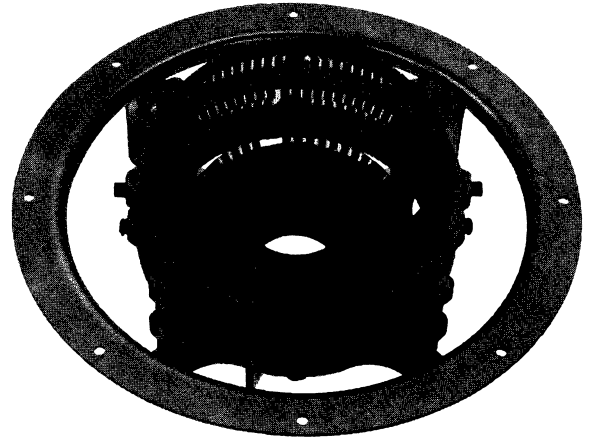


**E I M A C**  
 Division of Varian  
 S A N C A R L O S  
 C A L I F O R N I A

**SK-300A**

**AIR-SYSTEM  
 SOCKET**

The Eimac SK-300A Air-System Socket is recommended for use with those tube types listed at the bottom of the data sheet. The Eimac SK-306, SK-316 and SK-1306 Air Chimneys are available for use with this socket. When this socket is used, connection is made to each of the tube electrodes except the anode, by means of concentric rings of spring-finger contacts. The SK-300A is an improved version of the SK-300 with significantly reduced pressure drop at the air-flow rates used with these tubes. The cooling air horsepower requirements are appreciably lower for these tube types in an SK-300A as compared to the SK-300.



**BASE CONNECTION**

The SK-300A Air-System Socket consists of four concentric rings of spring-finger contacts. The socket is provided with two filament connectors with a 1/4" diameter hole in each connector for making connection to the inner and outer filament contacts, one 6-32 terminal is provided for DC connection to the screen-grid. RF connection to the screen-grid may be made directly to the collet. The SK-300A has four 8-32 terminals for connection to the control-grid. The four contact rings are shown on the outline drawing.

**MAXIMUM WORKING VOLTAGE:**

Screen-Grid . . . . .	3000 Vdc
Control-Grid . . . . .	3000 Vdc

**MATERIALS AND FINISHES**

The socket body is made from brass silver-plated. The contact material is a non-ferrous spring alloy, Beryllium-copper, per QQ-C-533, heat treated for spring action and silver-plated, per QQ-S-365, for good RF conductivity. The insulation material is Teflon and Alsimag 665 ceramic.

**INSTALLATION**

The SK-300A Air-System Socket can be mounted on a chassis deck, partition or pressurized compartment. Chassis mounting is accomplished by cutting a 7-3/16" hole in the chassis deck or partition. The socket is then placed in the hole and fastened in place by eight 6-32 machine screws through the eight holes provided for fastening. The SK-300A Air-System Socket is recommended for use with the following tubes:

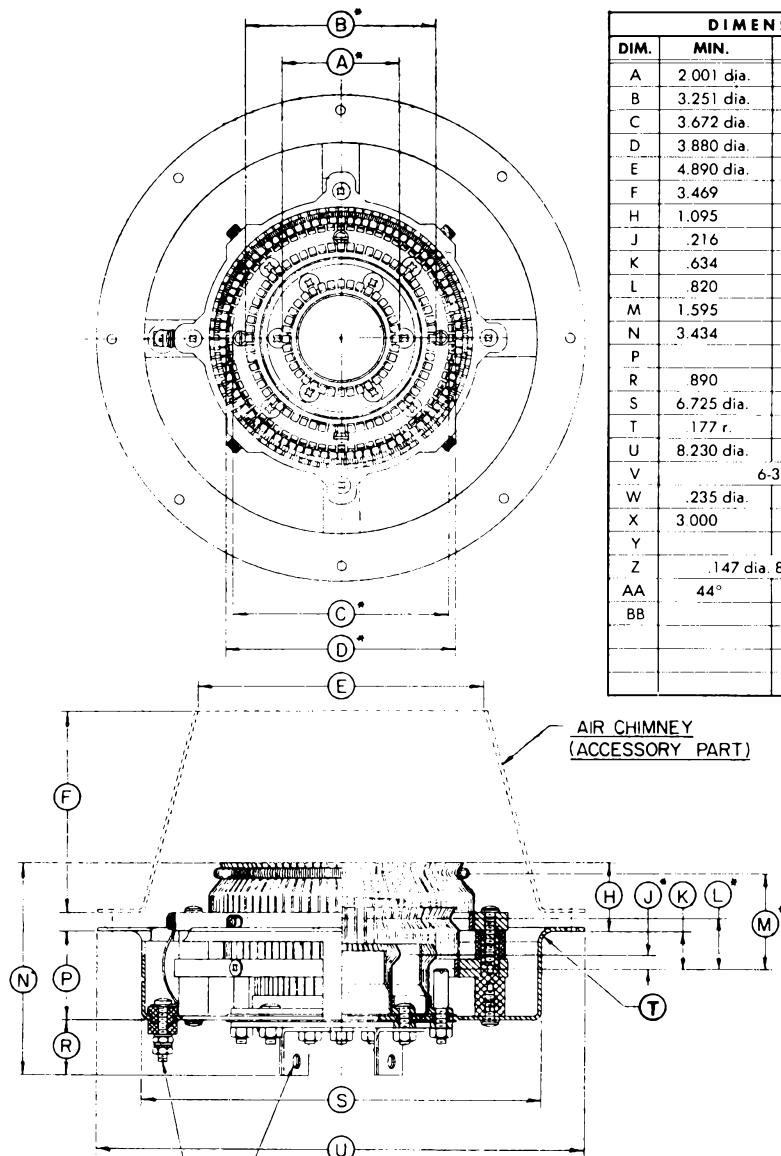
- |                |                 |
|----------------|-----------------|
| 8170/4CX5000A  | 8171/4CX10,000D |
| 8170W/4CX5000R | 8281/4CX15,000A |
| 4CW10,000A     |                 |

**NET WEIGHT**

SK-300A . . . . .	3.25 lbs
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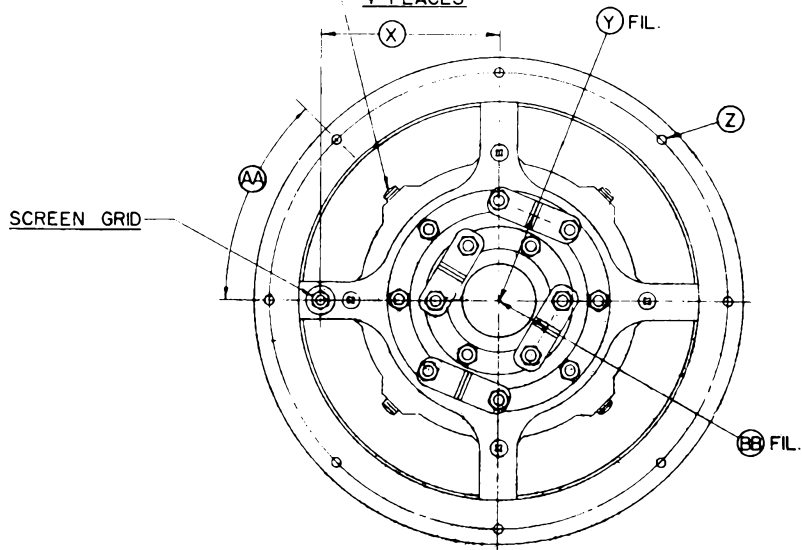
DIMENSION DATA			
DIM.	MIN.	MAX.	REF
A	2.001 dia.	2.061 dia.	
B	3.251 dia.	3.311 dia.	
C	3.672 dia.	3.732 dia.	
D	3.880 dia.	3.940 dia.	
E	4.890 dia.	4.921 dia.	
F	3.469	3.531	
H	1.095	1.140	
J	.216	.240	
K	.634	.689	
L	.820	.856	
M	1.595	1.657	
N	3.434	3.581	
P			1.500
R	.890	.940	
S	6.725 dia.	6.766 dia.	
T	.177 r.	.187 r.	
U	8.230 dia.	8.266 dia.	
V	6-32 NC-2A STUD		
W	.235 dia.	.265 dia.	
X	3.000	3.030	
Y			1.575
Z	.147 dia. 8 holes on 7/8 dia. p.c.		
AA	44°	46°	
BB			.950



NOTES

- 1. ALL DIMENSIONS IN INCHES
- 2. TOLERANCES ARE NOT CUMULATIVE
- 3. \* CONTACT SURFACES

CONTROL GRID  
 6-32 MACHINE SCREW  
 4 PLACES





TECHNICAL DATA

**SK-306**  
**SK-316**

**AIR-SYSTEM**  
**CHIMNEYS**

The SK-306 and SK-316 Air-System Chimneys are intended for use with the tube and socket combinations listed below. They are used to direct cooling air to the tube's anode cooling fins after it has been forced through the companion Air-System Socket.

**MATERIALS**

These chimneys are molded from a gray thermosetting polyester premix compound.

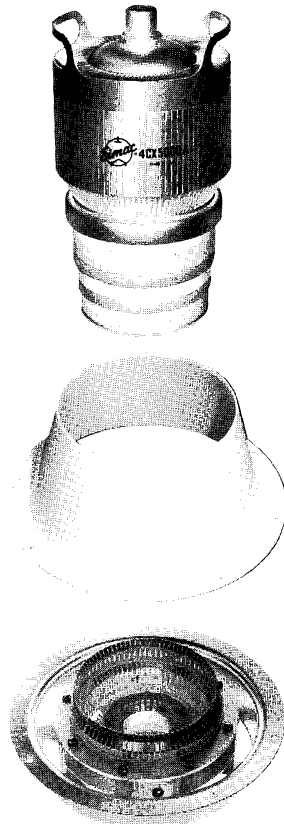
**INSTALLATION**

The SK-306 mounts above the chassis or plenum and is secured by the eight mounting screws that secure the SK-300 or SK-300A socket.

The SK-316 mounts above the chassis with four separate mounting screws on 8-15/16" diameter pitch circle.

**CHIMNEY/TUBE/SOCKET COMBINATIONS**

CHIMNEY	TUBE	SOCKET
SK-306	8170/4CX5000A	SK-300
	8909/4CX5000J	
	8170W/4CX5000R	
SK-316	8910/4CX15,000J	SK-300A
	8281/4CX15,000A	



SK-306 Chimney shown with 4CX5000A and SK-300 socket

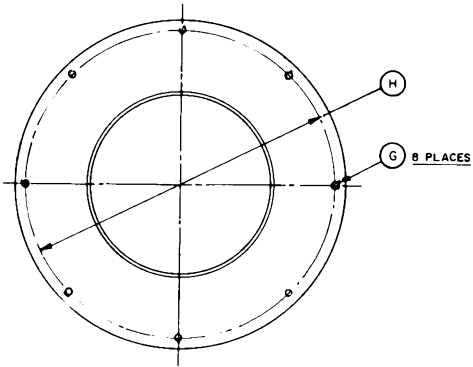
Net Weight .....SK-306 — 5.5 ounces  
SK-316 — 11 ounces

(Revised 3-1-76) © 1963, 1966, 1976 by Varian

Printed in U.S.A.



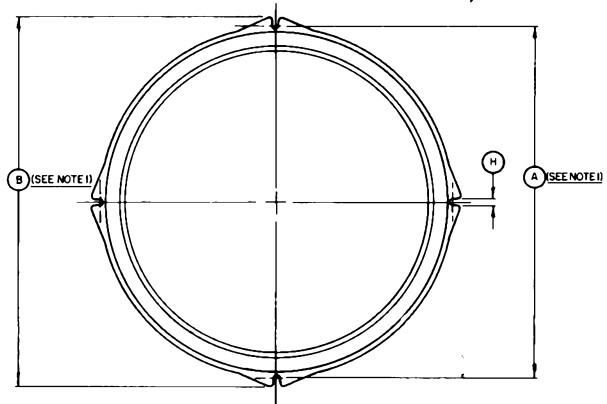
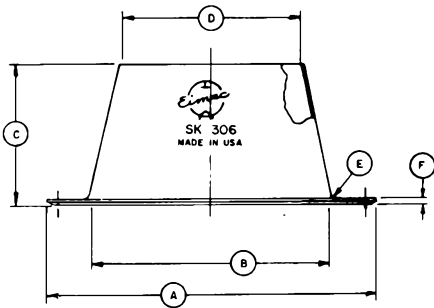
SK-306, SK-316



DIM.	INCHES			MILLIMETERS		
	MIN.	MAX.	REF.	MIN.	MAX.	REF.
A	8.218	8.281		208.74	210.34	
B	6.687	6.812		169.85	173.02	
C	3.400	3.562		86.36	90.47	
D	4.890	4.960		124.21	125.98	
E			.125			3.17
F	.062	.187		1.57	4.75	
G	.136	.176		3.45	4.47	
H			7.750			196.85

NOTES:

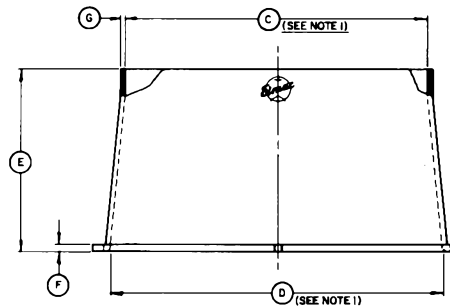
- REF DIMS ARE FOR INF ONLY AND ARE NOT REQD FOR INSP PURPOSES.



DIM.	INCHES			MILLIMETERS		
	MIN.	MAX.	REF.	MIN.	MAX.	REF.
A	8.900	8.985		226.06	228.22	
B	9.262	9.389		235.25	238.48	
C	7.560	7.652		192.02	194.36	
D	8.340	8.440		211.84	214.38	
E	4.606	4.706		116.99	119.53	
F	.156	.218		3.96	5.54	
G	.062	.125		1.57	3.17	
H	.140	.200		3.56	5.08	

NOTES:

- DIAMETERS NOTED ARE AVERAGE OF DIA. MEASUREMENTS TAKEN 90 DEGREES APART WITH PART UNRESTRAINED.
- MAX. OPERATING TEMPERATURE 125 DEGREES C.
- MATL: POLYESTER PRE-MIX COMP. (GREY) FIBERGLASS.



**E I M A C**  
Division of Varian  
SAN CARLOS  
CALIFORNIA

# SK-400

## AIR-SYSTEM

### SOCKET

The SK-400 Air-System Socket is the recommended socket for use with the 4-400A tetrode, and it may be used as well with 4-250A, 4-125A and other tubes having the same physical dimensions. The SK-400 provides efficient connection between the tube and its external circuits, acts as a firm mechanical support for the tube, and controls the flow of cooling air around the tube envelope.

The SK-400 Air-System Socket consists of a cast aluminum body, which supports the electrical insulation for the terminals and acts as an air-duct to guide the air flow into the base of the tube. The air passes through the base of the tube and is guided past the tube envelope and plate seal by the Air-Chimney SK-406.

Most applications of the SK-400 Air-System Socket require the use of the SK-406 Air Chimney to guide the air over the envelope of the tube and past the plate seal. The SK-406 Air Chimney may be omitted only in the few special cases where other provisions for cooling the tube envelope and plate seal are made.

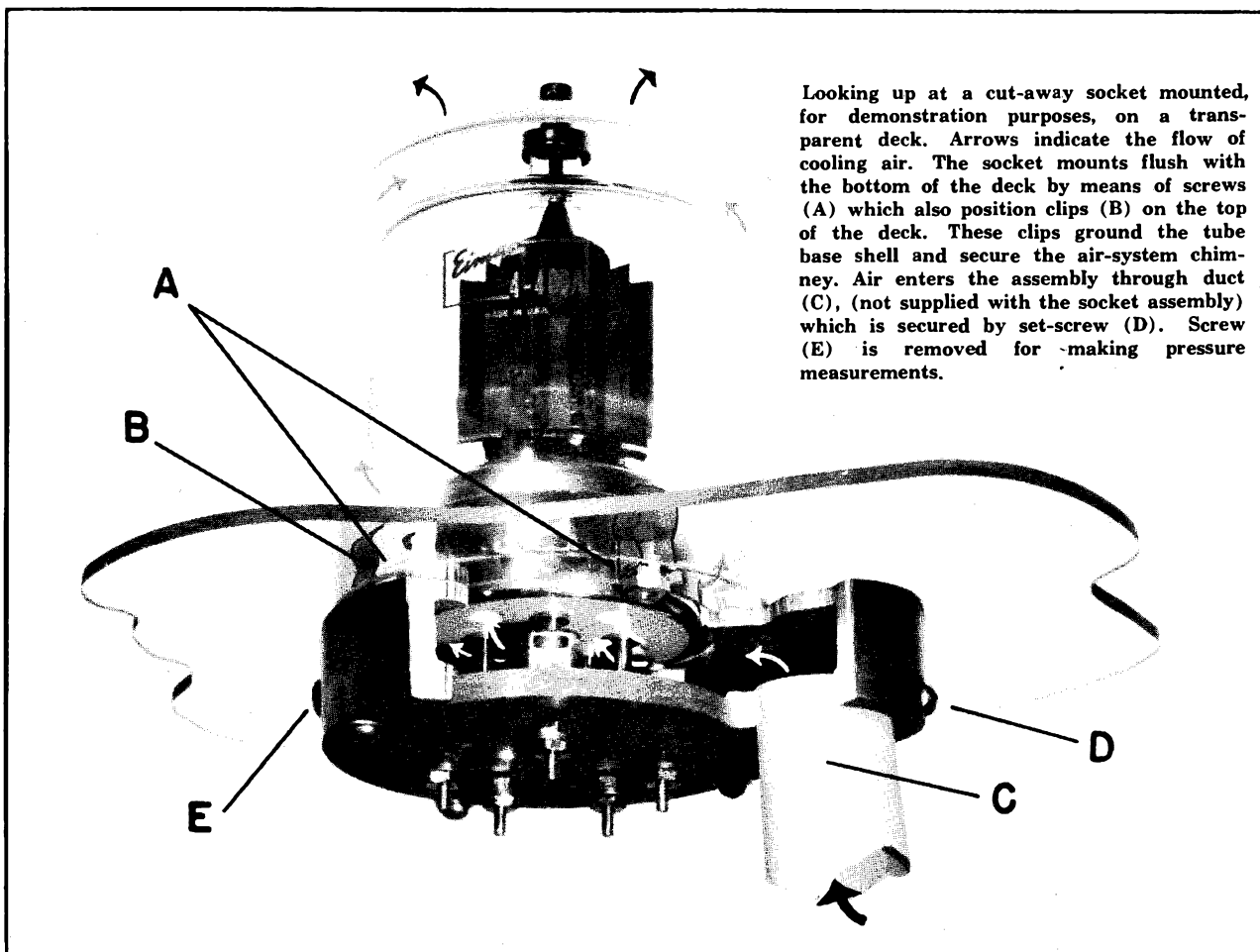
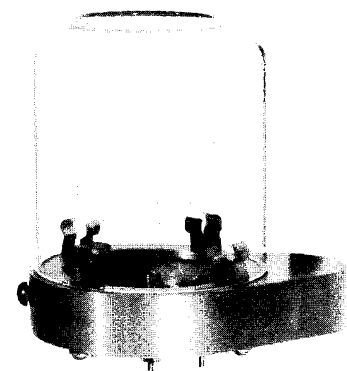
The electrical insulation for the connecting jacks and their terminals is a disk of low-loss insulating material, resting on a shoulder turned into the bottom of the socket body. The insulating disk is held in place by four machine screws which act as clamps. The design permits the insulation and terminal assembly to be rotated to any convenient direction and clamped firmly in place, so that no compromise with wiring requirements will have to be made when the socket is installed.

An air blower must be connected to the socket air-inlet. This can be done by means of a duct terminating in a cylindrical fitting of 1/4 inches O.D., or the chassis may be enclosed and connected to the blower. In either case, the pressure drops and corresponding flow-rates will depend upon the tube type, power level, operating frequency and ambient conditions, and must be obtained from the data sheet for the tube in use.

Socket air pressure can be measured conveniently by a manometer arranged to indicate the pressure difference between the air in the socket and the air in its surroundings. To facilitate and standardize this measurement, a 1/4-28-threaded hole is provided in the wall of the socket opposite the air inlet. A probe or fitting can be screwed into this hole for connection to a manometer; it should be screwed into the socket until its end is flush with the inner wall of the socket base. It should not be permitted to protrude inside the inner wall of the socket.

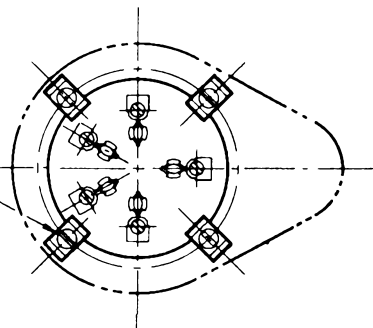
The SK-400 Air-System Socket is designed for under-chassis mounting and requires a three-inch diameter hole through the chassis deck. The socket is fastened in place by four 10-32 machine screws, running in tapped holes in the cast aluminum socket body. These four screws also hold four small, double clips which serve to hold the SK-406 Air-Chimney in place.

When a tube is inserted in the socket, the five pins on the tube base are engaged by five self-aligning pin jacks in the socket. The connecting leads to the socket must be sufficiently flexible to permit free movement of the pin-jacks, or the self-aligning feature may be impaired.

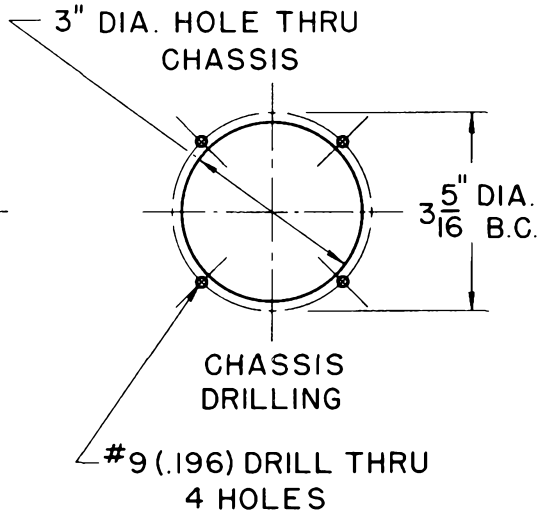




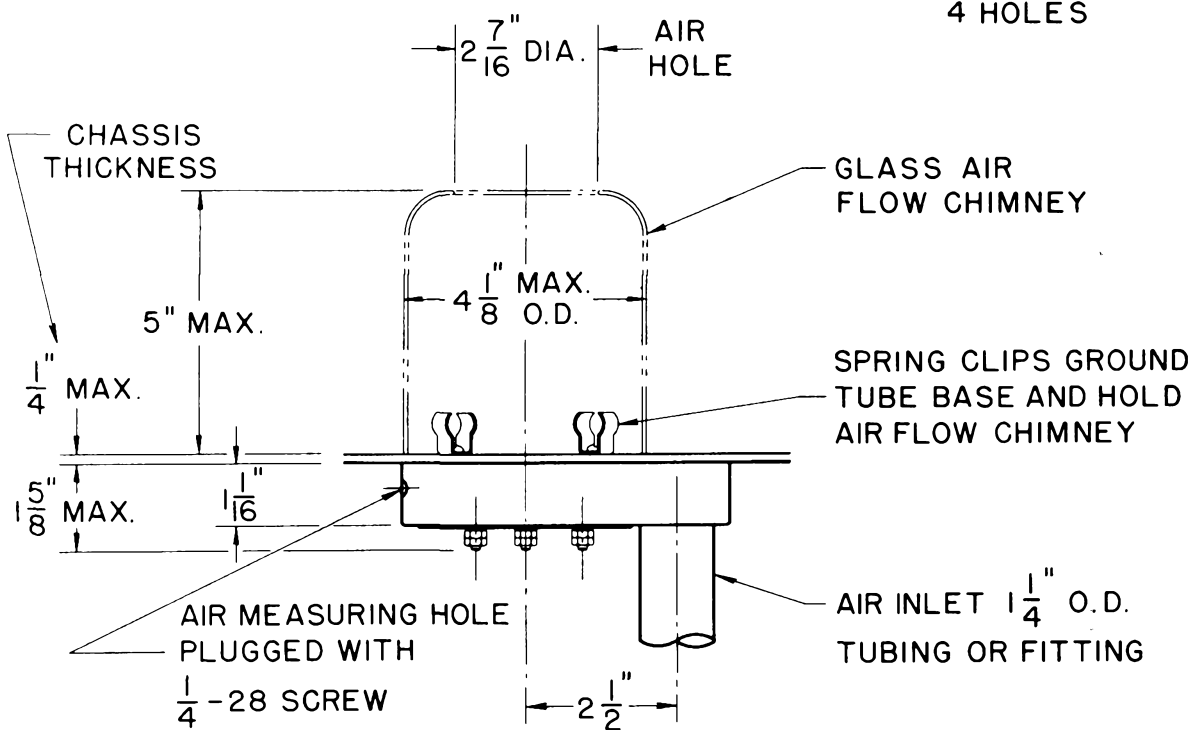
# 10-32 MACHINE SCREWS MOUNT SPRING CLIPS AND SOCKET ON CHASSIS



TOP VIEW



CHASSIS DRILLING



CHASSIS THICKNESS

5" MAX.

1/4" MAX.

1/8" MAX.

AIR MEASURING HOLE PLUGGED WITH 1/4 -28 SCREW

2 7/16" DIA. AIR HOLE

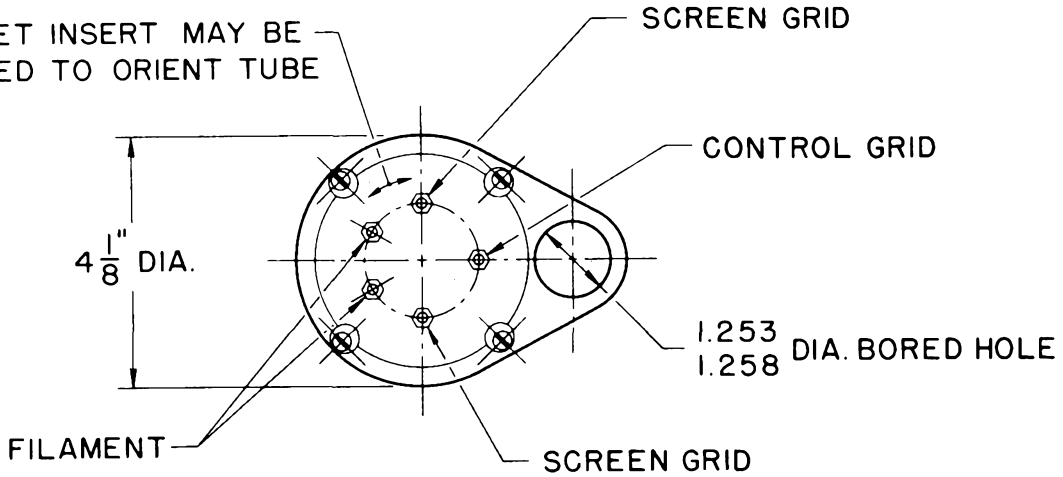
4 1/8" MAX. O.D.

GLASS AIR FLOW CHIMNEY

SPRING CLIPS GROUND TUBE BASE AND HOLD AIR FLOW CHIMNEY

AIR INLET 1 1/4" O.D. TUBING OR FITTING

SOCKET INSERT MAY BE TURNED TO ORIENT TUBE



SCREEN GRID

CONTROL GRID

4 1/8" DIA.

1.253 DIA. BORED HOLE 1.258

FILAMENT

SCREEN GRID



TECHNICAL DATA

SK-406  
SK-416  
SK-426

AIR-SYSTEM  
CHIMNEYS

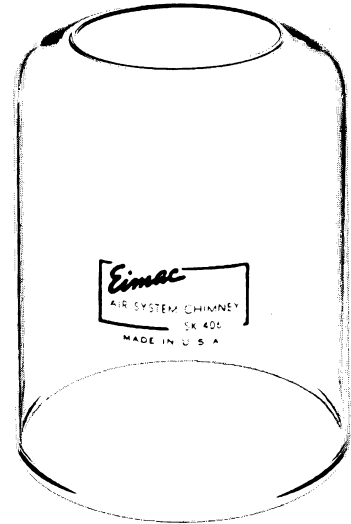
The SK-406, SK-416, and SK-426 Air-System Chimneys are intended for use with those tube and socket combinations listed below. They are used to direct cooling air from the socket across the glass envelope of the tube, past the plate seal and heat-radiating connector.

**MATERIALS**

The SK-406, SK-416, and SK-426, Air-System Chimneys are made of sturdy, heat resistant Pyrex glass. The bottom edge is flat for a tight seal against the chassis while the top edge has been fired for smoothness.

**INSTALLATION**

These chimneys are designed for installation above the chassis or plenum that holds the companion Air-System Socket. The four spring clips supplied with the SK-400 and SK-410 sockets act as retaining clips for the chimney. After the socket and spring clips are installed, the chimney is pressed down over the spring clips.



