

METABO POWER TOOLS



DRILLING & SCREW DRIVING

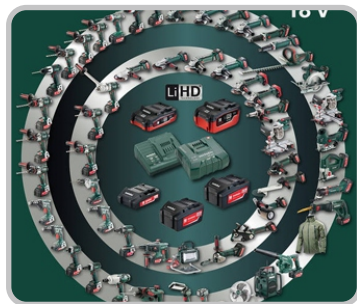
Drills & Impact Drills



Combination Hammers & Breakers



Cordless Drills & Screwdrivers



CUTTING & GRINDING

Angle Grinders



Cutoff & Wall Chasers



METABO POWER TOOLS



WOOD WORKING TOOLS

Sanders & Jigsaws



Table Saws & Band Saws



SPECIAL PURPOSE MACHINES

Vacuum Cleaners



Air Compressors



Pneumatic Tools



SS Applications



Inox Tools



Pumps





CUTTING AND SAWS

Core Cutting Machine



Table Saws



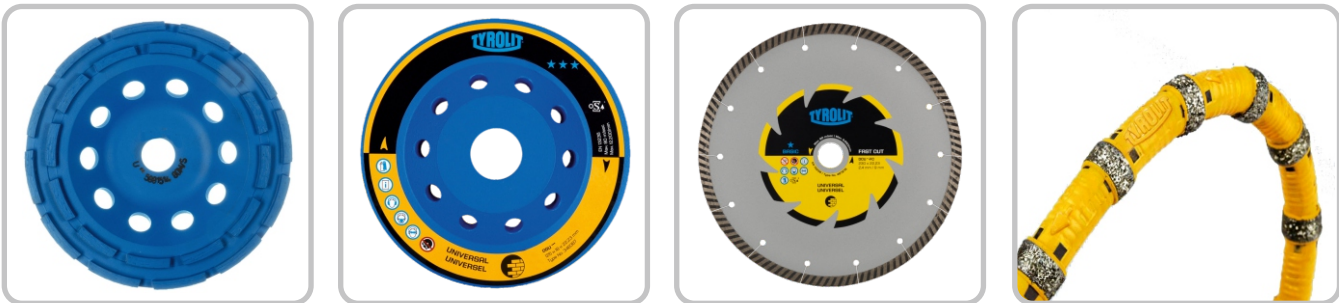
Floor Saws



Floor Grinders



Accessories & Consumables



TYROLIT METAL TRADE

Cutting & Grinding Wheels



Mounted Flap Disc & Sanding Papers



Polishing Wheels



Mounted Points & Burrs



Flap Wheels



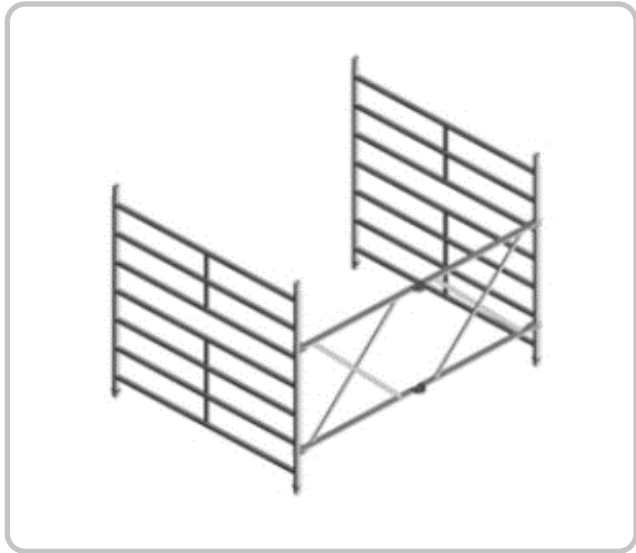
Special Apps. Wheels





ZARGES SCAFFOLDINGS

Single Parts for Scaffoldings



Mobile Scaffold Tower & Platforms



Area Work Platforms



ZARGES LADDERS

Single Ladders



Multi Purpose



Step Ladders Double Side



Tanker Ladders



Fixed Ladders



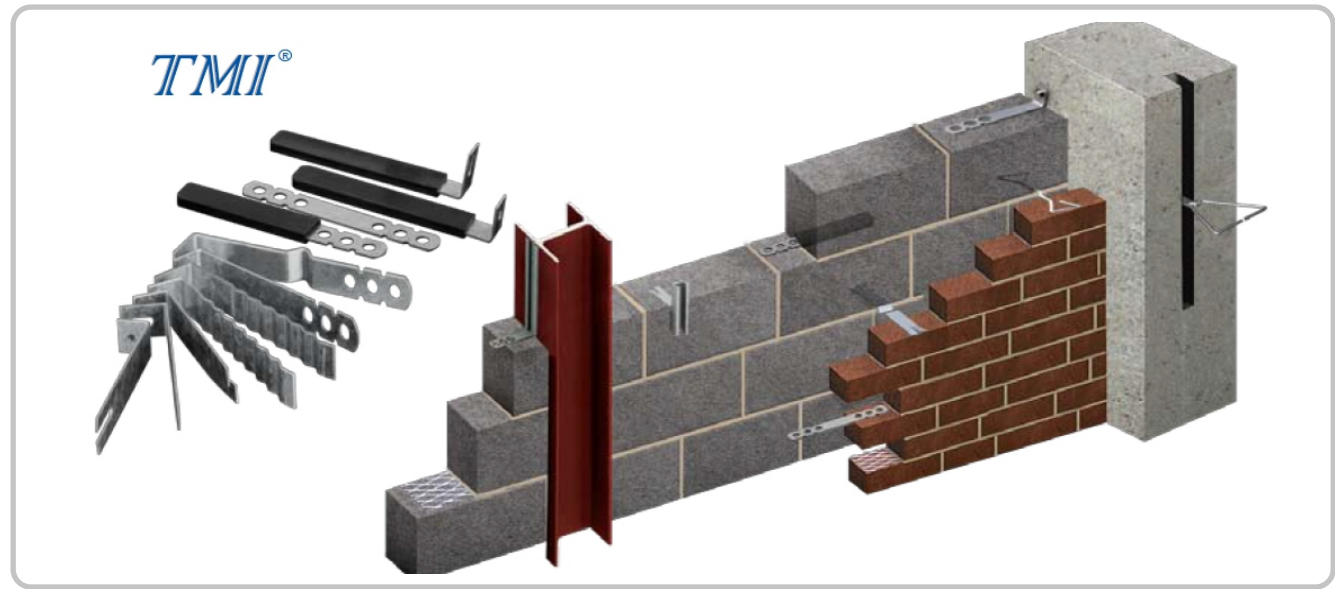
Roof Ladders





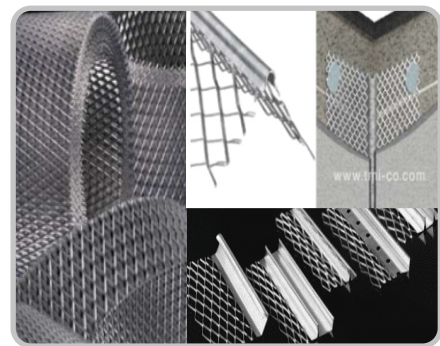
TMI BLOCK WORK ACCS - WALL TIES

- Wall ties / Anchor plates are used to attach structural members or equipment to a concrete structure. Plates and angles can also be used to frame openings in concrete walls or as shelf angles.
- They are used with precast or cast in place concrete.



TMI PLASTERING ACCS - EXPANDED MESH

- The Expanded Mesh & Metal Products manufactured by TMI are Metal Beads, Plaster / Stucco Screeds, Metal Lath, Heavy Rib, Heavy Duty Expanded Mesh, Block Work Reinforcement & Ties, Lintel, Drywall Plaster Beads & Channels and Pullout Box.
- Expanded Mesh & Metal Products are mainly used for reinforcement purposes, Plaster embracing helps to give better finishing and stronger edges which increases the life time of any building.



BLOCK WORK EXPANDED MESH

