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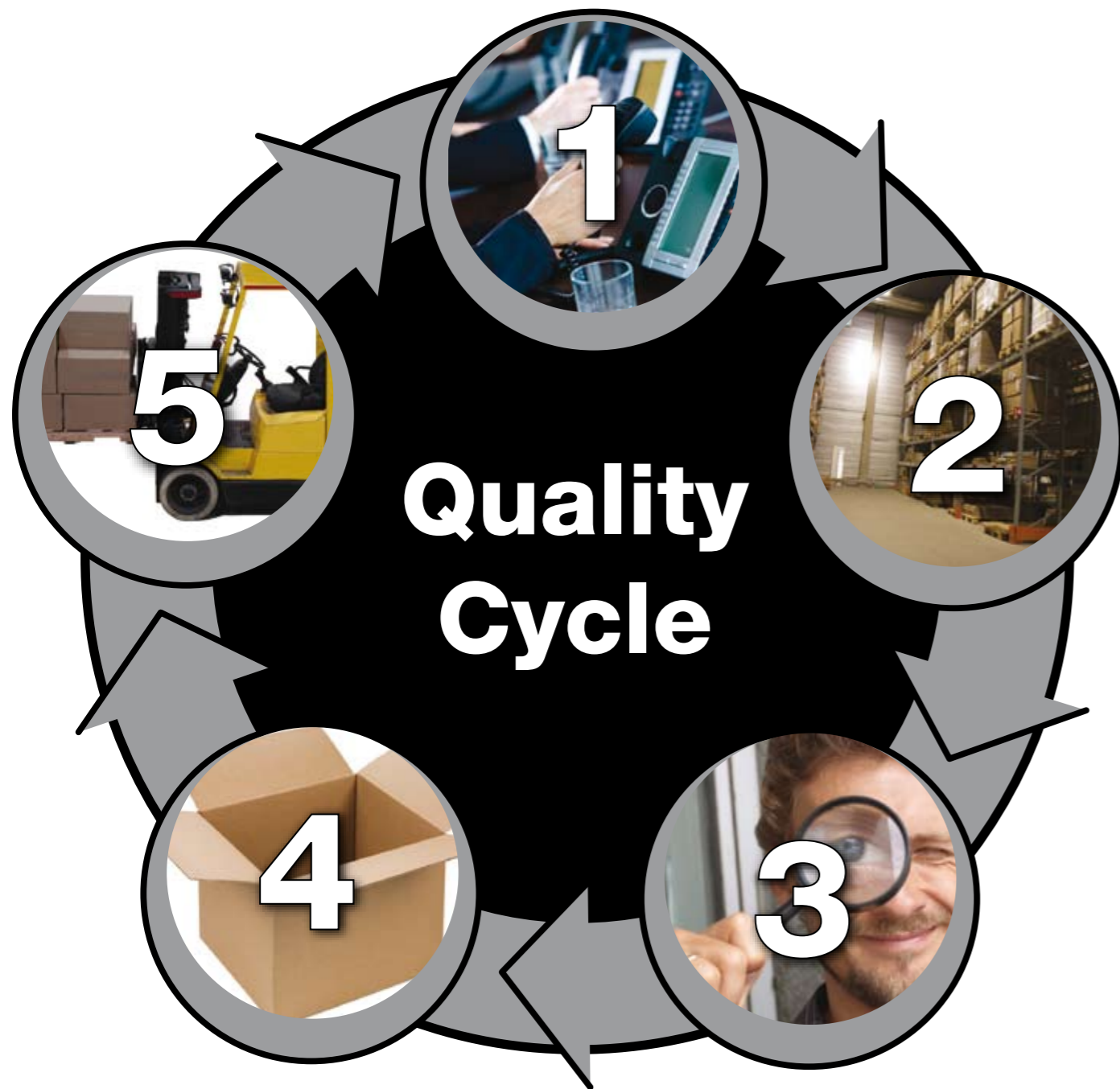
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BOLTS & NUTS

of modern developments

Committment to quality products
and services.



- 1 Prompt and efficient service
- 2 Products available off the shelf
- 3 Stringent quality checks
- 4 Products well packaged
- 5 Timely delivery



Our Core strengths

Quality and customer service are our core strengths. Our efficient response means that clients receive feedback on enquiries for most products within a 24 hour period. This translates into quicker turn around times and overall efficiency in the supply cycle.

Our modern warehousing facility spread over several thousand square feet, houses over 50,000 different products. All of this managed by an automated Inventory management system. This enables us to offer efficient service to our clients, with most products available off the shelf.

All our products are delivered with the necessary certification in terms of Material Test certificates. Our products are therefore in compliance with international quality standards allowing complete traceability assurance.



Exacting standards

Gulf Turrets Building Material Trading LLC is a subsidiary of **Gulf Turrets** a reputed name in the field of Telecom Infrastructure services. GT Trading is committed to the high quality standards set by its parent company an ISO 9001:2000 certified organisation. Our sound organisational strengths and strategic ties with quality manufacturers, have positioned ourselves well to meet the growing demands of the regions industrial sector.

