

DATE 10/25/54
SH. 1 OF 2
COMPILED BY
AJJ

TMC SPECIFICATION NO. S - 230

TITLE: PURCHASING SPEC., FILTER DISCRIMINATOR FD 116 JOB

APPROVED A. J. J.

1. ELECTRICAL:

A. CHARACTERISTICS:

In general, these units should exhibit a nearly linear discriminator curve between the limits of ± 50 cps of the specified center frequency. It is required, however, that no unit is to be passed which does not meet specification S - 207 when checked with Laboratory Test Set 100.

B. CONSTRUCTION:

(a). All units are to be electrically constructed according to TMC chart CH - 128.

When two inductors in series are called out, it is left to the manufacturer's discretion whether to wind one unit of equivalent inductance or to wind two units as might, in some cases, be originally specified.

(b). When two capacitors in parallel are called out, it is left to the manufacturer's discretion whether to use one unit of equivalent capacitance or to use two units as might, in some cases, be originally specified.

(c). Each parallel resonant combination shall be resonated within ± 2 cps of the frequency specified on CH - 128 while using an adjustment procedure which leaves the circuit relatively unloaded.

(All inductors have been designed with approximately a five percent excess in inductance to facilitate such an adjustment).

C. COMPONENTS:

(a). All toroids shall be impregnated while under vacuum.

(b). All completed discriminator cans shall be hermetically sealed and filled while under vacuum.

(c). Although chart CH - 128 calls for "F" temperature coefficient capacitors, "E" units may be used. In all cases, however, the capacitors shall be silver mica units (not necessarily the C-D Super Micadon).

(d). Toroid cores shall be stabilized and shall have temperature coefficient characteristics at least as good as the Arnold Engineering Company D-671157-3.

(e). All components shall be rigidly mounted before potting.

(f). All inductors shall be wound for maximum Q.

D. DESIGNATION:

The discriminators shall be designated as follows:

<u>Center Frequency</u>	<u>Part Number</u>
425 cps	FD 116 - 425
595	FD 116 - 595
765	FD 116 - 765
935	FD 116 - 935
1105	FD 116 - 1105
1275	FD 116 - 1275
1445	FD 116 - 1445
1615	FD 116 - 1615
1785	FD 116 - 1785
1955	FD 116 - 1955

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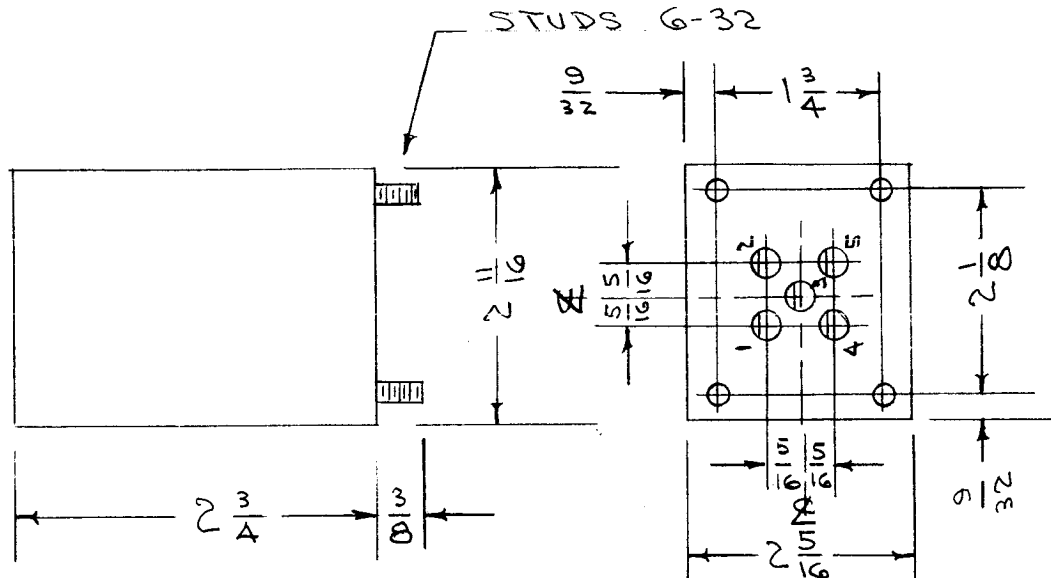
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2. PHYSICAL:

A. DIMENSIONS:

The unit shall be enclosed in a can having the following dimensions, mounting system, and terminal placement:



This is a catalog item of the Hudson Tool and Die Company and bears the number HU - 157.

B. PRINTING:

- (a). The following lettering shall appear on each can top and shall be stamped in paint to prevent easy removal:

THE TECHNICAL MATERIAL CORP.
MAMARONECK, NEW YORK

PART NO. FD 116 _____

- where the assigned center frequency shall appear in the blank space.
- (b). No designation relating the finished product to the original manufacturer shall appear anywhere on the can.
- (c). The appropriate terminals on the can bottom shall be marked 1, 2, 3, 4, and 5.

C. PAINTING:

- (a). The unit shall be painted TMC grey according to TMC S-115 but using, instead, a paint which requires baking at a temperature not to exceed 240° F.

D. POTTING;

- (a). The unit shall be potted with a medium temperature wax having good creep characteristics such as the Zophar Mills, Inc. No. 1563.

The manufacturer shall be supplied with TMC prints as follows:

CH - 128	CL - 200	S - 207
CM - 108	RB - 100	CK - 277