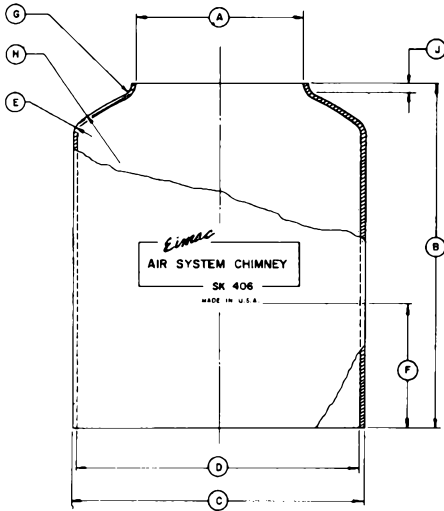
**CHIMNEY/TUBE/SOCKET COMBINATIONS**

CHIMNEY	TUBE	SOCKET
SK-406	3-500Z	SK-400 OR SK-410
	4-250A/5D22	
	4-400A/8438	
	4-400B/7527	
	4-400C/6775	
SK-416	3-400Z/8163	
SK-426	4-500A	
	5-500A	

Net Weight ..... SK-406 - 8 ounces  
SK-416 - 7 ounces  
SK-426 - 8 ounces

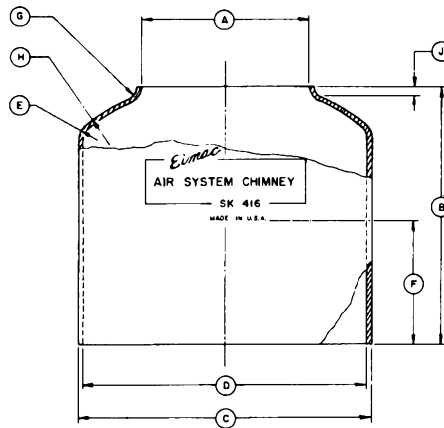


SK-406 SK-416 SK-426



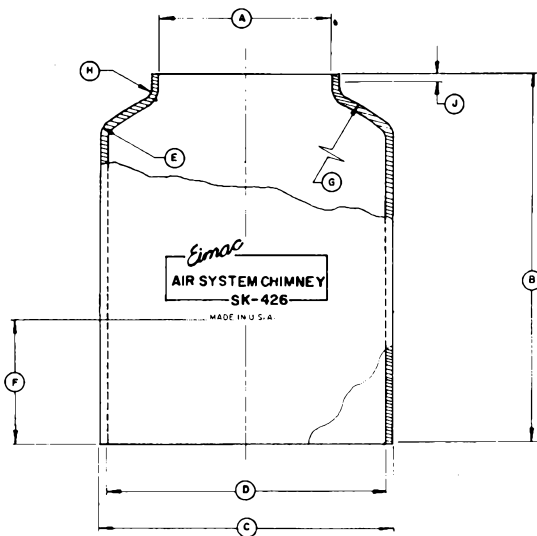
DIM	INCHES			MILLIMETERS		
	MIN	MAX	REF	MIN	MAX	REF
A	2.312	2.438	--	58.72	61.92	--
B	4.813	5.000	--	122.25	127.00	--
C	--	4.125	--	--	104.77	--
D	3.718	3.906	--	94.44	99.23	--
E	--	--	0.250	--	--	6.35
F	1.625	1.875	--	41.27	47.62	--
G	--	0.188	--	--	4.77	--
H	--	--	3.250	--	--	82.55
J	--	0.188	--	--	4.77	--

SK-406



DIM	INCHES			MILLIMETERS		
	MIN	MAX	REF	MIN	MAX	REF
A	2.312	2.438	--	58.72	61.92	--
B	4.000	4.188	--	101.60	106.37	--
C	--	4.125	--	--	104.77	--
D	3.718	3.906	--	94.44	99.23	--
E	--	--	0.250	--	--	6.35
F	1.187	1.312	--	30.15	33.32	--
G	--	0.188	--	--	4.77	--
H	--	--	3.250	--	--	82.55
J	--	0.188	--	--	4.77	--

SK-416



DIM	INCHES			MILLIMETERS		
	MIN	MAX	REF	MIN	MAX	REF
A	2.312	2.438	--	58.72	61.92	--
B	5.063	5.250	--	128.60	133.36	--
C	--	4.125	--	--	104.77	--
D	3.718	3.906	--	94.44	99.23	--
E	--	--	0.250	--	--	6.35
F	1.625	1.875	--	41.27	47.62	--
G	--	--	3.250	--	--	82.55
H	--	0.188	--	--	4.77	--
J	--	--	0.125	--	--	3.17

SK-426





TECHNICAL DATA

SK-410

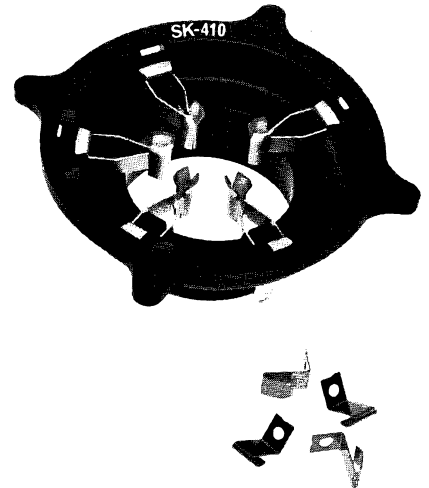
AIR-SYSTEM  
SOCKET

The EIMAC SK-410 is an Air-System Socket recommended for use with the tube types listed below, or other types having the same special five-pin base. Three different glass Air-Chimneys are available from EIMAC for use with the SK-410, depending on the tube type to be used.

The SK-410 is especially recommended for pressurized-chassis installations. Cooling air then cools the base, envelope, and plate-seal areas of the tube, when directed by the proper Air Chimney.

Contact terminals are provided for all five of the tube base connections, with the anode connection made separately at the top of the tube.

The SK-410 and its contact assemblies are humidity and salt-spray resistant.



**BASE CONNECTIONS, MATERIALS, AND FINISHES**

The socket shell or body is of a molded plastic with excellent insulation characteristics to match the tube types for which this unit was designed. The base contact terminals are made of beryllium-copper and are silver plated. A set of four clips are provided, for locating and holding the recommended Air Chimney. These clips are also made of beryllium-copper and are cadmium plated. Additional clips, of the same type, are required to ground the metal base shell of some tube types; see INSTALLATION notes, below.

NET WEIGHT (Approx.) . . . . . 5.5 oz; 156 gms

**INSTALLATION**

The SK-410 Air-System Socket can be mounted on a chassis deck, partition, or pressurized compartment. Mounting is accomplished by cutting a proper size hole in the mounting surface, placing the socket below the hole, and fastening it into place with four 6-32 maching screws (not supplied), through the four mounting holes in the "ears" of the socket body. The proper chassis hole size required is dependent on the tube type to be used, and is indicated with the tabulation of tubes and recommended Air-Chimneys shown below. The socket has a 2.4 inch O.D. round neck extending 3/4 inch below the main socket body to provide a means for connecting a standard air duct to the base. Four metal clips are provided for retention and positioning of the Air Chimney. Tube types with a metal base shell will require four additional clips (not supplied) to ground the base shell. The EIMAC Part Number for this clip is 115846.

The following listing shows the EIMAC tube types which may be used with the SK-410, and the recommended Air Chimney. The proper mounting hole size is indicated, and the need for the additional clips for grounding of the tube base shell is shown.

(Revised 12-1-73) 1962, 1973 by Varian

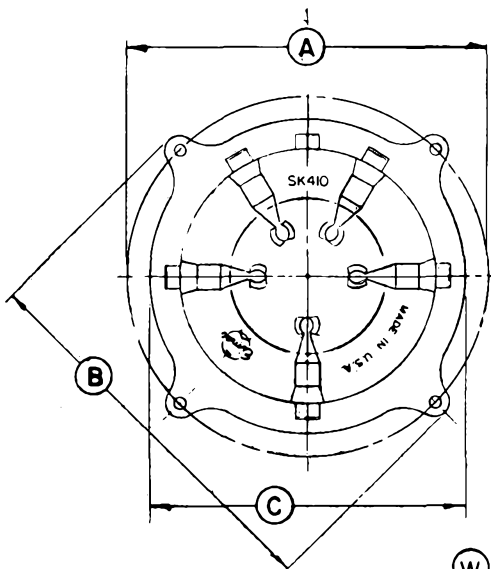
Printed in U.S.A.

TUBE TYPE*	AIR CHIMNEY
4-125A / 4D21	None Available
4D21A	None Available
4PR125A / 8247	None Available
4-250A / 5D22	SK-406
4-400A / 8438	SK-406
4-400C / 6775	SK-406
4PR400A / 8188	SK-406
4PR250C / 8248	None Available
4-500A	SK-426
5-500A	SK-426
175A	SK-406
5867A	SK-406
6569	SK-406
6580	SK-406

TUBE TYPE†	AIR CHIMNEY
6155	None Available
3-400Z / 8163	SK-416
3-500Z	SK-406
6156	SK-406
4-400B / 7627	SK-406

\* These types all have a metal base shell. Chassis mounting hole size should be 2-5/8 inch diameter. Four extra base clips should be ordered for shell grounding if Air Chimney is to be used.

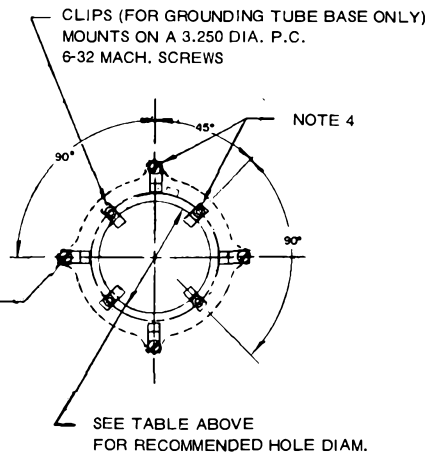
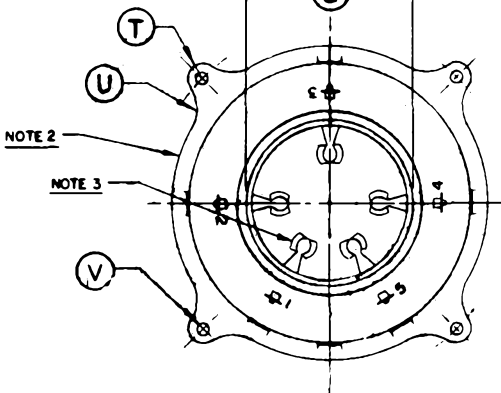
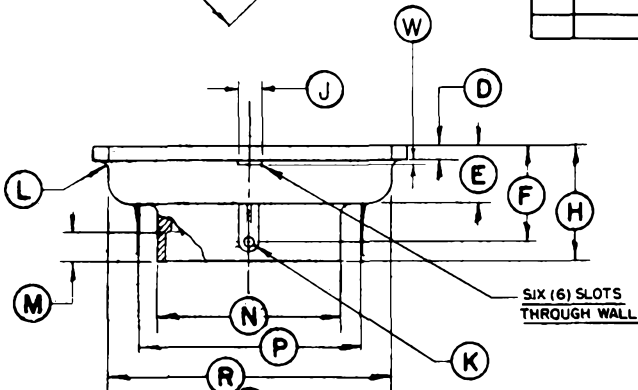
† These types have no base shell. Chassis mounting hole size should be 3-5/8 inch diameter. No additional base clips are required.

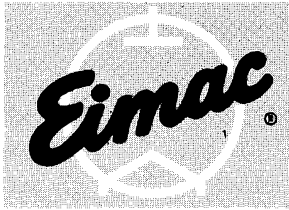


DIM	INCHES			MILLIMETERS		
	MIN.	MAX.	REF.	MIN.	MAX.	REF.
A	4.593	4.656	- -	116.66	118.26	- -
B	4.968	5.031	- -	126.19	127.79	- -
C	4.031	4.093	- -	102.39	103.96	- -
D	0.156	0.218	- -	3.96	5.54	- -
E	0.718	0.781	- -	18.24	19.84	- -
F	- -	- -	1.250	- -	31.75	- -
H	1.468	1.531	- -	37.29	38.89	- -
J	0.281	0.343	- -	7.14	8.71	- -
K	0.093	0.156	- -	2.36	3.96	- -
L	0.093R	0.156R	- -	2.36R	3.96R	- -
M	0.343	0.406	- -	8.71	10.31	- -
N	2.343	2.406	- -	59.51	61.11	- -
P	- -	- -	2.890	- -	73.41	- -
R	3.593	3.656	- -	91.27	92.87	- -
S	2.140	2.203	- -	54.36	55.96	- -
T	- -	- -	0.187R	- -	- -	4.75
U	- -	- -	0.500R	- -	- -	12.70
V	0.139	0.152	- -	3.53	3.86	- -
W	0.031	0.093	- -	0.79	2.36	- -

NOTES:

- REF DIMENSIONS ARE FOR INFO ONLY & ARE NOT REQUIRED FOR INSPECTION PURPOSES.
- SOCKET AND SHELL:  
MAT'L: DIALYL PHTHALATE.
- TUBE PIN CONTACT CLIPS,  
MAT'L: BERYLLIUM COPPER  
FINISH: SILVER PLATED.
- CHIMNEY/GROUNDING CLIP  
PART No. 115846  
MAT'L: BERYLLIUM COPPER, HEAT TREATED  
FINISH: CADMIUM PLATED.  
(4) SUPPLIED WITH SOCKET FOR SECURING CHIMNEY. WHEN ADDITIONAL CHIMNEY/GROUNDING CLIPS ARE REQ'D TO GROUND THE METAL SHELL OF SOME TUBE TYPES THEY MAY BE ORDERED AS PART No. 115846. IT IS RECOMMENDED THAT (4) BE USED WHEN THE METAL SHELL IS TO BE GROUNDING.





**E I M A C**  
Division of Varian  
S A N C A R L O S  
C A L I F O R N I A

**SK-500**  
**AIR-SYSTEM**  
**SOCKET**  
**AND CHIMNEY**

The SK-500 Air-System Socket is the recommended socket for use with the 4-1000A tetrode, and it may be used as well with any other tubes having the same physical dimensions. The SK-500 provides efficient connection between the tube and its external circuits, acts as a firm mechanical support for the tube, and controls the flow of cooling air around the tube envelope.

The SK-500 Air-System Socket consists of a cast aluminum body which supports the electrical insulation for the terminals and acts as an air-duct to guide the air flow into the base of the tube. The air passes through the base of the tube and is guided past the tube envelope and plate seal by the glass Air Chimney, SK-506.

Most applications of the SK-500 Air-System Socket require the use of the SK-506 Air Chimney to guide the air over the envelope of the tube and past the plate seal. The SK-506 Air Chimney may be omitted only in the few special cases where other definite provisions for cooling the tube envelope and plate seal have been made.

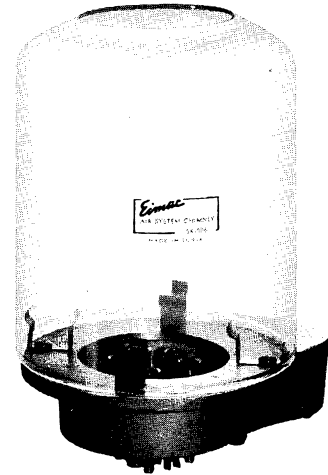
The electrical insulation for the connecting jacks and their terminals is a disk of low-loss insulating material, resting on a shoulder turned into the bottom of the socket body. The insulating disk is held in place by four machine screws which act as clamps. The design permits the insulation and terminal assembly to be rotated to any convenient direction and clamped firmly in place, so no compromise with wiring requirements will have to be made when the socket is installed.

An air blower must be connected to the socket air-inlet. This can be done by means of a duct terminating in a cylindrical fitting of two inches O.D., or the chassis may be enclosed and connected to the blower. In either case the pressure drops and corresponding flow-rates will depend upon the tube type, power level, operating frequency and ambient conditions, and must be obtained from the data sheet for the specific tube type being used.

Socket air pressure can be measured conveniently by a manometer arranged to indicate the pressure difference between the air in the socket and the air in its surroundings. To facilitate and standardize this measurement,  $\frac{1}{8}$ -28-threaded hole is provided in the wall of the socket body opposite the air inlet. A probe or fitting can be screwed into this hole for connection to a manometer; it should be screwed into the socket until its end is flush with the inner wall of the socket base. It should not be permitted to protrude inside the inner surface of the socket wall.

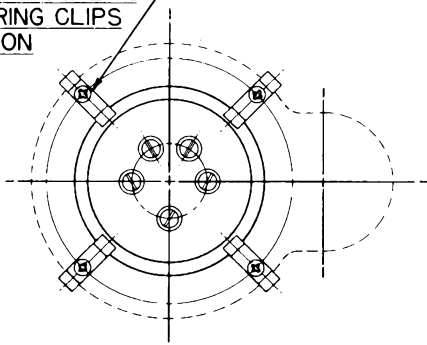
The SK-500 Air-System Socket is designed for under-chassis mounting and requires a 3- $\frac{3}{4}$ -inch diameter hole through the chassis deck. The socket is fastened in place by four No. 10 32 machine screws, running in tapped holes in the cast aluminum body. These four screws also hold four small, double clips, which serve to ground the metal base of the tube and to hold the SK-506 Air Chimney in place.

When a tube is inserted in the socket, the five pins on the tube are engaged by five self-aligning pin-jacks in the socket. The connecting leads to the socket must be sufficiently flexible to permit free movement of the pin-jacks, or the self-aligning feature may be impaired.

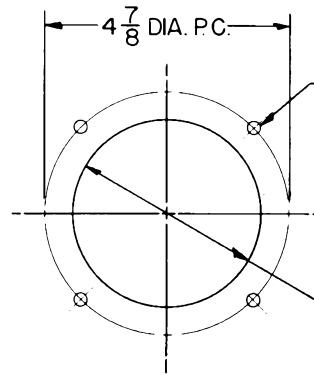




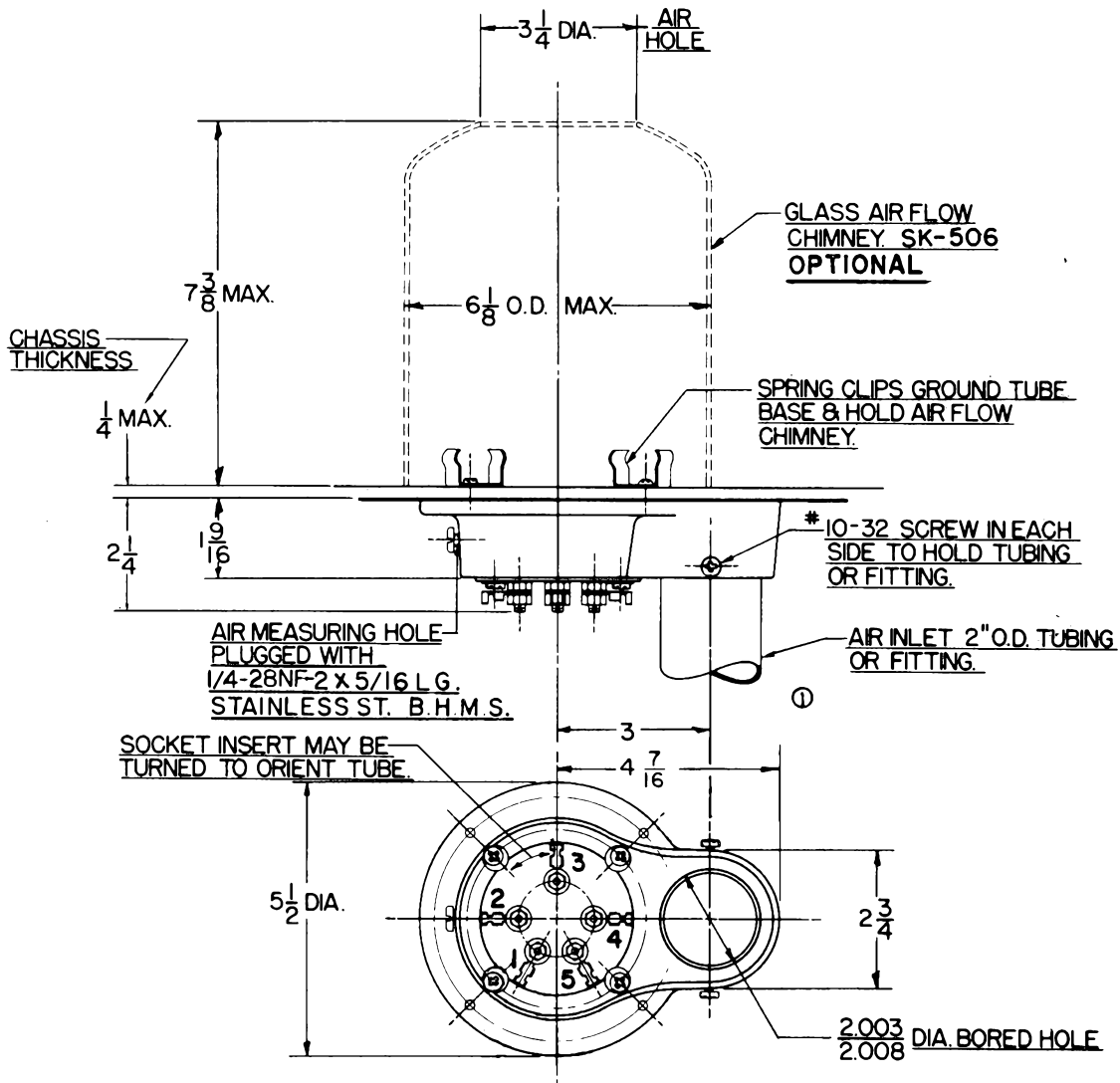
#10-32 MACHINE SCREWS  
MOUNT SPRING CLIPS  
& SOCKET ON  
CHASSIS.



TOP VIEW



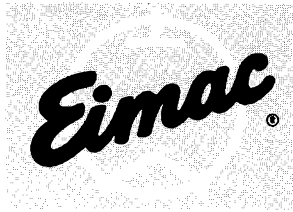
CHASSIS DRILLING



REFER TO TUBE DATA SHEET FOR TERMINAL DESIGNATIONS

SUPERSEDES	DRWG. No.	SK-500-60
	CHANGE	6

CODE IDENT.	PART NO.
06980	SK-500



**E I M A C**  
 Division of Varian  
 S A N C A R L O S  
 C A L I F O R N I A

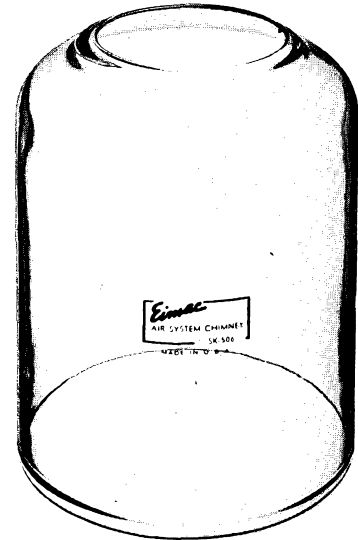
**SK-506**  
**SK-516**

**AIR-SYSTEM**  
**CHIMNEY**

The SK-506 and SK-516 Air-System Chimneys are intended for use with those tube and socket combinations listed below. They are used to direct cooling air from the socket across the glass envelope of the tube, past the plate seal and heat radiating connector.

**MATERIALS**

The SK-506 and SK-516 Air-System Chimneys are made of heat resistant Pyrex glass. The bottom edge is ground flat for a tight air seal against the chassis while the top edge has been fired for smoothness.



**INSTALLATION**

These chimneys are designed for above-chassis installation over the companion Air-System Socket. Four Spring Clips supplied with the SK-500 and SK-510 sockets ground the metal tube base and act as retaining clips for the chimney.

**CHIMNEY/TUBE/SOCKET COMBINATIONS**

CHIMNEY	TUBE	SOCKET
SK-506	4-1000A	SK-500
	4PR1000A	
	4PR1000B	
SK-516	3-1000Z	SK-510

**Net Weight**

SK-506 . . . . . 10 ounces  
 SK-516 . . . . . 8 ounces





# TECHNICAL DATA

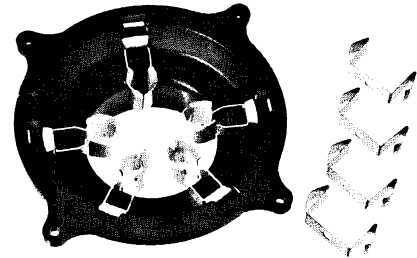
# SK-510 AIR-SYSTEM SOCKET

The EIMAC SK-510 is an Air-System Socket recommended for use with the tube types listed below, or other types having the same special five-pin base. Two different glass Air-Chimneys are available from EIMAC for use with the SK-510, depending on the tube type used.

The SK-510 is especially recommended for pressurized-chassis installations. Cooling air then cools the base, envelope, and plate-seal areas of the tube, when directed by the proper Air-Chimney.

Contact terminals are provided for all five of the tube base connections, with the anode connection made separately at the top of the tube.

The SK-510 and its contact assemblies are humidity and salt-spray resistant.



### BASE CONNECTIONS, MATERIALS, AND FINISHES

The socket shell or body is of a molded plastic with excellent insulation characteristics to match the tube types for which this unit was designed. The base contact terminals are made of beryllium-copper and are silver plated. A set of four clips are provided, for locating and holding the recommended Air-Chimney concentric with the tube. These clips are double-ended so they will ground the metal base shell of some tube types which require this. The clips are also made of beryllium copper but are cadmium plated.

**NET WEIGHT** (Approximate) . . . . . 6.5 oz; 184 gms

### INSTALLATION

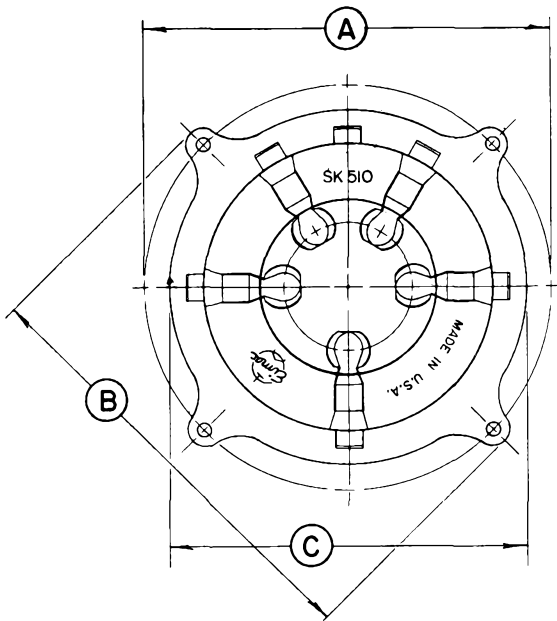
The SK-510 Air-System Socket can be mounted on a chassis deck, partition, or pressurized compartment. Mounting is accomplished by cutting a 3-3/4 inch hole in the mounting surface, placing the socket below the hole, and fastening it into place with four 6-32 machine screws (not supplied) through the four mounting holes in the "ears" of the socket body.

The socket also has a 2-3/8 inch O.D. round neck extending 3/4 inch below the main socket body which provides a means for connecting a standard air duct to the base.

The following listing shows the EIMAC tube types which may be used with the SK-510 and the recommended Air-Chimney.

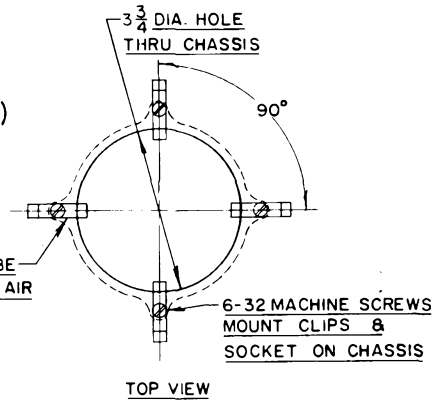
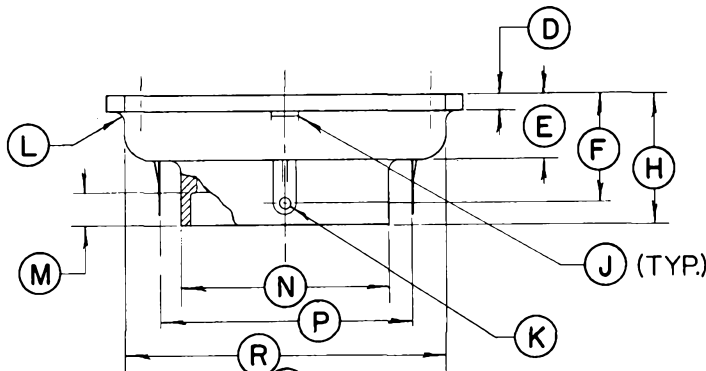
<u>TUBE TYPE</u>	<u>AIR CHIMNEY</u>
3-1000Z (8164)	SK-516
4-1000A (8166)	SK-506
4PR1000A (8189)	SK-506
4PR1000B (8189W)	SK-506
TYPE 279	SK-506
TYPE 284	SK-506
TYPE 8960	SK-506

DIM	DIMENSIONAL DATA					
	INCHES			MILLIMETERS		
	MIN.	MAX.	REF.	MIN.	MAX.	REF.
A	4.593*	4.656*	- -	116.7	118.3	- -
B	4.968	5.031	- -	126.2	127.8	- -
C	4.031*	4.093*	- -	102.4	104.0	- -
D	0.156	0.218	- -	3.96	5.54	- -
E	0.718	0.781	- -	18.24	19.83	- -
F	- -	- -	1.250	- -	- -	31.75
H	1.468	1.531	- -	37.29	38.89	- -
J**	- -	- -	- -	- -	- -	- -
K	0.093*	0.156*	- -	2.36 *	3.96 *	- -
L	0.093R	0.156R	- -	2.36R	3.96R	- -
M	0.343	0.406	- -	8.71	10.31	- -
N	2.343*	2.406*	- -	59.51*	61.11 *	- -
P	- -	- -	2890	- -	- -	73.41
R	3.593*	3.656*	- -	91.26*	92.86*	- -
S	2.140*	2.203*	- -	54.36*	55.96*	- -
T	- -	- -	0.187R	- -	- -	4.75R
U	- -	- -	0.500R	- -	- -	12.70R
V	0.139*	0.152*	- -	3.53 *	3.86 *	- -



\* DIAMETER

\*\* 0.031 x 0.281, 0.093 x 0.343 (IN.)  
0.79 x 7.14, 2.36 x 8.71 (MIL.)