Fasteners and bolting are a crucial component in any construction project. While their cost maybe negligible to the overall project costs, substandard bolting can have severe consequences in terms of project schedules and costs. Our emphasis therefore is always on quality, backed up by reliable inventory and an efficient supply chain.

We maintain a large inventory of fastening solutions for various sectors including Structural Steel Construction, Pre-Engineered Steel Buildings (PEB), Electrical & Switch gear, Telecom tower construction and Oil & Petrochemical industries.

With our strong presence in Dubai, UAE the regions trading hub and Qatar one of the regions fastest growing economies, GT trading is ideally placed to cover the wider GCC region. Our inherent strength in terms of quality policy, organization and inventory gives us considerable leverage to be a leading player in the distribution and supply of quality fastening solutions.

Our key suppliers

In our endeavor to provide quality products, we have forged strategic partnerships with manufacturers worldwide, particularly in Europe & the U.S. Featured below are some of our key suppliers.

Applied Bolting based in Vermont , U.S.A are the manufacturers of Direct Tension Indicator (DTI) washers, which are used to get bolts installed to the correct tension regardless of the bolts torque resistance.

Applied Bolting have an exclusive patent for Squirter® DTI manufacture. Applied Bolting have revolutionized DTI design by embedding silicone in the depressions under the indicator protrusions. Squirter® DTI's have been used on projects such as Dubai International Airport, Dubai World Trade Center (Jebel Ali), AGD II & OGD III.

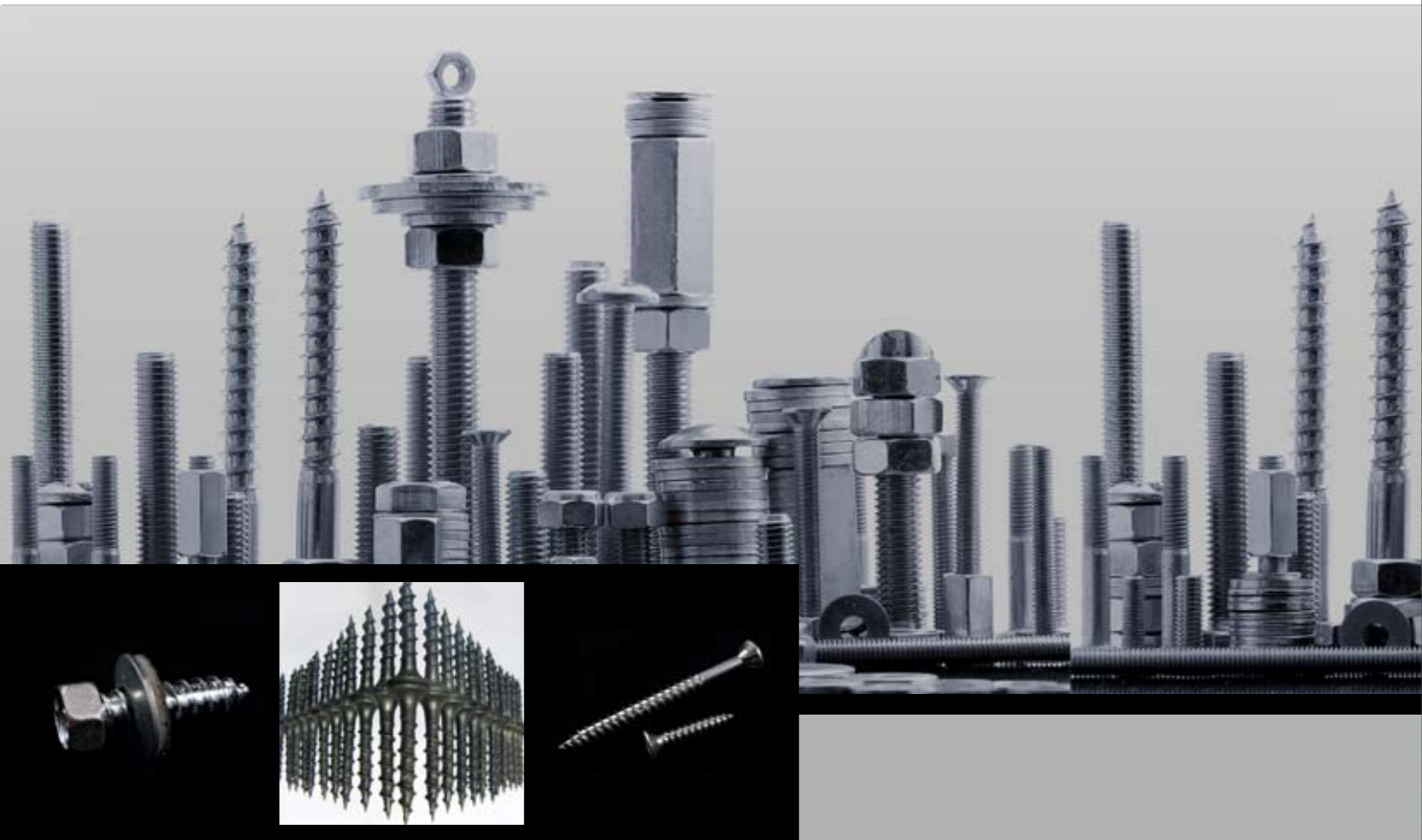
Oread Fasteners based in Herford, Germany are manufacturers of a wide variety of quality construction, automobile and industrial fasteners.