Block Work Mesh is an anti-crack reinforcement mesh for non-structural use. Block work reinforcement mesh should be used in every second course of a wall. Combinations of different widths of reinforcement mesh may be used to suit any wall thickness. It is also recommended for window and doorframes for stress resistance.

Reference	Coil width mm	Length m	Material
MC 75	75	50/100	Galvanized
MC 100	100	50/100	Galvanized
MC 125	125	50/100	Galvanized
MC 150	150	50/100	Galvanized
MC 175	175	50/100	Galvanized
MC 200	200	50/100	Galvanized
MC 250	250	50/100	Galvanized
MC 300	300	50/100	Galvanized
MC 75 S	75	50/100	Stainless Steel
MC 100 S	100	50/100	Stainless Steel
MC 1/5 S	125	30/100	Stainless Steel
MC 150 S	150	50/100	Stainless Steel
MC 173 S	173	30/100	Stainless Steel
MC 200 S	200	50/100	Stainless Steel
MC 130 S	230	30/100	Stainless Steel
MC 300 S	300	50/100	Stainless Steel

* Special lengths and widths up to 800mn available upon request.

GI Mesh 1



GI Mesh 2



CORNER LATH

Application

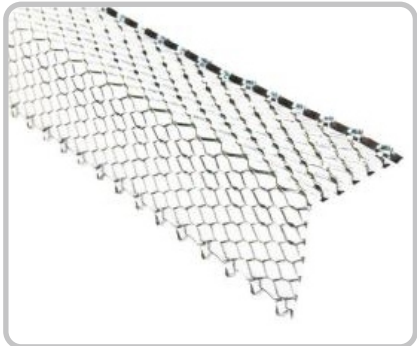
Corner Lath is a jointless mesh, bent lengthwise in the center and is used inside corner joints with dissimilar material base.

Fixing

Fix either by nailing or using plaster dabs.

Powder coated material or special fire protection paint coated material with resistance up to 120 minutes is available upon request.

Corner Mesh



Reference	Weight Kg/m	Weight of Wing mm	Length m	Material	Qty./Box Piece
CRL 50	2.08	50 x 50	2500/3000	Galvanized	50
CRL 75	2.08	75 x 75	2500/3000	Galvanized	50
CRL 90	2.08	90 x 90	2500/3000	Galvanized	50
CRL 100	2.08	100 x 100	2500/3000	Galvanized	50
CRL 50 S	2.08	50 x 50	2500/3000	Stainless Steel	50
CRL 75 S	2.08	75 x 75	2500/3000	Stainless Steel	50
CRL 90 S	2.08	90 x 90	2500/3000	Stainless Steel	50
CRL100 S	2.08	100 x 100	2500/3000	Stainless Steel	50

ANGLE BEAD

Application

Micro Angle Bead is designed for thin / single coat plaster and used at corners for protection.

Fixing

Fix either by nailing or using plaster dabs.

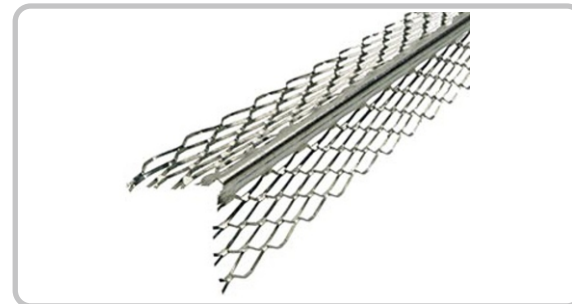
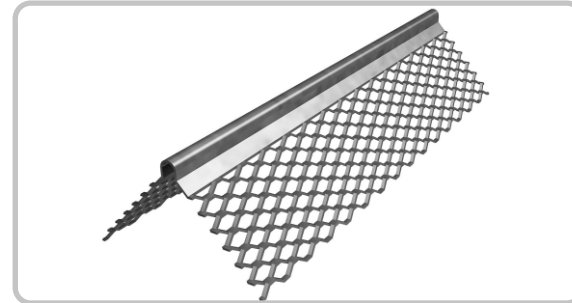
Powder coated material or special fire protection paint coated material with resistance up to 120 minutes is available upon request.

