SPECIFICATIONS

CHOOSING A MESH//Any required mesh count can be achieved using a number of different wire diameters, but certain combinations of mesh count and wire diameter have been accepted as standards throughout industry. These are underlined in our mesh table and are generally held in stock. The combination of mesh count and wire diameter determines the aperture, the open area and the strength of the material. For any mesh, a thicker wire will provide a more robust weave but the aperture and open area will be reduced, giving a slower flow rate to the material passing through. Using a thinner wire the converse will apply. If a non-standard mesh is required, it can generally be specially woven provided the quantity is sufficient. Our table indicates the range of meshes which are technically feasible. Mesh counts are generally quoted per inch, and lengths and widths are given in metric or imperial. This contrasts with the continent of Europe where the size of mesh is normally defined by the aperture in mm. or microns rather than the mesh count, and all other measurements are metric.

SIZES AND SHAPES//Wire mesh is woven in rolls approximately 100 ft. long and generally in widths of 36", 1m or 48", although wider or narrower widths are sometimes available. We can supply any length in the loom width, and other widths can be cut to special order. Cut pieces of mesh can be supplied to your measurements or templates in any shape and quantity.

PRICES//Woven wire mesh is priced by the square foot or square metre and price varies according to the quantity ordered.

SCREEN PRINTING MESH//We can supply fine stainless steel mesh for screen process printing. The mesh is specially selected for its quality of weaving and freedom from blemish, and is ideal where stability and fine definition are paramount, e.g. in printed circuit work. The mesh range normally used is 165-325 plain weave.
(see separate screen printing brochure.)

USEFUL FORMULAE

aperture (in mm) = 1/M - d
where 'M' = mesh count per mm
and 'd' = wire diameter in mm.

open area % = $[a^2/(a+d)^2] \times 100$
where 'a' = aperture in mm
and 'd' = wire diameter in mm.

MESH COUNT	WIRE DIAMETER		APERTURE		OPEN AREA %
	B.S. (mm)	old SWG	(mm)	(in.)	
2	3.15	(10)	9.55	0.376	57
2	2.80	(11)	9.90	0.390	61
2	2.50	(12)	10.20	0.401	64
2	2.24	(13)	10.46	0.412	68
2	2.00	(14)	10.70	0.421	71
2	1.80	(15)	10.90	0.429	74
2	1.60	(16)	11.10	0.437	76
2	1.40	(17)	11.30	0.445	79
2	1.25	(18)	11.45	0.451	81
3	2.50	(12)	5.97	0.235	50
3	2.24	(13)	6.23	0.245	54
3	2.00	(14)	6.47	0.254	58
3	1.80	(15)	6.67	0.262	62
3	1.60	(16)	6.87	0.270	66
3	1.40	(17)	7.07	0.278	70
3	1.25	(18)	7.22	0.284	73
4	2.50	(12)	3.85	0.151	37
4	2.24	(13)	4.11	0.162	42
4	2.00	(14)	4.35	0.171	47
4	1.80	(15)	4.55	0.179	51
4	1.60	(16)	4.75	0.187	56
4	1.40	(17)	4.95	0.195	61
4	1.25	(18)	5.10	0.201	64
4	1.00	(19)	5.35	0.211	71
4	0.90	(20)	5.45	0.214	74
5	1.25	(18)	3.83	0.151	57
5	1.00	(19)	4.08	0.161	64
5	0.90	(20)	4.18	0.164	68
6	1.80	(15)	2.43	0.096	33
6	1.60	(16)	2.63	0.104	39
6	1.40	(17)	2.83	0.111	45
6	1.25	(18)	2.98	0.117	50
6	1.00	(19)	3.23	0.127	58
6	0.90	(20)	3.33	0.131	62
6	0.80	(21)	3.43	0.135	66
6	0.71	(22)	3.52	0.139	69

