



# **FORTRESS<sup>®</sup>**

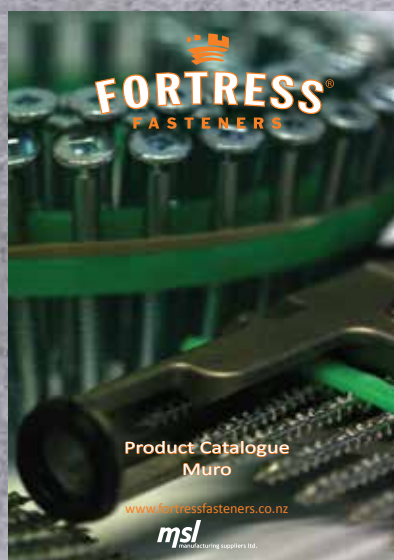
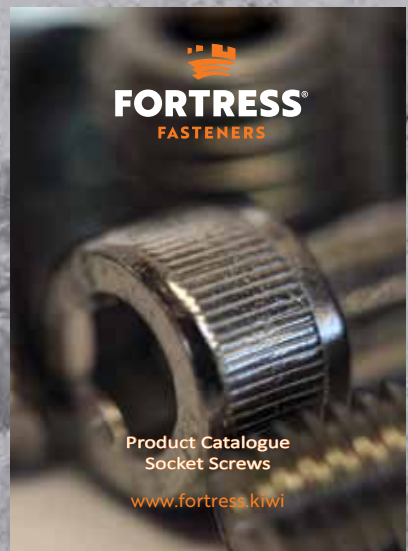
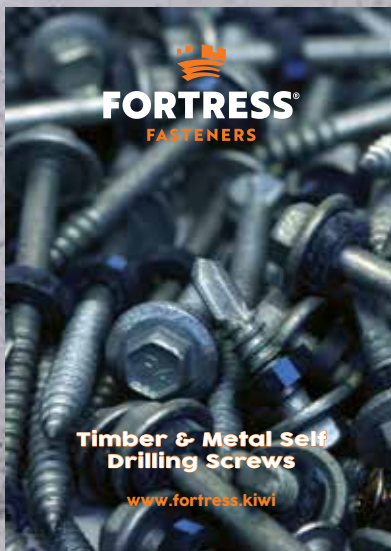
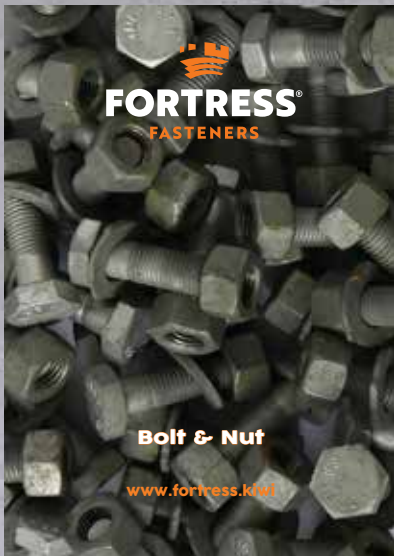
## **FASTENERS**

**Nuts & Washers**

**[www.fortress.kiwi](http://www.fortress.kiwi)**



# Fortress Catalogues Now Available







Manufacturing Suppliers Ltd (MSL) began business in 1980 as a small operation in New Lynn, Auckland and is now one of New Zealand's leading fastener suppliers. We have grown dramatically in the past thirty years and now employ over one hundred people who continue our company vision - to meet industry demands for a range of quality fasteners backed by a dependable service.

Now a wholly owned subsidiary of Steel & Tube Holdings Ltd, we take pride in supporting the New Zealand economy, and can now offer a full range of steel solutions in partnership with Steel & Tube.

Our substantial growth since the eighties has included the introduction of 9 branches nationwide. Fortress has developed into a house hold name across many kiwi industries. Our local management means we understand the local market and have the ability to make decisions rapidly and easily. Large enough to meet the demands of any customer, we are still small enough to offer the personal touch.

With our network of fully-stocked branches carrying over 300 million items and 17,000 product lines. This makes us arguably the largest fastening wholesaler in the country. Our new products, creative packaging and merchandising initiatives have also earned us a reputation as industry innovators.

We owe our success to our ability to deliver on time and in full to a wide customer base in manufacturing industries, the building trade and to building supplies merchants in New Zealand.

This, combined with the strength of our own Fortress brand and our exceptional customer service is what makes MSL a market leader.

Our national management means we understand the local market and have the ability to make decisions rapidly and easily. Large enough to meet the demands of any customer, we are still small enough to offer the personal touch.