CLIPS GROUND TUBE  
BASE & OR HOLD AIR  
FLOW CHIMNEY  
SEE NOTE 3

TOP VIEW

NOTES:

1. SOCKET SHELL-MAT'L: DIALLYL PHTHALATE.
2. TUBE PIN CONTACT CLIPS-MAT'L: BERYLLIUM COPPER, HEAT TREATED. FINISH: SILVER PLATED.
3. CHIMNEY CLIPS-MAT'L: BERYLLIUM COPPER, HEAT TREATED. FINISH: CADMIUM PLATED. PART NO.: 115844N PER EIMAC DWG 115842.

SEE NOTE 1

SEE NOTE 2





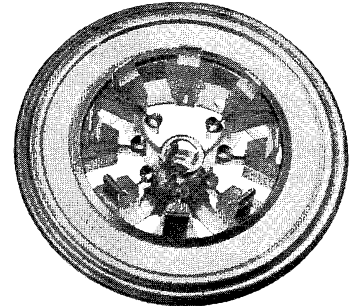
TECHNICAL DATA

**SK-600A**  
**SK-610A**  
AIR-SYSTEM  
SOCKETS

This series of sockets provide terminal connection, cooling air direction, and a low inductance screen bypass capacitor for the power tubes listed below. The SK-600 series sockets may be used with other tube types having similar basing.

These Air-System Sockets are recommended for use with the following tubes:

7034/4X150A	8249/4W300B	8904/4CX350FJ
7203/4CX250B	8321/4CX350A	8930
7580W/4CX250R	8322/4CX350F	8957/4CX250BC
7609	8621/4CX250FG	



Normally the ceramic chimney SK-606 is used with these two sockets to direct the cooling air past the body of the tube as it flows from pressurized chassis through the socket, then through the tube anode fins. Reverse air direction may be used. (Type 8930 uses Chimney SK-646).

The base contact fingers and the screen terminal fingers are heat treated beryllium copper. The base contact fingers are supported and insulated by polytrifluoroethylene, an excellent insulating material even at ultra high frequencies. All contact fingers, and the brass shell are silver plated to insure good contact and to resist corrosion.

These sockets have hermetically sealed screen bypass capacitors to protect against moisture and dirt.

The SK-600A socket has all base terminals brought out separately. The SK-610A has cathode terminals 2, 4, 6 and 8 connected to the shell.

**INSTALLATION**

These Air-System Sockets can be mounted on chassis decks or partitions or in coaxial tuning devices with no modification to the socket. Chassis mounting is accomplished by cutting a 2¼" diameter hole in the chassis deck or partition. The socket is then placed in the hole and held securely by the three toe clamps provided.

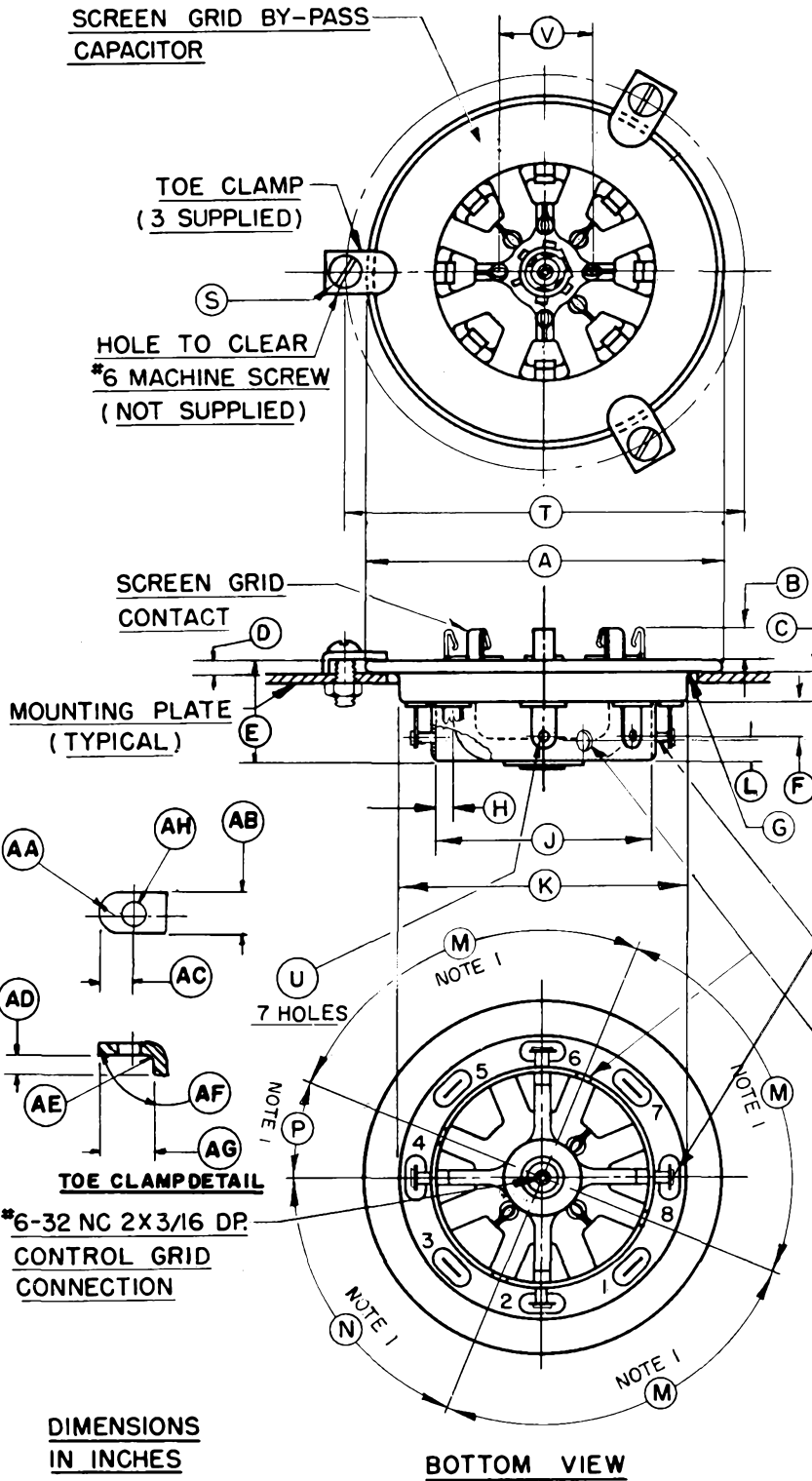
If the socket is to be used in a coaxial line, it may be mounted directly on the end of the input line outer conductor. The socket skirt fits snugly on a 1⅝" diameter cylinder and four screw holes are provided for fastening as shown in the outline drawing.

**CHARACTERISTICS**

	SK-600A	SK-610A
SCREEN BYPASS CAPACITOR WORKING VOLTAGE DC - - -	1000	1000
SCREEN BYPASS CAPACITANCE(pF) - - - - -	2700 ± 500	2700 ± 500
CATHODE TERMINALS CONNECT TO SHELL - - - - -	No	Yes
SCREEN BYPASS CAPACITOR HERMETICALLY ENCAPSULATED	Yes	Yes
NET WEIGHT - - - - -	3.5 oz. (99 gms)	3.5 oz. (99 gms)



SK-600A, SK-610A



DIM	INCHES			MILLIMETERS		
	MIN.	MAX.	REF.	MIN.	MAX.	REF.
A	2.688	2.750	- -	68.27	69.85	- -
B	0.234	0.266	- -	5.94	6.76	- -
C	0.203	0.235	- -	5.16	5.97	- -
D	0.125	0.157	- -	3.17	3.99	- -
E	0.844	0.906	- -	21.44	23.01	- -
F	- -	- -	0.250	- -	- -	6.35
G	- -	0.031R	- -	- -	0.79R	- -
H	- -	- -	0.078	- -	- -	1.98
J	1.633	1.643	- -	41.48	41.73	- -
K	2.188	2.208	- -	55.57	56.08	- -
L	0.172	0.204	- -	4.37	5.18	- -
M	89° *	91° *	- -	89° *	91° *	- -
N	66.5° *	68.5° *	- -	66.5° *	68.5° *	- -
P	21.5° *	23.5° *	- -	21.5° *	23.5° *	- -
R	- -	- -	0.144	- -	- -	3.66
S	0.142	- -	- -	3.61	- -	- -
T	- -	- -	3.000	- -	- -	76.20
U	- -	- -	0.090	- -	- -	2.29
V	- -	- -	0.687	- -	- -	17.45
AA	0.125R	0.187R	- -	3.17R	4.75R	- -
AB	0.292	0.332	- -	7.42	8.43	- -
AC	0.292	0.332	- -	7.42	8.43	- -
AD	0.105	0.145	- -	2.69	3.68	- -
AE	- -	0.062R	- -	- -	1.57R	- -
AF	80°	100°	- -	80°	100°	- -
AG	0.417	0.457	- -	10.59	11.61	- -
AH	0.142	0.146	- -	3.61	3.71	- -

\*SEE NOTE 1.

**CONNECTIONS**

- NO. 1 SCREEN GRID
- " 2 CATHODE
- " 3 HEATER
- " 4 CATHODE
- " 5 NO CONNECTION
- " 6 CATHODE
- " 7 HEATER
- " 8 CATHODE

NOTES:  
1 - TOLERANCES ARE NOT CUMULATIVE



TECHNICAL DATA

SK-606  
 SK-626  
 SK-636B  
 SK-646  
 AIR-SYSTEM  
 CHIMNEYS

The EIMAC SK-606, SK-626, SK-636B, and SK-646 Air-System Chimneys are intended for use with those tube and socket combinations listed below.

They are used to direct cooling air into the anode radiator on the tube types listed.

The SK-636B is also designed to hold the tube in use in place by means of a clamping band around the tube's radiator.

MATERIALS

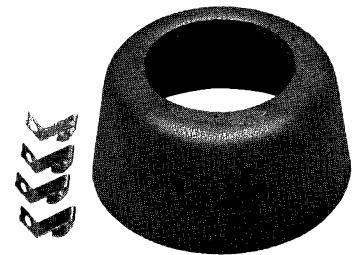
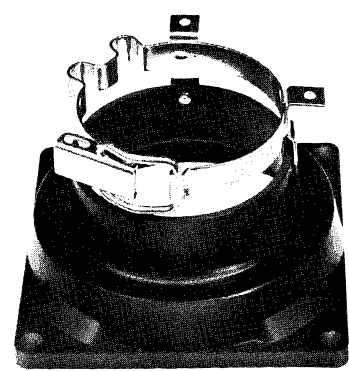
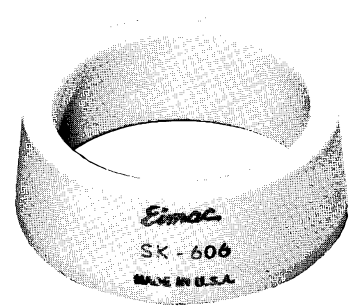
The SK-606 and SK-626 are made of high-temperature ceramic. The SK-636B is molded of diallyl meta-phthalate, and the clamping band is of beryllium copper. A neoprene "O" ring is furnished in a recess at the bottom of the chimney to more effectively seal the chimney to the socket. The SK-646 is molded of silicone resin glass fiber.

INSTALLATION

The SK-606 and SK-626 ceramic chimneys are installed by slipping them over the tube's radiator. They are held in place by their own weight or by a suitable clamping means.

The SK-646 also slips over the tube's radiator, and four clips are provided to secure the chimney in position.

The SK-636B is secured to the chassis over the companion Air-System Socket by means of four #6 screws (not provided). The clamping band includes two solder lugs to facilitate making electrical contact to the tube anode.



CHIMNEY/TUBE/SOCKET COMBINATIONS

Chimney	Socket	Tube	Chimney	Socket	Tube
SK-606	SK-600	7203/4CX250B	SK-646	SK-607	8809/4CX600J
	SK-600A	8957/4CX250BC	SK-646	SK-600	8930
	SK-610	8621/4CX250FG		SK-600A	
	SK-610A	7580W/4CX250R		SK-610	
	SK-640	8321/4CX350A		SK-610A	
SK-626	SK-620	8322/4CX350F	SK-606	SK-640	
	SK-620A	8904/4CX350FJ		SK-700	8167/4CX300A
	SK-636B	7034/4X150A		SK-710	8561/4CX300Y
	SK-630	7609		SK-710A	
	SK-630A			SK-711	
			SK-711A		

Net Weight (approximate) . . . . . SK-606, SK-626, SK-636B 1.4 oz; 49.5 gms  
 SK-646 2.7 oz; 76.5 gms

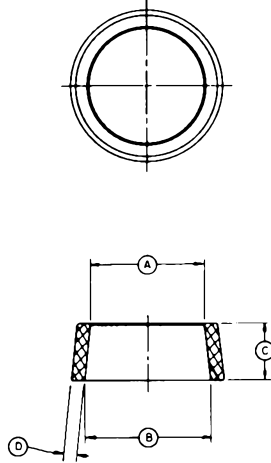
(Effective 11-1-74) © 1963, 1966, 1974 Varian

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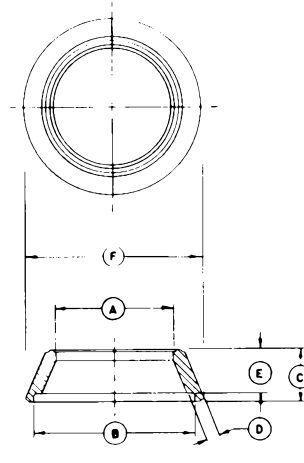
SK-606, SK-626, SK-636B, SK-646

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	1.635	1.700	41.53	43.18
B	1.781	1.881	45.24	47.78
C	0.812	0.875	20.62	22.23
D	0.156	0.218	3.96	5.54



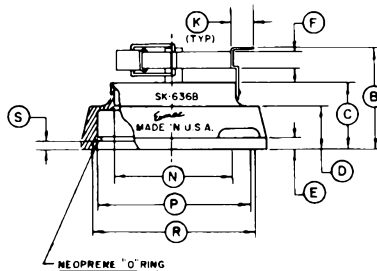
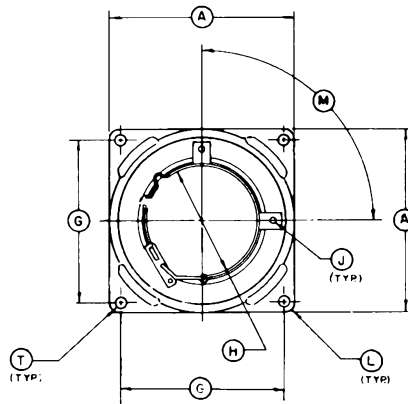
SK-606

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	1.650	1.720	41.91	43.69
B	2.300	2.362	58.42	60.00
C	0.698	0.738	17.73	18.75
D	0.156	0.218	3.96	5.54
E	0.573	0.613	14.55	15.57
F	-	2.560	-	65.02



SK-626

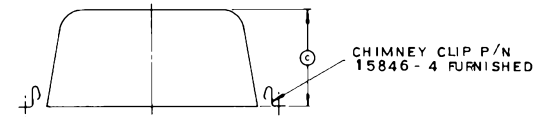
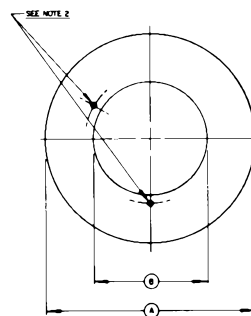
DIM	DIMENSIONAL DATA					
	INCHES			MILLIMETERS		
	MIN	MAX	REF	MIN	MAX	REF
A	2.609	2.641	-	66.27	67.08	-
B	1.607	1.677	-	40.82	42.60	-
C	1.109	1.141	-	28.17	28.98	-
D	0.560	0.600	-	14.22	15.24	-
E	0.155	0.187	-	3.94	4.75	-
F	0.219	0.281	-	5.56	7.14	-
G	2.335	2.365	-	59.31	60.07	-
H	1.580	1.620	-	40.13	41.15	-
J	0.083	0.103	-	2.11	2.62	-
K	0.281	0.343	-	7.14	8.71	-
L	-	-	1/8 R	-	-	3/16 R
M	-	-	90°	-	-	90°
N	1.651	1.661	-	41.94	42.19	-
P	2.306	2.340	-	58.57	59.44	-
R	2.480	2.510	-	63.00	63.75	-
S	0.111	0.121	-	2.82	3.07	-
T	0.151	0.161	-	3.84	4.09	-



- NOTES  
 1 STRAP & BRACKETS OF CLAMP - MATL BE CU SILVER PLATED  
 2 CHIMNEY-MATL DIALLYL META-PHTHALATE  
 3 CLAMP PROVIDES A MIN. 3 LBS. RETENTION ON A 1.625 DIA. TUBE

SK-636B

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	3.720	3.785	94.49	96.14
B	2.087	2.100	53.00	53.34
C	1.703	1.735	43.26	44.07



- NOTES  
 1 MATL. CHIMNEY, GLASS FIBER, REINFORCED SILICONE RESIN. (MAX. TEMP. 370°C)  
 CHIMNEY CLIP, BE-CU ALLOY NO. 172, (CADMIUM PLTD.)  
 2 THE TWO HOLES NOTED HAVE NO FUNCTION WITH THIS CHIMNEY.

SK-646



SK-607

TECHNICAL DATA

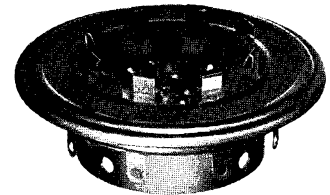
AIR-SYSTEM  
SOCKET

The SK-607 socket provides terminal connections and a low-inductance screen bypass capacitor for the power tubes listed below. The SK-607 may be used with other tube types having similar basing which require a full complement of base-pin contacts.

This air-system socket is recommended for use with the following tubes:

8809/4CX600J

8921/4CX600JA



Normal installation is on a pressurized chassis or plenum, with the recommended chassis cutout for adequate air flow, and the proper chimney to match the anode of the tube involved and direct the air flow through the tube anode cooling fins.

The base contact fingers and the screen terminal fingers are heat-treated beryllium copper. The base contact fingers are supported and insulated by polytrifluoroethylene, an excellent insulating material even at ultra-high frequencies. All contact fingers and the brass shell are silver plated to insure good contact and to resist corrosion.

All base terminals are brought out separately. The screen bypass capacitor is hermetically sealed to protect against moisture and dirt.

The bypass capacitor has a capacitance of  $2700 \pm 500$  pF and is rated for a working voltage of 1000 Vdc.

**INSTALLATION**

The socket can be mounted on a chassis deck or partition with no modification to the socket. Chassis mounting is accomplished by cutting a 2-17/64 inch diameter hole in the chassis, and additional air-flow slots as shown with the outline drawing and marked CHASSIS CUTOUT PATTERN REQUIRED. The socket is held securely by the four toe clamps provided. The provision of the additional air-flow slots is important in order to keep system pressure drop at a low level for the required cooling air for the tube anode cooling fins.

If the socket is to be used in a coaxial line, it may be mounted directly on the end of the input line outer conductor. The socket skirt fits snugly on a 1-5/8 inch diameter cylinder and four screw holes are provided for fastening as shown in the outline drawing. The designer is cautioned to allow for additional air passage around the socket in order to keep required system pressure at a low level.

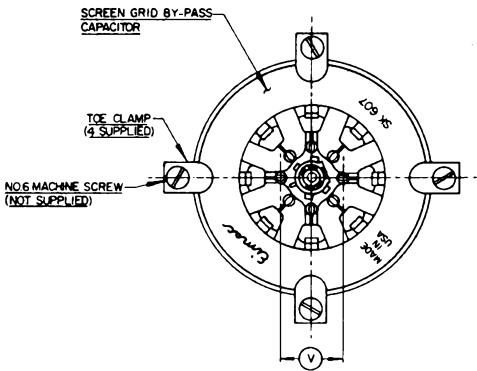
**CHIMNEY**

The SK-646 chimney is available for use with the 8809/4CX600J. The SK-656 chimney is designed for use with the 8921/4CX600JA. The chimney is mounted above the chassis deck and is held in place with four chimney clips, which are supplied with the chimney. The required mounting holes for the chimney clips are shown on the CHASSIS CUTOUT PATTERN drawing.

NET WEIGHT FOR SK-607 SOCKET (Approximate) . . . . . 3.5 oz; 99.3 gm

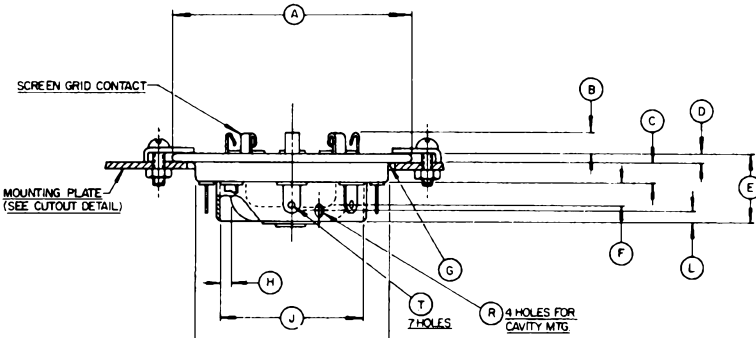
(Effective 8-15-71) © by Varian

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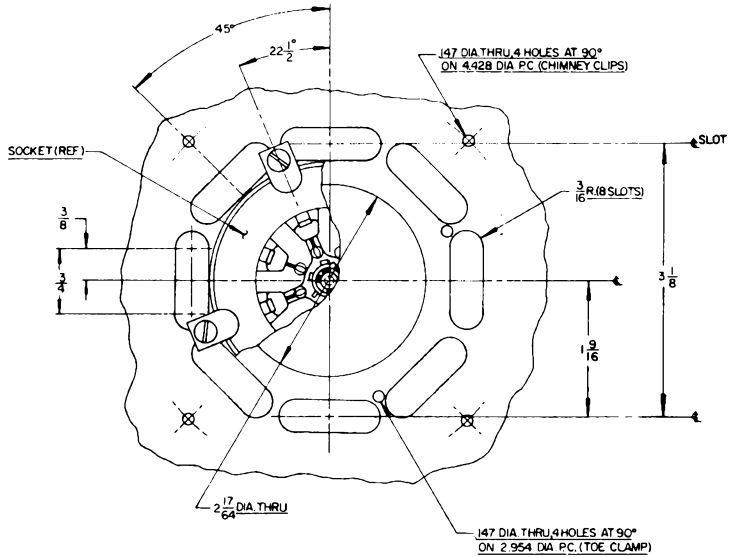
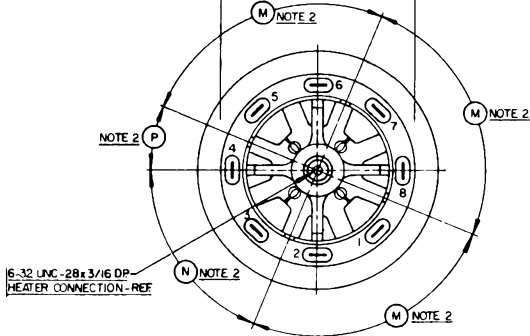


CONNECTIONS  
 NO. 1 SCREEN GRID  
 NO. 2 CONTROL GRID  
 NO. 3 CATHODE  
 NO. 4 CONTROL GRID  
 NO. 5 HEATER  
 NO. 6 CATHODE  
 NO. 7 CONTROL GRID  
 NO. 8 CATHODE

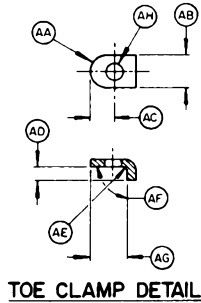
DIM.	INCHES			MILLIMETERS		
	MIN.	MAX.	REF.	MIN.	MAX.	REF.
A	2.688	2.750	--	68.27	69.85	--
B	.234	.266	--	5.94	6.76	--
C	.203	.235	--	5.16	5.97	--
D	.125	.157	--	3.17	3.99	--
E	.844	.906	--	21.44	23.01	--
F	--	--	.250	--	--	.635
G	--	.031R	--	--	0.79R	--
H	--	--	.078	--	--	1.98
J	1.633ID	1.643ID	--	41.48	41.73	--
K	2.188	2.208	--	55.57	56.08	--
L	.172	.204	--	4.37	5.18	--
M	89°	91°	--	89°	91°	--
N	66.5°	68.5°	--	66.5°	68.5°	--
P	21.5°	23.5°	--	21.5°	23.5°	--
R	--	--	144DIA.	--	--	366DIA.
T	--	--	.090DIA.	--	--	2.29DIA.
V	--	--	.687DIA.	--	--	17.45DIA.
AA	.125R	.187R	--	3.17R	4.75R	--
AB	.292	.332	--	7.42	8.43	--
AC	.292	.332	--	7.42	8.43	--
AD	.105	.145	--	2.67	3.68	--
AE	--	.062R	--	--	.157	--
AF	80°	100°	--	80°	100°	--
AG	.417	.457	--	10.59	11.61	--
AH	.142	.146	--	3.61	3.71	--



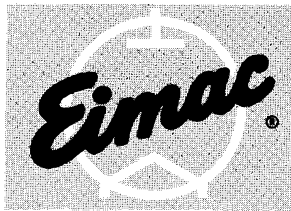
NOTES:  
 1. REF. DIMENSIONS ARE FOR INFO.  
 ONLY & ARE NOT REQUIRED FOR  
 INSPECTION PURPOSES.



CHASSIS CUTOOUT PATTERN REQ'D. FOR ADEQUATE COOLING.  
 USE 5K 646 CHIMNEY WITH THIS SOCKET.



TOE CLAMP DETAIL

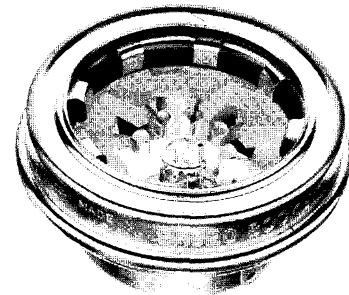


**E I M A C**  
 Division of Varian  
 S A N C A R L O S  
 C A L I F O R N I A

**SK-620**  
**SK-620A**  
**AIR-SYSTEM**  
**SOCKET**

The EIMAC SK-620 is one of the Air-System Sockets recommended for use with those tubes listed at the bottom of this data sheet or other tube types having the same special nine-pin base. A ceramic SK-626 Air Chimney or a fiberglass-reinforced silicone resin SK-636 Air Chimney are also available and are recommended for use with the socket when air-cooled tubes are to be employed.

When this socket is used, connection is made to each of the tube electrodes except the anode, and to one side of the integral screen-grid by-pass capacitor. The SK-620 Air-System Socket is humidity and salt-spray resistant. The SK-620A is an improved SK-620 which includes a slightly modified screen by-pass capacitor sealed with an improved encapsulating material to insure reliable performance under high humidity or moisture conditions.



**BASE CONNECTIONS**

The SK-620 Air-System Socket consists of eight screen-grid contact fingers, seven pin contacting terminals (no contact is made to pin No. 5), a center control-grid terminal, and an integral screen by-pass capacitor. The cathode of the tube is connected to its external circuits by the four even-numbered base pins which are connected in parallel to minimize the effects of lead inductance; these terminal lugs are insulated from the socket body.

**SCREEN-GRID BY-PASS CAPACITOR**

Incorporated in the socket structure is a low-inductance screen by-pass capacitor, 1100 pF  $\pm 20\%$ , which provides a short radio-frequency path to ground. The silvered-mica dielectric, encapsulated in epoxy resin, is humidity and salt-spray resistant. The sockets are hi-voltage tested at 2000 volts dc and are rated for use at 1000 volts dc.

When this socket is mounted on a grounded chassis, one side of the screen-grid by-pass capacitor will automatically be grounded.

**MATERIALS AND FINISHES**

The metal shell, or body, of the socket is silver-plated brass. The screen-grid contact fingers and base pin terminals are fabricated of beryllium-copper, heat-treated after forming, then silver-plated. The center control-grid terminal is silver-plated brass as are the toe clamps which are supplied for mounting purposes.

The socket insulating material, polytrifluorochloroethylene, is chemically inert, non-flammable, will not absorb water or water vapors, and is not affected by acids or alkalis. It will not react to normal solvents, except in the case of halogenated compounds which will induce minor dimensional changes. Its physical characteristics are stable over a temperature range of  $-196^{\circ}\text{C}$  to  $+199^{\circ}\text{C}$  and it is resistant to embrittlement and thermal shock.

**NET WEIGHT** . . . . . 4 Ounces

**INSTALLATION**

The SK-620 and SK-620A Air-System Sockets can be mounted on chassis decks or partitions or in coaxial tuning devices with no modification to the socket. Chassis mounting is accomplished by cutting a  $2\frac{1}{4}$ " diameter hole in the chassis deck or partition. The socket is then placed in the hole and held securely by the three toe clamps provided.