Reference	Weight of Wing mm	Length mm	Material	Qty./Box Piece
MAB 25	25x25	3000	Galvanized	50
MAB 30	30 x 30	3000	Galvanized	50
MAB 25 S	25 x 25	3000	Stainless Steel	50
MAB 30 S	30 x 30	3000	Stainless Steel	50

* Also available in Aluminum.

* For Aluminum, "S" must be replaced with "AL" in the item Reference.

Angle Bead



PLASTER STOP BEAD

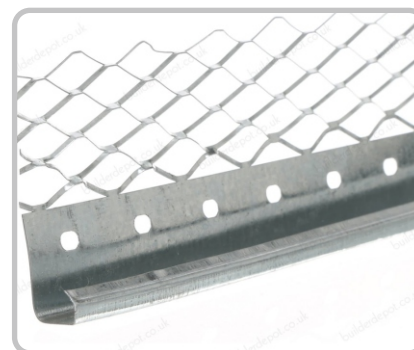
The most appropriate **TMI** metal bead should be chosen to suit the application, required plaster depth and the desired finish of the work.

Using galvanized or stainless steel nails (compatible with bead material), fixed at a maximum of 600mm apart. When nailing to a solid background, the line of the bead will follow the line of the background.

Pressing dabs of the same material as the undercoat onto bead. Dabs should be applied at a maximum of 600mm apart. This method will even out minor irregularities in the line of the background, although the line of the bead will tend to generally follow the line of the background.

When beads are used with metal lath backgrounds, galvanized or stainless steel may be used to secure the beads in position. Soft galvanized wire or soft stainless steel wire should be used to match the bead and lath materials. All wires should be twisted tightly and the ends bent away from the finished face of the coating.

Plaster Stop Bead



SPECIALIZED FABRICATION AND GRP WORKS

FABRICATION

- Supply and Installation of Specialized Handrails and Steel Cat ladders in Muscat Airport Project-Value USD 200,000



GRP LAMINATION AND BENCHING

- Supply and Installation of Specialized GRP Manhole benching and lamination in CGC Duqum Project - Value USD 520000



FASTENERS



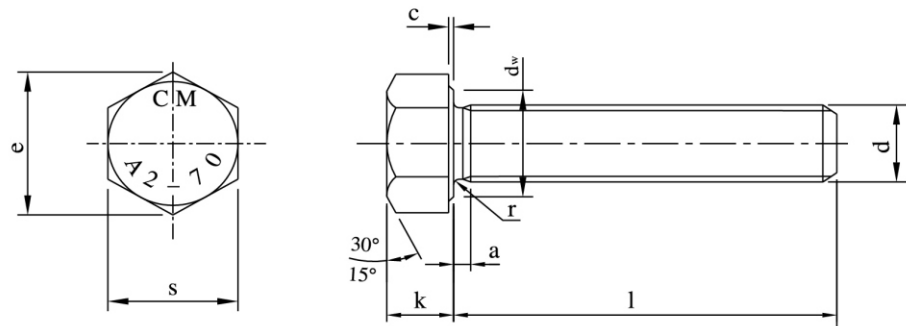
PRODUCT	DESCRIPTION	STANDARD / THREAD TYPE	SIZE RANGE	MATERIAL/ GRADE/FINISH
	Full Threaded Hexagon Bolt	DIN 933, ISO 4017 Metric Coarse Thread	M5 – M64	4.6, 4.8, 5.6, 5.8, 8.8, 10.9, 12.9 SS 304, SS 316 SS 304 L, SS 316 L A2-70/80, A4-70/80
	Full Threaded Hexagon Cap Screw	ASME B 18.2.1 UNC & UNF	1/4" – 1/2"	SS 304, SS 316 SS 304 L, SS 316 L A2-70/80, A4-70/80
	Half Threaded Hexagon Bolt	DIN 931, ISO 4014 Metric Coarse Thread	M5 – M64	SS 304, SS 316 SS 304 L, SS 316 L A2-70/80, A4-70/80
	A325 Hexagon Bolt	ASTM A325 Metric Coarse Thread	M12 – M64	ASTM A325 Black, GI, Yellow, HDG, Cadmium, Nickel and PTFE
	A193 Hexagon Bolt	As per DIN 933 Metric Coarse Thread	M10 – M36	ASTM A193 Grade B7, B7M, B8, B8M & B16 Black, GI, Yellow, HDG, Cadmium, Nickel and PTFE
	Hexagon Head Socket Screw	DIN 912 Metric Coarse Thread	M5 – M12	SS 304, SS 316 SS 304 L, SS 316 L A2-70/80, A4-70/80
	Hexagon Socket Countersunk Screw (CSK Bolt)	DIN 7991 Metric Coarse Thread	M6 – M20	SS 304, SS 316 SS 304 L, SS 316 L A2-70/80, A4-70/80
	Carriage Bolt	DIN 603 Metric Coarse Thread	M6 – M10	SS 304, SS 316 SS 304 L, SS 316 L A2-70/80, A4-70/80
	Threaded Rod	DIN 975 / DIN 976 BS 3692 / BS 4190 ASTM A193 ASTM A320 UNC, 8UN, UNF Metric Coarse Thread	M6 – M100 ¼" – 4"	Black, GI, Yellow, HDG, Cadmium, Nickel and PTFE
	Stud Bolt	DIN 976 BS 3692 / BS 4190 ASTM A193 ASTM A320 UNC, 8UN, UNF Metric Coarse Thread	M6 – M100 ¼" – 4"	Black, GI, Yellow, HDG, Cadmium, Nickel and PTFE
	Double Ended Engineer Studs	DIN 938 DIN 939 DIN 940 UNC, 8UN, UNF Metric Coarse Thread	M6 – M100 ¼" – 4"	Black, GI, Yellow, HDG, Cadmium, Nickel and PTFE
	U Bolt	DIN 3570 UNC, 8UN, UNF Metric Coarse Thread	M6 – M100 ¼" – 4"	Black, GI, Yellow, HDG, Cadmium, Nickel and PTFE
	Square Bend U Bolt	DIN 3570 and as per drawing UNC, 8UN, UNF Metric Coarse Thread	M6 – M100 ¼" – 4"	Black, GI, Yellow, HDG, Cadmium, Nickel and PTFE

