

**Unbrako**<sup>®</sup>  
THE WORLD LEADER



## Securing the World

For more than 100 years, Unbrako has designed and manufactured premium and custom designed fasteners and forged components for demanding applications.

From its development in 1911, Unbrako has become a brand to reckon with in the world of fasteners for its unparalleled engineering knowledge, design ingenuity & manufacturing ability, and no less than 20,000 specialized fastener-related products, mostly available ex-stock.

The famous Unbrako® socket head cap screws and the Durlok® self-locking fasteners are solutions of choice for engineering applications across the globe.

Today, Unbrako fasteners proudly secure engineering structures such as Melbourne's AAMI Park, London's Heathrow T5, Spain's Torre Caja Tower, Mumbai's Bandra-Worli Sea Link, Delhi's Jawahar Lal Nehru Stadium, Indira Gandhi International Airport T2 and Delhi Metro. Furthermore Unbrako screws hold together some of the fastest and heaviest machines on earth, including automotive, Formula One, earth moving, high speed train, agricultural, heavy engineering and high precision electronic applications. With major global expansion and continuous investment in superior manufacturing processes, Unbrako will be featured on many more prestigious projects throughout the world.



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*NOTE: Unbrako standards meet or in many instances, exceed the requirement of the standards listed. Different standards are the responsibility of various organizations and are not always identical. A direct or indirect reference to a standard shall not be construed to represent that the fastener meets all the requirements of the standard. Unbrako reserves the right to update or modify its manufacturing specifications & other particulars contained in this catalog without prior notice. Deepak Fasteners Limited, through its Unbrako Division and associated companies offers Limited Warranty and Exclusive Remedy (complete information on [www.unbrako.com](http://www.unbrako.com)).*

## NABL Certified Lab

The NABL ISO/IEC 17025:2005 certified lab facilitates in maintain-ing consistently high quality. The fasteners go through strict quality checks at every stage of the manufacturing process. Unbrako inspection facilities have state-of-the-art equipment for testing both physical and metallurgical aspects of fasteners, to meet the needs of the most demanding applications.



## International Certifications

The Unbrako production facilities are ISO 9001, ISO/TS 16949, ISO 14001, and BS OHSAS 18001 Certified. Our fasteners meet or exceed International Standards like DIN, ISO, ASTM, IS, BS etc. We have expertise not only in standard products, but also in special fasteners made as per customer design or as per specific project requirement.



## Specialized Coatings

Unbrako excels in a variety of coatings or finishes e.g. Hot-Dip Galvanizing, Mechanical Galvanizing, Zinc/ Zinc-Nickel Electroplating, Geomet®, Delta Dorcken®, Unbrako Wiscoat, PTFE, etc. These coatings are done in-house and are designed to provide the required protection in different environments.



Metric	Image	Size	Grade	EQUIVALENT STANDARDS		
				Dimensional ASME	ISO	Material ASTM
<input type="checkbox"/> Socket Head Cap Screw		M1.6 to M64	12.9	B18.3.1M	4762	A574M
<input type="checkbox"/> Socket Low Head Cap Screw		M4 to M20	10.9	as per Unbrako Specification		
<input type="checkbox"/> Socket Head Shoulder Screw		M6 to M24	012.9	B18.3.3M	Unbrako h8	-
<input type="checkbox"/> Countersunk Socket Head Screw		M3 to M20	012.9	B18.3.5M	10642	F835M
<input type="checkbox"/> Button Head Socket Screw		M3 to M12	012.9	B18.3.4M	7380	F835M
<input type="checkbox"/> Flange Button Head Socket Screw		M3 to M10	012.9	as per Unbrako Specification		F835M
<input type="checkbox"/> Socket set screws		M3 to M20	45H	B18.3.6M	4029	F912M
<input type="checkbox"/> Knurled Cup Point		M6 to M12	45H	B18.3.6M	4026	F912M
<input type="checkbox"/> Flat Point		M6 to M12	45H	B18.3.6M	4026	F912M
<input type="checkbox"/> Dog Point (Dog/Half Dog)		M3 to M20	45H	B18.3.6M	4028	F912M
<input type="checkbox"/> Cone Point		M3 to M12	45H	B18.3.6M	4027	F912M
<input type="checkbox"/> Plain Cup Point		M3 to M20	45H	B18.3.6M	4029	F912M
<input type="checkbox"/> Taper Pressure Plug		M8 to M22	-	as per Unbrako Specification		

