

INOX



# INOX WORLD

Stainless Steel Fasteners  
and Marine Hardware

WOR



2021

Issue date of Conditions: August 2013.

The Company is predominantly a business to business supplier. This Catalogue and any other product brochures produced by the Company are intended for use by business customers and not consumers. By ordering, the Customer confirms that he, she or it wishes to obtain the Supplies for the purposes of his, her or its business and not as a consumer, and wishes to obtain the Supplies:

- (i) for the purpose of re-supply; or
- (ii) for the purpose of using them up or transforming them, in trade or commerce, in the course of a process of production or manufacture, or in the course of repairing or treating other goods or fixtures on land

### 1. DEFINITIONS

«**Catalogue**» means the catalogue (in whatever form, whether paper or electronic) in which these Conditions are set out.

«**Company**» means Inox World Pty Ltd ABN 12 159 993 941 of 2/12 Forsyth Close, Wetherill Park, NSW, 2164, or its permitted assigns.

«**Conditions**» means these terms and conditions.

«**Contract**» means any contract between the Company and the Customer for the sale and purchase of Supplies.

«**Customer**» means the person(s) or company whose order for the Supplies is accepted by the Company.

«**Goods**» means any goods supplied or to be supplied by the Company to the Customer, and includes their packaging and any replacement goods supplied under these Conditions.

«**GST**» means goods and services tax under the A New Tax System (Goods and Services Tax) Act 1999 (Cth).

«**Services**» means any services supplied or to be supplied by the Company to the Customer, and includes any technical advice, repair or maintenance services provided by the Company or its technical representatives in connection with Goods.

«**Supplies**» means any Goods or Services.

«**in writing**» includes electronic communications. Reference in these Conditions to any legislation or regulation includes any re-enactment, amendment or substitution of such legislation or regulation.

### 2. CONDITIONS

All orders are accepted by the Company subject to and in accordance with the Terms and Conditions of Sale as shown on the Company website. These Conditions override and exclude any terms or conditions in or referred to in any negotiations or course of dealing between the Company and the Customer or set out in the Customer's standard terms and conditions to the fullest extent permitted by law.

### 3. PRICES AND GST

Prices stated in the Catalogue for Supplies are in Australian dollars, exclusive of GST or other duties or taxes and any applicable transport and handling charges, which will be added at the time of despatch. The Company has used all reasonable endeavours to ensure that prices for the Supplies are accurately set out in the Catalogue but these prices are not binding and the Company reserves the right to change its prices without notice at any time. Prices charged will be those prevailing when an order is accepted. The Company will issue a tax invoice to the Customer in relation to any supply that is subject to GST.

### 4. PAYMENT

Where credit terms have been approved, payment is due not later than 30 days from the date of statement, without any deductions, withholding or set off. Time for payment is of the essence. If the Customer fails to make payment by the due date then, without prejudice to any other right or remedy, the Company shall be entitled to:

- (i) cancel the order or suspend any further deliveries or performance;
- (ii) appropriate any payment made by the Customer to such of the Supplies (or the Supplies made under any other contract) as the Company may think fit; and
- (iii) charge interest (both before and after any judgment) on the amount unpaid at the rate of 2% per annum above the Reserve Bank of Australia's published official interest rate.

### 5. ORDERS

The Company reserves the right to decline to trade with any company or person, or to accept orders for Supplies in part.

To avoid duplication, written confirmation of telephone orders must be clearly marked 'Confirmation only'. The Company will not accept liability for orders not so marked and duplicate orders will be charged accordingly.

Once accepted, no order may be cancelled or reduced without the prior written agreement of a director of the Company. Without limiting the generality of this, orders for Goods which are not in catalogue or non-stock items may not be cancelled.

Orders for Goods are usually accepted by the Company by despatching the Goods provided, however, that despatch will not be acceptance where the price for the Supplies has been incorrectly quoted or referenced by the Customer in its order.

Orders for certain Goods, in particular Goods which are not in catalogue or are non-stock items, may be subject to a minimum order quantity or value which the Company will use its reasonable endeavours to notify to the Customer prior to accepting its order.

### 6. DELIVERY

The Company will use all reasonable endeavours to despatch goods on the same day for orders placed Monday to Friday (excluding public holidays) prior to 2pm Sydney time. The Company will attempt to despatch after 2pm Sydney time where possible, however all goods not despatched same day, will be moved for despatch on the next business day provided those goods are in stock.

The Company may charge a delivery and handling cost. Any such charge will be notified to the Customer at the time of the accounts establishment or placing the order to which the charge applies. All orders "drop shipped" to a different address on behalf of the Customer will incur additional shipping charges.

### 7. RETURNS

Prior to returning any Goods to the Company for any reason, the Customers must contact the Company to obtain a returns authorisation number ('RAN'). All Goods are returned at the Customer's risk and expense, and should be undamaged by the Customer and in their original packaging. The Customer is responsible for returning Goods to the Company and for providing proof of delivery of such return.

The Company operates a 14 day return policy. To be accepted for return on this basis, Goods must be returned in the original condition for receipt by the Company within 14 days of delivery. The Customer must return the Goods to "The Returns Department, Inox World Distribution Centre, 2/10-12 Forsyth Close, Wetherill Park, NSW 2164" clearly quoting the Customer's account number, order number and RAN.

Any Goods returned after 14 days as 'unwanted' or 'incorrectly ordered' may be accepted at the discretion of the Company but will be subjected to a restocking fee of 25% of the invoice value of the Goods (subject to a minimum charge of \$25). Goods classified as 'not in the catalogue' or 'non-stock' or 'special order' may not be returned under this Condition.

The Company expressly reserves the right (without limiting its discretion under this condition) to refuse the cancellation of any order for, or return for credit of, Goods supplied by the Company which are not in the Catalogue, or have been notified by the Company to be special ordered items, or items that have been expressly ordered in for the Customer.

### 8. DESCRIPTION

All specifications, drawings, illustrations, descriptions and particulars of weights, dimensions, capacity or other details including, without limitation, any statements regarding compliance with legislation or regulation (together "Descriptions") wherever they appear (including without limitation in this Catalogue, on despatch notes, invoices or packaging) are intended to give a general idea of the Supplies, but will not form part of the Contract. If the Description of any Goods differs from the manufacturer's description, the latter shall be deemed to be correct. The Company shall take all reasonable steps to ensure the accuracy of Descriptions but relies on such information, if any, as may have been provided to it by its suppliers and to the fullest extent possible by law excludes all liability in contract or tort or under statute or otherwise for any error in or omission from such Descriptions whether caused by the Company's negligence or otherwise. The Company may make changes to the Supplies as part of a continuous programme of improvement or to comply with legislation.

### 9. INTELLECTUAL PROPERTY RIGHTS

The Company owns full copyright in respect of this Catalogue and its reproduction in whole or part is prohibited without the Company's prior written consent.







### 10. PROMOTIONS

In the event that the Company sends promotional material to the Customer in relation to goods or services available from the Company, these Conditions shall apply to all Supplies purchased from such material.

### 11. LEGAL CONSTRUCTION

All Contracts shall be governed by and interpreted in accordance with New South Wales law and the Customer submits to the jurisdiction of the New South Wales Courts and Courts able to hear appeals from those Courts, but the Company may enforce such Contract in any court of competent jurisdiction.

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# Welcome to Inox World

The most reliable choice for all your stainless steel fastener and marine hardware

Inox World is a wholesale supplier and distributor of a wide range of stainless fasteners and hardware, poised to become a strong market leader in Australia and New Zealand. With over 10 years' experience in overseas markets and over ten thousand satisfied customers, we are confident that our knowledge, selection, and competitive pricing will quickly distinguish us from the competition. Inox World is an industry expert when it comes to stainless steel fastening products and we understand our customers' needs. From construction and heavy industry to marine and ship-building businesses, our team has the know-how and

product offerings you seek. We are confident, that regardless of your business or industry you will find what you need at the most attractive prices.

Inox World specialises in stainless steel fasteners and marine hardware of the highest quality available. Our inventory of stainless steel fasteners and marine hardware are durable, non-corrosive, non-magnetic and aesthetically compatible with almost any application. Our product range covers virtually every type of stainless steel fasteners and marine hardware from bolts, screws and nuts, to washers, rivets, wire rope and fittings. If it is not in stock, our dedicated

sales team will help you to meet your requirements. Inox World is the most reliable choice because we strive to offer:

- Market competitive prices
- Maintaining strong stock holdings to meet customers' demands
- Fast Delivery Australia wide: same day, overnight services
- We offer every client an individual approach

*Contact your Inox World representative today to learn more about how Inox World can become your preferred partner and supplier of stainless steel fasteners and marine hardware.*

## Company History

Inox World is a fully-owned subsidiary of a leading European supplier of stainless steel fasteners. Our parent company, Best Fasteners was founded in 2003 and quickly grew to become the market leader. The company expanded its sales presence by opening additional offices across Europe. With its newly established Sydney office and expanding Australian team, Inox World and Best Fasteners are well suited, equipped and ready to become a market leader in Australia and the South Pacific.

# The Inox World Commitment to Quality

The Inox World team is dedicated to providing its customers with the highest quality products. We adhere to strict levels of quality control in everything we do:

## **Products:**

Inox World specialises in stainless steel fasteners. Stainless steel represents one of the most high quality materials available across a number of industries and a wide variety of applications. Stainless Steel is one of the most advantageous alloys for fasteners because of its durability, resistance to corrosion, high heat tolerance, aesthetic appearance and long life span. Our specialty is stainless steel fasteners

because, they are simply the best fastener available.

## **Shipment & Delivery:**

Our warehouse and logistics teams work hard to maintain international standards and procedures for safe and clean warehousing operations and storage. We also verify every outgoing shipment with purchase orders to ensure customers receive exactly what they ordered.



## Payment and Delivery

### **Delivery**

Inox World provides prompt delivery services to both Sydney metro and outer areas. Orders for in-stock products will be delivered to our distributors twice daily for Sydney Metro and prompt services are employed for distributors outside of these areas.

We also offer a pickup service for distributors. We use a network of reliable partners to expedite orders as quickly as possible. If


































you are purchasing out-of-stock material or custom orders, our sales team will give you accurate lead time and delivery information.

### **Payment**

Trading account: Trading terms are available for our distributors who meet the required criteria.


































Payments: Distributors can make payments by credit card, business cheque or EFT.

# Product Index



































Category	Code	Picture	Name	Page	Material	DIN/ISO	UNC	BSW
BOLTS	XHB		Hexagon Head Bolt	13-19	A2 / A4	DIN 931 / ISO 4014	ANSI / ASME B18.2.1	
	XHS		Hexagon Head Set Screw	20-26	A2 / A4	DIN 933 / ISO 4017	ANSI / ASME B18.2.1	BS1083
	XCS		Hexagon Head Coach Screw	27	A4	DIN 571		
	CHB		Cup Head Square Neck Bolt	28	A4	DIN 603 / ISO 8677		
ALLTHREAD	ATR		Threaded Rod	30-33	A2 / A4	DIN 975	ANSI / ASME B18.31.3	AS 3501
ANCHORS	SAN		Sleeve Anchor - Hex Flange Nut	34	A4	.		
	FAN		Sleeve Anchor - Flush Head	34	A4	.		
	CAN		Sleeve Anchor - Countersunk	35	A4	.		
	STA		Stud Anchor (Wedge)	35	A4	.		
	DIN		Drop In Anchor	36	A4	.		
	CPH		Countersunk Post Head Anchor	36	A4	.		
NUTS	XNU		Hexagon Nut	37-39	A2 / A4	DIN 934 / ISO 4032	ANSI/ASME B18.2.2	BS 1083 & BS 450
	XLN		Hexagon Lock Nut	40-41	A2 / A4	DIN 439 / ISO 4035	ANSI/ASME B18.2.2	
	XNN		Nylon Insert Lock Nut	42-43	A2 / A4	DIN 985 / ISO 7040	ANSI/ASME B18.16.6	
	XIW		Hex Inox Loch Nut - Stainless Insert	44	A2 / A4	.		
	XCN		Hexagon Cap Nut	44	A2	DIN 917		
	DNU		Dome Nut - 1 Piece	45-46	A2 / A4	DIN 1587	.	
	CNU		Hexagon Coupling Nut	46	A4	DIN 6334		
	WNU		Wing Nut	47	A2 / A4	DIN 315AF		
	XFN		Hexagon Flange Nut	48	A2 / A4	DIN 6923 / ISO 1661		
	TNU		Tee Nut 4-Prong Type	49	A2	DIN 1624	.	
	SNU		Square Nut	50	A4	DIN 557		
	SWN		Square Weld Nut	50	A4	DIN 928		
	XWN		Hex Weld Nut	50	A4	DIN 929		
	WASHERS	FRW		Flat Round Washer	52-54	A2 / A4	.	.
FWA			Flat Round Washer	55	A2 / A4	DIN 125A / ISO 7089 & 7090		
FWM			Flat Round Mudguard Washer	56	A2 / A4	DIN 9021 / ISO 7093-1		
FWS			Flat Round Washer - Small O.D.	57	A2	DIN 433 / ISO 7092		
FSW			Flat Square Washer	57	A4	.		
SWA			Spring Washer	58-59	A2 / A4	DIN 127B	.	
CWA			Cup Washer	60	A2	.		
BWA			Belleville Washer	60	A2	DIN 2093		
CRW			Crinkle Washer	61	A2	BS 4463		



# Product Index



































Category	Code	Picture	Name	Page	Material	DIN/ISO	UNC	BSW
	CUW		Curved Washer	61	A2	DIN 137A		
	WAW		Wave Washer	61	A2	DIN 137B		
	ILW		Tooth Lock Washer - Internal Serrated	62	A2 / A4	DIN 6798J		
	ELW		Tooth Lock Washer - External Serrated	63	A2 / A4	DIN 6798A		
MACHINE SCREWS	CPS		Countersunk Phillips Metal Thread Screw	64-67	A2 / A4	DIN 965 / ISO 7046		BS 450
	PPS		Pan Phillips Metal Thread Screw	68-71	A2 / A4	DIN 7985 / ISO 7045		BS 450
	CHS		Cheese Head Slot Metal Thread Screw	72	A4	DIN 84		
	CSS		Countersunk Slot Metal Thread Screw	73	A4	DIN 963		
	PSS		Pan Slot Metal Thread Screw	74	A4	DIN 85		
	WSC		Wing Screw	75	A4	DIN 316AF		
SOCKET SCREWS	SCS		Socket Cap Screw	76-81	A2 / A4	DIN 912 / ISO 4762	ANSI / ASME B18.3	
	BCS		Button Cap Socket Screw	82-84	A2 / A4	ISO 7380	ANSI / ASME B18.3	
	CCS		Countersunk Socket Screw	85-87	A2 / A4	DIN 7991 / ISO 10642	ANSI / ASME B18.3	
	SSS		Socket Set Screw - Cup Point	88-89	A2 / A4	DIN 916 / ISO 4029		
WOOD & SELF TAPPING SCREWS	BBS		Bugle Batten Screw T17 with Ribs	90	A2 / A4	.		
	SDS		Square Drive Decking Screw T17	90-91	A2 / A4	.		
	SDX		Torx Drive Decking Screw T17	91-92	A2 / A4	.		
	SDT		Square Drive Decking Screw T17 - Trim Head	92	A2 / A4	.		
	CNP		Countersunk Needle Point Chipboard Screw	93	A2	.		
	CWS		Countersunk Phillips Wood Screw	93	A2	JIS B 1112		
	CST		Countersunk Phillips Self Tapping Screw	94-95	A2 / A4	DIN 7928C / ISO 7050		
	PST		Pan Phillips Self Tapping Screw	96-97	A2 / A4	DIN 7981C / ISO 7049		
	CSQ		Countersunk Square Self Tapping Screw	98	A2	DIN 7982C / ISO 7050		
	PSQ		Pan Square Self Tapping Screw	98	A2	DIN 7981C / ISO 7049		
	CUP		Countersunk Phillips Undercut Self Tapping Screw	99	A2			
	CUS		Countersunk Square Undercut Self Tapping Screw	99	A2			
	TPS		Hex Flange Pit Screw T17	99	A2 / A4	AS 3566		
	XFS		Hex Flange Screw T17	100	A4	AS 3566		
	XFP		Hex Flange Screw with Neo T17	100	A4	AS 3566		
	SELF DRILLING SCREWS	XDS		Hexagon Flange Self Drilling Screw	101	A2	DIN 7504K	
CDS			Countersunk Phillips Self Drilling Screw	102	A2	DIN 7504O		
PDS			Pan Phillips Self Drilling Screw	103	A2	DIN 7504M		
WDS			Wafer Phillips Self Drilling Screw	103	A2	DIN 7504N		

# Product Index






























Category	Code	Picture	Name	Page	Material	DIN/ISO	UNC	BSW
SECURITY FASTENERS	YCXS		Countersunk Post Torx Metal Thread Screw	104	A2	DIN 7991		
	YBXS		Button Post Torx Metal Thread Screw	104	A2	ISO 7380		
	YCXT		Countersunk Post Torx Self Tapping Screw	105	A2	.		
	YBXT		Button Post Torx Self Tapping Screw	105	A2	.		
	YCDX		Countersunk Post Torx Self Drilling Screw	106	A2	.		
	YBDX		Button Post Torx Self Drilling Screw	106	A2	.		
	SHN		Shear Nut	107	A4	.		
	YDBI		YDBI Driver Bit - Post Torx Security	107	A2	.		
PINS & CLIPS	RCL		R Clip	108	A2	.		
	SPI		Split Pin (Cotter Pin)	108-110	A2 / A4	DIN 94 / ISO 1234		
	LPI		Linch Pin	110	A2	.		
	ETC		E-Type Circlip	111	1.4122	DIN 6799		
	ICL		Internal Circlip	112	1.4122	DIN 472		
	ECL		External Circlip	113	1.4122	DIN 471		
WIRE ROPE & BALUSTRADE	WRO		Wire Rope	114-115	A4	.		
	RSC		Rigging Screw - Jaw / Swage	116	A4	.		
	RSM		Rigging Screw Mini - Jaw / Swage	116	A4	.		
	RSS		Rigging Screw - Swage / Swage	116	A4	.		
	RMS		Rigging Screw - Machine Thread / Swage	117	A4	.		
	RLS		Rigging Screw - Lag / Swage	117	A4	.		
	RTB		Rigging Screw - Jaw / Jaw	117	A4	.		
	TJJ		Turnbuckle with Nuts - Jaw / Jaw	118	A4	.		
	TEE		Turnbuckle with Nuts - Eye / Eye	118	A4	.		
	THE		Turnbuckle with Nuts - Hook / Eye	119	A4	.		
	THH		Turnbuckle with Nuts - Hook / Hook	119	A4	.		
	FTE		Fork Terminal - Jaw / Swage	120	A4	.		
	FTM		Fork Terminal Mini - Jaw / Swage	120	A4	.		
	STE		Swage / Stud Terminal	120	A4	.		
	LES		Lag Eye Screw	121	A4	.		
	LCS		Lag Eye Screw with Collar	121	A4	.		
	LST		Lag Swage Terminal	122	A4	.		
	RTE		Rod Terminal	122	A4	.		
	ETE		Eye Terminal	122	A4	.		
	XST		Hex Socket Tensioner	123	A4	.		

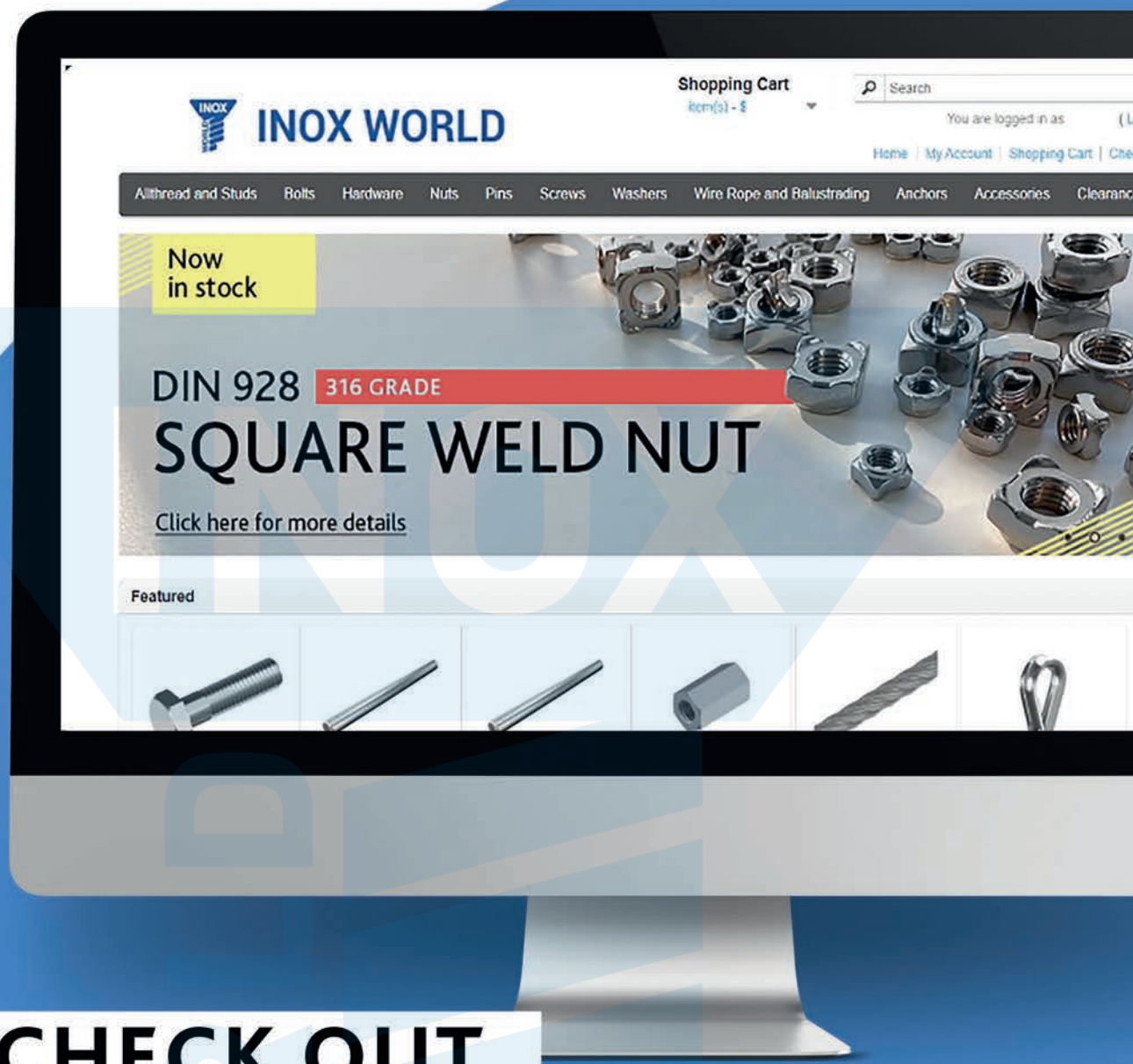


# Product Index

Category	Code	Picture	Name	Page	Material	DIN/ISO	UNC	BSW
HARDWARE	WES		Wire Eye Strap	123	A2 / A4	.		
	SEP		Square Eye Pad	124	A2	.		
	REP		Round Eye Pad	124	A4	.		
	DEP		Diamond Eye Pad	124	A4	.		
	DTS		Double Thread Screw - Lag / Machine	125	A4	.		
	NPS		Nickel Plated Copper Ferrule	125	-	.		
	NGR		Nylon Grommet - Split	125	-	.		
	CTI		Countersunk Timber Insert	126	A4	.		
	CPW		Cable Pivot Washer	126	A4	.		
	MEB		Mini Eye Bolt	126	A4	.		
	RNS		Rivet Nut - Small Flange	127	A2	.		
	RNL		Rivet Nut - Large Flange	127	A2	.		
	WRG		Wire Rope Grip	128	A4	.		
	WRT		Wire Rope Thimble	128	A4	.		
HARDWARE	EBO		Eye Bolt with Nut and Washers	129	A2	.		
	EBO		Collared Eye Bolt	129	A4	DIN 580		
	EBJ		Collared Eye Bolt	130	A4	JIS B 1168		
	LEN		Collared Eye Nut	130	A4	DIN 582		
	LEJ		Collared Eye Nut	131	A4	JIS B 1169		
	UBO		U Bolt with Nuts, Washers & Plate	131	A2	.		
	UBO		U Bolt with Nuts	132	A4	.		
	SH0		Spring Hook	132	A4	.		
	SHE		Spring Hook with Eye	133	A4	.		
	SH2		Asymmetric Snap Hook	133	A4	.		
	SSH		Spring Snap Hook Cast	133	A4	.		
	SSB		Swivel Snap Bolt	134	A2	.		
	SH3		S Hook - Long Arm	134	A2	.		
	SH4		S Hook - Symmetrical	134	A2	.		
	PHO		Pelican Hook	135	A4	.		
	CSL		Short Link Chain	135	A2 / A4	DIN 766		
	CML		Medium Link Chain	136	A4	.		
	CLI		C Link	136	A4	.		
	QLI		Quick Link	136	A4	.		
	DSH		D Shackle	137	A4	.		

# Product Index

Category	Code	Picture	Name	Page	Material	DIN/ISO	UNC	BSW	
	DSL		D Shackle - Long	137	A4	•			
	DSC		D Shackle with Captive Pin	138	A4	•			
	DSW		D Shackle - Wide Mouth	138	A4	•			
	BSH		Bow Shackle	139	A4	•			
	TSH		Twist Shackle	139	A4	•			
	SSH		Strap Shackle	140	A2	•			
	SEE		Swivel - Eye / Eye	140	A4	•			
	SJJ		Swivel - Jaw / Jaw	140	A4	•			
	SJE		Swivel - Jaw / Eye	141	A4	•			
	DRT		D Ring Thimble	141	A4	•			
	RRI		Round Ring - Welded	142	A4	•			
	DRI		D Ring - Welded	142	A4	•			
	TRI		Triangle Ring - Welded	143	A4	•			
	HCW		Hose Clamp Worm Drive	143	A2	DIN 3017			
	PHI		Piano Hinge - Undrilled	144	A2	•			
	PHI		Piano Hinge - Drilled	144	A2	•			
	RIV		Blind Rivets	146	A2 / A4	•			
	RIL		Large Flange Rivets	147	A2	•			
	RIC		Countersunk Rivets	147	A2	•			
	TLA		Toggle Latch	148	A2	•			
	AHO		Anchor Hooks	148	A4	•			
	MBL		Mame Block - Single Nylon Sheave	148	A2	•			
	MBL		Mame Block - Double Nylon Sheave	149	A2	•			
	MBL		Mame Block - Single Stainless Sheave	149	A2	•			
	CLR		Rope Cleat - Type 4015	149	A4	•			
	ACCESSORIES	DBI		Driver Bit - Square Drive	150	-	•		
		DBI		Driver Bit - Torx Drive	150	-			
SOAP			Stainless Steel Soap - Retail Pack	150	-				
RULER			Stainless Steel Ruler 450mm	151	-				