FASTENERS



PRODUCT	DESCRIPTION	STANDARD / THREAD TYPE	SIZE RANGE	MATERIAL/ GRADE/FINISH
	J Foundation Bolt	As per drawing UNC, 8UN, UNF, Metric Coarse Thread	M6 – M100 ¼" – 4"	Black, GI, Yellow, HDG, Cadmium, Nickel and PTFE
	Tie Bars & Foundation Bolts	As per drawing UNC, 8UN, UNF, Metric Coarse Thread	M6 – M100 ¼" – 4"	Black, GI, Yellow, HDG, Cadmium, Nickel and PTFE
	Bolts with Plate Welded	As per drawing UNC, 8UN, UNF, Metric Coarse Thread	M6 – M100 ¼" – 4"	Black, GI, Yellow, HDG, Cadmium, Nickel and PTFE
	Hex Nut	DIN 934 Metric Coarse Thread	M5 – M64	SS 304, SS 316 SS 304 L, SS 316 L A2-70/80, A4-70/80
	Heavy Hex Nuts	ASTM A194 ASTM A563 UNC, 8UN, UNF, Metric Coarse Thread	M6 – M100 ¼" – 4"	Black, GI, Yellow, HDG, Cadmium, Nickel and PTFE
	Hex Coupling Nuts	Long Nut to connect Threaded Rods Metric Coarse Thread	M6 – M24	SS 304, SS 316 A2-70/80, A4-70/80
	Nylon Lock Nut	DIN 985 Metric Coarse Thread	M6 – M36	SS 304, SS 316, A2-70/80, A4-70/80
	Thin Nut	DIN 439 Metric Coarse Thread	M6 – M24	SS 304, SS 316 SS 304 L, SS 316 L A2-70/80, A4-70/80
	Spring Nut	Channel Nut with Long Spring	M6 – M12	SS 304 & SS 316
	Dome Nut	DIN 1587 Metric Coarse Thread	M6 – M24	SS 304, SS 316 A2-70/80, A4-70/80
	Wing Nut	DIN 315 Metric Coarse Thread	M6 – M24	SS 304, SS 316
	Flat Washers	DIN 125A F436	M5 – M64	MS, GI, Yellow, HDG, Cadmium, Nickel and PTFE SS 304, SS 316
	Spring Lock Washer	DIN 127B	M5 – M36	MS, GI, Yellow, HDG, Cadmium, Nickel and PTFE SS 304, SS 316
	Fender Washer	DIN 9021	M6 – M16	SS 304, SS 316
	Phillips Pan Head Sheet Metal Screws	DIN 7981	–	SS 304, SS 316
	Phillips Flat / Countersunk Head Sheet Metal Screws	DIN 7982	–	SS 304, SS 316
	Phillips Flat / Countersunk Head Wood Screws	DIN 7997	–	SS 304, SS 316
	Phillips Flat / Countersunk Head Machine Screws	DIN 965	–	SS 304, SS 316

PRODUCT	DESCRIPTION	STANDARD / THREAD TYPE	SIZE RANGE	MATERIAL/ GRADE/FINISH
	Hexagon Head Wood Screw	DIN 571	–	SS 304, SS 316
	Dome Head Blind Rivets	DIN 7997	3.2mm, 4.0mm, 4.8mm, 6.0mm & 6.4mm	Aluminium, Steel, Stainless Steel
	Large Flange Rivets	DIN 7997	3.2mm, 4.0mm, 4.8mm, 6.0mm & 6.4mm	Aluminium, Steel, Stainless Steel
	Sealed (Closed) Rivets with Dome Head	DIN 7997	3.2mm, 4.0mm, 4.8mm, 6.0mm & 6.4mm	Aluminium, Steel, Stainless Steel
	Multigrip Rivet/ Cup Lock Rivets	DIN 7997	3.2mm, 4.0mm, 4.8mm, 6.0mm & 6.4mm	Aluminium, Steel, Stainless Steel
	Hardened Steel Nails	Masonry Steel Nails	2.5 x 25mm, 3.0 x 30 to 70mm & 4.2 x 100mm	Hardened Steel
	Self Adhesive Insulation Pin	Self Adhesive Insulation Hangers	Square Base: 2" x 2", 1-3/8 x 1-3/8 Nail Length: 1-1/4"- 4-1/2"	GI & Aluminium
	Carbon Steel	Grades: AISI 1040, 1045, 1055 Grades: E.N. 8, 9, 43B Grades: Ck 40, Ck 45, Ck 55	Dia: 6mm to 600mm	Hot Rolled ,Forged and Cold Drawn
	Alloy Steel	Grades: AISI 4140, 4145, 4340 Grades: E.N. 19, 19A, 24	Dia: 6mm to 600mm	Hot Rolled ,Cold Drawn and Heat Treated
	High Tensile Steel	Grades: 5.6, 8.8, 10.9	Dia: 6mm to 64mm	Hot Rolled ,Cold Drawn and Heat Treated
	Stainless Steel	Grades: SS 304 & SS 316 L	Dia: 6mm to 200mm	Cold Drawn
	Die Steel	Grades: D2 & D3	Dia: 6mm to 600mm	Hot Rolled ,Cold Drawn and Heat Treated
	Hard Chrome Round Bars & Honed Tubes	C45 & St52.3	Dia: 10mm to 150mm Dia: ½" to 6"	Thick Plastic coated for surface protection
	Carbon Steel	C45	6mm to 150mm thick	Hot rolled