Inch		Size Range		Tensile psi / Hardness	EQUIVALENT STANDARDS			
		Diameter	Thread		Dimensional ANSI/ASME	BS	Material ASTM	
<input type="checkbox"/>	Socket Head Cap Screw		#0 to 2	1936 & 1960 UNC/UNF/BSW	190,000 ≤ 1/2 180,000 > 1/2	B18.3	2470	A574
<input type="checkbox"/>	Socket Low Head Cap Screw		#8 to 1/2	UNC/UNF	170,000	as per Unbrako specification		F835
<input type="checkbox"/>	Socket Head Shoulder Screw		1/4 to 2	UNC	HRC 36-43	B18.3	2470	-
<input type="checkbox"/>	Countersunk Socket Head Screw		#4 to 1 1/2	UNC/UNF	160,000	B18.3	2470	F835
<input type="checkbox"/>	Button Head Socket Screw		#10 to 5/8	UNC/UNF	160,000	B18.3	2470	F835
<input type="checkbox"/>	Flange Button Head Socket Screw		#8 to 1/2	UNC/UNF	as per Unbrako specification		2470	F835
<input type="checkbox"/>	Socket set screws		#4 to 5/8	UNC/UNF	HRC 45-53	B18.3	2470	F912
<input type="checkbox"/>	Knurled Cup Point							
<input type="checkbox"/>	Plain Cup Point		#0 to 5/8	UNC/UNF	HRC 45-53	B18.3	2470	F912
<input type="checkbox"/>	Taper Pressure Plug		3/4 to 7/8	--	--	as per Unbrako specification		



## PINS

Metric		Size	Hardness	Standard
<input type="checkbox"/> Dowel Pin		2mm to 16mm	HRC 50-58 (core)	as per Unbrako spec.
<input type="checkbox"/> Sel-lok Pin		1.5mm to 12mm	HV 440 to 560	ISO 8752
Inch		Size	Hardness	Standard
<input type="checkbox"/> Dowel Pin		1/8 to 1	HRC 50-58 (core)	as per Unbrako spec.
<input type="checkbox"/> Sel-lok Pin		1/16 to 1/2	as per Unbrako spec.	ASME B18.8.2
<input type="checkbox"/> Pull-out Dowel Pin		1/8 to 1	HRC 60 min (surface)	as per Unbrako spec.



## WRENCHES and TOOLS

Metric / Inch		Size	Hardness	Standard
<input type="checkbox"/> Hexagon Wrench - Metric (long & short arm)		0.71mm to 32mm	as per Unbrako Spec.	ISO 2936
<input type="checkbox"/> Hexagon Wrench - Inch (long, 6" & short arm)		1/16 to 1	as per Unbrako Spec.	BS 2470, ASME B18.3
<input type="checkbox"/> Hex Driver - Metric		1.5mm to 5.0mm	HRC 40-43	as per Unbrako Specification



### TOOL SETS

A range of elegantly engineered folded wrench sets and wallet sets are available with distinctive colored casings for Metric & Inch series.

## DURLOK® - Self locking, Anti Vibration Fasteners

Metric		Size	Property Class	Tensile Strength	Standard
<input type="checkbox"/> Durlok Bolt		M6 to M20	12.9	1220 N/mm <sup>2</sup> min	as per Unbrako specification
<input type="checkbox"/> Durlok Nut		M6 to M20	12	Hardness HRC 28 to 36	
<input type="checkbox"/> Durlok Washer		M6 to M20		HRC 47 to 52	
<input type="checkbox"/> Durlok Safety Washer		M6 to M20		HRC 47 to 52	

NOTE: 1. Durlok Bolts & Nuts do not require a washer. 2. Durlok washers are designed for use with standard hex bolts & nuts. Durlok washers are always used in pairs & must not be used with other flat washers.