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# INOX

## PRODUCT CATALOGUE



A2

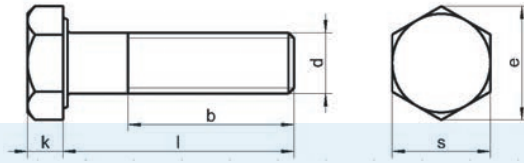
# Hexagon Head Bolt

XHB

304

DIN 931 / ISO 4014

METRIC



		M6	M8	M10	M12	M16	M20	M24
b for L ≤ 125mm		18.00	22.00	26.00	30.00	38.00	46.00	54.00
b for L ≥ 125-200mm		24.00	28.00	32.00	36.00	44.00	52.00	60.00
s nom.		10.00	13.00	17.00	19.00	24.00	30.00	36.00
k nom.		4.00	5.30	6.40	7.50	10.00	12.50	15.00
e min.		11.05	14.38	18.90	21.10	26.75	33.53	39.98
Length (l)	Size (d)	M6	M8	M10	M12	M16	M20	M24
30	Part Number	<b>XHBA2M6X30</b>	<b>XHBA2M8X30</b>					
	Std Pack	100	100					
35	Part Number	<b>XHBA2M6X35</b>	<b>XHBA2M8X35</b>	<b>XHBA2M10X35</b>				
	Std Pack	100	100	100				
40	Part Number	<b>XHBA2M6X40</b>	<b>XHBA2M8X40</b>	<b>XHBA2M10X40</b>	<b>XHBA2M12X40</b>			
	Std Pack	100	100	100	50			
45	Part Number	<b>XHBA2M6X45</b>	<b>XHBA2M8X45</b>	<b>XHBA2M10X45</b>	<b>XHBA2M12X45</b>			
	Std Pack	100	100	100	50			
50	Part Number	<b>XHBA2M6X50</b>	<b>XHBA2M8X50</b>	<b>XHBA2M10X50</b>	<b>XHBA2M12X50</b>	<b>XHBA2M16X50</b>		
	Std Pack	100	100	100	25	25		
55	Part Number	<b>XHBA2M6X55</b>	<b>XHBA2M8X55</b>	<b>XHBA2M10X55</b>	<b>XHBA2M12X55</b>	<b>XHBA2M16X55</b>		
	Std Pack	50	50	50	25	25		
60	Part Number	<b>XHBA2M6X60</b>	<b>XHBA2M8X60</b>	<b>XHBA2M10X60</b>	<b>XHBA2M12X60</b>	<b>XHBA2M16X60</b>	<b>XHBA2M20X60</b>	
	Std Pack	50	50	50	25	25	25	
65	Part Number	<b>XHBA2M6X65</b>	<b>XHBA2M8X65</b>	<b>XHBA2M10X65</b>	<b>XHBA2M12X65</b>	<b>XHBA2M16X65</b>	<b>XHBA2M20X65</b>	
	Std Pack	50	50	50	25	25	25	
70	Part Number	<b>XHBA2M6X70</b>	<b>XHBA2M8X70</b>	<b>XHBA2M10X70</b>	<b>XHBA2M12X70</b>	<b>XHBA2M16X70</b>	<b>XHBA2M20X70</b>	<b>XHBA2M24X70</b>
	Std Pack	50	50	50	25	25	25	10
75	Part Number	<b>XHBA2M6X75</b>	<b>XHBA2M8X75</b>	<b>XHBA2M10X75</b>	<b>XHBA2M12X75</b>	<b>XHBA2M16X75</b>	<b>XHBA2M20X75</b>	<b>XHBA2M24X75</b>
	Std Pack	50	50	50	25	25	20	10
80	Part Number	<b>XHBA2M6X80</b>	<b>XHBA2M8X80</b>	<b>XHBA2M10X80</b>	<b>XHBA2M12X80</b>	<b>XHBA2M16X80</b>	<b>XHBA2M20X80</b>	<b>XHBA2M24X80</b>
	Std Pack	50	50	50	25	25	20	10
90	Part Number	<b>XHBA2M6X90</b>	<b>XHBA2M8X90</b>	<b>XHBA2M10X90</b>	<b>XHBA2M12X90</b>	<b>XHBA2M16X90</b>	<b>XHBA2M20X90</b>	<b>XHBA2M24X90</b>
	Std Pack	50	50	50	25	25	10	10
100	Part Number	<b>XHBA2M6X100</b>	<b>XHBA2M8X100</b>	<b>XHBA2M10X100</b>	<b>XHBA2M12X100</b>	<b>XHBA2M16X100</b>	<b>XHBA2M20X100</b>	<b>XHBA2M24X100</b>
	Std Pack	50	50	50	25	25	10	10
110	Part Number	<b>XHBA2M6X110</b>	<b>XHBA2M8X110</b>	<b>XHBA2M10X110</b>	<b>XHBA2M12X110</b>	<b>XHBA2M16X110</b>	<b>XHBA2M20X110</b>	<b>XHBA2M24X110</b>
	Std Pack	50	25	25	25	25	10	10
120	Part Number	<b>XHBA2M6X120</b>	<b>XHBA2M8X120</b>	<b>XHBA2M10X120</b>	<b>XHBA2M12X120</b>	<b>XHBA2M16X120</b>	<b>XHBA2M20X120</b>	<b>XHBA2M24X120</b>
	Std Pack	50	25	25	25	25	10	10
130	Part Number	<b>XHBA2M6X130</b>	<b>XHBA2M8X130</b>	<b>XHBA2M10X130</b>	<b>XHBA2M12X130</b>	<b>XHBA2M16X130</b>	<b>XHBA2M20X130</b>	<b>XHBA2M24X130</b>
	Std Pack	50	25	25	25	20	10	10
140	Part Number	<b>XHBA2M6X140</b>	<b>XHBA2M8X140</b>	<b>XHBA2M10X140</b>	<b>XHBA2M12X140</b>	<b>XHBA2M16X140</b>	<b>XHBA2M20X140</b>	<b>XHBA2M24X140</b>
	Std Pack	50	25	25	25	20	10	10
150	Part Number	<b>XHBA2M6X150</b>	<b>XHBA2M8X150</b>	<b>XHBA2M10X150</b>	<b>XHBA2M12X150</b>	<b>XHBA2M16X150</b>	<b>XHBA2M20X150</b>	<b>XHBA2M24X150</b>
	Std Pack	50	25	25	25	20	10	10
160	Part Number			<b>XHBA2M10X160</b>	<b>XHBA2M12X160</b>	<b>XHBA2M16X160</b>	<b>XHBA2M20X160</b>	<b>XHBA2M24X160</b>
	Std Pack			25	25	20	10	10
170	Part Number			<b>XHBA2M10X170</b>	<b>XHBA2M12X170</b>	<b>XHBA2M16X170</b>	<b>XHBA2M20X170</b>	<b>XHBA2M24X170</b>
	Std Pack			25	25	10	10	10
180	Part Number			<b>XHBA2M10X180</b>	<b>XHBA2M12X180</b>	<b>XHBA2M16X180</b>	<b>XHBA2M20X180</b>	<b>XHBA2M24X180</b>
	Std Pack			25	25	10	10	10
200	Part Number			<b>XHBA2M10X200</b>	<b>XHBA2M12X200</b>	<b>XHBA2M16X200</b>	<b>XHBA2M20X200</b>	<b>XHBA2M24X200</b>
	Std Pack			25	25	10	10	10

All measurements are in mm



# XHB

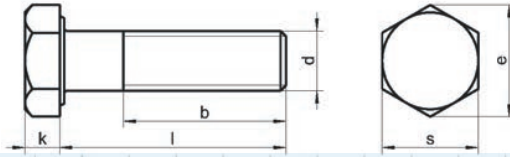
# Hexagon Head Bolt

A4

DIN 931 / ISO 4014

METRIC

316



b for L ≤ 125mm	18.00	22.00	26.00	30.00	34.00	38.00	42.00
b for L ≥ 125-200mm	24.00	28.00	32.00	36.00	40.00	44.00	48.00
b for L ≥ 200mm	-	-	45.00	49.00	53.00	57.00	61.00
s nom.	10.00	13.00	17.00	19.00	22.00	24.00	27.00
k nom.	4.00	5.30	6.40	7.50	8.80	10.00	11.50
e min.	11.05	14.38	18.90	21.10	24.49	26.75	30.14

Length (l)	Size (d)	M6	M8	M10	M12	M14	M16	M18
30	Part Number	<b>XHBA4M6X30</b>						
	Std Pack	100						
35	Part Number	<b>XHBA4M6X35</b>	<b>XHBA4M8X35</b>					
	Std Pack	100	100					
40	Part Number	<b>XHBA4M6X40</b>	<b>XHBA4M8X40</b>	<b>XHBA4M10X40</b>	<b>XHBA4M12X40</b>			
	Std Pack	100	100	100	50			
45	Part Number	<b>XHBA4M6X45</b>	<b>XHBA4M8X45</b>	<b>XHBA4M10X45</b>	<b>XHBA4M12X45</b>			
	Std Pack	100	100	100	50			
50	Part Number	<b>XHBA4M6X50</b>	<b>XHBA4M8X50</b>	<b>XHBA4M10X50</b>	<b>XHBA4M12X50</b>	<b>XHBA4M14X50</b>	<b>XHBA4M16X50</b>	
	Std Pack	100	100	100	25	25	25	
55	Part Number	<b>XHBA4M6X55</b>	<b>XHBA4M8X55</b>	<b>XHBA4M10X55</b>	<b>XHBA4M12X55</b>	<b>XHBA4M14X55</b>	<b>XHBA4M16X55</b>	
	Std Pack	50	50	50	25	25	25	
60	Part Number	<b>XHBA4M6X60</b>	<b>XHBA4M8X60</b>	<b>XHBA4M10X60</b>	<b>XHBA4M12X60</b>	<b>XHBA4M14X60</b>	<b>XHBA4M16X60</b>	<b>XHBA4M18X60</b>
	Std Pack	50	50	50	25	25	25	25
65	Part Number	<b>XHBA4M6X65</b>	<b>XHBA4M8X65</b>	<b>XHBA4M10X65</b>	<b>XHBA4M12X65</b>	<b>XHBA4M14X65</b>	<b>XHBA4M16X65</b>	<b>XHBA4M18X65</b>
	Std Pack	50	50	50	25	25	25	25
70	Part Number	<b>XHBA4M6X70</b>	<b>XHBA4M8X70</b>	<b>XHBA4M10X70</b>	<b>XHBA4M12X70</b>	<b>XHBA4M14X70</b>	<b>XHBA4M16X70</b>	<b>XHBA4M18X70</b>
	Std Pack	50	50	50	25	25	25	25
75	Part Number	<b>XHBA4M6X75</b>	<b>XHBA4M8X75</b>	<b>XHBA4M10X75</b>	<b>XHBA4M12X75</b>	<b>XHBA4M14X75</b>	<b>XHBA4M16X75</b>	<b>XHBA4M18X75</b>
	Std Pack	50	50	50	25	25	25	25
80	Part Number	<b>XHBA4M6X80</b>	<b>XHBA4M8X80</b>	<b>XHBA4M10X80</b>	<b>XHBA4M12X80</b>	<b>XHBA4M14X80</b>	<b>XHBA4M16X80</b>	<b>XHBA4M18X80</b>
	Std Pack	50	50	50	25	25	25	25
85	Part Number						<b>XHBA4M16X85</b>	
	Std Pack						25	
90	Part Number	<b>XHBA4M6X90</b>	<b>XHBA4M8X90</b>	<b>XHBA4M10X90</b>	<b>XHBA4M12X90</b>	<b>XHBA4M14X90</b>	<b>XHBA4M16X90</b>	<b>XHBA4M18X90</b>
	Std Pack	50	50	50	25	25	25	25
100	Part Number	<b>XHBA4M6X100</b>	<b>XHBA4M8X100</b>	<b>XHBA4M10X100</b>	<b>XHBA4M12X100</b>	<b>XHBA4M14X100</b>	<b>XHBA4M16X100</b>	<b>XHBA4M18X100</b>
	Std Pack	50	50	50	25	25	25	25
110	Part Number	<b>XHBA4M6X110</b>	<b>XHBA4M8X110</b>	<b>XHBA4M10X110</b>	<b>XHBA4M12X110</b>	<b>XHBA4M14X110</b>	<b>XHBA4M16X110</b>	<b>XHBA4M18X110</b>
	Std Pack	25	25	25	25	25	25	25
120	Part Number	<b>XHBA4M6X120</b>	<b>XHBA4M8X120</b>	<b>XHBA4M10X120</b>	<b>XHBA4M12X120</b>	<b>XHBA4M14X120</b>	<b>XHBA4M16X120</b>	<b>XHBA4M18X120</b>
	Std Pack	25	25	25	25	25	25	25
130	Part Number	<b>XHBA4M6X130</b>	<b>XHBA4M8X130</b>	<b>XHBA4M10X130</b>	<b>XHBA4M12X130</b>	<b>XHBA4M14X130</b>	<b>XHBA4M16X130</b>	<b>XHBA4M18X130</b>
	Std Pack	25	25	25	25	25	20	25
140	Part Number	<b>XHBA4M6X140</b>	<b>XHBA4M8X140</b>	<b>XHBA4M10X140</b>	<b>XHBA4M12X140</b>	<b>XHBA4M14X140</b>	<b>XHBA4M16X140</b>	<b>XHBA4M18X140</b>
	Std Pack	25	25	25	25	25	20	25
150	Part Number	<b>XHBA4M6X150</b>	<b>XHBA4M8X150</b>	<b>XHBA4M10X150</b>	<b>XHBA4M12X150</b>	<b>XHBA4M14X150</b>	<b>XHBA4M16X150</b>	<b>XHBA4M18X150</b>
	Std Pack	25	25	25	25	25	20	25
160	Part Number			<b>XHBA4M10X160</b>	<b>XHBA4M12X160</b>		<b>XHBA4M16X160</b>	
	Std Pack			25	25		20	
170	Part Number			<b>XHBA4M10X170</b>	<b>XHBA4M12X170</b>		<b>XHBA4M16X170</b>	
	Std Pack			25	25		20	
180	Part Number			<b>XHBA4M10X180</b>	<b>XHBA4M12X180</b>		<b>XHBA4M16X180</b>	
	Std Pack			25	25		10	
200	Part Number			<b>XHBA4M10X200</b>	<b>XHBA4M12X200</b>		<b>XHBA4M16X200</b>	
	Std Pack			25	25		10	
210	Part Number				<b>XHBA4M12X210</b>		<b>XHBA4M16X210</b>	
	Std Pack				10		10	
220	Part Number			<b>XHBA4M10X220</b>	<b>XHBA4M12X220</b>		<b>XHBA4M16X220</b>	
	Std Pack			10	10		10	
230	Part Number				<b>XHBA4M12X230</b>		<b>XHBA4M16X230</b>	
	Std Pack				10		10	
240	Part Number			<b>XHBA4M10X240</b>	<b>XHBA4M12X240</b>		<b>XHBA4M16X240</b>	
	Std Pack			10	10		10	
250	Part Number			<b>XHBA4M10X250</b>	<b>XHBA4M12X250</b>		<b>XHBA4M16X250</b>	
	Std Pack			10	10		10	
260	Part Number			<b>XHBA4M10X260</b>	<b>XHBA4M12X260</b>		<b>XHBA4M16X260</b>	
	Std Pack			10	10		10	
280	Part Number			<b>XHBA4M10X280</b>	<b>XHBA4M12X280</b>		<b>XHBA4M16X280</b>	
	Std Pack			10	10		10	
300	Part Number			<b>XHBA4M10X300</b>	<b>XHBA4M12X300</b>		<b>XHBA4M16X300</b>	
	Std Pack			10	10		10	
350	Part Number				<b>XHBA4M12X350</b>		<b>XHBA4M16X350</b>	
	Std Pack				5		5	
400	Part Number						<b>XHBA4M16X400</b>	
	Std Pack						5	
450	Part Number						<b>XHBA4M16X450</b>	
	Std Pack						5	
500	Part Number						<b>XHBA4M16X500</b>	
	Std Pack						5	
550	Part Number						<b>XHBA4M16X550</b>	
	Std Pack						5	
600	Part Number						<b>XHBA4M16X600</b>	
	Std Pack						5	

All measurements are in mm



**A4**

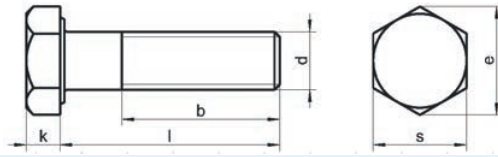
# Hexagon Head Bolt

**XHB**

**316**

DIN 931 / ISO 4014

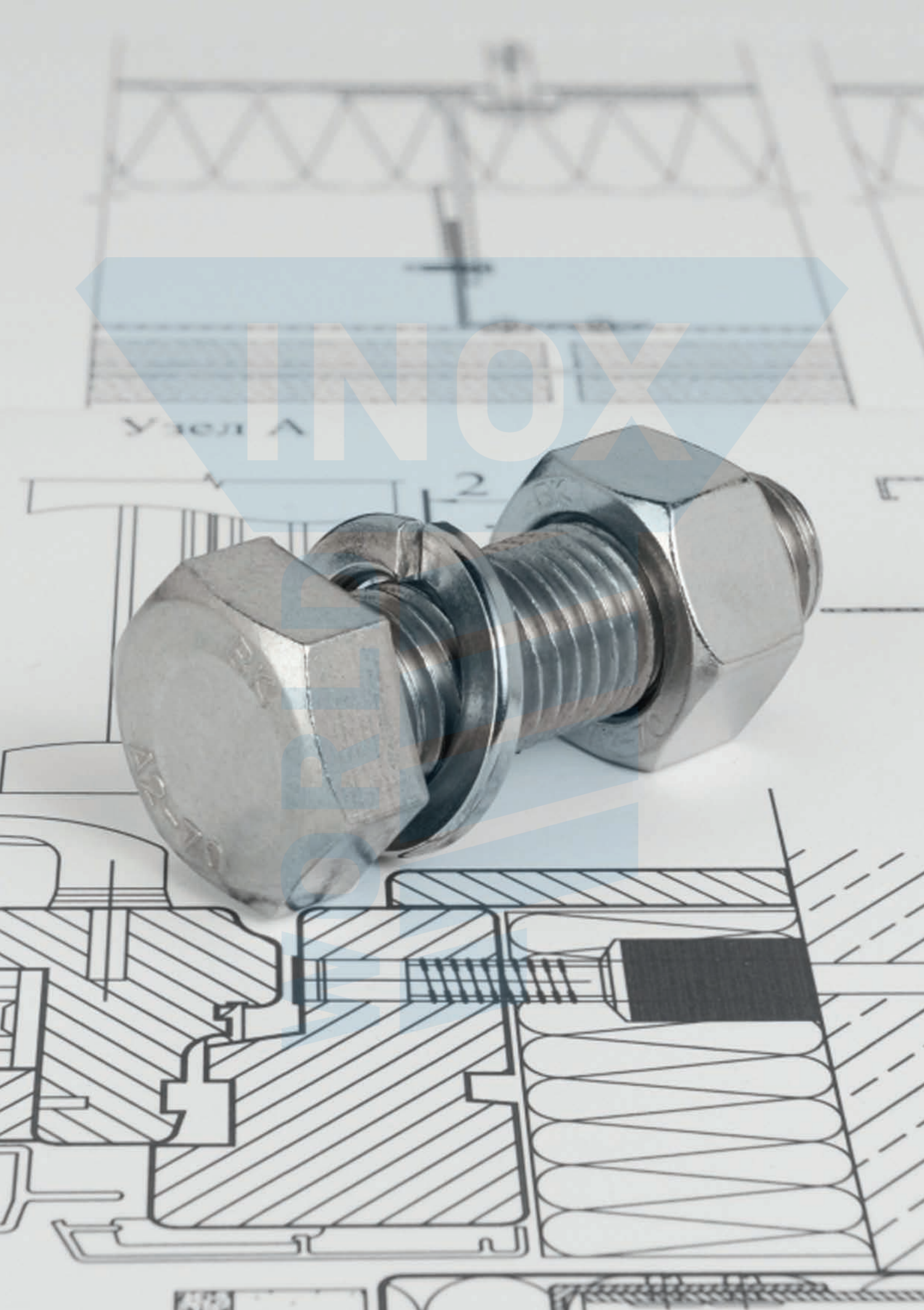
METRIC



b for L ≤ 125mm	46.00	50.00	54.00	60.00	66.00	72.00	78.00	84.00	-
b for L ≥ 125-200mm	52.00	56.00	60.00	66.00	72.00	78.00	84.00	90.00	96.00
b for L ≥ 200mm	65.00	69.00	73.00	79.00	85.00	91.00	97.00	103.00	109.00
s nom.	30.00	32.00	36.00	41.00	46.00	50.00	55.00	60.00	65.00
k nom.	12.50	14.00	15.00	17.00	18.70	21.00	22.50	25.00	26.00
e min.	33.53	35.72	39.98	45.20	50.85	55.37	60.79	66.44	71.30

Length (l)	Size (d)	M20	M22	M24	M27	M30	M33	M36	M39	M42
30	Part Number									
	Std Pack									
35	Part Number									
	Std Pack									
40	Part Number									
	Std Pack									
45	Part Number									
	Std Pack									
50	Part Number									
	Std Pack									
55	Part Number									
	Std Pack									
60	Part Number	<b>XHBA4M20X60</b>								
	Std Pack	25								
65	Part Number	<b>XHBA4M20X65</b>								
	Std Pack	25								
70	Part Number	<b>XHBA4M20X70</b>		<b>XHBA4M24X70</b>						
	Std Pack	25		10						
75	Part Number	<b>XHBA4M20X75</b>	<b>XHBA4M22X75</b>	<b>XHBA4M24X75</b>	<b>XHBA4M27X75</b>					
	Std Pack	20	10	10	5					
80	Part Number	<b>XHBA4M20X80</b>	<b>XHBA4M22X80</b>	<b>XHBA4M24X80</b>	<b>XHBA4M27X80</b>	<b>XHBA4M30X80</b>				
	Std Pack	20	10	10	5	5				
85	Part Number	<b>XHBA4M20X85</b>		<b>XHBA4M24X85</b>						
	Std Pack	10		10						
90	Part Number	<b>XHBA4M20X90</b>	<b>XHBA4M22X90</b>	<b>XHBA4M24X90</b>	<b>XHBA4M27X90</b>	<b>XHBA4M30X90</b>	<b>XHBA4M33X90</b>			
	Std Pack	10	10	10	5	5	1			
100	Part Number	<b>XHBA4M20X100</b>	<b>XHBA4M22X100</b>	<b>XHBA4M24X100</b>	<b>XHBA4M27X100</b>	<b>XHBA4M30X100</b>	<b>XHBA4M33X100</b>	<b>XHBA4M36X100</b>		
	Std Pack	10	10	10	5	5	1	1		
110	Part Number	<b>XHBA4M20X110</b>	<b>XHBA4M22X110</b>	<b>XHBA4M24X110</b>	<b>XHBA4M27X110</b>	<b>XHBA4M30X110</b>	<b>XHBA4M33X110</b>	<b>XHBA4M36X110</b>		
	Std Pack	10	10	10	5	5	1	1		
120	Part Number	<b>XHBA4M20X120</b>	<b>XHBA4M22X120</b>	<b>XHBA4M24X120</b>	<b>XHBA4M27X120</b>	<b>XHBA4M30X120</b>	<b>XHBA4M33X120</b>	<b>XHBA4M36X120</b>		
	Std Pack	10	10	10	5	5	1	1		
130	Part Number	<b>XHBA4M20X130</b>	<b>XHBA4M22X130</b>	<b>XHBA4M24X130</b>	<b>XHBA4M27X130</b>	<b>XHBA4M30X130</b>	<b>XHBA4M33X130</b>	<b>XHBA4M36X130</b>		
	Std Pack	10	10	10	5	5	1	1		
140	Part Number	<b>XHBA4M20X140</b>	<b>XHBA4M22X140</b>	<b>XHBA4M24X140</b>	<b>XHBA4M27X140</b>	<b>XHBA4M30X140</b>	<b>XHBA4M33X140</b>	<b>XHBA4M36X140</b>		
	Std Pack	10	10	10	5	5	1	1		
150	Part Number	<b>XHBA4M20X150</b>	<b>XHBA4M22X150</b>	<b>XHBA4M24X150</b>	<b>XHBA4M27X150</b>	<b>XHBA4M30X150</b>	<b>XHBA4M33X150</b>	<b>XHBA4M36X150</b>		
	Std Pack	10	10	10	5	5	1	1		
160	Part Number	<b>XHBA4M20X160</b>		<b>XHBA4M24X160</b>	<b>XHBA4M27X160</b>	<b>XHBA4M30X160</b>	<b>XHBA4M33X160</b>	<b>XHBA4M36X160</b>		
	Std Pack	10		10	5	5	1	1		
170	Part Number	<b>XHBA4M20X170</b>		<b>XHBA4M24X170</b>	<b>XHBA4M27X170</b>	<b>XHBA4M30X170</b>	<b>XHBA4M33X170</b>	<b>XHBA4M36X170</b>		
	Std Pack	10		10	5	5	1	1		
180	Part Number	<b>XHBA4M20X180</b>		<b>XHBA4M24X180</b>	<b>XHBA4M27X180</b>	<b>XHBA4M30X180</b>	<b>XHBA4M33X180</b>	<b>XHBA4M36X180</b>		
	Std Pack	10		10	5	5	1	1		
200	Part Number	<b>XHBA4M20X200</b>		<b>XHBA4M24X200</b>	<b>XHBA4M27X200</b>	<b>XHBA4M30X200</b>	<b>XHBA4M33X200</b>	<b>XHBA4M36X200</b>		<b>XHBA4M42X200</b>
	Std Pack	10		10	5	5	1	1		1
210	Part Number	<b>XHBA4M20X210</b>		<b>XHBA4M24X210</b>	<b>XHBA4M27X210</b>	<b>XHBA4M30X210</b>	<b>XHBA4M33X210</b>	<b>XHBA4M36X210</b>		
	Std Pack	10		10	5	5	1	1		
220	Part Number	<b>XHBA4M20X220</b>		<b>XHBA4M24X220</b>	<b>XHBA4M27X220</b>	<b>XHBA4M30X220</b>	<b>XHBA4M33X220</b>	<b>XHBA4M36X220</b>		
	Std Pack	10		10	5	5	1	1		
230	Part Number	<b>XHBA4M20X230</b>		<b>XHBA4M24X230</b>	<b>XHBA4M27X230</b>	<b>XHBA4M30X230</b>	<b>XHBA4M33X230</b>	<b>XHBA4M36X230</b>		
	Std Pack	10		10	5	5	1	1		
240	Part Number	<b>XHBA4M20X240</b>		<b>XHBA4M24X240</b>	<b>XHBA4M27X240</b>	<b>XHBA4M30X240</b>	<b>XHBA4M33X240</b>	<b>XHBA4M36X240</b>		
	Std Pack	10		10	5	5	1	1		
250	Part Number	<b>XHBA4M20X250</b>		<b>XHBA4M24X250</b>	<b>XHBA4M27X250</b>	<b>XHBA4M30X250</b>	<b>XHBA4M33X250</b>	<b>XHBA4M36X250</b>		<b>XHBA4M42X250</b>
	Std Pack	10		10	5	5	1	1		1
260	Part Number	<b>XHBA4M20X260</b>		<b>XHBA4M24X260</b>	<b>XHBA4M27X260</b>	<b>XHBA4M30X260</b>	<b>XHBA4M33X260</b>	<b>XHBA4M36X260</b>		
	Std Pack	10		10	5	5	1	1		
280	Part Number	<b>XHBA4M20X280</b>		<b>XHBA4M24X280</b>	<b>XHBA4M27X280</b>	<b>XHBA4M30X280</b>	<b>XHBA4M33X280</b>	<b>XHBA4M36X280</b>		
	Std Pack	10		10	5	5	1	1		
300	Part Number	<b>XHBA4M20X300</b>		<b>XHBA4M24X300</b>	<b>XHBA4M27X300</b>	<b>XHBA4M30X300</b>	<b>XHBA4M33X300</b>	<b>XHBA4M36X300</b>		<b>XHBA4M42X300</b>
	Std Pack	10		10	5	5	1	1		1
350	Part Number	<b>XHBA4M20X350</b>		<b>XHBA4M24X350</b>						
	Std Pack	5		5						
400	Part Number	<b>XHBA4M20X400</b>		<b>XHBA4M24X400</b>				<b>XHBA4M36X400</b>	<b>XHBA4M39X400</b>	
	Std Pack	5		5				1	1	
450	Part Number	<b>XHBA4M20X450</b>		<b>XHBA4M24X450</b>						<b>XHBA4M42X450</b>
	Std Pack	5		5						1
500	Part Number	<b>XHBA4M20X500</b>		<b>XHBA4M24X500</b>						
	Std Pack	5		2						
600	Part Number	<b>XHBA4M20X600</b>		<b>XHBA4M24X600</b>						
	Std Pack	2		2						
700	Part Number	<b>XHBA4M20X700</b>								
	Std Pack	2								
800	Part Number	<b>XHBA4M20X800</b>								
	Std Pack	2								

All measurements are in mm



Узел А

2

2020

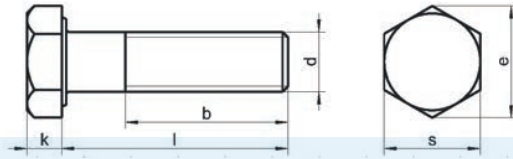
**A2**

# Hexagon Head Bolt

**XHB****304**

ANSI / ASME B18.2.1

UNC



b for L ≤ 6"	0.75	0.88	1.00	1.13	1.25	1.50	1.75
b for L ≥ 6"	1.00	1.13	1.25	1.14	1.50	1.75	2.00
s nom.	0.44	0.50	0.56	0.63	0.75	0.94	1.13
k nom.	0.17	0.22	0.25	0.30	0.34	0.42	0.50
e min.	0.48	0.55	0.62	0.69	0.83	1.03	1.24

Length (l)	Size (d)	1/4	5/16	3/8	7/16	1/2	5/8	3/4
1 1/4	Part Number	XHBA214UNCX114						
	Std Pack	100						
1 1/2	Part Number	XHBA214UNCX112	XHBA2516UNCX112	XHBA238UNCX112				
	Std Pack	100	100	100				
1 3/4	Part Number	XHBA214UNCX134	XHBA2516UNCX134	XHBA238UNCX134		XHBA212UNCX134		
	Std Pack	100	100	100		50		
2	Part Number	XHBA214UNCX2	XHBA2516UNCX2	XHBA238UNCX2	XHBA2716UNCX2	XHBA212UNCX2	XHBA258UNCX2	
	Std Pack	100	100	100	50	50	25	
2 1/4	Part Number	XHBA214UNCX214	XHBA2516UNCX214	XHBA238UNCX214		XHBA212UNCX214		XHBA258UNCX214
	Std Pack	50	50	50		25		25
2 1/2	Part Number	XHBA214UNCX212	XHBA2516UNCX212	XHBA238UNCX212	XHBA2716UNCX212	XHBA212UNCX212	XHBA258UNCX212	XHBA234UNCX212
	Std Pack	50	50	50	25	25	25	25
3	Part Number	XHBA214UNCX3	XHBA2516UNCX3	XHBA238UNCX3	XHBA2716UNCX3	XHBA212UNCX3	XHBA258UNCX3	XHBA234UNCX3
	Std Pack	50	50	50	25	25	25	20
3 1/2	Part Number	XHBA214UNCX312	XHBA2516UNCX312	XHBA238UNCX312	XHBA2716UNCX312	XHBA212UNCX312	XHBA258UNCX312	XHBA234UNCX312
	Std Pack	50	50	50	25	25	25	10
4	Part Number	XHBA214UNCX4	XHBA2516UNCX4	XHBA238UNCX4	XHBA2716UNCX4	XHBA212UNCX4	XHBA258UNCX4	XHBA234UNCX4
	Std Pack	50	50	50	25	25	25	10
4 1/2	Part Number	XHBA214UNCX412	XHBA2516UNCX412	XHBA238UNCX412		XHBA212UNCX412	XHBA258UNCX412	XHBA234UNCX412
	Std Pack	50	25	25		25	25	10
5	Part Number	XHBA214UNCX5	XHBA2516UNCX5	XHBA238UNCX5		XHBA212UNCX5	XHBA258UNCX5	XHBA234UNCX5
	Std Pack	50	25	25		25	20	10
5 1/2	Part Number	XHBA214UNCX512	XHBA2516UNCX512	XHBA238UNCX512		XHBA212UNCX512	XHBA258UNCX512	XHBA234UNCX512
	Std Pack	50	25	25		25	20	10
6	Part Number	XHBA214UNCX6	XHBA2516UNCX6	XHBA238UNCX6		XHBA212UNCX6	XHBA258UNCX6	XHBA234UNCX6
	Std Pack	50	25	25		25	20	10

All measurements are in inches

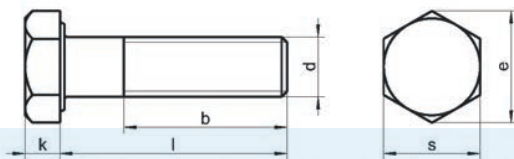
## Stainless Steel Properties

### What Is A2-70 Stainless Steel?

**DIN/ISO A2 Stainless Steel** is a corrosion resistant steel; it is also known as ASTM-304. A2 / ASTM-304 is an 18/8 Stainless Steel: this designates a metallurgical content of 18% chromium & 8% nickel.

