

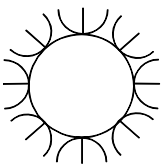
INSTALL FILTERS A BRAND-NEW WAY!

UNLIKE OTHER PRESS-IN
FILTER BODIES THAT STAY
IN PLACE BY
COMPRESSIVE FORCE,
THE PATENTED "TALON
GRIP" FILTER BODY FROM
THE EMI FILTER CO.
"BITES" INTO YOUR
SUBSTRATE, HOLDING
ITSELF IN PLACE WITH A
NEAR HERMETIC SEAL.

COMPARE HOW THEY
WORK!



THE COMPRESSIVE FORCE
OF A STANDARD PRESS-IN
PART CAN CRACK YOUR
SUBSTRATE OR DAMAGE
YOUR PART.



THE PATENTED "TALON
GRIP" COMPONENT BODY
GRIPS THE SIDES OF THE
MOUNTING HOLE,
PREVENTING DAMAGE TO
THE SUBSTRATE AND THE
PART!

FOR MORE
INFORMATION,
PLEASE
CONTACT

THE EMI FILTER
COMPANY

1-800-323-7990
727-585-7990
FAX 727-586-5138

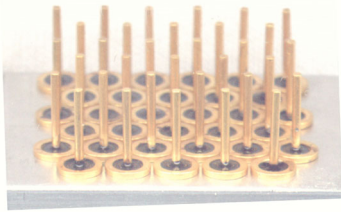
OR VISIT US ONLINE AT
WWW.EMIFILTERCOMPANY.COM

INTRODUCING...



THE "TALON GRIP" FILTER BODY

The next generation
of low-pass EMI filters
using a patented
press-in body so
different from
anything ever seen
before, it will
revolutionize the way
you install filter
devices.....



**33 PIN ARRAY ON
OFFSET .165" CENTERS**
built in under five minutes!

INSTALLATION NOTES

I CAN BE INSTALLED
USING AN ARBOR PRESS
OR A HANDHELD IMPACT
TOOL

I USE OF AVAILABLE
SEALANT INCREASES
HERMETICITY AS WELL
AS HOLD

I YOU CAN BUILD
ARRAYS ON CENTERS
AS LOW AS .165"

I SOLDER-FREE
INSTALLATION ALLOWS
REWORK JOBS WITHOUT
DAMAGING
SURROUNDING PARTS

BECAUSE THERE'S NO SUCH THING AS A PERFECTLY ROUND HOLE.....

The compressive forces on a regular press-in part are immense. The hole may LOOK round, but in fact, it will always be a little "off." The knurls on a standard press-in compress to lock the part into place. This puts pressure on the outside wall of the filter and on the delicate ceramic capacitor inside the filter. Because this pressure is unevenly distributed by an uneven hole, the fragile ceramic capacitor can crack, or the installation substrate can warp or crack.

The patented "TALON GRIP" body, with its cutting edge technology and specially designed retaining grooves progressively broaches its way into the uneven walls of the installation hole, creating a perfectly formed seat. This creates less compressive stress on the substrate, resulting in less chance for damage.

TECHNICAL INFORMATION

BARREL DIAMETER: .128"
FLANGE DIAMETER: .156"
LEAD-TIP TO LEAD-TIP: .625"
PLATING: WIRE BOND GOLD
CAP/TOLERANCE:
0pf to .01: F (+100/-0%)
DISSIPATION FACTOR:
3.5% MAX
INSULATION RESISTANCE:
10,000MS -: F OR
1,000MS whichever is less @
25°C, WVDC.
DIELECTRIC STRENGTH
(DWV): 250% OF RATED
VOLTS FOR 5 SEC.
OPERATING TEMP:
-55°C TO +125° C

The EMI FILTER COMPANY leads the way in offering practical, quality, affordable filtering solutions. During these trying economic times, we have taken advantage of slowdowns to develop smaller bolt and solder-in filter bodies, and our new patented "TALON GRIP" press-in style filter body. We have also developed and installed patented high-speed assembly equipment. These all help us meet your requests for ever smaller parts at the best possible prices. These new parts and processes let us continue to employ American workers, ensuring that world events will not disrupt your filter supply.