## HEX BOLTS / SCREWS

Metric		Size	Property Class	Tensile Strength	Standard
<input type="checkbox"/> Hex Head Bolt/Screw		M4 to M80	10.9	1040N/mm <sup>2</sup> min	ISO 4017 (Full Thread) ISO 4014 (Half Thread)

Inch		Size	Grade	Tensile Strength	Standard
<input type="checkbox"/> Hex Cap Screw		1/4 to 2	8	150,000 psi min	ASME B18.2.1
<input type="checkbox"/> Hex Cap Screw		1/4 to 2	5	120,000 psi min (1/4 to 1) 105,000 psi min (over 1 to 1-1/2)	ASME B18.2.1
<input type="checkbox"/> Hex Bolt		1/4 to 1	A	60 ksi min	ASTM A307 / ASME B18.2.1



Metric		Size	Property Class	Standard
<input type="checkbox"/> Hex Nut		M6 to M80	8 & 10	ISO 4032
<input type="checkbox"/> Nylock Nut		M6 to M20 (Gr. 8) M10 to M24 (Gr. 10)	8 & 10	DIN 982
<input type="checkbox"/> Nylock Nut		M6 to M20 (Gr. 8) M10 to M24 (Gr. 10)	8 & 10	DIN 985
<input type="checkbox"/> Hex Weld Nut		M6 to M12	8	DIN 929
<input type="checkbox"/> Hex Lock Nut		M3 to M64		DIN 439, A563

Inch		Size	Grade	Standard
<input type="checkbox"/> Hex Nut		1/4 to 2	8	ASME B18.2.2
<input type="checkbox"/> Hex Nut		1/4 to 2	5	ASME B18.2.2
<input type="checkbox"/> Nylock Nut		#8, #10 (NM Pattern) 1/4 to 3/4 (NE Pattern)	2	ASME B18.16.6
<input type="checkbox"/> Hex Serrated Flange Nut		1/4 to 3/4	-	ASME B18.16.4
<input type="checkbox"/> Hex Coupling Nut		1/4 to 3/4	Hardness Rockwell B68 - C32	ASME B18.2.2



Metric		Size	Hardness	Standard
□ Square Section Spring Washer		3mm to 39mm	HV 430 to 530	DIN 7980
□ Flat Section Spring Washer		3mm to 39mm	HV 430 to 530	DIN 127 B
□ Hardened Washer		12mm to 30mm	HV 300 to 370	IS 2016
□ Hardened Steel Washer		12mm to 56mm	Rockwell 26 to 45 (HDG) Rockwell 38 to 45 (Coated)	ASTM F436M

Inch		Size	Tensile Strength	Standard
□ USS Plain Washer		1/4 to 1 1/2	HRC 38-45	ASME B18.21.1-A
□ SAE Plain Washer		1/4 to 2	HRC 38-45 (Coated) HRC 26-45 (HDG)	ASME B18.21.1-A
□ Spring-Lock Washer		1/4 to 1 1/2	HRC 38-46	ASME B18.21.1
□ Hardened Washer		1/4 to 1 3/8	HRC 38-45 (Coated) HRC 26-45 (HDG)	ASTM F436



Metric		Size	Property Class	Standard
<input type="checkbox"/> System HR Structural Bolt		M12 to M36	8.8 / 10.9	BS EN 14399-3
<input type="checkbox"/> System HR Pre-Load Nut		M12 to M36	8 / 10	BS EN 14399-3
<input type="checkbox"/> System HV Structural Bolt		M12 to M36	10.9	BS EN 14399-4
<input type="checkbox"/> System HV Pre-Load Nut		M12 to M36	10	BS EN 14399-4
<input type="checkbox"/> Plain Non-Chamfered Washer Plain Chamfered Washer		M12 to M36	HV 300 to 370	BS EN 14399-5 BS EN 14399-6
<input type="checkbox"/> Tension Control Structural Bolt*		M12 to M30	10.9	BS EN 14399-10
<input type="checkbox"/> Pre-Load Nut		M12 to M30	10	BS EN 14399-10 (h=d)
<input type="checkbox"/> Direct Tension Indicator		M12 to M36	H8, H10	BS EN 14399-9
<input type="checkbox"/> Non Pre-Load Structural Bolt		M12 to M36	4.6, 5.6, 6.8, 8.8, 10.9	BS EN 15048-1, 2
<input type="checkbox"/> Non Pre-Load Structural Nut		M12 to M36	4, 5, 6, 8, 10, 12	BS EN 15048-1, 2
<input type="checkbox"/> High-Strength Structural Bolt		M12 to M36	8.8	AS1252 - 1983 Dimensional AS1252 - 1996 Mechanical
<input type="checkbox"/> Structural Nut		M12 to M36	8	AS1252 - 1983 Dimensional AS1252 - 1996 Mechanical
<input type="checkbox"/> Structural Washer		M12 to M36	35-45HRC	AS1252 - 1983 Dimensional AS1252 - 1996 Mechanical
<input type="checkbox"/> Direct Tension Indicator		M16 to M36	8.8	ASTM F959M