A bolt marked A2-70 is a 304 stainless steel bolt with a 700 n/mm<sup>2</sup> tensile strength. The 70 representing the tensile strength divided by 10. 50 & 80 Grades are also available but are not all that common.

A2 / 304 Stainless Steel is what is known as an austenitic stainless steel: it is (mostly) non-magnetic though some residual magnetism can be introduced when the material is cold worked. A2 / 304 Stainless Steel is one of the most highly corrosion-resistant materials available to the designer and engineer.



b for L ≤ 6"	0.75	0.88	1.00	1.13	1.25
b for L ≥ 6"	1.00	1.13	1.25	1.14	1.50
s nom.	0.44	0.50	0.56	0.63	0.75
k nom.	0.17	0.22	0.25	0.30	0.34
e min.	0.48	0.55	0.62	0.69	0.83

Length (l)	Size (d)	1/4	5/16	3/8	7/16	1/2
1 1/4	Part Number	XHBA414UNCX114				
	Std Pack	100				
1 1/2	Part Number	XHBA414UNCX112	XHBA4516UNCX112	XHBA438UNCX112		
	Std Pack	100	100	100		
1 3/4	Part Number	XHBA414UNCX134	XHBA4516UNCX134	XHBA438UNCX134	XHBA4716UNCX134	XHBA412UNCX134
	Std Pack	100	100	100	50	50
2	Part Number	XHBA414UNCX2	XHBA4516UNCX2	XHBA438UNCX2	XHBA4716UNCX2	XHBA412UNCX2
	Std Pack	100	100	100	50	50
2 1/4	Part Number	XHBA414UNCX214	XHBA4516UNCX214	XHBA438UNCX214		XHBA412UNCX214
	Std Pack	50	50	50		25
2 1/2	Part Number	XHBA414UNCX212	XHBA4516UNCX212	XHBA438UNCX212	XHBA4716UNCX212	XHBA412UNCX212
	Std Pack	50	50	50	25	25
3	Part Number	XHBA414UNCX3	XHBA4516UNCX3	XHBA438UNCX3	XHBA4716UNCX3	XHBA412UNCX3
	Std Pack	50	50	50	25	25
3 1/2	Part Number	XHBA414UNCX312	XHBA4516UNCX312	XHBA438UNCX312	XHBA4716UNCX312	XHBA412UNCX312
	Std Pack	50	50	50	25	25
4	Part Number	XHBA414UNCX4	XHBA4516UNCX4	XHBA438UNCX4	XHBA4716UNCX4	XHBA412UNCX4
	Std Pack	50	50	50	25	25
4 1/2	Part Number	XHBA414UNCX412	XHBA4516UNCX412	XHBA438UNCX412		XHBA412UNCX412
	Std Pack	50	25	25		25
5	Part Number	XHBA414UNCX5	XHBA4516UNCX5	XHBA438UNCX5		XHBA412UNCX5
	Std Pack	50	25	25		25
5 1/2	Part Number	XHBA414UNCX512	XHBA4516UNCX512	XHBA438UNCX512		XHBA412UNCX512
	Std Pack	50	25	25		25
6	Part Number	XHBA414UNCX6	XHBA4516UNCX6	XHBA438UNCX6		XHBA412UNCX6
	Std Pack	50	25	25		25
7	Part Number			XHBA438UNCX7		XHBA412UNCX7
	Std Pack			25		25
8	Part Number			XHBA438UNCX8		XHBA412UNCX8
	Std Pack			25		25

All measurements are in inches

## Did you know?

Stainless Steel is not magnetic

In stainless fasteners, 300 series stainless is non-magnetic in its raw condition. Cold working it (making the parts) can sometimes cause traces of magnetism in 300 series. An increase in magnetism is caused by the heat and friction of cold forming and does not reduce corrosion resistance. 400 series are magnetic because of its high carbon content.



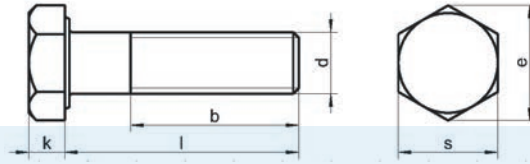
**A4**

# Hexagon Head Bolt

**XHB****316**

ANSI / ASME B18.2.1

UNC



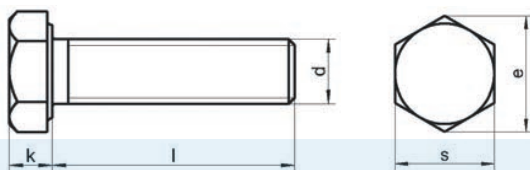
Length (l)	Size (d)	5/8	3/4	7/8	1
b for L ≤ 6"		1.50	1.75	2.00	2.25
b for L ≥ 6"		1.75	2.00	2.25	2.50
s nom.		0.94	1.13	1.31	1.50
k nom.		0.42	0.50	0.58	0.67
e min.		1.03	1.24	1.45	1.65
Length (l)	Size (d)	5/8	3/4	7/8	1
1 1/4	Part Number				
	Std Pack				
1 1/2	Part Number				
	Std Pack				
1 3/4	Part Number				
	Std Pack				
2	Part Number	<b>XHBA458UNCX2</b>			
	Std Pack	25			
2 1/4	Part Number	<b>XHBA458UNCX214</b>			
	Std Pack	25			
2 1/2	Part Number	<b>XHBA458UNCX212</b>	<b>XHBA434UNCX212</b>		
	Std Pack	25	25		
3	Part Number	<b>XHBA458UNCX3</b>	<b>XHBA434UNCX3</b>	<b>XHBA478UNCX3</b>	<b>XHBA41UNCX3</b>
	Std Pack	25	20	10	10
3 1/2	Part Number	<b>XHBA458UNCX312</b>	<b>XHBA434UNCX312</b>	<b>XHBA478UNCX312</b>	<b>XHBA41UNCX312</b>
	Std Pack	25	10	10	10
4	Part Number	<b>XHBA458UNCX4</b>	<b>XHBA434UNCX4</b>	<b>XHBA478UNCX4</b>	<b>XHBA41UNCX4</b>
	Std Pack	25	10	10	10
4 1/2	Part Number	<b>XHBA458UNCX412</b>	<b>XHBA434UNCX412</b>	<b>XHBA478UNCX412</b>	<b>XHBA41UNCX412</b>
	Std Pack	25	10	10	10
5	Part Number	<b>XHBA458UNCX5</b>	<b>XHBA434UNCX5</b>	<b>XHBA478UNCX5</b>	<b>XHBA41UNCX5</b>
	Std Pack	20	10	10	10
5 1/2	Part Number	<b>XHBA458UNCX512</b>	<b>XHBA434UNCX512</b>	<b>XHBA478UNCX512</b>	<b>XHBA41UNCX512</b>
	Std Pack	20	10	10	10
6	Part Number	<b>XHBA458UNCX6</b>	<b>XHBA434UNCX6</b>	<b>XHBA478UNCX6</b>	<b>XHBA41UNCX6</b>
	Std Pack	20	10	10	10
7	Part Number	<b>XHBA458UNCX7</b>	<b>XHBA434UNCX7</b>	<b>XHBA478UNCX7</b>	<b>XHBA41UNCX7</b>
	Std Pack	20	10	10	10
8	Part Number	<b>XHBA458UNCX8</b>	<b>XHBA434UNCX8</b>	<b>XHBA478UNCX8</b>	<b>XHBA41UNCX8</b>
	Std Pack	20	10	10	10

All measurements are in inches

## Did you know?

### Stainless Steel reacts negatively with aluminium

Stainless Steel and Aluminium are two separate kinds of metal. One is positively charged (anode) and one is negatively charged (cathode). As these metals are connected and an electrolyte is introduced, such as saltwater, a transfer of electrons occurs which will ruin the integrity of the materials resulting in galvanic corrosion. To avoid these situations either use some sort of in-between like a rubber material or simply do not use them together (recommended).



		5.50	7.00	8.00	10.00	13.00	17.00
s nom.		2.00	2.80	3.50	4.00	5.30	6.40
k nom.		6.01	7.66	8.79	11.05	14.38	18.9
e min.							
Length (l)	Size (d)	M3	M4	M5	M6	M8	M10
8	Part Number	<b>XHSA2M3X8</b>	<b>XHSA2M4X8</b>	<b>XHSA2M5X8</b>	<b>XHSA2M6X8</b>		
	Std Pack	100	100	100	100		
10	Part Number	<b>XHSA2M3X10</b>	<b>XHSA2M4X10</b>	<b>XHSA2M5X10</b>	<b>XHSA2M6X10</b>	<b>XHSA2M8X10</b>	
	Std Pack	100	100	100	100	100	
12	Part Number	<b>XHSA2M3X12</b>	<b>XHSA2M4X12</b>	<b>XHSA2M5X12</b>	<b>XHSA2M6X12</b>	<b>XHSA2M8X12</b>	<b>XHSA2M10X12</b>
	Std Pack	100	100	100	100	100	100
16	Part Number	<b>XHSA2M3X16</b>	<b>XHSA2M4X16</b>	<b>XHSA2M5X16</b>	<b>XHSA2M6X16</b>	<b>XHSA2M8X16</b>	<b>XHSA2M10X16</b>
	Std Pack	100	100	100	100	100	100
20	Part Number	<b>XHSA2M3X20</b>	<b>XHSA2M4X20</b>	<b>XHSA2M5X20</b>	<b>XHSA2M6X20</b>	<b>XHSA2M8X20</b>	<b>XHSA2M10X20</b>
	Std Pack	100	100	100	100	100	100
25	Part Number	<b>XHSA2M3X25</b>	<b>XHSA2M4X25</b>	<b>XHSA2M5X25</b>	<b>XHSA2M6X25</b>	<b>XHSA2M8X25</b>	<b>XHSA2M10X25</b>
	Std Pack	100	100	100	100	100	100
30	Part Number	<b>XHSA2M3X30</b>	<b>XHSA2M4X30</b>	<b>XHSA2M5X30</b>	<b>XHSA2M6X30</b>	<b>XHSA2M8X30</b>	<b>XHSA2M10X30</b>
	Std Pack	100	100	100	100	100	100
35	Part Number		<b>XHSA2M4X35</b>	<b>XHSA2M5X35</b>	<b>XHSA2M6X35</b>	<b>XHSA2M8X35</b>	<b>XHSA2M10X35</b>
	Std Pack		100	100	100	100	100
40	Part Number		<b>XHSA2M4X40</b>	<b>XHSA2M5X40</b>	<b>XHSA2M6X40</b>	<b>XHSA2M8X40</b>	<b>XHSA2M10X40</b>
	Std Pack		100	100	100	100	100
45	Part Number		<b>XHSA2M4X45</b>	<b>XHSA2M5X45</b>	<b>XHSA2M6X45</b>	<b>XHSA2M8X45</b>	<b>XHSA2M10X45</b>
	Std Pack		100	100	100	100	100
50	Part Number		<b>XHSA2M4X50</b>	<b>XHSA2M5X50</b>	<b>XHSA2M6X50</b>	<b>XHSA2M8X50</b>	<b>XHSA2M10X50</b>
	Std Pack		100	100	100	100	100
55	Part Number			<b>XHSA2M5X55</b>	<b>XHSA2M6X55</b>	<b>XHSA2M8X55</b>	<b>XHSA2M10X55</b>
	Std Pack			100	50	50	50
60	Part Number			<b>XHSA2M5X60</b>	<b>XHSA2M6X60</b>	<b>XHSA2M8X60</b>	<b>XHSA2M10X60</b>
	Std Pack			100	50	50	50
65	Part Number				<b>XHSA2M6X65</b>	<b>XHSA2M8X65</b>	<b>XHSA2M10X65</b>
	Std Pack				50	50	50
70	Part Number				<b>XHSA2M6X70</b>	<b>XHSA2M8X70</b>	<b>XHSA2M10X70</b>
	Std Pack				50	50	50
75	Part Number				<b>XHSA2M6X75</b>	<b>XHSA2M8X75</b>	<b>XHSA2M10X75</b>
	Std Pack				50	50	50
80	Part Number				<b>XHSA2M6X80</b>	<b>XHSA2M8X80</b>	<b>XHSA2M10X80</b>
	Std Pack				50	50	50
90	Part Number				<b>XHSA2M6X90</b>	<b>XHSA2M8X90</b>	<b>XHSA2M10X90</b>
	Std Pack				100	50	50
100	Part Number				<b>XHSA2M6X100</b>	<b>XHSA2M8X100</b>	<b>XHSA2M10X100</b>
	Std Pack				50	50	50
110	Part Number					<b>XHSA2M8X110</b>	<b>XHSA2M10X110</b>
	Std Pack					25	25
120	Part Number					<b>XHSA2M8X120</b>	<b>XHSA2M10X120</b>
	Std Pack					25	25
130	Part Number					<b>XHSA2M8X130</b>	<b>XHSA2M10X130</b>
	Std Pack					25	25
140	Part Number					<b>XHSA2M8X140</b>	<b>XHSA2M10X140</b>
	Std Pack					25	25
150	Part Number				<b>XHSA2M6X150</b>	<b>XHSA2M8X150</b>	<b>XHSA2M10X150</b>
	Std Pack				50	25	25

All measurements are in mm



A2

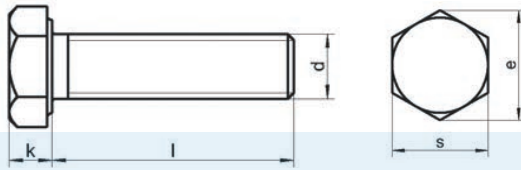
# Hexagon Head Set Screw

XHS

304

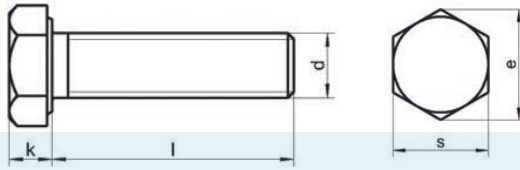
DIN 933 / ISO 4017

METRIC



	s nom.	19.00	22.00	24.00	30.00	36.00
	k nom.	7.50	8.80	10.00	12.50	15.00
	e min.	21.10	24.49	26.75	33.53	39.98
Length (l)	Size (d)	M12	M14	M16	M20	M24
8	Part Number					
	Std Pack					
10	Part Number					
	Std Pack					
12	Part Number					
	Std Pack					
16	Part Number					
	Std Pack					
20	Part Number	XHSA2M12X20				
	Std Pack	100				
25	Part Number	XHSA2M12X25	XHSA2M14X25	XHSA2M16X25		
	Std Pack	100	25	25		
30	Part Number	XHSA2M12X30	XHSA2M14X30	XHSA2M16X30	XHSA2M20X30	
	Std Pack	100	25	25	25	
35	Part Number	XHSA2M12X35	XHSA2M14X35	XHSA2M16X35	XHSA2M20X35	
	Std Pack	100	25	25	25	
40	Part Number	XHSA2M12X40	XHSA2M14X40	XHSA2M16X40	XHSA2M20X40	XHSA2M24X40
	Std Pack	50	25	25	25	10
45	Part Number	XHSA2M12X45	XHSA2M14X45	XHSA2M16X45	XHSA2M20X45	XHSA2M24X45
	Std Pack	50	25	25	25	10
50	Part Number	XHSA2M12X50	XHSA2M14X50	XHSA2M16X50	XHSA2M20X50	XHSA2M24X50
	Std Pack	50	25	25	25	10
55	Part Number	XHSA2M12X55	XHSA2M14X55	XHSA2M16X55	XHSA2M20X55	XHSA2M24X55
	Std Pack	25	25	25	25	10
60	Part Number	XHSA2M12X60	XHSA2M14X60	XHSA2M16X60	XHSA2M20X60	XHSA2M24X60
	Std Pack	25	25	25	25	10
65	Part Number	XHSA2M12X65	XHSA2M14X65	XHSA2M16X65	XHSA2M20X65	XHSA2M24X65
	Std Pack	25	25	25	25	10
70	Part Number	XHSA2M12X70	XHSA2M14X70	XHSA2M16X70	XHSA2M20X70	XHSA2M24X70
	Std Pack	25	25	25	25	10
75	Part Number	XHSA2M12X75	XHSA2M14X75	XHSA2M16X75	XHSA2M20X75	XHSA2M24X75
	Std Pack	25	25	25	20	10
80	Part Number	XHSA2M12X80	XHSA2M14X80	XHSA2M16X80	XHSA2M20X80	XHSA2M24X80
	Std Pack	25	25	25	20	10
90	Part Number	XHSA2M12X90	XHSA2M14X90	XHSA2M16X90	XHSA2M20X90	XHSA2M24X90
	Std Pack	25	25	25	10	10
100	Part Number	XHSA2M12X100	XHSA2M14X100	XHSA2M16X100	XHSA2M20X100	XHSA2M24X100
	Std Pack	25	25	25	10	10
110	Part Number	XHSA2M12X110		XHSA2M16X110	XHSA2M20X110	XHSA2M24X110
	Std Pack	25		25	10	10
120	Part Number	XHSA2M12X120		XHSA2M16X120	XHSA2M20X120	XHSA2M24X120
	Std Pack	25		25	10	10
130	Part Number	XHSA2M12X130		XHSA2M16X130	XHSA2M20X130	XHSA2M24X130
	Std Pack	25		20	10	10
140	Part Number	XHSA2M12X140		XHSA2M16X140	XHSA2M20X140	XHSA2M24X140
	Std Pack	25		20	10	10
150	Part Number	XHSA2M12X150		XHSA2M16X150	XHSA2M20X150	XHSA2M24X150
	Std Pack	25		20	10	10

All measurements are in mm



	s nom.	7.00	8.00	10.00	13.00	17.00	19.00	22.00	24.00
	k nom.	2.80	3.50	4.00	5.30	6.40	7.50	8.80	10.00
	e min.	7.66	8.79	11.05	14.38	18.90	21.10	24.49	26.75
Length (l)	Size (d)	M4	M5	M6	M8	M10	M12	M14	M16
8	Part Number	<b>XHSA4M4X8</b>							
	Std Pack	100							
10	Part Number	<b>XHSA4M4X10</b>	<b>XHSA4M5X10</b>	<b>XHSA4M6X10</b>	<b>XHSA4M8X10</b>				
	Std Pack	100	100	100	100				
12	Part Number	<b>XHSA4M4X12</b>	<b>XHSA4M5X12</b>	<b>XHSA4M6X12</b>	<b>XHSA4M8X12</b>				
	Std Pack	100	100	100	100				
16	Part Number	<b>XHSA4M4X16</b>	<b>XHSA4M5X16</b>	<b>XHSA4M6X16</b>	<b>XHSA4M8X16</b>	<b>XHSA4M10X16</b>			
	Std Pack	100	100	100	100	100			
20	Part Number	<b>XHSA4M4X20</b>	<b>XHSA4M5X20</b>	<b>XHSA4M6X20</b>	<b>XHSA4M8X20</b>	<b>XHSA4M10X20</b>	<b>XHSA4M12X20</b>		
	Std Pack	100	100	100	100	100	100		
25	Part Number	<b>XHSA4M4X25</b>	<b>XHSA4M5X25</b>	<b>XHSA4M6X25</b>	<b>XHSA4M8X25</b>	<b>XHSA4M10X25</b>	<b>XHSA4M12X25</b>	<b>XHSA4M14X25</b>	<b>XHSA4M16X25</b>
	Std Pack	100	100	100	100	100	100	25	25
30	Part Number	<b>XHSA4M4X30</b>	<b>XHSA4M5X30</b>	<b>XHSA4M6X30</b>	<b>XHSA4M8X30</b>	<b>XHSA4M10X30</b>	<b>XHSA4M12X30</b>	<b>XHSA4M14X30</b>	<b>XHSA4M16X30</b>
	Std Pack	100	100	100	100	100	100	25	25
35	Part Number	<b>XHSA4M4X35</b>	<b>XHSA4M5X35</b>	<b>XHSA4M6X35</b>	<b>XHSA4M8X35</b>	<b>XHSA4M10X35</b>	<b>XHSA4M12X35</b>	<b>XHSA4M14X35</b>	<b>XHSA4M16X35</b>
	Std Pack	100	100	100	100	100	100	25	25
40	Part Number	<b>XHSA4M4X40</b>	<b>XHSA4M5X40</b>	<b>XHSA4M6X40</b>	<b>XHSA4M8X40</b>	<b>XHSA4M10X40</b>	<b>XHSA4M12X40</b>	<b>XHSA4M14X40</b>	<b>XHSA4M16X40</b>
	Std Pack	100	100	100	100	100	50	25	25
45	Part Number	<b>XHSA4M4X45</b>	<b>XHSA4M5X45</b>	<b>XHSA4M6X45</b>	<b>XHSA4M8X45</b>	<b>XHSA4M10X45</b>	<b>XHSA4M12X45</b>	<b>XHSA4M14X45</b>	<b>XHSA4M16X45</b>
	Std Pack	100	100	100	100	100	50	25	25
50	Part Number	<b>XHSA4M4X50</b>	<b>XHSA4M5X50</b>	<b>XHSA4M6X50</b>	<b>XHSA4M8X50</b>	<b>XHSA4M10X50</b>	<b>XHSA4M12X50</b>	<b>XHSA4M14X50</b>	<b>XHSA4M16X50</b>
	Std Pack	100	100	100	100	100	50	25	25
55	Part Number		<b>XHSA4M5X55</b>	<b>XHSA4M6X55</b>	<b>XHSA4M8X55</b>	<b>XHSA4M10X55</b>	<b>XHSA4M12X55</b>	<b>XHSA4M14X55</b>	<b>XHSA4M16X55</b>
	Std Pack		100	50	50	50	25	25	25
60	Part Number		<b>XHSA4M5X60</b>	<b>XHSA4M6X60</b>	<b>XHSA4M8X60</b>	<b>XHSA4M10X60</b>	<b>XHSA4M12X60</b>	<b>XHSA4M14X60</b>	<b>XHSA4M16X60</b>
	Std Pack		100	50	50	50	25	25	25
65	Part Number			<b>XHSA4M6X65</b>	<b>XHSA4M8X65</b>	<b>XHSA4M10X65</b>	<b>XHSA4M12X65</b>	<b>XHSA4M14X65</b>	<b>XHSA4M16X65</b>
	Std Pack			50	50	50	25	25	25
70	Part Number			<b>XHSA4M6X70</b>	<b>XHSA4M8X70</b>	<b>XHSA4M10X70</b>	<b>XHSA4M12X70</b>	<b>XHSA4M14X70</b>	<b>XHSA4M16X70</b>
	Std Pack			50	50	50	25	25	25
75	Part Number			<b>XHSA4M6X75</b>	<b>XHSA4M8X75</b>	<b>XHSA4M10X75</b>	<b>XHSA4M12X75</b>	<b>XHSA4M14X75</b>	<b>XHSA4M16X75</b>
	Std Pack			50	50	50	25	25	25
80	Part Number			<b>XHSA4M6X80</b>	<b>XHSA4M8X80</b>	<b>XHSA4M10X80</b>	<b>XHSA4M12X80</b>	<b>XHSA4M14X80</b>	<b>XHSA4M16X80</b>
	Std Pack			50	50	50	25	25	25
85	Part Number								<b>XHSA4M16X85</b>
	Std Pack								25
90	Part Number			<b>XHSA4M6X90</b>	<b>XHSA4M8X90</b>	<b>XHSA4M10X90</b>	<b>XHSA4M12X90</b>	<b>XHSA4M14X90</b>	<b>XHSA4M16X90</b>
	Std Pack			50	50	50	25	25	25
100	Part Number			<b>XHSA4M6X100</b>	<b>XHSA4M8X100</b>	<b>XHSA4M10X100</b>	<b>XHSA4M12X100</b>	<b>XHSA4M14X100</b>	<b>XHSA4M16X100</b>
	Std Pack			50	50	50	25	25	25
110	Part Number				<b>XHSA4M8X110</b>	<b>XHSA4M10X110</b>	<b>XHSA4M12X110</b>		<b>XHSA4M16X110</b>
	Std Pack				25	25	25		25
120	Part Number				<b>XHSA4M8X120</b>	<b>XHSA4M10X120</b>	<b>XHSA4M12X120</b>		<b>XHSA4M16X120</b>
	Std Pack				25	25	25		25
130	Part Number				<b>XHSA4M8X130</b>	<b>XHSA4M10X130</b>	<b>XHSA4M12X130</b>		<b>XHSA4M16X130</b>
	Std Pack				25	25	25		20
140	Part Number				<b>XHSA4M8X140</b>	<b>XHSA4M10X140</b>	<b>XHSA4M12X140</b>		<b>XHSA4M16X140</b>
	Std Pack				25	25	25		20
150	Part Number				<b>XHSA4M8X150</b>	<b>XHSA4M10X150</b>	<b>XHSA4M12X150</b>		<b>XHSA4M16X150</b>
	Std Pack				25	25	25		20
160	Part Number					<b>XHSA4M10X160</b>	<b>XHSA4M12X160</b>		<b>XHSA4M16X160</b>
	Std Pack					25	25		20
180	Part Number					<b>XHSA4M10X180</b>	<b>XHSA4M12X180</b>		<b>XHSA4M16X180</b>
	Std Pack					25	25		20
200	Part Number					<b>XHSA4M10X200</b>	<b>XHSA4M12X200</b>		<b>XHSA4M16X200</b>
	Std Pack					25	25		20

All measurements are in mm

**A4**

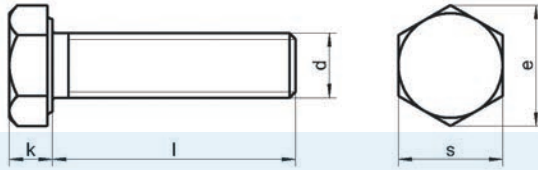
**316**

# Hexagon Head Set Screw

DIN 933 / ISO 4017

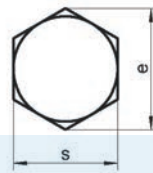
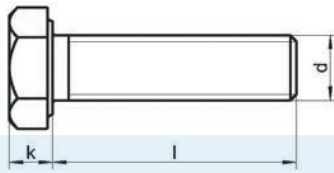
METRIC

