



DESCRIPTION: (C4L103A2)

American National Standard metric plain washers
in narrow, regular and wide series. *

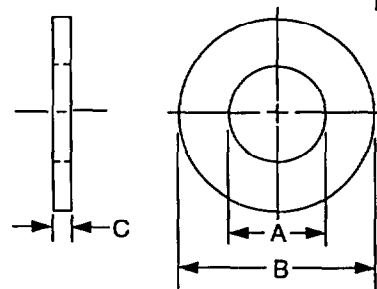
MATERIAL:

Steel, thoroughly quenched and tempered
0.05 max P, 0.06 max S.

HARDNESS:

Rockwell C38 to C45.

Reference: ASME/ANSI
B18.22M



All dimensions in millimeters (mm).

NARROW SERIES

Nominal washer size	PART NUMBER	A Inside diameter		B Outside diameter		C Material thickness		Total Runout
		Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	F.I.M. **
1.6	1	2.09	1.95	4.00	3.70	0.70	0.50	0.24
2	2	2.64	2.50	5.00	4.70	0.90	0.60	
2.5	3	3.14	3.00	6.00	5.70	0.90	0.60	
3	4	3.68	3.50	7.00	6.64	0.90	0.60	0.30
3.5	5	4.18	4.00	9.00	8.64	1.20	0.80	
4	6	4.88	4.70	10.00	9.64	1.20	0.80	
5	7	5.68	5.50	11.00	10.57	1.40	1.00	0.36
6	8	6.87	6.65	13.00	12.57	1.75	1.20	
8	10	9.12	8.90	18.80	18.37	2.30	1.60	
10	11	11.12	10.85	20.00	19.48	2.30	1.60	0.42
12	12	13.57	13.30	25.40	24.88	2.80	2.00	
14	13	15.52	15.25	28.00	27.48	2.80	2.00	
16	14	17.52	17.25	32.00	31.38	3.50	2.50	0.50
20	15	22.32	21.80	39.00	38.38	4.00	3.00	
24	16	26.12	25.60	44.00	43.38	4.60	3.50	
30	17	33.02	32.40	56.00	54.80	5.10	4.00	0.92
36	18	38.92	38.30	66.00	64.80	5.60	4.50	

FLATNESS REQUIREMENT: Washers shall be flat within 0.25 mm for sizes with outside diameters up to 25.0 mm and within 0.01 mm per mm of outside diameter for sizes with outside diameters greater than 25.0 mm.

FINISH: Other finishes available,
tabulated on L9991 – Finish suffix chart.

♦ PREFERRED SIZE

* Metric "Standards" cross-reference
chart tabulated on L9992.

** F.I.M. – Full indicator movement

PT NO. SUFFIX	FINISH DESCRIPTION	GE FINISH REFERENCE
None	Unplated	-
B46	0.005 mech. zinc & blue dye	F75B1B
B47	0.005 mech. zinc, blue dye & chromate coating	F75B1B & F65E1F3

PART NUMBER EXAMPLE: L400FP6B32 identifies a hardened plain steel washer, narrow series intended for use with a M4 screw, mechanically plated zinc with blue dye.

GECS 53100188

This drawing and latest issue of the specification completely define the part.

SPECIFICATION	GENERAL ELECTRIC STANDARD	Drawing No.
		L400F
C4L103	Washer Plain	Page 1 of 3



Metric Hardened Steel Plain Washer

December 31, 1994

DESCRIPTION: (C4L103A2)

American National Standard metric plain washers
in narrow, regular and wide series. *

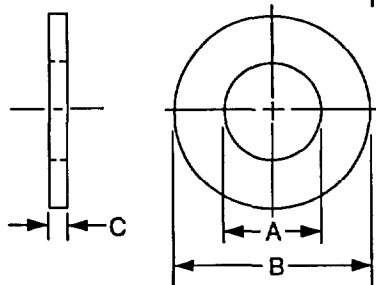
MATERIAL:

Steel, thoroughly quenched and tempered
0.05 max P, 0.06 max S.

HARDNESS:

Rockwell C38 to C45.

Reference: ASME/ANSI
B18.22M



All dimensions in millimeters (mm).

REGULAR SERIES

Nominal washer size	PART NUMBER	A Inside diameter		B Outside diameter		C Material thickness		Total Runout
		Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	F.I.M. **
1.6	20	2.09	1.95	5.00	4.70	0.70	0.50	0.24
2	21	2.64	2.50	6.00	5.70	0.90	0.60	
2.5	22	3.14	3.00	8.00	7.64	0.90	0.60	
3	23	3.68	3.50	10.00	9.64	1.20	0.80	0.30
3.5	24	4.18	4.00	10.00	9.64	1.40	1.00	
4	25	4.88	4.70	12.00	11.57	1.40	1.00	
5	26	5.68	5.50	15.00	14.57	1.75	1.20	0.36
6	27	6.87	6.65	18.80	18.37	1.75	1.20	
8	29	9.12	8.90	25.40	24.88	2.30	1.60	
10	30	11.12	10.85	28.00	27.48	2.80	2.00	0.42
12	31	13.57	13.30	34.00	33.38	3.50	2.50	
14	32	15.52	15.25	39.00	38.38	3.50	2.50	
16	33	17.52	17.25	44.00	43.38	4.00	3.00	0.50
20	34	22.32	21.80	50.00	49.38	4.60	3.50	
24	35	26.12	25.60	56.00	54.80	5.10	4.00	
30	36	33.02	32.40	72.00	70.80	5.60	4.50	0.92
36	37	38.92	38.30	90.00	88.60	6.40	5.00	