# Branch Network

## Auckland (Head Office)

560 Rosebank Road, Avondale  
Phone 09 828 2777  
Fax 09 828 2424

## Albany

2 Ride Way, Albany  
Phone 09 414 7620  
Fax 09 414 7410

## Hamilton

51 Vickery Street, Te Rapa  
Phone 07 850 8434  
Fax 07 850 5696

## Mount Maunganui

7 Newton Street  
Phone 07 575 0508  
Fax 07 575 0557

## Hastings

199 St. Aubyn Street West  
Phone 06 873 3311  
Fax 06 873 3315

## New Plymouth

25 Hurlstone Drive, Waiwhakaiho  
Phone 06 8248950 or 06 8248951  
Fax 06 7574391

## Palmerston North

94 Kaimanawa Street  
Phone 06 355 5990  
Fax 06 355 5880

## Wellington

6 Regent Street, Petone  
Phone 04 586 2300  
Fax 04 586 2600

## Christchurch

66 Hammersmith Drive, Sockburn  
Phone 03 343 6740  
Fax 03 343 6741



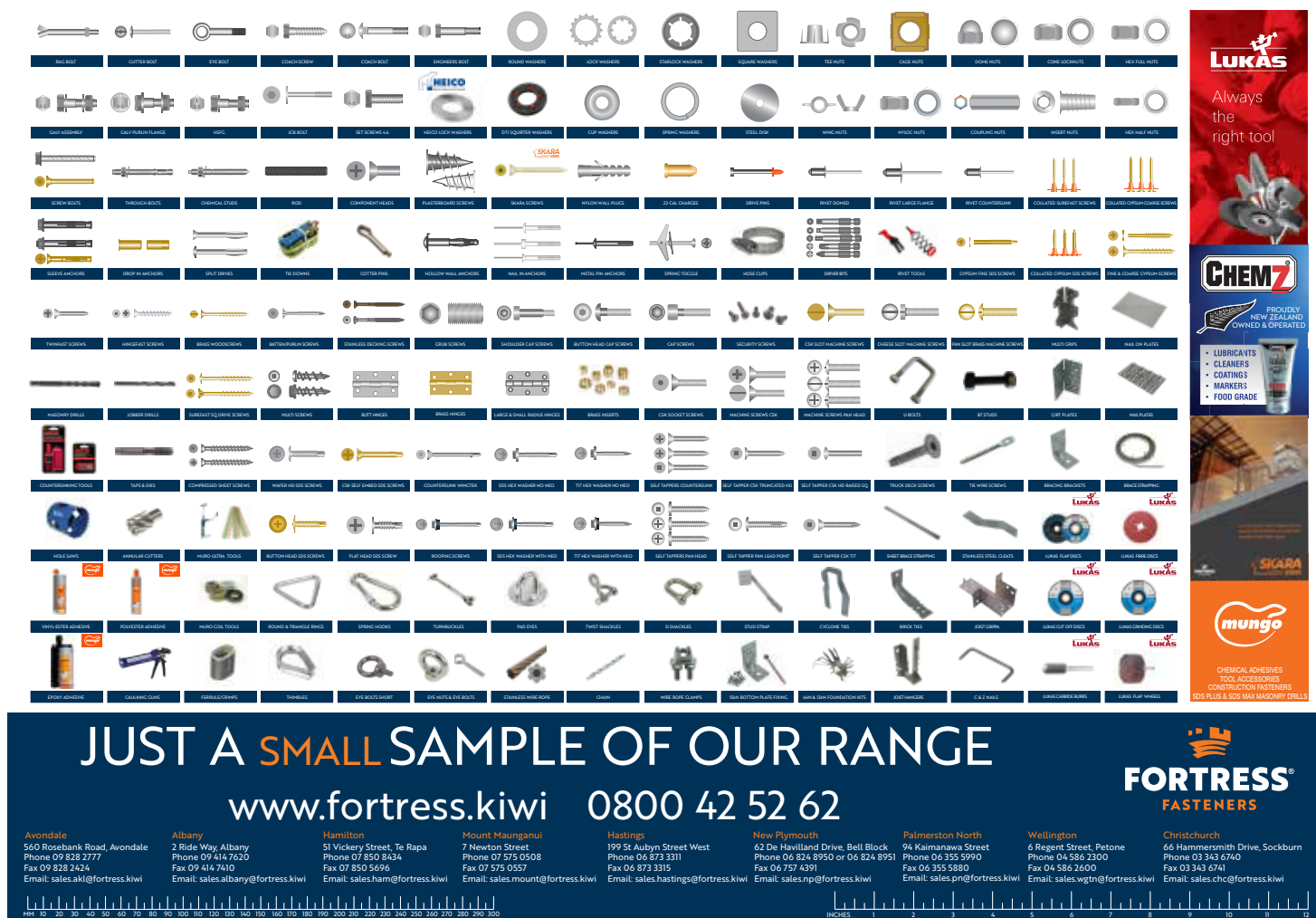


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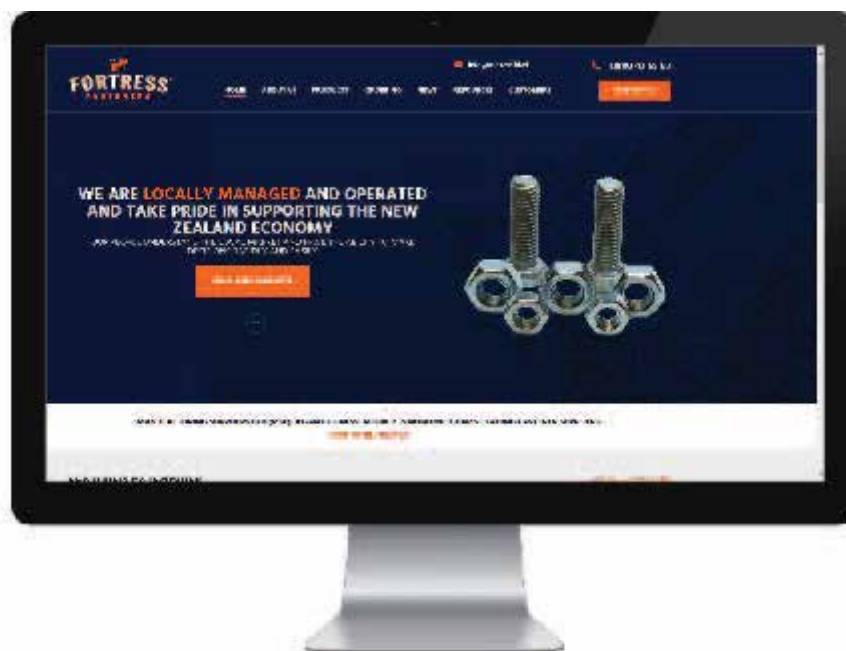
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# New Wall Chart Available!



Download now at  
**[www.fortress.kiwi](http://www.fortress.kiwi)**

# Brand New Fortress Website



**Online Ordering!**  
**Search and view range.**  
**View pricing.**  
**View and download technical information.**  
**Keep up to date with industry developments.**

# Durability Icon Legend



**Zinc - Internal use**



**Zinc Chromate - Internal use**



**Class 4 - External use**



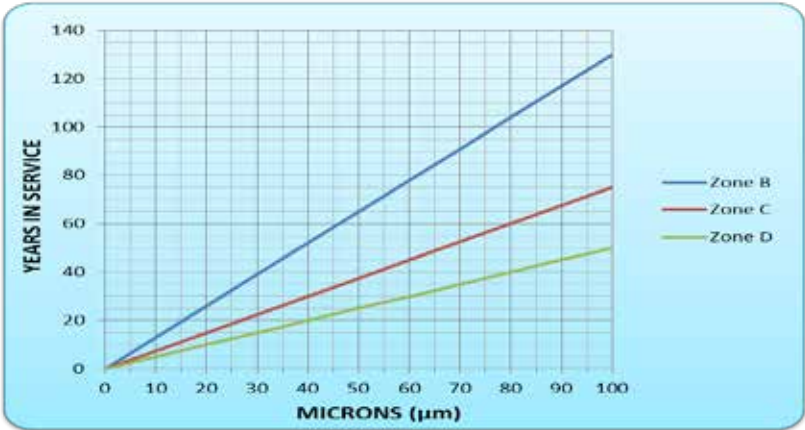
**Galvanised - External use**



**T304 Stainless Steel - External use**



**T316 Stainless Steel - External and Marine use**



Category	Coating Type	Coating Thickness (µm)	Standard
CLASS: 1	Electro Plated Zinc	4	AS 1791
CLASS: 2	Electro Plated Zinc	12	AS 1791
CLASS: 2	Mechanically Plated Zinc	17	AS 1791
CLASS: 3	Electro Plated Zinc	30	AS 1791
CLASS: 3	Mechanically Plated Zinc	40	AS 1791
CLASS: 3	Hot Dipped Galvanised	30	AS 1791
CLASS: 4	Mechanically Plated Zinc	45	AS 1791
CLASS: 4	Hot Dipped Galvanised	50	AS 1791
HDG	Hot Dipped Galvanised	84	AS 1214 / AS 4680

## Exposure Zone Descriptions

**Zone B: Low**  
Inland areas with little risk from wind blown sea-spray salt deposits.

**Zone C: Medium**  
Inland costal areas with medium risk from wind blown sea-spray salt deposits. This covers mainly coastal areas with relatively low salinity. The extent of the affected area varies significantly with factors such as winds, topography and vegetation.