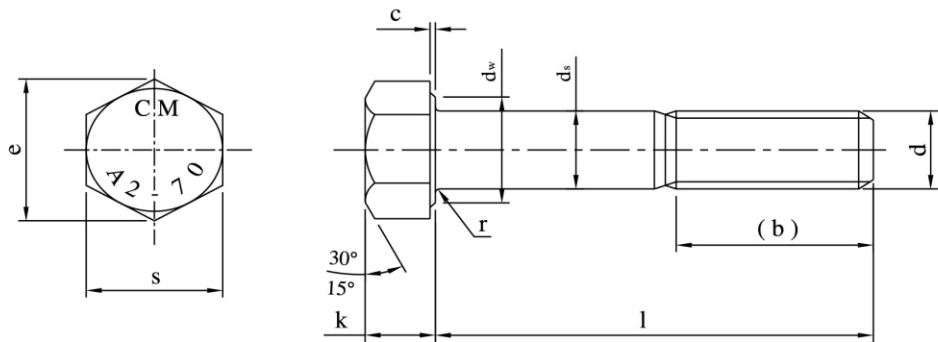


Standards Available:
DIN 933, ISO 4017
Grades Available:
A2-70, A2-80, A4-70, A4-80
Materials Offered:
304, 304L, 316, 316L
Thread Type:
Coarse Thread

HEXAGON HEAD SCREWS

Threads (d)		M6	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30	M33	M36	M39	M42	M45	M48	M52	M56
Across flat (s)	Min	9.78	12.73	16.73	18.67	21.67	23.67	26.67	29.67	31.61	35.38	40.00	45.00	49.00	53.80	58.80	63.10	68.10	73.10	78.10	82.80
	Max	10.00	13.00	17.00	19.00	22.00	24.00	27.00	30.00	32.00	36.00	41.00	46.00	50.00	55.00	60.00	65.00	70.00	75.00	80.00	85.00
Across corner (e)	Min	11.05	14.38	18.90	21.10	24.49	26.75	30.14	33.53	35.72	39.98	45.20	50.85	55.37	60.79	66.44	71.30	76.95	82.60	88.25	104.86
	Max	4.15	5.45	6.58	7.68	8.98	10.18	11.72	12.72	14.22	15.22	17.35	19.12	21.42	22.92	25.42	26.42	28.42	30.42	33.50	40.50
Unthreaded Length (a)	Min	1.00	1.25	1.50	1.75	2.00	2.00	2.50	2.50	2.50	3.00	3.00	3.50	3.50	4.00	4.00	4.50	4.50	5.00	5.00	5.50
	Max	3.00	4.00	4.50	5.30	6.00	6.00	7.50	7.50	7.50	9.00	9.00	10.50	10.50	12.00	12.00	13.50	13.50	15.00	15.00	16.50
Washer face Depth (c)	Min	0.15	0.15	0.15	0.15	0.15	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30	0.30
	Max	0.50	0.60	0.60	0.60	0.60	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	1.00	1.00	1.00	1.00	1.00	1.00
Washer face Dia (d w)	Min	8.88	11.63	15.60	17.40	20.50	22.49	25.30	28.19	30.00	33.61	38.00	42.70	46.50	51.10	55.90	59.90	64.70	69.45	74.20	78.66
	Max	0.25	0.40	0.40	0.60	0.60	0.60	0.60	0.60	0.80	0.80	0.80	1.00	1.00	1.00	1.00	1.00	1.20	1.20	1.60	1.60

l = Overall length of the Bolt

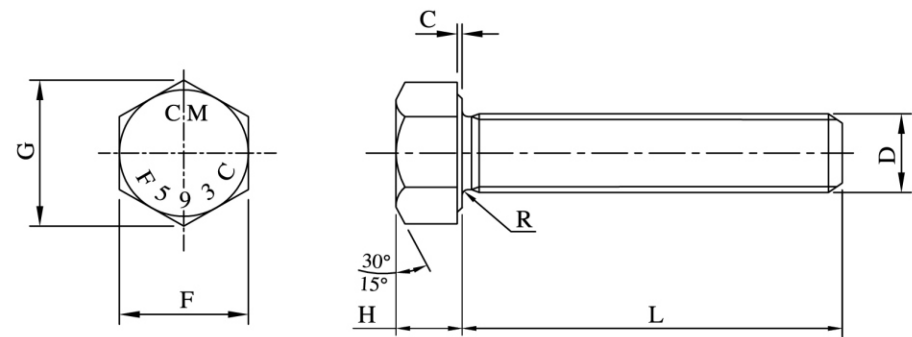


Standards Available:
DIN 931, ISO 4014
Grades Available:
A2-70, A2-80, A4-70, A4-80
Materials Offered:
SS304, SS316, SS304L, SS316L
Thread Type:
Coarse Thread