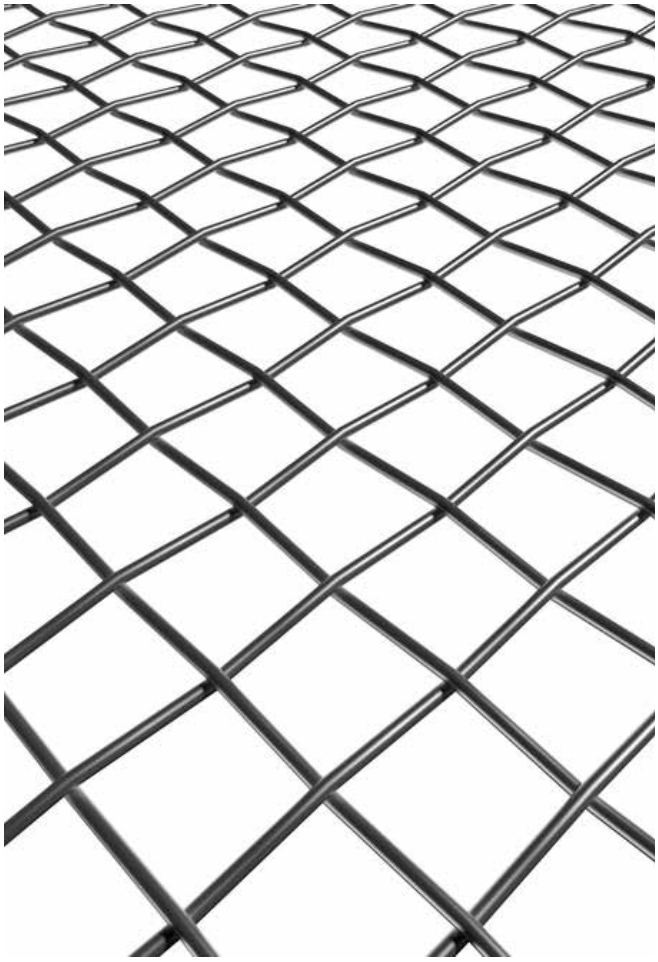
MESH COUNT	WIRE DIAMETER		APERTURE		OPEN AREA %
	B.S. (mm)	old SWG	(mm)	(in.)	
8	1.25	(18)	1.93	0.076	37
8	1.12	(18.5)	2.06	0.081	42
8	1.00	(19)	2.18	0.086	47
8	0.90	(20)	2.28	0.089	51
8	0.80	(21)	2.38	0.093	56
8	0.71	(22)	2.47	0.097	60
8	0.63	(23)	2.55	0.100	64
8	0.56	(24)	2.62	0.103	68
8	0.50	(25)	2.68	0.105	71
10	1.25	(18)	1.29	0.051	26
10	1.12	(18.5)	1.42	0.056	31
10	1.00	(19)	1.54	0.061	37
10	0.90	(20)	1.64	0.064	42
10	0.80	(21)	1.74	0.068	47
10	0.71	(22)	1.83	0.072	52
10	0.63	(23)	1.91	0.075	56
10	0.56	(24)	1.98	0.078	61
10	0.50	(25)	2.04	0.080	64
12	1.00	(19)	1.12	0.044	28
12	0.90	(20)	1.22	0.048	33
12	0.80	(21)	1.32	0.052	39
12	0.71	(22)	1.41	0.055	44
12	0.63	(23)	1.49	0.058	49
12	0.56	(24)	1.56	0.061	54
12	0.50	(25)	1.62	0.064	58
12	0.45	(26)	1.67	0.065	62
12	0.40	(27)	1.72	0.067	66
14	0.56	(24)	1.25	0.049	48
14	0.50	(25)	1.31	0.052	52
14	0.45	(26)	1.36	0.054	56
14	0.40	(27)	1.41	0.056	61
14	0.335	(28.5)	1.46	0.057	65
16	0.80	(21)	0.79	0.031	24
16	0.71	(22)	0.88	0.034	30
16	0.63	(23)	0.96	0.038	36
16	0.56	(24)	1.03	0.040	42