**Zone D: High**  
Coastal areas with high risk of wind blown sea-spray deposits. This is defined as within 500m of the sea including harbours or 100m from tidal estuaries and sheltered inlets. This also includes all offshore islands.



# Durability class Breakdown

CL 3

## Class 3 - External use

**Class 3** is good for general external use in mild industrial and marine applications. The class is intended for roofing and cladding screws in mild applications.

Class 3 is determined by achieving 1000 SST - 1000 Salt Spray Test hours.

Class three (CL3) and Class four (CL4) are forms of mechanically plated steel that sit between the common Zinc plated and Galvanised coatings in terms of durability.

Plating is 25-30 microns thick.

EC

## E-Coat

**E-Coat** finish has a similar life span to Class 3 but is electrically plated.

BR

## Blue Ruspert

**Ruspert** also has a similar durability to Class 3. Ruspert coating is a processing of metal surface treatment. It provides high performance of corrosion resistance. The coating including 3 layers. Base coating is metallic zinc layer, then the second chemical conversion film layer, finally a baked ceramic surface coating.

CL 4

## Class 4 - External use

**Class 4** is mechanically plated and rated to 1500 SST.

For external use in marine and moderately severe corrosive environments, generally within 1 kilometre from marine surf, although topography and /or strong prevailing winds may extend this distance.

Plating is 30-40 microns thick.

CL 5

## Class 5 - External use

**Class 5** is also mechanically plated but there is currently no national standard to adhere to. Class 5 fasteners are measured on real world testing as opposed to plating thickness.

Requires 2000 hours SST or greater to be rated to Class 5.

**Always** consult with your Fortress fastening specialist to get the best fastener to suit.

Compliance is to be assessed through real world testing "when testing at an approved outdoor test site there shall be no red rust present on the significant surfaces of 95% of the fasteners tested". These outdoor test sites must be located less than 500m from the mean high water line, in a coastal area with surf for most of the year.





# Icon Legend



**Drill Diameter**



**Embedment Depth**



**Material Thickness**



**Pack Size**



**Bulk Size**



**Driver Type and Size**



**Hex Drive Size**



**Across Face Head Width**



**Screw Gauge (size)**

# Hex Full Nuts Metric

Black

Zinc Plated

Galvanised



SIZE	CODE	PACK QTY	CODE		PACK QTY
M2			NHFSM2Z		200
M2.5			NHFSM25Z		200
M3			NHFSM3Z		200
M4			NHFSM4Z		200
M5			NHFSM5Z		200
M6	NHFSM6B	100	NHFSM6Z		200
M8	NHFSM8B	100	NHFSM8Z	NHFSM8G	200
M10	NHFSM10B	100	NHFSM10Z	NHFSM10G	100
M12	NHFSM12B	100	NHFSM12Z	NHFSM12G	100
M14			NHFSM14Z		100
M16	NHFSM16B	100	NHFSM16Z	NHFSM16G	100
M18	NHFSM18B	100	NHFSM18Z		100
M20	NHFSM20B	100	NHFSM20Z	NHFSM20G	100
M22	NHFSM22B	25		NHFSM22G	50
M24	NHFSM24B	25	NHFSM24Z	NHFSM24G	25
M30	NHFSM30B	25	NHFSM30Z	NHFSM30G	25
M33				NHFSM33G	EACH
M36	NHFSM36B	EACH		NHFSM36G	EACH
M39				NHFSM39G	EACH
M42				NHFSM42G	EACH
M48	NHFSM48B	EACH		NHFSM48G	EACH

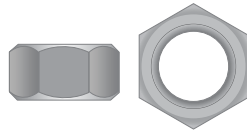
All Stock is subject to availability



# Hex Full Nuts Metric Fine

**Black**

**Zinc Plated**



**Black**

**Zinc**



SIZE	PITCH	CODE		PACK QTY
M6	0.75		NHFSMF6Z	100
M8	1.0	NHFSMF8B	NHFSMF8Z	100
M10	1.25	NHFSMF10B	NHFSMF10Z	100
M12	1.25	NHFSMF12B	NHFSMF12Z	100
M14	1.5	NHFSMF14B	NHFSMF14Z	100
M16	1.5	NHFSMF16B	NHFSMF16Z	100
M18	1.5	NHFSMF18B	NHFSMF18Z	100
M20	1.5	NHFSMF20B	NHFSMF20Z	100
M24	2.0	NHFSMF24B		25

All Stock is subject to availability

# Hex Full Nuts UNC

Black

Zinc Plated



SIZE	CODE		PACK QTY
1/4"	NHFS14B	NHFS14Z	150
5/16"	NHFS516B	NHFS516Z	100
3/8"	NHFS38B	NHFS38Z	100
7/16"	NHFS716B	NHFS716Z	100
1/2"	NHFS12B	NHFS12Z	100
9/16"	NHFS916B	NHFS916Z	100
5/8"	NHFS58B	NHFS58Z	100
3/4"	NHFS34B	NHFS34Z	50
7/8"	NHFS78B	NHFS78Z	50
1"	NHFS1B	NHFS1Z	50
1 1/8"	NHFS118B		25
1 1/4"	NHFS114B		25
1 1/2"	NHFS112B		15
2"	NHFS2B		10
2 1/4"	NHFS214B		10

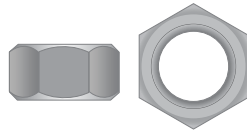
All Stock is subject to availability



# Hex Full Nuts UNF

**Black**

**Zinc Plated**



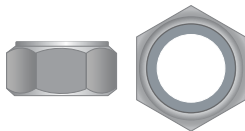
SIZE	CODE		PACK QTY
1/4"	NHFS14FB	NHFS14FZ	100
1/2"	NHFS12FB	NHFS12FZ	100
9/16"	NHFS916FB	NHFS916FZ	100
5/8"	NHFS58FB	NHFS58FZ	75
3/4"	NHFS34FB		100
7/8"	NHFS78FB		50
7/16"	NHFS716FB	NHFS716FZ	100
5/16"	NHFS516FB	NHFS516FZ	100
3/8"	NHFS38FB	NHFS38FZ	100
1 1/8"	NHFS118FB		25
1 1/4"	NHFS114FB		25
1 1/2"	NHFS112FB		25