A NEW STANDARD IN PRESS-IN FILTERS 1

Solder-In feed-through filter devices have been used for the last 50+ years where some degree of hermeticity is desired. In more recent years where a hermetic seal is not necessary, Press-In devices came into use.

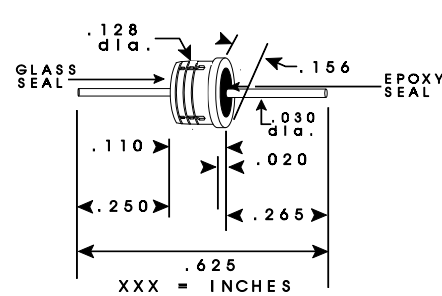
These Press-In devices are basically a standard solder-in housing, complete with a glass hermetic seal, that have an area of deep knurls cut onto it around the entire circumference of the housing. When this type device is pressed into a bulkhead mounting hole, the knurls plow into and disrupts the bulkhead material (usually aluminum) to hold the feed-through device in place. This is accomplished using insertion forces of several hundred pounds and exerts a great deal of radial (compressive) force on the internal ceramic components. Because there is no such thing as a perfectly round hole, the basic design of these press-in housings can place un-even radial compressive forces on the internal ceramic component (usually a capacitor), leading to failures, in the form of cracked ceramic.

Even after removing a failed device, installing a replacement unit is problematic because the mounting hole material has been totally disrupted, leaving nothing in the way of usable material for the replacement unit. The only way to replace the failed device is to solder in a standard solder-in style filter, soldering only to the "outside" surface of the bulkhead and the flange of the filter. This is less than desirable due to the fact that additional filters need to be purchased adding to the cost, the solder joint achieved is less than optimum, and soldering may be a challenge if there are heat sensitive components already installed, again adding un-necessary costs.

It is apparent that there is a need for a more robust and user friendly Press-In device. EMI Filter Company has developed a press-in design that while using very low insertion force (80 lbs average), has very good retention characteristics. There are virtually NO radial compressive forces on internal components, even if the mounting hole is undersized from that specified; a condition not acceptable to the current state of art. The typical hole diameter for the current state of art devices is 0.136" ±0.001".

This highly engineered "Talon Lock" design (patent applied for) allows the use of a wider mounting hole size range (0.136" ±0.002"), reducing machining time and costs. It also allows replacement of the device with another "Talon Lock" press-in device if desired, with no additional machining cost or soldering. This is unheard of with the current design of press in devices offered by Spectrum Control, Tusonix, etc. With the addition of a wicking type sealer, a reasonable level of hermeticity can be achieved, with the added benefit of increased hold, while maintaining good electrical contact.

AVAILABLE "TALON LOCK" (PZ STYLE) PRESS-IN FILTERS

EMI PART NUMBER	CAP. "C" CKT pF	MAX. WVDC	DC AMPS	MIN. NO LOAD INSERTION LOSS			CAP. Tol.: +100/-0% Dissipation Factor: 3.0% MAX. Insulation Resistance: 10,000 MS MIN. (25E C), WVDC Dielectric Strength (DWV): 250% of WVDC; 5 sec. Operating Temperature: -55E C to +125E C Material and Finish: C12L14 CRS case, Alloy 52 Lead Gold Plated (suitable for wire bonding) per MIL-G-45204, Type III, Grade A, Class 1
				FREQUENCY (MHz)			
				10	100	1000	
PZC000D	0	200	10	---	---	---	
PZC100D	10	200	10	---	---	5	
PZC250D	25	200	10	---	---	10	
PZC101D	100	200	10	---	3	20	
PZC501D	500	200	10	---	15	35	
PZC102D	1000	200	10	5	20	35	
PZC122D	1200	200	10	5	20	35	
PZC272D	2700	200	10	10	25	40	
PZC502B	5000	100	10	15	30	45	
PZC103B	10,000	100	10	10	35	50	

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1 patent applied for

INSTALLATION OF EMI FILTER COMPANY "TALON GRIP" PRESS-IN FILTERS

HOLE SIZE:

0.136"±0.002" diameter. We recommend drilling an undersized hole (0.125") and reaming to the final size. **DO NOT CHAMFER EDGES!** A slight break of no more than .005" deep is recommended. If the filter is installed in a hole that is approaching the minus limit of the tolerance, slightly higher installation forces will be needed. **DO NOT** try to install these filters in holes smaller than 0.134" in diameter.