HEXAGON HEAD BOLTS

Threads (d)		M6	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30	M33	M36	M39	M42	M45	M48	M52	M56
Across flat (s)	Min	9.78	12.73	16.73	18.67	21.67	23.67	26.67	29.67	31.61	35.38	40.00	45.00	49.00	53.80	58.80	63.10	68.10	73.10	78.10	82.80
	Max	10.00	13.00	17.00	19.00	22.00	24.00	27.00	30.00	32.00	36.00	41.00	46.00	50.00	55.00	60.00	65.00	70.00	75.00	80.00	85.00
Across corner (e)	Min	11.05	14.38	18.90	21.10	24.49	26.75	30.14	33.53	35.72	39.98	45.20	50.85	55.37	60.79	66.44	71.30	76.95	82.60	88.25	104.86
	Max	4.15	5.45	6.58	7.68	8.98	10.18	11.72	12.72	14.22	15.22	17.35	19.12	21.42	22.92	25.42	26.42	28.42	30.42	33.50	40.50
Head Thickness (k)	Min	3.85	5.15	6.22	7.32	8.62	9.82	11.28	12.28	13.78	14.78	16.65	18.28	20.58	22.08	24.58	25.58	27.58	29.58	32.50	39.50
	Max	4.15	5.45	6.58	7.68	8.98	10.18	11.72	12.72	14.22	15.22	17.35	19.12	21.42	22.92	25.42	26.42	28.42	30.42	33.50	40.50
Washer face Depth (c)	Min	0.15	0.15	0.15	0.15	0.15	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30	0.30
	Max	0.50	0.60	0.60	0.60	0.60	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	1.00	1.00	1.00	1.00	1.00	1.00
Washer face Dia (d w)	Min	8.88	11.63	15.60	17.40	20.50	22.49	25.30	28.19	30.00	33.61	38.00	42.70	46.50	51.10	55.90	59.90	64.70	69.45	74.20	78.66
	Max	8.88	11.63	15.60	17.40	20.50	22.49	25.30	28.19	30.00	33.61	38.00	42.70	46.50	51.10	55.90	59.90	64.70	69.45	74.20	78.66
Shank Diameter (d s)	Min	5.82	7.78	9.78	11.73	13.73	15.73	17.73	19.67	21.67	23.67	27.00	30.00	33.00	36.00	39.00	42.00	45.00	48.00	52.00	64.00
	Max	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00	24.00	26.48	29.48	32.38	35.38	38.38	41.38	44.38	47.38	51.26	63.26
Head Junction Radius (r)	Min	0.25	0.40	0.40	0.60	0.60	0.60	0.60	0.80	0.80	0.80	1.00	1.00	1.00	1.00	1.00	1.20	1.20	1.60	1.60	2.00
	Max	0.25	0.40	0.40	0.60	0.60	0.60	0.60	0.80	0.80	0.80	1.00	1.00	1.00	1.00	1.00	1.20	1.20	1.60	1.60	2.00
Thread Length (b)	≤125*	18	22	26	30	34	38	42	46	50	54	60	66	-	-	-	-	-	-	-	-
	125≤200	24	28	32	36	40	44	48	52	64	60	66	72	78	84	90	96	102	108	116	-
	>200*	37	41	45	49	53	57	61	65	69	73	79	85	91	97	103	109	115	121	129	137

l = Overall length of the Bolt

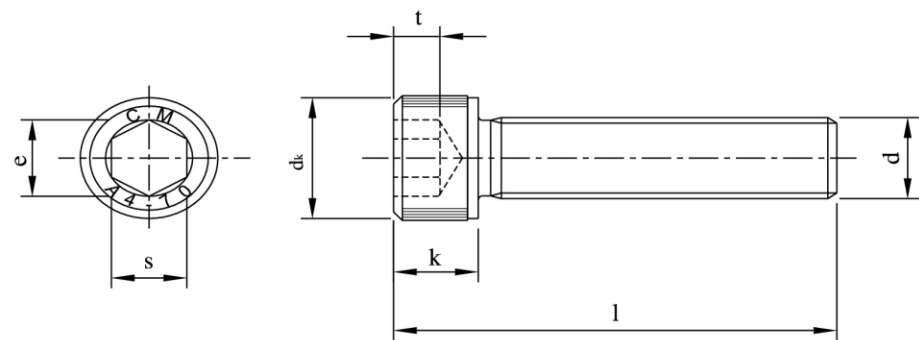


Standards Available:
ANSI B 18.2.1
Grades Available:
F593C, F593G
Materials Offered:
304, 304L, 316, 316L
Thread Type:
Coarse Thread

HEXAGON HEAD BOLTS AND SCREWS

Threads (D)		1 / 4	5 / 16	3 / 8	1 / 2
Across flat (F)	Min	10.87	12.42	14.00	18.69
	Max	11.13	12.70	14.27	19.05
Across corner (G)	Min	12.40	14.15	15.95	21.34
	Max	12.83	14.66	16.51	22.00
Head Thickness (H)	Min	3.81	4.95	5.74	7.67
	Max	4.14	5.36	6.17	8.20
Washer face Depth (C)	Min	0.38	0.38	0.38	0.38
	Max	0.64	0.64	0.64	0.64
Head Junction Radius (R)	Min	0.38	0.38	0.38	0.38
	Max	0.64	0.64	0.64	0.64

L = Overall length of the Bolt

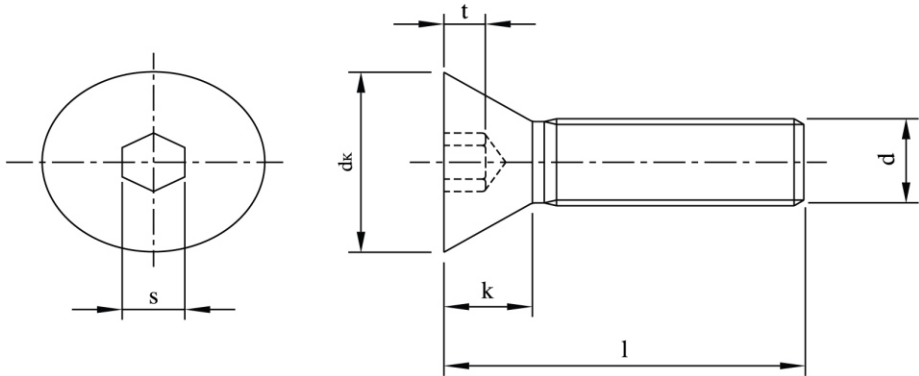


Standards Available:
DIN 912, ISO 4762
Grades Available:
A2-70, A2-80, A4-70, A4-80
Materials Offered:
304, 304L, 316, 316L
Thread Type:
Coarse Thread

HEXAGON SOCKET HEAD CAP SCREWS

Threads (d)		M6	M8	M10	M12
dk	Min	9.78	12.73	15.73	17.73
	Max	10.22	13.27	16.27	18.27
s	Min	5.02	6.02	8.03	10.03
	Max	5.14	6.14	8.18	10.18
e	Min	5.72	6.86	9.15	11.43
k	Min	5.70	7.64	9.64	11.57
	Max	6.00	8.00	10.00	12.00
t	Min	3.00	4.00	5.00	6.00

l = Overall length of the Bolt

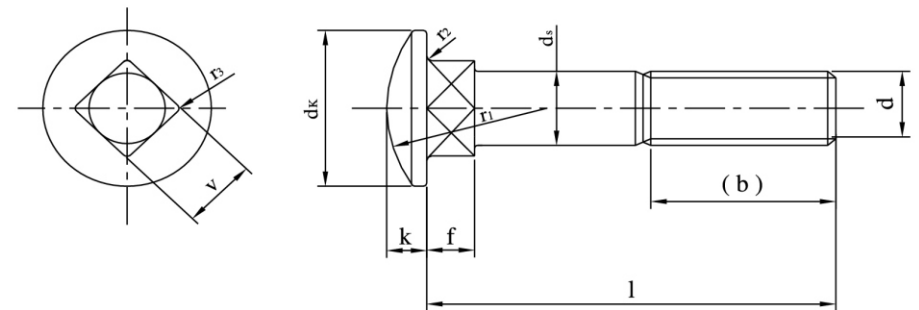


Standards Available:
DIN 7991, ISO 10642
Grades Available:
A2-70, A2-80, A4-70, A4-80
Materials Offered:
SS304, SS316, SS304L, SS316L
Thread Type:
Coarse Thread