All Stock is subject to availability

# Nyloc Nuts Metric

Zinc Plated

Galvanised

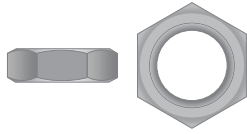


SIZE	CODE	PACK QTY	CODE	PACK QTY
M3	NYLM3Z	1000		
M4	NYLM4Z	200		
M5	NYLM5Z	200		
M6	NYLM6Z	200		
M8	NYLM8Z	200	NYLM8G	200
M10	NYLM10Z	100	NYLM10G	100
M12	NYLM12Z	100	NYLM12G	100
M14	NYLM14Z	100		
M16	NYLM16Z	50	NYLM16G	50
M20	NYLM20Z	50	NYLM20G	25
M24	NYLM24Z	50		

All Stock is subject to availability

# Lock Nuts (Half Nuts) Metric

Zinc Plated



SIZE	CODE	PACK QTY
M5	NHLSM5Z	EACH
M6	NHLSM6Z	EACH
M8	NHLSM10Z	EACH
M10	NHLSM10Z	EACH
M12	NHLSM12Z	EACH
M16	NHLSM16Z	EACH
M20	NHLSM20Z	EACH

# Lock Nuts (Half Nuts) Metric Fine

Zinc Plated



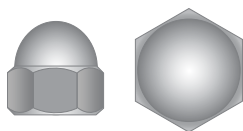
SIZE	PITCH	CODE	PACK QTY
M10	1.25	NHLSMF10Z	EACH
M14	1.5	NHLSMF14Z	EACH
M16	1.5	NHLSMF16Z	EACH
M18	1.5	NHLSMF18Z	EACH
M20	1.5	NHLSMF20Z	EACH
M24	2.0	NHLSM24FZ	EACH

All Stock is subject to availability



# Dome Nuts

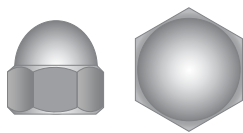
Brass



SIZE	CODE	PACK QTY
M3	NDM3	100
M4	NDM4	100
M5	NDM5	100
M6	NDM6	100
M8	NDM8	100
M10	NDM10	100
M12	NDM12	100
M16	NDM16	100

# Dome Nuts Nickel Plated

Brass

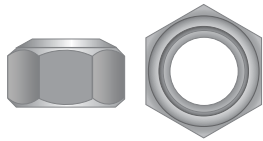


SIZE	CODE	PACK QTY
M3	NDM3N	100
M4	NDM4N	100
M5	NDM5N	100
M6	NDM6N	100
M8	NDM8N	100
M10	NDM10N	100
M12	NDM12N	100
M16	NDM16N	100

All Stock is subject to availability

# Cone Lock Nuts Metric

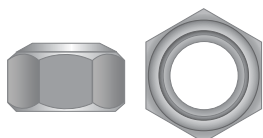
Zinc Plated



SIZE	PITCH		CODE	PACK QTY
M10			NCONEM10Z	100
M12			NCONEM12Z	100
M14			NCONE14Z	50
M16			NCONEM16Z	50
M16	1.5	METRIC FINE	NCONEMF16Z	50
M20			NCONE20Z	50
M20	1.5	METRIC FINE	NCONEMF20Z	50

# Cone Lock Nuts Imperial

Zinc Plated

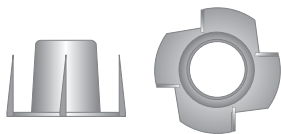


SIZE	UNC	UNF	PACK QTY
3/8"	NCONE38CZ	NCONE38FZ	100
5/16"	NCONE516CZ	NCONE516FZ	100
1/2"	NCONE12CZ	NCONE12FZ	100
5/8"	NCONE58CZ	NCONE58FZ	50
7/8"		NCONE78FZ	50
3/4"	NCONE34CZ	NCONE34FZ	25

All Stock is subject to availability

# Tee Nuts

Zinc Plated



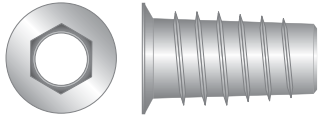
SIZE	CODE	PACK QTY
1/4"	NT14Z	100
3/16"	NT316Z	100
3/8"	NT38Z	100
5/16"	NT516Z	100
M4	NTM4Z	100
M5(15mm od)	NTM5Z	100
M6(18mm od)	NTM618Z	100
M6(20mm od)	NTM620Z	100
M8(19mm od)	NTM819Z	100
M8(22mm od)	NTM822Z	100
M10	NTM10Z	100

All Stock is subject to availability



# Insert Nuts

Zinc Plated



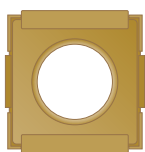
Zinc



SIZE		CODE	PACK QTY
5/16 X 18	FLANGE	INSERT51618Z	200
5/32 X 10	FLANGE	INSERT532F	200
M6 X 13		INSERTM613	200
M6 X 13	FLANGE	INSERTM613D	200
M6 X 20		INSERTM620	200
M6 X 20	FLANGE	INSERTM620F	200
M8 X 13		INSERTM813	200
M8 X 20	FLANGE	INSERTM820	200

# Cage Nuts

Zinc Chromate



Z/C



SIZE	PLATE SIZE	CODE	PACK QTY
M5		NCAGEM5ZC	100
M6	1.0MM	NCAGEM610ZC	100
M6	1.6MM	NCAGEM616ZC	100
M6	3.2MM	NCAGEM632ZC	100
M8		NCAGEM8ZC	100
M10		NCAGEM10ZC	100

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# Wing Nuts

Zinc Plated

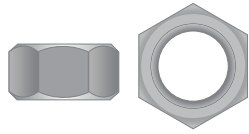


SIZE	CODE	PACK QTY
1/2" BSW	NW12Z	200
1/4"	NW14Z	200
3/16"	NW316Z	200
3/8"	NW38Z	200
5/16"	NW516Z	200
M4	NWM4Z	200
M5	NWM5Z	200
M6	NWM6Z	200
M8	NWM8Z	200
M10	NWM10Z	200
M12	NWM12Z	200

# Hex Full Nuts stainless steel

**Stainless Steel T304**

**Stainless Steel T316**



SIZE	CODE	CODE	PACK QTY
M2	NHFXM2	NHFXM2T	200
M3	NHFXM3	NHFXM3T	200
M4	NHFXM4	NHFXM4T	200
M5	NHFXM5	NHFXM5T	200
M6	NHFXM6	NHFXM6T	200
M8	NHFXM8	NHFXM8T	200
M10	NHFXM10	NHFXM10T	100
M12	NHFXM12	NHFXM12T	100
M14	NHFXM14	NHFXM14T	EACH
M16	NHFXM16	NHFXM16T	50
M20	NHFXM20	NHFXM20T	50
M24	NHFXM24	NHFXM24T	EACH
M27	NHFXM27	NHFXM27T	EACH
M30	NHFXM30	NHFXM30T	EACH