Acknowledged as an assured brand name for quality and consistency, Oread are among a select group of manufacturers to offer CE marked products complying with stringent European standards. Their quality certifications include:

- ISO 9001:2000
- CENTER EUROPE CERTIFICATION SERVICE (CE CERTIFICATION)
- VOV CERTIFICATION & TESTING LABORATORY

Using modern technology and a stringent quality control regimen, Oread have established themselves in providing innovative fastening solutions to suit various requirements.





Technical Information

Our Product Range

A brief though not comprehensive sampling of our product range and some industry verticals their commonly applied to.

Fasteners in high tensile steel 8.8 / 10.9 / 12.9 grades , Threaded Bars, Stud Bolts, Shear Studs, Straight Anchor Bolts, L-shaped Anchor Bolts, Wedge Anchor, Contact Washers.

Products available in a wide variety of head types such as Hex head, Socket head, Allen CSK etc. Various thread types such as UNC, UNF, BSW etc. Various sacrificial coatings such as ElectroGalvanised, Yellow Zinc, Hot Dip Galvanised, Dacromat or regular Black / Self Colour.

High Strength Friction Grip(HSFG) bolting:

ASTM A325 & ASTM A490 widely used in Steel Construction and Pre-Engineered steel building (PEB) industry. Assemblies with compatible ASTM A563 Nuts & Hardened ASTM F436 washers.

Also available Squirter® Direct Tension Indicators (DTI's), DIN 6914 & BS 4395 assemblies.

Stainless Steel Fasteners:

Products available in Gr 304 (A2-70) & Gr 316 (A4-70/80) with a wide variety of head types. Stainless Steel Self tapping and Self Drilling Screws for the PEB industry.

Products available adhering to the following International Standards

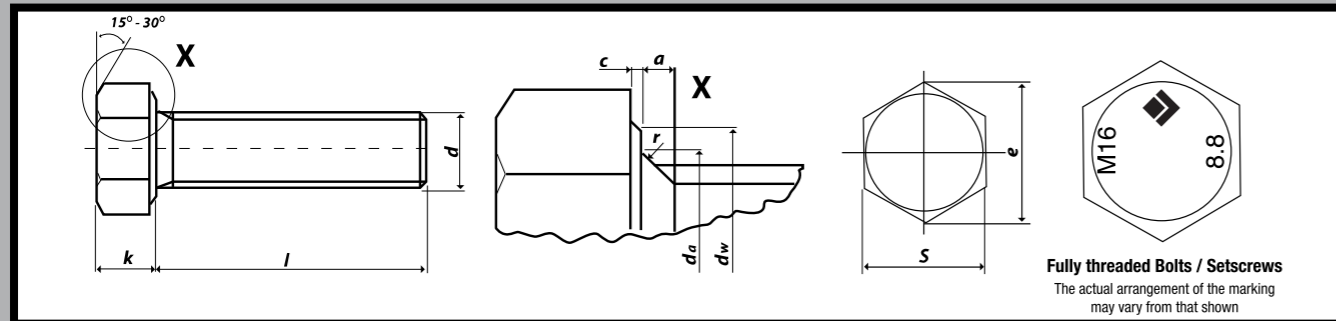
American ASTM Standard

British BS Standard

German DIN Standard

Besides the above products we stock a wide variety of specialized fasteners and can also supply customized solutions to meet specific requirements.





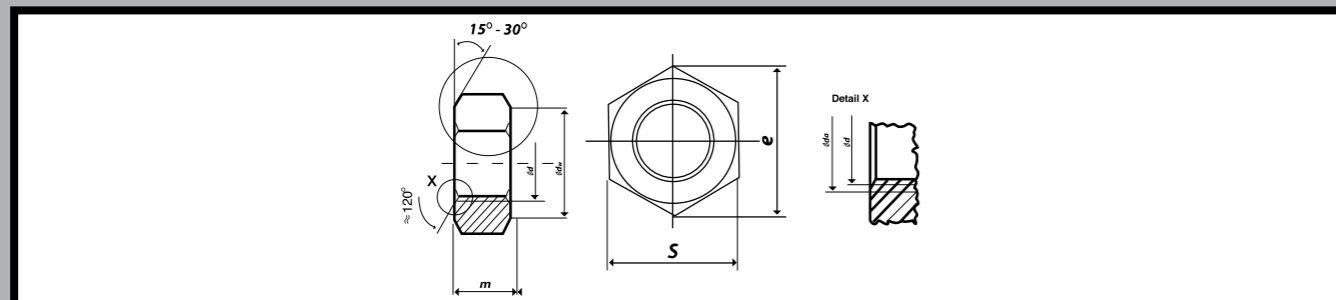
Fully threaded Bolts / Setscrews
The actual arrangement of the marking may vary from that shown

