

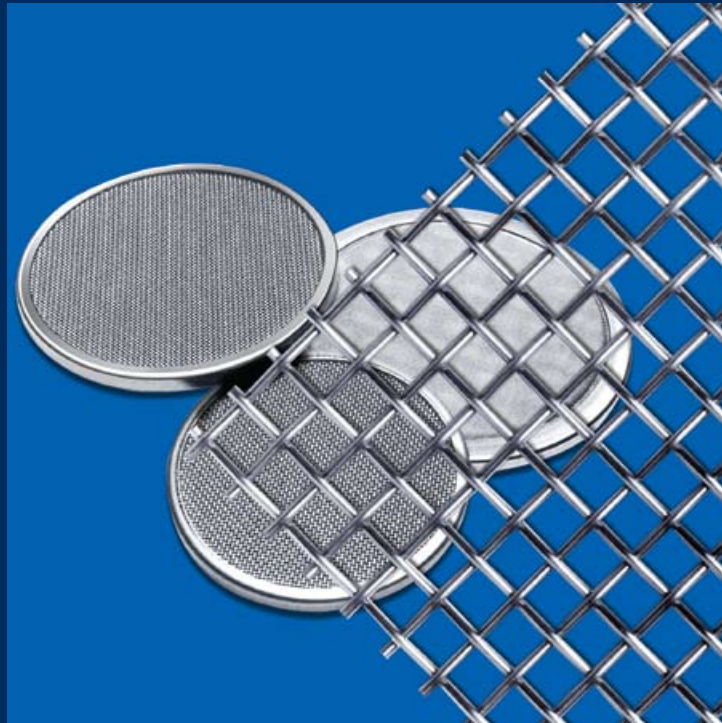


**HAST HAVER STANDARD**

INDIA PRIVATE LIMITED

(In joint venture with Haver & Boecker, Germany)

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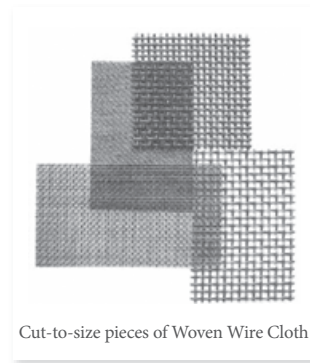
**Woven Wirecloth & Wire Products**

## Woven Wire Cloth

The right weaving loom for each specification coupled with the experience of both, manufacturers of Woven Wire Cloth for over three decades, Haver & Boecker and Standard Group, guarantee the most suitable Woven Wire Cloth for every demand. From wires as thick as 0.5mm dia., down to those finer than a human hair of only 0.025mm dia. (25 microns), we weave all materials such as Stainless Steel, Copper, Brass, Phosphor - Bronze, Nickel, Monel, Silver, and Plastics.

The product can be supplied in the form of: **rolls, pieces, strips, discs, fabricated parts, filters, and screen sections** to suit your requirements in small or large quantities.

Filter Discs are largely used for the production of polyester fibres. Our filters combine long service life with excellent service properties.