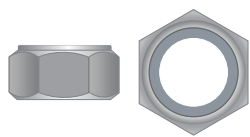
All Stock is subject to availability



# Nyloc Nuts stainless steel

Stainless Steel T304

Stainless Steel T316



				<div>T304</div>	<div>T316</div>	<div></div>
SIZE				CODE	CODE	PACK QTY
M2.5				NYLXM25		200
M3				NYLXM3	NYLXM3T	200
M4				NYLXM4	NYLXM4T	200
M5				NYLXM5	NYLXM5T	200
M6				NYLXM6	NYLXM6T	200
M8				NYLXM8	NYLXM8T	200
M10				NYLXM10	NYLXM10T	100
M12				NYLXM12	NYLXM12T	100
M14				NYLXM14	NYLXM14T	100
M16				NYLXM16	NYLXM16T	50
M20				NYLXM20	NYLXM20T	50
M24					NYLXM24T	EACH
M30					NYLXM30T	EACH

All Stock is subject to availability

# Lock Nuts (Half Nuts) stainless steel

Stainless Steel T304

Stainless Steel T316



T304

T316

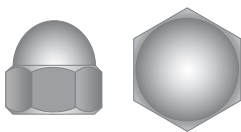


SIZE	CODE	CODE	PACK QTY
M5	NHLXM5	NHLXM5T	100
M6	NHLXM6	NHLXM6T	100
M8	NHLXM8	NHLXM8T	100
M10	NHLXM10	NHLXM10T	100
M12	NHLXM12	NHLXM12T	100
M16	NHLXM16	NHLXM16T	50
M20	NHLXM20	NHLXM20T	25
M24	NHLXM24	NHLXM24T	25
M30	NHLXM30	NHLXM30T	25

# Dome Nuts stainless steel

Stainless Steel T304

Stainless Steel T316



T304

T316



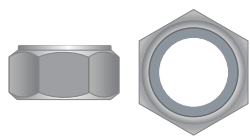
M4	NDXM4	NDXM4T	200
M5	NDXM5	NDXM5T	200
M6	NDXM6	NDXM6T	200
M8	NDXM8	NDXM8T	200
M10	NDXM10	NDXM10T	100
M12	NDXM12	NDXM12T	100
M16	NDXM16	NDXM16T	50
M20	NDXM20	NDXM20T	20
M24	NDXM24	NDXM24T	25

All Stock is subject to availability

# Nyloc Nuts Imperial Stainless Steel

Stainless Steel T304

Stainless Steel T316



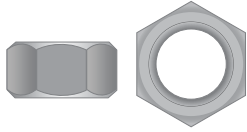
SIZE	CODE	CODE	PACK QTY
3/16" UNC	NYLX316	NYLX316T	100
1/4" UNC	NYLX14	NYLX14T	100
1/4" UNF	NYLX14F	NYLX14FT	100
5/16" UNC	NYLX516	NYLX516T	100
5/16" UNF	NYLX516F	NYLX516FT	100
3/8" UNC	NYLX38	NYLX38T	100
3/8" UNF	NYLX38F	NYLX38FT	100
7/16 UNC	NYLX716	NYLX716T	100
7/16 UNF	NYLX716F	NYLX716FT	100
1/2" UNC	NYLX12	NYLX12T	100
1/2" UNF	NYLX12F	NYLX12FT	100
1/2" BSW	NYLX12	NYLX12T	100
5/8" UNC	NYLX58	NYLX58T	50
3/4" UNC	NYLX34	NYLX34T	25
1" UNC	NYLX1	NYLX1T	25

All Stock is subject to availability

# Hex Full Nuts Imperial Stainless Steel

**Stainless Steel T304**

**Stainless Steel T316**



SIZE	CODE	CODE	PACK QTY
1/8" UNC	NHFX18		100
5/32" UNC	NHFX532		100
3/16" UNC	NHFX316	NHFX316T	100
3/16" UNF	NHFX316F	NHFX316FT	100
1/4" UNC	NHFX14	NHFX14T	100
1/4" UNF	NHFX14F	NHFX14FT	100
5/16" UNC	NHFX516	NHFX516T	100
5/16" UNF	NHFX516F	NHFX516FT	100
3/8" UNC	NHFX38	NHFX38T	100
3/8" UNF	NHFX38F	NHFX38FT	100
1/2" UNC	NHFX12	NHFX12T	100
7/16" UNC	NHFX716	NHFX716T	100
1/2" UNF	NHFX12F	NHFX12FT	100
1/2" BSW	NHFX12	NHFX12T	100
5/8" UNC	NHFX58	NHFX58T	100
5/8" UNF	NHFX58F	NHFX58FT	100
3/4" UNC	NHFX34	NHFX34T	100
3/4" UNF	NHFX34F	NHFX34FT	100
7/8" UNC	NHFX78	NHFX78T	100
1" UNC	NHFX1	NHFX1T	100
1 1/4" UNC		NHFX114T	100
1 1/8" UNC		NHFX118T	100

All Stock is subject to availability



# Wing Nuts stainless Steel

Stainless Steel T304      Stainless Steel T316



SIZE	CODE	CODE	PACK QTY
M3		NWXM3T	200
M4		NWXM4T	200
M5		NWXM5T	200
M6	NWXM6	NWXM6T	200
M8	NWXM8	NWXM8T	200
M10	NWXM10	NWXM10T	100
M12	NWXM12	NWXM12T	100
3/16" UNC	NWX316	NWX316T	200
1/4" UNC	NWX14	NWX14T	200
5/16" UNC	NWX516	NWX516T	200
3/8" UNC	NWX38	NWX38T	200
1/2" UNC	NWX12	NWX12T	100

