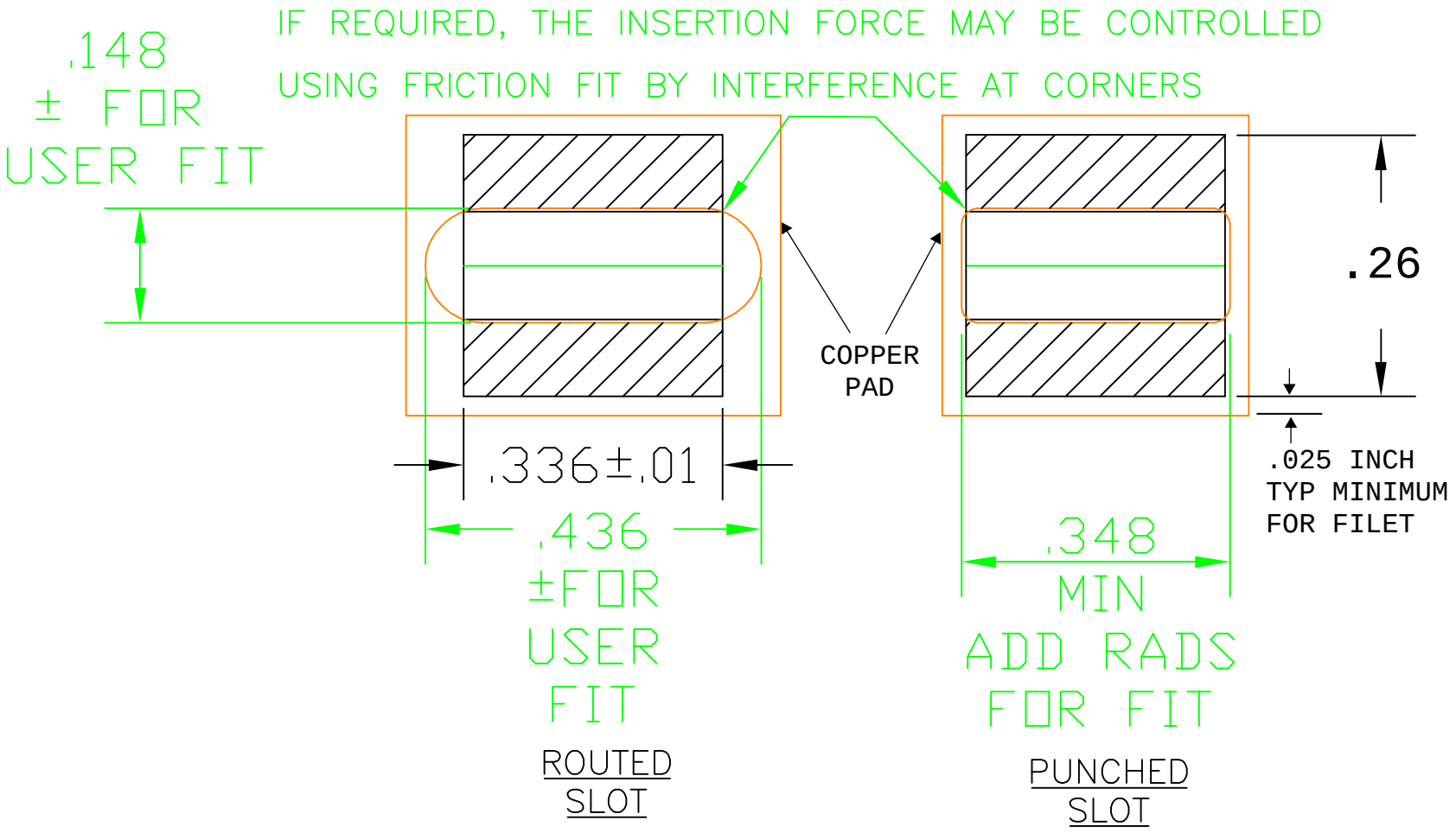
PAGE 1 RECOMMENDED PCB THICKNESS .06" **MIN.** PLATED VIAS. DOUBLE SIDED. DO TORQUE TEST TO ENSURE YOUR SELECTED UL WIRE SIZE SCREW TORQUE REQUIRMENTS & PULL OUTS ARE MET FOR ON BOARD TESTING. AVOID SLOTS TOO NEAR TO BOARD EDGE. SUITABLE FOR WAVE SOLDER WITH SAC SOLDER. PREFLUX AND PREHEAT. SEE TYPICAL WAVE SOLDER PROFILE. AS TOO MANY VARIABLES ARE IN PLAY WITH TYPE OF BOARD AND TEMPERATURE RISE CHOSEN BY DESIGNER ALL DESIGN ASPECTS NEED TO BE TESTED FOR EACH APPLICATION BY USER.



SOLDER FOOT PRINT FOR IHI B10-PCB-XX

NOTES ON FOOTPRINT LAYOUTS IN SMT MODE

IHI Connectors ® Mentor, Ohio, USA

The typical edge fillet on the IHI Solderable terminal in SMT mode is about .025" rad. (varies with amount of solder/paste used) so we suggest that the copper pad showing through the masking would be .050" total wider than the physical contact footprint to accommodate the .025" all around.

The exposed pad could be larger but there would increasingly more chance that is can float around as the exposed area gets larger. Smaller pads would restrict the amount of solder filet around the SMT component which reduces the strength of the soldered interface somewhat and may reduce the opportunity to see a healthy looking filet as a useful visual guide to a well wetted soldered joint.

The actual full foil size, under the masking would be as large as possible and as needed to carry the current and provide cooling.

You should test the twist off torque on an adequate number of samples to ascertain the safe amount of torque for the tightening of the screw onto the ring lug for the process you have approved your CM to use. .
Taking measurements of "twist torque to failure" will give you an idea of the head room that you have over the recommended user torque for the clamping screw.

The result tends to vary by solder type and methods and levels of porosity (gas bubbles) in the soldered interface. It is good to control all of that closely, so that you get consistent results at your third party contract house. Some solder / flux types are more prone to voids than others.

All application need to be thoroughly tested by customers for mounting strength and high cycle degradation of the soldered joint and foil bonds on the clients chosen PCB construction and operating temperatures.

To be read in conjunction with " PCB dos and don'ts guide" and "SMT guide" at links below:

http://www.lugsdirect.com/SMT-Surface-Mount-Technology-PrintedCircuitBoard-PCB-WireTerminalLugs-IHI.html

http://www.lugsdirect.com/High_Amp_Wide_Trace_PCB_Wire_Connection.html