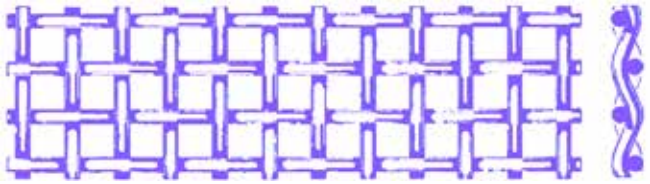
MESH COUNT	WIRE DIAMETER		APERTURE		OPEN AREA %
	B.S. (mm)	old SWG	(mm)	(in.)	
16	0.50	(25)	1.09	0.043	47
16	0.45	(26)	1.14	0.045	51
16	0.40	(27)	1.19	0.047	56
16	0.355	(28.5)	1.23	0.048	60
16	0.315	(30)	1.27	0.050	64
18	0.50	(25)	0.91	0.036	42
18	0.45	(26)	0.96	0.038	46
18	0.40	(27)	1.01	0.040	51
18	0.355	(28.5)	1.06	0.041	56
18	0.315	(30)	1.10	0.043	60
20	0.71	(22)	0.56	0.022	19
20	0.63	(23)	0.64	0.025	25
20	0.56	(24)	0.71	0.028	31
20	0.50	(25)	0.77	0.030	37
20	0.45	(26)	0.82	0.032	42
20	0.40	(27)	0.87	0.034	47
20	0.355	(28.5)	0.92	0.036	51
20	0.315	(30)	0.96	0.037	56
24	0.40	(27)	0.66	0.026	39
24	0.355	(28.5)	0.70	0.028	44
24	0.315	(30)	0.74	0.029	49
24	0.28	(31.5)	0.78	0.031	54
28	0.40	(27)	0.51	0.020	31
28	0.355	(28.5)	0.55	0.022	37
28	0.315	(30)	0.59	0.023	43
28	0.28	(31.5)	0.63	0.025	48
30	0.355	(28.5)	0.49	0.019	34
30	0.315	(30)	0.53	0.021	39
30	0.28	(31.5)	0.57	0.022	45
30	0.25	(33)	0.60	0.024	50
30	0.224	(34)	0.62	0.025	54
36	0.315	(30)	0.39	0.0154	31
36	0.28	(31.5)	0.43	0.0167	36
36	0.25	(33)	0.46	0.0179	42
36	0.224	(34)	0.48	0.0189	47
40	0.28	(31.5)	0.36	0.0140	31

MESH COUNT	WIRE DIAMETER		APERTURE		OPEN AREA %
	B.S. (mm)	old SWG	(mm)	(in.)	
40	0.25	(33)	0.39	0.0151	37
40	0.224	(34)	0.41	0.0162	42
40	0.20	(35)	0.44	0.0171	47
40	0.18	(36)	0.46	0.0179	51
40	0.16	(37.5)	0.48	0.0187	56
50	0.224	(34)	0.28	0.0112	31
50	0.20	(35)	0.31	0.0121	37
50	0.18	(36)	0.33	0.0129	42
50	0.16	(37.5)	0.35	0.0137	47
50	0.15	(38)	0.36	0.0141	49
60	0.20	(35)	0.22	0.0088	28
60	0.18	(36)	0.24	0.0096	33
60	0.16	(37.5)	0.26	0.0103	39
60	0.14	(39)	0.28	0.0111	45
70	0.15	(38)	0.212	0.0083	34
70	0.14	(39)	0.223	0.0090	38
70	0.125	(40)	0.238	0.0094	43
80	0.16	(37.5)	0.158	0.0062	25
80	0.14	(39)	0.178	0.0070	31
80	0.125	(40)	0.193	0.0076	37
90	0.14	(39)	0.142	0.0056	25
90	0.125	(40)	0.157	0.0062	31
90	0.112	(41)	0.170	0.0067	36
100	0.112	(41)	0.142	0.0056	31
100	0.10	(42)	0.154	0.0061	37
100	0.09	(43)	0.164	0.0064	42
100	0.08	(44)	0.174	0.0068	47
120	0.09	(43)	0.122	0.0048	33
120	0.08	(44)	0.132	0.0052	39
140	0.08	(44)	0.101	0.0040	31
150	0.071	(45)	0.098	0.0039	34
150	0.065	(46)	0.109	0.0043	42
165	0.05	(47)	0.104	0.0041	46
180	0.06	(46)	0.081	0.0032	33
180	0.05	(47)	0.091	0.0036	42
200	0.05	(47)	0.077	0.0030	37
200	0.04	(48)	0.087	0.0034	47
230	0.035	(48.5)	0.075	0.0029	45
250	0.04	(48)	0.062	0.0024	37
270	0.035	(48.5)	0.059	0.0023	39
270	0.04	(48)	0.054	0.0021	33
300(T)	0.04	(48)	0.045	0.0017	28
300(T)	0.036	(48.5)	0.049	0.0019	33
325(T)	0.036	(48.5)	0.042	0.0016	29
325	0.028	(49.5)	0.050	0.0019	41
350(T)	0.030	(49)	0.043	0.0017	34
400(T)	0.030	(49)	0.034	0.0013	28
500(T)	0.025	(50)	0.026	0.0010	26