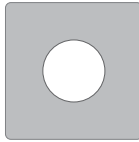
All Stock is subject to availability

# Square Washers

Galvanised

Stainless Steel T304

Stainless Steel T316

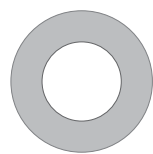


SIZE	CODE		CODE			PACK QTY
M10 X 40 X 40 X 3	WQM10403G	50			WQXM1040T	50
M10 X 50 X 50 X 3	WQM10G	50			WQXM1050T	50
M12 X 40 X 40 X 3	WQM12403G	50				
M12 X 50 X 50 X 3	WQM12G	50	WQXM1250	50	WQXM1250T	50
M16 X 40 X 40 X 3	WQM16403	50				
M16 X 50 X 50 X 3	WQM16G	25	WQXM1650	50	WQXM1650T	50
M20 X 50 X 50 X 3	WQM20G	EACH			WQXM20T	50
M22 X 50 X 50 X 3	WQM22503G	EACH				
M30 X 60 X 60 X 3	WQM30603G	EACH				
M10 X 50 X 50 X 5					WQXM10505T	50
M12 X 40 X 40 X 6	WQM12406G	50				
M12 X 50 X 50 X 6	WQM12506	50				
M16 X 50 X 50 X 6	WQM16506G	EACH			WQXM16506T	50
M16 X 60 X 60 X 6	WQM16606G	EACH				
M16 X 80 X 80 X 5					WQXM16805T	25
M16 X 80 X 80 X 6	WQM16806G	EACH				
M20 X 60 X 60 X 6	WQM20606G	EACH				
M20 X 50 X 50 X 6	WQM20506G	EACH				
M24 X 80 X 80 X 6	WQM24806G	EACH				

All Stock is subject to availability

# Round Washers

Zinc Plated



SIZE	PACK #	PACK QTY
M3 X 7	WM37Z	200
M3 X 9	WM39Z	200
M3 X 9.5 X .9	WM395Z	200
M4 X 9	WM49Z	200
M4 X 11	WM411Z	200
M5 X 10	WM510Z	200
M5 X 12	WM512Z	200
M5 X 19	WM519Z	200
M5 X 32	WM532Z	200
M6 X 12.5	WM6125Z	200
M6 X 16 X 1.2	WM61612Z	200
M6 X 16 X 1.6	WM616Z	200
M6 X 19 X 1.2	WM61912Z	200
M6 X 19 X 1.6	WM61916Z	200
M6 X 19 X 3	WM6193Z	200
M6 X 22 X 1.2	WM622Z	200
M6 X 32	WM632Z	100
M8 X 16 X 1.2	WM81612Z	200
M8 X 16 X 1.6	WM816Z	200
M8 X 19 X 1.6	WM819Z	200
M8 X 21 X 1.6	WM821Z	200
M8 X 22 X 3	WM8223Z	100
M8 X 32	WM832Z	100
M10 X 21	WM1021Z	200
M10 X 24 X 1.6	WM1024Z	100
M10 X 24 X 2.5	WM102425Z	200
M10 X 25 X 3	WM10253Z	100
M10 X 32	WM1032Z	100
M12 X 24	WM1224Z	200
M12 X 28 X 1.6	WM1228Z	100
M12 X 28 X 3	WM12283Z	100
M12 X 32 X 1.6	WM1232Z	100

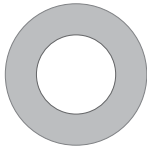
SIZE	PACK #	PACK QTY
M12 X 32 X 3	WM12323Z	100
M14 X 32 X 1.6	WM1432Z	100
M14 X 32 X 3	WM143216Z	200
M16 X 30 X 1.6	WM1630Z	200
M16 X 32 X 1.6	WM1632Z	100
M16 X 34 X 3	WM16343Z	50
M20 X 37 X 1.6	WM2037Z	50
M20 X 37 X 2	WM20372Z	50
M20 X 39 X 3	WM20393Z	50
M24 X 44 X 3	WM24443Z	50
M32 X 44.5 X 3	WM324453Z	50
M33 X 67 X 3	WM33673Z	50

All Stock is subject to availability

# Round Washers

Galvanised

Black



Galv

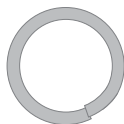
Black



SIZE	PACK #	PACK QTY	PACK #	PACK QTY
M6 X 19 X 3	WM6G	100	WM61914B	200
M8 X 16 X 3	WM8163G	200		
M8 X 17			WM817B	200
M8 X 19 X 2.5	WM81925G	200		
M8 X 22 X 3	WM8G	100		
M8 X 42 X 3	WM8423G	50		
M10 X 21 X 1.6	WM102116G	200		
M10 X 25 X 3	WM10G	100	WM10253B	200
M10 X 30 X 3	WM10303G	100		
M12 X 24 X 1.6	WM12416G	100		
M12 X 28 X 3	WM12G	100	WM12283B	100
M12 X 32 X 3			WM12323B	100
M12 X 39 X 6	WM1239G	100		
M14 X 32 X 3			WM14323B	100
M16 X 30 X 1.6	WM163016G	100		
M16 X 34 X 3	WM16G	100	WM16343B	100
M16 X 38 X 3	WM16383G	50	WM16383B	100
M20 X 39 X 3	WM20G	50	WM20393B	100
M20 X 45 X 2.5			WM204525B	50
M24 X 44 X 3	WM24443G	50	WM24443B	50
M24 X 50 X 3	WM24G	50	WM24503B	50
M24 X 54 X 3	WM24543G	50	WM24543B	50
M24 X 65 X 6	WM24656G	50		
M27 X 55 X 3	WM27553G	50		
M27 X 60 X 3	WM27603G	50		
M30 X 60 X 3	WM30G	50	WM30603B	50
M32 X 44.5 X 3			WM324453B	50
M33 X 67 X 3	WM33673G	50	WM33673B	50
M33 X 67 X 6	WM33676G	50		
M36 X 72 X 3			WM3723B	50
M42 X 85 X 3	WM42853G	50	WM43853B	50
M45.11 X 85 X 3			WM45853B	50

All Stock is subject to availability

## Galvanised



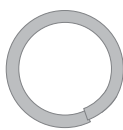
SIZE	CODE	CODE	PACK QTY
M3	WSPM3Z		100
M4	WSPM4Z		100
M5	WSPM5Z		100
M6	WSPM6Z	WSPM6G	200/100
M8	WSPM8Z	WSPM8G	200
M10	WSPM10Z	WSPM10G	100
M12	WSPM12Z	WSPM12G	100
M14	WSPM14Z		100
M16	WSPM16Z	WSPM16G	100
M18	WSPM18Z		100
M20	WSPM20Z	WSPM20G	100
M24	WSPM24Z	WSPM24G	100
M25		WSPM25G	100
M30	WSPM30Z	WSPM30G	100
M36	WSPM36Z	WSPM36G	100

[www.fortress.kiwi](http://www.fortress.kiwi)

# Spring Washers stainless steel

Stainless Steel T304

Stainless Steel T316

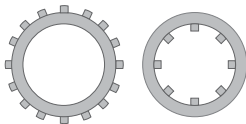


SIZE	CODE	CODE	PACK QTY
M3	WSPXM3	WSPXM3T	1000
M4	WSPXM4	WSPXM4T	1000
M5	WSPXM5	WSPXM5T	200
M6	WSPXM6	WSPXM6T	200
M8	WSPXM8	WSPXM10T	200
M10	WSPXM10	WSPXM12T	200
M12	WSPXM12	WSPXM16T	100
M16	WSPXM16	WSPXM20T	100
M20	WSPXM20	WSPXM20T	50
M24	WSPXM24	WSPXM24T	50



