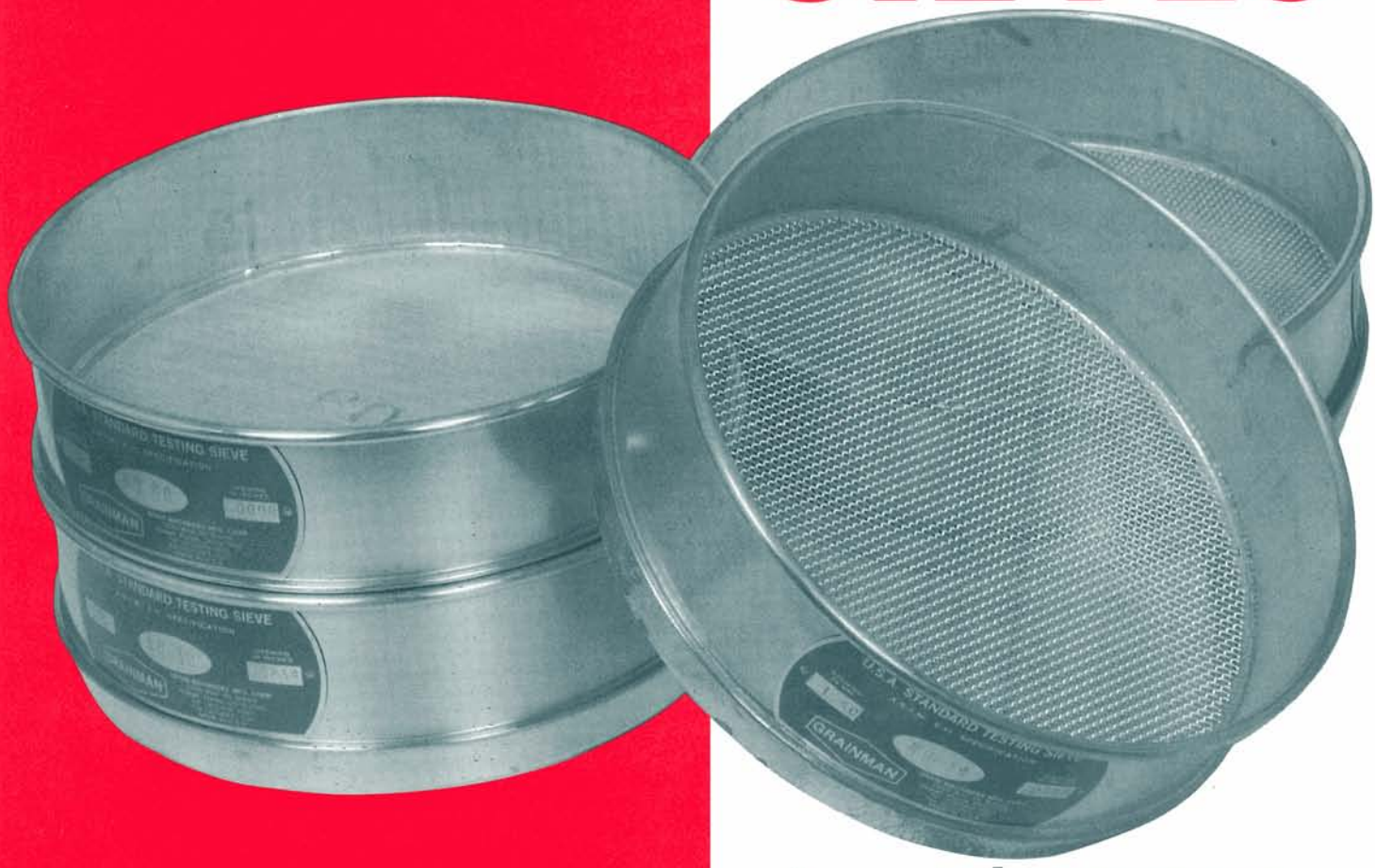
GRAINMAN

TEST SIEVES



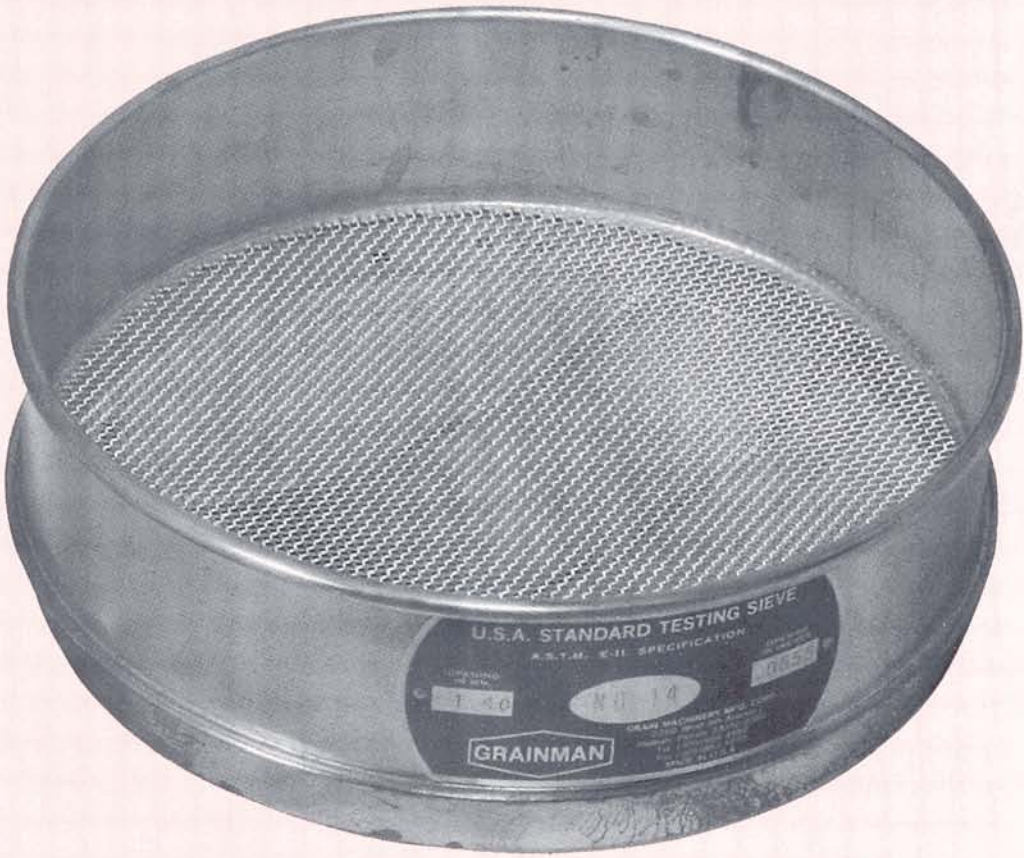
Assured accuracy of openings through advanced optical

GRAIN MACHINERY MFG. CORP.

GRAINMAN TEST SIEVES ACCURACY OF OPEN

DIMENSIONS OF STANDARD 8" DIAMETER TESTING SIEVES

- **Accurately produced and inspected**
- **Made in accordance with established ASTM E-11 specification**
- **Skilled consultants available to assist and help solve specific customer problems**
- **Die-formed frames for guaranteed fit and superior quality**
- **Stocked to assure prompt deliveries**



FULL HEIGHT
Height 2 7/8",
depth to cloth 2"

HALF HEIGHT
Height 1 7/8, depth to cloth 1"
12" Diameter sieves also available.

Accuracy of opening now assured

In the past, it had been very difficult and impractical for sieve manufacturers to be sure the wire cloth in the sieve was within the ASTM tolerances. Our Research Department, using sophisticated optical inspection equipment, has developed a practical method to inspect each sieve prior to shipment to assure quality and meet ASTM tolerances. A specially built Nikon Comparator with digital readout is used for consistent accuracy, sieve after sieve. All Test Sieves are made in accordance with specifications established by ASTM E-11.