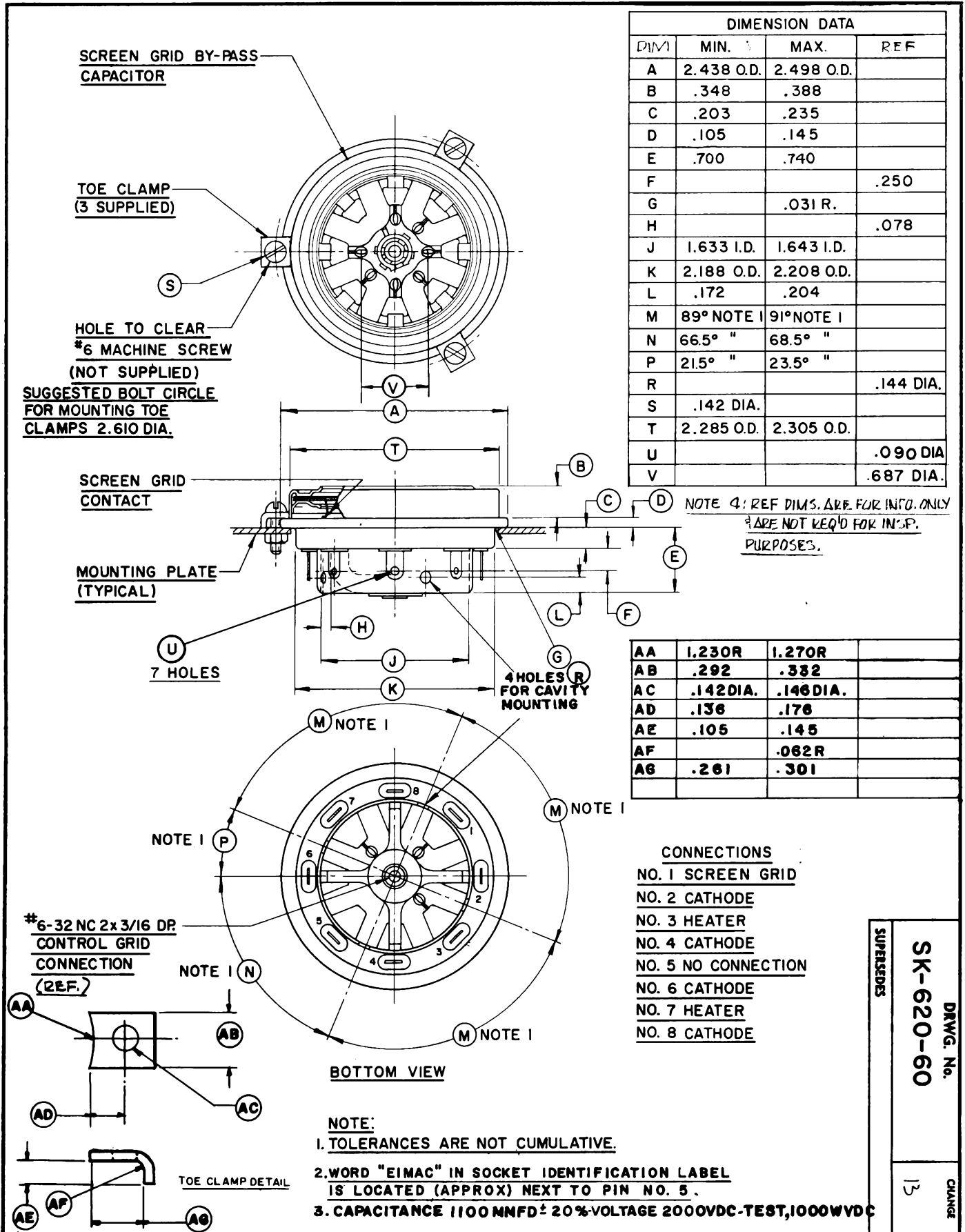
If the socket is to be used in a coaxial line, it may be mounted directly on the end of the input line outer conductor. The socket skirt fits snugly on a  $1\frac{1}{8}$ " diameter cylinder and four screw holes are provided for fastening as shown in the outline drawing.

**TUBE EXTRACTOR**

The SK-604 is a spring-steel device useful for inserting and extracting tubes of the type used in the SK-620 Air-System Socket. It is recommended for use where the construction of the equipment makes it difficult or impossible to grasp the tube by hand or when it is necessary to handle the tubes while they are still hot from recent use.

**THE SK-620 AND SK620A AIR-SYSTEM SOCKETS ARE RECOMMENDED FOR USE WITH THE FOLLOWING TUBES:**

7034/4X150A	7204/4CX250F	8321/4CX350A
7035/4X150D	7580W/4CX250R	8322/4CX350F
7203/4CX250B	8249/4W300B	7580



DIMENSION DATA			
DIM	MIN.	MAX.	REF
A	2.438 O.D.	2.498 O.D.	
B	.348	.388	
C	.203	.235	
D	.105	.145	
E	.700	.740	
F			.250
G		.031 R.	
H			.078
J	1.633 I.D.	1.643 I.D.	
K	2.188 O.D.	2.208 O.D.	
L	.172	.204	
M	89° NOTE 1	91° NOTE 1	
N	66.5° "	68.5° "	
P	21.5° "	23.5° "	
R			.144 DIA.
S	.142 DIA.		
T	2.285 O.D.	2.305 O.D.	
U			.090 DIA
V			.687 DIA.

AA	1.230R	1.270R	
AB	.292	.332	
AC	.142 DIA.	.146 DIA.	
AD	.136	.176	
AE	.105	.145	
AF		.062R	
AG	.261	.301	

SUPERSEDES  
**SK-620-60**  
 DRWG. No.  
 13  
 CHANGE



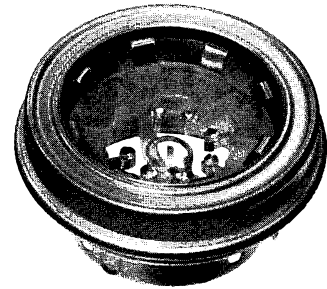


## TECHNICAL DATA

# SK-630 SK-630A AIR-SYSTEM SOCKET

The EIMAC SK-630 is one of the Air-System Sockets recommended for use with those tubes listed on the back of this data sheet or other tube types having the same special nine-pin base. A ceramic SK-626 Air Chimney or a fiberglass-reinforced silicone resin SK-636 Air Chimney are also available and are recommended for use with the socket when air-cooled tubes are to be employed.

When this socket is used, connection is made to each of the tube electrodes except the anode, and to one side of the integral screen-grid by-pass capacitor. The SK-630 Air-System Socket is humidity and salt-spray resistant. The SK-630A is an improved SK-630 which includes a slightly modified screen by-pass capacitor sealed with an improved encapsulating material to insure reliable performance under high humidity or moisture conditions.



### BASE CONNECTIONS

The SK-630 Air-System Socket consists of eight screen-grid contact fingers, seven pin contacting terminals (no contact is made to pin No. 5), a center control-grid terminal, and an integral screen by-pass capacitor. The cathode of the tube is connected to its external circuits by the four even-numbered base pins which are connected in parallel to minimize the effects of lead inductance. These terminal lugs are connected directly to the metal shell of the socket and will automatically be grounded when the socket is mounted to a metal chassis.

### SCREEN-GRID BY-PASS CAPACITOR

Incorporated in the socket structure is a low-inductance screen by-pass capacitor, 1100 pF  $\pm 20\%$ , which provides a short radio-frequency path to ground. The silvered-mica dielectric, encapsulated in epoxy resin, is humidity and salt-spray resistant. The sockets are hi-voltage breakdown tested at 2000 volts dc and are rated for use at 1000 volts dc.

When this socket is mounted on a grounded chassis, one side of the screen-grid by-pass capacitor will automatically be grounded.

### MATERIALS AND FINISHES

The metal shell, or body, of the socket is silver-plated brass. The screen-grid contact fingers and base pin terminals are fabricated of beryllium-copper, heat-treated after forming, then silver-plated. The center control-grid terminal is silver-plated brass as are the toe clamps which are supplied for mounting purposes.

The socket insulating material, polytrifluoroethylen, is chemically inert, non-flammable, will not absorb water or water vapors, and is not affected by acids or alkalis. It will not react to normal solvents, except in the case of halogenated compounds which will induce minor dimensional changes. Its physical characteristics are stable over a temperature range of  $-196^{\circ}\text{C}$  to  $+199^{\circ}\text{C}$  and it is resistant to embrittlement and thermal shock.

**NET WEIGHT** (Approximate) . . . . . 4 Oz.; 114 gms

### INSTALLATION

The SK-630 and SK-630A Air-System Socket can be mounted on chassis decks or partitions or in coaxial tuning devices with no modification to the socket. Chassis mounting is accomplished by cutting a 2-1/4" diameter hole in the chassis deck or partition. The socket is then placed in the hole and held securely by the three toe clamps provided.

If the socket is to be used in a coaxial line, it may be mounted directly on the end of the input line outer conductor. The socket skirt fits snugly on a 1-5/8" diameter cylinder and four screw holes are provided for fastening as shown in the outline drawing.

(Cont'd)

**TUBE EXTRACTOR**

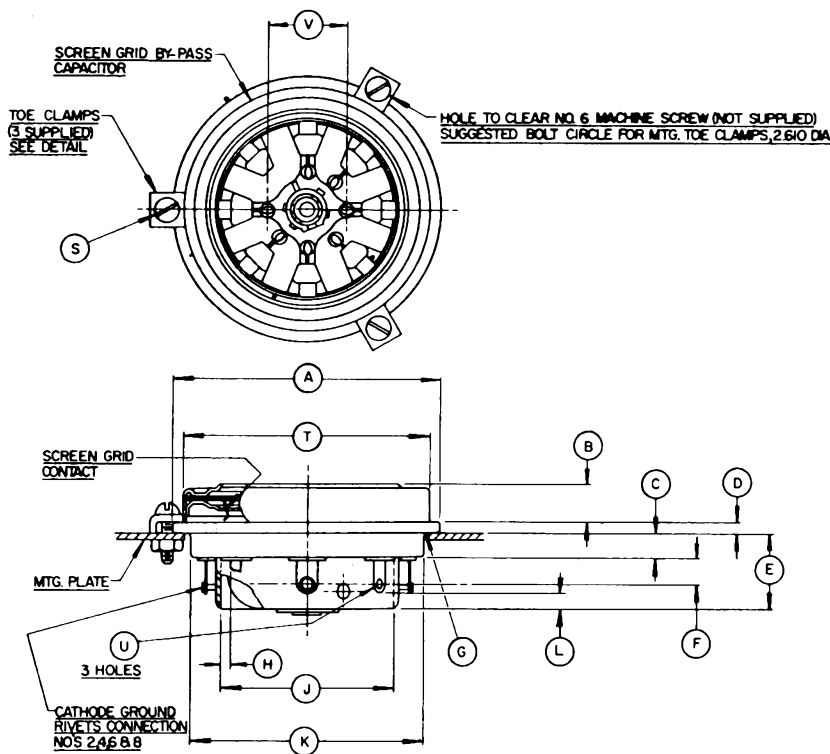
The SK-604 is a spring-steel device useful for inserting and extracting tubes of the type used in the SK-630 Air-System Socket. It is recommended for use where the construction of the equipment makes it difficult or impossible to grasp the tube by hand or when it is necessary to handle the tubes while they are still hot from recent use.

**THE SK-630 AND SK-630A AIR-SYSTEM SOCKETS ARE RECOMMENDED FOR USE WITH THE FOLLOWING TUBES:**

7034/4X150A  
7203/4CX250B  
7580W/4CX250R  
7609

8249/4W300B  
8321/4CX350A  
8322/4CX350F  
8621/4CX250FG

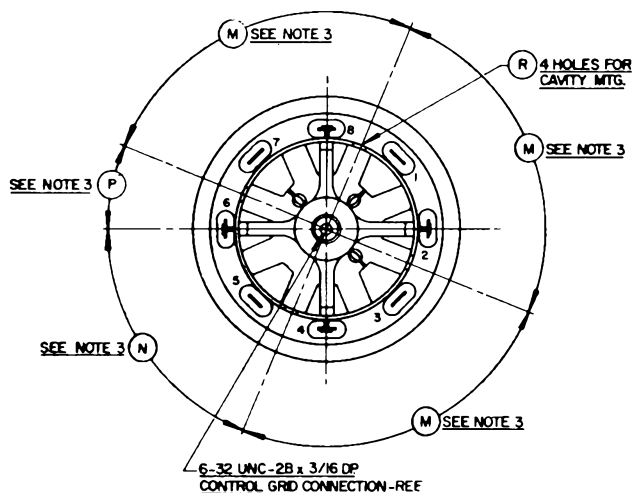
8904/4CX350FJ  
8930  
8957/4CX250BC



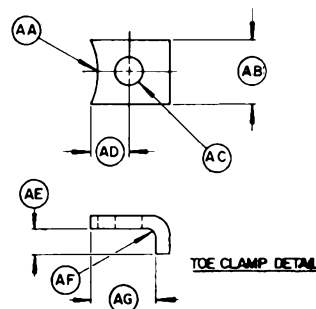
DIM	INCHES			MILLIMETERS		
	MIN.	MAX.	REF.	MIN.	MAX.	REF.
A	2.438	2.478	--	61.92	62.94	--
B	0.348	0.378	--	8.84	9.60	--
C	0.203	0.235	--	5.16	5.97	--
D	0.105	0.145	--	2.67	3.68	--
E	0.700	0.740	--	17.78	18.80	--
F	--	--	0.250	--	--	6.35
G	--	0.031R	--	--	0.79R	--
H	--	--	0.078	--	--	1.98
J	1.633	1.643	--	41.48	41.73	--
K	2.188	2.208	--	55.57	56.08	--
L	0.172	0.204	--	4.37	5.18	--
M	89°	91°	--	89°	91°	--
N	66.5°	68.5°	--	66.5°	68.5°	--
P	21.5°	23.5°	--	21.5°	23.5°	--
R	--	--	0.144*	--	--	3.66*
S	0.142*	--	--	3.61*	--	--
T	2.285	2.305	--	58.04	58.55	--
U	--	--	0.090*	--	--	2.29*
V	--	--	0.687	--	--	17.45
AA	1.230R	1.270R	--	31.24	32.26	--
AB	0.292	0.332	--	7.42	8.43	--
AC	0.142*	0.146*	--	3.61*	3.71*	--
AD	0.136	0.176	--	3.45	4.47	--
AE	0.105	0.145	--	2.67	3.68	--
AF	--	0.062R	--	--	1.57R	--
AG	0.261	0.301	--	6.63	7.64	--

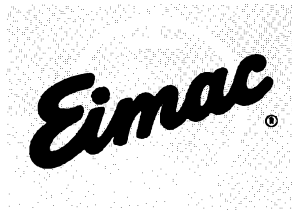
\* DIAMETER

- NOTES:**
- REF DIMS ARE FOR INFO ONLY AND ARE NOT REQD FOR INSPECTION PURPOSES.
  - CAPACITANCE, 1100 MMFD ± 20% VOLTAGE, 2000 VDC TEST, 1000 WVDC.
  - TOLERANCES ARE NOT CUMULATIVE.
  - WORD EIMAC IN SOCKET IDENTIFICATION LABEL IS LOCATED (APPROX.) NEXT TO PIN 5.
  - GROUND CATHODE.



- CONNECTIONS**
- NO. 1 SCREEN GRID
  - NO. 2 CATHODE
  - NO. 3 HEATER
  - NO. 4 CATHODE
  - NO. 5 NO CONNECTION
  - NO. 6 CATHODE
  - NO. 7 HEATER
  - NO. 8 CATHODE





# EIMAC

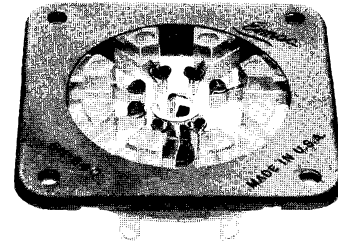
A Division of Varian Associates  
SAN CARLOS, CALIFORNIA

## SK-640 AIR-SYSTEM SOCKET

The Eimac SK-640 is one of the air system sockets recommended for use with those tubes listed at bottom of the page, or other tube types having the same special nine-pin base, when an integral screen by-pass capacitor is either not required or desired. When this socket is used, connection is made to each of the tube electrodes except the anode. The SK-640 Air-System Socket is humidity and salt-spray resistant.

### BASE CONNECTIONS

The SK-640 Air-System Socket consists of seven base pin contacting terminals (no contact is made to Pin #5) and a center control-grid terminal. The cathode of the tube is connected to its external circuits by the four even-numbered base pins which are connected in parallel to minimize the effects of lead inductance. These terminal lugs are insulated from the socket body. Connection to the screen-grid is made via Pin #1 while control-grid contact is accomplished by the use of a 6/32" screw at the center terminal.



### MATERIALS AND FINISHES

The metal shell, or body, of the socket is nickel-plated brass and the base pin contact terminals are fabricated from beryllium-copper, heat treated after forming, then silver-plated. The center control-grid terminal is silver-plated brass.

The socket insulating material, polytrifluorochloroethylene, is chemically inert, non-flammable, will not absorb water or water-vapors and is not affected by acids or alkalis. It will not react to normal solvents except in the case of halogenated compounds which will induce minor dimensional changes. Its physical characteristics are stable over a temperature range of -196°C to + 199°C and it is resistant to embrittlement and thermal shock.

**NET WEIGHT** ..... 2.0 ounces

### INSTALLATION

The SK-640 Air-System Socket can be mounted on a chassis decks or partitions by the four 0.150 inch diameter holes provided in the socket body. These holes are 90° apart and are drilled on a 2-9/16" diameter pitch circle. A 2-1/4" hole is required to accept the socket body.

### TUBE EXTRACTOR

The SK-604A is a spring-steel device useful for inserting and extracting tubes of the type used in the SK-640 Air-System Socket. It is recommended for use where the construction of the equipment makes it difficult or impossible to grasp the tube by hand or when it is necessary to handle the tubes while they are still hot from recent use.

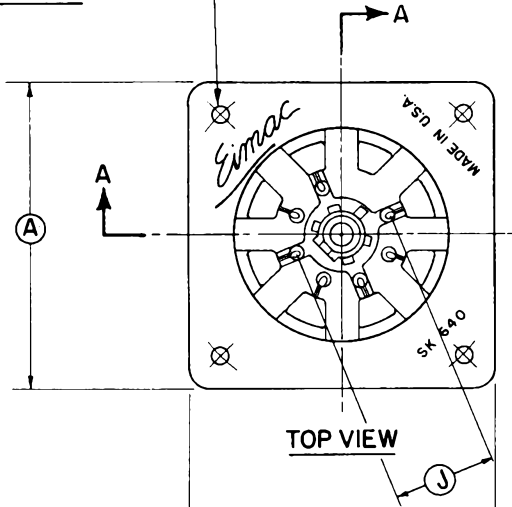
### THE SK-640 AIR-SYSTEM SOCKET IS RECOMMENDED FOR USE WITH THE FOLLOWING TUBES:

7034/4X150A	7204/4CX250F	8321/4CX350A
7035/4X150D	7580W/4CX250R	8322/4CX350F
7203/4CX250B	8249/4W300B	7580



**SK-640 Air-System Socket**

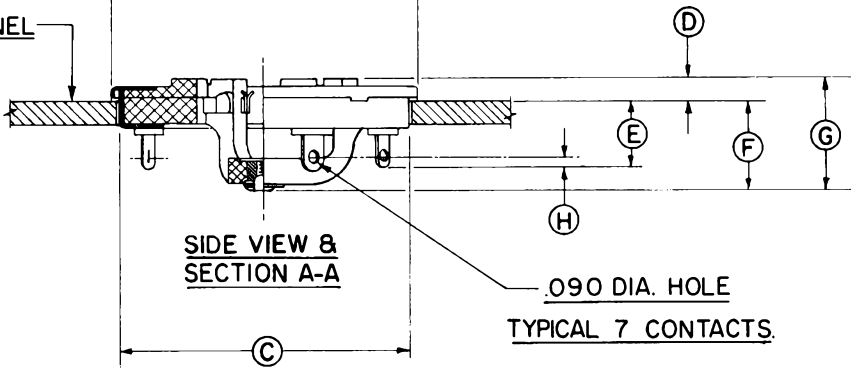
4 MOUNTING HOLES  
 .150 DIA., 90° APART  
 ON 2 <sup>9</sup>/<sub>16</sub> DIA. P.C.



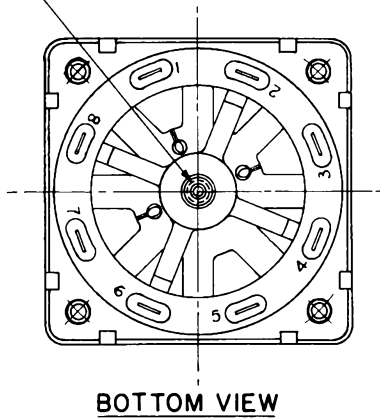
DIMENSIONS IN INCHES			
REF.	MIN.	MAX.	NOM.
A			2.314
B			2.314
C			2.194 D.
D			.167
E			.548
F			.712
G			.879
H			.089
J			.687 DIA.

NOTE: TOLERANCES ARE NOT CUMULATIVE

MOUNTING PANEL  
 (TYPICAL)



6-32X <sup>3</sup>/<sub>16</sub> D.P.  
 CONTROL GRID  
 CONNECTION



- CONNECTIONS**
- 1. SCREEN GRID
  - 2. CATHODE
  - 3. HEATER
  - 4. CATHODE
  - 5. NO CONNECTION
  - 6. CATHODE
  - 7. HEATER
  - 8. CATHODE



## TECHNICAL DATA

# SK-650 SK-655

### AIR-SYSTEM SOCKET

The Eimac SK-650 is one of the Air-System Sockets recommended for use with those tubes listed at the bottom of the page, or other tube types having the same special nine-pin base, when a compact, low-cost, special purpose socket is required. When this socket is used, connection is made to each of the tube electrodes except the anode.

The SK-655 Screen By-Pass Capacitor is a separate encapsulated capacitor designed for use with the SK-650 Air-System Socket. When this combination is used, the screen by-pass capacitor can be replaced without troublesome or costly repairs.

Both the SK-650 and the SK-655 are humidity and salt-spray resistant.

### BASE CONNECTIONS

The SK-650 Air-System Socket consists of seven base pin contacting terminals (no contact is made to Pin #5) and a center control-grid terminal. The cathode of the tube is connected to its external circuits by the four even-numbered base pins which, in turn, are connected to the four socket mounting tabs. Connections are made in this manner to minimize the effects of lead inductance. When the SK-650 Air-System Socket is used alone, connection is made to the screen-grid via Pin #1. Control grid contact is accomplished by means of a 6/32" screw at the center terminal.

### THE SK-655 SCREEN-GRID BY-PASS CAPACITOR

The SK-655 Screen-Grid By-Pass Capacitor is an independent encapsulated capacitor which is mounted to the SK-650 Air-System Socket by the same four socket mounting screws. This is a low-inductance capacitor, 1100 uuf  $\pm$  20%, which provides a short radio-frequency path to ground. The capacitor is hi-voltage breakdown tested at 2000 volts d-c and rated at 1000 volts d-c. When the SK-655 is mounted on a grounded chassis, one side of the screen by-pass capacitor is automatically grounded.

### MATERIALS AND FINISHES

In the SK-650 Air-System Socket, the base pin terminals and the four mounting lugs are fabricated of beryllium-copper, heat treated after forming, then silver-plated. The center control-grid terminal is silver-plated brass.

The insulating material, polytrifluorochloroethylene, is chemically inert, non-flammable, will not absorb water or water-vapors and is not affected by acids or alkalis. It will not react to normal solvents except in the case of halogenated compounds which will induce minor dimensional changes. Its physical characteristics are stable over a temperature range of  $-196^{\circ}\text{C}$  to  $+199^{\circ}\text{C}$  and it is resistant to embrittlement and thermal shock.

The SK-655 Screen By-Pass Capacitor has a body, or shell, constructed of silver-plated brass while the eight screen-grid contacting fingers are heat treated, silver-plated beryllium-copper. The capacitor dielectric is silvered-mica and is encapsulated in epoxy resin.

**Net Weight of the SK-650 Air-System Socket**..... 1.2 ounces

**Net Weight of the SK-655 Screen-Grid By-Pass Capacitor** ..... 1.5 ounces

### INSTALLATION

Both the SK-650 Air-System Socket and the SK-655 Screen-Grid By-Pass Capacitor can be mounted to a chassis deck or partition by the four 0.130" diameter holes provided in each of the assemblies. Both units have holes which are 90° apart and are drilled on 2-17/32" diameter pitch circle.

The SK-650 Air-System Socket requires a 2-1/8" diameter hole to accept the socket body.

### TUBE EXTRACTOR

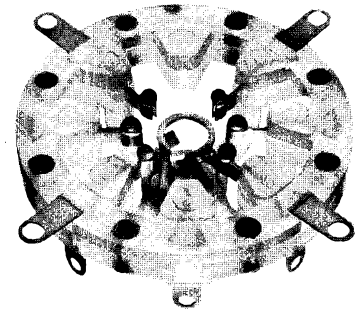
The SK-604 is a spring-steel device useful for inserting and extracting tubes of the type used in the SK-650 Air-System Socket. It is recommended for use where the construction of the equipment makes it difficult or impossible to grasp the tube by hand or when it is necessary to handle the tubes while they are still hot from recent use.

### THE SK-650 AIR-SYSTEM SOCKET IS RECOMMENDED FOR USE WITH THE FOLLOWING TUBES:

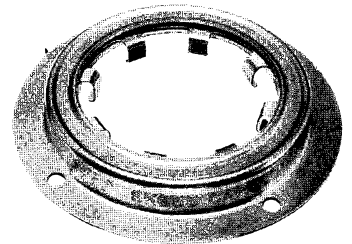
7034/4CX150A  
7609  
7203/4CX250B  
8957/4CX250BC

8621/4CX250FG  
7580W/4CX250R  
8249/4W300B

8321/4CX350A  
8322/4CX350F  
8904/4CX350FJ

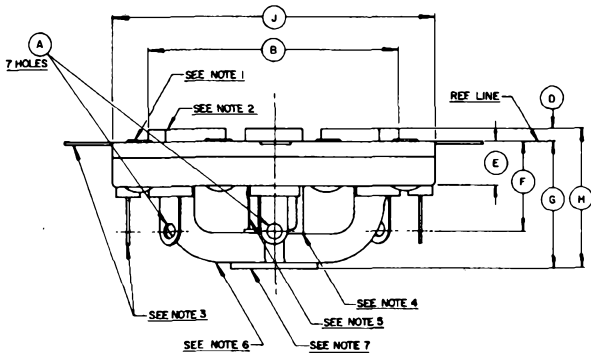


SK-650  
Air-System Socket



SK-655 Screen  
By-Pass Capacitor

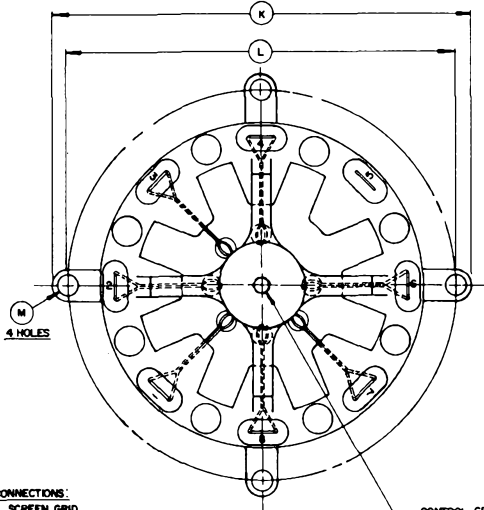
(Revised 5-1-76) 1961, 1966, 1976 by Varian



DIM	INCHES			MILLIMETERS		
	MIN	MAX	REF	MIN	MAX	REF
A			.090 D			2.29
B	1.610 D	1.645 D		40.9	41.8	
D	.012	.048		0.30	1.22	
E			.287			7.29
F			.573			14.5
G			.827			21.0
H	.825	.875		20.9	22.2	
J	2.092	2.119		53.1	53.8	
K	2.700	2.792		68.6	70.9	
L	2.510 D	2.561 D		63.7	64.8	
M	1.100	1.20 D		2.79	3.05	

**NOTES:**

1. RIVET, 70-30 BRASS
  2. RETAINER, KEL-F No. 300
  3. BASE PIN CONTACT SPRING, HEAT TREATABLE NON-FERROUS ALLOY.
  4. CONTROL GRID LEAD KEYWAY, HEAT TREATABLE NON-FERROUS ALLOY.
  5. CONTROL GRID LEAD CONTACT, HEAT TREATABLE NON-FERROUS ALLOY.
  6. BODY, KEL-F No. 300
  7. KEYWAY RIVET, 70-30 BRASS.
8. REF DIMS ARE FOR INFO ONLY AND ARE NOT RECD FOR INSP PURPOSES.