# Lock Washers

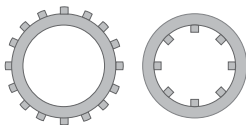
Zinc Plated



SIZE	EXTERNAL	INTERNAL	PACK QTY
M3	WLM3EZ	WLM3IZ	200
M4	WLM4EZ	WLM4IZ	200
M5	WLM5EZ	WLM5IZ	200
M5	WLM6EZ	WLM6IZ	200
M8	WLM8EZ	WLM8IZ	200
M10	WLM10EZ	WLM10IZ	100
M12	WLM12EZ	WLM12IZ	100

# Lock Washers

Stainless Steel T304

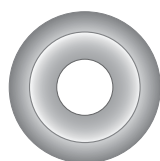


SIZE	EXTERNAL	INTERNAL	PACK QTY
M3		WLXM3I	200
M4	WLXM4E	WLXM4I	200
M5	WLXM5E	WLXM5I	200
M5	WLXM6E	WLXM6I	200
M8	WLXM8E	WLXM8I	200
M10	WLXM10E	WLXM10I	200
M12	WLXM12E	WLXM12I	200

All Stock is subject to availability

# Cup Washers

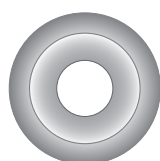
Brass



SIZE	FINISH	CODE	PACK QTY
NO 4	PLAIN	WC4	100
NO 4	NICKEL	WC4N	100
NO 4	ZINC	WC4Z	100
NO 6	PLAIN	WC6	100
NO 6	BMA	WC6F	100
NO 6	NICKEL	WC6N	100
NO 8	PLAIN	WC8	100
NO 8	BMA	WC8F	100
NO 8	NICKEL	WC8N	100
NO 10	BMA	WC10F	100
NO 10	NICKEL	WC10N	100
NO 12	NICKEL	WC12N	100

# Cup Washers

Stainless Steel T304



SIZE	CODE	PACK QTY
NO 6	WCX6	100
NO 8	WCX8	100
NO 10	WCX10	100
NO 12	WCX12	100

All Stock is subject to availability

# Starlock Washers



SIZE	CODE	PACK QTY
1/2 PLAIN	WST12	100
1/2 CAPPED	WST12C	100
1/4 PLAIN	WST14	100
1/4 CAPPED	WST14C	100
3/16 PLAIN	WST316	100
3/8 PLAIN	WST38	100
3/8 CAPPED	WST38C	100
5/16 PLAIN	WST516	100
5/16 CAPPED	WST516C	100
M3 PLAIN	WSTM3	100
M4 PLAIN	WSTM4	100
M5 PLAIN	WSTM5	100
M5 CAPPED	WSTM5C	100
M6 PLAIN	WSTM6	100
M6 CAPPED	WSTM6C	100
M8 PLAIN	WSTM8	100
M8 CAPPED	WSTM8C	100
M10 PLAIN	WSTM10	100
M10 CAPPED	WSTM10C	100
M12 PLAIN	WSTM12	100
M12 CAPPED	WSTM12C	100

All Stock is subject to availability

# Red Fibre Washers



SIZE	CODE	PACK QTY
M3 X 7 X .8	WFM378	100
M4 X 10 X .8	WFM4108B	100
M4 X 11 X .8	WFM411132	100
M4 X 9 X 1.6	WFM49116	100
M4 X 9 X .8	WFM49132	100
M5 X 10 X 1.6	WFM510116	100
M5 X 10 X .8	WFM510132	100
M6 X 12.5 X .8	WFM6125132	100
M6 X 16 X 1.6	WFM616116	100
M8 X 16 X 1.6	WFM81616	100
M8 X 16 X 08	WFM8168	100
M8 X 19 X 1.6	WFM81916	100
M8 X 32 X 1.6	WFM832116	100
M10 X 20 X .8	WFM1020132	100
M10 X 20 X 2	WFM10222	100
M10 X 24 X .8	WFM1024132	100

All Stock is subject to availability

# Red Fibre Washers Imperial



SIZE	CODE	PACK QTY
1/8 X 1/2 X 1/16	WF1812116	100
1/8 X 1/2 X 1/16	WF1838116	100
1/8 X 5/16 X 1/16	WF18516116	100
1/8 X 5/16 X 1/32	WF18516132	100
3/16 X 1/2 X 1/16	WF31612116	100
3/16 X 3/8 X 1/16	WF31638116	100
3/16 X 3/8 X 1/32	WF31638132	100
3/16 X 7/8 X 1/16	WF31678116	100
3/8 X 3/4 X 1/32	WF3834132	100
5/16 X 1 X 3	WF51613	100
5/16 X 5/8 X 1/16	WF51658116	100
5/32 X 3/8 X 1/16	WF53238116	100
5/32 X 3/8 X 1/32	WF53238132	100
5/32 X 5/16 X 1/16	WF532516116	100
5/32 X 5/16 X 1/32	WF532516132	100
5/8 X 1 X 1/16	WF58116	100
9/16 X 1/18 X 1/16	WF916118116	100
1/2 X 1 X 1.6	WF12116	100
1/2 X 3/4 X 1/16	WF1234116	100
1/4 X 1/2 X 1/16	WF1412116	100
1/4 X 1/2 X 1/32	WF1412132	100
1/4 X 5/8 X 1/16	WF1458116	100

All Stock is subject to availability

# Round EPDM Washers



SIZE	CODE	PACK QTY
M8 X 19	WNEOM819	100
M8 X 22 X 3	WNEOM822	100
M10 X 25 X 3	WNEO10253	100
M10 X 40 X 3	WNEO10403	100
M12 X 50 X 3	WNEO12503	100