Test services

Our engineers are at your service to help solve your sieving problems, and help you establish proper sieving procedures. At the same time, we will check your suspect sieves for leaks or nonconformity. Our staff will also assist in the development of industry and government research projects. We want to earn your business.

Professional know-how

GRAINMAN personnel have extensive experience in the development, manufacture and use of testing sieves. Our technically trained personnel are always available to help you solve your specific sieving problems. Therefore, your request will receive prompt attention. Our key personnel are active in ASTM, ANSI, and the ISO as well as other industry organizations. This close association with both GRAINMAN government and industry enables to maintain leadership in Test Sieve Technology.

Test sieve frames

GRAINMAN sieve frames are die formed for guaranteed fit and superior quality. All test sieves are superior quality. All test sieves are packaged in sturdy cartons for safe shipment. These cartons also provide the user with handy and protective storage containers.

U. S. A. STANDARD SIEVES ASTM SPECIFICATION E-11

Nominal Dimensions, Permissible Variations for Wire Cloth of Standard Test Sieves (U.S.A.) Standard Series

Sieve Designation (W)		Nominal Sieve Opening, in.[c]	Permissible Variation of Average Opening from the Standard Sieve Designation (y)	Intermediate Tolerance (z)[g]	Maximum Individual Opening (x)	Nominal Wire Diameter, mm[d]
Standard[b]	Alternative					
(1)	(2)	(3)	(4)	(5)	(6)	(7)
125 mm	5 in.	5	±3.7 mm	130.0 mm	130.9 mm	8.00
106 mm	4.24 in.	4.24	±3.2 mm	110.2 mm	111.1 mm	6.40
100 mm[d]	4 in.[d]	4	±3.0 mm	104.0 mm	104.8 mm	6.30
90 mm	3½ in.	3.5	±2.7 mm	93.6 mm	94.4 mm	6.08
75 mm	3 in.	3	±2.2 mm	78.1 mm	78.7 mm	5.80
63 mm	2½ in.	2.5	±1.9 mm	65.6 mm	66.2 mm	5.50
53 mm	2.12 in.	2.12	±1.6 mm	55.2 mm	55.7 mm	5.15
50 mm[d]	2 in.[d]	2	±1.5 mm	52.1 mm	52.6 mm	5.05
45 mm	1¾ in.	1.75	±1.4 mm	46.9 mm	47.4 mm	4.85
37.5 mm	1½ in.	1.5	±1.1 mm	39.1 mm	39.5 mm	4.59
31.5 mm	1¼ in.	1.25	±1.0 mm	32.9 mm	33.2 mm	4.23
26.5 mm	1.06 in.	1.06	±0.8 mm	27.7 mm	28.0 mm	3.90
25.0 mm[d]	1 in.[d]	1	±0.8 mm	26.1 mm	26.4 mm	3.80
22.4 mm	⅞ in.	0.875	±0.7 mm	23.4 mm	23.7 mm	3.50
19.0 mm	¾ in.	0.750	±0.6 mm	19.9 mm	20.1 mm	3.30
16.0 mm	⅝ in.	0.625	±0.5 mm	16.7 mm	17.0 mm	3.00
13.2 mm	0.530 in.	0.530	±0.41 mm	13.83 mm	14.05 mm	2.75
12.5 mm[d]	½ in.[d]	0.500	±0.39 mm	13.10 mm	13.31 mm	2.67
11.2 mm	7/16 in.	0.438	±0.35 mm	11.75 mm	11.94 mm	2.45
9.5 mm	⅜ in.	0.375	±0.30 mm	9.97 mm	10.16 mm	2.27
8.0 mm	5/16 in.	0.312	±0.25 mm	8.41 mm	8.58 mm	2.07
6.7 mm	0.265 in.	0.265	±0.21 mm	7.05 mm	7.20 mm	1.87