Metric		Size	Property Class	Standard
□ Heavy Hex Structural Bolt		M16 to M36	10.9S	IS 3757
□ Heavy Hex Nut		M16 to M36	10S / 8S	IS 6623
□ Structural Washer		M16 to M36	35-45 HRC (Plain) 26-45 HRC min (HDG)	IS 6649
Inch		Size	Tensile Strength/Hardness	Standard
□ Heavy Hex Structural Bolt		1/2 to 1 1/4	120,000 psi (1/2 to 1 dia) 105,000 psi (1 1/8 to 1 1/2 dia)	ASTM A325
□ Heavy Hex Structural Bolt		1/2 to 1 1/4	150,000 - 173,000 psi	ASTM A490
□ Heavy Hex Nuts Grade DH		1/4 to 2	C24 - C38	ASTM A563
□ Heavy Hex Nut Grade 2H		1/4 to 2	24-35 HRC	ASTM A194 2H
□ Hardened Washer		1/4 to 1 3/8	38-45 HRC (coated) 26-45 HRC (HDG)	ASTM F436
□ Tension Control Structural Bolt*		5/8 to 1 1/8	120,000 psi (1/2 to 1 dia) 105,000 psi (1 1/8 to 1 1/2 dia)	ASTM F1852
□ Tension Control Structural Bolt*		1/2 to 1 1/8	150,000 - 173,000 psi	ASTM F2280
□ Direct Tension Indicator		1/2 to 1 1/2	-	ASTM F959

**\*Unbrako Electric Shear Wrench**

For assembly & installation of Tension Control Structural Bolt at site Unbrako electric shear wrench can be made available for hire/sale.



Metric		Size	Property Class	Standards
<input type="checkbox"/> Socket Head Cap Screw		M3 to M30	A2-70/80, A4-70/80	DIN 912 / ISO 4762
<input type="checkbox"/> Hex Head Screw (Full Thread)		M3 to M30	A2-70/80, A4-70/80	DIN 933 / ISO 4017
<input type="checkbox"/> Hex Head Bolt (Partial Thread)		M4 to M30	A2-70/80, A4-70/80	DIN 931 / ISO 4014
<input type="checkbox"/> Hex Nut		M3 to M30	A2-70/80, A4-70/80	DIN 934 / ISO 4032
<input type="checkbox"/> Non Pre-Load Structural Bolt		M12 to M36	A2-50, A4-50, A2-70, A4-70, A2-80, A4-80	BS EN 15048-1, 2
<input type="checkbox"/> Non Pre-Load Structural Nut		M12 to M36	A2-50, A4-50, A2-70, A4-70, A2-80, A4-80	BS EN 15048-1, 2
<input type="checkbox"/> Plain Washer		M3 to M64	A2, A4	DIN 125 A
<input type="checkbox"/> Flat-section Spring Washer		M3 to M36	A2, A4	DIN 127 B
<input type="checkbox"/> Square-section Spring Washer		M3 to M36	A2, A4	DIN 7980
<input type="checkbox"/> Threaded Rod		M3 to M36	A2-70/80, A4-70/80	DIN 975
Inch		Size	Grade	Standards
<input type="checkbox"/> Socket Head Cap Screw		3/16 to 1	F837B & F837E	ASME B18.3 / F837
<input type="checkbox"/> Hex Head Bolt/Screw		1/4 to 1	F593C, F593D & F593G, F593H	ASME B18.2.1 / ASTM F593
<input type="checkbox"/> 304, 316 Hex Nut		1/4 to 1 1/2	F594C, F594D & F594G, F594H	ASME B18.2.2 / F594
<input type="checkbox"/> Plain Washer		1/4 to 1	304, 316	ANSI B18.21.1

Stainless Steel Fasteners also available in High-Tensile **A4-90** and **A4-100** grades.

