

DEPARTMENT OF COMMERCE
BUREAU OF STANDARDS
WASHINGTON, D. C.Letter
Circular
IC 52
(Revised March 1,
1925)

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, No. 270, and the No. 325 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 average opening between the adjacent warp and the adjacent shoot wires, taken separately, shall be that given in column 2 of the attached table, within the "Tolerance in average opening" given in column 6. The average diameter of the warp and of the shoot wires, taken separately, of the cloth of any given sieve shall be that given in column 4 of the attached table within the "Tolerance in wire diameter" given in column 7. The maximum opening between adjacent parallel wires shall not exceed the nominal width of opening for that sieve by more than the "Tolerance in maximum opening" given in column 8 of the attached table. While the tolerances in maximum opening are somewhat larger than is desirable it is believed that they are as small as present manufacturing conditions and equipment will permit.

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 wherein 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 B. S.
1925

U. S. STANDARD SIEVE SERIES

TABLE OF FUNDAMENTAL DATA

STANDARD SPECIFICATIONS FOR SIEVES

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
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
4	4.76	.187	1.27	.050	± 3%	-15 to +30%	10%
5	4.00	.157	1.12	.044	± 3%	-15 to +30%	10%
6	3.36	.132	1.02	.040	± 3%	-15 to +30%	10%
7	2.83	.111	.92	.036	± 3%	-15 to +30%	10%
8	2.38	.0937	.84	.0331	± 3%	-15 to +30%	10%
10	2.00	.0787	.76	.0299	± 3%	-15 to +30%	10%
12	1.68	.0661	.69	.0272	± 3%	-15 to +30%	10%
14	1.41	.0555	.61	.0240	± 3%	-15 to +30%	10%
16	1.19	.0469	.54	.0213	± 3%	-15 to +30%	10%
18	1.00	.0394	.48	.0189	± 3%	-15 to +30%	10%
20	.84	.0331	.42	.0165	± 5%	-15 to +30%	25%
25	.71	.0280	.37	.0146	± 5%	-15 to +30%	25%
30	.59	.0232	.33	.0130	± 5%	-15 to +30%	25%
35	.50	.0197	.29	.0114	± 5%	-15 to +30%	25%
40	.42	.0165	.25	.0098	± 5%	-15 to +30%	25%
45	.35	.0138	.22	.0087	± 5%	-15 to +30%	25%
50	.297	.0117	.188	.0074	± 6%	-15 to +35%	40%
60	.250	.0098	.162	.0064	± 6%	-15 to +35%	40%
70	.210	.0083	.140	.0055	± 6%	-15 to +35%	40%
80	.177	.0070	.119	.0047	± 6%	-15 to +35%	40%
100	.149	.0059	.102	.0040	± 6%	-15 to +35%	40%
120	.125	.0049	.086	.0034	± 6%	-15 to +35%	40%
140	.105	.0041	.074	.0029	± 8%	-15 to +35%	60%
170	.088	.0035	.063	.0025	± 8%	-15 to +35%	60%
200	.074	.0029	.053	.0021	± 8%	-15 to +35%	60%
230	.062	.0024	.046	.0018	± 8%	-15 to +35%	90%
270	.053	.0021	.041	.0016	± 8%	-15 to +35%	90%
325	.044	.0017	.036	.0014	± 8%	-15 to +35%	90%

Bureau of Standards
 Washington, D. C.
 April 15, 1924.