FLATNESS REQUIREMENT: Washers shall be flat within 0.25 mm for sizes with outside diameters up to 25.0 mm and within 0.01 mm per mm of outside diameter for sizes with outside diameters greater than 25.0 mm.

FINISH: Other finishes available,
tabulated on L9991 – Finish suffix chart.

PT NO. SUFFIX	FINISH DESCRIPTION	GE FINISH REFERENCE
None	Unplated	-
B46	0.005 mech. zinc & blue dye	F75B1B
B47	0.005 mech. zinc, blue dye & chromate coating	F75B1B & F65E1F3

♦ PREFERRED SIZE

* Metric "Standards" cross-reference
chart tabulated on L9992.

** F.I.M. – Full indicator movement

PART NUMBER EXAMPLE: L400FP20B32 identifies a hardened plain steel washer, regular series intended for use with a M1.6 screw, mechanically plated zinc with blue dye.

GEGS 53100188

This drawing and latest issue of the specification completely define the part.

SPECIFICATION	GENERAL ELECTRIC STANDARD	Drawing No.
C4L103	Washer Plain	L400F

Page 2 of 3



Metric Hardened Steel Plain Washer

DESCRIPTION: (C4L103A2)

American National Standard metric plain washers
in narrow, regular and wide series. *

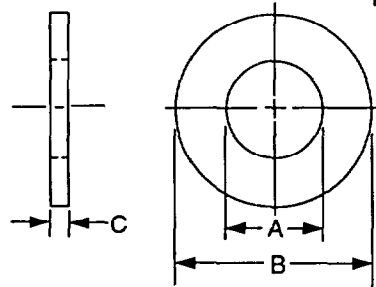
MATERIAL:

Steel, thoroughly quenched and tempered
0.05 max P, 0.06 max S.

HARDNESS:

Rockwell C38 to C45.

Reference: ASME/ANSI
B18.22M



All dimensions in millimeters (mm).

WIDE SERIES

Nominal washer size	PART NUMBER	A Inside diameter		B Outside diameter		C Material thickness		Total Runout
		Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	F.I.M. **
1.6	40	2.09	1.95	6.00	5.70	0.90	0.60	0.24
2	41	2.64	2.50	8.00	7.64	0.90	0.60	
2.5	42	3.14	3.00	10.00	9.64	1.20	0.80	
3	43	3.68	3.50	12.00	11.57	1.40	1.00	0.30
3.5	44	4.18	4.00	15.00	14.57	1.75	1.20	
4	45	4.88	4.70	16.00	15.57	2.30	1.60	
5	46	5.68	5.50	20.00	19.48	2.30	1.60	0.36
6	47	6.87	6.65	25.40	24.88	2.30	1.60	
8	49	9.12	8.90	32.00	31.38	2.80	2.00	
10	50	11.12	10.85	39.00	38.38	3.50	2.50	0.42
12	51	13.57	13.30	44.00	43.38	3.50	2.50	
14	52	15.52	15.25	50.00	40.38	4.00	3.00	
16	53	17.52	17.25	56.00	54.80	4.60	3.50	0.50
20	54	22.32	21.80	66.00	64.80	5.10	4.00	
24	55	26.12	25.60	72.00	70.80	5.60	4.50	
30	56	33.02	32.40	90.00	88.60	6.40	5.00	0.92
36	57	38.92	38.30	110.00	108.60	8.50	7.00	

FLATNESS REQUIREMENT: Washers shall be flat within 0.25 mm for sizes with outside diameters up to 25.0 mm and within 0.01 mm per mm of outside diameter for sizes with outside diameters greater than 25.0 mm.

FINISH: Other finishes available,
tabulated on L9991 – Finish suffix chart.

♦ PREFERRED SIZE

* Metric "Standards" cross-reference
chart tabulated on L9992.

** F.I.M. – Full indicator movement

PT NO. SUFFIX	FINISH DESCRIPTION	GE FINISH REFERENCE
None	Unplated	-
B46	0.005 mech. zinc & blue dye	F75B1B
B47	0.005 mech. zinc, blue dye & chromate coating	F75B1B & F65E1F3

PART NUMBER EXAMPLE: L400FP57B32 identifies a hardened plain steel washer, wide series intended for use with a M36 screw, mechanically plated zinc with blue dye.

GEGS 53100188

This drawing and latest issue of the specification completely define the part.

SPECIFICATION	GENERAL ELECTRIC STANDARD	Drawing No.
C4L103	Washer Plain	L400F
		Page 3 of 3