view)

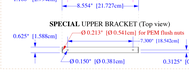
SPECIAL UPPER BRACKET (Side view)



STANDARD UPPER BRACKET (Side view)



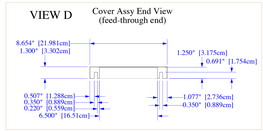
SPECIAL UPPER BRACKET (Top view)



STANDARD UPPER BRACKET (Top view)

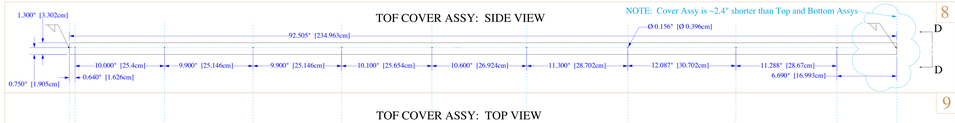
VIEW D

Cover Assy End View (feed-through end)

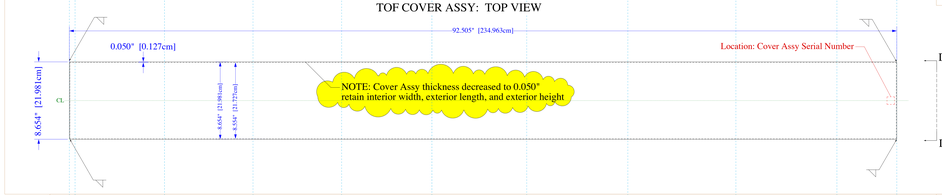


TOF COVER ASSY: SIDE VIEW

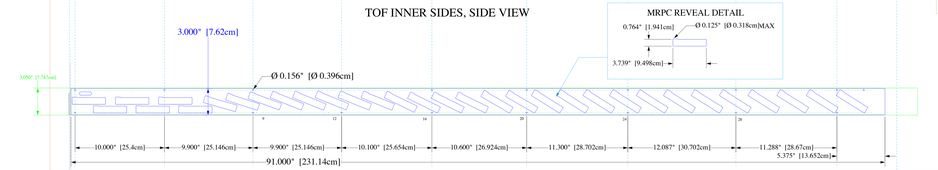
NOTE: Cover Assy is ~2.4" shorter than Top and Bottom Assys



TOF COVER ASSY: TOP VIEW

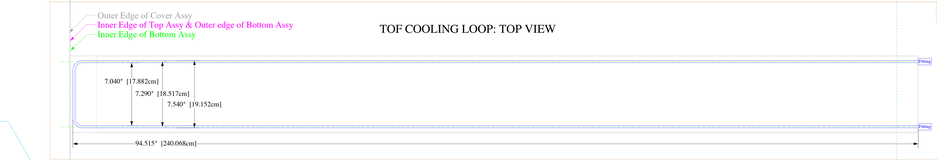


TOF INNER SIDES, SIDE VIEW

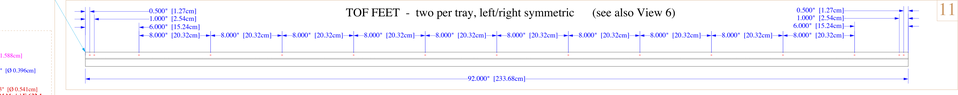


MRPC REVEAL DETAIL

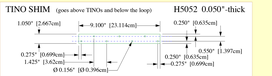
TOF COOLING LOOP: TOP VIEW



TOF FEET - two per tray, left/right symmetric (see also View 6)

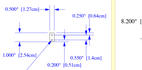


TINO SHIM (goes above TINOs and below the loop) H5052 0.050"-thick



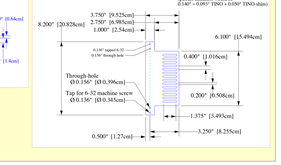
These Parts are not built at Oaks

COOLING LOOP TIEDOWN PLATE H5052, 1/8"-thick, 2/tray



CABLE RELIEF PLATE DETAIL H5052, 0.125"-thick

(perfect thickness would be 0.140" = 0.090" TINO + 0.050" TINO-to-shim)



LOW-ETA TDIG PLATE (to cover first 4 TINO/TDIG posts) H5052 0.125" thick

HIGH-ETA TDIG PLATE (to cover last 4 TINO/TDIG posts) H5052 0.125"-thick