Dimensions of Fully Threaded Bolts DIN 933 Gr. 8.8 / 10.9

Thread size <i>d</i>		M12	M16	M20	M24	M30	M36
<i>p</i> pitch of thread		1.75	2	2.5	3	3.5	4
<i>a</i>	max.	5.25	6	7.5	9	10.5	12
<i>c</i>	max.	0.6	0.8	0.8	0.8	0.8	0.8
	min.	0.15	0.2	0.2	0.2	0.2	0.2
<i>da</i>	max.	13.7	17.7	22.4	26.4	33.4	39.4
<i>dw</i>	min.	17.4	22.5	27.7	33.2	42.7	51.1
<i>e</i>	min.	21.1	26.75	32.95	39.55	50.85	60.79
	nom.	7.5	10	12.5	15	18.7	22.5
<i>k</i>	max.	7.68	10.18	12.85	15.35	19.12	22.92
	min.	7.32	9.82	12.15	14.65	18.28	22.08
<i>r</i>	min.	0.6	0.6	0.8	0.8	1	1
<i>s nom.</i>	max.	19	24	30	36	46	55
	min.	18.67	23.67	29.16	35	45	53.8

Dimensions apply prior to coating.

The table shows popular diameters, other diameters can be supplied provided the quantity is sufficient to warrant manufacture.

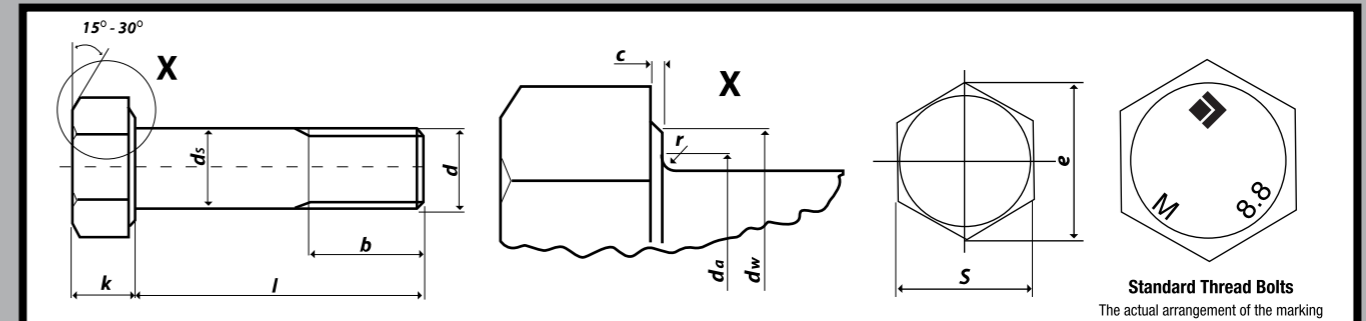


Dimensions of Nuts DIN 934 CL 8 / 10

Thread size <i>d</i>		M12	M16	M20	M24	M30	M36
<i>p</i> pitch of thread		1.75	2	2.5	3	3.5	4
<i>da</i>	max.	13	17.3	21.6	25.9	32.4	38.9
	min.	12	16	20	24	30	36
<i>dw</i>	min.	17.2	22.2	28.2	33.2	42.7	51.1
<i>e</i>	min.	21.1	26.75	32.95	39.55	50.85	60.79
<i>m</i>	max = nom.	10	13	16	19	24	29
	min.	9.64	12.3	14.9	17.7	22.7	27.4
<i>s</i>	max = nom.	19	24	30	36	46	55
	min.	18.67	23.67	29.16	35	45	53.8

Dimensions apply prior to coating.

The table shows popular diameters, other diameters can be supplied provided the quantity is sufficient to warrant manufacture.



Standard Thread Bolts
The actual arrangement of the marking may vary from that shown

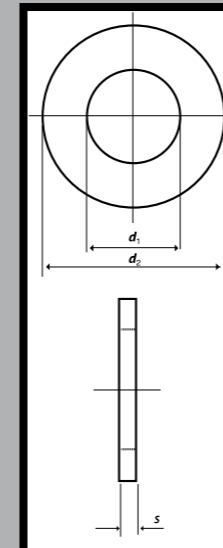
Dimensions of Standard Thread Bolts DIN 931 Gr. 8.8 / 10.9

Thread size <i>d</i>		M12	M16	M20	M24	M30	M36
<i>p</i> pitch of thread		1.75	2	2.5	3	3.5	4
<i>b</i>	1)	30	38	46	54	66	78
	2)	36	44	52	60	72	84
	3)	49	57	65	73	85	97
<i>c</i>	max.	0.6	0.8	0.8	0.8	0.8	0.8
	min.	0.15	0.2	0.2	0.2	0.2	0.2
<i>da</i>	max.	13.7	17.7	22.4	26.4	33.4	39.4
<i>ds</i>	max.	12	16	20	24	30	36
	min.	11.73	15.73	19.48	23.48	29.48	35.38
<i>dw</i>	min.	17.4	22.5	27.7	33.2	42.7	51.1
<i>e</i>	min.	21.1	26.75	32.95	39.55	50.85	60.79
<i>k</i>	nom.	7.5	10	12.5	15	18.7	22.5
	max.	7.68	10.18	12.85	15.35	19.12	22.92
	min.	7.32	9.82	12.15	14.65	18.28	22.08
<i>r</i>	min.	0.6	0.6	0.8	0.8	1	1
<i>s nom.</i>	max.	19	24	30	36	46	55
	min.	18.67	23.67	29.16	35	45	53.8

- 1) for $l \leq 125\text{mm}$
- 2) for $l > 125\text{mm} < 200\text{mm}$
- 3) for $l > 200\text{mm}$

Dimensions apply prior to coating.

