

Webforge Locker Standards for Perforated Metal

1. LENGTH AND WIDTH

Dimensions: Length (mm) or Width (mm)	Thickness	
	Up to 5 mm	Over 5 mm
Up to 100	+ - 1.0	+ - 1.5
Over 100 to 300	+ - 1.5	+ - 2.0
Over 300 to 1000	+ - 2.0	+ - 3.0
Over 1000 to 2000	+ - 3.0	+ - 5.0
Over 2000 to 4000	+ - 4.0	+ - 8.0
Over 4000	+ - 5.0	+ - 10.0

2. MARGINS – Permitted tolerance for margin

Pitch p	Tolerance
Up to 5 mm	+ - 5.0 mm
Over 5 mm to 20 mm	+ - 10.0 mm
Over 20 mm	+ - p/2

3. SQUARENESS

Thickness of plate	Difference is the diagonals measured
Up to 2 mm	2.0 mm
Over 2 mm to 5 mm	6.0 mm
Over 5mm to 15 mm	12.0 mm
Over 15 mm to 25 mm	25.0 mm

4. CAMBER – Maximum camber all metals after perforating

Length of the concave side	Max Camber
Up to 1220 mm	+ - 3.0 mm
Over 1220 mm to 1830 mm	+ - 5.0 mm
Over 1830 to 2440 mm	+ - 12.0 mm

5. FLATNESS - Flatness tolerances of roller levelled plates with no or small unperforated margin to a max length of 3 m:

Width of sheet (mm)		Permissible tolerance of flatness (mm)			
>	≤	Thickness <	≥ 0.70 < 1.20	≥ 1.20 ≤ 3.00	> 3.00 < 6.00
	1200	20	18	15	20
1200	1500	28	22	18	25
1500	2000	30	25	20	30

6. BURRS – Acceptable burr heights at normal perforating conditions:

Thickness of sheet	Burr Height (max)	Stainless Steel
Up to 0.6 mm	0.15 mm	0.23 mm
Over 0.6 mm to 1.5 mm	0.17 mm	0.26 mm
Over 1.5 mm to 3 mm	0.20 mm	0.30 mm
Over 3 mm to 6 mm	0.30 mm	
Over 6 mm to 12 mm	0.60 mm	
12 mm and over	0.70 mm	

7. PITCH – Pitch distance of holes to be checked at machine (prior to flattening) along perforation in direction of feed. (Values in millimetres)

A	B	C			
Nominal Pitch	Check over this number of pitches *	Measurement over *pitches	Tolerance over *pitches + or -	Tolerance on average pitch + or -	
1.00	50	50	2.0	0.04	
1.10		55	2.1	0.04	
1.20		60	2.3	0.05	
1.30		65	2.5	0.05	
1.40		70	2.6	0.05	
1.60		80	3.0	0.06	
1.70		20	34	1.2	0.06
1.98	39.6		1.4	0.07	
2.38	47.6		1.7	0.08	
2.78	55.6		1.9	0.09	
3.18	63.6		2.2	0.11	
3.57	71.4		2.4	0.12	
3.97	79.4		2.7	0.13	
4.37	87.4		2.9	0.14	
4.76	95.2		3.1	0.15	
5.56	111.2		3.7	0.19	
5.95	119.0		3.8	0.19	
6.35	127.0		4.0	0.20	
7.14	10		71.4	2.2	0.22
7.94			79.4	2.4	0.24
9.53		95.3	2.8	0.28	
11.11		111.1	3.2	0.32	
12.70		127.0	3.6	0.36	
14.27		142.7	4.0	0.40	
15.88		158.8	4.4	0.44	
17.46		174.6	4.8	0.48	
19.05		190.5	5.1	0.51	
22.22		222.2	5.8	0.58	
25.40	5	127.0	3.2	0.66	
28.48		142.4	3.6	0.72	
31.75		158.7	3.9	0.79	
34.93		174.6	4.2	0.85	
38.10		190.5	4.6	0.92	
45.45		227.3	5.3	1.06	
50.80		254.0	5.8	1.16	
57.15		285.7	6.4	1.28	
63.50	3	190.5	4.1	1.39	
69.85		209.5	4.5	1.5	
76.20		228.6	4.8	1.61	
88.90		266.7	5.4	1.82	
101.60		304.8	6.0	2.02	
114.30		342.9	6.6	2.22	
127.00		381	7.2	2.40	
139.70		419.1	7.7	2.59	
152.40		457.2	8.3	2.77	
177.80		533.4	9.3	3.11	

For intermediate un-listed pitches, calculate the measurement range from the values of the nearest smaller pitch listing as follows:-

A x B – C = From measurement e.g. Nominal pitch = 5 then 5 x 20 – 3.1 = 96.9 (from)

A x B + C = To measurement 5 x 20 + 3.1 = 103.1 (to)

NOTE: The tolerance on any individual pitch is twice that of average pitch

8. THICKNESS TOLERANCE – Dimensions in mm.

Thickness	Mild Steel Galvabond Zincanneal Zincseal		Stainless Steel		Aluminium	
	From	To	From	To	From	To
0.45	0.42	0.53	0.42	0.53		
0.55	0.52	0.60	0.52	0.60		
0.60	0.57	0.68			0.50	0.70
0.70	0.66	0.78	0.66	0.78		
0.80	0.76	0.89			0.93	0.77
0.90	0.86	0.99	0.80	1.00		
1.00	0.96	1.10			0.87	1.13
1.20	1.15	1.32	1.07	1.33	1.05	1.35
1.50	1.45	1.64	1.35	1.65		
1.60	1.54	1.74			1.45	1.75
2.00	1.93	2.15	1.82	2.18	1.85	2.15
2.50	2.43	2.65	2.27	2.73	2.32	2.68
3.00	2.92	3.17	2.75	3.25	2.50	3.50
4.00	3.92	4.17	3.75	4.70	3.50	4.50
5.00	4.91	5.18	4.75	5.95		
6.00	5.90	6.19	5.75	6.75	5.30	6.70
8.00	7.89	8.20	7.75	8.70	7.20	8.80
10.00	9.88	10.20	9.75	11.10	9.20	10.80

If material is outside the above tolerances see Purchasing Officer.