LVJ:MM
II-1

DEPARTMENT OF COMMERCE
BUREAU OF STANDARDS
WASHINGTON

Letter
Circular
LC 58

(March 31, 1923)

Information Section
Bureau of Standards, Washington

SPECIFICATIONS FOR THREE-INCH SIEVES

Paragraph 1.- Wire cloth for three-inch sieves shall conform to the specifications for cloth of sieves of the United States Standard Sieve Series. The cloth shall be woven (not twilled, except that the cloth of No. 230 (.062 mm), No. 270 (.053 mm), and the No. 325 (.044 mm) sieve, may be twilled until further notice), from brass, bronze, or other suitable wire and mounted on the frames without distortion. A table of the fundamental data relating to cloth of the U. S. Standard Sieve Series is attached. The number of the cloth as given in the table should be indicated on each sieve frame.

Paragraph 2.- To prevent the material being sieved from catching in the joint between the cloth and the frame, the joint shall be smoothly filled with solder, or so made that the material will not catch. The sieve frames should be circular, about 7.6 cm (3 inches) inside diameter and shall not vary from this by more than 0.4 cm (0.16 inches). The depth of the sieve from the top of the frame to the cloth shall not be less than 1.9 cm (0.75 inches). It is recommended that the frames be constructed of first quality sheet brass in such a manner as to be permanently rigid. The weight of the completed sieve must not exceed 49 grams.

Paragraph 3.- The opening of any given sieve should be that given in Column 2 of the attached table, and shall not differ from this amount by more than the "Tolerance in average opening" given in Column 6. The diameter of the wires of the cloth of any given sieve should be that given in Column 4 of the attached table, and the average diameter of the wires shall not differ from this amount by more than "Tolerance in wire diameter" given in Column 7. No opening between adjacent parallel wires shall be greater than the nominal width of opening for that sieve by more than the "Tolerance in maximum opening" given in Column 8 of the attached table.

Paragraph 4.- The Bureau of Standards also reserves the right to reject sieves for obvious imperfections in the sieve cloth or its mounting, as for example, punctured, loose, or wavy cloth, imperfections in soldering, etc.

Paragraph 5.- The Bureau of Standards will issue a report on each three-inch sieve submitted to it for test. This report will state whether or not the sieve conforms to these specifications and if found not to conform, the report will state whether it does not conform. Sieves conforming to these specifications will be stamped by the Bureau of Standards with the letters "B.S." above the year in which the test is made; thus BS
1923

TABLE OF FUNDAMENTAL DATA

STANDARD SPECIFICATIONS FOR SIEVES

Sieve No.	Sieve Opening Millimeters	Sieve Opening Inches	Wire Diameter Millimeters	Wire Diameter Inches	Tolerance in average opening	Tolerance in Wire Diameter	Tolerance in maximum Opening
2-1/2	8.00	.315	1.85	.073	1%	5%	10%
3	6.73	.265	1.65	.065	1%	5%	10%
3-1/2	5.66	.223	1.45	.057	1%	5%	10%
4	4.76	.187	1.27	.050	1%	5%	10%
5	4.00	.157	1.12	.044	1%	5%	10%
6	3.36	.132	1.02	.040	1%	5%	10%
7	2.83	.111	.92	.036	1%	5%	10%
8	2.38	.0937	.84	.0331	2%	5%	10%
10	2.00	.0787	.76	.0299	2%	5%	10%
12	1.68	.0661	.69	.0272	2%	5%	10%
14	1.41	.0555	.61	.0240	2%	5%	10%
16	1.19	.0469	.54	.0213	2%	5%	10%
18	1.00	.0394	.48	.0189	2%	5%	10%
20	.84	.0331	.42	.0165	3%	5%	25%
25	.71	.0280	.37	.0146	3%	5%	25%
30	.59	.0232	.33	.0130	3%	5%	25%
35	.50	.0197	.29	.0114	3%	5%	25%
40	.42	.0165	.25	.0098	3%	5%	25%
45	.35	.0138	.22	.0087	3%	5%	25%
50	.297	.0117	.188	.0074	4%	10%	40%
60	.250	.0098	.162	.0064	4%	10%	40%
70	.210	.0083	.140	.0055	4%	10%	40%
80	.177	.0070	.119	.0047	4%	10%	40%
100	.149	.0059	.102	.0040	4%	10%	40%
120	.125	.0049	.086	.0034	4%	10%	40%
140	.105	.0041	.074	.0029	5%	15%	60%
170	.088	.0035	.063	.0025	5%	15%	60%
200	.074	.0029	.053	.0021	5%	15%	60%
230	.062	.0024	.046	.0018	5%	15%	60%
270	.053	.0021	.041	.0016	5%	15%	60%
325	.044	.0017	.036	.0014	5%	15%	60%

Note: In order to utilize cloth now on the market, it will be permissible, until further notice is given to the contrary, to use wire whose diameter is within a tolerance of 10% for the first three groups and 20% for the last two groups. Until notice is given to the contrary, the allowable tolerances on average openings will be 50% more than those given in the above table.

Washington, D. C. BUREAU OF STANDARDS