



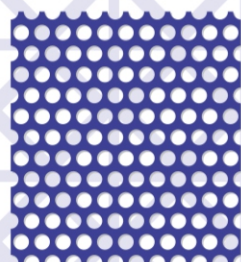
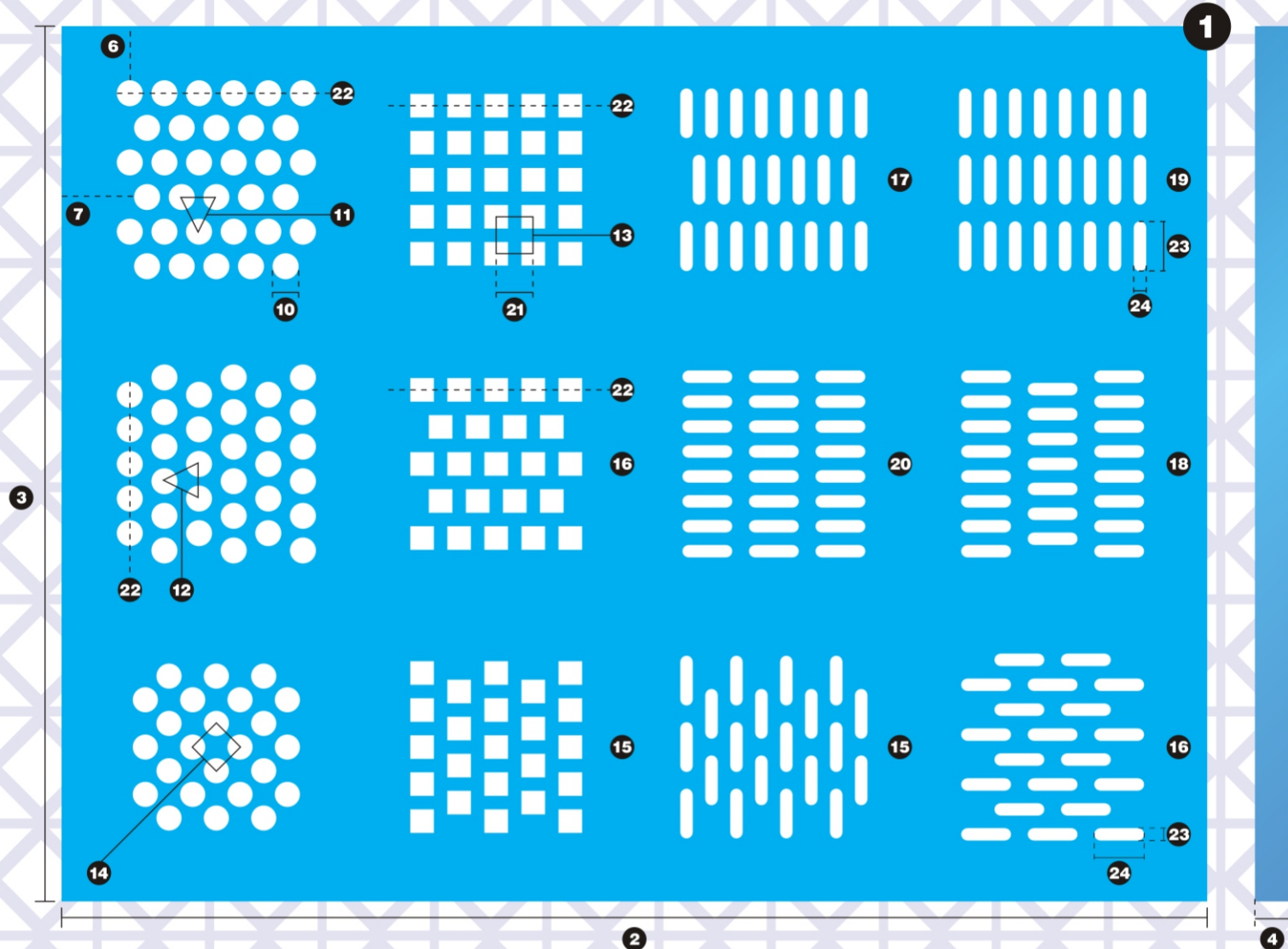
**BRAZIL**  
Metais Perfurados