The table shows popular diameters, other diameters can be supplied provided the quantity is sufficient to warrant manufacture.

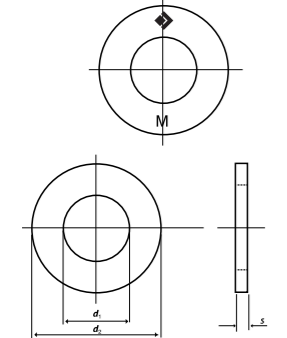


Dimensions of Washers

Nominal size of bolt or screw	BS 4320 Form 'E'						DIN 125					
	Inside Diameter <i>d</i> ₁		Outside Diameter <i>d</i> ₂		Thickness <i>s</i>		Inside Diameter <i>d</i> ₁		Outside Diameter <i>d</i> ₂		Thickness <i>s</i>	
	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.
M12	14.5	14	24	23.2	2.8	2.2	13.43	13	24	23.48	2.7	2.3
M16	18.5	18	30	29.2	3.6	2.4	17.43	17	30	29.48	3.3	2.7
M20	22.6	22	37	35.8	3.6	2.4	21.52	21	37	36.38	3.3	2.7
M24	26.6	26	44	42.8	4.6	3.4	25.52	25	44	43.38	4.3	3.7
M30	33.8	33	56	54.5	4.6	3.4	31.62	31	56	55.26	4.3	3.7
M36	39.8	39	66	64.5	6.0	4.0	37.62	37	66	65.26	5.6	4.4

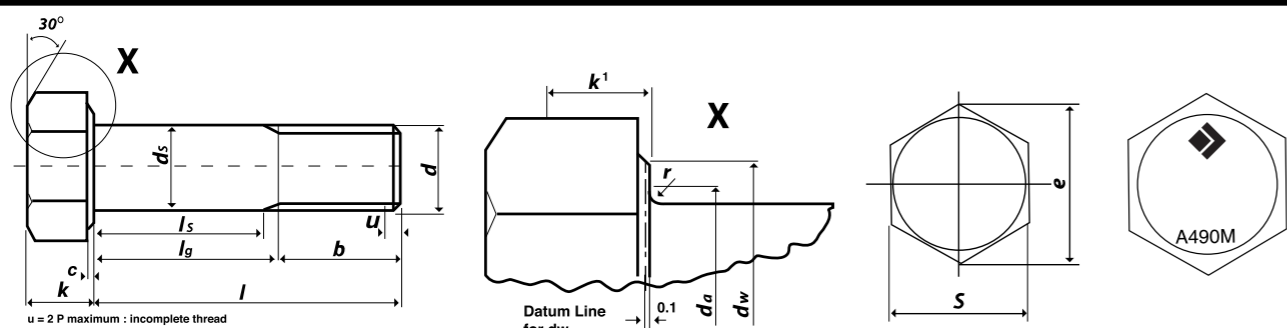
Dimensions apply prior to coating.

Either BS 4320 Form 'E' washers or DIN 125 washers may be supplied depending on availability.



F436 Washer Dimensions

Nominal washer size		M16	M20	M22	M24	M27	M30	M36
d_1	max.	18.4	22.5	24.5	26.5	30.5	33.6	39.6
	min.	18.0	22.0	24.0	26.0	30.0	33.0	39.0
d_2	max.	34.0	42.0	44.0	50.0	56.0	60.0	72.0
	min.	32.4	40.4	42.4	48.4	54.1	58.1	70.1
s	max.	4.6	4.6	4.6	4.6	4.6	4.6	4.6
	min.	3.1	3.1	3.4	3.4	3.4	3.4	3.4



