



THE KRAISSL COMPANY INCORPORATED
Technical Instructions to Users of Kraissl Model 72
Simplex and Duplex Strainers and Filters
for Underwriter's Laboratories (U.L.) Specifications #331

1. Basket (element) Markings:

The "bail" or handle of each Kraissl strainer element or "basket" is stamped with markings which indicate the open area to the nearest square inch of that particular basket, and the size of the perforations, as well as the mesh liner, if any. The following examples show how to interpret these markings:

1a. Perforated Baskets

Perforated baskets with no mesh liner are marked with the hole diameter of the perforations, and the total open area.

Example (1) 1/32" - 29" or "1-32 - 29"

indicates that the basket has 1/32-inch perforations, and a total open area of 29 square inch.

Example (2) ".057 - 18"

indicates that the basket has .057-inch perforations, and an open are of 18 square inches.

1b. Mesh-Lined Baskets

Baskets which employ a wire mesh liner inside of a perforated backup material are also marked accordingly. The markings on the "bail" or handle indicate the wire mesh size and the wire diameter of the mesh, in addition to the size of the backup perforations and the open are of the combination. The following examples show how to interpret these markings.

Example (1) "1/16" - 40/100 - 18" or "1-16 - 40-100 - 18"

indicates 1/16-inch perforations with a wire cloth liner having 40 mesh made of 0.0100-inch diameter wire, and the combination resulting in an open area of 18 square inches.

Example (2) "5/32 - 100 - 45 - 12" or "5-32 - 100 - 45 - 12"

indicates 5/32-inch perforations with a wire cloth liner having 100 mesh made of 0.0045-inch diameter wire, and the combination resulting in an open area of 12 square inches.

2. Capacity of Baskets

2a. The effective open areas of different baskets will vary depending on the size and number of perforations, and the mesh and wired size of the wire cloth is so constructed. The resulting effective open area is marked on each basket as described above. Thus, it is the particular basket specifications which limit the maximum capacity allowed a for U.L. governed application.

2b. For oil burner strainers, according to U.L. 331, section 4.1, " The strainer element of the wire cloth, perforated, or plate type shall have a maximum orifice (diameter) size of (1) 0.027-inch (0.69mm) if the strainer is intended for use with No. 1 or 2 grade fuel oil, and (2) 0.056-inch (1.42mm) if the strainer is intended for use with No.4,5, or 6 grade fuel oil service." The following table shows the maximum allowable capacity in gallons per hour (GPH) as a function of the same open area of any basket.



U.L. STRAINER ELEMENT FLOW CAPACITY

MAXIMUM FIRING RATE, GPH

<u>OPEN AREA</u>	<u>NO. 1 OIL</u>	<u>NO. 2 OIL</u>	<u>NO. 4,5 AND 6 OIL</u>
3.0	6.0	3.0	—
4.2	8.4	5.5	—
4.3	8.7	5.8	—
6.1	14.3	8.6	7.5
7.5	20.0*	20.0	11.5
9.9	20.0*	21.0	17.0
10.7	20.0*	24.0	19.0
10.8	20.0*	24.5	19.5
12.7	20.0*	31.5	24.0
14.1	20.0*	36.5	28.0
15.3	20.0*	40.0*	35.0
18.2	20.0*	40.0*	75.0
18.5	20.0*	40.0*	78.0
19.3	20.0*	40.0*	93.0
20.0*	20.0*	40.0*	100.0*

* or greater

NOTE: Use linear interpolation for intermediate values.

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