HEXAGON COUNTERSUNK HEAD CAP SCREWS

Threads (d)		M6	M8	M10	M12
dk	Min	11.57	15.57	19.48	23.48
	Max	12.00	16.00	20.00	24.00
s	Min	4.02	5.02	6.02	8.025
	Max	4.12	5.14	6.14	8.175
k	Max	3.30	4.40	5.50	6.50
t	Min	2.25	3.20	4.10	4.30

l = Overall length of the Bolt



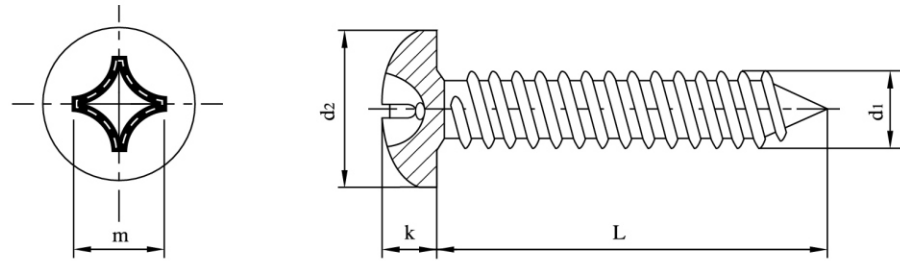
Standards Available:
DIN 603, ISO 8677
Grades Available:
A2-70, A2-80, A4-70, A4-80
Materials Offered:
SS304, SS316, SS304L, SS316L
Thread Type:
Coarse Thread

MUSHROOM HEAD SQUARE NECK BOLTS

Threads (d)		M6	M8	M10	M12
dk	Min	15.45	19.35	23.35	29.35
	Max	16.55	20.65	24.65	30.65
ds	Min	5.52	7.42	9.42	11.30
	Max	6.00	8.00	10.00	12.00
f	Min	3.40	4.40	5.40	7.25
	Max	4.60	5.60	6.60	8.75
k	Min	3.12	4.12	4.62	6.05
	Max	3.88	4.88	5.38	6.95
r1	Approx	12.60	16.00	19.20	24.10
r2	Max	0.50	0.50	0.50	1.00
r3	Max	0.90	1.20	1.50	1.80
v	Min	5.52	7.42	9.42	11.30
	Max	6.48	8.58	10.58	12.70
(b)	l ≤ 125*	18	22	26	30
	125 ≤ 200	24	28	32	36
	l > 200*	-	41	45	49

l = Overall length of the Bolt

FASTENERS

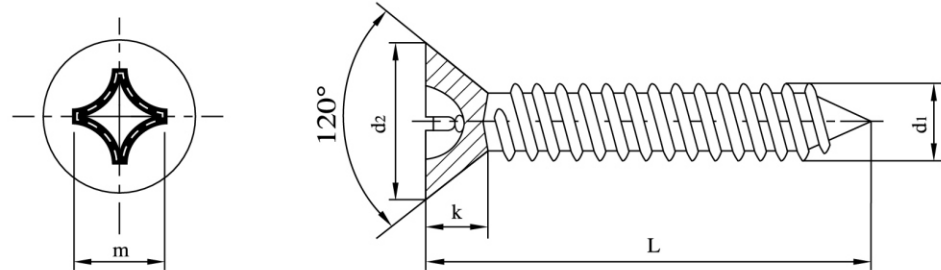


Standards Available:
DIN 7981, ISO 7049
Grades Available:
A2, A4
Materials Offered:
SS304, SS316
Thread Type:
A, B, AB, Coarse Thread

CROSS RECESSED PAN HEAD TAPPING SCREWS

d1	d2 max	k max	m approx.	Cross recess No.
M2.2	4.2	1.8	2.6	H1
M2.9	5.6	2.2	3	H1
M3.5	6.9	2.6	4.2	H2
M3.9	7.5	2.8	4.4	H2
M4.2	8.2	3.05	4.6	H2
M4.8	9.5	3.55	5	H2
M5.5	10.8	3.95	6.5	H3
M6.3	12.5	4.55	7.1	H3

L = Overall length of the Bolt



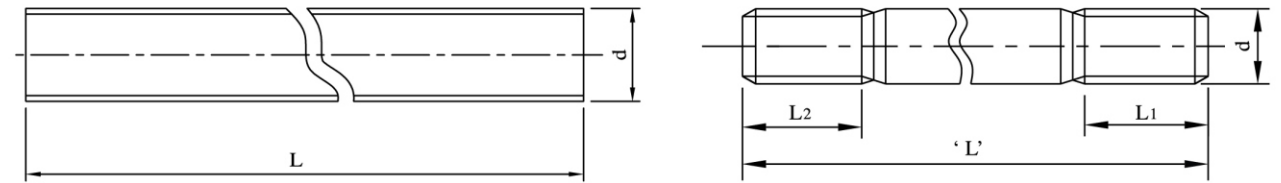
Standards Available:
DIN 7982, ISO 7050
Grades Available:
A2, A4
Materials Offered:
SS304, SS316
Thread Type:
A, B, AB, Coarse Thread