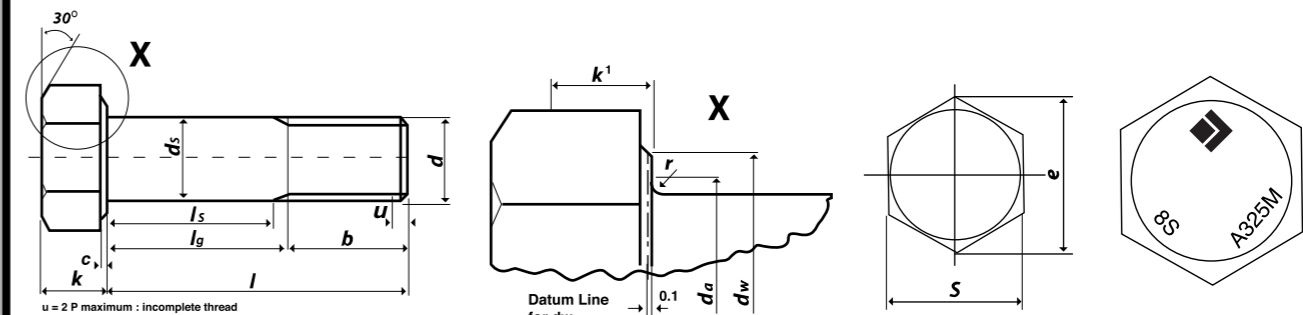
A490 Bolt Dimensions

Thread size d	M16	M20	M22	M24	M27	M30	M36
p pitch of thread	2	2.5	2.5	3	3	3.5	4
b	Bolt ≤ 100	31	36	38	41	44	49
	Bolt > 100	38	43	45	48	51	56
ds	min.	15.30	19.16	21.16	23.16	26.16	29.16
	max.	16.70	20.84	22.84	24.84	27.84	30.84
s	min.	26.16	33.00	35.00	40.00	45.00	58.80
	max.	27.00	34.00	36.00	41.00	46.00	60.00
e	min.	29.56	37.29	39.55	45.20	50.85	66.44
	max.	31.18	39.26	41.57	47.34	53.12	69.28
k	min.	9.25	11.60	13.10	14.10	16.10	17.65
	max.	10.75	13.40	14.90	15.90	17.90	23.55
k^1	min.	6.5	8.1	9.2	9.9	11.3	12.4
dw^1	min.	24.9	31.4	33.3	38.0	42.8	55.9
c	min.	0.4	0.4	0.4	0.4	0.4	0.4
	max.	0.8	0.8	0.8	0.8	0.8	0.8
da	max.	18.2	22.4	24.4	26.4	30.4	39.4
r	min.	0.6	0.8	0.8	1.0	1.2	1.5

A490 Bolt Dimensions

Thread size d	M16	M20	M22	M24	M27	M30	M36
p pitch of thread	2	2.5	2.5	3	3	3.5	4
b	Bolt ≤ 100	31	36	38	41	44	49
	Bolt > 100	38	43	45	48	51	56
ds	min.	15.30	19.16	21.16	23.16	26.16	29.16
	max.	16.70	20.84	22.84	24.84	27.84	30.84
s	min.	26.16	33.00	35.00	40.00	45.00	58.80
	max.	27.00	34.00	36.00	41.00	46.00	60.00
e	min.	29.56	37.29	39.55	45.20	50.85	66.44
	max.	31.18	39.26	41.57	47.34	53.12	69.28
k	min.	9.25	11.60	13.10	14.10	16.10	17.65
	max.	10.75	13.40	14.90	15.90	17.90	23.55
k^1	min.	6.5	8.1	9.2	9.9	11.3	12.4
dw^1	min.	24.9	31.4	33.3	38.0	42.8	55.9
c	min.	0.4	0.4	0.4	0.4	0.4	0.4
	max.	0.8	0.8	0.8	0.8	0.8	0.8
da	max.	18.2	22.4	24.4	26.4	30.4	39.4
r	min.	0.6	0.8	0.8	1.0	1.2	1.5

¹ The maximum value of dw shall not exceed the actual width across flats.



A325 Bolt Dimensions

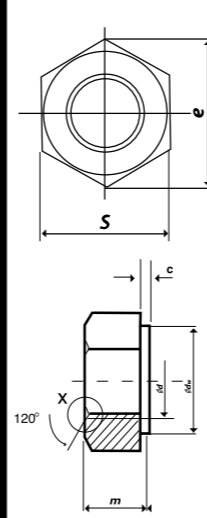
Thread size d	M16	M20	M22	M24	M27	M30	M36
p pitch of thread	2	2.5	2.5	3	3	3.5	4
b	Bolt ≤ 100	31	36	38	41	44	49
	Bolt > 100	38	43	45	48	51	56
ds	min.	15.30	19.16	21.16	23.16	26.16	29.16
	max.	16.70	20.84	22.84	24.84	27.84	30.84
s	min.	26.16	33.00	35.00	40.00	45.00	58.80
	max.	27.00	34.00	36.00	41.00	46.00	60.00
e	min.	29.56	37.29	39.55	45.20	50.85	66.44
	max.	31.18	39.26	41.57	47.34	53.12	69.28
k	min.	9.25	11.60	13.10	14.10	16.10	17.65
	max.	10.75	13.40	14.90	15.90	17.90	23.55
k^1	min.	6.5	8.1	9.2	9.9	11.3	12.4
dw^1	min.	24.9	31.4	33.3	38.0	42.8	55.9
c	min.	0.4	0.4	0.4	0.4	0.4	0.4
	max.	0.8	0.8	0.8	0.8	0.8	0.8
da	max.	18.2	22.4	24.4	26.4	30.4	39.4
r	min.	0.6	0.8	0.8	1.0	1.2	1.5

¹ The maximum value of dw shall not exceed the actual width across flats.