**XHS**



	s nom.	27.00	30.00	32.00	36.00	41.00	46.00	50.00	55.00
	k nom.	11.50	12.50	14.00	15.00	17.00	18.70	21.00	22.50
	e min.	30.14	33.53	35.72	39.98	45.20	50.85	55.37	60.79
Length (l)	Size (d)	M18	M20	M22	M24	M27	M30	M33	M36
8	Part Number								
	Std Pack								
10	Part Number								
	Std Pack								
12	Part Number								
	Std Pack								
16	Part Number								
	Std Pack								
20	Part Number								
	Std Pack								
25	Part Number								
	Std Pack								
30	Part Number		<b>XHSA4M20X30</b>						
	Std Pack		25						
35	Part Number		<b>XHSA4M20X35</b>						
	Std Pack		25						
40	Part Number	<b>XHSA4M18X40</b>	<b>XHSA4M20X40</b>		<b>XHSA4M24X40</b>				
	Std Pack	25	25		10				
45	Part Number	<b>XHSA4M18X45</b>	<b>XHSA4M20X45</b>		<b>XHSA4M24X45</b>				
	Std Pack	25	25		10				
50	Part Number	<b>XHSA4M18X50</b>	<b>XHSA4M20X50</b>	<b>XHSA4M22X50</b>	<b>XHSA4M24X50</b>				
	Std Pack	25	25	10	10				
55	Part Number	<b>XHSA4M18X55</b>	<b>XHSA4M20X55</b>	<b>XHSA4M22X55</b>	<b>XHSA4M24X55</b>				
	Std Pack	25	25	10	10				
60	Part Number	<b>XHSA4M18X60</b>	<b>XHSA4M20X60</b>	<b>XHSA4M22X60</b>	<b>XHSA4M24X60</b>	<b>XHSA4M27X60</b>			
	Std Pack	25	25	10	10	5			
65	Part Number	<b>XHSA4M18X65</b>	<b>XHSA4M20X65</b>	<b>XHSA4M22X65</b>	<b>XHSA4M24X65</b>	<b>XHSA4M27X65</b>			
	Std Pack	25	25	10	10	5			
70	Part Number	<b>XHSA4M18X70</b>	<b>XHSA4M20X70</b>	<b>XHSA4M22X70</b>	<b>XHSA4M24X70</b>	<b>XHSA4M27X70</b>	<b>XHSA4M30X70</b>		
	Std Pack	25	25	10	10	5	5		
75	Part Number	<b>XHSA4M18X75</b>	<b>XHSA4M20X75</b>	<b>XHSA4M22X75</b>	<b>XHSA4M24X75</b>	<b>XHSA4M27X75</b>	<b>XHSA4M30X75</b>	<b>XHSA4M33X75</b>	
	Std Pack	25	20	10	10	5	5	1	
80	Part Number	<b>XHSA4M18X80</b>	<b>XHSA4M20X80</b>	<b>XHSA4M22X80</b>	<b>XHSA4M24X80</b>	<b>XHSA4M27X80</b>	<b>XHSA4M30X80</b>	<b>XHSA4M33X80</b>	<b>XHSA4M36X80</b>
	Std Pack	25	20	10	10	5	5	1	1
85	Part Number		<b>XHSA4M20X85</b>						
	Std Pack		10						
90	Part Number	<b>XHSA4M18X90</b>	<b>XHSA4M20X90</b>	<b>XHSA4M22X90</b>	<b>XHSA4M24X90</b>	<b>XHSA4M27X90</b>	<b>XHSA4M30X90</b>	<b>XHSA4M33X90</b>	<b>XHSA4M36X90</b>
	Std Pack	25	10	10	10	5	5	1	1
100	Part Number	<b>XHSA4M18X100</b>	<b>XHSA4M20X100</b>	<b>XHSA4M22X100</b>	<b>XHSA4M24X100</b>	<b>XHSA4M27X100</b>	<b>XHSA4M30X100</b>	<b>XHSA4M33X100</b>	<b>XHSA4M36X100</b>
	Std Pack	25	10	10	10	5	5	1	1
110	Part Number		<b>XHSA4M20X110</b>		<b>XHSA4M24X110</b>				
	Std Pack		10		10				
120	Part Number		<b>XHSA4M20X120</b>		<b>XHSA4M24X120</b>				
	Std Pack		10		10				
130	Part Number		<b>XHSA4M20X130</b>		<b>XHSA4M24X130</b>				
	Std Pack		10		10				
140	Part Number		<b>XHSA4M20X140</b>		<b>XHSA4M24X140</b>				
	Std Pack		10		10				
150	Part Number		<b>XHSA4M20X150</b>		<b>XHSA4M24X150</b>				
	Std Pack		10		10				
160	Part Number		<b>XHSA4M20X160</b>		<b>XHSA4M24X160</b>				
	Std Pack		10		10				
180	Part Number		<b>XHSA4M20X180</b>		<b>XHSA4M24X180</b>				
	Std Pack		10		10				
200	Part Number		<b>XHSA4M20X200</b>		<b>XHSA4M24X200</b>				
	Std Pack		10		10				
220	Part Number					<b>XHSA4M27X220</b>			
	Std Pack					5			

All measurements are in mm



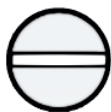
	s nom.	0.44	0.50	0.56	0.63	0.75	0.94	1.13	
	k nom.	0.17	0.22	0.25	0.30	0.34	0.42	0.50	
	e min.	0.48	0.55	0.62	0.69	0.83	1.03	1.24	
Length (l)	Size (d)	1/4	5/16	3/8	7/16	1/2	5/8	3/4	
3/8	Part Number	XHSA214UNCX38							
	Std Pack	100							
1/2	Part Number	XHSA214UNCX12	XHSA2516UNCX12	XHSA238UNCX12					
	Std Pack	100	100	100					
5/8	Part Number	XHSA214UNCX58	XHSA2516UNCX58	XHSA238UNCX58					
	Std Pack	100	100	100					
3/4	Part Number	XHSA214UNCX34	XHSA2516UNCX34	XHSA238UNCX34			XHSA212UNCX34		
	Std Pack	100	100	100			100		
1	Part Number	XHSA214UNCX1	XHSA2516UNCX1	XHSA238UNCX1	XHSA2716UNCX1	XHSA212UNCX1	XHSA258UNCX1		
	Std Pack	100	100	100	100	100	25		
1 1/4	Part Number	XHSA214UNCX114	XHSA2516UNCX114	XHSA238UNCX114	XHSA2716UNCX114	XHSA212UNCX114	XHSA258UNCX114	XHSA234UNCX114	
	Std Pack	100	100	100	100	100	25	25	
1 1/2	Part Number	XHSA214UNCX112	XHSA2516UNCX112	XHSA238UNCX112	XHSA2716UNCX112	XHSA212UNCX112	XHSA258UNCX112	XHSA234UNCX112	
	Std Pack	100	100	100	50	50	25	25	
1 3/4	Part Number	XHSA214UNCX134	XHSA2516UNCX134	XHSA238UNCX134			XHSA212UNCX134	XHSA258UNCX134	XHSA234UNCX134
	Std Pack	100	100	100			50	25	25
2	Part Number	XHSA214UNCX2	XHSA2516UNCX2	XHSA238UNCX2	XHSA2716UNCX2	XHSA212UNCX2	XHSA258UNCX2	XHSA234UNCX2	
	Std Pack	100	100	100	50	50	25	25	
2 1/4	Part Number	XHSA214UNCX214	XHSA2516UNCX214	XHSA238UNCX214	XHSA212UNCX214			XHSA258UNCX214	XHSA234UNCX214
	Std Pack	50	50	50	25			25	25
2 1/2	Part Number	XHSA214UNCX212	XHSA2516UNCX212	XHSA238UNCX212	XHSA212UNCX212			XHSA258UNCX212	XHSA234UNCX212
	Std Pack	50	50	50	25			25	25
3	Part Number	XHSA214UNCX3	XHSA2516UNCX3	XHSA238UNCX3	XHSA212UNCX3			XHSA258UNCX3	XHSA234UNCX3
	Std Pack	50	50	50	25			25	25
3 1/2	Part Number	XHSA214UNCX312	XHSA2516UNCX312	XHSA238UNCX312	XHSA212UNCX312			XHSA258UNCX312	XHSA234UNCX312
	Std Pack	50	50	50	25			25	25
4	Part Number	XHSA214UNCX4	XHSA2516UNCX4	XHSA238UNCX4	XHSA212UNCX4			XHSA258UNCX4	XHSA234UNCX4
	Std Pack	50	50	50	25			25	25

All measurements are in inches

## Drive Types



Phillips



Slotted



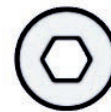
Pozidriv



Square



Combo



Hex socket  
(Allen)



Torx

**Phillips** and **Slotted** drives are common in screws, but prone to cam-out (stripping). **Combo** drives, that can be used with either driver, are available for many fastener types. **Pozidriv** are similar to Phillips, but less prone to cam-out. **Hex socket (Allen)** drives are compact and easy to drive, but prone to cam-out. **Torx** and **Square** drive are resistant to cam-out and can be installed single-handed.

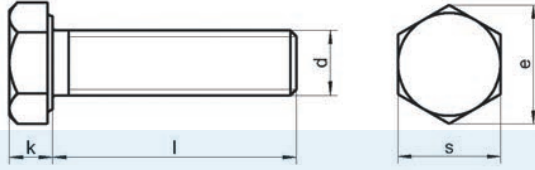
**A4**

# Hexagon Head Set Screw

**XHS****316**

ANSI / ASME B18.2.1

UNC



		0.44	0.50	0.56	0.63	0.75
s nom.		0.44	0.50	0.56	0.63	0.75
k nom.		0.17	0.22	0.25	0.30	0.34
e min.		0.48	0.55	0.62	0.69	0.83
Length (l)	Size (d)	1/4	5/16	3/8	7/16	1/2
1/2	Part Number	<b>XHSA414UNCX12</b>	<b>XHSA4516UNCX12</b>	<b>XHSA438UNCX12</b>		
	Std Pack	100	100	100		
5/8	Part Number	<b>XHSA414UNCX58</b>	<b>XHSA4516UNCX58</b>			
	Std Pack	100	100			
3/4	Part Number	<b>XHSA414UNCX34</b>	<b>XHSA4516UNCX34</b>	<b>XHSA438UNCX34</b>		<b>XHSA412UNCX34</b>
	Std Pack	100	100	100		100
1	Part Number	<b>XHSA414UNCX1</b>	<b>XHSA4516UNCX1</b>	<b>XHSA438UNCX1</b>	<b>XHSA4716UNCX1</b>	<b>XHSA412UNCX1</b>
	Std Pack	100	100	100	100	100
1 1/4	Part Number	<b>XHSA414UNCX114</b>	<b>XHSA4516UNCX114</b>	<b>XHSA438UNCX114</b>	<b>XHSA4716UNCX114</b>	<b>XHSA412UNCX114</b>
	Std Pack	100	100	100	100	100
1 1/2	Part Number	<b>XHSA414UNCX112</b>	<b>XHSA4516UNCX112</b>	<b>XHSA438UNCX112</b>	<b>XHSA4716UNCX112</b>	<b>XHSA412UNCX112</b>
	Std Pack	100	100	100	50	50
1 3/4	Part Number	<b>XHSA414UNCX134</b>	<b>XHSA4516UNCX134</b>	<b>XHSA438UNCX134</b>		<b>XHSA412UNCX134</b>
	Std Pack	100	100	100		50
2	Part Number	<b>XHSA414UNCX2</b>	<b>XHSA4516UNCX2</b>	<b>XHSA438UNCX2</b>	<b>XHSA4716UNCX2</b>	<b>XHSA412UNCX2</b>
	Std Pack	100	100	100	50	50
2 1/4	Part Number	<b>XHSA414UNCX214</b>	<b>XHSA4516UNCX214</b>	<b>XHSA438UNCX214</b>		<b>XHSA412UNCX214</b>
	Std Pack	50	50	50		25
2 1/2	Part Number	<b>XHSA414UNCX212</b>	<b>XHSA4516UNCX212</b>	<b>XHSA438UNCX212</b>		<b>XHSA412UNCX212</b>
	Std Pack	50	50	50		25
3	Part Number	<b>XHSA414UNCX3</b>	<b>XHSA4516UNCX3</b>	<b>XHSA438UNCX3</b>		<b>XHSA412UNCX3</b>
	Std Pack	50	50	50		25
3 1/2	Part Number	<b>XHSA414UNCX312</b>	<b>XHSA4516UNCX312</b>	<b>XHSA438UNCX312</b>		<b>XHSA412UNCX312</b>
	Std Pack	50	50	50		25
4	Part Number	<b>XHSA414UNCX4</b>	<b>XHSA4516UNCX4</b>	<b>XHSA438UNCX4</b>		<b>XHSA412UNCX4</b>
	Std Pack	50	50	50		25

		0.94	1.13	1.31	1.50
s nom.		0.94	1.13	1.31	1.50
k nom.		0.42	0.50	0.58	0.67
e min.		1.03	1.24	1.45	1.65
Length (l)	Size (d)	5/8	3/4	7/8	1
1/2	Part Number				
	Std Pack				
5/8	Part Number				
	Std Pack				
3/4	Part Number				
	Std Pack				
1	Part Number	<b>XHSA458UNCX1</b>			
	Std Pack	25			
1 1/4	Part Number	<b>XHSA458UNCX114</b>	<b>XHSA434UNCX114</b>		
	Std Pack	25	25		
1 1/2	Part Number	<b>XHSA458UNCX112</b>	<b>XHSA434UNCX112</b>		
	Std Pack	25	25		
1 3/4	Part Number	<b>XHSA458UNCX134</b>	<b>XHSA434UNCX134</b>		
	Std Pack	25	25		
2	Part Number	<b>XHSA458UNCX2</b>	<b>XHSA434UNCX2</b>	<b>XHSA478UNCX2</b>	<b>XHSA41UNCX2</b>
	Std Pack	25	25	10	10
2 1/4	Part Number	<b>XHSA458UNCX214</b>	<b>XHSA434UNCX214</b>		
	Std Pack	25	25		
2 1/2	Part Number	<b>XHSA458UNCX212</b>	<b>XHSA434UNCX212</b>	<b>XHSA478UNCX212</b>	<b>XHSA41UNCX212</b>
	Std Pack	25	25	10	10
3	Part Number	<b>XHSA458UNCX3</b>	<b>XHSA434UNCX3</b>	<b>XHSA478UNCX3</b>	<b>XHSA41UNCX3</b>
	Std Pack	25	20	10	10
3 1/2	Part Number	<b>XHSA458UNCX312</b>	<b>XHSA434UNCX312</b>	<b>XHSA478UNCX312</b>	<b>XHSA41UNCX312</b>
	Std Pack	25	20	10	10
4	Part Number	<b>XHSA458UNCX4</b>	<b>XHSA434UNCX4</b>	<b>XHSA478UNCX4</b>	<b>XHSA41UNCX4</b>
	Std Pack	25	10	10	10

All measurements are in inches





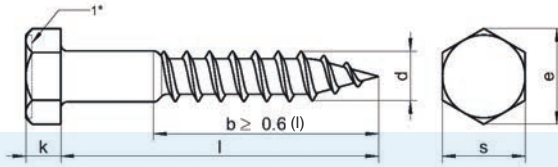
**A4**

# Hexagon Head Coach Screw

**XCS****316**

DIN 571

METRIC



		10.00	13.00	17.00	19.00
s max.		10.00	13.00	17.00	19.00
k max.		4.38	5.88	7.45	8.45
e min.		10.89	14.20	18.72	20.88
Length (l)	Size (d)	M6	M8	M10	M12
30	Part Number	<b>XCSA4M6X30</b>	<b>XCSA4M8X30</b>		
	Std Pack	100	50		
40	Part Number	<b>XCSA4M6X40</b>	<b>XCSA4M8X40</b>	<b>XCSA4M10X40</b>	<b>XCSA4M12X40</b>
	Std Pack	100	50	50	25
50	Part Number	<b>XCSA4M6X50</b>	<b>XCSA4M8X50</b>	<b>XCSA4M10X50</b>	<b>XCSA4M12X50</b>
	Std Pack	100	50	50	25
65	Part Number	<b>XCSA4M6X65</b>	<b>XCSA4M8X65</b>	<b>XCSA4M10X65</b>	<b>XCSA4M12X65</b>
	Std Pack	50	50	25	25
75	Part Number	<b>XCSA4M6X75</b>	<b>XCSA4M8X75</b>	<b>XCSA4M10X75</b>	<b>XCSA4M12X75</b>
	Std Pack	50	50	25	25
100	Part Number	<b>XCSA4M6X100</b>	<b>XCSA4M8X100</b>	<b>XCSA4M10X100</b>	<b>XCSA4M12X100</b>
	Std Pack	50	50	25	25
120	Part Number	<b>XCSA4M6X120</b>	<b>XCSA4M8X120</b>	<b>XCSA4M10X120</b>	<b>XCSA4M12X120</b>
	Std Pack	50	25	25	25
130	Part Number		<b>XCSA4M8X130</b>	<b>XCSA4M10X130</b>	<b>XCSA4M12X130</b>
	Std Pack		25	25	25
150	Part Number		<b>XCSA4M8X150</b>	<b>XCSA4M10X150</b>	<b>XCSA4M12X150</b>
	Std Pack		25	25	25

All measurements are in mm

## Did you know?

The Coach Screws essential form of the fastener has been in existence for over 2,000 years

Although metal rivets used for construction and woodworking have only been in use since 19th century and that was made possible due to the initiation of the mass-manufacture.

It was only during the Second World War that the size of these hardware supplies became standardized, so that they could be manufactured and shared between Allied forces at much ease.

## Head Styles



**Hex heads** are typically used with larger bolt and screws.



**Countersunk heads** are installed in a countersunk hole for a flt at surface.



**Socket heads** are narrow with a socket drive, and knurled or smooth sides.



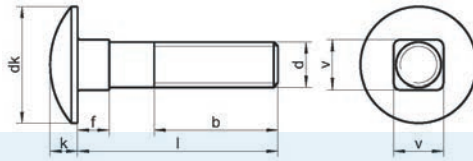
**Pan heads** have a slightly domed head that sits above the surface.



**Round heads** are tall domed heads, used primarily for a decorative purposes.



**Button heads** feature a medium dome. Typically used with hex socket drive.



Length (l)	Size (d)	M6	M8	M10	M12	M16
	b for L ≤ 125mm	18.00	22.00	26.00	30.00	38.00
	b for L ≥ 125-200mm	24.00	28.00	32.00	36.00	44.00
	b for L ≥ 200mm	-	41.00	45.00	49.00	57.00
	dk max.	16.55	20.65	24.65	30.65	38.80
	f max.	4.60	5.60	6.60	8.75	12.90
	k max.	3.88	4.88	5.38	6.95	8.95
	v max.	6.48	8.58	10.58	12.70	16.70
20	Part Number	<b>CHBA4M6X20</b>	<b>CHBA4M8X20</b>			
	Std Pack	100	50			
25	Part Number	<b>CHBA4M6X25</b>	<b>CHBA4M8X25</b>	<b>CHBA4M10X25</b>		
	Std Pack	100	50	50		
30	Part Number	<b>CHBA4M6X30</b>	<b>CHBA4M8X30</b>	<b>CHBA4M10X30</b>		
	Std Pack	100	50	50		
40	Part Number	<b>CHBA4M6X40</b>	<b>CHBA4M8X40</b>	<b>CHBA4M10X40</b>	<b>CHBA4M12X40</b>	
	Std Pack	100	50	50	25	
50	Part Number	<b>CHBA4M6X50</b>	<b>CHBA4M8X50</b>	<b>CHBA4M10X50</b>	<b>CHBA4M12X50</b>	<b>CHBA4M16X50</b>
	Std Pack	100	50	50	25	25
60	Part Number	<b>CHBA4M6X60</b>	<b>CHBA4M8X60</b>	<b>CHBA4M10X60</b>	<b>CHBA4M12X60</b>	<b>CHBA4M16X60</b>
	Std Pack	50	50	25	25	25
70	Part Number	<b>CHBA4M6X70</b>	<b>CHBA4M8X70</b>	<b>CHBA4M10X70</b>	<b>CHBA4M12X70</b>	<b>CHBA4M16X70</b>
	Std Pack	50	50	25	25	25
80	Part Number	<b>CHBA4M6X80</b>	<b>CHBA4M8X80</b>	<b>CHBA4M10X80</b>	<b>CHBA4M12X80</b>	<b>CHBA4M16X80</b>
	Std Pack	50	50	25	25	25
100	Part Number	<b>CHBA4M6X100</b>	<b>CHBA4M8X100</b>	<b>CHBA4M10X100</b>	<b>CHBA4M12X100</b>	<b>CHBA4M16X100</b>
	Std Pack	50	50	25	25	25
120	Part Number		<b>CHBA4M8X120</b>	<b>CHBA4M10X120</b>	<b>CHBA4M12X120</b>	<b>CHBA4M16X120</b>
	Std Pack		50	25	25	10
130	Part Number		<b>CHBA4M8X130</b>	<b>CHBA4M10X130</b>	<b>CHBA4M12X130</b>	<b>CHBA4M16X130</b>
	Std Pack		50	25	25	10
150	Part Number		<b>CHBA4M8X150</b>	<b>CHBA4M10X150</b>	<b>CHBA4M12X150</b>	<b>CHBA4M16X150</b>
	Std Pack		50	25	10	10
160	Part Number				<b>CHBA4M12X160</b>	
	Std Pack				10	
180	Part Number				<b>CHBA4M12X180</b>	
	Std Pack				10	
200	Part Number				<b>CHBA4M12X200</b>	
	Std Pack				10	
220	Part Number				<b>CHBA4M12X220</b>	
	Std Pack				10	
240	Part Number				<b>CHBA4M12X240</b>	
	Std Pack				10	

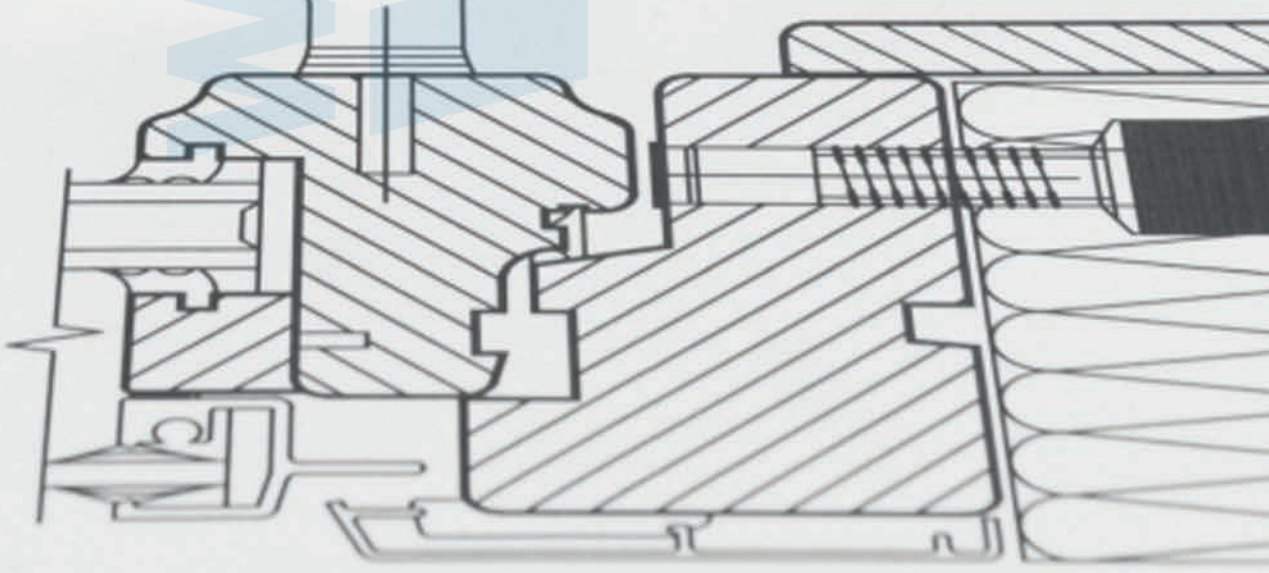
All measurements are in mm

## Did you know?

Stainless Steel has an invisible self-repairing outer layer

Stainless metals form an invisible oxide coating that protects it from external factors. This is the main reason stainless steel is so resistant to corrosion. If the material is in an oxygen rich environment, even if the metal is damaged removing the oxide layer, it will reform and protect the metal again.

inox



# ATR

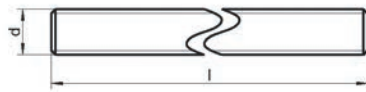
## Threaded Rod 1 Metre

DIN 975

METRIC

A2

304



Diameter (d)	Length (l)	Part Number	Std Pack
M3	1000	ATRA2M3X1000	10
M4	1000	ATRA2M4X1000	10
M5	1000	ATRA2M5X1000	10
M6	1000	ATRA2M6X1000	10
M8	1000	ATRA2M8X1000	10
M10	1000	ATRA2M10X1000	10
M12	1000	ATRA2M12X1000	5
M14	1000	ATRA2M14X1000	5
M16	1000	ATRA2M16X1000	5
M20	1000	ATRA2M20X1000	5
M24	1000	ATRA2M24X1000	5

All measurements are in mm

# ATR

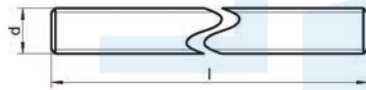
## Threaded Rod 1 Metre

DIN 975

METRIC

A4

316



Diameter (d)	Length (l)	Part Number	Std Pack
M3	1000	ATRA4M3X1000	10
M4	1000	ATRA4M4X1000	10
M5	1000	ATRA4M5X1000	10
M6	1000	ATRA4M6X1000	10
M8	1000	ATRA4M8X1000	10
M10	1000	ATRA4M10X1000	10
M12	1000	ATRA4M12X1000	5
M14	1000	ATRA4M14X1000	5
M16	1000	ATRA4M16X1000	5
M18	1000	ATRA4M18X1000	5
M20	1000	ATRA4M20X1000	5
M22	1000	ATRA4M22X1000	5
M24	1000	ATRA4M24X1000	5
M27	1000	ATRA4M27X1000	2
M30	1000	ATRA4M30X1000	2
M33	1000	ATRA4M33X1000	1
M36	1000	ATRA4M36X1000	1
M39	1000	ATRA4M39X1000	1
M42	1000	ATRA4M42X1000	1
M48	1000	ATRA4M48X1000	1

All measurements are in mm

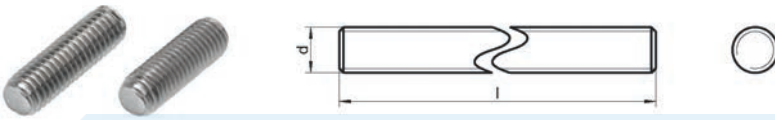
**A4**

## Threaded Rod 1 Metre

**ATR****316**

DIN 975

METRIC FINE



Size (Ø)	Length (l)	Part Number	Std Pack
M8-1.00	1000	ATRA4FM8X1000	10
M10-1.00	1000	ATRA4EFM10X1000	10
M10-1.25	1000	ATRA4FM10X1000	10
M12-1.50	1000	ATRA4FM12X1000	10
M16-1.50	1000	ATRA4FM16X1000	5

All measurements are in mm

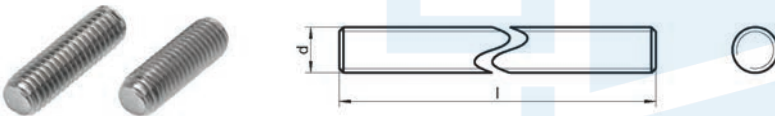
**A2**

## Threaded Rod 3 Metre

**ATR****304**

DIN 975

METRIC



Diameter (d)	Length (l)	Part Number	Std Pack
M6	3000	ATRA2M6X3000	10
M8	3000	ATRA2M8X3000	10
M10	3000	ATRA2M10X3000	10
M12	3000	ATRA2M12X3000	5
M16	3000	ATRA2M16X3000	5
M20	3000	ATRA2M20X3000	5
M24	3000	ATRA2M24X3000	2

All measurements are in mm

### Did you know?

A threaded rod is a type of metal fastener with threads cut into both ends

These rods resemble the shank of a screw yet tend to be longer and thicker than a standard screw. Threaded rods do not have heads or washers like those found on a screw on bolt and tend to be the same diameter along their entire length. All thread rod, commonly referred to as fully threaded rod, redi-rod, continuously threaded rod, and abbreviated ATR is used for general purpose fastening for anything from an anchor bolt to a through bolt. Available in 304 and 316 Grade stainless steel.



# ATR

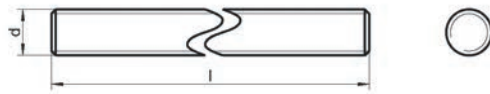
## Threaded Rod 3 Metre

DIN 975

METRIC

### A4

### 316



Diameter (d)	Length (l)	Part Number	Std Pack
M6	3000	ATRA4M6X3000	10
M8	3000	ATRA4M8X3000	10
M10	3000	ATRA4M10X3000	10
M12	3000	ATRA4M12X3000	5
M16	3000	ATRA4M16X3000	5
M20	3000	ATRA4M20X3000	5
M24	3000	ATRA4M24X3000	2
M27	3000	ATRA4M27X3000	2
M30	3000	ATRA4M30X3000	1
M33	3000	ATRA4M33X3000	1
M36	3000	ATRA4M36X3000	1

All measurements are in mm

# ATR

## Threaded Rod 3 Foot

ANSI / ASME B18.31.3

UNC

### A2

### 304



Diameter (d)	Length (l)	Part Number	Std Pack
10-24"	36"	ATRA21024UNCX3	10
1/4"	36"	ATRA214UNCX3	10
5/16"	36"	ATRA2516UNCX3	10
3/8"	36"	ATRA238UNCX3	10
7/16"	36"	ATRA2716UNCX3	10
1/2"	36"	ATRA212UNCX3	10
5/8"	36"	ATRA258UNCX3	5
3/4"	36"	ATRA234UNCX3	5
7/8"	36"	ATRA278UNCX3	2
1"	36"	ATRA21UNCX3	2

All measurements are in inches

### Did you know?

Stainless Steel Threaded Rod is ideal for applications requiring a longer length bolt

Stainless steel threaded rod can be cut to the desired length with a diamond or carborundum blade.