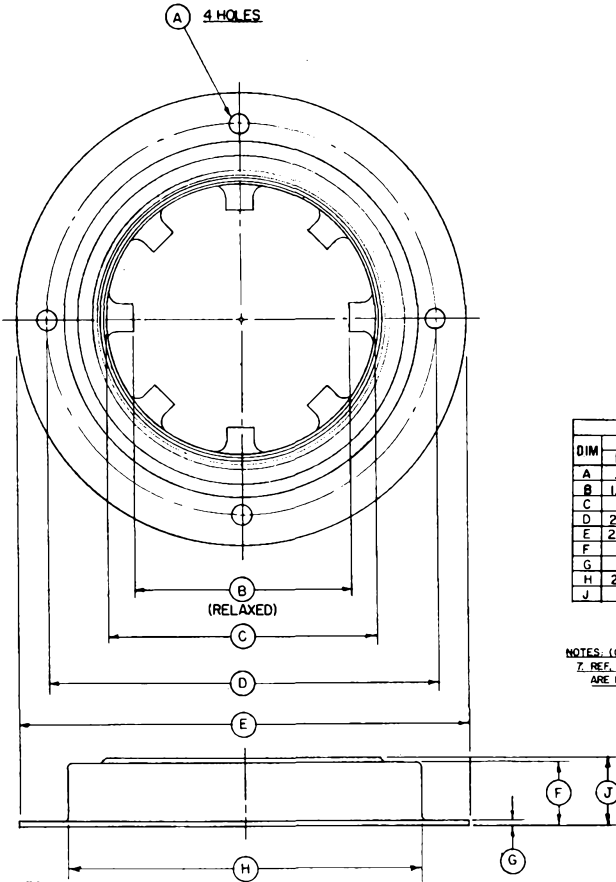
- CONNECTIONS:**
1. SCREEN GRID
  2. CATHODE
  3. HEATER
  4. CATHODE
  5. NO CONNECTION
  6. CATHODE
  7. HEATER
  8. CATHODE

CONTROL GRID CONNECTION  
6-32 UNC (REF)

**SK-650 OUTLINE DRAWING**



**SK-650 Air-System Socket**  
**SK-655 Screen By-Pass Capacitor**



DIM	INCHES			MILLIMETERS		
	MIN	MAX	REF.	MIN	MAX	REF.
A	.125	.135		3.17	3.43	
B	1.330	1.390		33.8	35.3	
C			1.702			43.2
D	2.520	2.560		64.0	65.0	
E	2.858	2.891		72.6	73.4	
F	.380	.410		9.65	10.4	
G	.025	.037		0.63	0.94	
H	2.280	2.310		57.9	58.7	
J			.415			10.5

**NOTES (CONT)**

7. REF. DIMS. ARE FOR INFO. ONLY & ARE NOT REQ'D FOR INSP. PURPOSES

**NOTES**

1. CAPACITY - 1100 MMFD.  $\pm 20\%$ .
2. VOLTAGE - 2000VDC TEST, 1000 VDC WORKING.
3. DIAMETERS TO BE CONCENTRIC WITHIN .025.
4. CAPACITOR SEALED WITH EPOXY RESIN.
5. SILVER PLATE

**SK-655 OUTLINE DRAWING**



## TECHNICAL DATA

# SK-700 AND SK-710 AIR-SYSTEM SOCKETS

The EIMAC SK-700 and SK-710 Air-System Sockets are designed to socket the EIMAC 8167/4CX300A or 8561/4CX300Y. Connections are made to each of the tube electrodes except the anode. An integral screen-grid by-pass capacitor is built into the socket.

### SK-700

The cathode contacts are insulated from ground.

### SK-710

All six of the cathode contacts are connected directly to the metal body.

### HEATER CONNECTIONS

In both socket types, one heater contact is connected directly to the metal body.

### SCREEN-GRID BY-PASS CAPACITOR

The capacitor is built into the socket and provides a low-impedance path to ground for screen-grid rf currents. It is tested at 1000 volts dc and rated at 400 volts dc. Capacitance is 1100 picofarads  $\pm 20\%$ .

### MATERIALS AND FINISHES

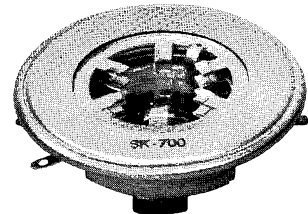
The metal shell, or body, of the socket is made of silver-plated brass. The non-ferrous alloy contacts are heat treated after forming and then silver-plated. Three silver-plated brass toe clamps are supplied for mounting purposes.

The socket insulating material is chemically inert, non-flammable, and will not absorb water or water vapor. It is not affected by strong or weak acids or alkalis. It will not react to normal solvents except in the case of halogenated compounds, which will induce minor dimensional changes. Its physical characteristics are stable over a temperature range of  $-150^{\circ}\text{C}$  to  $+275^{\circ}\text{C}$  and it is resistant to embrittlement and thermal shock.

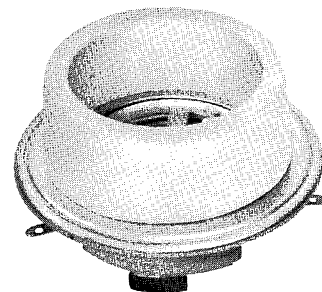
A silvered-mica dielectric is used in the screen-grid by-pass capacitor.

### AIR CHIMNEY

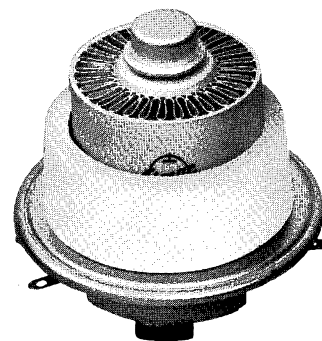
The SK-606 is intended to be used with the tube mounted vertically with the anode up. If horizontal mounting or vertical mounting with the anode down is required, means should be provided to retain the chimney. The air chimney is made of high-temperature ceramic and serves to direct the flow of air emerging from the socket into the anode cooling fins. It is recommended that the SK-606 chimney, or its equivalent, be used with each SK-700 or SK-710 socket.



SK-700

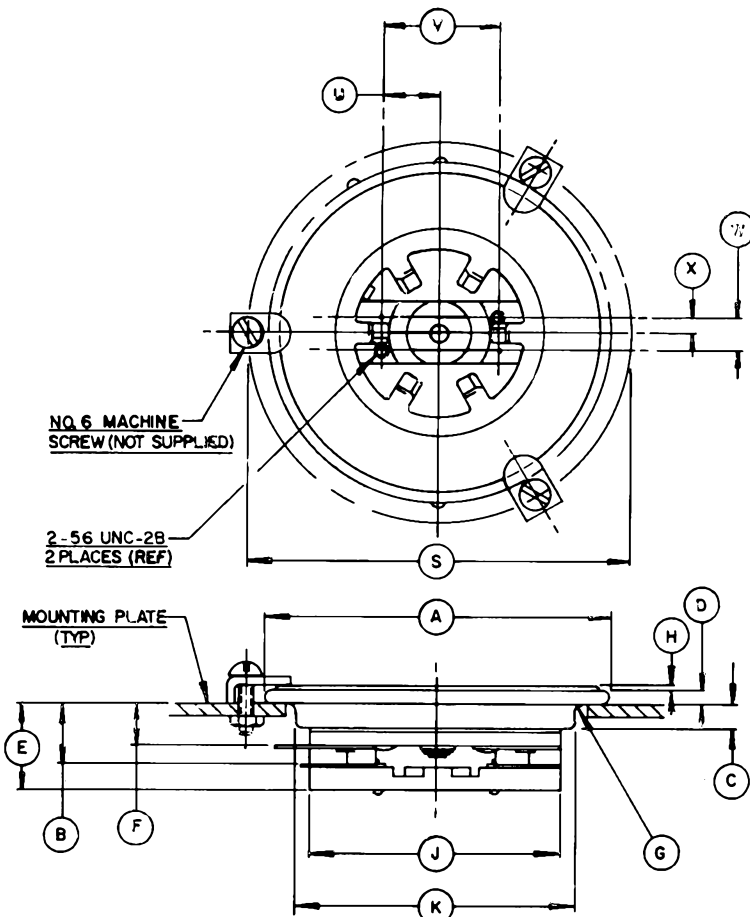


SK-700 WITH SK-606



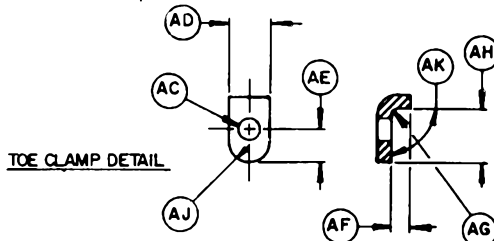
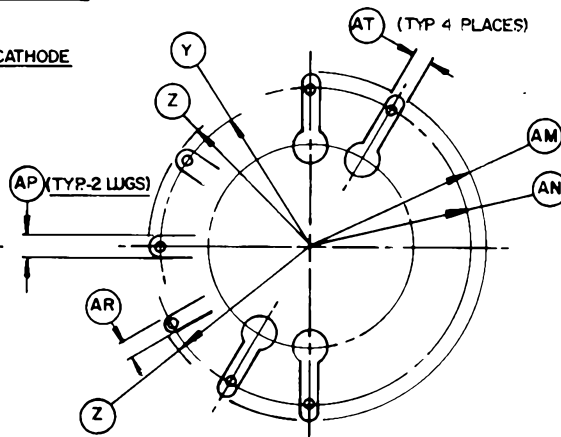
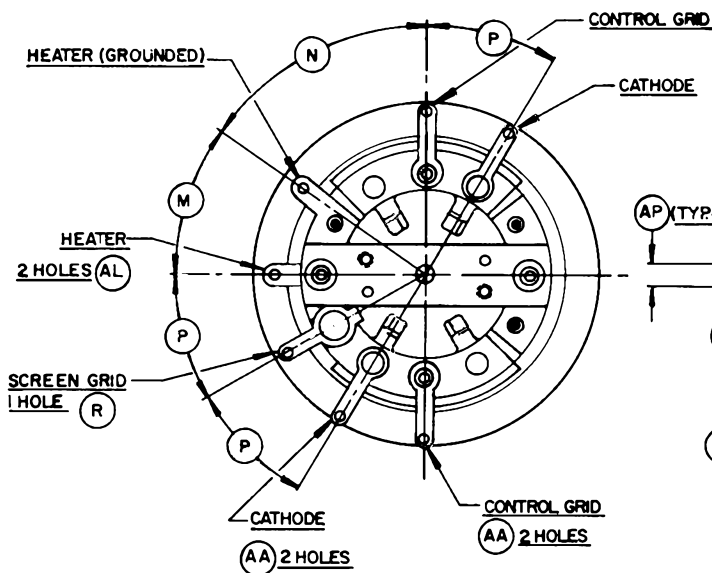
SOCKET, TUBE, AND CHIMNEY



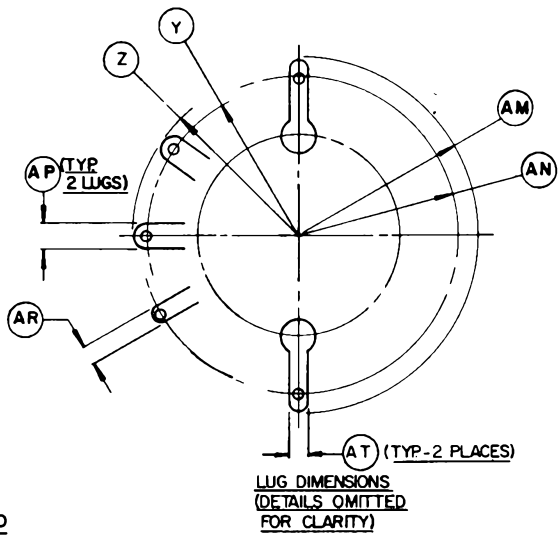
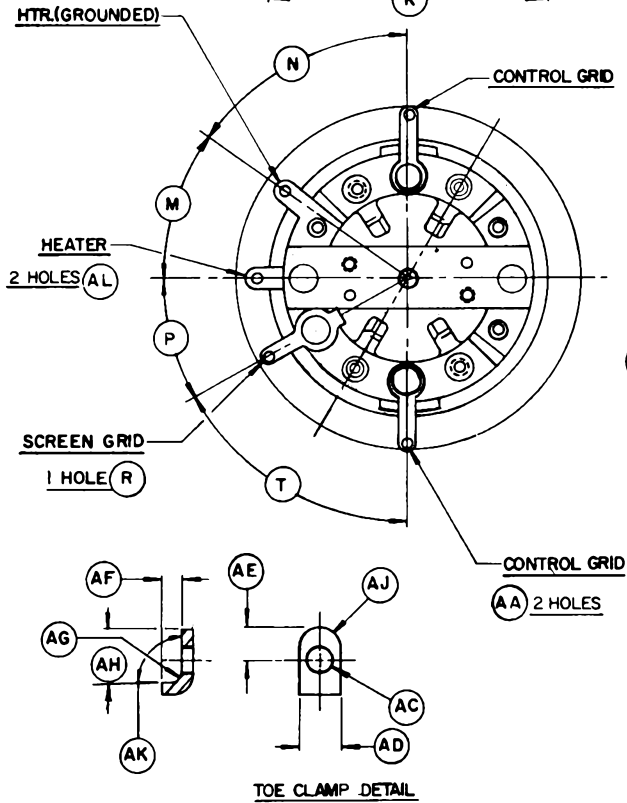
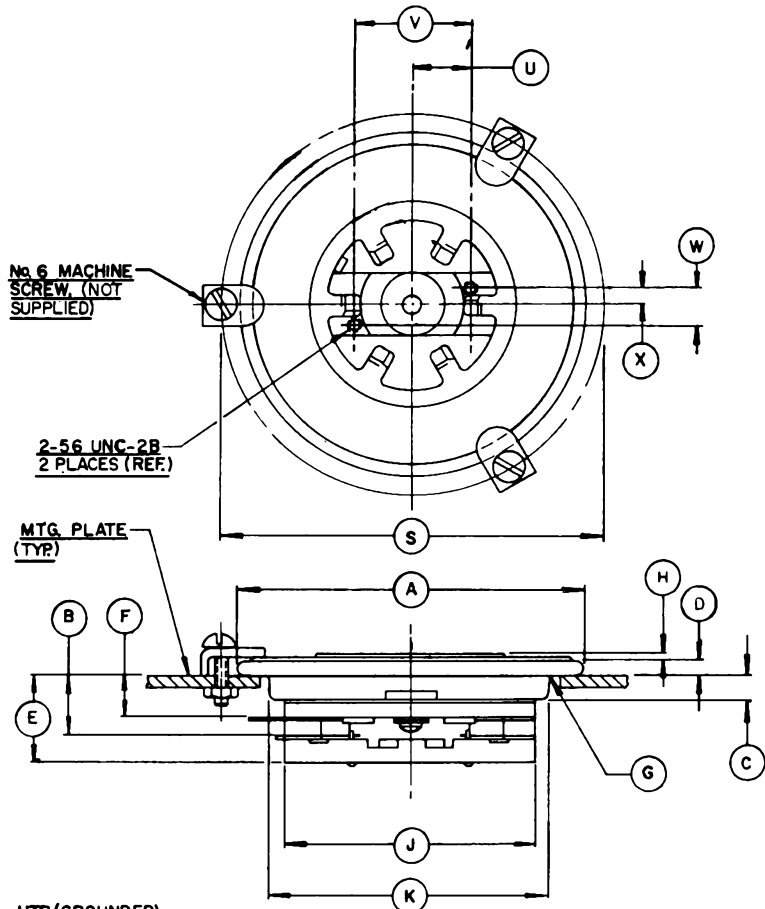


DIM	INCHES			MILLIMETERS		
	MIN	MAX	REF.	MIN	MAX	REF.
A	2.688	2.750		68.27	69.85	
B	.453	.493		11.51	12.52	
C	.175	.207		4.44	5.26	
D	.107	.147		2.71	3.73	
E	.650	.690		16.51	17.53	
F	.312	.352		7.92	8.94	
G			.031R			.079R
H	.014	.046		.035	1.17	
J			2 Dia			50.4D
K	2.184	2.210		55.47	56.13	
M			35°			35°
N			55°			55°
P			30°			30°
R			.062D			1.57D
S			3.000			76.20
U	.437	.469		11.10	11.91	
V	.890	.922		22.60	23.42	
W	.234	.266		5.94	6.76	
X	.109	.141		2.77	3.58	
Y			1.203R			30.55R
Z			1.313R			33.55R
AA	.080	.085		2.03	2.16	
AC	.142	.146		3.61	3.71	
AD	.292	.332		7.42	8.43	
AE	.292	.332		7.42	8.43	
AF	.105	.145		2.67	3.68	
AG			.062R			1.57R
AH	.417	.457		10.59	11.61	
AJ	.125R	.187R		3.17R	4.75R	
AK	80°	100°		80°	100°	
AL			.062D			1.57D
AM			1.437R			36.50R
AN			1.281R			32.54R
AP			.187			4.75
AR			.125			3.17
AT	.109	.140		2.77	3.55	

- NOTES**
- REF DIMS. ARE FOR INFO ONLY AND ARE NOT REQD. FOR INSP. PURPOSES.
  - TOLERANCES ARE NOT CUMULATIVE.
  - CAPACITANCE - 100 MMFD ± 20%. VOLTAGE - 1000 VDC. TEST - 400 WVDC.



DIM	INCHES			MILLIMETERS		
	MIN.	MAX.	REF.	MIN.	MAX.	REF.
A	2.688	2.750		68.27	69.85	
B	.453	.493		11.51	12.52	
C	.175	.207		4.44	5.26	
D	.107	.147		2.71	3.73	
E	.650	.690		16.51	17.53	
F	.312	.352		7.92	8.94	
G			.031R			.079R
H	.014	.046		0.35	1.17	
J			2 Dia.			50.4D
K	2.184	2.204		55.47	55.98	
M			35°			35°
N			55°			55°
P			30°			30°
R			.062D			1.57D
S			3 Dia.			76.20D
T			60°			60°
U	.437	.469		11.10	11.91	
V	.890	.922		22.61	23.42	
W	.234	.266		5.94	6.76	
X	.109	.141		2.77	3.58	
Y			1.203R			30.55R
Z			1.312R			33.55R
AA	.080	.085		2.03	2.16	
AC	.142	.146		3.61	3.71	
AD	.292	.332		7.42	8.43	
AE	.292	.332		7.42	8.43	
AF	.105	.145		2.67	3.68	
AG			.062R			1.57R
AH	.417	.457		10.59	11.61	
AJ	.125R	.187R		3.17R	4.75R	
AK	80°	100°		80°	100°	
AL			.062D			1.57D
AM			.1437R			36.50R
AN			1.281R			32.54R
AP			.187			4.75
AR			.125			3.17
AT	.109	.140		2.77	3.55	



- NOTES:**
1. REF DIMS. ARE FOR INFO. ONLY AND ARE NOT REQD. FOR INSP. PURPOSES.
  2. TOLERANCES ARE NOT CUMULATIVE.
  3. CAPACITANCE, 1100 MMFD ±25%, VOLTAGE 1000 VDC TEST, 400 WVDC





## TECHNICAL DATA

**SK-711A**  
**SK-712A**

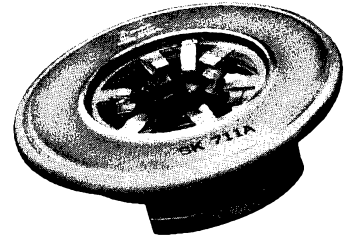
**AIR SYSTEM  
SOCKETS**

The EIMAC SK-711A Air System Socket is designed to socket the EIMAC 4CX300A and other members of this family listed below. Connections are made to each of the tube electrodes except the anode. An integral screen bypass capacitor is built into the socket.

### CONTACTS

SK-711A: The cathode and one heater contact are connected directly to the metal body.

SK-712A: One heater contact is connected directly to the metal body.



### SCREEN BYPASS CAPACITOR

The capacitor is built into the socket and provides a low-impedance path to ground for screen grid rf currents. It is tested at 1000 volts dc and rated at 400 volts dc. Capacitance is 900 pF to 1500 pF. The screen bypass capacitor is sealed with epoxy. The sealing provides a longer voltage breakdown path and prevents contamination. It is usable in high humidity environments. It may be used with 350 volts dc at an altitude of 60,000 feet.

### MATERIALS AND FINISHES

The metal shell, or body, of the socket is made of silver plated brass. The non-ferrous alloy contacts are heat treated after forming and then silver plated. Three silver plated brass toe clamps are supplied for mounting purposes.

The socket insulating material is Diallyl Phthalate. Its physical characteristics are stable over a temperature range of -65°C to +185°C and it is resistant to embrittlement and thermal shock.

A silver mica dielectric is used in the screen bypass capacitor.

### AIR CHIMNEY

The SK-606 is intended to be used with the 4CX300A mounted vertically with the anode up. If horizontal mounting or vertical mounting with the anode down is required, means should be provided to retain the chimney. The air chimney is made of high temperature ceramic and serves to direct the flow of air emerging from the socket into the anode cooling fins. It is recommended that the SK-606 chimney, or its equivalent, be used with each SK-711A socket.

### THE SK-711A IS RECOMMENDED FOR USE WITH THE FOLLOWING TUBES:

4CX300A

4CX300Y

4CX125C

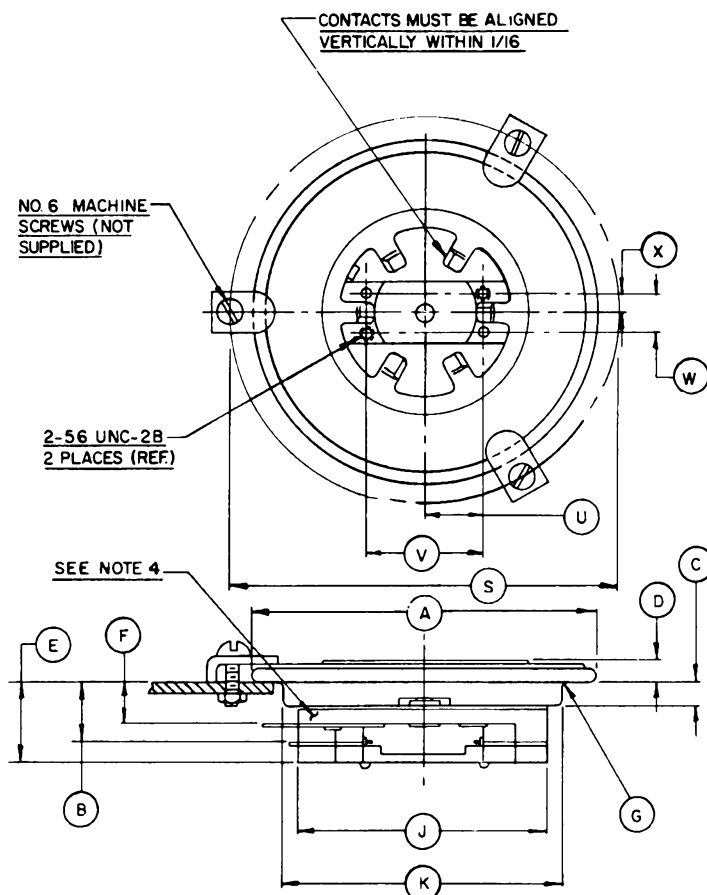
4CX125F

4CN15A

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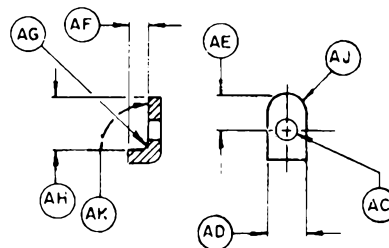
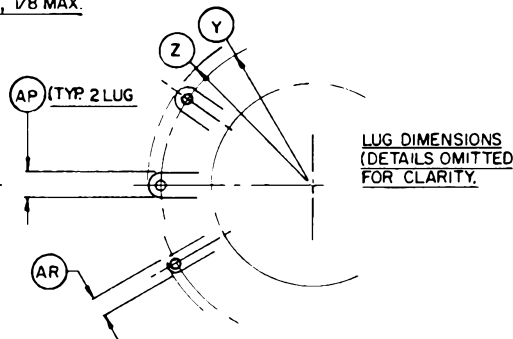
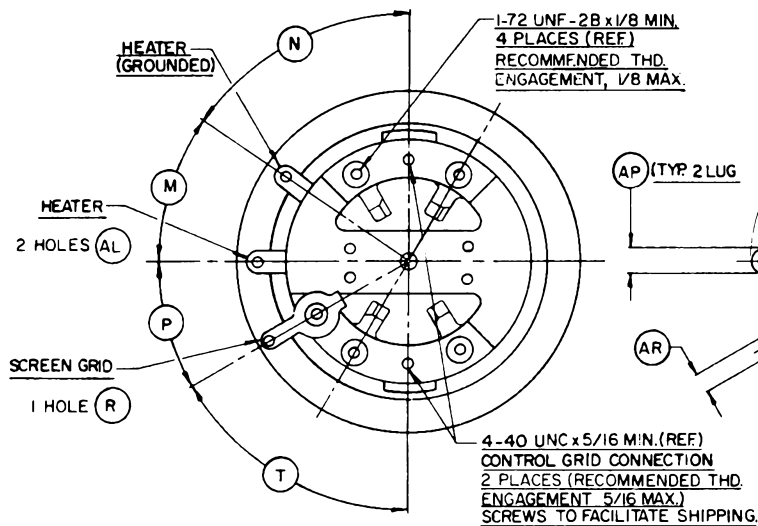
# SK-711A



DIM.	DIMENSIONAL DATA					
	INCHES			MILLIMETERS		
	MIN	MAX	REF	MIN	MAX	REF
A	2.688	2.750	--	68.28	69.85	--
C	0.175	0.207	--	4.45	5.26	--
D	0.156	0.218	--	3.96	5.54	--
E	0.600	0.650	--	15.24	16.51	--
F	0.312	0.352	--	7.92	8.94	--
G	0.453	0.493	--	11.51	12.52	--
H	--	--	0.031	--	--	0.79
J	--	--	2.000	--	--	50.80
K	2.184	2.210	--	55.47	56.13	--
L	--	--	30°	--	--	30°
M	--	--	35°	--	--	35°
N	--	--	55°	--	--	55°
P	0.109	0.161	--	2.77	3.58	--
R	0.234	0.266	--	5.94	6.76	--
T	--	--	60°	--	--	60°
U	0.437	0.469	--	11.10	11.91	--
V	0.890	0.922	--	22.61	23.42	--
Y	--	--	1.203	--	--	30.56
Z	--	--	1.312	--	--	33.52
AB	--	--	0.062	--	--	1.57
AC	--	--	0.188	--	--	4.78
AD	--	--	0.031	--	--	0.79
AE	--	--	0.125	--	--	3.18
AF	--	--	0.020	--	--	0.51
AJ	--	--	0.062	--	--	1.57

### NOTES:

- REF DIMS. ARE FOR INFO. ONLY AND ARE NOT REQD. FOR INSP. PURPOSES.
- TOLERANCES ARE NOT CUMULATIVE.
- BYPASS CAPACITOR RATINGS:  
CAPACITANCE: 900/1500 P.F.  
VOLTAGE BREAKDOWN - 350 VDC AT 60,000 FT.
- INSULATING BODY RING MADE OF DIALYL ISOPHTHALATE PER MIL-M-19833
- THE CAPACITOR IS A SEALED UNIT SOCKET CAPABLE OF OPERATING AT 350 VDC IN AN AMBIENT TEMP OF -65°C TO 185°C.
- BODY OF THE SOCKET & CONTACTS ARE SILVER PLATED.



TOE CLAMP DETAIL



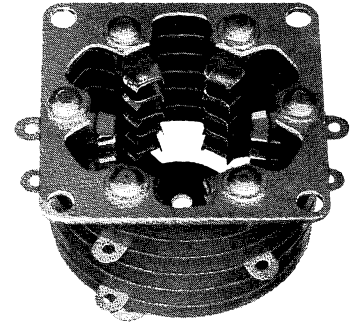
TECHNICAL DATA

SK-740  
AIR-SYSTEM  
SOCKET

The EIMAC SK-740 Air-System Socket is recommended for use with those tubes listed at the bottom of the page or other tube types having this special breech-block base. This socket is not intended for use with an Air-Chimney, but is particularly useful in applications where transverse air cooling, heat-sink or immersion cooling is intended. When this socket is used, connection is made to each of the tube electrodes except the anode.

BASE CONNECTIONS

The SK-740 socket consists of five sets of ring contacts: they are from top to bottom: 1.screen-grid, 2.control-grid, 3.cathode, 4.heater, 5.heater. Each set of contacts consist of six separate contacting tabs. The tube elements are connected to their external circuits by two diametrically-opposed solder tabs. The SK-740 has no grounded contacts.



MATERIALS AND FINISHES

The mounting plate of the socket is fabricated of nickel-plated brass. The contact rings and tabs are of beryllium copper, heat-treated after forming, then silver-plated. The rivets and washers are of brass, silver and nickel-plated respectively. The ten contact terminals are solder-dipped to insure firm, dependable solder contact. The insulating wafers and the stop yoke of the socket are molded of a flameproof diallyl meta-phthalate.

INSTALLATION

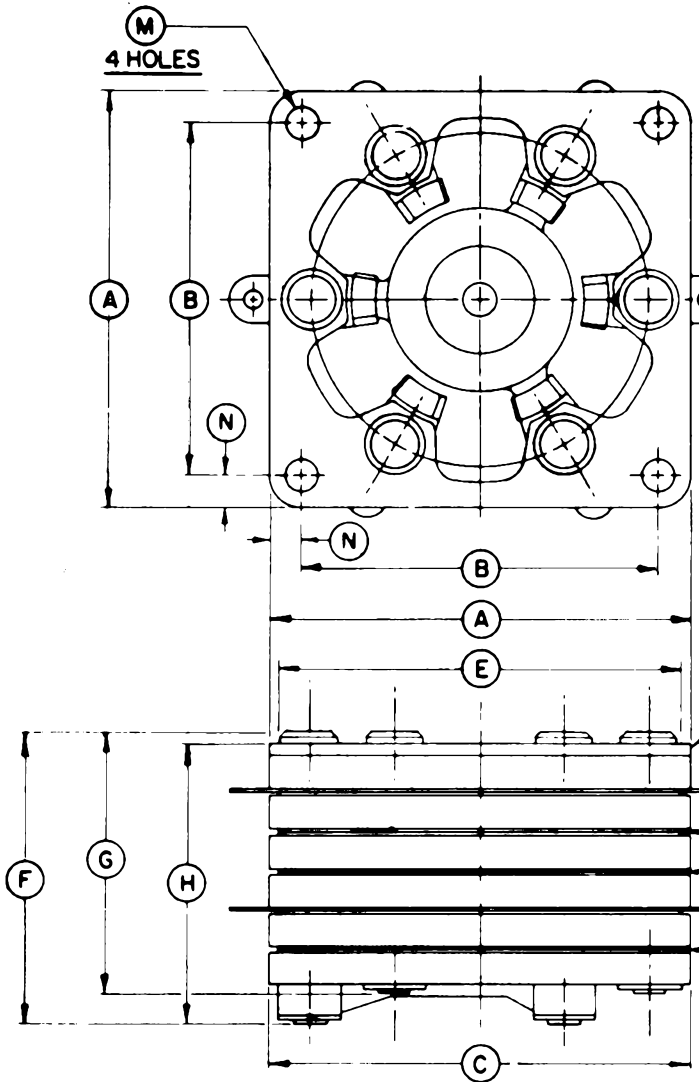
The SK-740 Air-System Socket is designed for under-chassis mounting and requires a 1.593 inches diameter hole through the chassis deck. Four screw holes are provided for fastening as shown in the outline drawing.