A325 Bolt Dimensions

Thread size d	M16	M20	M22	M24	M27	M30	M36
p pitch of thread	2	2.5	2.5	3	3	3.5	4
b	Bolt ≤ 100	31	36	38	41	44	49
	Bolt > 100	38	43	45	48	51	56
ds	min.	15.30	19.16	21.16	23.16	26.16	29.16
	max.	16.70	20.84	22.84	24.84	27.84	30.84
s	min.	26.16	33.00	35.00	40.00	45.00	58.80
	max.	27.00	34.00	36.00	41.00	46.00	60.00
e	min.	29.56	37.29	39.55	45.20	50.85	66.44
	max.	31.18	39.26	41.57	47.34	53.12	69.28
k	min.	9.25	11.60	13.10	14.10	16.10	17.65
	max.	10.75	13.40	14.90	15.90	17.90	23.55
k^1	min.	6.5	8.1	9.2	9.9	11.3	12.4
dw^1	min.	24.9	31.4	33.3	38.0	42.8	55.9
c	min.	0.4	0.4	0.4	0.4	0.4	0.4
	max.	0.8	0.8	0.8	0.8	0.8	0.8
da	max.	18.2	22.4	24.4	26.4	30.4	39.4
r	min.	0.6	0.8	0.8	1.0	1.2	1.5

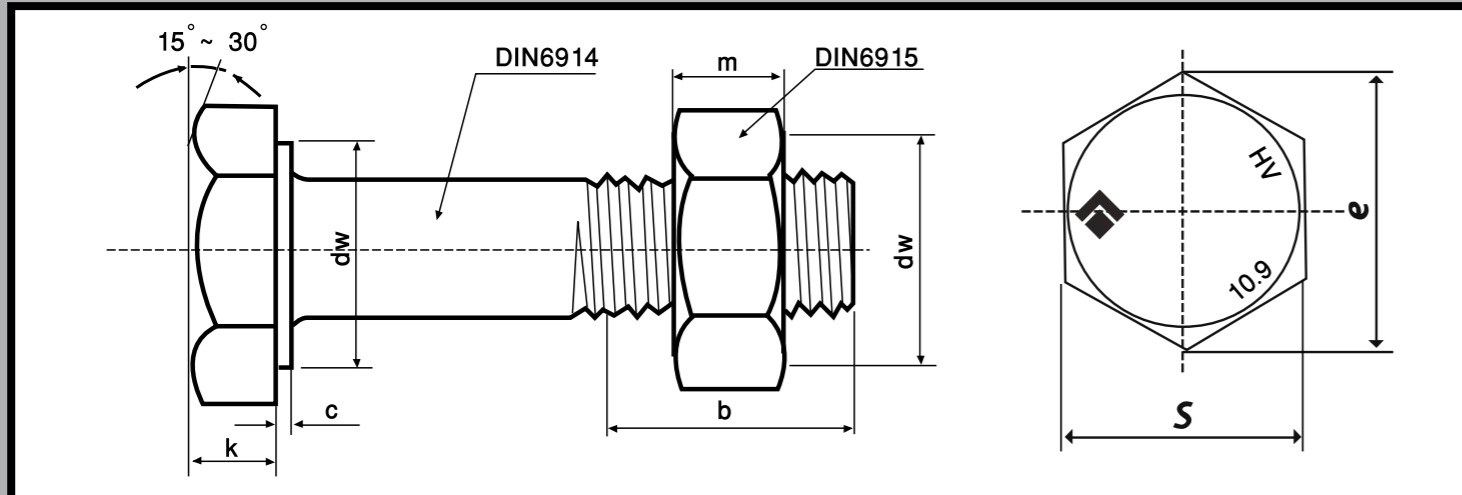
¹ The maximum value of dw shall not exceed the actual width across flats.



A563 Nut Dimensions CL 8S / 10s

Nominal size and thread pitch d	s		e		m		dw^1	c		Total runout of bearing surface
	Width across flats		Width across corners		Thickness			Washer face thickness		
	max.	min.	max.	min.	max.	min.		max.	min.	
M16 x 2	27.00	26.16	31.18	29.56	17.1	16.4	24.9	0.8	0.4	0.47
M20 x 2.5	34.00	33.00	39.26	37.29	20.7	19.4	31.4	0.8	0.4	0.58
M22 x 2.5	36.00	35.00	41.57	39.55	23.6	22.3	33.3	0.8	0.4	0.63
M24 x 3	41.00	40.00	47.34	45.20	24.2	22.9	38.0	0.8	0.4	0.72
M27 x 3	46.00	45.00	53.12	50.85	27.6	26.3	42.8	0.8	0.4	0.80
M30 x 3.5	50.00	49.00	57.74	55.37	30.7	29.1	46.6	0.8	0.4	0.87
M36 x 4	60.00	58.80	69.28	66.44	36.6	35.0	55.9	0.8	0.4	1.05

¹ The maximum dw shall not exceed the actual width across flats.



DIN 6914 Bolt (HV) Dimensions

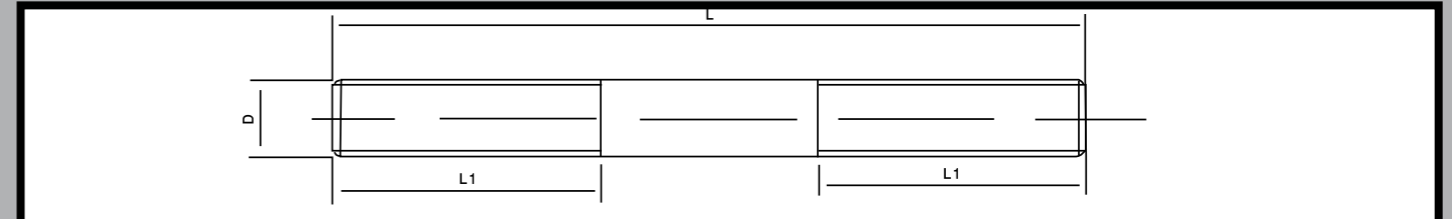
Grade	Thread size	Material	Tensile Strength σ_b min (Mpa)	Hardness (HRC)	Elongation δ %	Reduction of cross-sectional area ψ %
10.9	M12 ~ M36	40Cr	1040	32 ~ 39	9	48