# Chapas Perfuradas

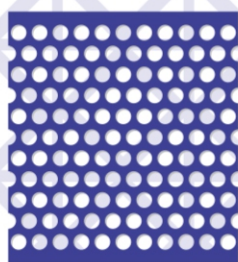
Varios Modelos



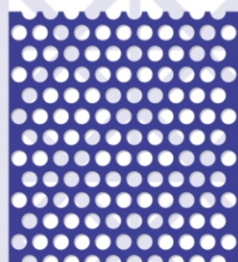
## Quadro Orientativo



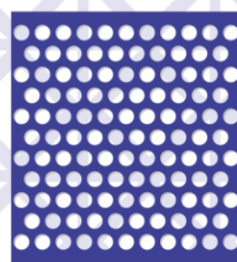
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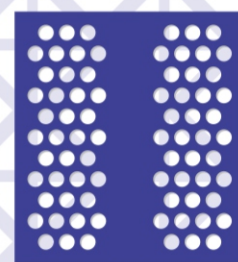
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1 Chapa perfurada

2 Comprimento

3 Largura

4 Espessura

5 Sem margem

6 Margem lateral

7 Margem terminal

8 Margem nos 4 lados

9 Perfuração seccionada

10 Diâmetro de furo

11 Disposição do furo longitudinal

12 Disposição transversal

13 Disposição reta

14 Disposição diagonal

15 Disposição alternada paralelo à largura

16 Alternada paralela ao comprimento

17 Disposição transversal

18 Disposição alternada lateral

19 Disposição transversal

20 Disposição reta longitudinal

21 Distância entre centros

22 Sentido de perfuração

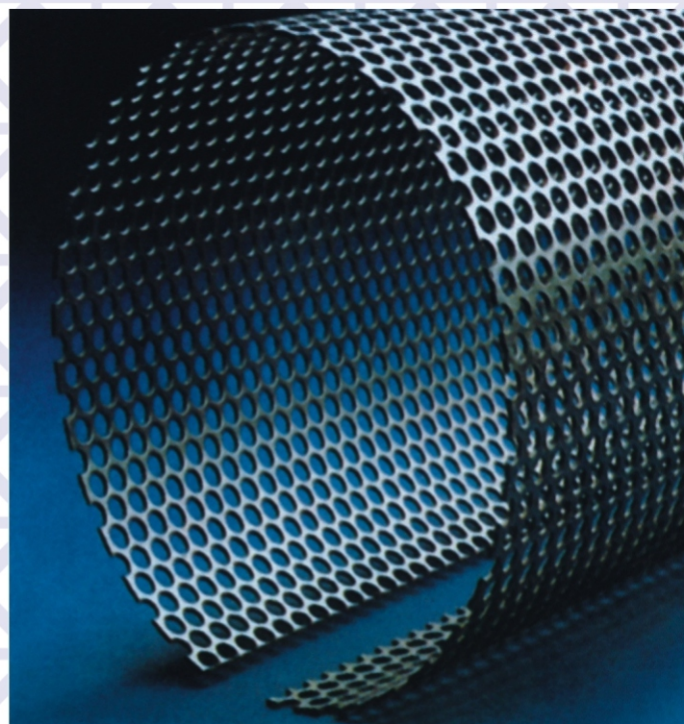
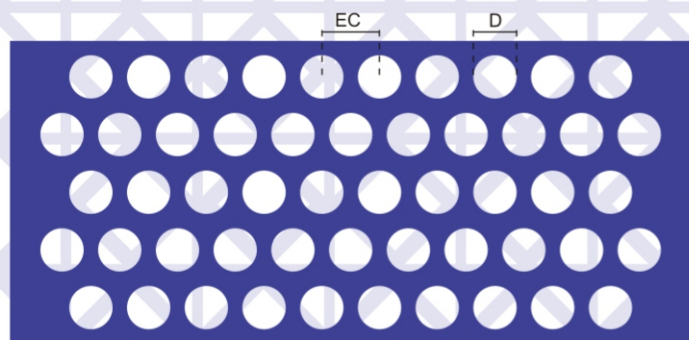
23 Largura do furo

24 Comprimento do furo

# Furos Redondos

A colocação mais usual dos furos redondos é a alternada longitudinal, com destaque para a alternada 60º sextavada. Esta configuração proporciona maior porcentagem de área aberta, permitindo maior vazão.

Entre as principais, também estão as colocações reta e transversal.