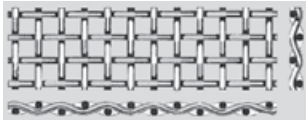


Cut-to-size pieces of Woven Wire Cloth

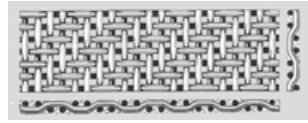


Filter Discs

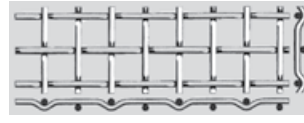
## Types of Weave



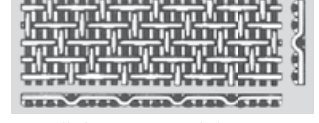
Plain Weave



Twilled Weave, 4-bonded

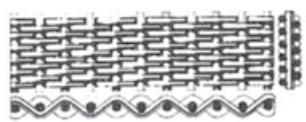


Flat Top Screen

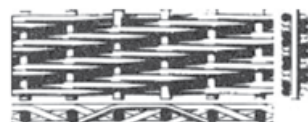


Twilled Weave, 5-Bonded, EGLA 5, Satin Twilled Weave

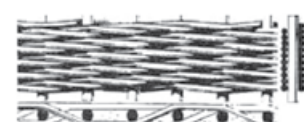
## Types of Filter Cloth



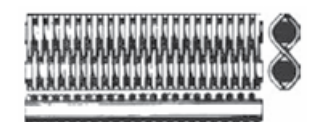
SPW Single Plain Dutch Weave



BMT Board Mesh Twilled Dutch Weave

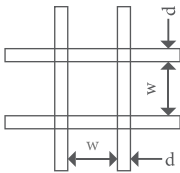


DTW Dutch Twilled Weave



RPD Reverse Plain Dutch Weave

## Formulas and Symbols for Wire Cloth



$$\begin{aligned}
 w &= \text{width of aperture in mm} \\
 d &= \text{diameter of wire in mm} \\
 p &= \text{pitch} = w + d \\
 a_0 &= \text{free open area} \\
 &= \frac{w^2}{p} \times 100
 \end{aligned}$$

$$\text{Mesh} = \text{number of apertures per English inch} = \frac{25.4}{p}$$

$$\text{Nr./cm} = \text{number of apertures per cm} = \frac{10}{p}$$

$$M/\text{cm}^2 = \text{number of openings per cm}^2 = \left(\frac{10}{p}\right)^2$$

Today Wire Cloth is determined by clear apertures and wire diameters. Formerly it was termed by 'No.' or 'Mesh' which is the number of openings in a linear inch.

## Required Details for Wire Cloth Orders

- Mesh Count and/ or aperture width (w)
- Wire diameter (d)
- Material
- Type of weave - if necessary
- Roll length
- Roll width
- Post weaving fabrications - if necessary

## Post Weaving Fabrications

Even if wire cloth 'as woven' seems at first to offer the best value for money, it would be advisable to make enquiries regarding further treatment when required for a particular application.

Where these requirements cannot be met during the actual weaving process, we have developed many post-weaving treatments which are described in greater detail below:

**Calendering** : The calendering process involves the wire cloth being passed through two steel rollers to achieve a specified reduction on the overall thickness. To some extent the wire cloth is also stabilized and lies flat, thereby being more easily processed than regular wire cloth.

**Strip Cutting** : Wire cloth can be cut into strips down to a few millimeters in width. Depending on the type of cloth, lengths of 30 feet to 650 feet can be supplied.

**Edges** : Wire cloth in rolls has either woven edges or cut edges, depending on whether it is woven conventionally with a shuttle or on a shuttleless loom.

## Weights of Wire Cloth and Wire Mesh

Conversion factors for different metals and alloys in relation to plain Steel:

Aluminium (pure)	34.7% of plain Steel
Aluminium (56.S)	34.2% of plain Steel
Brass (70/30)	108.8% of plain Steel
Brass (80/20)	110.5% of plain Steel
Commercial Bronze	112.1% of plain Steel
Phosphor Bronze	113.1% of plain Steel
Nickel	112.3% of plain Steel
Stainless Steel (304/316)	101.0% of plain Steel
Monel	113.3% of plain Steel
Copper	114.1% of plain Steel

## Size Conversion Table

1mm = 0.039in	1in = 25.4mm
1m = 3.281ft	1ft = 0.3048m
1m <sup>2</sup> = 10.764ft <sup>2</sup>	1ft <sup>2</sup> = 0.0929m <sup>2</sup>
1Kg = 2.205lbs	1lb = 0.454Kg
1Kg/m <sup>2</sup> = 20.48lb/100ft <sup>2</sup>	1lb/100ft <sup>2</sup> = 0.0488Kg/m <sup>2</sup>