**A4****Threaded Rod 3 Foot****ATR****316**

ANSI / ASME B18.31.3

UNC



Diameter (d)	Length (l)	Part Number	Std Pack
10-24"	36"	ATRA41024UNCX3	10
1/4"	36"	ATRA414UNCX3	10
5/16"	36"	ATRA4516UNCX3	10
3/8"	36"	ATRA438UNCX3	10
7/16"	36"	ATRA4716UNCX3	10
1/2"	36"	ATRA412UNCX3	10
5/8"	36"	ATRA458UNCX3	5
3/4"	36"	ATRA434UNCX3	5
7/8"	36"	ATRA478UNCX3	2
1"	36"	ATRA41UNCX3	2
1-1/8"	36"	ATRA4118UNCX3	1
1-1/4"	36"	ATRA4114UNCX3	1
1-1/2"	36"	ATRA4112UNCX3	1

All measurements are in inches

**A2****Threaded Rod 3 Foot****ATR****304**

AS 3501

BSW



Diameter (d)	Length (l)	Part Number	Std Pack
1/2"	36"	ATRA212BSWX3	5

All measurements are in inches

**A4****Threaded Rod 3 Foot****ATR****316**

AS 3501

BSW



Diameter (d)	Length (l)	Part Number	Std Pack
1/2"	36"	ATRA412BSWX3	5

All measurements are in inches

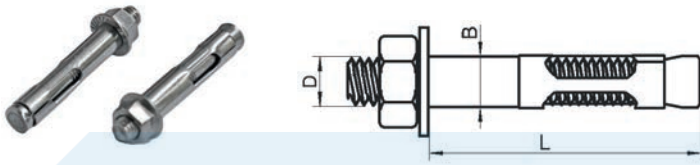
# SAN

## Sleeve Anchor - Hex Flange Nut

A4

316

METRIC



D	B	Length (L)	Part Number	Std Pack
M6.5	8	35	SANA4M6X35	100
M6.5	8	55	SANA4M6X55	100
M8	10	40	SANA4M8X40	100
M8	10	65	SANA4M8X65	50
M8	10	80	SANA4M8X80	50
M10	12	50	SANA4M10X50	50
M10	12	75	SANA4M10X75	50
M10	12	100	SANA4M10X100	50
M12	15	60	SANA4M12X60	50
M12	15	75	SANA4M12X75	50
M12	15	100	SANA4M12X100	25

All measurements are in mm

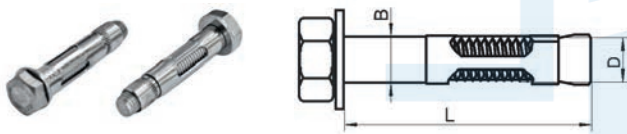
# FAN

## Sleeve Anchor - Flush Head

A4

316

METRIC



D	B	L	Part Number	Std Pack
M8	10	45	FANA4M8X45	100
M8	10	70	FANA4M8X70	50
M8	10	90	FANA4M8X90	50
M10	12	45	FANA4M10X45	50
M10	12	60	FANA4M10X60	50
M10	12	75	FANA4M10X75	50
M10	12	100	FANA4M10X100	50
M12	17	60	FANA4M12X60	25
M12	17	75	FANA4M12X75	25

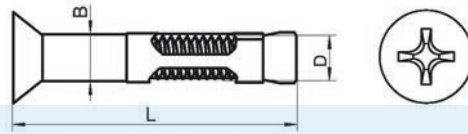
All measurements are in mm

**A4**

# Sleeve Anchor - Countersunk

**CAN****316**

METRIC



D	B	L	Part Number	Std Pack
M6.5	8	55	CANA4M6X55	100
M6.5	8	75	CANA4M6X75	100
M6.5	8	100	CANA4M6X100	100
M8	10	60	CANA4M8X60	50
M8	10	80	CANA4M8X80	50
M8	10	100	CANA4M8X100	50
M10	12	75	CANA4M10X75	50
M10	12	100	CANA4M10X100	50

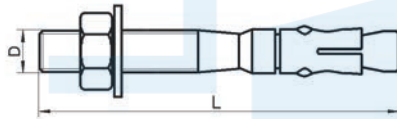
All measurements are in mm

**A4**

# Stud Anchor (Wedge)

**STA****316**

METRIC



D	L	Part Number	Std Pack
M8	50	STAA4M8X50	50
M8	65	STAA4M8X65	50
M8	80	STAA4M8X80	50
M8	100	STAA4M8X100	50
M10	60	STAA4M10X60	25
M10	75	STAA4M10X75	25
M10	90	STAA4M10X90	25
M10	120	STAA4M10X120	25
M12	80	STAA4M12X80	20
M12	100	STAA4M12X100	20
M12	120	STAA4M12X120	20
M12	140	STAA4M12X140	20
M16	105	STAA4M16X105	20
M16	125	STAA4M16X125	20
M16	140	STAA4M16X140	20
M16	180	STAA4M16X180	20
M20	125	STAA4M20X125	10
M20	160	STAA4M20X160	10

All measurements are in mm

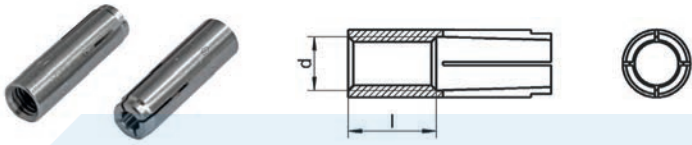
# DIN

## Drop In Anchor

A4

316

METRIC



Size (d)	Bore hole	Bore depth	Part Number	Std Pack
M6	8	25	DINA4M6X25	100
M8	10	30	DINA4M8X30	100
M10	12	40	DINA4M10X40	50
M12	15	50	DINA4M12X50	50
M16	20	65	DINA4M16X65	50

All measurements are in mm

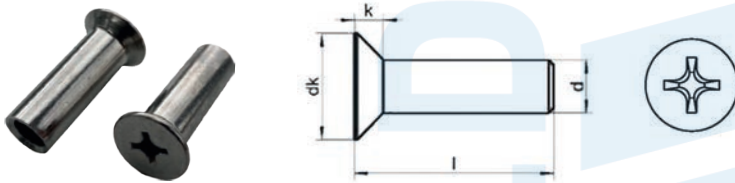
# CPH

## Countersunk Post Head Anchor

A4

316

METRIC



Type (d)	Drill Dia.	dk	k	l	Part Number	Std Pack
M5	6.50	12.00	3.50	23.00	CPHA4M6X5	100
M6	8.00	14.00	4.00	25.00	CPHA4M8X6	100
M8	10.00	15.50	4.00	30.00	CPHA4M10X8	100

All measurements are in mm

### Did you know?

Countersunk Post Head Anchors will change a protruding hex head to a flush countersunk look.

They can be screwed onto any Sleeve Anchor to change the appearance of the Hex Head to a Countersunk Head. The drill diameter of the Post Head indicates the corresponding Sleeve Anchor size.

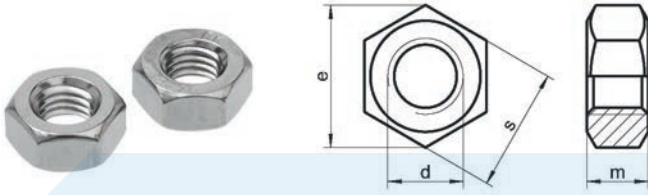
**A2**

# Hexagon Nut

**XNU****304**

DIN 934 / ISO 4032

METRIC



Size (d)	m max.	s max.	e min.	Part Number	Std Pack
M2	1.60	4.00	4.32	XNUA2M2	200
M2.5	2.00	5.00	5.45	XNUA2M25	200
M3	2.40	5.50	6.01	XNUA2M3	200
M4	3.20	7.00	7.66	XNUA2M4	200
M5	4.00	8.00	8.79	XNUA2M5	200
M6	5.00	10.00	11.05	XNUA2M6	100
M8	6.50	13.00	14.38	XNUA2M8	100
M10	8.00	17.00	18.90	XNUA2M10	100
M12	10.00	19.00	21.10	XNUA2M12	100
M14	11.00	22.00	24.49	XNUA2M14	50
M16	13.00	24.00	26.75	XNUA2M16	50
M20	16.00	30.00	32.95	XNUA2M20	50
M24	19.00	36.00	39.55	XNUA2M24	25
M30	24.00	46.00	50.85	XNUA2M30	10

All measurements are in mm

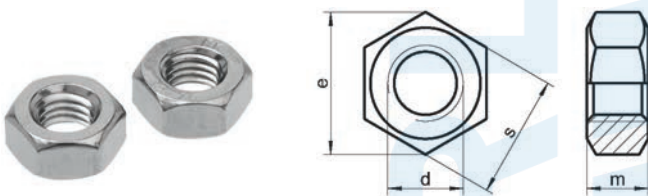
**A4**

# Hexagon Nut

**XNU****316**

DIN 934 / ISO 4032

METRIC



Size (d)	m max.	s max.	e min.	Part Number	Std Pack
M2	1.60	4.00	4.32	XNUA4M2	200
M2.5	2.00	5.00	5.45	XNUA4M25	200
M3	2.40	5.50	6.01	XNUA4M3	200
M4	3.20	7.00	7.66	XNUA4M4	200
M5	4.00	8.00	8.79	XNUA4M5	200
M6	5.00	10.00	11.05	XNUA4M6	100
M8	6.50	13.00	14.38	XNUA4M8	100
M10	8.00	17.00	18.90	XNUA4M10	100
M12	10.00	19.00	21.10	XNUA4M12	100
M14	11.00	22.00	24.49	XNUA4M14	100
M16	13.00	24.00	26.75	XNUA4M16	50
M18	15.00	27.00	29.56	XNUA4M18	50
M20	16.00	30.00	32.95	XNUA4M20	50
M22	18.00	32.00	35.03	XNUA4M22	25
M24	19.00	36.00	39.55	XNUA4M24	25
M27	22.00	41.00	45.20	XNUA4M27	25
M30	24.00	46.00	50.85	XNUA4M30	10
M33	26.00	50.00	55.37	XNUA4M33	10
M36	29.00	55.00	60.79	XNUA4M36	5
M39	31.00	60.00	66.44	XNUA4M39	5
M42	34.00	65.00	71.30	XNUA4M42	5
M48	38.00	75.00	82.60	XNUA4M48	5

All measurements are in mm



# XNU

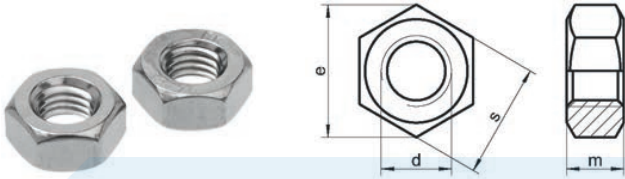
## Hexagon Nut

DIN 934 / ISO 4032

METRIC FINE

A4

316



Size (d)	m max.	s max.	e min.	Part Number	Std Pack
M8-1.00	6.50	13.00	14.38	XNUA4FM8	100
M10-1.00	8.00	17.00	18.90	XNUA4EFM10	100
M10-1.25	8.00	17.00	18.90	XNUA4FM10	100
M12-1.50	10.00	19.00	21.10	XNUA4FM12	100
M16-1.50	13.00	24.00	26.75	XNUA4FM16	50

All measurements are in mm

# XNU

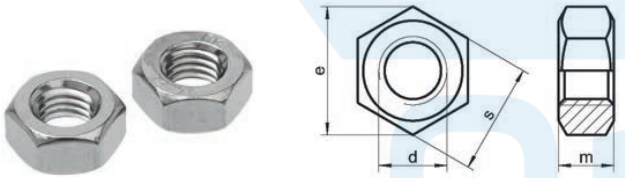
## Hexagon Nut

ANSI / ASME B18.2.2

UNC

A2

304



Size (d)	m max.	s max.	e max.	Part Number	Std Pack
8-32	0.13	0.34	0.40	XNUA2832UNC	200
10-24	0.13	0.38	0.43	XNUA21024UNC	200
1/4	0.23	0.44	0.51	XNUA214UNC	100
5/16	0.27	0.50	0.58	XNUA2516UNC	100
3/8	0.34	0.56	0.65	XNUA238UNC	100
7/16	0.39	0.69	0.79	XNUA2716UNC	50
1/2	0.45	0.75	0.87	XNUA212UNC	100
5/8	0.56	0.94	1.08	XNUA258UNC	50
3/4	0.67	1.13	1.30	XNUA234UNC	50
7/8	0.78	1.31	1.52	XNUA278UNC	25
1	0.89	1.50	1.73	XNUA21UNC	25

All measurements are in inches

# XNU

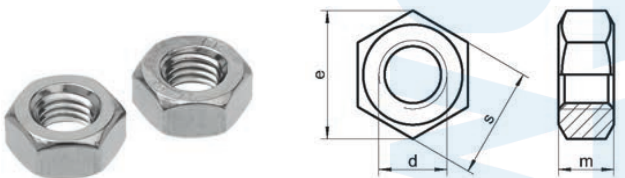
## Hexagon Nut

ANSI / ASME B18.2.2

UNC

A4

316



Size (d)	m max.	s max.	e max.	Part Number	Std Pack
10-24	0.13	0.38	0.43	XNUA41024UNC	200
1/4	0.23	0.44	0.51	XNUA414UNC	100
5/16	0.27	0.50	0.58	XNUA4516UNC	100
3/8	0.34	0.56	0.65	XNUA438UNC	100
7/16	0.39	0.69	0.79	XNUA4716UNC	50
1/2	0.45	0.75	0.87	XNUA412UNC	100
5/8	0.56	0.94	1.08	XNUA458UNC	50
3/4	0.67	1.13	1.30	XNUA434UNC	50
7/8	0.78	1.31	1.52	XNUA478UNC	25
1	0.89	1.50	1.73	XNUA41UNC	25
1 1/8	1.00	1.69	1.95	XNUA4118UNC	10
1 1/4	1.09	1.88	2.17	XNUA4114UNC	10
1 1/2	1.32	2.25	2.60	XNUA4112UNC	10
1 3/4	1.54	2.63	3.03	XNUA4134UNC	1

All measurements are in inches

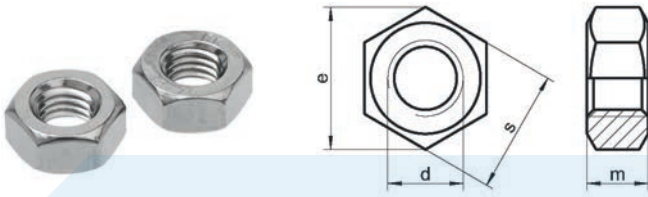
**A2**

# Hexagon Nut

**XNU****304**

BS 1083 &amp; BS 450

BSW



Size (d)	m max.	s max.	e max.	Part Number	Std Pack
1/8	0.12	0.22	0.25	<b>XNUA218BSW</b>	200
5/32	0.13	0.25	0.29	<b>XNUA2532BSW</b>	200
3/16	0.16	0.32	0.37	<b>XNUA2316BSW</b>	200
1/4	0.20	0.45	0.51	<b>XNUA214BSW</b>	100
1/2	0.44	0.82	0.95	<b>XNUA212BSW</b>	100

All measurements are in inches

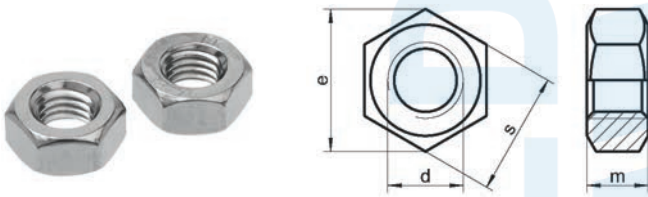
**A4**

# Hexagon Nut

**XNU****316**

BS 1083 &amp; BS 450

BSW



Size (d)	m max.	s max.	e max.	Part Number	Std Pack
1/8	0.12	0.22	0.25	<b>XNUA418BSW</b>	200
5/32	0.13	0.25	0.29	<b>XNUA4532BSW</b>	200
3/16	0.16	0.32	0.37	<b>XNUA4316BSW</b>	200
1/4	0.20	0.45	0.51	<b>XNUA414BSW</b>	100
1/2	0.44	0.82	0.95	<b>XNUA412BSW</b>	100

All measurements are in inches

## Did you know?

Although screws were in use as fasteners by the mid-fifteenth century, factory production of screws didn't start until the mid-1700's.

As a screw manufacturer, it's hard to imagine screws being carved by hand. Whole families literally worked day and night to file threads and cut slots in the heads of the screws. In England, blacksmiths delivered large quantities of nails formed with heads to families who then cut a slot in the head and laboriously filed the threading by hand. Not surprisingly, this tedious labour produced poor results - the screws were uneven with shallow threads. The cost of producing screws in this manner was so high that screws were sold individually.

# XLN

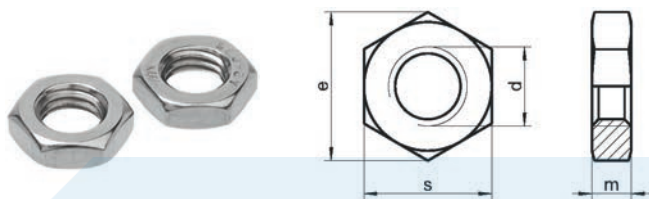
## Hexagon Lock Nut

DIN 439 / ISO 4035

METRIC

A2

304



Size (d)	m max.	s max.	e min.	Part Number	Std Pack
M4	2.20	7.00	7.66	XLNA2M4	100
M5	2.70	8.00	8.79	XLNA2M5	100
M6	3.20	10.00	11.05	XLNA2M6	100
M8	4.00	13.00	14.38	XLNA2M8	100
M10	5.00	17.00	18.90	XLNA2M10	100
M12	6.00	19.00	21.10	XLNA2M12	50
M14	7.00	22.00	24.49	XLNA2M14	50
M16	8.00	24.00	26.75	XLNA2M16	50
M20	10.00	30.00	32.95	XLNA2M20	25
M24	12.00	36.00	39.55	XLNA2M24	25

All measurements are in mm

# XLN

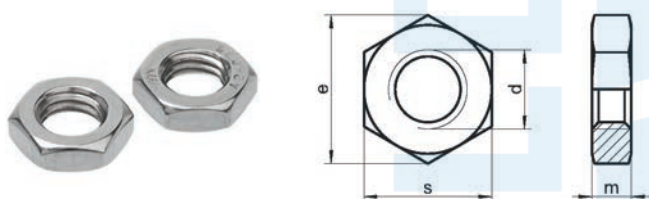
## Hexagon Lock Nut

DIN 439 / ISO 4035

METRIC

A4

316



Size (d)	m max.	s max.	e min.	Part Number	Std Pack
M4	2.20	7.00	7.66	XLNA4M4	100
M5	2.70	8.00	8.79	XLNA4M5	100
M6	3.20	10.00	11.05	XLNA4M6	100
M8	4.00	13.00	14.38	XLNA4M8	100
M10	5.00	17.00	18.90	XLNA4M10	100
M12	6.00	19.00	21.10	XLNA4M12	50
M14	7.00	22.00	24.49	XLNA4M14	50
M16	8.00	24.00	26.75	XLNA4M16	50
M18	9.00	27.00	29.56	XLNA4M18	25
M20	10.00	30.00	32.95	XLNA4M20	25
M22	11.00	32.00	35.03	XLNA4M22	25
M24	12.00	36.00	39.55	XLNA4M24	25
M27	13.50	41.00	45.20	XLNA4M27	10
M30	15.00	46.00	50.85	XLNA4M30	10
M33	16.50	50.00	55.37	XLNA4M33	5
M36	18.00	55.00	60.79	XLNA4M36	5

All measurements are in mm

### Did you know?

Tensile strength is the maximum amount of applied force or load that the metal can withstand before it fractures.

Tensile strength is vital to consider when selecting fasteners that will have to endure extreme wear and tear and can be dependent on both the material used and how the fastener is used.

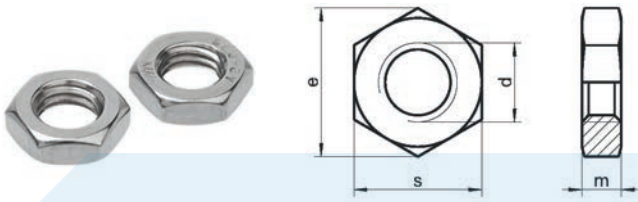
**A2**

# Hexagon Lock Nut

**XLN****304**

ANSI / ASME B18.2.2

UNC



Size (d)	m max.	s max.	e max.	Part Number	Std Pack
1/4	0.16	0.44	0.51	XLNA214UNC	100
5/16	0.20	0.50	0.58	XLNA2516UNC	100
3/8	0.23	0.56	0.65	XLNA238UNC	100
7/16	0.26	0.69	0.79	XLNA2716UNC	50
1/2	0.32	0.75	0.87	XLNA212UNC	50
5/8	0.39	0.94	1.08	XLNA258UNC	50
3/4	0.45	1.12	1.30	XLNA234UNC	50
7/8	0.51	1.31	1.52	XLNA278UNC	25
1	0.58	1.50	1.73	XLNA21UNC	25

All measurements are in inches

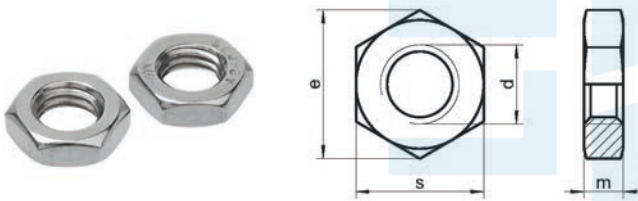
**A4**

# Hexagon Lock Nut

**XLN****316**

ANSI / ASME B18.2.2

UNC



Size (d)	m max.	s max.	e max.	Part Number	Std Pack
1/4	0.16	0.44	0.51	XLNA414UNC	100
5/16	0.20	0.50	0.58	XLNA4516UNC	100
3/8	0.23	0.56	0.65	XLNA438UNC	100
7/16	0.26	0.69	0.79	XLNA4716UNC	50
1/2	0.32	0.75	0.87	XLNA412UNC	50
5/8	0.39	0.94	1.08	XLNA458UNC	50
3/4	0.45	1.12	1.30	XLNA434UNC	50
7/8	0.51	1.31	1.52	XLNA478UNC	25
1	0.58	1.50	1.73	XLNA41UNC	25

All measurements are in inches

## Did you know?

The benefits of coarse and fine threaded fasteners depend on the application.

Finer threading provides a larger stress area than coarse threading of the same diameter. If you want a greater strength over the same area, a finer thread is a better choice. Finer threading also allows for better adjustment accuracy.

However, coarse threading is also advantages, as it is less likely to become cross-threaded. This allows for quicker assembly. For projects that will need to endure harsh operations, conditions or chemicals, coarse threaded fasteners can be advantageous because they provide better resistance.

# XNN

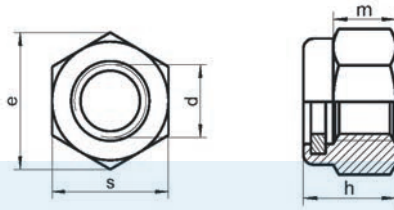
## Nylon Insert Lock Nut

A2

DIN 985 / ISO 7040

METRIC

304



Size (d)	m min.	h max.	s max.	e min.	Part Number	Std Pack
M3	2.40	4.00	5.50	6.01	XNNA2M3	200
M4	2.90	5.00	7.00	7.66	XNNA2M4	100
M5	3.20	5.00	8.00	8.79	XNNA2M5	100
M6	4.00	6.00	10.00	11.05	XNNA2M6	100
M8	5.50	8.00	13.00	14.38	XNNA2M8	100
M10	6.50	10.00	17.00	18.90	XNNA2M10	100
M12	8.00	12.00	19.00	21.10	XNNA2M12	100
M14	9.50	14.00	22.00	24.49	XNNA2M14	50
M16	10.50	16.00	24.00	26.75	XNNA2M16	50
M20	14.00	20.00	30.00	32.95	XNNA2M20	25
M24	15.00	24.00	36.00	39.55	XNNA2M24	25

All measurements are in mm

# XNN

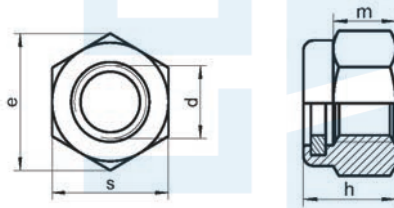
## Nylon Insert Lock Nut

A4

DIN 985 / ISO 7040

METRIC

316



Size (d)	m min.	h max.	s max.	e min.	Part Number	Std Pack
M3	2.40	4.00	5.50	6.01	XNNA4M3	100
M4	2.90	5.00	7.00	7.66	XNNA4M4	100
M5	3.20	5.00	8.00	8.79	XNNA4M5	100
M6	4.00	6.00	10.00	11.05	XNNA4M6	100
M8	5.50	8.00	13.00	14.38	XNNA4M8	100
M10	6.50	10.00	17.00	18.90	XNNA4M10	100
M12	8.00	12.00	19.00	21.10	XNNA4M12	100
M14	9.50	14.00	22.00	24.49	XNNA4M14	50
M16	10.50	16.00	24.00	26.75	XNNA4M16	50
M18	13.00	18.50	27.00	29.56	XNNA4M18	50
M20	14.00	20.00	30.00	32.95	XNNA4M20	25
M22	15.00	22.00	32.00	35.03	XNNA4M22	25
M24	15.00	24.00	36.00	39.55	XNNA4M24	25
M27	17.00	27.00	41.00	45.20	XNNA4M27	20
M30	19.00	30.00	46.00	50.85	XNNA4M30	10
M33	22.00	33.00	50.00	55.37	XNNA4M33	5
M36	25.00	36.00	55.00	60.79	XNNA4M36	5

All measurements are in mm

### Did you know?

Locknuts fall into two general classes.

Prevailing-torque (nuts with out of round holes, nylon locking collar in nut, nylon patch, mechanically deformed dimples or crimps) and free-spinning (spring head nut, beam type nut, serrated nut bearing surface). Prevailing-torque nuts spin freely for a few turns, and then must be wrenched to the final position. Free-spinning locknuts spin on the bolt until seated. Additional tightening locks the nut.



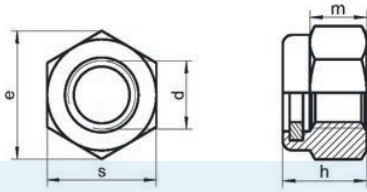
**A2**

# Nylon Insert Lock Nut

**XNN****304**

ANSI / ASME B18.16.6

UNC



Size (d)	m min.	h max.	s max.	e min.	Part Number	Std Pack
8-32	0.14	0.24	0.35	0.37	XNNA2832UNC	100
10-24	0.14	0.25	0.38	0.41	XNNA21024UNC	100
1/4	0.23	0.33	0.44	0.48	XNNA214UNC	100
5/16	0.25	0.36	0.50	0.55	XNNA2516UNC	100
3/8	0.34	0.47	0.56	0.62	XNNA238UNC	100
7/16	0.32	0.47	0.63	0.70	XNNA2716UNC	50
1/2	0.46	0.61	0.75	0.84	XNNA212UNC	100
5/8	0.59	0.77	0.94	1.05	XNNA258UNC	50
3/4	0.74	0.89	1.06	1.19	XNNA234UNC	25
7/8	0.79	1.00	1.25	1.40	XNNA278UNC	25
1	0.83	1.08	1.44	1.62	XNNA21UNC	25

All measurements are in inches

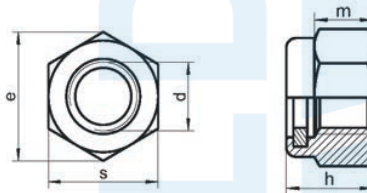
**A4**

# Nylon Insert Lock Nut

**XNN****316**

ANSI / ASME B18.16.6

UNC



Size (d)	m min.	h max.	s max.	e min.	Part Number	Std Pack
10-24	0.14	0.25	0.38	0.41	XNNA41024UNC	100
1/4	0.23	0.33	0.44	0.48	XNNA414UNC	100
5/16	0.25	0.36	0.50	0.55	XNNA4516UNC	100
3/8	0.34	0.47	0.56	0.62	XNNA438UNC	100
7/16	0.32	0.47	0.63	0.70	XNNA4716UNC	50
1/2	0.46	0.61	0.75	0.84	XNNA412UNC	100
5/8	0.59	0.77	0.94	1.05	XNNA458UNC	50
3/4	0.74	0.89	1.06	1.19	XNNA434UNC	25
7/8	0.79	1.00	1.25	1.40	XNNA478UNC	25
1	0.83	1.08	1.44	1.62	XNNA41UNC	25

All measurements are in inches

## Thread Count And Thread Pitch

Machine threaded fasteners specify a thread density in Threads Per Inch (US) or as a Thread Pitch in mm (Metric).

For a given diameter, a fastener may be available in coarse (standard), fine and sometimes super fine thread.