CROSS RECESSED COUNTERSUNK HEAD TAPPING SCREWS

d1	d2 max	k max	m approx.	Cross Recess No.
M2.2	4.3	1.3	2.5	H1
M2.9	5.5	1.7	3	H1
M3.5	6.8	2.1	4.2	H2
M3.9	7.5	2.3	4.6	H2
M4.2	8.1	2.5	4.7	H2
M4.8	9.5	3	5.1	H2
M5.5	10.8	3.4	6.8	H3
M6.3	12.4	3.8	7.1	H3

L = Overall length of the Bolt

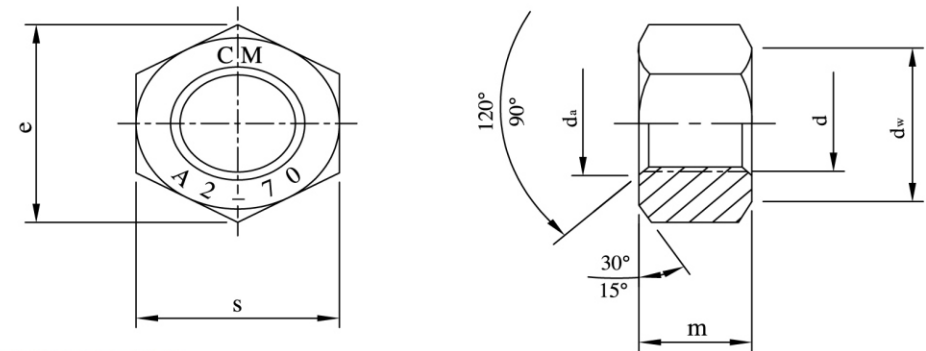
FASTENERS



Standards Available:
DIN 975, DIN 976, IFI 136-2002, A193
Grades Available:
A2-70, A2-80, A4-70, A4-80
Materials Offered:
304, 304L, 316, 316L
Thread Type:
Coarse Thread

THREADED RODS, STUDS, SINGLE & DOUBLE END THREADED STUDS

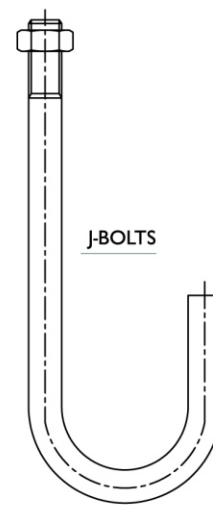
Threads (d)	M6	M8	M10	M12	M14	M16	M18	M20	M22	M24
Overall	1/4"	5/16"	3/8"	1/2"	-	5/8"	3/4"	-	7/8"	1"
Length (L)	From 1MT to 3MT									



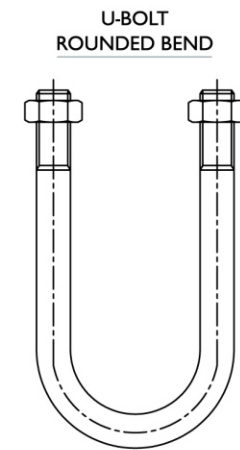
Standards Available:
DIN 934, ISO 4032
Grades Available:
A2-70, A2-80,
A4-70, A4-80
Materials Offered:
304, 304L,
316, 316L
Thread Type:
Coarse Thread

HEXAGON NUTS

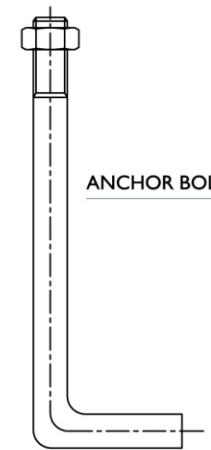
Threads (d)	M6	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30	M33	M36	M39	M42	M45	M48	M52	M56
Across flat (s)	Min	9.78	12.73	16.73	18.67	21.67	23.67	26.16	29.16	31.00	35.00	40.00	45.00	49.00	53.80	58.80	63.10	68.10	73.10	78.10
	Max	10.00	13.00	17.00	19.00	22.00	24.00	27.00	30.00	32.00	36.00	41.00	46.00	50.00	55.00	60.00	65.00	70.00	75.00	80.00
Across corner (e)	Min	11.05	14.38	18.90	21.10	24.49	26.75	29.56	32.95	35.03	39.55	45.20	50.85	55.37	60.79	66.44	71.30	76.95	82.60	88.25
	Max	11.30	14.63	19.15	21.35	24.74	26.99	29.80	33.19	35.27	39.79	45.44	51.09	55.61	61.03	66.68	71.54	77.19	82.84	88.49
Nut Thickness (m)	Min	4.70	6.14	7.64	9.64	10.30	12.30	14.30	16.90	17.70	20.70	22.70	24.70	27.40	29.40	32.40	34.40	36.40	40.40	43.40
	Max	5.00	6.50	8.00	10.00	11.00	13.00	15.00	18.00	19.00	22.00	24.00	26.00	29.00	31.00	34.00	36.00	38.00	42.00	45.00
Bearing face Dia (d w)	Min	8.80	11.30	15.30	17.20	20.20	22.20	25.30	28.20	29.50	33.20	38.00	42.70	46.60	51.10	55.90	60.60	64.70	69.40	74.20
	Max	9.00	11.50	15.50	17.40	20.40	22.40	25.50	28.40	29.70	33.40	38.20	42.90	46.80	51.30	56.10	60.80	64.90	69.60	74.40
Counter Sunk Diameter (d a)	Min	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00	24.00	27.00	30.00	33.00	36.00	39.00	42.00	45.00	48.00	52.00
	Max	6.25	8.25	10.25	12.25	14.25	16.25	18.25	20.25	22.25	24.25	27.25	30.25	33.25	36.25	39.25	42.25	45.25	48.25	52.25



J-BOLTS



U-BOLT
ROUNDED BEND



ANCHOR BOLTS

Grades Available:
A2-70, A2-80, A4-70, A4-80
Materials Offered:
304, 304L, 316, 316L

U-BOLTS AND BENT ANCHOR BOLTS

We also manufacture custom bent U Bolts and anchor bolts in Stainless Steel from M6 to M56 diameter to virtually any specification or special drawings.