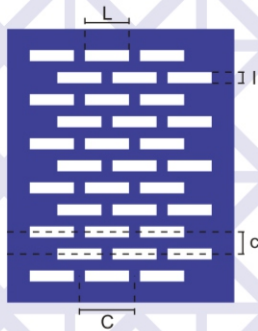
## Relação de Furos Redondos Furos Alterados

Diâmetro		Centros mm	Área Aberta %
mm	polegadas		
0,5	020	1,0	20
0,5	020	1,25	14
0,6	023	1,2	23
0,6	023	1,35	17
0,7	028	1,6	17
0,8	1/32	1,6	23
0,9	035	1,8	23
1,0	040	1,6	35
1,0	040	1,77	28
1,0	040	1,9	25
1,1	043	2,0	27
1,2	6/64	2,2	27
1,3	051	2,4	26
1,4	055	2,4	31
1,5	059	3,0	23
1,5	059	3,18	20
1,6	1/16	3,0	26
1,8	071	2,55	45
1,8	071	3,0	32
2,0	5/64	3,0	40
2,0	5/64	3,5	29
2,0	5/64	4,0	23
2,4	3/32	4,0	32
2,4	3/32	5,0	21
2,8	7/64	4,0	44
3,17	1/8	5,0	36
3,17	1/8	6,0	25
3,6	9/64	5,0	47
4,0	5/32	6,0	40
4,0	5/32	7,0	29
4,8	3/16	7,0	42
4,8	3/16	8,0	32
4,8	3/16	10,0	21
5,55	7/32	8,0	43
5,55	7/32	10,0	28
6,35	1/4	9,0	45
6,35	1/4	10,0	36
6,35	1/4	11,0	30
8,0	5/16	11,0	48
8,0	5/16	12,0	40

Diâmetro		Centros mm	Área Aberta %
mm	polegadas		
8,0	5/16	14,0	29
9,5	3/8	13,0	48
9,5	3/8	14,0	41
9,5	3/8	16,0	32
11,1	7/16	16,0	43
12,7	1/2	18,0	45
12,7	1/2	20,0	36
12,7	1/2	24,0	25
14,3	9/16	20,0	46
14,3	9/16	22,0	38
16,0	5/8	20,0	57
16,0	5/8	24,0	40
17,5	11/16	28,0	35
19,0	3/4	26,0	48
19,0	3/4	32,0	32
19,0	3/4	34,0	28
22,2	7/8	28,0	57
22,2	7/8	32,0	43
25,4	1	32,0	57
25,4	1	38,0	40
28,6	1.1/8	40	46
30,2	1.3/16	42	46
31,8	1.1/4	48	40
35	1.3/8	52	41
38,1	1.1/2	56	42
41,3	1.5/8	58	46
44,4	1.3/4	62	46
47,6	1.7/8	66	47
50,8	2	72	45
57	2.1/4	76	51
63,5	2.1/2	84	51
66,7	2.5/8	88	52
69,8	2.3/4	92	52
76,2	3	96	54
82,6	3.1/4	104	57
88,9	3.1/2	110	59
95,2	3.3/4	120	57
101,6	4	124	74
108	4.1/4	130	62

# Varios Modelos de Perfuração

## Furos Retangulares

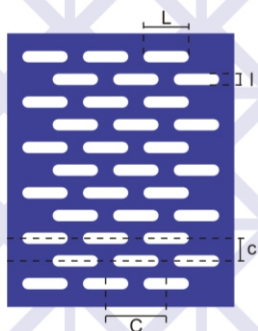


Dimensões Furos (mm)		Distância Furos (mm)		Área Perfurada %	Disposição Furos
l	L	c	C		
0,5 x 4,0	1,35 x 5,5	27	R		
0,7 x 8,5	1,6 x 11,3	32	R		
1,4 x 20	3 x 26,0	36	R		
1,6 x 3,6	2,4 x 5,0	48	R		
3,0 x 5,0	4,0 x 6,0	63	R		
3,2 x 26,5	5,0 x 30,5	56	R		
4,0 x 10,0	5,5 x 13,0	56	R		
8,0 x 15,0	13,0 x 20,0	46	AL		
8,0 x 40,0	11,0 x 43,0	68	R		

Dimensões Furos (mm)		Distância Furos (mm)		Área Perfurada %	Disposição Furos
l	L	c	C		
9,5 x 40,0	OC				
15,0 x 30,0	18,0 x 33,0	76	R		
16,0 x 145,0	OC				
20,0 x 50,0	32,0 x 62	50	AL		
26,2 x 37,0	OC				
41,4 x 76,2	OC				