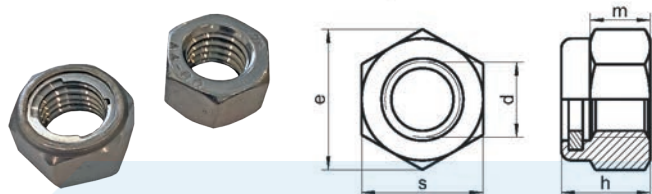
# XIW

## Hex Inox Loch Nut - Stainless Insert

### A2

### 304

METRIC



Size (d)	m	h	s	e	Part Number	Std Pack
M4	2.90	5.00	7.00	7.66	XIWA2M4	100
M5	3.20	5.00	8.00	8.79	XIWA2M5	100
M6	4.00	6.00	10.00	11.05	XIWA2M6	100
M8	5.50	8.00	13.00	14.38	XIWA2M8	100
M10	6.50	10.00	17.00	18.90	XIWA2M10	100
M12	8.00	12.00	19.00	21.10	XIWA2M12	50
M16	10.50	16.00	24.00	26.75	XIWA2M16	25
M20	14.00	20.00	30.00	32.95	XIWA2M20	25

All measurements are in mm

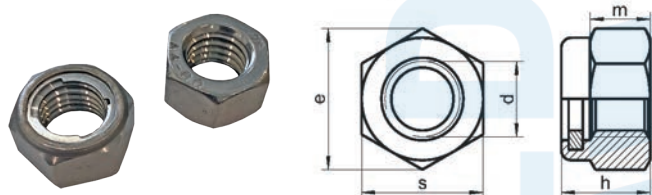
# XIW

## Hex Inox Loch Nut - Stainless Insert

### A4

### 316

METRIC



Size (d)	m	h	s	e	Part Number	Std Pack
M4	2.90	5.00	7.00	7.66	XIWA4M4	100
M5	3.20	5.00	8.00	8.79	XIWA4M5	100
M6	4.00	6.00	10.00	11.05	XIWA4M6	100
M8	5.50	8.00	13.00	14.38	XIWA4M8	100
M10	6.50	10.00	17.00	18.90	XIWA4M10	100
M12	8.00	12.00	19.00	21.10	XIWA4M12	50
M16	10.50	16.00	24.00	26.75	XIWA4M16	25
M20	14.00	20.00	30.00	32.95	XIWA4M20	25

All measurements are in mm

# XCN

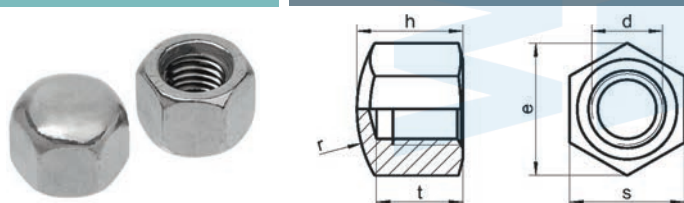
## Hexagon Cap Nut

### A2

### 304

DIN 917

METRIC



Size (d)	h max.	s max.	e min.	r ≈	t min.	Part Number	Std Pack
M4	5.50	7.00	7.66	8.00	4.16	XCNA2M4	200
M5	7.00	8.00	8.79	10.00	4.96	XCNA2M5	100
M6	9.00	10.00	11.05	12.00	6.71	XCNA2M6	100
M8	12.00	13.00	14.38	15.00	9.21	XCNA2M8	100
M10	14.00	17.00	18.90	20.00	10.65	XCNA2M10	100
M12	16.00	19.00	21.10	25.00	13.15	XCNA2M12	50

All measurements are in mm

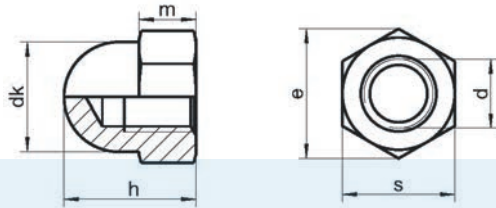
**A2**

# Dome Nut - 1 Piece

**DNU****304**

DIN 1587

METRIC



Size (d)	m max.	h max.	s max.	e min.	dk max.	Part Number	Std Pack
M3	2.40	6.00	5.50	6.08	5.50	<b>DNUA2M3</b>	100
M4	3.20	8.00	7.00	7.66	6.50	<b>DNUA2M4</b>	100
M5	4.00	10.00	8.00	8.79	7.50	<b>DNUA2M5</b>	100
M6	5.00	12.00	10.00	11.05	9.50	<b>DNUA2M6</b>	100
M8	6.50	15.00	13.00	14.38	12.50	<b>DNUA2M8</b>	100
M10	8.00	18.00	17.00	18.90	16.00	<b>DNUA2M10</b>	100
M12	10.00	22.00	19.00	21.10	18.00	<b>DNUA2M12</b>	50
M14	11.00	25.00	22.00	24.49	21.00	<b>DNUA2M14</b>	50
M16	13.00	28.00	24.00	26.75	23.00	<b>DNUA2M16</b>	50
M20	16.00	34.00	30.00	33.53	28.00	<b>DNUA2M20</b>	25
M24	19.00	42.00	36.00	39.98	34.00	<b>DNUA2M24</b>	25

All measurements are in mm

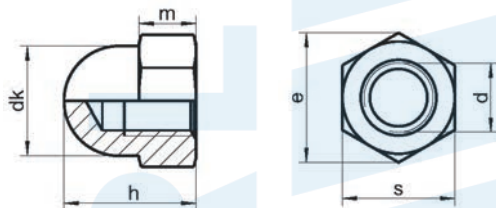
**A4**

# Dome Nut - 1 Piece

**DNU****316**

DIN 1587

METRIC



Size (d)	m max.	h max.	s max.	e min.	dk max.	Part Number	Std Pack
M3	2.40	6.00	5.50	6.08	5.50	<b>DNUA4M3</b>	100
M4	3.20	8.00	7.00	7.66	6.50	<b>DNUA4M4</b>	100
M5	4.00	10.00	8.00	8.79	7.50	<b>DNUA4M5</b>	100
M6	5.00	12.00	10.00	11.05	9.50	<b>DNUA4M6</b>	100
M8	6.50	15.00	13.00	14.38	12.50	<b>DNUA4M8</b>	100
M10	8.00	18.00	17.00	18.90	16.00	<b>DNUA4M10</b>	100
M12	10.00	22.00	19.00	21.10	18.00	<b>DNUA4M12</b>	50
M14	11.00	25.00	22.00	24.49	21.00	<b>DNUA4M14</b>	50
M16	13.00	28.00	24.00	26.75	23.00	<b>DNUA4M16</b>	50
M20	16.00	34.00	30.00	33.53	28.00	<b>DNUA4M20</b>	25
M24	19.00	42.00	36.00	39.98	34.00	<b>DNUA4M24</b>	25

All measurements are in mm

## Did you know?

### Stainless Steel can still corrode

Stainless steel is prized for its corrosion resistance. Beyond that many don't know anything about it. Stainless steel comes in many different grades, 304, 305 and 316 are just a few examples and each come with their own benefits. If you are within 30 kilometers of the beach for example, you need to make sure you use 316 stainless steel.

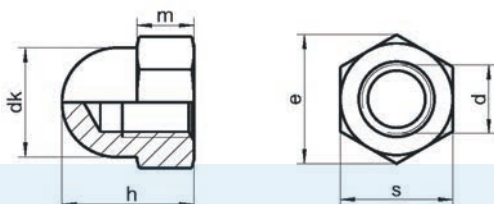
# DNU

## Dome Nut - 1 Piece

### A2

### 304

UNC



Size (d)	m max.	h max.	s max.	e min.	dk max.	Part Number	Std Pack
10-24	0.19	0.41	0.38	0.41	0.36	<b>DNUA21024UNC</b>	100
1/4	0.22	0.47	0.44	0.49	0.41	<b>DNUA214UNC</b>	100
5/16	0.25	0.53	0.50	0.56	0.47	<b>DNUA2516UNC</b>	100
3/8	0.28	0.62	0.56	0.63	0.53	<b>DNUA238UNC</b>	100
7/16	0.31	0.69	0.63	0.70	0.59	<b>DNUA2716UNC</b>	50
1/2	0.38	0.81	0.75	0.84	0.72	<b>DNUA212UNC</b>	50
5/8	0.47	1.00	0.94	1.05	0.91	<b>DNUA258UNC</b>	25
3/4	0.53	1.16	1.06	1.19	1.03	<b>DNUA234UNC</b>	25

All measurements are in inches

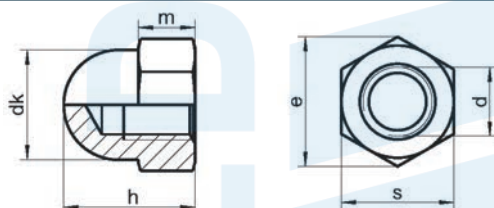
# DNU

## Dome Nut - 1 Piece

### A4

### 316

UNC



Size (d)	m max.	h max.	s max.	e min.	dk max.	Part Number	Std Pack
10-24	0,19	0,41	0,38	0,41	0,36	<b>DNUA41024UNC</b>	100
1/4	0.22	0.47	0.44	0.49	0.41	<b>DNUA414UNC</b>	100
5/16	0.25	0.53	0.50	0.56	0.47	<b>DNUA4516UNC</b>	100
3/8	0.28	0.62	0.56	0.63	0.53	<b>DNUA438UNC</b>	100
1/2	0.38	0.81	0.75	0.84	0.72	<b>DNUA412UNC</b>	50
5/8	0.47	1.00	0.94	1.05	0.91	<b>DNUA458UNC</b>	25
3/4	0.53	1.16	1.06	1.19	1.03	<b>DNUA434UNC</b>	25

All measurements are in inches

# CNU

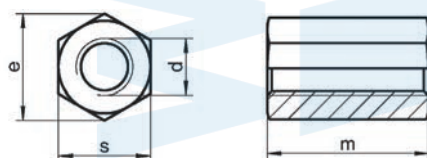
## Hexagon Coupling Nut

### A4

### 316

DIN 6334

METRIC



Size (d)	m	s max.	e min.	Part Number	Std Pack
M5	15.00	8.00	8.79	<b>CNUA4M5</b>	1
M6	18.00	10.00	11.05	<b>CNUA4M6</b>	1
M8	24.00	13.00	14.38	<b>CNUA4M8</b>	1
M10	30.00	17.00	18.90	<b>CNUA4M10</b>	1
M12	36.00	19.00	21.10	<b>CNUA4M12</b>	1
M16	48.00	24.00	26.75	<b>CNUA4M16</b>	1
M20	60.00	30.00	33.53	<b>CNUA4M20</b>	1
M24	72.00	36.00	41.60	<b>CNUA4M24</b>	1
M30	90.00	46.00	53.10	<b>CNUA4M30</b>	1

All measurements are in mm

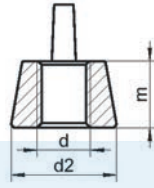
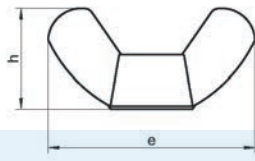
**A4**

# Wing Nut

**WNU****316**

DIN 315 AF

METRIC



Size (d)	m	h	e	d2	Part Number	Std Pack
M3	2.90	8.60	17.60	8.00	WNUA4M3	100
M4	2.90	8.60	17.60	8.00	WNUA4M4	100
M5	4.10	11.00	22.50	10.30	WNUA4M5	100
M6	5.10	13.60	27.80	12.70	WNUA4M6	100
M8	5.60	14.80	30.30	13.80	WNUA4M8	100
M10	6.80	17.30	36.20	16.50	WNUA4M10	100
M12	9.00	22.30	49.40	22.50	WNUA4M12	50
M16	10.70	30.80	58.30	26.60	WNUA4M16	25

All measurements are in mm

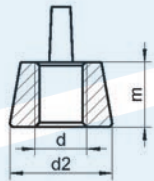
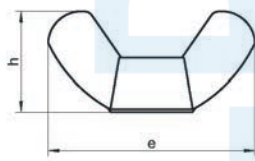
**A2**

# Wing Nut

**WNU****304**

DIN 315 AF

METRIC



Size (d)	m	h	e	d2	Part Number	Std Pack
M3	2.90	8.60	17.60	8.00	WNUA2M3	100
M4	2.90	8.60	17.60	8.00	WNUA2M4	100
M5	4.10	11.00	22.50	10.30	WNUA2M5	100
M6	5.10	13.60	27.80	12.70	WNUA2M6	100
M8	5.60	14.80	30.30	13.80	WNUA2M8	100
M10	6.80	17.30	36.20	16.50	WNUA2M10	100
M12	9.00	22.30	49.40	22.50	WNUA2M12	50
M16	10.70	30.80	58.30	26.60	WNUA2M16	25

All measurements are in mm

## Did you know?

A coupling nut is typically a metal fastener which is threaded on the inside

It is designed to secure two parts together by screwing the coupling nut onto the outside of another part, often a threaded rod. The outside of a coupling nut is usually hex shaped so that a wrench can tighten or loosen it.



# XFN

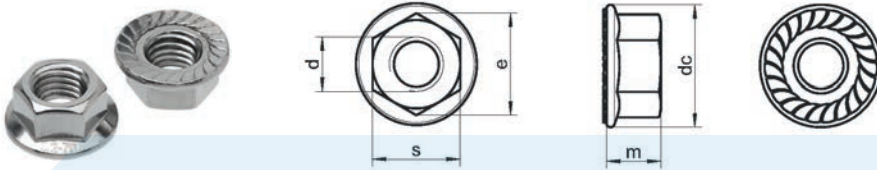
## Hexagon Flange Nut

A2

304

DIN 6923 / ISO 1661

METRIC



Size (d)	dc max.	m min.	s max.	e min.	Part Number	Std Pack
M4	10.00	4.20	7.00	7.66	XFNA2M4	100
M5	11.80	4.70	8.00	8.79	XFNA2M5	100
M6	14.20	5.70	10.00	11.05	XFNA2M6	100
M8	17.90	7.60	13.00	14.38	XFNA2M8	100
M10	21.80	9.60	15.00	16.64	XFNA2M10	100
M12	26.00	11.60	18.00	20.03	XFNA2M12	100

All measurements are in mm

# XFN

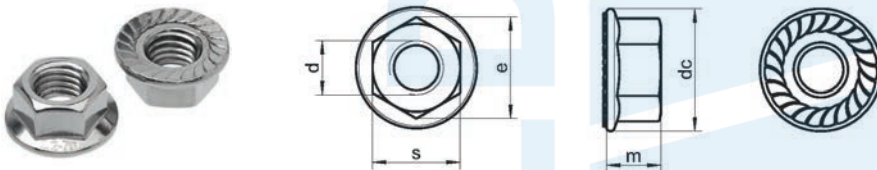
## Hexagon Flange Nut

A4

316

DIN 6923 / ISO 1661

METRIC



Size (d)	dc max.	m min.	s max.	e min.	Part Number	Pack
M4	10.00	4.20	7.00	7.66	XFNA4M4	100
M5	11.80	4.70	8.00	8.79	XFNA4M5	100
M6	14.20	5.70	10.00	11.05	XFNA4M6	100
M8	17.90	7.60	13.00	14.38	XFNA4M8	100
M10	21.80	9.60	15.00	16.64	XFNA4M10	100
M12	26.00	11.60	18.00	20.03	XFNA4M12	100

All measurements are in mm

### Did you know?

Serrated flange nuts are hex flange nuts with a serrated bearing surface

The nut turns freely until the serrations contact and displace material on the mating surface as the nut is tightened; less torque is needed to install than remove because the gripping action of the serrations create a ratchet-type locking feature that is resistant to vibration.

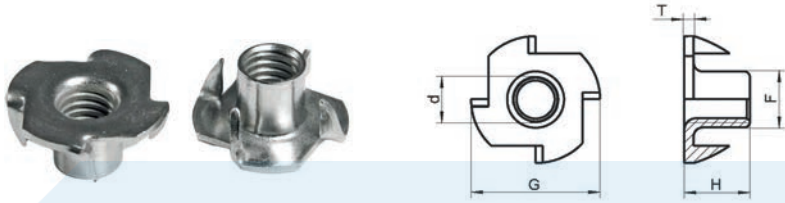
**A2**

## Tee Nut 4-Prong Type

**TNU****304**

DIN 1624

METRIC



Size (d)	G	F	T	H	Part Number	Std Pack
M6	19.00	7.50	1.20	9.00	TNUA2M6	100
M8	22.00	10.00	1.50	11.00	TNUA2M8	100
M10	25.00	12.00	1.80	12.00	TNUA2M10	100

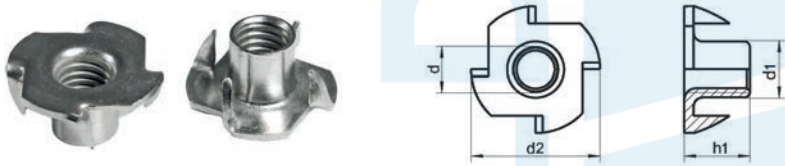
All measurements are in mm

**A2**

## Tee Nut 4-Prong Type

**TNU****304**

UNC



Size (d)	d2	d1	Prong Height	h1	Part Number	Std Pack
10-24	0.75	0.24	0.22	0.31	TNUA21024UNC	100
1/4	0.75	0.36	0.22	0.31	TNUA214UNC	100
5/16	0.75	0.39	0.25	0.38	TNUA2516UNC	100
3/8	1.00	0.52	0.34	0.44	TNUA238UNC	100

All measurements are in inches

## Fastener Materials and Coatings

**Alloy steel** is highly hardened and usually black oxide and/or oil coated, offering little corrosion resistance.

**Brass and bronze** are copper alloys with good corrosion resistance. More expensive than steel, these materials are typically used for decorative applications.

**Zinc Plated steel** is shiny and typically 3 microns thick, where you only need superficial protection, indoors in a dry climate (and want the aesthetic value) go for zinc plating.

**Chrome and nickel plated steel** are smooth and polished for appearance. The plating offers moderate corrosion resistance.

**Stainless steel** offers good corrosion resistance, making it suitable for outdoor and marine applications.

**Hot-dipped galvanised steel** has a thicker zinc coating for better corrosion resistance, making it suitable for outdoor use. Because of the thick plating 50 microns, only galvanised nuts and washers will fit galvanised bolts.

# SNU

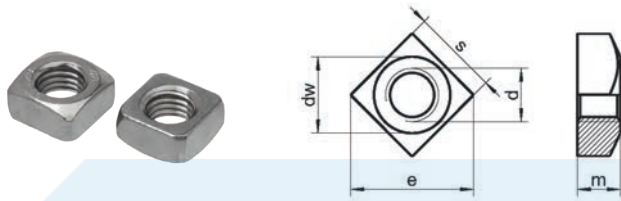
## Square Nut

A4

316

DIN 557

METRIC



Size (Ø)	dw min.	m max.	s max.	e max.	Part Number	Std Pack
M5	6.70	4.00	8.00	11.30	SNUA4M5	100
M6	8.70	5.00	10.00	14.10	SNUA4M6	100
M8	11.50	6.50	13.00	18.40	SNUA4M8	100
M10	14.50	8.00	16.00	22.60	SNUA4M10	100
M12	16.50	10.00	18.00	25.40	SNUA4M12	50

All measurements are in mm

# SWN

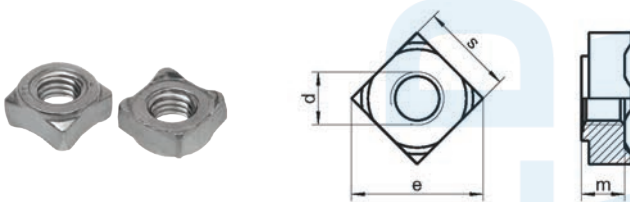
## Square Weld Nut

A4

316

DIN 928

METRIC



Size (Ø)	m	s	e min.	Part Number	Std Pack
M5	4.20	9.00	12.00	SWNA4M5	100
M6	5.00	10.00	13.00	SWNA4M6	100
M8	6.50	14.00	18.00	SWNA4M8	100
M10	8.00	17.00	22.00	SWNA4M10	100

All measurements are in mm

# XWN

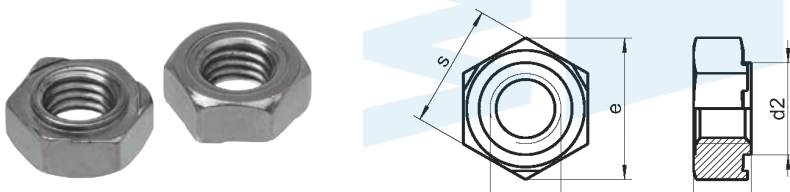
## Hex Weld Nut

A4

316

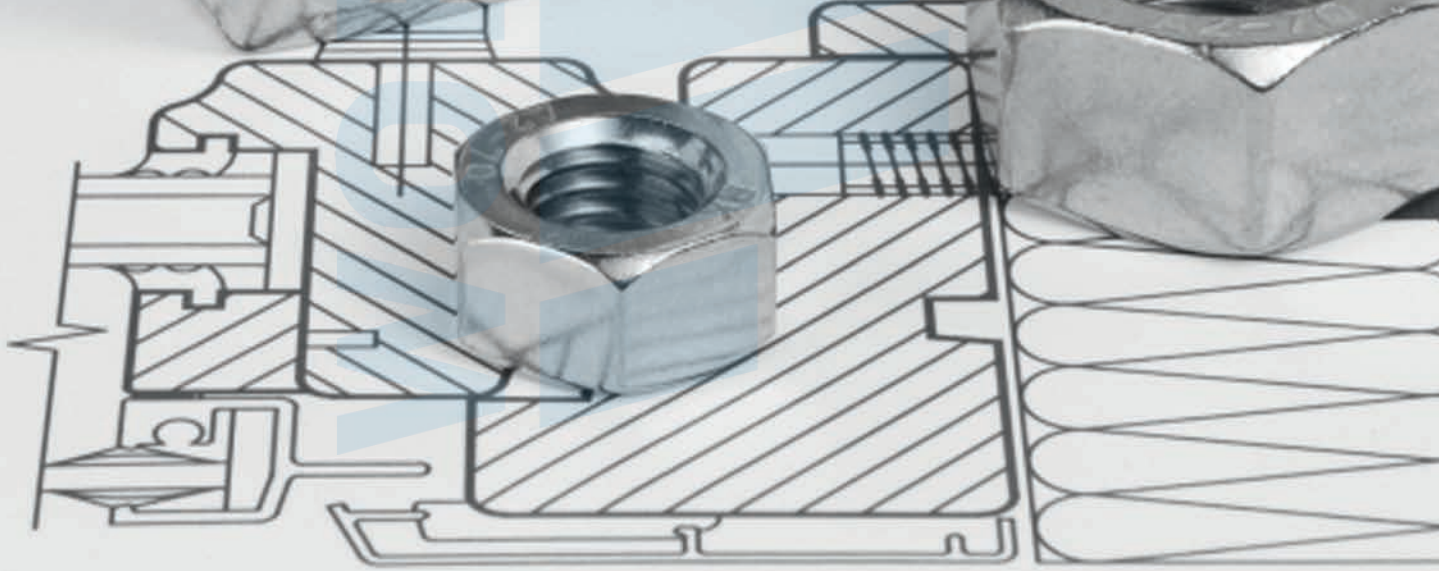
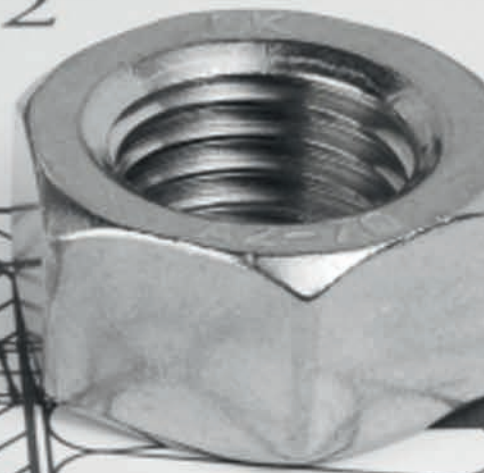
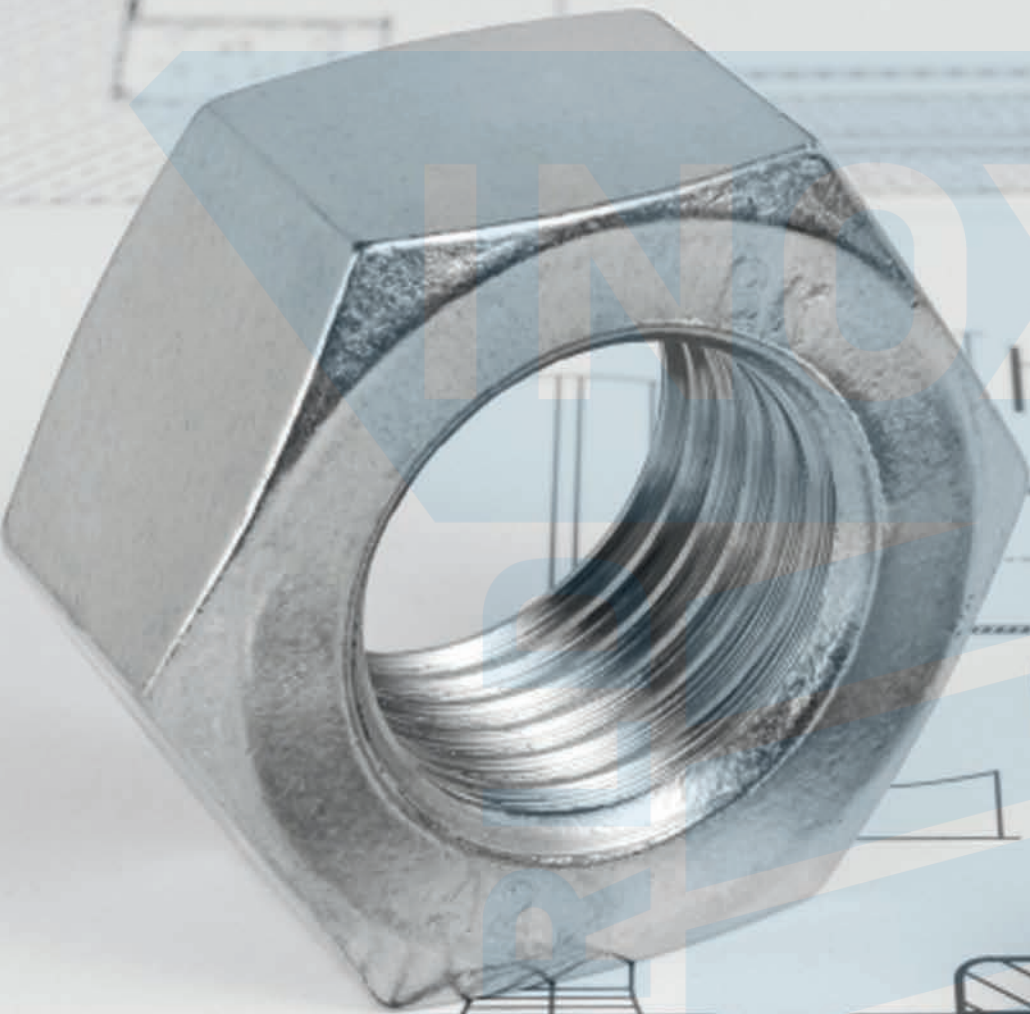
DIN 929

METRIC



Size (Ø)	m	s	e min.	d2	Part Number	Std Pack
M5	4.00	10.00	10.95	7.00	XWNA4M5	100
M6	5.00	11.00	12.02	8.00	XWNA4M6	100
M8	6.50	14.00	15.38	10.50	XWNA4M8	100
M10	8.00	17.00	18.74	12.50	XWNA4M10	100
M12	10.00	19.00	20.91	14.80	XWNA4M12	50

All measurements are in mm



**FRW**

# Flat Round Washer

**A2****304**

METRIC



Size (d)	d1	d2	h	Part Number	Std Pack
M6	6.40	12.50	1.20	FRWA2M6	100
M8	8.40	17.00	1.20	FRWA2M8	100
M10	10.50	21.00	1.20	FRWA2M10	100
M12	13.00	24.00	1.50	FRWA2M12	100
M14	15.00	28.00	1.50	FRWA2M14	100
M16	17.00	30.00	1.50	FRWA2M16	100
M20	21.00	37.00	2.00	FRWA2M20	100
M24	25.00	44.00	3.00	FRWA2M24	50
M30	31.00	56.00	3.00	FRWA2M30	20

All measurements are in mm

**FRW**

# Flat Round Washer

**A4****316**

METRIC



Size (d)	d1	d2	h	Part Number	Std Pack
M6	6.40	12.50	1.20	FRWA4M6	100
M8	8.40	17.00	1.20	FRWA4M8	100
M10	10.50	21.00	1.20	FRWA4M10	100
M12	13.00	24.00	1.50	FRWA4M12	100
M14	15.00	28.00	1.50	FRWA4M14	100
M16	17.00	30.00	1.50	FRWA4M16	100
M20	21.00	37.00	2.00	FRWA4M20	100
M24	25.00	44.00	3.00	FRWA4M24	50
M27	28.00	50.00	3.00	FRWA4M27	25
M30	31.00	56.00	3.00	FRWA4M30	20
M33	34.00	60.00	3.00	FRWA4M33	20
M36	37.00	66.00	5.00	FRWA4M36	10

All measurements are in mm

## Did you know?

Washers are made from virtually any metallic or non-metallic material that can be stamped.

The I.D. and O.D. can be configured to provide any size and shape required. They can be round, square, rectangular, hexagonal, oval, or non-symmetrical. They can also have tabs, crowns, notches, and may be countersunk in a variety of degrees.