6.3 mm[d]	¼ in.[d]	0.250	±0.20 mm	6.64 mm	6.78 mm	1.82
5.6 mm	No. 3½[e]	0.223	±0.18 mm	5.90 mm	6.04 mm	1.68
4.75 mm	No. 4	0.187	±0.15 mm	5.02 mm	5.14 mm	1.54
4.00 mm	No. 5	0.157	±0.13 mm	4.23 mm	4.35 mm	1.37
3.35 mm	No. 6	0.132	±0.11 mm	3.55 mm	3.66 mm	1.23
2.80 mm	No. 7	0.11	±0.095 mm	2.975 mm	3.070 mm	1.10
2.36 mm	No. 8	0.0937	±0.080 mm	2.515 mm	2.600 mm	1.00
2.00 mm	No. 10	0.0787	±0.070 mm	2.135 mm	2.215 mm	0.900
1.70 mm	No. 12	0.0661	±0.060 mm	1.820 mm	1.890 mm	0.810
1.40 mm	No. 14	0.0555	±0.050 mm	1.505 mm	1.565 mm	0.725
1.18 mm	No. 16	0.0469	±0.045 mm	1.270 mm	1.330 mm	0.650
1.00 mm	No. 18	0.0394	±0.040 mm	1.080 mm	1.135 mm	0.580
850 μm[f]	No. 20	0.0331	±35 μm	925 μm	970 μm	0.510
710 μm	No. 25	0.0278	±30 μm	775 μm	815 μm	0.450
600 μm	No. 30	0.0234	±25 μm	660 μm	695 μm	0.390
500 μm	No. 35	0.0197	±20 μm	550 μm	585 μm	0.340
425 μm	No. 40	0.0165	±19 μm	471 μm	502 μm	0.290
355 μm	No. 45	0.0139	±16 μm	396 μm	425 μm	0.247
300 μm	No. 50	0.0117	±14 μm	337 μm	363 μm	0.215
250 μm	No. 60	0.0098	±12 μm	283 μm	306 μm	0.180
212 μm	No. 70	0.0083	±10 μm	242 μm	263 μm	0.152
180 μm	No. 80	0.0070	±9 μm	207 μm	227 μm	0.131
150 μm	No. 100	0.0059	±8 μm	174 μm	192 μm	0.110
125 μm	No. 120	0.0049	±7 μm	147 μm	163 μm	0.091
106 μm	No. 140	0.0041	±6 μm	126 μm	141 μm	0.076
90 μm	No. 170	0.0035	±5 μm	108 μm	122 μm	0.064
75 μm	No. 200	0.0029	±5 μm	91 μm	103 μm	0.053
63 μm	No. 230	0.0025	±4 μm	77 μm	89 μm	0.044
53 μm	No. 270	0.0021	±4 μm	66 μm	76 μm	0.037
45 μm	No. 325	0.0017	±3 μm	57 μm	66 μm	0.030
38 μm	No. 400	0.0015	±3 μm	48 μm	57 μm	0.025
32 μm	No. 450	0.0012	±3 μm	42 μm	50 μm	0.028
25 μm	No. 500	0.0010	±3 μm	34 μm	41 μm	0.025
20 μm	No. 635	0.0008	±3 μm	29 μm	35 μm	0.020

[a] The average diameter of the warp and of the shoot wires, taken separately, of the cloth of any sieve shall not deviate from the nominal values by more than the following:

Sieves coarser than 600 μm	5 percent
Sieves 600 to 125 μm	7½ percent
Sieves finer than 125 μm	10 percent

[b] These standard designations correspond to the values for test sieve apertures recommended by the International Standards Organization, Geneva, Switzerland.

[c] Only approximately equivalent to the metric values in Column 1.

[d] These sieves are not in the standard series but they have been included because they are in common usage.

[e] These numbers (3½ to 635) are the approximate number of openings per linear inch but it is preferred that the sieve be identified by the standard designation in millimeters or micrometers.

[f] 1000 μm — 1 mm.

[g] Not more than 5% of the openings may fall between the limits set by the values in Column 5 and Column 6.