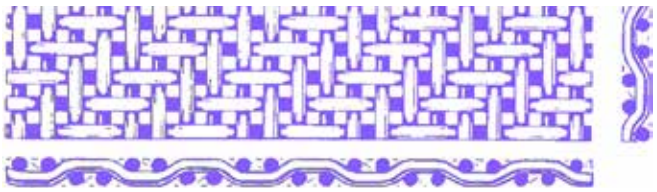
(T)=Twill Weave

PRINCIPLE STOCK SPECIFICATIONS INDICATED BY COLOURED BARS:

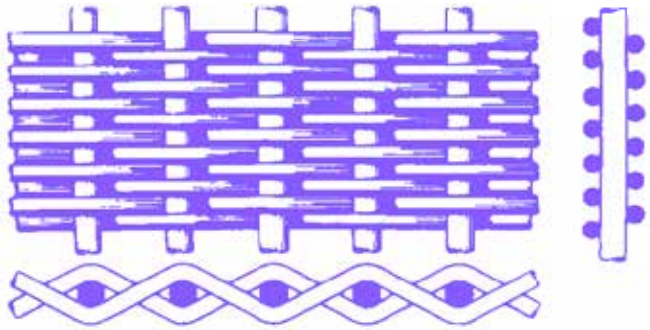




PLAIN WEAVE is woven from wires of the same diameter for both warp and weft, arranged in a symmetrical "over one and under one" pattern to provide square openings of precise dimensions. Plain mesh has great dimensional stability.



TWILL WEAVE is woven so that the individual wires in one direction pass over two and under the next two cross wires. It is less rigid than plain weave and is often used in very fine meshes.



HOLLANDER (DUTCH) WEAVE is made with relatively thin weft wires packed closely together, and thicker more widely spaced warp wires. It resembles a 'basket' weave and does not have square apertures. Dimensionally very stable and having high bursting strength, it is suitable for pressure filtration where a large open area is not required.

Hollander cloth can be woven in plain, twill, or reverse twill format, in Stainless and Mild Steel.

HOLLANDER STOCK SPECIFICATIONS		
MESH COUNT WARP/WEFT	WIRE DIAMETER mm WARP/WEFT	NOMINAL APERTURE mm
12/72	0.50/0.375	0.300
14/88	0.50/0.30	0.200
24/110	0.355/0.25	0.125
50/250	0.14/0.11	0.063

PLAIN DUTCH WEAVE SPW					
MESH COUNT		WIRE DIA		MICRON RETENTION	
WARP	WEFT	WARP	WEFT		
80	400	0.125	0.071	40-45	40
80	300	0.125	0.09	45-50	45
50	280	0.14	0.1	50-55	50
50	250	0.14	0.112	52-57	55
40	200	0.18	0.14	70-80	70
30	150	0.22	0.175	90-105	90
24	110	0.32	0.24	110-125	105
24	110	0.36	0.25	115-128	110
20	150	0.25	0.18	155-165	120
16	120	0.36	0.24	180-198	150
14	110	0.38	0.25	220-238	200
12	95	0.5	0.3	220-240	220
12	64	0.6	0.42	260-280	250
10	88	0.5	0.33	270-295	265
10	70	0.6	0.4	310-330	300
10	56	0.71	0.5	300-320	305
8	85	0.36	0.33	300-320	310