A2

# Flat Round Washer

FRW

304

IMPERIAL

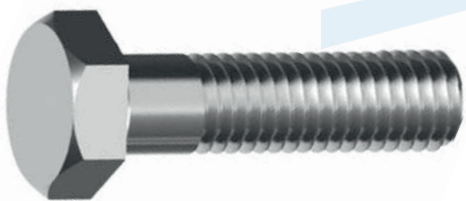


Size (d)	d2	h	Part Number	Std Pack
1/8	5/16	G22	FRWA218X516	200
1/8	3/8	G20	FRWA218X38	200
5/32	3/8	G20	FRWA2532X38	200
5/32	7/16	G20	FRWA2532X716	200
3/16	7/16	G20	FRWA2316X716	200
3/16	1/2	G20	FRWA2316X12	100
3/16	3/4	G18	FRWA2316X34	100
3/16	7/8	G18	FRWA2316X78	100
3/16	1	G16	FRWA2316X1	100
3/16	1 1/4	G16	FRWA2316X114	100
1/4	1/2	G18	FRWA214X12	100
1/4	9/16	G18	FRWA214X916	100
1/4	5/8	G18	FRWA214X58	100
1/4	3/4	G18	FRWA214X34	100
1/4	7/8	G18	FRWA214X78	100
1/4	1	G16	FRWA214X1	100
1/4	1 1/4	G16	FRWA214X114	100
5/16	5/8	G18	FRWA2516X58	100
5/16	3/4	G18	FRWA2516X34	100
5/16	1	G16	FRWA2516X1	100
5/16	1 1/4	G16	FRWA2516X114	100
3/8	3/4	G18	FRWA238X34	100
3/8	7/8	G18	FRWA238X78	100
3/8	1	G16	FRWA238X1	100
3/8	1 1/4	G16	FRWA238X114	100
3/8	1 1/2	G14	FRWA238X112	100
3/8	2	G14	FRWA238X2	100
7/16	1 1/8	G16	FRWA2716X118	100
1/2	1	G16	FRWA212X1	100
1/2	1 1/4	G14	FRWA212X114	100
1/2	2	G14	FRWA212X2	50
5/8	1 1/4	G16	FRWA258X114	100
5/8	1 1/2	G14	FRWA258X112	100
3/4	1 1/2	G14	FRWA234X112	100
3/4	1 7/8	G14	FRWA234X178	100
7/8	1 5/8	G14	FRWA478X158	50
7/8	2	G10	FRWA278X2	50
1	1 7/8	G12	FRWA21X178	50
1	2	G10	FRWA21X2	50
1	2 1/2	G10	FRWA21X212	25

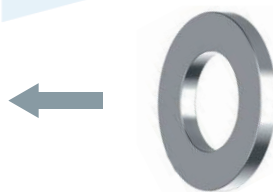
All measurements are in inches

## Nut And Washer sizes

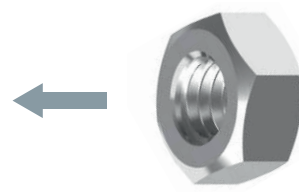
Nut and washer sizes indicate **the screw or bolt they fit**. For example:



3/8" Hex Bolt



3/8" Washer



3/8" Nut



Size (d)	d2	h	Part Number	Std Pack
1/8	5/16	G22	FRWA418X516	200
1/8	3/8	G20	FRWA418X38	200
5/32	3/8	G20	FRWA4532X38	200
5/32	7/16	G20	FRWA4532X716	200
3/16	7/16	G20	FRWA4316X716	200
3/16	1/2	G20	FRWA4316X12	100
3/16	3/4	G18	FRWA4316X34	100
3/16	7/8	G18	FRWA4316X78	100
3/16	1	G16	FRWA4316X1	100
3/16	1 1/4	G16	FRWA4316X114	100
1/4	1/2	G18	FRWA414X12	100
1/4	9/16	G18	FRWA414X916	100
1/4	5/8	G18	FRWA414X58	100
1/4	3/4	G18	FRWA414X34	100
1/4	7/8	G18	FRWA414X78	100
1/4	1	G16	FRWA414X1	100
1/4	1 1/4	G16	FRWA414X114	100
5/16	5/8	G18	FRWA4516X58	100
5/16	3/4	G18	FRWA4516X34	100
5/16	1	G16	FRWA4516X1	100
5/16	1 1/4	G16	FRWA4516X114	100
3/8	3/4	G18	FRWA438X34	100
3/8	7/8	G18	FRWA438X78	100
3/8	1	G16	FRWA438X1	100
3/8	1 1/4	G16	FRWA438X114	100
3/8	1 1/2	G14	FRWA438X112	100
3/8	2	G14	FRWA438X2	100
7/16	1 1/8	G16	FRWA4716X118	100
1/2	1	G16	FRWA412X1	100
1/2	1 1/4	G14	FRWA412X114	100
1/2	2	G14	FRWA412X2	50
5/8	1 1/4	G16	FRWA458X114	100
5/8	1 1/2	G14	FRWA458X112	100
3/4	1 1/2	G14	FRWA434X112	100
3/4	1 7/8	G14	FRWA434X178	100
7/8	1 5/8	G14	FRWA478X158	50
7/8	2	G10	FRWA478X2	50
1	1 7/8	G12	FRWA41X178	50
1	2	G10	FRWA41X2	50
1	2 1/2	G10	FRWA41X212	25
1 1/8	2 1/2	G10	FRWA4118X212	25
1 1/4	2 1/2	G10	FRWA4114X212	25
1 1/4	2 3/4	G10	FRWA4114X234	25
1 1/2	3 1/4	G10	FRWA4112X314	25

All measurements are in inches

## Did you know?

Stainless Steel can be made into “soap”

Many reputable manufacturers produce stainless steel soap, which is essentially a piece of stainless steel in the shape of a soap bar. While stainless steel soap does not kill germs or other bacteria like regular soap would, stainless steel soap can neutralize strong odours on the hands. Simply rub the bar on your hands after handling garlic, onion, or fish. The smell should disappear. Why does stainless steel have this unique property? Some researchers hypothesize that the stainless-steel binds to sulfur compounds in various substances, which reduces odours.

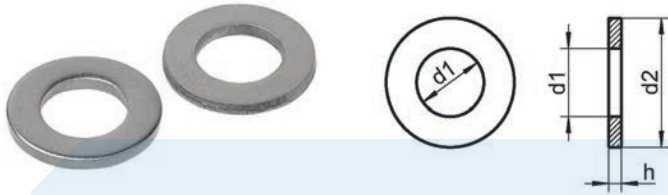
**A2**

# Flat Round Washer

**FWA****304**

DIN 125A / ISO 7089 &amp; 7090

METRIC



Size (d)	d1 nom.	d2 nom.	h nom.	Part Number	Std Pack
M2	2.20	5.00	0.30	FWAA2M2	200
M2.5	2.70	6.00	0.50	FWAA2M25	200
M3	3.20	7.00	0.50	FWAA2M3	200
M4	4.30	9.00	0.80	FWAA2M4	200
M5	5.30	10.00	1.00	FWAA2M5	200
M6	6.40	12.00	1.60	FWAA2M6	100
M8	8.40	16.00	1.60	FWAA2M8	100
M10	10.50	20.00	2.00	FWAA2M10	100
M12	13.00	24.00	2.50	FWAA2M12	100
M14	15.00	28.00	2.50	FWAA2M14	100
M16	17.00	30.00	3.00	FWAA2M16	100
M20	21.00	37.00	3.00	FWAA2M20	100
M24	25.00	44.00	4.00	FWAA2M24	50

All measurements are in mm

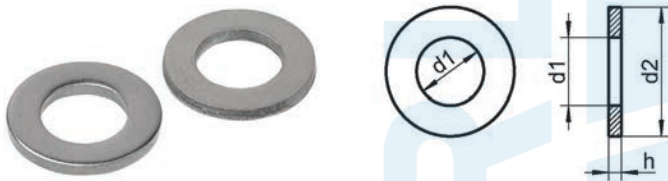
**A4**

# Flat Round Washer

**FWA****316**

DIN 125A / ISO 7089 &amp; 7090

METRIC



Size (d)	d1 nom.	d2 nom.	h nom.	Part Number	Std Pack
M2	2.20	5.00	0.30	FWAA4M2	200
M2.5	2.70	6.00	0.50	FWAA4M25	200
M3	3.20	7.00	0.50	FWAA4M3	200
M4	4.30	9.00	0.80	FWAA4M4	200
M5	5.30	10.00	1.00	FWAA4M5	200
M6	6.40	12.00	1.60	FWAA4M6	100
M8	8.40	16.00	1.60	FWAA4M8	100
M10	10.50	20.00	2.00	FWAA4M10	100
M12	13.00	24.00	2.50	FWAA4M12	100
M14	15.00	28.00	2.50	FWAA4M14	100
M16	17.00	30.00	3.00	FWAA4M16	100
M18	19.00	34.00	3.00	FWAA4M18	100
M20	21.00	37.00	3.00	FWAA4M20	100
M22	23.00	39.00	3.00	FWAA4M22	100
M24	25.00	44.00	4.00	FWAA4M24	50
M39	40.00	56.00	6.00	FWAA4M39	10
M42	43.00	60.00	7.00	FWAA4M42	10
M48	50.00	66.00	8.00	FWAA4M48	10

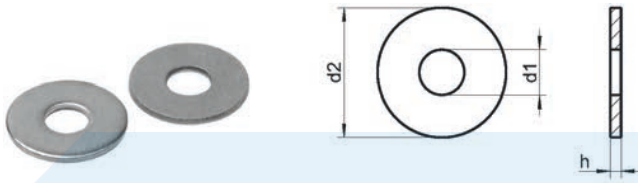
All measurements are in mm

**FWM**

# Flat Round Mudguard Washer

DIN 9021 / ISO 7093-1

METRIC

**A2****304**

Size (d)	d1 nom.	d2 nom.	h nom.	Part Number	Std Pack
M3	3.20	9.00	0.80	FWMA2M3	200
M4	4.30	12.00	1.00	FWMA2M4	200
M5	5.30	15.00	1.20	FWMA2M5	100
M6	6.40	18.00	1.60	FWMA2M6	100
M8	8.40	24.00	2.00	FWMA2M8	100
M10	10.50	30.00	2.50	FWMA2M10	100
M12	13.00	37.00	3.00	FWMA2M12	100
M14	15.00	44.00	3.00	FWMA2M14	100
M16	17.00	50.00	3.00	FWMA2M16	50
M20	22.00	60.00	4.00	FWMA2M20	50
M24	26.00	72.00	5.00	FWMA2M24	50
M30	33.00	92.00	6.00	FWMA2M30	20

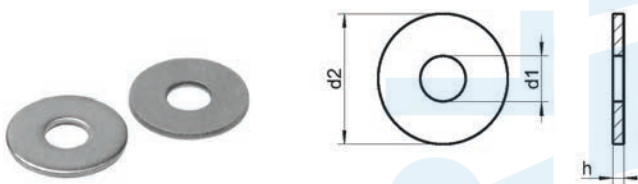
All measurements are in mm

**FWM**

# Flat Round Mudguard Washer

DIN 9021 / ISO 7093-1

METRIC

**A4****316**

Size (d)	d1 nom.	d2 nom.	h nom.	Part Number	Std Pack
M3	3.20	9.00	0.80	FWMA4M3	200
M4	4.30	12.00	1.00	FWMA4M4	200
M5	5.30	15.00	1.20	FWMA4M5	100
M6	6.40	18.00	1.60	FWMA4M6	100
M8	8.40	24.00	2.00	FWMA4M8	100
M10	10.50	30.00	2.50	FWMA4M10	100
M12	13.00	37.00	3.00	FWMA4M12	100
M14	15.00	44.00	3.00	FWMA4M14	50
M16	17.00	50.00	3.00	FWMA4M16	50
M18	20.00	56.00	4.00	FWMA4M18	50
M20	22.00	60.00	4.00	FWMA4M20	50
M24	26.00	72.00	5.00	FWMA4M24	50
M30	33.00	92.00	6.00	FWMA4M30	20

All measurements are in mm

## Did you know?

This wide outer ring on a Mudguard Washer allows for a more even load distribution.

The primary benefit of a Mudguard Washer is that they can cover quite a sizeable surface space. Any time that you need to secure a large surface area, mudguard washers are going to be the right accessory for you. You will also see mudguard washers used to cover holes that have widened due to rust or regular wear-and-tear.

**A2**

# Flat Round Washer - Small O.D

**FWS****304**

DIN 433 / ISO 7092

METRIC



Size (d)	d1 nom.	d2 nom.	h nom.	Part Number	Std Pack
M2	2.20	4.50	0.30	FWSA2M2	200
M2.5	2.70	5.00	0.50	FWSA2M25	200
M3	3.20	6.00	0.50	FWSA2M3	200
M4	4.30	8.00	0.50	FWSA2M4	200
M5	5.30	9.00	1.00	FWSA2M5	200
M6	6.40	11.00	1.60	FWSA2M6	100
M8	8.40	15.00	1.60	FWSA2M8	100
M10	10.50	18.00	1.60	FWSA2M10	100
M12	13.00	20.00	2.00	FWSA2M12	100
M16	17.00	28.00	2.50	FWSA2M16	100
M20	21.00	34.00	3.00	FWSA2M20	50

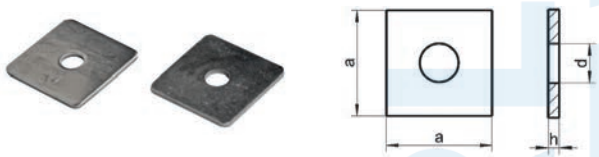
All measurements are in mm

**A4**

# Flat Square Washer

**FSW****316**

METRIC



Size (d)	a	h	Part Number	Std Pack
M10	50.00	3.00	FSWA4M10X50X3	50
M12	50.00	3.00	FSWA4M12X50X3	50
M16	50.00	3.00	FSWA4M16X50X3	25
M20	50.00	3.00	FSWA4M20X50X3	25
M24	50.00	3.00	FSWA4M24X50X3	25
M10	50.00	4.00	FSWA4M10X50X4	50
M12	50.00	4.00	FSWA4M12X50X4	50
M16	50.00	4.00	FSWA4M16X50X4	25
M20	50.00	4.00	FSWA4M20X50X4	25
M24	50.00	4.00	FSWA4M24X50X4	25
M10	65.00	4.00	FSWA4M10X65X4	20
M12	65.00	4.00	FSWA4M12X65X4	20
M16	65.00	4.00	FSWA4M16X65X4	20
M20	65.00	4.00	FSWA4M20X65X4	20
M24	65.00	4.00	FSWA4M24X65X4	20
M10	65.00	5.00	FSWA4M10X65X5	20
M12	65.00	5.00	FSWA4M12X65X5	20
M16	65.00	5.00	FSWA4M16X65X5	20
M20	65.00	5.00	FSWA4M20X65X5	20
M24	65.00	5.00	FSWA4M24X65X5	20
M10	75.00	5.00	FSWA4M10X75X5	10
M12	75.00	5.00	FSWA4M12X75X5	10
M16	75.00	5.00	FSWA4M16X75X5	10
M20	75.00	5.00	FSWA4M20X75X5	10
M24	75.00	5.00	FSWA4M24X75X5	10
M10	75.00	6.00	FSWA4M10X75X6	10
M12	75.00	6.00	FSWA4M12X75X6	10
M16	75.00	6.00	FSWA4M16X75X6	10
M20	75.00	6.00	FSWA4M20X75X6	10
M24	75.00	6.00	FSWA4M24X75X6	10

All measurements are in mm

# SWA

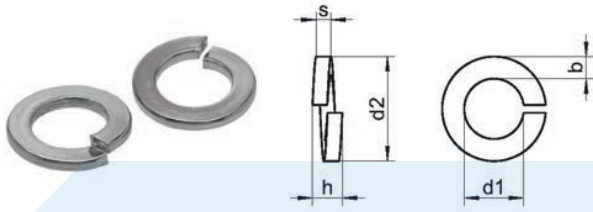
## Spring Washer

DIN 127B

METRIC

A2

304



Size (d)	d1 min.	d2 max.	h min.	s nom.	b nom.	Part Number	Std Pack
M2	2.10	4.40	1.00	0.50	0.90	SWAA2M2	200
M2.5	2.60	5.10	1.20	0.60	1.00	SWAA2M25	200
M3	3.10	6.20	1.60	0.80	1.30	SWAA2M3	200
M4	4.10	7.60	1.80	0.90	1.50	SWAA2M4	200
M5	5.10	9.20	2.40	1.20	1.80	SWAA2M5	200
M6	6.10	11.80	3.20	1.60	2.50	SWAA2M6	100
M8	8.10	14.80	4.00	2.00	3.00	SWAA2M8	100
M10	10.20	18.10	4.40	2.20	3.50	SWAA2M10	100
M12	12.20	21.10	5.00	2.50	4.00	SWAA2M12	100
M14	14.20	24.10	6.00	3.00	4.50	SWAA2M14	100
M16	16.20	27.40	7.00	3.50	5.00	SWAA2M16	100
M20	20.20	33.60	8.00	4.00	6.00	SWAA2M20	100
M24	24.50	40.00	10.00	5.00	7.00	SWAA2M24	50

All measurements are in mm

# SWA

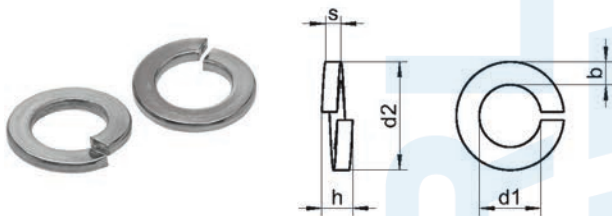
## Spring Washer

DIN 127B

METRIC

A4

316



Size (d)	d1 min.	d2 max.	h min.	s nom.	b nom.	Part Number	Std Pack
M2	2.10	4.40	1.00	0.50	0.90	SWAA4M2	200
M2.5	2.60	5.10	1.20	0.60	1.00	SWAA4M25	200
M3	3.10	6.20	1.60	0.80	1.30	SWAA4M3	200
M4	4.10	7.60	1.80	0.90	1.50	SWAA4M4	200
M5	5.10	9.20	2.40	1.20	1.80	SWAA4M5	200
M6	6.10	11.80	3.20	1.60	2.50	SWAA4M6	100
M8	8.10	14.80	4.00	2.00	3.00	SWAA4M8	100
M10	10.20	18.10	4.40	2.20	3.50	SWAA4M10	100
M12	12.20	21.10	5.00	2.50	4.00	SWAA4M12	100
M14	14.20	24.10	6.00	3.00	4.50	SWAA4M14	100
M16	16.20	27.40	7.00	3.50	5.00	SWAA4M16	100
M18	18.20	29.40	7.00	3.50	5.00	SWAA4M18	100
M20	20.20	33.60	8.00	4.00	6.00	SWAA4M20	100
M22	22.50	35.90	8.00	4.00	6.00	SWAA4M22	50
M24	24.50	40.00	10.00	5.00	7.00	SWAA4M24	50
M27	27.50	43.00	10.00	5.00	7.00	SWAA4M27	25
M30	30.50	48.20	12.00	6.00	8.00	SWAA4M30	25
M33	33.50	55.20	12.00	6.00	10.00	SWAA4M33	25
M36	36.50	58.20	12.00	6.00	10.00	SWAA4M36	25

All measurements are in mm

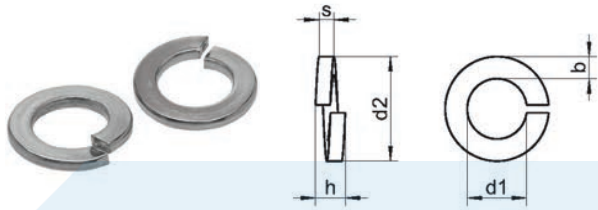


**A2**

# Spring Washer

**SWA****304**

IMPERIAL



Size (d)	d2	s	b	Part Number	Std Pack
1/8	0.24	0.03	0.05	SWAA218	200
5/32	0.29	0.04	0.06	SWAA2532	200
3/16	0.33	0.05	0.62	SWAA2316	200
1/4	0.49	0.06	0.11	SWAA214	100
5/16	0.59	0.08	0.13	SWAA2516	100
3/8	0.68	0.09	0.14	SWAA238	100
7/16	0.78	0.11	0.16	SWAA2716	100
1/2	0.87	0.13	0.17	SWAA212	100
5/8	1.08	0.16	0.20	SWAA258	100
3/4	1.27	0.19	0.23	SWAA234	100
7/8	1.46	0.22	0.27	SWAA278	50
1	1.66	0.25	0.30	SWAA21	50

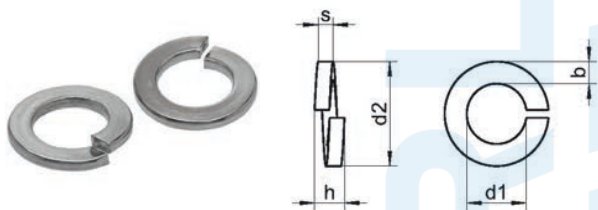
All measurements are in inches

**A4**

# Spring Washer

**SWA****316**

IMPERIAL



Size (d)	d2	s	b	Part Number	Std Pack
1/8	0.24	0.03	0.05	SWAA418	200
5/32	0.29	0.04	0.06	SWAA4532	200
3/16	0.33	0.05	0.62	SWAA4316	200
1/4	0.49	0.06	0.11	SWAA414	100
5/16	0.58	0.08	0.13	SWAA4516	100
3/8	0.68	0.09	0.14	SWAA438	100
7/16	0.78	0.11	0.16	SWAA4716	100
1/2	0.87	0.13	0.17	SWAA412	100
5/8	1.07	0.16	0.20	SWAA458	100
3/4	1.27	0.19	0.23	SWAA434	100
7/8	1.46	0.22	0.27	SWAA478	50
1	1.66	0.25	0.30	SWAA41	50
1-1/8	1.85	0.28	0.33	SWAA4118	25
1-1/4	2.04	0.31	0.36	SWAA4114	25
1-1/2	2.42	0.38	0.42	SWAA4112	25

All measurements are in inches

# CWA

## Cup Washer

### A2

### 304

METRIC



Gauge	d1	d2	Part Number	Std Pack
6G	4.00	11.30	CWAA26G	100
8G	4.80	13.70	CWAA28G	100
10G	5.70	15.00	CWAA210G	100
12G	6.10	17.60	CWAA212G	100
14G	7.40	20.00	CWAA214G	100

All measurements are in mm

# INOX

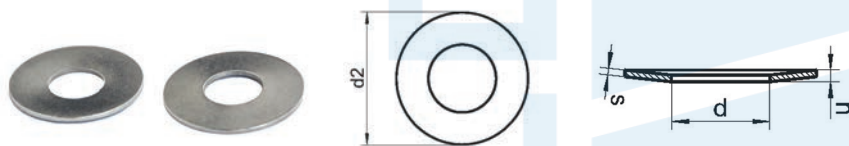
# BWA

## Belleville Washer

DIN 2093

METRIC

### 301



Size	d	d2	s	h	s+h	Part Number	Std Pack
M4	4.20	8.00	0.40	0.20	0.60	BWAA2M4	100
M5	5.20	10.00	0.50	0.25	0.75	BWAA2M5	100
M6	6.20	12.50	0.70	0.30	1.00	BWAA2M6	100
M8	8.20	16.00	0.90	0.35	1.25	BWAA2M8	100
M10	10.20	20.00	1.10	0.45	1.55	BWAA2M10	100
M12	12.20	25.00	1.50	0.55	2.05	BWAA2M12	100
M16	16.30	31.50	1.75	0.70	2.45	BWAA2M16	100
M20	20.40	40.00	2.25	0.90	3.15	BWAA2M20	100

All measurements are in mm

## Common stainless steels and their chemical composition

	Material designation	Material no.	C %	Si ≤%	Mn ≤%	Cr %	Mo %	Ni %	Altri %
A2	X 5 Cr Ni 1810	1.4301	≤0.07	1.0	2.0	17.5 to 19.5	-	8.0 to 10.5	-
	X 2 Cr Ni 1811	1.4306	≤0.03	1.0	2.0	18.9 to 20.0	-	10.0 to 12.0	-
	X 8 Cr Ni 19/10	1.4303	≤0.07	1.0	2.0	17.0 to 19.0	-	11.0 to 13.0	-
A3	X 6 Cr Ni Ti 1811	1.4541	≤0.10	1.0	2.0	17.0 to 19.0	-	9.0 to 12.0	Ti ≥ 5 X % C
A4	X 5 Cr Ni Mo 1712	1.4401	≤0.07	1.0	2.0	16.5 to 18.5	2.0 to 2.5	10.0 to 13.0	-
	X 5 Cr Ni Mo 1712	1.4401	≤0.03	1.0	2.0	16.5 to 18.5	2.0 to 2.5	10.0 to 13.0	-
A5	X 6 Cr Ni Mo Ti 1712	1.4541	≤0.10	1.0	2.0	16.5 to 18.5	2.0 to 2.5	10.5 to 13.5	Ti ≥ 5 X % C

**A2**

# Crinkle Washer

**CRW****304**

BS 4463

METRIC



Size	d1 max.	d2 max.	s max.	Part Number	Std Pack
M2	2.30	4.60	0.53	CRWA2M2	100
M2.5	2.80	5.80	0.53	CRWA2M25	100
M3	3.32	6.40	0.61	CRWA2M3	100
M4	4.42	8.10	0.84	CRWA2M4	100
M5	5.42	9.20	0.89	CRWA2M5	100
M6	6.55	11.50	1.14	CRWA2M6	100
M8	8.55	15.00	1.40	CRWA2M8	100
M10	10.68	19.60	1.70	CRWA2M10	100

All measurements are in mm

**A2**

# Curved Washer

**CUW****304**

DIN 137A

METRIC



Size	d1	d2	s nom.	Part Number	Std Pack
M3	3.20	8.00	0.50	CUWA2M3	100
M4	4.30	9.00	0.50	CUWA2M4	100
M5	5.30	11.00	0.50	CUWA2M5	100
M6	6.40	12.00	0.50	CUWA2M6	100

All measurements are in mm

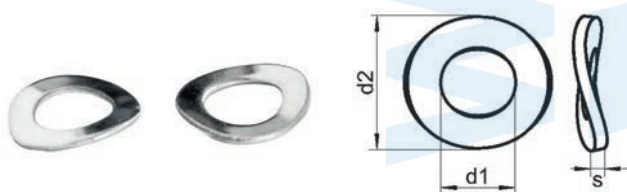
**A2**

# Wave Washer

**WAW****304**

DIN 137B

METRIC



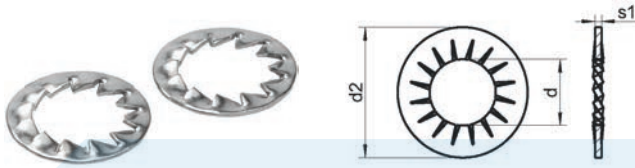
Size	d1	d2	s	Part Number	Std Pack
M3	3.20	8.00	0.50	WAWA2M3	100
M4	4.30	9.00	0.50	WAWA2M4	100
M5	5.30	11.00	0.50	WAWA2M5	100
M6	6.40	12.00	0.50	WAWA2M6	100
M8	8.40	15.00	0.80	WAWA2M8	100

All measurements are in mm

**ILW****Tooth Lock Washer - Internal Serrated****A2**

DIN 6798J

METRIC

**304**

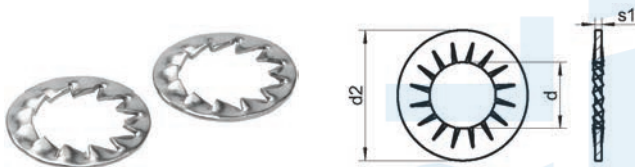
Size	d nom.	d2 nom.	s1	Part Number	Std Pack
M3	3.20	6.00	0.40	ILWA2M3	500
M4	4.30	8.00	0.50	ILWA2M4	500
M5	5.30	10.00	0.60	ILWA2M5	200
M6	6.40	11.00	0.70	ILWA2M6	200
M8	8.40	15.00	0.80	ILWA2M8	200
M10	10.50	18.00	0.90	ILWA2M10	200
M12	13.00	20.50	1.00	ILWA2M12	100
M16	17.00	26.00	1.20	ILWA2M16	100
M20	21.00	33.00	1.40	ILWA2M20	50

All measurements are in mm

**ILW****Tooth Lock Washer - Internal Serrated****A4**

DIN 6798J

METRIC

**316**

Size	d nom.	d2 nom.	s1	Part Number	Std Pack
M3	3.20	6.00	0.40	ILWA4M3	500
M4	4.30	8.00	0.50	ILWA4M4	500
M5	5.30	10.00	0.60	ILWA4M5	200
M6	6.40	11.00	0.70	ILWA4M6	200
M8	8.40	15.00	0.80	ILWA4M8	200
M10	10.50	18.00	0.90	ILWA4M10	200
M12	13.00	20.50	1.00	ILWA4M12	100

All measurements are in mm

**Did you know?**

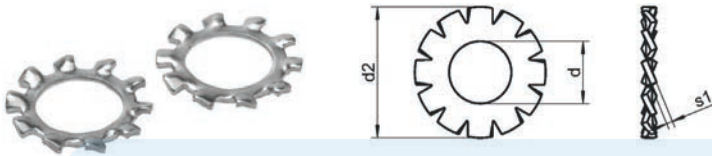
Tooth Lock Washers have serrations that extend radially inward or outward to bite into the bearing surface

This type of washer is especially effective as a lock washer when used with a soft substrate, such as aluminium or plastic, and can resist rotation more than a plain washer on hard surfaces, as the tension between washer and the surface is applied over a much smaller area (the teeth).

**A2****Tooth Lock Washer - External Serrated****ELW****304**

DIN 6798A

METRIC



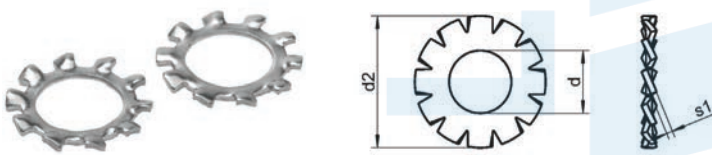
Size	d nom.	d2 nom.	s1	Part Number	Std Pack
M3	3.20	6.00	0.40	ELWA2M3	500
M4	4.30	8.00	0.50	ELWA2M4	500
M5	5.30	10.00	0.60	ELWA2M5	200
M6	6.40	11.00	0.70	ELWA2M6	200
M8	8.40	15.00	0.80	ELWA2M8	200
M10	10.50	18.00	0.90	ELWA2M10	200
M12	13.00	20.50	1.00	ELWA2M12	100
M16	17.00	26.00	1.20	ELWA2M16	100
M20	21.00	33.00	1.40	ELWA2M20	25
M24	25.00	38.00	1.50	ELWA2M24	100
M30	31.00	48.00	1.60	ELWA2M30	100

All measurements are in mm

**A4****Tooth Lock Washer - External Serrated****ELW****316**

DIN 6798A

METRIC



Size	d nom.	d2 nom.	s1	Part Number	Std Pack
M3	3.20	6.00	0.40	ELWA4M3	500
M4	4.30	8.00	0.50	ELWA4M4	500
M5	5.30	10.00	0.60	ELWA4M5	200
M6	6.40	11.00	0.70	ELWA4M6	200
M8	8.40	15.00	0.80	ELWA4M8	200
M10	10.50	18.00	0.90	ELWA4M10	200
M12	13.00	20.50	1.00	ELWA4M12	100

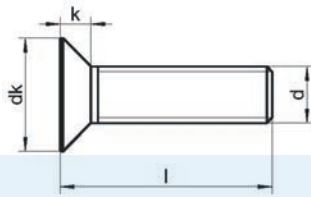
All measurements are in mm

**Did you know?**

Vibration is the enemy of fasteners

It causes loosening, which almost always leads to failures. Fasteners in statically loaded joints do not loosen. However, in any joint that experiences dynamic loads, stress reversals or vibration, fasteners are susceptible to loosening.