THE SK-740 AIR-SYSTEM SOCKET IS RECOMMENDED FOR USE WITH THE FOLLOWING TUBE TYPES:

- |         |              |
|---------|--------------|
| 4N15A   | 4CX300A/8167 |
| 4CX125C | 4CX300Y/8561 |
| 4CX125F |              |

Note: A separate means of directing air is required when using the SK-740 with the 4CX300A and 4CX300Y. For applications using these two tubes, the SK-760 and SK-770 Air-System Sockets are recommended. These contain an integral chimney.

NET WEIGHT (Approximate) . . . . . 1.5 Oz.; (42.5 gm)

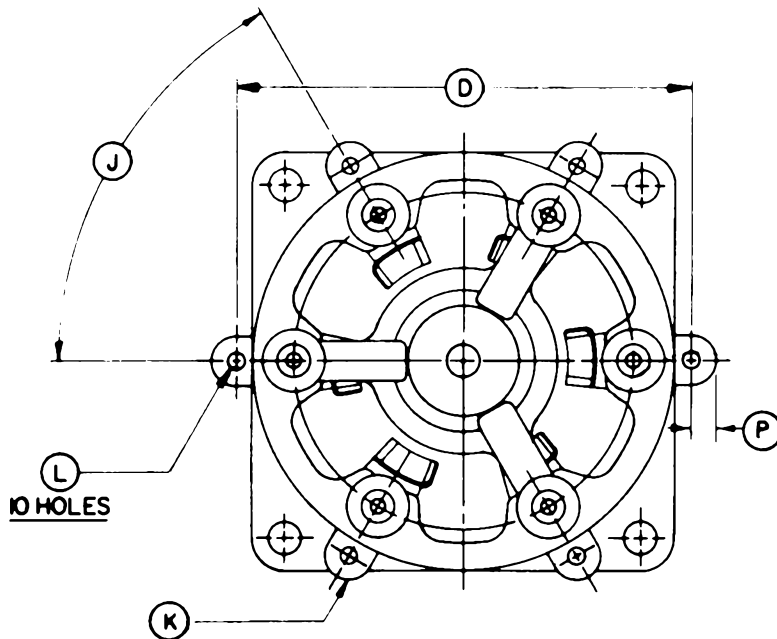


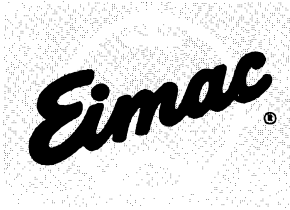
DIM	DIMENSIONAL DATA					
	INCHES			MILLIMETERS		
	MIN.	MAX.	REF.	MIN.	MAX.	REF.
A	1.615	1.635	- -	41.02	41.53	- -
B	1.360	1.390	- -	34.54	35.31	- -
C	1.615*	1.635*	- -	41.02*	41.53*	- -
D	1.735	1.765	- -	44.07	44.83	- -
E	1.485	1.575	- -	37.72	40.00	- -
F	1.070	1.110	- -	27.18	28.19	- -
G	0.925	0.965	- -	23.49	24.51	- -
H	1.020	1.060	- -	25.91	26.92	- -
J	- -	- -	60°	- -	- -	60°
K	- -	- -	3/32R	- -	- -	2.34R
L	- -	- -	1/16 *	- -	- -	1.57*
M	0.134*	0.154*	- -	3.40*	3.91*	- -
N	0.120	0.130	- -	3.05	3.30	- -
P	0.078	0.109	- -	1.98	2.77	- -

\* DIAMETER

CONNECTIONS

- 1. SCREEN GRID
- 2. CONTROL GRID
- 3. CATHODE
- 4. HEATER
- 5. HEATER

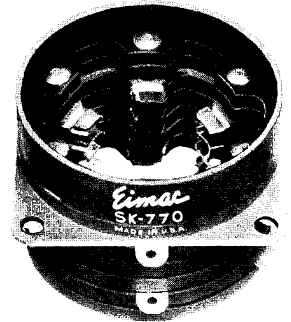




**E I M A C**  
 Division of Varian  
 S A N C A R L O S  
 C A L I F O R N I A

**SK-760**  
**SK-770**  
**AIR-SYSTEM**  
**SOCKETS**

The EIMAC SK-760 and SK-770 Air-System Sockets are recommended for use with those tubes listed at the bottom of the page or other tube types having this special breech-block base. These sockets incorporate a built-in integral chimney. When these sockets are used, connection is made to each of the tube electrodes except the anode. The screen contacts on the SK-760 are not connected to the metal mounting plate, while the screen contacts on the SK-770 are connected to the metal mounting plate. The SK-760 has no grounded contacts. The SK-760 and SK-770 are humidity and salt spray resistant.



**BASE CONNECTIONS**

The SK-760 and SK-770 Air-System Sockets consist of five sets of ring contacts. They are (from top to bottom): 1)-screen-grid, 2)-control-grid, 3)-cathode, 4)-heater, 5)-heater. Each set of contacts consist of six separate contact tabs. The tube elements are connected to their external circuits by two diametrically opposed solder terminals.

**MATERIALS AND FINISHES**

The mounting plates of these sockets are fabricated of nickel-plated brass. Contact rings and tabs are made of beryllium copper, per QQ-C-533, heat-treated after forming, then silver-plated. The rivets and washers are of brass, silver and nickel-plated respectively. All silver-plating is in accordance with QQ-S-365 and nickel-plating per QQ-N-290. The ten contact terminals are solder-dipped to insure firm, dependable solder contact. The insulating wafers and the stop yoke of the sockets are molded of a flameproof diallyl meta-phthalate per MIL-P-19833.

**INSTALLATION**

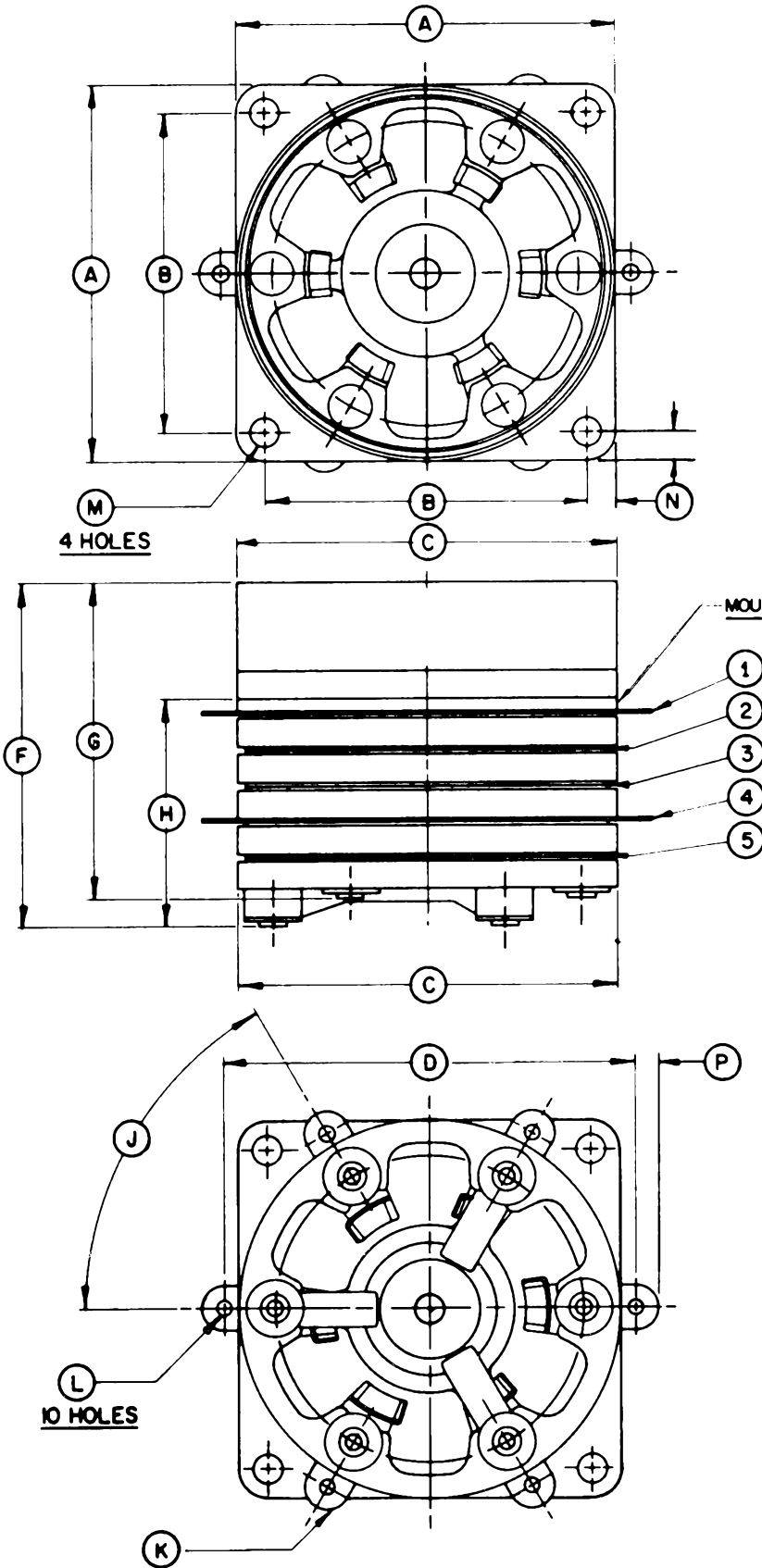
The SK-760 and SK-770 Air-System Sockets were designed for under-chassis mounting and require a 1.593 inches diameter hole through the chassis deck. Four screw holes are provided for fastening as shown on the outline drawing.

The SK-760 and SK-770 Air-System Sockets are recommended for use with the following tube types:

- |        |         |         |
|--------|---------|---------|
| 4CN15A | 4CX300A | 4CX300Y |
|--------|---------|---------|

NET WEIGHT . . . . . 1.5 oz; (42.5 gm)



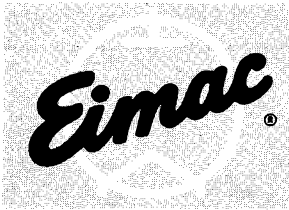


DIMENSIONAL DATA							
DIM.	INCHES			MILLIMETERS			
	MIN.	MAX.	REF.	MIN.	MAX.	REF.	
A	1.615	1.635	--	41.00	41.40	--	
B	1.360	1.390	--	34.57	35.25	--	
C	1.615 D.	1.635 D.	--	41.00 D.	41.40 D.	--	
D	1.735	1.765	--	43.90	44.83	--	
F	1.330	1.370	--	33.75	34.80	--	
G	1.205	1.245	--	30.60	31.66	--	
H SK760	1.020	1.060	--	25.91	26.92	--	
H SK770	.931	.971	--	23.70	24.70	--	
J	--	--	60°	--	--	60°	
K	--	--	3/32 R.	--	--	2.38R	
L	--	--	1/16 D.	--	--	1.59 D.	
M	.134 D.	.154 D.	--	3.40 D.	3.92 D.	--	
N	.120	.130	--	3.05	3.30	--	
P	.078	.109	--	1.98	2.77	--	

NOTES  
 1. REF. DIMENSIONS ARE FOR INFO.  
 ONLY & ARE NOT REQUIRED FOR  
 INSPECTION PURPOSES.

CONNECTIONS

1. SCREEN GRID
2. CONTROL GRID
3. CATHODE
4. HEATER
5. HEATER



**E I M A C**  
 Division of Varian  
 S A N C A R L O S  
 C A L I F O R N I A

**SK-800B**  
 AIR-SYSTEM SOCKET  
 UNGROUNDED  
 CATHODE TERMINALS

**SK-806**  
 AIR CHIMNEY

The Eimac SK-800B is one of the air-system sockets recommended for use with the Eimac 4CX1000A or 4CW2000A tetrodes. A companion SK-806 Air Chimney is also available and is recommended for use with the socket when the air-cooled 4CX1000A is to be employed.

When this socket is used, connection is made to each of the tube electrodes, except the anode, and to one side of the integral screen-grid by-pass capacitor. The SK-800B is humidity and salt-spray resistant.

The SK-800B is an improved version of the SK-800A and directly replaces the SK-800A in any equipment. The SK-800B features a stronger, one piece base and improved contact tabs.

**BASE CONNECTIONS**

The SK-800B socket consists of three sets of spring-finger contact tabs for each tube electrode (to assure low-inductance contact), a center guide pin to facilitate tube installation, and an integral screen by-pass capacitor. The terminals are shown on the outline drawing.

When the socket is mounted on a grounded chassis, no tube electrodes are automatically grounded. Connection to the cathode and one side of the heater is made via the second set of spring-finger contacts from the bottom of the socket.

**SCREEN-GRID BY-PASS CAPACITOR**

This capacitor utilizes Mylar film as a dielectric and is encapsulated in silicone resin. Its capacitance is 1500 uufds  $\pm$  20 percent and it is rated at 400 dc working volts. One side connects to the three screen-grid tabs on the tube and the other side is connected directly to the socket body.

**MATERIALS AND FINISHES**

The metal shell, or body, of the socket is fabricated of silver-plated brass, while the mounting base and centering pin are a one-piece, nickel-plated die casting. All contacts are formed of a non-ferrous alloy, heat-treated and silver-plated. Contact insulating material is high-temperature ceramic.

**INSTALLATION**

The SK-800B Air-System Socket is designed for under-chassis mounting and requires a 5-1/16-inch hole through the chassis deck. The socket is held in place by the three toe clamps provided. One side of the screen-grid by-pass capacitor is automatically grounded to the chassis when this mounting method is used.

**AIR CHIMNEY**

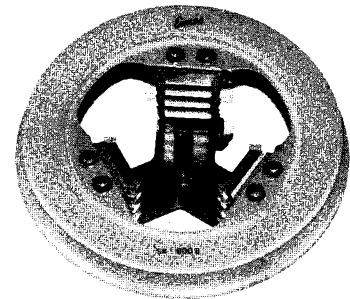
The SK-806 Air Chimney is moulded of fiberglass-reinforced silicone resin. It effectively directs the flow of air to the anode cooling fins with minimum pressure drop and is recommended for use with each SK-800B when the air-cooled 4CX1000A is to be socketed.

**SK-800B:**

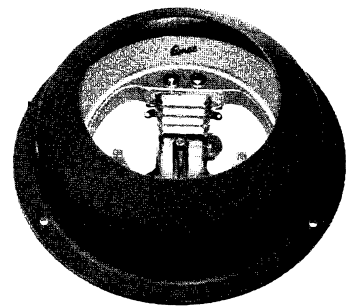
Net Weight - - - - - 18 ounces

**SK-806:**

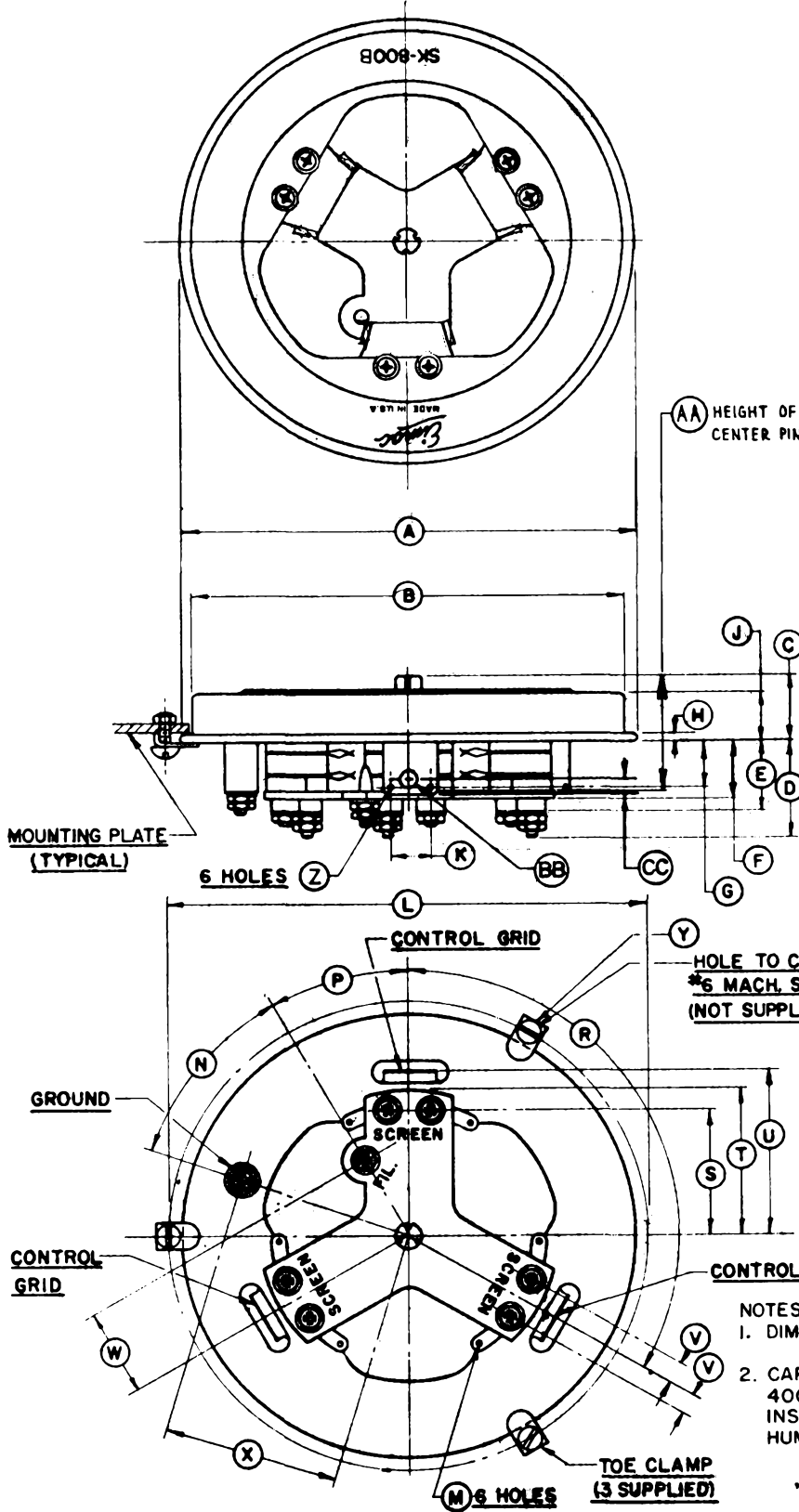
Net Weight - - - - - 3-1/4 ounces  
 Maximum Height - - - - - 1-7/8 inches  
 Maximum Diameter - - - - - 6-1/8 inches



SK-800B

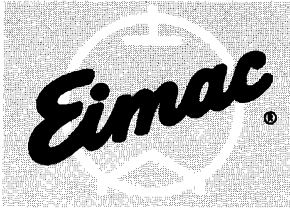


SK-800B WITH CHIMNEY



DIMENSION DATA		
	MIN.	MAX.
A	5.290	5.930
B	5.010	5.047
C	.690	.730
D	1.100	1.170
E		.760 REF
F	.641	.681
G	.500	.540
H	.110	.140
J	.510	.540
K	.422	.452
L		5.595 REF
M	.057 DIA.	.077 DIA.
N	40°	42°
P	29°	31°
R	119°	121°
S	1.490	1.530
T	1.699	1.739
U	1.917	1.957
V	.245	.255
W	1.052	1.072
X	2.052	2.072
Y	.142 DIA.	
Z	.078 DIA.	.108 DIA.
AA	1.246	1.286
BB	.156 DIA.	.186 DIA.
CC		.234 REF
AB	.125 R	187P
AC	.292	332
AD	.292	332
AE	.105	.145
AF		.062R
AG	80°	100°
AH	.417	.457
AJ	.142	.146

- NOTES:
- DIMENSIONS IN INCHES.
  - CAPACITOR: 1500 MMFD ± 20%  
400 WVDC, 1000 VDC TEST  
INSULATED TO WITHSTAND  
HUMIDITY  
, SALT SPRAY



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**SK-810B**  
 AIR-SYSTEM SOCKET  
 GROUNDED  
 CATHODE TERMINALS  
**SK-806**  
 AIR CHIMNEY

The EIMAC SK-810B is one of the air-system sockets recommended for use with the EIMAC 4CX1000A or 4CW2000A tetrodes. A companion SK-806 Air Chimney is also available and is recommended for use with the socket when the air-cooled 4CX1000A is to be employed.

When this socket is used, connection is made to each of the tube electrodes except the anode, and to one side of the integral screen-grid by-pass capacitor. The SK-810B is humidity and salt-spray resistant.

The SK-810B is an improved version of the SK-810 and directly replaces the SK-810 in any equipment. The SK-810B features a stronger, one-piece base and improved contact tabs.

**BASE CONNECTIONS**

The SK-810B socket consists of three sets of spring-finger contact tabs for each tube electrode (to assure low-inductance contact), a center guide pin to facilitate tube installation, and an integral screen by-pass capacitor. The terminals are shown on the outline drawing.

When this socket is mounted on a grounded chassis, the cathode and one side of the heater will be automatically grounded. A grounding terminal is provided and may be used for positive connection if desired.

**SCREEN GRID BY-PASS CAPACITOR**

This capacitor utilizes Mylar film as a dielectric and is encapsulated in silicone resin. Its capacitance is 1500 pF  $\pm$ 20 percent and it is rated at 400 dc working volts. One side connects to the three screen-grid tabs on the tube and the other side is connected directly to the socket body.

**MATERIALS AND FINISHES**

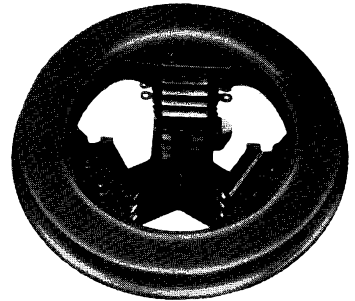
The metal shell, or body, of the socket is fabricated of silver-plated brass, while the mounting base and centering pin are a one-piece, nickel-plated die casting. All contacts are formed on a non-ferrous alloy, heat-treated and silver-plated. Contact insulating material is high-temperature ceramic.

**INSTALLATION**

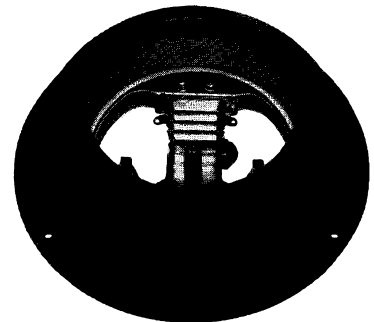
The SK-810B Air-System Socket is designed for under-chassis mounting and requires a 5-1/16 inch hole through the chassis deck. The socket is held in place by the three toe clamps provided. One side of the screen-grid by-pass capacitor is automatically grounded to the chassis when this mounting method is used.

**AIR CHIMNEY**

The SK-806 Air Chimney is molded of fiberglass-reinforced silicone resin. It effectively directs the flow of air to the anode cooling fins with minimum pressure drop and is recommended for use with each SK-810B when the air-cooled 4CX1000A is to be socketed.



SK-810B



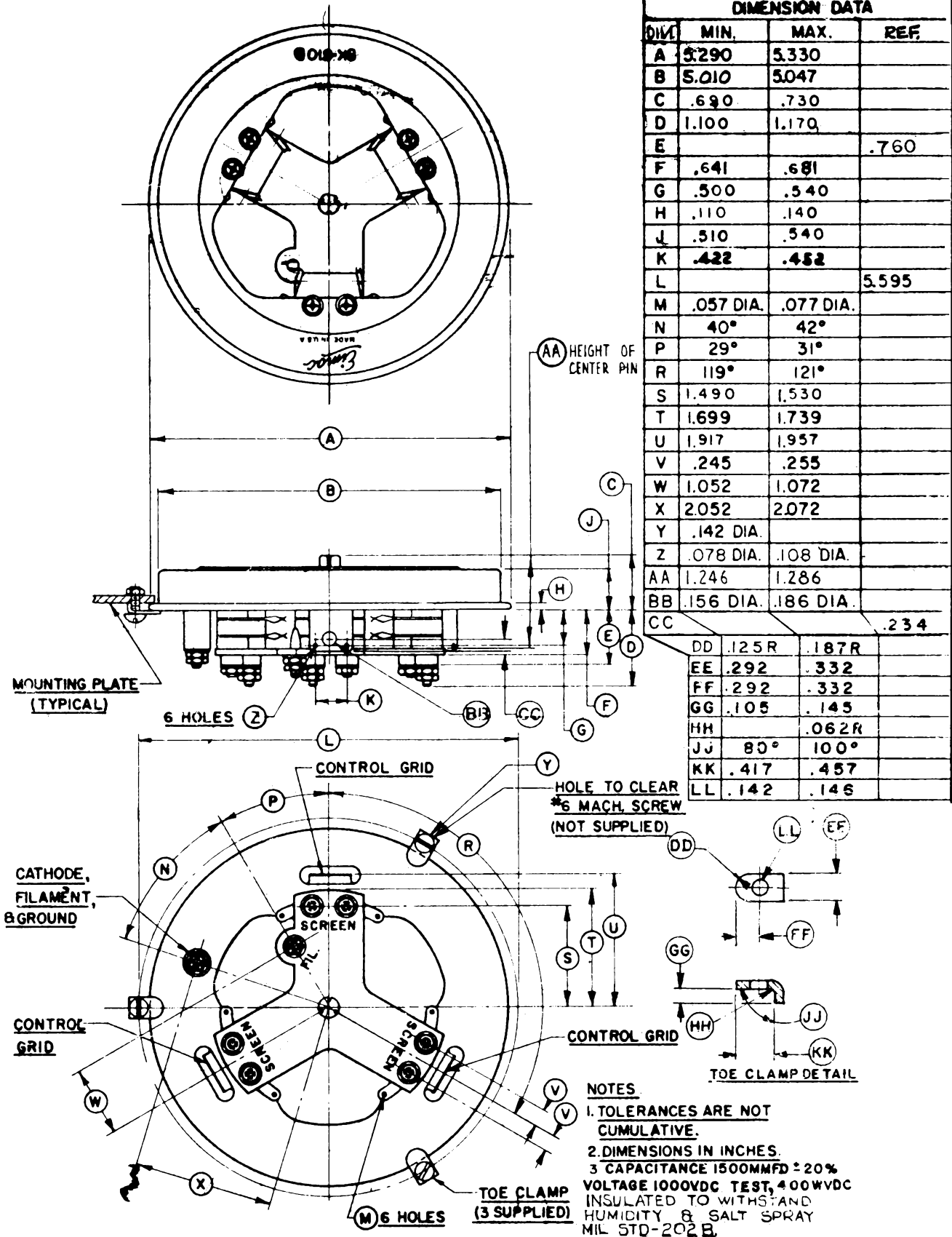
SK-810B WITH CHIMNEY

**SK-810B**

Net Weight . . . . . 18 ounces

**SK-806**

Net Weight . . . . . 3-1/4 ounces  
 Maximum Height . . . . . 1-7/8 inches  
 Maximum Diameter . . . . . 6-3/8 inches



DIMENSION DATA			
DIM	MIN.	MAX.	REF.
A	5.290	5.330	
B	5.010	5.047	
C	.690	.730	
D	1.100	1.170	
E			.760
F	.641	.681	
G	.500	.540	
H	.110	.140	
J	.510	.540	
K	.422	.452	
L			5.595
M	.057 DIA.	.077 DIA.	
N	40°	42°	
P	29°	31°	
R	119°	121°	
S	1.490	1.530	
T	1.699	1.739	
U	1.917	1.957	
V	.245	.255	
W	1.052	1.072	
X	2.052	2.072	
Y	.142 DIA.		
Z	.078 DIA.	.108 DIA.	
AA	1.246	1.286	
BB	.156 DIA.	.186 DIA.	
CC			.234
DD	.125R	.187R	
EE	.292	.332	
FF	.292	.332	
GG	.105	.145	
HH		.062R	
JJ	80°	100°	
KK	.417	.457	
LL	.142	.145	

**NOTES**

1. TOLERANCES ARE NOT CUMULATIVE.
2. DIMENSIONS IN INCHES.
3. CAPACITANCE 1500MFD ± 20% VOLTAGE 1000VDC TEST, 400WVDC INSULATED TO WITHSTAND HUMIDITY & SALT SPRAY MIL STD-202B.