INSTALLATION TOOL:

For *evaluation* purposes, EMI Filter Company offers a simple installation tool, Part Number: **IT-PZ**, that can be inserted into the chuck of a drill press, or similar equipment. This same tool can also be used to remove the filters, if desired. If you wish to make your own installation tool to fit a particular piece of equipment, please see illustration below.

INSTALLING PRESS-IN FILTERS:

- 1) Insert the lead on the flange end of the filter into the installation tool. The tool is designed to hold the filter during installation.
- 2) Lower the drill press chuck, making sure that the filter enters the hole squarely and continue pressing until the flange contacts the face of the bulkhead.
- 3) Back the tool off of the filter lead. The filter is installed.

SEALANT:

If more of an atmospheric seal/increased hold is desired, a small drop about 1/8" diameter of EMI's Part Number: **PLF-2ML** sealer can be applied to the area where the flange comes in contact with the bulkhead face. The sealer will wick under the flange and fill all of the open areas in the mounting hole. Full cure of this material is achieved over night at room temperature. Be careful that you do not apply too much. Do not try to cure faster by heating.

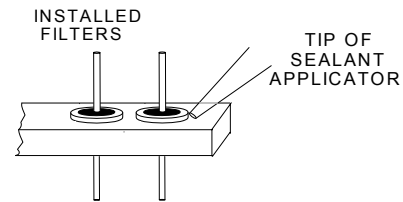
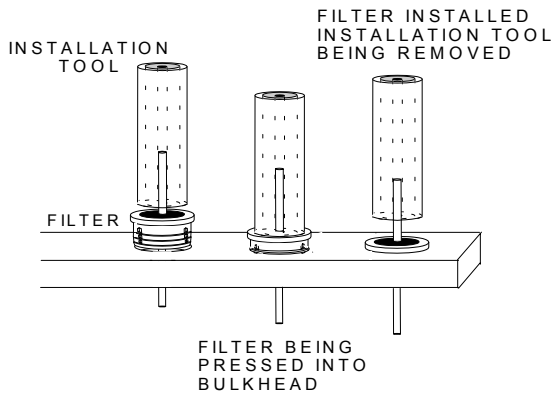
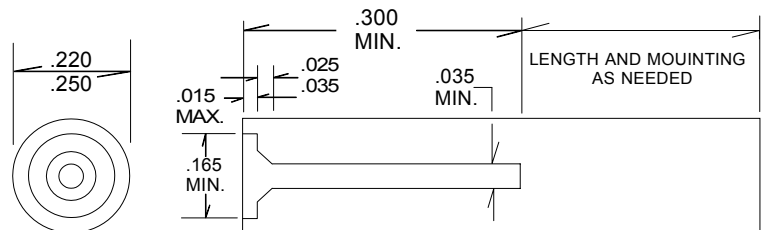


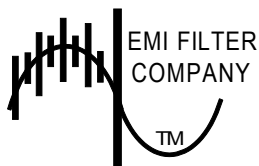
Illustration showing the position of the Sealant applicator tip when applying sealant after filter installation.

INSTALLATION STEPS FROM LEFT TO RIGHT

- < Filter inserted into the installation tool and started into the mounting hole.
- < Filter being pressed into place.
- < Filter installed and installation tool being removed.



DIMENSIONS IN INCHES



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The above illustration is the general outline of an installation tool for the "PZ" series press-in filters. Be sure to include the .025-.035 deep chamfer so that the sealing epoxy of the filters is protected from excessive stress. If you have any questions regarding the installation of these filters, please contact us.