# Square EPDM Washers



SIZE	CODE	PACK QTY
M10 X 50 X 3	WNEO1050B	100
M12 X 50 X 3	WNEO1250B	100
M16 X 50 X 3	WNEO1650B	100

All Stock is subject to availability



# Heico Lock Washers



SIZE	CODE	PACK QTY
1" WEDGE LOCK WASHER HEICO	WWL1	
1/2 WEDGE LOCK WASHER HEICO	WWL12	
3/4 WEDGE LOCK WASHER HEICO	WWL34	
7/16 WEDGE LOCK WASHER HEICO	WWL716	
M10 WEDGE LOCK WASHER (3/8) HEICO	WWLM10	
M12 WEDGE LOCK WASHER HEICO	WWLM12	
M12 X 25.4 WEDGE LOCK WASHER (1/2) HEICO	WWLM12SP	
M14 WEDGE LOCK WASHER (9/16) HEICO	WWLM14	
M16 WEDGE LOCK WASHER (5/8) HEICO	WWLM16	
M16 X 30.7 WEDGE LOCK WASHER HEICO (HLB-16)	WWLM16SP	
M18 WEDGE LOCK WASHER HEICO	WWLM18	
M20 WEDGE LOCK WASHER HEICO	WWLM20	
M22 WEDGE LOCK WASHER (7/8) HEICO	WWLM22	
M24 WEDGE LOCK WASHER HEICO	WWLM24	
M30 WEDGE LOCK WASHER HEICO	WWLM30	
M4 WEDGE LOCK WASHER (5/32) HEICO	WWLM4	
M5 WEDGE LOCK WASHER (3/16) HEICO	WWLM5	
M6 WEDGE LOCK WASHER (1/4) HEICO	WWLM6	
M8 WEDGE LOCK WASHER (5/16) HEICO	WWLM8	
M8 X 16.6 WEDGE LOCK WASHER (5/16) HEICO	WWLM8SP	
M10 WEDGE LOCK WASHER S/S T316 HEICO	WWLXM10	
M12 WEDGE LOCK WASHER S/S T316 HEICO	WWLXM12	
M16 WEDGE LOCK WASHER S/S T316 HEICO	WWLXM16	
M20 WEDGE LOCK WASHER S/S T316 HEICO	WWLXM20	
M4 WEDGE LOCK WASHER S/S T316 HEICO	WWLXM4	
M6 WEDGE LOCK WASHER S/S T316 HEICO	WWLXM6	
M8 WEDGE LOCK WASHER S/S T316 HEICO	WWLXM8	

All Stock is subject to availability

# Profile Roofing Washers

## CORRUGATED



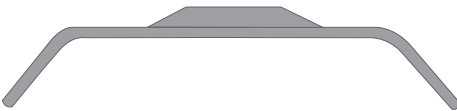
DESCRIPTION	CODE	PACK QTY
CORRUGATED PROFILE WASHER GALV ALSO SUITS TRIMDEK AND STYLELINE PROFILES	WP01	100

## NC710



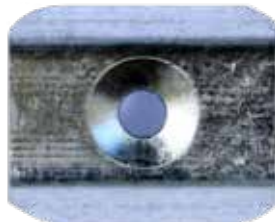
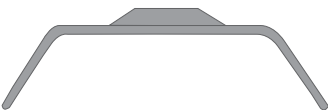
DESCRIPTION	CODE	PACK QTY
NC710 PROFILE WASHER GALV ALSO SUITS TRIMLINE, T-RIB AND MC760 PROFILES	WP05	100

## BP9082 RIBLINE



DESCRIPTION	CODE	PACK QTY
BP9082 RIBLINE PROFILE WASHER GALV ALSO SUITS PLUMDEK, TRIMFORM, TRIMCLAD, METCOM 930/100 AND RIBLINE AND V-RIB40 X 35.5 PROFILES	WP06	100

## LT7



DESCRIPTION	CODE	PACK QTY
LT7 PROFILE WASHER GALV ALSO SUITS ST7, METRIC, SIX RIB, 6 RIB MET-DEK & V840 X33 PROFILES	WP07	100

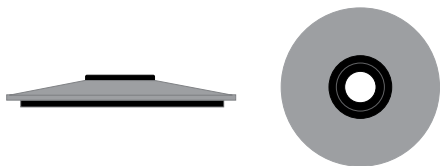
All Stock is subject to availability

# Neoprene Roofing Washers



DESCRIPTION	CODE	PACK QTY
10G NEO WASHERS	WNEO10DEK	200
12G-14G NEO WASHERS	WNEO12DEK	200
12G -14G X 29MM KLIPLOK DEKSEAL	WNEOKLIP14A	200
12G-14G X 35MM DEKSEAL SPANDEK	WNEOSPAN14	200

# Bonded Sealing Washers



DESCRIPTION	CODE	PACK QTY
10G-12G X 17MM NEO BONDED ALUM	WNEO10A	200
12G-14G X 25MM NEO BONDED ALUM	WNEO14A	200
5.2MM X 14.0 S/S T304 (SUIT 10G)	WNEOX5214	200
6.7MM X 16.0 S/S T304 (SUIT 14G)	WNEOX6716	200

All Stock is subject to availability

# Product Dimensions

## Metric Hexagon Nuts to AS 1112

SIZE	PITCH	ACROSS FLATS		ACROSS CORNERS	THICKNESS	
		MAX	MIN	MIN	MAX	MIN
M5	0.8	8	7.78	8.79	4.7	4.4
M6	1	10	9.78	11.05	5.2	4.9
M8	1.25	13	12.73	14.38	6.8	6.4
M10	1.5	16	15.73	17.77	8.4	8.0
M12	1.75	18	17.73	20.03	10.8	10.4
M16	2	24	23.67	26.75	14.8	14.1
M20	3	30	29.16	32.95	18	16.9
M24	3	36	35	39.55	21.5	20.2
M27	3	41	40	45.2	23.8	22.5
M30	4	46	45	50.85	25.6	24.3
M33	4	50	49	55.37	28.7	27.4
M36	4	55	53.8	60.79	31.0	29.4

# Product Dimensions

## Imperial Hexagon Nuts to AS 2465

TPI			ACROSS FLATS		ACROSS CORNERS		THICKNESS	
DIA	UNC	UNF	MAX	MIN	MAX	MIN	MAX	MIN
1/4"	20	28	0.438	0.428	0.505	0.488	0.226	0.212
5/16"	18	24	0.5	0.489	0.577	0.557	0.273	0.258
3/8"	16	24	0.562	0.551	0.65	0.628	0.337	0.32
7/16"	14	20	0.688	0.675	0.794	0.768	0.385	0.365
1/2"	13	20	0.75	0.736	0.866	0.84	0.448	0.427
9/16"	12	18	0.875	0.861	1.01	0.982	0.496	0.473
5/8"	11	18	0.938	0.922	1.083	1.051	0.559	0.535
3/4"	10	16	1.125	1.088	1.299	1.24	0.665	0.617
7/8"	9	14	1.312	1.269	1.516	1.447	0.776	0.724
1"	8	12	1.5	1.45	1.732	1.653	0.887	0.831
1.1/8"	7	12	1.688	1.631	1.949	1.859	0.999	0.939
1.1/4"	7	12	1.875	1.812	2.165	2.066	1.094	1.03
1.3/8"	6	12	2.062	1.994	2.382	2.273	1.206	1.138
1.1/2"	6	12	2.25	2.175	2.598	2.48	1.371	1.245
1.3/4"	5		2.625	2.565	30.31	2.893	1.53	1.47
2"	4.5		3	2.94	3.464	3.306	1.754	1.684

All Stock is subject to availability