TECHNICAL DATA

SK-816  
SK-860  
SK-870

AIR-SYSTEM SOCKET  
and CHIMNEY

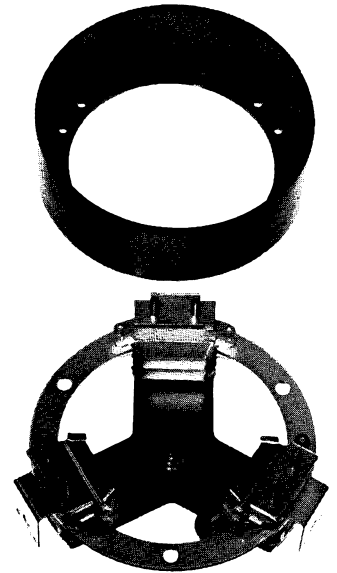
The EIMAC SK-860 and SK-870 are air-system sockets recommended for use with the EIMAC 3CX1000A7 triode. A companion SK-816 Air Chimney is also available and is recommended for use with the socket.

When this socket is used, connection is made to each of the tube electrodes except the anode. The SK-860 and SK-870 are humidity and salt-spray resistant.

BASE CONNECTIONS

The SK-860 and SK-870 sockets consist of three sets of spring-finger contacts for each tube electrode (to assure low-inductance contact) and a center guide to facilitate tube installation. The terminals are shown on the outline drawing.

No contacts are grounded on the SK-860, while the SK-870 has the grid contacts grounded to the equipment chassis when installed.



MATERIALS and FINISHES

The metal shell, or body, of the socket is fabricated of silver-plated brass, while the mounting base is a one-piece nickle-plated die casting. All contacts are formed of a non-ferrous alloy, heat treated and silver-plated. Contact insulating material is high-temperature ceramic.

INSTALLATION

The SK-860 and SK-870 are designed for under-chassis mounting and require a 2-3/4" diameter hole through the chassis deck. The socket is held in place by the six 4-40 studs provided on the socket. The grid of the SK-870 is automatically grounded to the chassis when this mounting method is used.

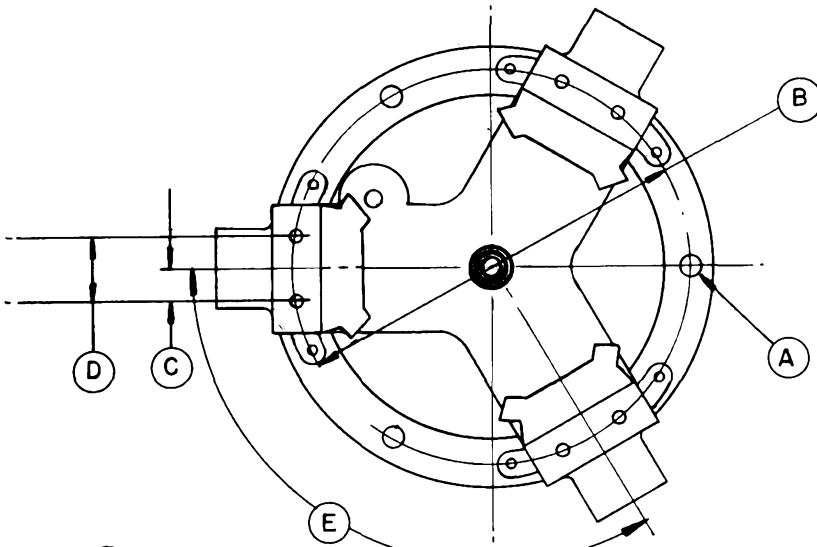
AIR CHIMNEY

The SK-816 Air Chimney is molded of fiberglass-reinforced silicone resin. It effectively directs the flow of air to the anode cooling fins with minimum pressure drop and is recommended for use with each SK-860 and SK-870.

NET WEIGHT ..... 12 oz; 340 gms

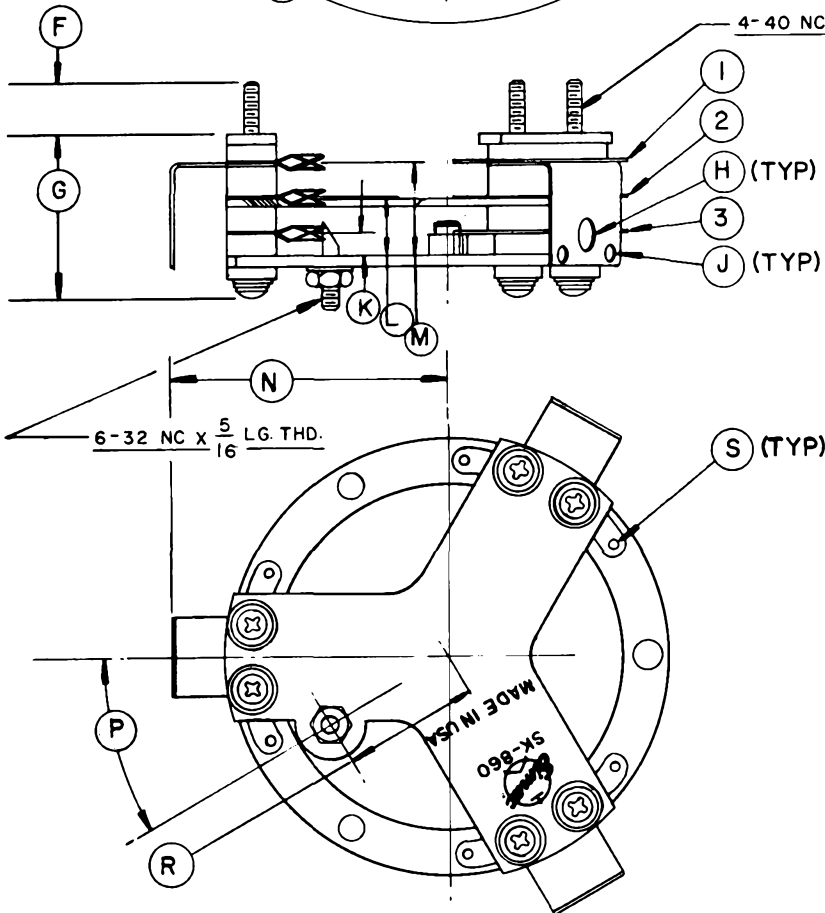


SK-816/SK-860/SK-870



DIM	DIMENSIONAL DATA					
	INCHES			MILLIMETERS		
	MIN.	MAX.	REF.	MIN.	MAX.	REF.
A	0.160	0.180	--	4.06	4.57	--
B	3.040	3.085	--	77.22	78.36	--
C	0.234	0.266	--	5.94	6.76	--
D	0.484	0.516	--	12.29	13.11	--
E	119°	121°	--	119°	121°	--
F	--	--	0.270	--	--	6.86
G	1.215	1.295	--	30.86	32.89	--
H	--	--	0.170	--	--	4.32
J	--	--	0.092	--	--	2.34
K	0.160	0.180	--	4.06	4.57	--
L	0.430	0.460	--	10.92	11.68	--
M	0.690	0.735	--	17.53	18.67	--
N	--	--	1.985	--	--	50.42
P	29°	31°	--	29°	31°	--
R	--	--	1.062	--	--	26.97
S	--	--	0.066	--	--	1.68

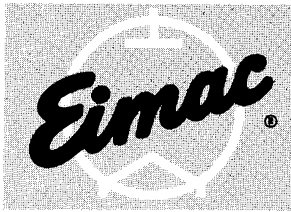
NOTE: REFERENCE DIMENSIONS ARE FOR INFORMATION ONLY & ARE NOT REQUIRED FOR INSPECTION PURPOSES.



4-40 NC SCREW (6 REQ'D)

**NOTE**

- 1. GRID
- 2. CATHODE HEATER
- 3. HEATER



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**SK-860**  
**SK-870**  
**AIR-SYSTEM**  
**SOCKET**

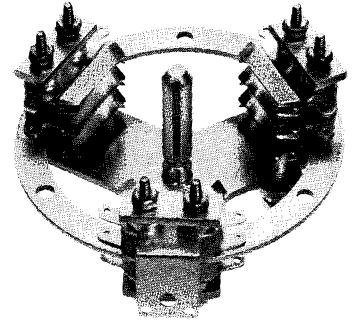
The EIMAC SK-860 and SK-870 are air-system sockets recommended for use with the EIMAC 3CX1000A7 triode. A companion SK-816 Air Chimney is also available and is recommended for use with the socket.

When this socket is used, connection is made to each of the tube electrodes except the anode. The SK-860 and SK-870 are humidity and salt-spray resistant.

**BASE CONNECTIONS**

The SK-860 and SK-870 sockets consist of three sets of spring-finger contacts for each tube electrode (to assure low-inductance contact) and a center guide to facilitate tube installation. The terminals are shown on the outline drawing.

No contacts are grounded on the SK-860, while the SK-870 has the grid contacts grounded to the equipment chassis when installed.



**MATERIALS and FINISHES**

The metal shell, or body, of the socket is fabricated of silver-plated brass, while the mounting base and centering pin are a one-piece nickle-plated die casting. All contacts are formed of a non-ferrous alloy, heat treated and silver-plated. Contact insulating material is high-temperature ceramic.

**INSTALLATION**

The SK-860 and SK-870 are designed for under-chassis mounting and require a 5-1/16" hole through the chassis deck. The socket is held in place by the six 4-40 studs provided on the socket. The grid of the SK-870 is automatically grounded to the chassis when this mounting method is used.

**AIR CHIMNEY**

The SK-816 Air Chimney is molded of fiberglass-reinforced silicone resin. It effectively directs the flow of air to the anode cooling fins with minimum pressure drop and is recommended for use with each SK-860 and SK-870.

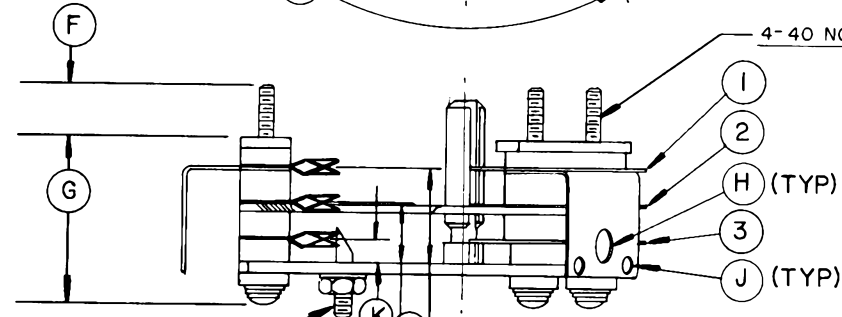
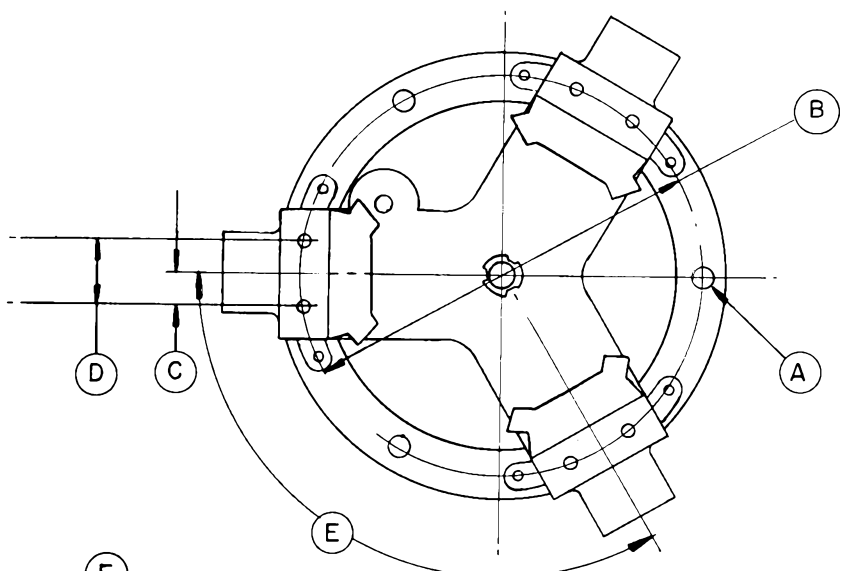
NET WEIGHT . . . . . 12 ounces





DIMENSIONS IN INCHES			
DIMENSIONAL DATA			
DIM.	MIN.	MAX.	REF.
A	.160	.180	
B	3.040	3.085	
C	.234	.266	
D	.484	.516	
E	119°	121°	
F			.210
G	1.215	1.295	
H			.170
J			.092
K	.160	.180	
L	.430	.460	
M	.690	.735	
N			1.985
P	29°	31°	
R			1.065
S			1.065

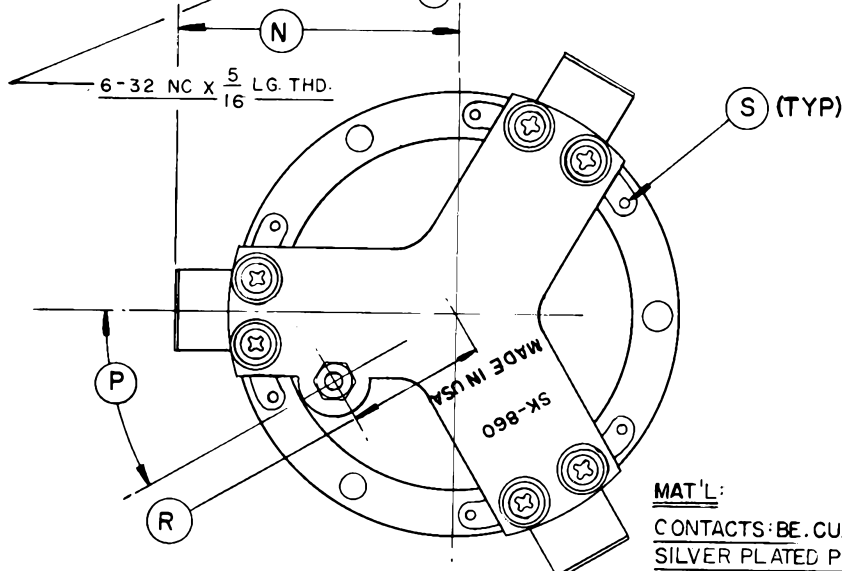
NOTE: REF. DIMS. ARE FOR INFO. ONLY & ARE NOT REQ'D FOR INSP. PURPOSES.



4-40 NC SCREW (6 REQ'D.)

**NOTE**

- 1. GRID
- 2. CATHODE HEATER
- 3. HEATER

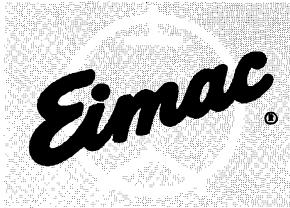


6-32 NC X 5/16 LG. THD.

**MAT'L:**

CONTACTS: BE. CU. PER FEDERAL QQ-C-533  
 SILVER PLATED PER QQ-S-365  
 INSULATION: HIGH TEMP. CERAMIC  
 BASE: ZINC ASTM SPEC. (B-240) NI. PL.  
 PER QQ-N-290 CLASS I, TYPE IX  
 SCREWS: BRASS, NI. PL. PER QQ-N-290  
 CLASS I, TYPE VI

06980	SK-860
CODE IDENT	PART NO.



**E I M A C**  
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 CALIFORNIA

**SK-890B**  
 AIR-SYSTEM SOCKET  
 GROUNDED  
 CATHODE TERMINALS

**SK-806**  
 AIR CHIMNEY

The EIMAC SK-890B is one of the air-system sockets recommended for use with the EIMAC 4CX1000A or 4CW2000A tetrodes. The SK-890B is especially designed for use at frequencies where series screen neutralization is employed and is so constructed that the screen-grid can be series tuned to ground through the screen by-pass capacitor. A companion SK-806 Air Chimney is also available and is recommended for use with the socket when the air-cooled 4CX1000A is to be employed.

When this socket is used, connection is made to each of the tube electrodes except the anode. The SK-890B is humidity and salt-spray resistant.

The SK-890B is an improved version of the SK-890 and directly replaces the SK-890 in any equipment. The SK-890B features a stronger, one-piece base and improved contact tabs.

**BASE CONNECTIONS**

The SK-890B socket consists of three sets of spring-finger contact tabs for each tube electrode (to assure low-inductance contact), a center guide pin to facilitate tube installation, and an integral screen by-pass capacitor. The terminals are shown on the outline drawing.

When this socket is mounted on a grounded chassis, the cathode and one side of the heater will be automatically grounded. A grounding terminal is provided and may be used for positive connection if desired.

**SCREEN-GRID BY-PASS CAPACITOR**

This capacitor utilizes Mylar film as a dielectric and is encapsulated in silicone resin. Its capacitance is 1500 pF  $\pm$ 20 percent and it is rated at 400 dc working volts. The socket is so orientated that the three sets of spring finger contacts which connect to the screen-grid tabs of the tube are not connected to the upper, ungrounded side of the screen-grid capacitor. A series of six holes are provided to the upper capacitor deck to allow the installation of the screen neutralizing device; this device is connected between each of the solder terminals provided in the screen spring finger contacts and the upper capacitor deck. The lower capacitor deck is connected directly to the socket body.

**MATERIALS AND FINISHES**

The metal shell, or body, of the socket is fabricated of silver-plated brass, while the mounting base and centering pin are a one-piece, nickel-plated die-casting. All contacts are formed of a non-ferrous alloy, heat-treated and silver-plated. Contact insulating material is high-temperature ceramic.

**INSTALLATION**

The SK-890B Air-System Socket is designed for under-chassis mounting and requires a 5-1/16 inch hole through the chassis deck. The socket is held in place by the three toe clamps provided. One side of the screen-grid by-pass capacitor is automatically grounded to the chassis when this mounting method is used.

**AIR CHIMNEY**

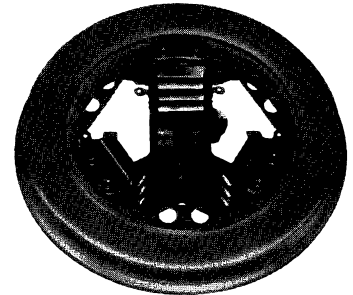
The SK-806 Air Chimney is moulded of fiberglass-reinforced silicone resin. It effectively directs the flow of air to the anode cooling fins with minimum pressure drop and is recommended for use with each SK-890B when the air-cooled 4CX1000A is to be socketed.

**SK-890B**

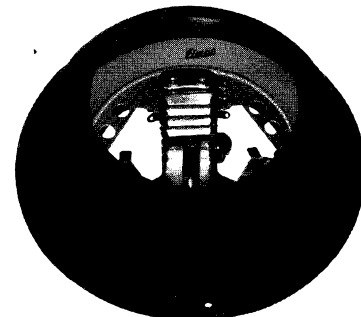
Net Weight . . . . . 18 ounces

**SK-806**

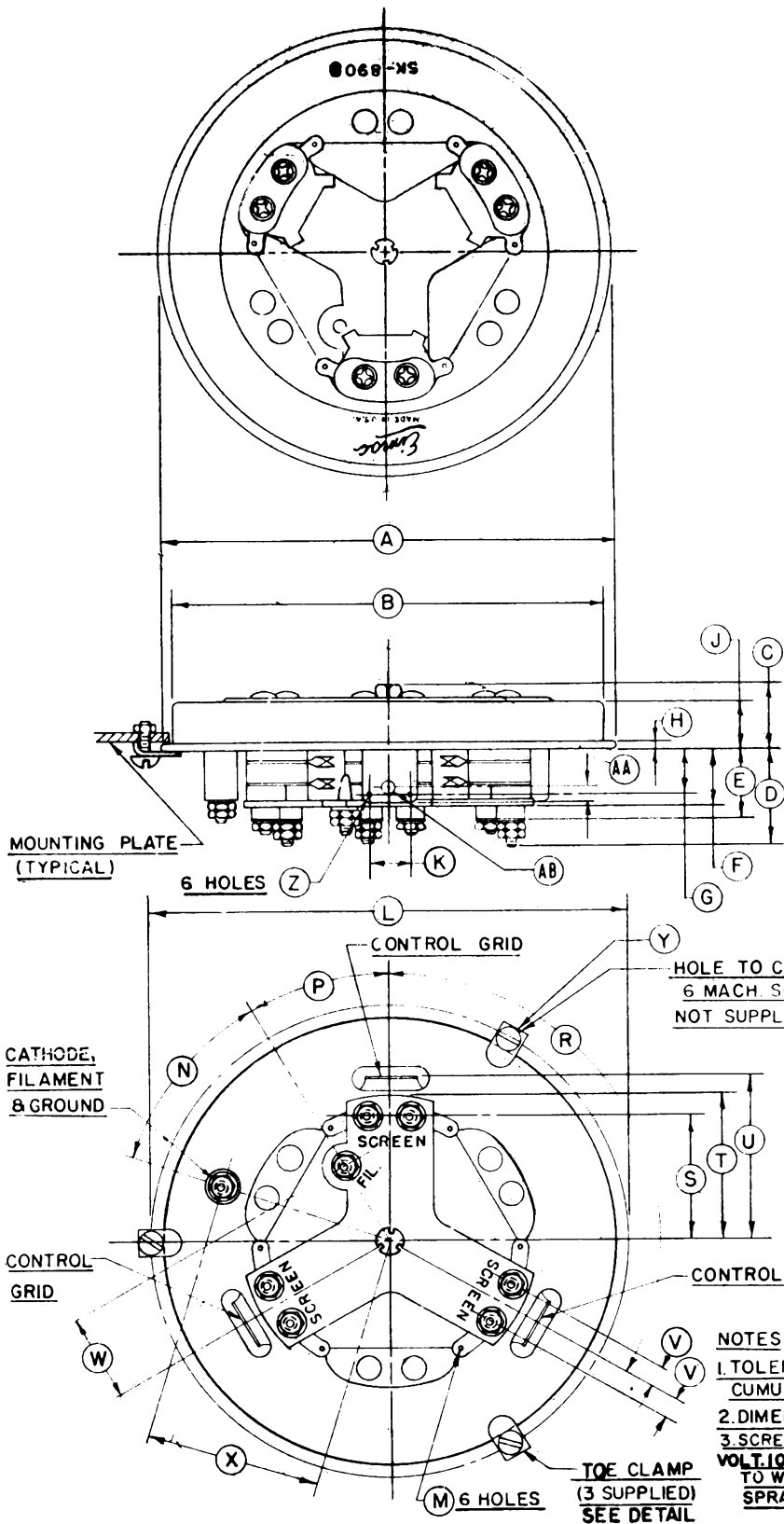
Net Weight . . . . . 3-1/4 ounces  
 Maximum Height . . . . . 1-7/8 inches  
 Maximum Diameter . . . . . 6-1/8 inches



SK-890B



SK-890B WITH CHIMNEY



DIMENSION DATA			
DIM.	MIN.	MAX.	REF.
A	5.290	5.330	
B	5.010	5.047	
C	.790	.860	
D	.990	1.130	
E			.660
F	.550	.590	
G	.420	.500	
H	.110	.140	
J	.500	.540	
K	.422	.452	
L			5.595
M	.057 DIA.	.077 DIA.	
N	40°	42°	
P	29°	31°	
R	119°	112°	
S	1.485	1.530	
T	1.699	1.739	
U	1.917	1.957	
V	.245	.255	
W	1.052	1.072	
X	2.052	2.072	
Y	.142 DIA.		
Z	.078 DIA.	.108 DIA.	
AA			.234
AB	.156 DIA.	.186 DIA.	
AC	.125 R.	.187 R.	
AD	.142	.146	
AE	.292	.332	
AF	.292	.332	
AG	.105	.145	
AH	.417	.457	
AJ	80°	100°	
AK		.062 R.	

**NOTE:**  
 REF. DIMS ARE FOR INFO. ONLY  
 & ARE NOT REQD FOR INSP.  
 PURPOSES.

- NOTES**
1. TOLERANCES ARE NOT CUMULATIVE.
  2. DIMENSIONS IN INCHES
  3. SCREEN GRID CAP. 1500 ± 20% mfd
- VOLT. 1000VDC TEST, 100WVDC INSUL.**  
 TO WITHSTAND HUMIDITY & SALT  
 SPRAY PER MIL-STD-202B



**E I M A C**  
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C A L I F O R N I A

**SK-900**  
SOCKET  
and  
**SK-906**  
CHIMNEY

The EIMAC SK-900 Air-System Socket and companion SK-906 Air Chimney are intended for use with the EIMAC 4X500A. The socket makes connection to each of the tube electrodes except the anode. A screen-grid by-pass capacitor is incorporated as an integral part of the socket.

### BASE CONNECTIONS

Filament, control-grid, and screen-grid pins of the tube are engaged by four self-aligning pin-jacks supported in a disk of low-loss material and terminating in 10-32 studs. The connecting leads to these studs must be sufficiently flexible to allow free movement of the pin-jacks or the self-aligning feature will be impaired. The supporting insulating disk rests on a shoulder turned into the bottom of the socket body and is held in place by four machine screws which act as clamps. This design permits the insulation and terminal assembly to be rotated to any convenient position and clamped firmly in place.

### SCREEN-GRID BY-PASS CAPACITOR

This capacitor utilizes polyester film as the dielectric and is encapsulated in epoxy resin. The capacitance is  $650 \mu\text{mf} \pm 20\%$  and is rated at 700 working volts. One side of the by-pass capacitor contacts the screen-grid flange of the tube through eight spring fingers and the other side is directly connected to the socket body.

### INSTALLATION

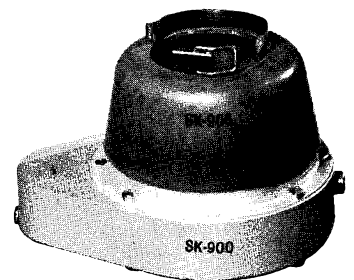
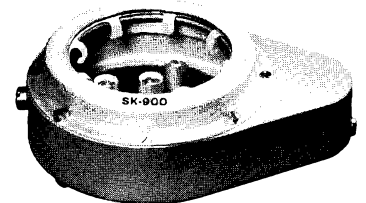
The SK-900 Air-System Socket is designed for under-chassis mounting and requires a  $3\frac{5}{8}$ -inch hole through the chassis deck. The socket is held in place by four 8-32 machine screws running through the chassis and into tapped holes in the cast aluminum socket body. One side of the screen-grid by-pass capacitor is automatically grounded to the chassis when this mounting method is used.

An air blower may be connected to the socket air-inlet by means of a duct terminating in a cylindrical fitting of  $1\frac{1}{4}$ -inch OD or the entire chassis may be pressurized.

Pressure drop across the socket and tube (with SK-906 installed) may be measured by a manometer arranged to indicate the pressure difference between the air in the socket (or pressurized chassis) and the surrounding air. A  $\frac{1}{4}$ -28 tapped hole is provided in the socket body to facilitate the installation of a fitting. A suitable fitting will have a hole diameter of approximately  $\frac{1}{64}$ -inch and when installed, must be flush with the inner wall of the socket to avoid inaccurate pressure measurements.

### SK-906 AIR CHIMNEY

The air chimney is molded of fiber-glass reinforced silicone resin and fitted with an anode clamp. It effectively directs the flow of air to the anode cooling fins with minimum pressure drop and is recommended for use with each SK-900 Air-System Socket.





## TECHNICAL DATA

SK-1300  
SK-1310  
SK-1320

AIR-SYSTEM  
SOCKETS

These sockets have been designed for use with the tube types listed below. The SK-1300 and the SK-1320 are intended for mounting on a pressurized chassis or plenum, allowing air-cooling of the tube base and terminals.

### BASE CONNECTIONS

All these sockets are provided with three concentric rings of spring contact fingers for making contact to the filament and the grid of the coaxial triodes listed below.

The filament contact fingers are terminated on two bus connections to insure good high frequency current distribution. Each of these two bus rings is provided with two lugs for making external connections.

The grid spring-finger contacts are terminated on a heavy support assembly. The grid contact assembly is insulated from the socket mounting cup in the SK-1300; it is grounded to the cup in the SK-1320, for grounded-grid operation. The SK-1310 is a version intended for use with vapor-cooled versions of these coaxial triodes and has no grounded contacts.

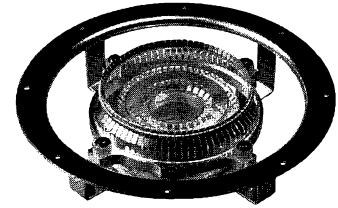
### MATERIALS AND FINISHES

The contact fingers are non-ferrous spring alloy, heat-treated for positive spring action and silver-plated for good rf conductivity. The main socket body and cup assemblies are made of brass and are also silver plated.

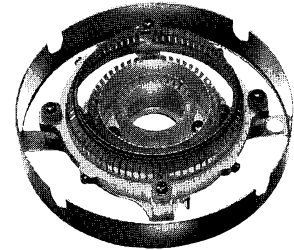
### INSTALLATION

The SK-1300 and SK-1320 are supported by the socket cup on a pressurized compartment or chassis. A 7-1/8 inch diameter hole is required in the supporting chassis or plenum and the socket is secured by eight #6 machine screws on a 7-3/4 inch pitch circle. The socket cup on both these sockets is open so that air may be directed through them for cooling of the tube base terminals.

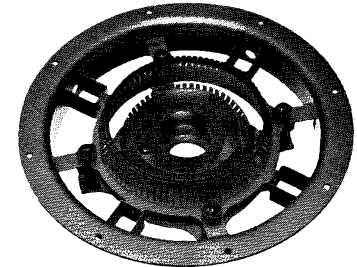
The SK-1310, which is designed for use on vapor-cooled versions of these tubes, has no mounting/support cup; it is held into place on the base of the tube only by its contact finger assemblies for the grid and filament.