AL: Alternado  
OC: Opção do Cliente  
R: Reto

## Furos Oblongos

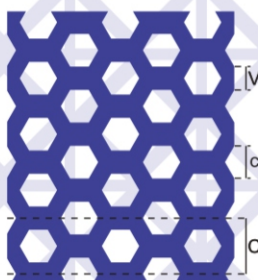


Dimensões Furos (mm)		Distância Furos (mm)		Área Perfurada %	Disposição Furos
l	L	c	C		
0,8 x 12	3,2 x 16	23	AL		
1,2 x 25	3,5 x 29	29	AL		
1,5 x 15	4 x 18	31	AL		
1,75 x 24	5,75 x 28	26	AL		
2 x 10	4 x 12	40	AL		
2 x 20	4,5 x 23	38	AL		
2 x 25	5 x 33	30	AL		
2,5 x 20	4,85 x 23	44	AL		
3 x 10	6,7 x 14	30	AL		
3,17 x 16	8 x 21	29	AL		
3,17 x 19	6,2 x 22	42	AL		
4 x 20	7,7 x 24	41	AL		

Dimensões Furos (mm)		Distância Furos (mm)		Área Perfurada %	Disposição Furos
l	L	c	C		
4,8 x 19	9 x 23	42	AL		
4,8 x 22,2	9,5 x 32	35	AL		
6 x 20	12 x 26	36	AL		
6 x 30	12,3 x 38	37	AL		
6,35 x 25,4	12 x 31	41	AL		
7 x 20	14 x 29,5	31	AL		
8 x 25,4	15 x 32	39	AL		
8 x 32	16 x 42	36	AL		
8 x 38	16 x 46	40	AL		
9,5 x 28	17,5 x 36	39	AL		
10 x 35	OC				
12,7 x 57,2	22 x 75,2	42	AL		

AL: Alternado  
OC: Opção do Cliente

## Furos Hexagonal



Distância Furos (mm)			Área Perfurada %
c	c	v	
6	9	3	44
8	11	3	53
10	14	4	51
13	17	4	58
15	20	5	56
19	26	7	53
21	26	5	65
23	29	6	63
32	39	7	67

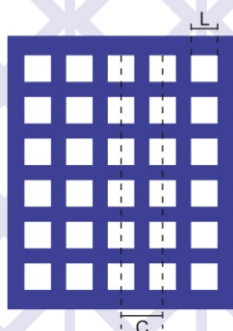
## Furos Venezianas



Dimensões (mm)			Cantos
L	c	C	
10	15	18	CV
12,7	7	17,5	CA
12,7	7	17,5	CV
16	11	21	CA
17	17	27	CA
25,4	14	32,5	CA
38	15	46	CV
45	13	52	CA
105	AV	AV	CA

CV: Cantos Arredondados / CA: Cantos Abertos

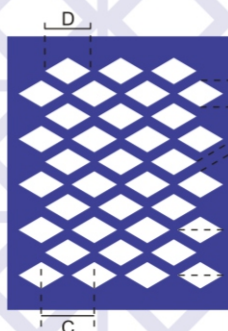
## Furos Quadrados



Dimensões Furos (mm)		Distância Furos (mm)	Área Perfurada %	Disposição Furos
L	C			
5,0	8,0	39	R	
6,0	9,0	45	R	
8,0	11,0	53	R	
10,0	12,0	69	R	
10,0	13,0	59	R	
12,0	21,0	37	AL	
16,0	26,0	38	AL	
20,0	39,0	29	R	
25,0	35,0	51	AL	
31,8	47,8	44	AL	
35,0	45,0	61	AL	
40,0	52	59	R	

AL: Alternado  
R: Reto

## Furos Losangulares



Dimensões (mm)					Área Perfurada %
d	D	c	C	v	
4,7	6,7	7,0	10,0	1,3	45
7,0	14,0	9,5	21,0	2,0	49
8,0	24,0	13,5	34,0	3,3	42
11,0	29,0	23,0	56,0	12,0	25
13,0	30,0	23,0	54,0	7,0	31
15,0	40,0	21,6	60,0	5,0	46
19,0	40,0	29,0	60,0	7,0	44
19,0	45,0	28,0	60,0	5,0	51
19,0	50,0	24,6	69,0	4,0	56
25,0	45,0	30,0	67,0	5,0	56