

WHICH STANDARD SHOULD I USE?

The aperture size of every sieve manufactured from 20 to 3350 microns can be certified to NIST traceability.

Our standards are named after the 30 most popular sieves (R40/3) but can also be used for the 30 intermediate sizes.

If you are unsure of the standard you should be using just check the table below (table 1).

The 'primary' sieve size is highlighted in bold, the sieve on either side can also be calibrated using the same Sieve Standard.

Table 1: Selecting the Correct Standard

	Sieve Size	
-	20 µm	-
-	25 µm	-
-	32 µm	-
36 µm	38 µm	40 µm
-	45 µm	50 µm
-	53 µm	56 µm
-	63 µm	-
71 µm	75 µm	80 µm
-	90 µm	-
100 µm	106 µm	112 µm
-	125 µm	-
140 µm	150 µm	160 µm
-	180 µm	-
200 µm	212 µm	224 µm
-	250 µm	280 µm
-	300 µm	315 µm
-	355 µm	-
400 µm	425 µm	450 µm
-	500 µm	-
560 µm	600 µm	630 µm
-	710 µm	-
800 µm	850 µm	900 µm
-	1.00mm	-
1.12mm	1.18mm	1.25mm
-	1.40mm	1.55mm
1.60mm	1.70mm	1.80mm
-	2.00mm	-
2.24mm	2.36mm	2.50mm
-	2.80mm	3.15mm
-	3.35mm	-
-	3.55mm	-
-	4.00mm	-
-	4.50mm	-
-	4.75mm	-
-	5.00mm	-

Table 2: Recommended Tolerances – Microscopy (ISO 3310-1:2016 and ASTM E-11)

Nominal Sieve size	Mesh #	ISO Tolerance @ mean	ASTM Tolerance @ mean	ISO Max single aperture	ASTM Max single aperture	ISO Max SD =D84%	ASTM Max @ D95%	ISO Count for microscopy
20µm	635	17.9 – 22.1µm	17 – 23µm	33µm	35µm	24.7µm	29µm	2 x 300
25µm	500	22.8 – 27.2µm	22 – 28µm	40µm	41µm	30.2µm	34µm	2 x 300
32µm	450	29.6 – 34.4µm	29 – 35µm	49µm	50µm	37.9µm	42µm	2 x 300
38µm	400	35.4 – 40.6µm	35 – 41µm	56µm	57µm	44.4µm	48µm	2 x 300
45µm	325	42.2 – 47.8µm	42 – 48µm	65µm	66µm	51.9µm	57µm	2 x 250
53µm	270	49.9 – 56.1µm	49 – 57µm	75µm	76µm	60.6µm	66µm	2 x 250
63µm	230	59.6 – 66.4µm	59 – 67µm	87µm	89µm	71.3µm	77µm	2 x 250
75µm	200	71.3 – 78.7µm	70 – 80µm	101µm	103µm	84.1µm	91µm	2 x 250
90µm	170	85.8 – 94.2µm	85 – 95µm	119µm	122µm	100.1µm	108µm	2 x 200
106µm	140	101.3 – 110.7µm	100 – 112µm	137µm	141µm	117.1µm	126µm	2 x 200
125µm	120	119.8 – 130.2µm	118 – 132µm	160µm	163µm	137.2µm	147µm	2 x 200
150µm	100	144.0 – 156.0µm	142 – 158µm	188µm	192µm	163.7µm	174µm	2 x 200
180µm	80	173.2 – 186.8µm	171 – 189µm	223µm	227µm	195.3µm	207µm	2 x 200
212µm	70	204.2 – 219.8µm	202 – 222µm	259µm	263µm	228.9µm	242µm	2 x 160
250µm	60	241.1 – 258.9µm	238 – 262µm	302µm	306µm	268.8µm	283µm	2 x 160
300µm	50	290 – 310µm	286 – 314µm	358µm	363µm	321.2µm	337µm	2 x 160
355µm	45	343 – 367µm	339 – 371µm	420µm	425µm	378.7µm	396µm	2 x 160
425µm	40	411 – 439µm	406 – 444µm	498µm	502µm	451.8µm	471µm	2 x 120
500µm	35	484 – 516µm	480 – 520µm	581µm	585µm	530.0µm	550µm	2 x 120
600µm	30	581 – 619µm	575 – 625µm	691µm	695µm	634.0µm	660µm	2 x 100
710µm	25	688 – 732µm	680 – 740µm	811µm	815µm	748.4µm	775µm	2 x 100
850µm	20	824 – 876µm	815 – 880µm	964µm	970µm	893.6µm	925µm	2 x 80
1.00mm	18	0.97 – 1.03mm	0.96 – 1.04mm	1.13mm	1.14mm	1.05mm	1.08mm	2 x 80
1.18mm	16	1.14 – 1.22mm	1.14 – 1.23mm	1.32mm	1.33mm	1.24mm	1.27mm	2 x 80
1.40mm	14	1.36 – 1.44mm	1.35 – 1.45mm	1.56mm	1.57mm	1.46mm	1.51mm	2 x 80
1.70mm	12	1.65 – 1.75mm	1.64 – 1.76mm	1.88mm	1.89mm	1.77mm	1.82mm	2 x 50
2.00mm	10	1.94 – 2.06mm	1.93 – 2.07mm	2.20mm	2.22mm	2.08mm	2.14mm	2 x 50
2.36mm	8	2.29 – 2.43mm	2.28 – 2.44mm	2.59mm	2.61mm	2.45mm	2.52mm	2 x 40
2.80mm	7	2.72 – 2.88mm	2.71 – 2.90mm	3.06mm	3.07mm	2.91mm	2.98mm	2 x 40
3.35mm	6	3.25 – 3.45mm	3.24 – 3.46mm	3.64mm	3.66mm	3.47mm	3.55mm	2 x 40
3.55mm	-	3.44 – 3.66mm	-	3.89mm	-	3.705mm	-	2 x 40
4.00mm	5	3.87 – 4.13mm	3.87 – 4.37mm	4.37mm	4.37mm	4.175mm	-	2 x 30
4.5mm	-	4.36 – 4.64mm	-	4.90mm	-	4.690mm	-	2 x 30
4.75mm	4	4.60 – 4.90mm	4.60 – 4.90mm	5.16mm	5.16mm	4.949mm	-	2 x 30
5.00mm	-	4.84 – 5.16mm	-	5.43mm	-	5.210mm	-	2 x 30

TOLERANCES

Please note that although the sieve may not conform to the exact nominal size, it is still in specification if the variation about the mean is accordance with table 2.