SK-1300



SK-1310



SK-1320

(Revised 3-1-72) © 1963, 1966, 1972 Varian

Printed in U.S.A.

**CHIMNEY**

A companion Air-Chimney, the SK-1306, is available for use with the SK-1300 and SK-1320 and some of the air-cooled triode types, as listed below. The chimney is mounted above the chassis deck and is installed using the same eight mounting screws used for securing the socket to the chassis or deck.

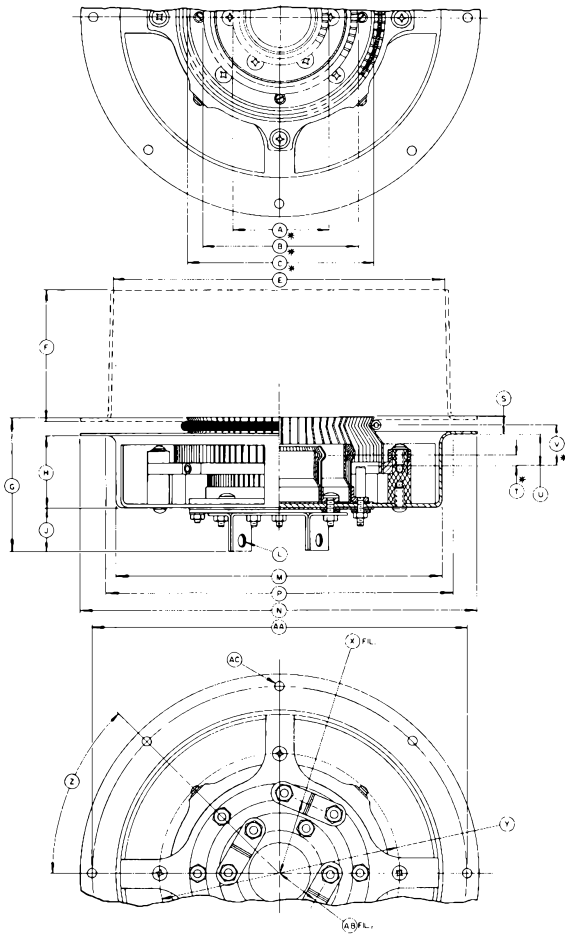
Use of an Air-Chimney allows simplified cooling of the tube; air forced through the socket is directed through the chimney and then through the tube's anode cooling fins.

**SOCKET/CHIMNEY/TUBE TYPE GUIDE**

SOCKET	TUBE TYPE NUMBER	RECOMMENDED AIR CHIMNEY
SK-1300 and SK-1320	3CW10,000A3	none - water cooled tube
	3CW20,000A1	none - water cooled tube
	3CW20,000A3	none - water cooled tube
	3CW20,000A7	none - water cooled tube
	3CW25,000A3	none - water cooled tube
	3CX5000A3	special - EIMAC Y-463
	3CX10,000A1/8158	SK-1306
	3CX10,000A3/8159	SK-1306
	3CX10,000A7/8160	SK-1306
	3CX15,000A3	SK-1306
3CX20,000A3	none available	
SK-1310	3CV30,000A1	none - vapor cooled tube
	3CV30,000A3	none - vapor cooled tube

**NET WEIGHTS**

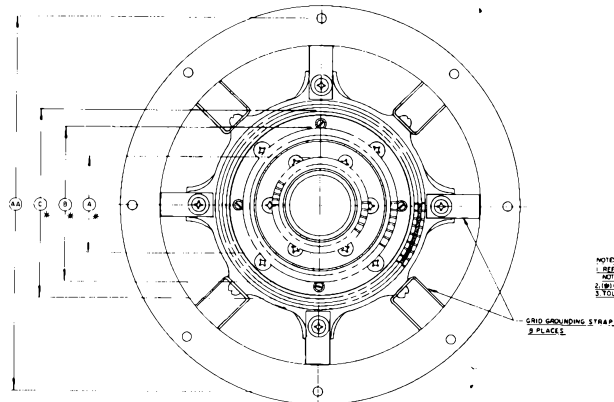
SK-1300, SK-1310, SK-1320 ..... 2.3 lbs; 1.04 kg



DIM.	INCHES			MILLIMETERS		
	MIN.	MAX.	REF.	MIN.	MAX.	REF.
A	1.990	2.070	--	50.55	52.58	--
B	3.240	3.320	--	82.30	84.33	--
C	3.700	3.770	--	93.98	95.76	--
E	7.030	7.125	--	178.56	180.97	--
F	3.590	3.690	--	91.19	93.73	--
G	2.710	2.835	--	68.83	72.01	--
H	1.440	1.530	--	36.58	38.86	--
J	0.890	0.960	--	22.61	24.38	--
L	0.235	0.265	--	5.97	6.73	--
M	6.720	6.780	--	170.69	172.21	--
N	8.220	8.280	--	208.79	210.31	--
P	7.060	7.190	--	179.32	182.63	--
S	0.270	0.395	--	6.86	10.03	--
T	0.185	0.285	--	4.70	7.24	--
U	0.580	0.700	--	14.73	17.78	--
V	0.760	0.865	--	19.30	21.97	--
X	1.500	1.620	--	38.10	41.15	--
Y	4.970	5.030	--	126.24	127.76	--
Z	43°	47°	--	43°	47°	--
AA	7.730	7.770	--	196.34	197.36	--
AB	0.860	0.980	--	21.84	24.89	--
AC	0.140	0.154	--	3.56	3.91	--

NOTES:  
 1. REF. DIMS ARE FOR INFO ONLY AND ARE NOT REQD FOR Insp. PURPOSES.  
 2. ENCLAVING SURFACES.  
 3. TOLERANCES ARE NOT CUMULATIVE.

SK-1300

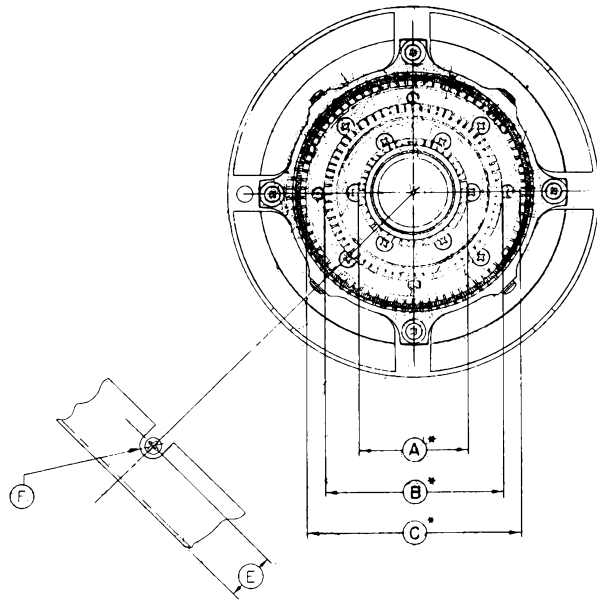


NOTES:  
 1. REF. DIMENSIONS ARE FOR INFO ONLY & ARE NOT REQUIRED FOR INSPECTION PURPOSES.  
 2. ENCLAVING SURFACES.  
 3. TOLERANCES ARE NOT CUMULATIVE.

SEMI-GRINDING STRAP, 2 PLACES

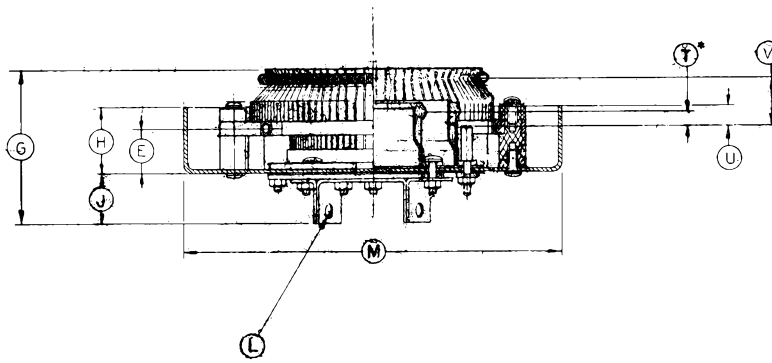
DIM.	INCHES			MILLIMETERS		
	MIN.	MAX.	REF.	MIN.	MAX.	REF.
A	1.990	2.070	--	50.55	52.58	--
B	3.240	3.320	--	82.30	84.33	--
C	3.700	3.770	--	93.98	95.76	--
E	7.030	7.125	--	178.56	180.97	--
F	3.590	3.690	--	91.19	93.73	--
G	2.710	2.835	--	68.83	72.01	--
H	1.440	1.530	--	36.58	38.86	--
J	0.890	0.960	--	22.61	24.38	--
L	0.235	0.265	--	5.97	6.73	--
M	6.720	6.780	--	170.69	172.21	--
N	8.220	8.280	--	208.79	210.31	--
P	7.060	7.190	--	179.32	182.63	--
S	0.270	0.395	--	6.86	10.03	--
T	0.185	0.285	--	4.70	7.24	--
U	0.580	0.700	--	14.73	17.78	--
V	0.760	0.865	--	19.30	21.97	--
X	1.500	1.620	--	38.10	41.15	--
Y	4.970	5.030	--	126.24	127.76	--
Z	43°	47°	--	43°	47°	--
AA	7.730	7.770	--	196.34	197.36	--
AB	0.860	0.980	--	21.84	24.89	--
AC	0.140	0.154	--	3.56	3.91	--

SK-1320

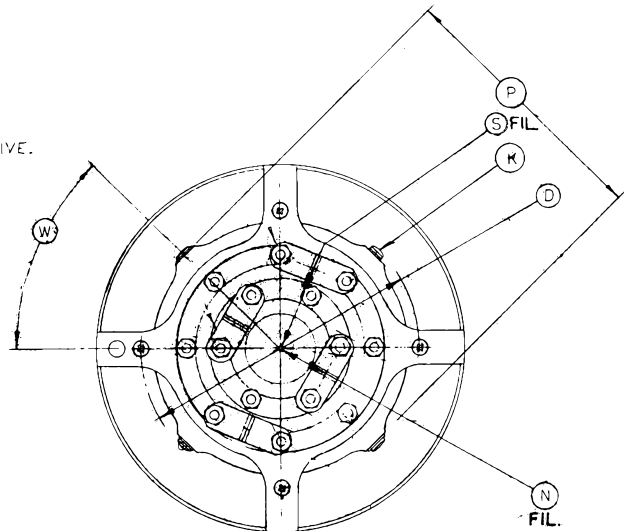


DIM	INCHES			MILLIMETERS		
	MAX	MIN	REF	MIN	MAX	REF
A	2.061	2.001	--	50.82	52.35	--
B	3.311	3.251	--	82.57	84.10	--
C	3.732	3.672	--	93.27	94.79	--
D	5.030	4.970	--	126.24	127.76	--
E	0.890	0.860	--	21.84	22.61	--
F	0.267	0.233	--	5.92	6.78	--
G	2.835	2.710	--	68.83	72.01	--
H	1.187	1.156	--	29.36	30.15	--
J	0.960	0.890	--	22.61	24.38	--
K	6-32 NC					
L	1/4 DIA HOLE			6.35 DIA HOLE		
M	6.780	6.720	--	170.69	172.21	--
N	0.960	0.860	--	21.84	24.89	--
P	4.690	4.620	--	117.35	119.13	--
S	1.620	1.500	--	38.10	41.15	--
T	0.285	0.185	--	4.70	7.24	--
U	0.314	0.290	--	7.11	7.97	--
V	0.856	0.826	--	20.98	21.74	--
W	47°	43°	--	43°	47°	--

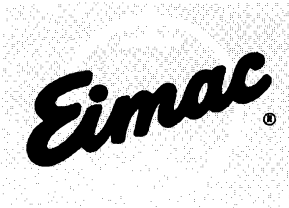
SK-1310



- NOTES:  
 1. ALL DIMENSIONS ARE IN INCHES.  
 2. TOLERANCES ARE NOT CUMULATIVE.  
 • 3. CONTACT SURFACES.







**E I M A C**  
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 S A N C A R L O S  
 C A L I F O R N I A

**SK-1306**  
**SK-1406**  
 AIR-SYSTEM  
 CHIMNEYS

The SK-1306 and SK-1406 Air-System Chimneys are intended for use with the tube and socket combinations listed below. They are used to direct cooling air to the tube's anode cooling fins after it has been forced through the companion Air-System Socket.

**MATERIALS**

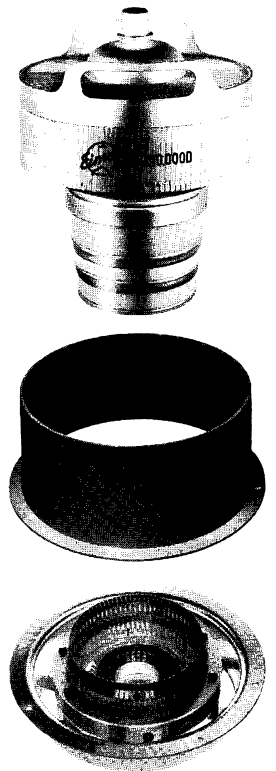
These chimneys are molded from a grey, thermosetting polyester premix compound per MIL-R-7675.

**INSTALLATION**

The SK-1306 and SK-1406 Air-System Chimneys are mounted above the chassis or pressurized compartment, directly over the companion socket. The chimneys are secured by the eight equally spaced machine screws on a  $7\frac{3}{4}$ " P.C. that are used to install the socket.

**CHIMNEY/TUBE/SOCKET COMBINATIONS**

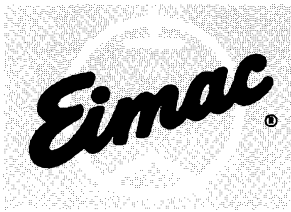
CHIMNEY	TUBE	SOCKET
SK-1306	3CX10,000A1 3CX10,000A3 3CX10,000A7	SK-1300
	4CX10,000D	SK-300 SK300A
SK-1406	4CX3000A	SK-1400A SK-1470A



SK-1306 Chimney shown with 4CX10,000 and SK-300 socket

Net Weight - - - - - SK-1306 — 8 ounces  
 SK-1406 — 7 ounces

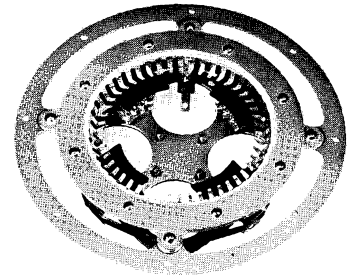




**E I M A C**  
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 S A N C A R L O S  
 C A L I F O R N I A

**SK-1400A**  
**SK-1470A**  
**AIR-SYSTEM**  
**SOCKETS**

The EIMAC SK-1400A and SK-1470A Air-System Sockets are intended for use with the 4CX3000A and the 4CV8000A. The SK-1400A incorporates an integral screen by-pass capacitor and has no grounded contacts. The SK-1470A does not include a by-pass capacitor but does have the screen contacts grounded to the socket mounting plate.



**BASE CONNECTIONS**

A continuous screen grid contact finger assembly is provided for making contact with the solid screen ring flange on the 4CX3000A or 4CV8000A. Grid and filament connections to the tube are made by four rows of contact tab assemblies that provide for breech-block electrical and mechanical contact.

Each grid contact is terminated in two machine screws at the bottom of the socket base. Filament connections are to a terminal strap and to the socket base.

**BY-PASS CAPACITOR**

The SK-1400A is provided with an integral 1800 picofarad screen by-pass capacitor rated at 1000 volts dc. The screen contact fingers are attached to one side of this capacitor. The SK-1470A does not contain this capacitor; instead the screen contacts are grounded directly to the socket shell.

**INSTALLATION**

When mounted on a chassis or pressurized compartment, a 7¼" diameter hole is required for the socket. The socket is secured by eight #6 screws on a 7¾" bolt circle. These same screws are used to install the companion SK-1406 chimney used with the air-cooled 4CX3000A.

**MATERIALS**

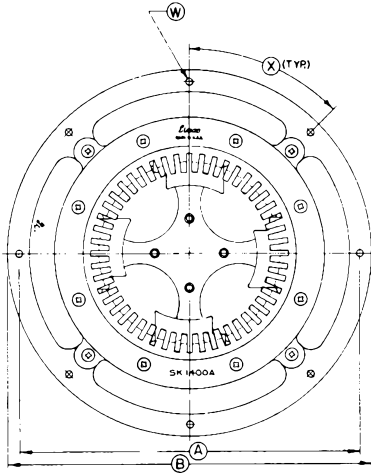
The contact fingers and tabs are non-ferrous spring alloy, heat-treated and silver-plated. The socket body is made of silver-plated brass.

**CHIMNEY**

The SK-1406 chimney is available for use with the SK-1400A or SK-1470A and the air-cooled 4CX3000A. It effectively directs air that has passed through the socket into the anode cooling fins.

*Note:* Where a "floating" socket is desired — especially for the 4CV8000A—the SK-1490 is available. This is a SK-1470 without the mounting ring and is intended for use where the tube is fixed and the socket is to be removable.

Net Weight - - - - - 30 ounces



DIMENSIONAL DATA			
REF.	MAX.	MIN.	NOM.
A	7.766 DIA. P.C.	7.734 DIA. P.C.	
B	8.266 DIA.	8.234 DIA.	
C	.354	.312	
D	1.697	1.657	
E	5.540	5.509	
F	.141 DIA.	.109 DIA.	
H	.176	.166	
J	4.207	4.197	
K	2.106	2.096	
L	.506	.494	
M	.253	.247	
N	1.266	1.234	
P	2.203	2.171	
R	.208 DIA.	.198 DIA.	
S	.181	.169	
T	.445	.425	
U	.729	.701	
V	1.122	1.090	
W	.153 DIA.	.142 DIA.	
X	46°	44°	

CHIMNEY  
(ACCESSORY PART)

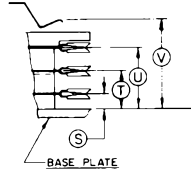
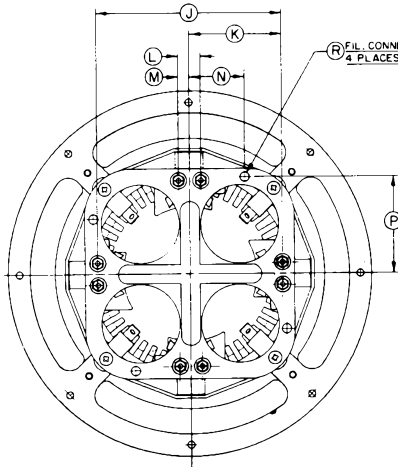
MOUNTING  
PLATE

SCREEN  
CONNECTION  
4 PLACES

4-40 THD.  
CONTROL GRID CONNECTION

FIL. CONNECTION  
4 PLACES

FIL. CONNECTION  
4 PLACES

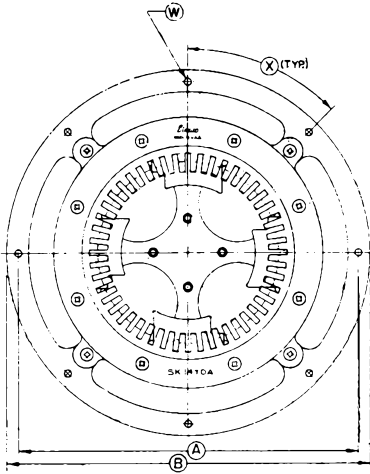


CONTACT DIMENSIONS

SK-1400A



SK-1400A, SK-1470A



DIMENSIONAL DATA			
REF	MAX.	MIN.	NOM.
A	7.766 DIA PC	7.734 DIA PC	
B	8.266 DIA	8.234 DIA	
C	.354	.312	
D	1.697	1.657	
E	5.540	5.509	
F	.141 DIA	.139 DIA	
H	.176	.166	
J	4.207	4.197	
K	2.106	2.096	
L	.506	.494	
M	.253	.247	
N	1.266	1.234	
P	2.203	2.171	
R	.208 DIA	.198 DIA	
S	.181	.169	
T	.445	.425	
U	.729	.701	
V	1.122	1.090	
W	.152 DIA	.142 DIA	
X	46°	44°	

CHIMNEY  
(ACCESSORY PART)

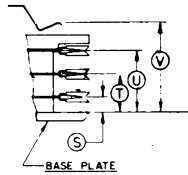
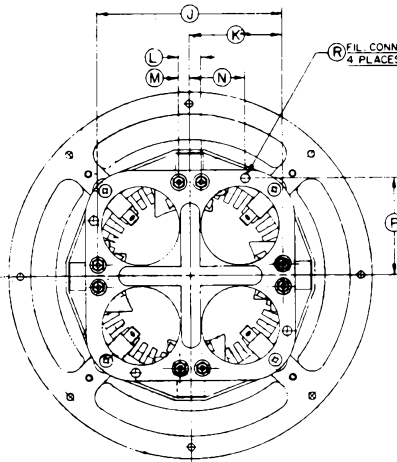
MOUNTING  
PLATE

SCREEN  
CONNECTION  
4 PLACES

4-40 TND.  
CONTROL GRID CONNECTION

(H) FIL. CONNECTION  
4 PLACES

(R) FIL. CONNECTION  
4 PLACES



CONTACT DIMENSIONS

SK-1470A



TECHNICAL DATA

SK-2200  
SK-2210  
AIR SYSTEM SOCKET  
SK-2216  
AIR CHIMNEY

The EIMAC SK-2200 and SK-2210 are air-system sockets recommended for use with the EIMAC 8877/3CX1500A7 triode. A companion chimney is available, which will operate with either socket.

With these sockets, connection is made to each tube element except the anode.

No contacts are grounded on the SK-2200, while the SK-2210 has the grid contacts grounded to the equipment chassis when installed.

**INSTALLATION**

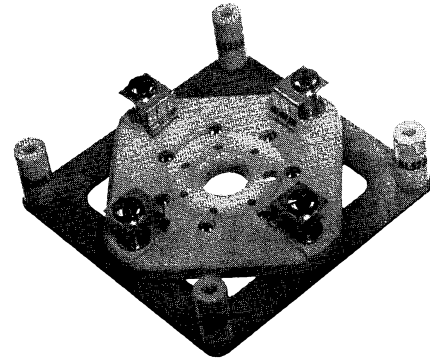
The SK-2200 and SK-2210 are designed for under-chassis mounting, and require a 3¼ inch hole through the chassis deck. Each socket is held in place by four 6-32 screws.

**AIR CHIMNEY**

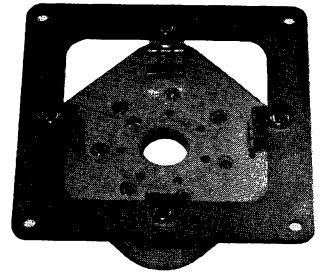
The SK-2216 chimney is made of low-loss teflon. It is held in place with four toe clamps which are supplied with the chimney.

**NET WEIGHTS**

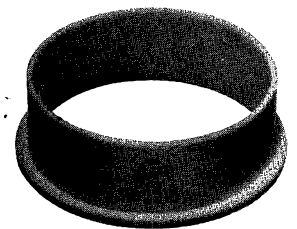
SK-2200 Socket	4.5oz; 128 gm
SK-2210 Socket	4.0 oz; 113 gm
SK-2216 Chimney	2.0 oz; 56.7 gm



SK-2200

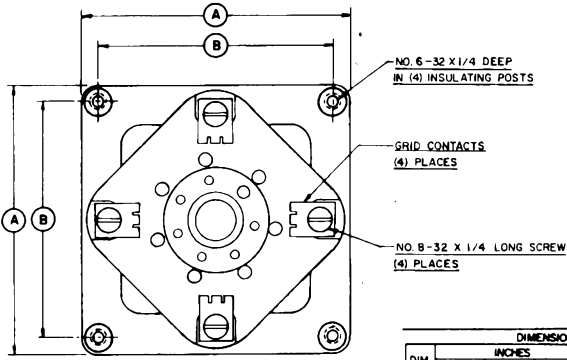


SK-2210

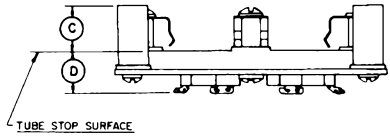
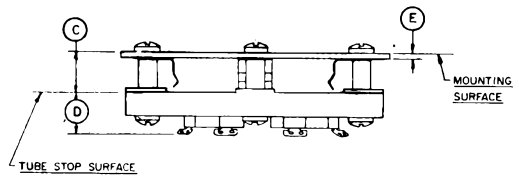
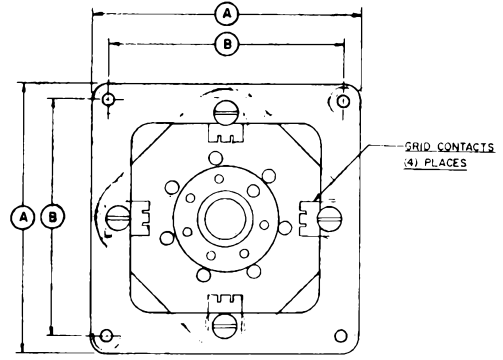


SK-2216

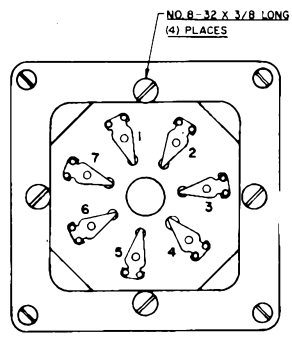
# SK-2200/SK-2210



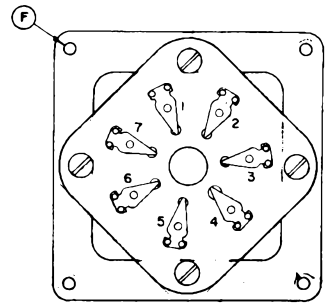
DIM.	INCHES			MILLIMETERS		
	MIN.	MAX.	REF.	MIN.	MAX.	REF.
A	3.373	3.413	--	85.67	86.70	--
B	2.953	2.983	--	75.01	75.77	--
C	0.500	0.550	--	12.70	13.97	--
D	--	0.630	--	--	16.00	--



- NOTES**
- REF DIMENSIONS ARE FOR INFO ONLY & ARE NOT REQUIRED FOR INSPECTION PURPOSES.
  - CONNECTIONS:
    - 1-HEATER
    - 2-CATHODE
    - 3-CATHODE
    - 4-CATHODE
    - 5-HEATER
    - 6-CATHODE
    - 7-CATHODE
  - GRID CONTACTS INSULATED FROM GROUND & OTHER ELEMENTS.



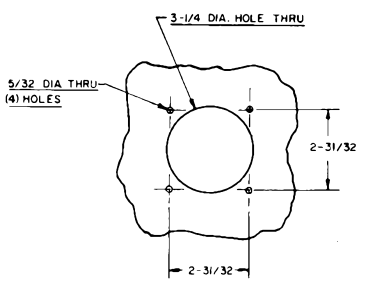
SK-2200 Socket



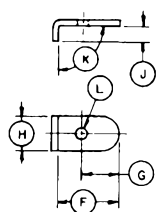
SK-2210 Socket

DIM.	INCHES			MILLIMETERS		
	MIN.	MAX.	REF.	MIN.	MAX.	REF.
A	3.373	3.413	--	85.67	86.70	--
B	2.953	2.983	--	75.01	75.77	--
C	0.474	0.553	--	12.04	14.05	--
D	--	0.630	--	--	16.00	--
E	--	--	0.063	--	--	1.60
F	0.140	0.149	--	3.56	3.78	--

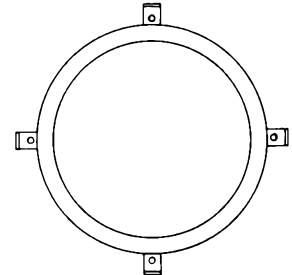
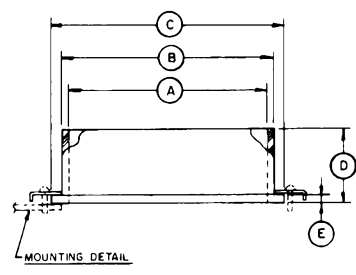
- NOTES**
- REF DIMENSIONS ARE FOR INFO ONLY & ARE NOT REQUIRED FOR INSPECTION PURPOSES.
  - CONNECTIONS:
    - 1-HEATER
    - 2-CATHODE
    - 3-CATHODE
    - 4-CATHODE
    - 5-HEATER
    - 6-CATHODE
    - 7-CATHODE
  - GRID CONTACTS GROUNDED TO MOUNTING PLATE.



CHASSIS CUT OUT FOR MOUNTING & REQUIRED COOLING AIR FLOW.



TOE CLAMP DETAIL (4) SUPPLIED P/N 889901



SK-2216 Chimney

DIM.	INCHES			MILLIMETERS		
	MIN.	MAX.	REF.	MIN.	MAX.	REF.
A	3.385	3.415	--	85.98	86.74	--
B	3.532	3.592	--	89.71	91.24	--
C	3.907	3.967	--	99.24	100.76	--
D	1.220	1.280	--	30.99	32.51	--
E	0.110	0.140	--	2.79	3.56	--
F	0.417	0.457	--	10.59	11.61	--
G	0.292	0.332	--	7.42	8.43	--
H	0.292	0.332	--	7.42	8.43	--
J	0.105	0.145	--	2.67	3.68	--
K	80°	100°	--	80°	100°	--
L	0.142	0.146	--	3.61	3.71	--

- NOTES**
- REF DIMENSIONS ARE FOR INFO ONLY & ARE NOT REQUIRED FOR INSPECTION PURPOSES.
  - MATERIALS:
    - a. CHIMNEY: TEFLON TFE
    - b. TOE CLAMP: BRASS - SILVER PLATED