## Calculation for Weight of Wire Mesh

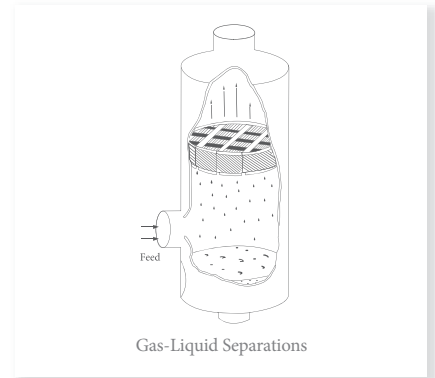
d	= mm	= wire diameter
p	= mm	= pitch (w+d)
G	= kg/m <sup>2</sup>	= mass per unit area
Mesh	= $\frac{25.4}{p}$	= number of apertures per inch
G	= $\frac{\text{mesh} \times d^2}{2}$	

## Conversion Table | Standard Wire Gauge

S.W.G.	In.	Mm	S.W.G.	In.	Mm
½	.500	12.70	26	.018	.457
7/16	.4375	11.113	27	.0164	.417
3/8	.375	9.525	28	.0148	.376
5/16	.3152	7.938	29	.0136	.345
1	.300	7.620	30	.0124	.315
2	.276	7.010	31	.0116	.295
3	.252	6.401	32	.0108	.274
4	.232	5.893	33	.0100	.254
5	.212	5.385	34	.0092	.234
6	.192	4.877	35	.0084	.213
7	.176	4.470	36	.0076	.193
8	.160	4.064	37	.0068	.173
9	.144	3.658	38	.0060	.152
10	.128	3.251	39	.0052	.132
11	.116	2.946	40	.0048	.122
12	.104	2.642	41	.0044	.112
13	.092	2.337	42	.0040	.102
14	.080	2.032	43	.0036	.091
15	.072	1.829	44	.0032	.081
16	.064	1.626	45	.0028	.071
17	.056	1.422	46	.0024	.061
18	.048	1.219	47	.0020	.051
19	.040	1.016	48	.0016	.041
20	.036	.914	49	.0012	.030
21	.032	.813	50	.0010	.025
22	.028	.711	51	.00080	.020
23	.024	.610	52	.00071	.018
24	.022	.559	53	.00063	.016
25	.020	.508		.00059	.015

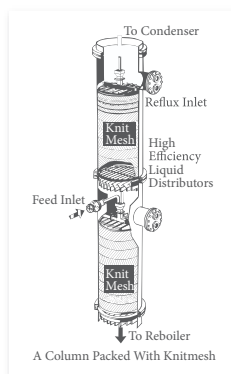
## Misterscreen (Demister Pad)

A Misterscreen (Demister Pad) offers a highly efficient method of separating liquid droplets from vapour. The droplets impinge on the wire filaments and are retained until they coalesce and fall down, and the free vapour passes through the apertures of the mesh. Demisters are widely used for such **Gas-Liquid Separations** and **Desalination Plants** all over the world. HAST has been fortunate in supplying to a number of such plants with encouraging results.



## Knitmesh

Knitmesh is an efficient packing material for distillation columns which operate under vacuum at atmospheric pressures. The mesh disperses the liquid in a thin film and prevents 'dry' surfaces and channeling which occurs in less efficient packing. Multifilament meshes give the best results due to their capillary action. Free volume of upto 95% can be achieved with filament surface areas of upto 1600m<sup>2</sup>/m<sup>3</sup> achieving higher efficiency and better liquid hold ups.



# HAYER STANDARD

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## About Us

HAYER STANDARD INDIA PVT. LTD., called “HAST”, is one of the leading manufacturers of Woven Wire Cloth and Wire Products in India.

HAST was established in 1988 as a joint venture between two companies, one being HAYER & BOECKER, Germany and the other being Standard Wire Group (Wire Weaving and Engineering Works), Mumbai, India. The former has been in the wire weaving business since 1887 and the latter a group of Standard Wire Products since 1958.

With decades of experience and the right weaving loom for each specification, HAYER & BOECKER and Standard Wire guarantee the most suitable Woven Wire Cloth for every demand. Meticulous handling of production processes, with special attention to quality control measures, makes our products popular. This is indeed a vital factor in our creditable performance.

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