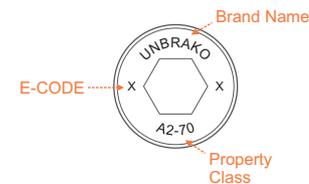


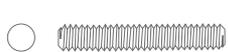
Metric		Size	Property Class	Standards
□ Stud Bolt		M12 to M56	B7, B7M, B8, B8M, B16, L7, L7M	ASTM A193M, ASTM A320M
□ Nut		M12 to M56	2H, 2HM, 4, 7, 8, 8M	ANSI B18.2.4.6M, A194M

Inch		Size	Grade	Standards
□ Stud Bolt		1/2 to 2 1/4	B7, B7M, B8, B8M, B16, L7, L7M	ASTM A193, ASTM A320
□ Nut		1/2 to 2	2H, 2HM, 4, 7, 8, 8M	ASTM A194



Unbrako's patented E-code™ head making system is the ultimate in fastener traceability. It allows tracing of test records to specific production batches. Unique letters and numbers in the head marking ensure 100% traceability, even when the box is discarded. This is the most reliable system in fastener traceability today.



Metric		Size	Property Class	Standards
<input type="checkbox"/> Arc Welding Stud / Shear Connector <sup>A</sup>		M13 to M25	Type SD1,SD2 & Type A, Type B	ISO 13918, AWS D1.1
<input type="checkbox"/> Upset Parallel Threaded Rebar Coupler <sup>B</sup>		12mm to 50mm	as per Unbrako Spec.	ASTM A615, A706, A775, IS 1786, 16172
<input type="checkbox"/> Parallel Threaded Rebar Coupler <sup>B</sup>		12mm to 40mm	as per Unbrako Spec.	ASTM A615, A706, A775, IS 1786, 16172
<input type="checkbox"/> Tee Bolt		M8 to M24	Tensile strength: 1250 Mpa Hardness: HRC 40 to 43	
<input type="checkbox"/> Trackshoe Bolt		M16 to M27	as per Unbrako Specification	
<input type="checkbox"/> Square Nut		M16 to M27	as per Unbrako Specification	
<input type="checkbox"/> Hex Lock Nut		M3 to M64		DIN 439, A563
<input type="checkbox"/> Hex Slotted & Castle Nut		M6 to M48		DIN 935, 937 A563
<input type="checkbox"/> Anchor Plate		M16 to M24	as per Unbrako Specification	
<input type="checkbox"/> Shear Nut		M8 to M16	as per Unbrako Specification	
<input type="checkbox"/> Anti-Theft Bolt		M12 to M16	as per Unbrako Specification	
<input type="checkbox"/> Carriage Bolt		M5 to M20		DIN 603
<input type="checkbox"/> Threaded Bar		M6 to M64	4.6, 5.8, 6.8, 8.8, 10.9, 12.9	DIN 975 / DIN 976



#### <sup>A</sup> Unbrako Arc Welding Gun

For Arc welding installation at site Unbrako Arc Welding gun can be made available for hire/sale.



#### <sup>B</sup> Rebar - Mobile Preparation Facility

On large contracts where bar end preparation can be carried out on site, equipment can be made available for hire.

Inch		Size	Grade	Standards
□ Tee Bolt		BSW 3/8 to 1	Tensile Strength: 180 ksi	as per Unbrako Spec.
□ Carriage Bolt		#10 to 1	Grade A	ASTM A307
□ Trackshoe Bolt		5/8 to 1		as per Unbrako Specification
□ Square Nut		5/8 to 1		as per Unbrako Specification
□ Threaded Bar		1/4 to 2	B7, B7M, B8, B8M, B16, L7, L7M	ASTM A193
□ Threaded Bar		1/4 to 2	Grade A	ASTM A307

**Note:** Unbrako standards meet or in many instances, exceed the requirement of the standards listed.

OFFERING A  
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ENGINEERED  
FASTENERS