Thread size <i>d</i>	M12	M16	M20	M22	M24	M27	M30	M36	
<i>c</i>	min.	0.4	0.4	0.4	0.4	0.4	0.4	0.4	
	max.	0.6	0.6	0.8	0.8	0.8	0.8	0.8	
<i>dw</i>	min.	20	25	30	34	39	43.5	57	
<i>e</i>	min.	23.91	29.56	35.03	39.55	45.2	50.85	66.44	
<i>k</i>	8	10	13	14	15	17	19	23	
<i>s</i>	max.	22	27	32	36	41	46	60	
	min.	21.16	26.16	31	35	40	45	58.8	
<i>b</i> (reference)	L Nominal	L _{≤70} L _{≥75}	L _{≤70} L _{≥75}	L _{≤85} L _{≥90}	L _{≤85} L _{≥90}	L _{≤85} L _{≥90}	L _{≤95} L _{≥100}	L _{≤95} L _{≥100}	L _{≤100} L _{≥105}
	Nominal	21 23	26 28	31 33	32 34	34 37	37 39	40 42	48 50

DIN 6915 Nut Dimensions

Grade	Thread size	Guarantee stress SP Mpa	Hardness max (HRC)
10	45#	1000	36

Thread Size	M12	M16	M20	M22	M24	M27	M30	M36
<i>dw</i>	min.	20	25	30	34	39	43.5	57
<i>e</i>	min.	23.9	29.56	35.03	39.55	45.2	50.85	66.44
<i>m</i>	10	13	16	18	19	22	24	29
<i>s</i>	max.	22	27	32	36	41	46	60
	min.	21.16	26.16	31	35	40	45	58.8



Holding Down Bolt Dimensions

ASTM F1554 Straight Body Holding Down Bolt Body Dimensional Specification [Full Body Size]

Body Diameter [D]	M20		M24		M27		M30		M33		M36		M39	
	Max.	Min. ¹⁾	Max.	Min. ¹⁾	Max.	Min. ¹⁾	Max.	Min. ¹⁾	Max.	Min. ¹⁾	Max.	Min. ¹⁾	Max.	Min. ¹⁾
	20.00	19.45	24.00	23.40	27.00	26.35	30.00	29.32	36.00	32.30	36.00	35.30	39.00	38.23

¹⁾ Minimum body dimension are calculated base on F1554 Table 5

All Dimension in mm

Straight Body Holding Down Bolt Thread Length Dimensional Specification

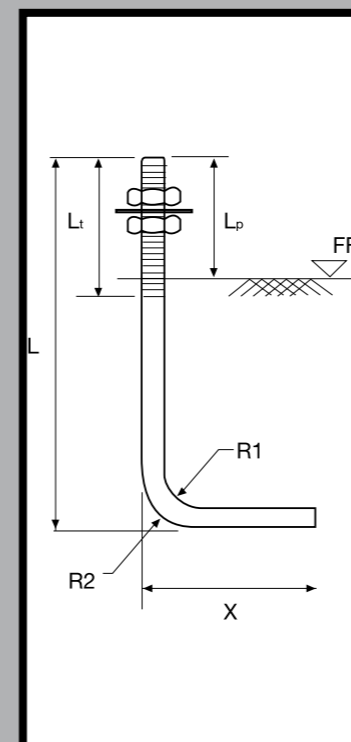
Body Diameter [D]	M20	M24	M27	M30	M33
Vert. Length [L]	1,000	1,200	1,600	1,600	1,000
Threaded Length [T1]	250	300	300	300	300

All dimension in mm

Threaded Length Dimensional Specification - Continued

Body Diameter [D]	M36	M39
Vert. Length [L]	1,000	1,200
Threaded Length [T1]	250	250

All dimension in mm



Anchor Bolt Dimensions

ASTM F1554 Anchor Bolt Dimensional Specification (Full Body Size)

Body Diameter [D]	16		20		20		24		36	
	Max.	Min. ¹⁾	Max.	Min. ¹⁾	Max.	Min. ¹⁾	Max.	Min. ¹⁾	Max.	Min. ¹⁾
	16.00	15.50	20.00	19.45	20.00	19.45	24.00	23.40	36.00	35.30
Vert. Length [L]	475		450		600		625		1,150	
Hor. Length [X]	120		175		175		205		295	
Projection above FFL [L _p]	75		100		100		100		150	
Threaded Length [L _t]	200		200		200		200		250	
Radius [R1]	40		50		50		60		90	
Radius [R2]	56		70		70		84		126	
Unbended Length	595		625		775		830		1,445	

¹⁾ Minimum body dimension are calculated base on F1554 Table 5 cut threads
All Dimension in mm