Using hardened washers under bolt heads and nuts to distribute bearing stresses, adding bolt length to improve their elasticity and permit greater elongation when preloaded, and retightening after a few hours or days are some of the ways to minimize joint relaxation.



dk max.	3.80	4.70	5.60	7.50	9.20	11.00	14.50	
k max.	1.20	1.50	1.65	2.20	2.50	3.00	4.00	
xr no.	P1	P1	P1	P2	P2	P3	P4	
Length (l)	Size (d)	M2	M2.5	M3	M4	M5	M6	M8
4	Part Number	CPSA2M2X4	CPSA2M25X4	CPSA2M3X4				
	Std Pack	100	100	100				
5	Part Number	CPSA2M2X5	CPSA2M25X5	CPSA2M3X5				
	Std Pack	100	100	100				
6	Part Number	CPSA2M2X6	CPSA2M25X6	CPSA2M3X6	CPSA2M4X6	CPSA2M5X6		
	Std Pack	100	100	100	100	100		
8	Part Number	CPSA2M2X8	CPSA2M25X8	CPSA2M3X8	CPSA2M4X8	CPSA2M5X8	CPSA2M6X8	
	Std Pack	100	100	100	100	100	100	
10	Part Number	CPSA2M2X10	CPSA2M25X10	CPSA2M3X10	CPSA2M4X10	CPSA2M5X10	CPSA2M6X10	CPSA2M8X10
	Std Pack	100	100	100	100	100	100	100
12	Part Number	CPSA2M2X12	CPSA2M25X12	CPSA2M3X12	CPSA2M4X12	CPSA2M5X12	CPSA2M6X12	CPSA2M8X12
	Std Pack	100	100	100	100	100	100	100
16	Part Number	CPSA2M2X16	CPSA2M25X16	CPSA2M3X16	CPSA2M4X16	CPSA2M5X16	CPSA2M6X16	CPSA2M8X16
	Std Pack	100	100	100	100	100	100	100
20	Part Number	CPSA2M2X20	CPSA2M25X20	CPSA2M3X20	CPSA2M4X20	CPSA2M5X20	CPSA2M6X20	CPSA2M8X20
	Std Pack	100	100	100	100	100	100	100
25	Part Number	CPSA2M2X25	CPSA2M25X25	CPSA2M3X25	CPSA2M4X25	CPSA2M5X25	CPSA2M6X25	CPSA2M8X25
	Std Pack	100	100	100	100	100	100	100
30	Part Number			CPSA2M3X30	CPSA2M4X30	CPSA2M5X30	CPSA2M6X30	CPSA2M8X30
	Std Pack			100	100	100	100	100
35	Part Number			CPSA2M3X35	CPSA2M4X35	CPSA2M5X35	CPSA2M6X35	CPSA2M8X35
	Std Pack			100	100	100	100	100
40	Part Number			CPSA2M3X40	CPSA2M4X40	CPSA2M5X40	CPSA2M6X40	CPSA2M8X40
	Std Pack			100	100	100	100	100
45	Part Number					CPSA2M5X45	CPSA2M6X45	CPSA2M8X45
	Std Pack					100	100	100
50	Part Number			CPSA2M3X50	CPSA2M4X50	CPSA2M5X50	CPSA2M6X50	CPSA2M8X50
	Std Pack			100	100	100	100	100
55	Part Number						CPSA2M6X55	
	Std Pack						50	
60	Part Number				CPSA2M4X60	CPSA2M5X60	CPSA2M6X60	CPSA2M8X60
	Std Pack				100	50	50	50
65	Part Number					CPSA2M5X65	CPSA2M6X65	CPSA2M8X65
	Std Pack					50	50	50
70	Part Number					CPSA2M5X70	CPSA2M6X70	CPSA2M8X70
	Std Pack					50	50	50
75	Part Number					CPSA2M5X75	CPSA2M6X75	CPSA2M8X75
	Std Pack					50	50	50
80	Part Number					CPSA2M5X80	CPSA2M6X80	CPSA2M8X80
	Std Pack					50	50	50
90	Part Number						CPSA2M6X90	CPSA2M8X90
	Std Pack						50	50
100	Part Number					CPSA2M5X100	CPSA2M6X100	CPSA2M8X100
	Std Pack					50	50	50

All measurements are in mm

## Did you know?

Machine screws are available in a wide array of configurations, materials, driver head types and sizes

As their name implies, machine screws are used to fasten various components together in machines, tools, appliances, electronic devices and vehicles of every description.



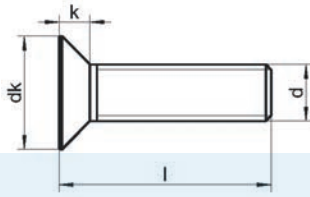
**A4**

# Countersunk Phillips Metal Thread Screw

**CPS****316**

DIN 965 / ISO 7046

METRIC



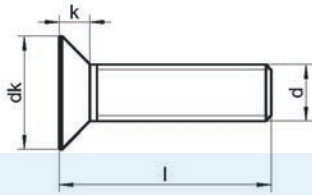
Length (l)	Size (d)	M3	M4	M5	M6	M8	M10
	dk max.	5.60	7.50	9.20	11.00	14.50	18.00
	k max.	1.65	2.20	2.50	3.00	4.00	5.00
	xr no.	P1	P2	P2	P3	P4	P4
6	Part Number	<b>CPSA4M3X6</b>	<b>CPSA4M4X6</b>				
	Std Pack	100	100				
8	Part Number	<b>CPSA4M3X8</b>	<b>CPSA4M4X8</b>				
	Std Pack	100	100				
10	Part Number	<b>CPSA4M3X10</b>	<b>CPSA4M4X10</b>	<b>CPSA4M5X10</b>	<b>CPSA4M6X10</b>		
	Std Pack	100	100	100	100		
12	Part Number	<b>CPSA4M3X12</b>	<b>CPSA4M4X12</b>	<b>CPSA4M5X12</b>	<b>CPSA4M6X12</b>		
	Std Pack	100	100	100	100		
16	Part Number	<b>CPSA4M3X16</b>	<b>CPSA4M4X16</b>	<b>CPSA4M5X16</b>	<b>CPSA4M6X16</b>	<b>CPSA4M8X16</b>	
	Std Pack	100	100	100	100	100	
20	Part Number	<b>CPSA4M3X20</b>	<b>CPSA4M4X20</b>	<b>CPSA4M5X20</b>	<b>CPSA4M6X20</b>	<b>CPSA4M8X20</b>	<b>CPSA4M10X20</b>
	Std Pack	100	100	100	100	100	50
25	Part Number	<b>CPSA4M3X25</b>	<b>CPSA4M4X25</b>	<b>CPSA4M5X25</b>	<b>CPSA4M6X25</b>	<b>CPSA4M8X25</b>	<b>CPSA4M10X25</b>
	Std Pack	100	100	100	100	100	50
30	Part Number	<b>CPSA4M3X30</b>	<b>CPSA4M4X30</b>	<b>CPSA4M5X30</b>	<b>CPSA4M6X30</b>	<b>CPSA4M8X30</b>	<b>CPSA4M10X30</b>
	Std Pack	100	100	100	100	100	50
35	Part Number	<b>CPSA4M3X35</b>	<b>CPSA4M4X35</b>	<b>CPSA4M5X35</b>	<b>CPSA4M6X35</b>	<b>CPSA4M8X35</b>	
	Std Pack	100	100	100	100	100	
40	Part Number	<b>CPSA4M3X40</b>	<b>CPSA4M4X40</b>	<b>CPSA4M5X40</b>	<b>CPSA4M6X40</b>	<b>CPSA4M8X40</b>	<b>CPSA4M10X40</b>
	Std Pack	100	100	100	100	100	50
45	Part Number			<b>CPSA4M5X45</b>	<b>CPSA4M6X45</b>	<b>CPSA4M8X45</b>	
	Std Pack			100	100	100	
50	Part Number	<b>CPSA4M3X50</b>	<b>CPSA4M4X50</b>	<b>CPSA4M5X50</b>	<b>CPSA4M6X50</b>	<b>CPSA4M8X50</b>	<b>CPSA4M10X50</b>
	Std Pack	100	100	100	100	100	50
60	Part Number		<b>CPSA4M4X60</b>	<b>CPSA4M5X60</b>	<b>CPSA4M6X60</b>	<b>CPSA4M8X60</b>	<b>CPSA4M10X60</b>
	Std Pack		100	50	50	50	50
65	Part Number			<b>CPSA4M5X65</b>	<b>CPSA4M6X65</b>	<b>CPSA4M8X65</b>	
	Std Pack			50	50	50	
70	Part Number			<b>CPSA4M5X70</b>	<b>CPSA4M6X70</b>	<b>CPSA4M8X70</b>	<b>CPSA4M10X70</b>
	Std Pack			50	50	50	50
75	Part Number			<b>CPSA4M5X75</b>	<b>CPSA4M6X75</b>	<b>CPSA4M8X75</b>	
	Std Pack			50	50	50	
80	Part Number			<b>CPSA4M5X80</b>	<b>CPSA4M6X80</b>	<b>CPSA4M8X80</b>	<b>CPSA4M10X80</b>
	Std Pack			50	100	50	50
90	Part Number				<b>CPSA4M6X90</b>		
	Std Pack				50		
100	Part Number			<b>CPSA4M5X100</b>	<b>CPSA4M6X100</b>	<b>CPSA4M8X100</b>	<b>CPSA4M10X100</b>
	Std Pack			50	50	50	50

All measurements are in mm

## Did you know?

The choice between metric and imperial fasteners only falls as a matter of preference.

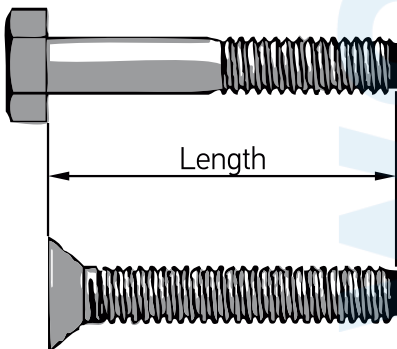
They still function and perform similarly. These two fasteners even look and feel the same. The only key difference, however, is their units of measurement. While the physical appearance and functionality of metric and imperial fasteners share the same characteristics, the measuring units of these two can create a huge impact during their application.



		0.22	0.27	0.33	0.44	0.55
dk max.		0.22	0.27	0.33	0.44	0.55
k max.		0.06	0.07	0.08	0.11	0.14
xr no.		P1	P2	P2	P3	P4
Length (l)	Size (d)	1/8	5/32	3/16	1/4	5/16
1/4	Part Number	<b>CPSA218BSWX14</b>	<b>CPSA2532BSWX14</b>			
	Std Pack	100	100			
3/8	Part Number	<b>CPSA218BSWX38</b>	<b>CPSA2532BSWX38</b>	<b>CPSA2316BSWX38</b>		
	Std Pack	100	100	100		
1/2	Part Number	<b>CPSA218BSWX12</b>	<b>CPSA2532BSWX12</b>	<b>CPSA2316BSWX12</b>	<b>CPSA214BSWX12</b>	
	Std Pack	100	100	100	100	
5/8	Part Number			<b>CPSA2316BSWX58</b>	<b>CPSA214BSWX58</b>	
	Std Pack			100	100	
3/4	Part Number	<b>CPSA218BSWX34</b>	<b>CPSA2532BSWX34</b>	<b>CPSA2316BSWX34</b>	<b>CPSA214BSWX34</b>	
	Std Pack	100	100	100	100	
1	Part Number	<b>CPSA218BSWX1</b>	<b>CPSA2532BSWX1</b>	<b>CPSA2316BSWX1</b>	<b>CPSA214BSWX1</b>	<b>CPSA2516BSWX1</b>
	Std Pack	100	100	100	100	100
1 1/4	Part Number			<b>CPSA2316BSWX114</b>	<b>CPSA214BSWX114</b>	<b>CPSA2516BSWX114</b>
	Std Pack			100	100	100
1 1/2	Part Number			<b>CPSA2316BSWX112</b>	<b>CPSA214BSWX112</b>	<b>CPSA2516BSWX112</b>
	Std Pack			100	100	100
2	Part Number			<b>CPSA2316BSWX2</b>	<b>CPSA214BSWX2</b>	<b>CPSA2516BSWX2</b>
	Std Pack			100	100	100
2 1/2	Part Number			<b>CPSA2316BSWX212</b>	<b>CPSA214BSWX212</b>	<b>CPSA2516BSWX212</b>
	Std Pack			100	100	100
3	Part Number			<b>CPSA2316BSWX3</b>	<b>CPSA214BSWX3</b>	<b>CPSA2516BSWX3</b>
	Std Pack			100	100	100
4	Part Number				<b>CPSA214BSWX4</b>	
	Std Pack				100	

All measurements are in inches

## Fastener length



Fastener length is usually measured from where the material is to be to the end of the fastener.

Countersunk fasteners are measured overall and non-countersunk fasteners are measured from under the head.

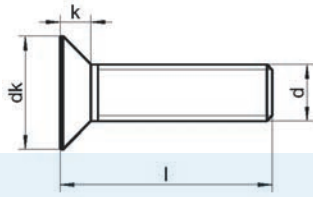
**A4**

# Countersunk Phillips Metal Thread Screw

**CPS****316**

BS 450

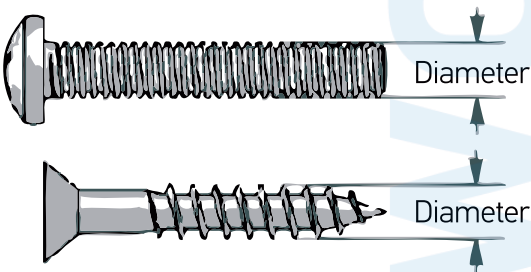
BSW



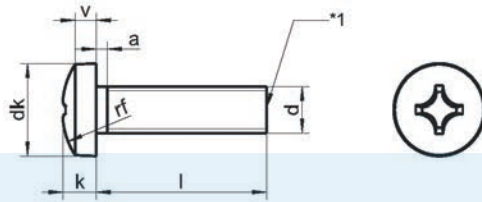
dk max.		0.22	0.27	0.33	0.44	0.55
k max.		0.06	0.07	0.08	0.11	0.14
xr no.		P1	P2	P2	P3	P4
Length (l)	Size (d)	1/8	5/32	3/16	1/4	5/16
1/4	Part Number	<b>CPSA418BSWX14</b>	<b>CPSA4532BSWX14</b>	<b>CPSA4316BSWX14</b>		
	Std Pack	100	100	100		
3/8	Part Number	<b>CPSA418BSWX38</b>	<b>CPSA4532BSWX38</b>	<b>CPSA4316BSWX38</b>		
	Std Pack	100	100	100		
1/2	Part Number	<b>CPSA418BSWX12</b>	<b>CPSA4532BSWX12</b>	<b>CPSA4316BSWX12</b>	<b>CPSA414BSWX12</b>	
	Std Pack	100	100	100	100	
5/8	Part Number			<b>CPSA4316BSWX58</b>	<b>CPSA414BSWX58</b>	
	Std Pack			100	100	
3/4	Part Number	<b>CPSA418BSWX34</b>	<b>CPSA4532BSWX34</b>	<b>CPSA4316BSWX34</b>	<b>CPSA414BSWX34</b>	
	Std Pack	100	100	100	100	
1	Part Number	<b>CPSA418BSWX1</b>	<b>CPSA4532BSWX1</b>	<b>CPSA4316BSWX1</b>	<b>CPSA414BSWX1</b>	<b>CPSA4516BSWX1</b>
	Std Pack	100	100	100	100	100
1 1/4	Part Number			<b>CPSA4316BSWX114</b>	<b>CPSA414BSWX114</b>	<b>CPSA4516BSWX114</b>
	Std Pack			100	100	100
1 1/2	Part Number			<b>CPSA4316BSWX112</b>	<b>CPSA414BSWX112</b>	<b>CPSA4516BSWX112</b>
	Std Pack			100	100	100
2	Part Number			<b>CPSA4316BSWX2</b>	<b>CPSA414BSWX2</b>	<b>CPSA4516BSWX2</b>
	Std Pack			100	100	100
2 1/2	Part Number			<b>CPSA4316BSWX212</b>	<b>CPSA414BSWX212</b>	<b>CPSA4516BSWX212</b>
	Std Pack			100	100	100
3	Part Number			<b>CPSA4316BSWX3</b>	<b>CPSA414BSWX3</b>	
	Std Pack			100	100	
4	Part Number				<b>CPSA414BSWX4</b>	
	Std Pack				100	

**All measurements are in inches**

## Fastener diameter



For most types of fasteners, the diameter is measured on the outside of the threads.



Length (l)	Size (d)	M2	M2.5	M3	M4	M5	M6	M8
dk max.		4.00	5.00	6.00	8.00	10.00	12.00	16.00
k max.		1.72	2.12	2.52	3.25	3.95	4.75	6.15
xr no.		P1	P1	P1	P2	P2	P3	P4
v approx.		1.10	1.30	1.60	2.00	2.50	3.00	3.70
a max.		0.80	0.90	1.00	1.40	1.60	2.00	2.50
rf approx.		4.00	5.00	6.00	8.00	10.00	12.00	16.00
4	Part Number	PPSA2M2X4	PPSA2M25X4	PPSA2M3X4				
	Std Pack	100	100	100				
5	Part Number	PPSA2M2X5	PPSA2M25X5	PPSA2M3X5				
	Std Pack	100	100	100				
6	Part Number	PPSA2M2X6	PPSA2M25X6	PPSA2M3X6	PPSA2M4X6	PPSA2M5X6		
	Std Pack	100	100	100	100	100		
8	Part Number	PPSA2M2X8	PPSA2M25X8	PPSA2M3X8	PPSA2M4X8	PPSA2M5X8	PPSA2M6X8	
	Std Pack	100	100	100	100	100	100	
10	Part Number	PPSA2M2X10	PPSA2M25X10	PPSA2M3X10	PPSA2M4X10	PPSA2M5X10	PPSA2M6X10	PPSA2M8X10
	Std Pack	100	100	100	100	100	100	100
12	Part Number	PPSA2M2X12	PPSA2M25X12	PPSA2M3X12	PPSA2M4X12	PPSA2M5X12	PPSA2M6X12	PPSA2M8X12
	Std Pack	100	100	100	100	100	100	100
16	Part Number	PPSA2M2X16	PPSA2M25X16	PPSA2M3X16	PPSA2M4X16	PPSA2M5X16	PPSA2M6X16	PPSA2M8X16
	Std Pack	100	100	100	100	100	100	100
20	Part Number	PPSA2M2X20	PPSA2M25X20	PPSA2M3X20	PPSA2M4X20	PPSA2M5X20	PPSA2M6X20	PPSA2M8X20
	Std Pack	100	100	100	100	100	100	100
25	Part Number	PPSA2M2X25	PPSA2M25X25	PPSA2M3X25	PPSA2M4X25	PPSA2M5X25	PPSA2M6X25	PPSA2M8X25
	Std Pack	100	100	100	100	100	100	100
30	Part Number			PPSA2M3X30	PPSA2M4X30	PPSA2M5X30	PPSA2M6X30	PPSA2M8X30
	Std Pack			100	100	100	100	100
35	Part Number			PPSA2M3X35	PPSA2M4X35	PPSA2M5X35	PPSA2M6X35	PPSA2M8X35
	Std Pack			100	100	100	100	100
40	Part Number			PPSA2M3X40	PPSA2M4X40	PPSA2M5X40	PPSA2M6X40	PPSA2M8X40
	Std Pack			100	100	100	100	100
45	Part Number					PPSA2M5X45	PPSA2M6X45	PPSA2M8X45
	Std Pack					100	100	100
50	Part Number			PPSA2M3X50	PPSA2M4X50	PPSA2M5X50	PPSA2M6X50	PPSA2M8X50
	Std Pack			100	100	100	100	100
55	Part Number						PPSA2M6X55	
	Std Pack						50	
60	Part Number				PPSA2M4X60	PPSA2M5X60	PPSA2M6X60	PPSA2M8X60
	Std Pack				100	100	50	50
65	Part Number					PPSA2M5X65	PPSA2M6X65	PPSA2M8X65
	Std Pack					100	50	50
70	Part Number					PPSA2M5X70	PPSA2M6X70	PPSA2M8X70
	Std Pack					100	50	50
75	Part Number					PPSA2M5X75	PPSA2M6X75	PPSA2M8X75
	Std Pack					100	50	50
80	Part Number					PPSA2M5X80	PPSA2M6X80	PPSA2M8X80
	Std Pack					100	50	50
90	Part Number						PPSA2M6X90	PPSA2M8X90
	Std Pack						50	50
100	Part Number					PPSA2M5X100	PPSA2M6X100	PPSA2M8X100
	Std Pack					100	50	50

All measurements are in mm

## Did you know?

Machine screws differ from bolts as they have a shaft with a helical groove or thread formed on its surface

The primary tightening of the fastened joint is accomplished by turning the head of the screw. With a bolt, the primary tightening procedure might be accomplished by turning the nut holding the bolt through a hole. Metal Thread Machine Screws are often used with nuts as well as driven into tapped holes. They might be considered a screw, a bolt or a stove bolt. Mostly available in smaller sizes in 304 & 316 grade.

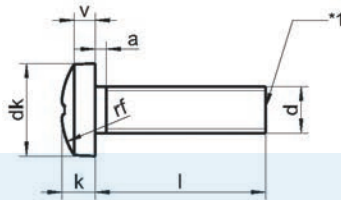
**A4**

# Pan Phillips Metal Thread Screw

**PPS****316**

DIN 7985 / ISO 7045

METRIC



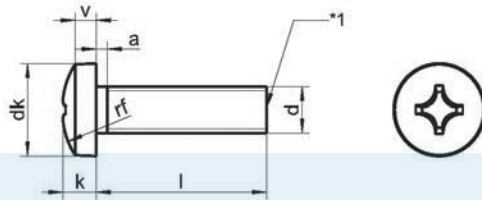
Length (l)	Size (d)	M3	M4	M5	M6	M8	M10
6	Part Number	PPSA4M3X6	PPSA4M4X6	PPSA4M5X6			
	Std Pack	100	100	100			
8	Part Number	PPSA4M3X8	PPSA4M4X8	PPSA4M5X8			
	Std Pack	100	100	100			
10	Part Number	PPSA4M3X10	PPSA4M4X10	PPSA4M5X10	PPSA4M6X10		
	Std Pack	100	100	100	100		
12	Part Number	PPSA4M3X12	PPSA4M4X12	PPSA4M5X12	PPSA4M6X12		
	Std Pack	100	100	100	100		
16	Part Number	PPSA4M3X16	PPSA4M4X16	PPSA4M5X16	PPSA4M6X16	PPSA4M8X16	
	Std Pack	100	100	100	100	100	
20	Part Number	PPSA4M3X20	PPSA4M4X20	PPSA4M5X20	PPSA4M6X20	PPSA4M8X20	PPSA4M10X20
	Std Pack	100	100	100	100	100	50
25	Part Number	PPSA4M3X25	PPSA4M4X25	PPSA4M5X25	PPSA4M6X25	PPSA4M8X25	PPSA4M10X25
	Std Pack	100	100	100	100	100	50
30	Part Number	PPSA4M3X30	PPSA4M4X30	PPSA4M5X30	PPSA4M6X30	PPSA4M8X30	PPSA4M10X30
	Std Pack	100	100	100	100	100	50
35	Part Number	PPSA4M3X35	PPSA4M4X35	PPSA4M5X35	PPSA4M6X35	PPSA4M8X35	
	Std Pack	100	100	100	100	100	
40	Part Number	PPSA4M3X40	PPSA4M4X40	PPSA4M5X40	PPSA4M6X40	PPSA4M8X40	PPSA4M10X40
	Std Pack	100	100	100	100	100	50
45	Part Number			PPSA4M5X45	PPSA4M6X45	PPSA4M8X45	
	Std Pack			100	100	100	
50	Part Number	PPSA4M3X50	PPSA4M4X50	PPSA4M5X50	PPSA4M6X50	PPSA4M8X50	PPSA4M10X50
	Std Pack	100	100	100	100	100	50
60	Part Number		PPSA4M4X60	PPSA4M5X60	PPSA4M6X60	PPSA4M8X60	PPSA4M10X60
	Std Pack		100	100	50	50	50
65	Part Number			PPSA4M5X65	PPSA4M6X65	PPSA4M8X65	
	Std Pack			100	50	50	
70	Part Number			PPSA4M5X70	PPSA4M6X70	PPSA4M8X70	PPSA4M10X70
	Std Pack			100	50	50	50
75	Part Number			PPSA4M5X75	PPSA4M6X75	PPSA4M8X75	
	Std Pack			100	50	50	
80	Part Number			PPSA4M5X80	PPSA4M6X80	PPSA4M8X80	PPSA4M10X80
	Std Pack			100	50	50	50
90	Part Number				PPSA4M6X90		
	Std Pack				50		
100	Part Number			PPSA4M5X100	PPSA4M6X100	PPSA4M8X100	PPSA4M10X100
	Std Pack			100	50	50	50

All measurements are in mm

## Did you know?

Machine screws are versatile in the number of types of joints they can fasten

They can be used for fastening two or more components with through holes and a nut behind all the components. They can be passed through two or more components and then finally threaded into the rearmost component, which is solid and uniformly threaded and acts as the nut in the joint. Two opposing machine screws can also be used with threaded couplings to separate two plates or boards by the distance equal to the length of the coupling. Machine screws are also used for many types of electrical connections and terminal strips. They are also used to fasten many gasketed devices that are sandwiched together such as waterproof motor casings. They can also be threaded into PEM brand fasteners, which are threaded metallic inserts cast right into plastic parts.



Length (l)	Size (d)	1/8	5/32	3/16	1/4	5/16
	dk max.	0.25	0.30	0.37	0.49	0.62
	k max.	0.09	0.12	0.13	0.18	0.22
	xr no.	P1	P2	P2	P3	P4
1/4	Part Number	PPSA218BSWX14	PPSA2532BSWX14	PPSA2316BSWX14		
	Std Pack	100	100	100		
3/8	Part Number	PPSA218BSWX38	PPSA2532BSWX38	PPSA2316BSWX38		
	Std Pack	100	100	100		
1/2	Part Number	PPSA218BSWX12	PPSA2532BSWX12	PPSA2316BSWX12	PPSA214BSWX12	
	Std Pack	100	100	100	100	
5/8	Part Number			PPSA2316BSWX58	PPSA214BSWX58	
	Std Pack			100	100	
3/4	Part Number	PPSA218BSWX34	PPSA2532BSWX34	PPSA2316BSWX34	PPSA214BSWX34	PPSA2516BSWX34
	Std Pack	100	100	100	100	100
1	Part Number	PPSA218BSWX1	PPSA2532BSWX1	PPSA2316BSWX1	PPSA214BSWX1	PPSA2516BSWX1
	Std Pack	100	100	100	100	100
1 1/4	Part Number			PPSA2316BSWX114	PPSA214BSWX114	PPSA2516BSWX114
	Std Pack			100	100	100
1 1/2	Part Number			PPSA2316BSWX112	PPSA214BSWX112	PPSA2516BSWX112
	Std Pack			100	100	100
2	Part Number			PPSA2316BSWX2	PPSA214BSWX2	PPSA2516BSWX2
	Std Pack			100	100	100
2 1/2	Part Number			PPSA2316BSWX212	PPSA214BSWX212	PPSA2516BSWX212
	Std Pack			100	100	100
3	Part Number			PPSA2316BSWX3	PPSA214BSWX3	PPSA2516BSWX3
	Std Pack			100	100	100
4	Part Number				PPSA214BSWX4	
	Std Pack				100	

All measurements are in inches

## Common fasteners



**Hex bolts** are used in machinery and construction. Can be used with a nut, or in a tapped hole. Fully threaded hex bolts are also known as **Set Screws/Bolts**.



**Batten screws** have large threads and a smooth shank for pulling two pieces of material together. They can be used in wood and other soft materials.



**Sheet metal screws** have sharp points and threads, and are designed to be driven directly into sheet metal. They can also be used in softer materials like plastic, fiberglass, or wood.



**Machine screws** are fully threaded for use with a nut or in a tapped hole. Can also be known as a **Metal Thread Screw**.



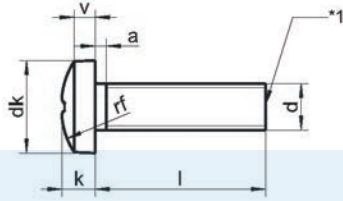
**A4**

# Pan Phillips Metal Thread Screw

**PPS****316**

BS 450

BSW



dk max.	0.25	0.30	0.37	0.49	0.62	
k max.	0.09	0.12	0.13	0.18	0.22	
xr no.	P1	P2	P2	P3	P4	
Length (l)	Size (d)	1/8	5/32	3/16	1/4	5/16
1/4	Part Number	PPSA418BSWX14	PPSA4532BSWX14	PPSA4316BSWX14		
	Std Pack	100	100	100		
3/8	Part Number	PPSA418BSWX38	PPSA4532BSWX38	PPSA4316BSWX38		
	Std Pack	100	100	100		
1/2	Part Number	PPSA418BSWX12	PPSA4532BSWX12	PPSA4316BSWX12	PPSA414BSWX12	
	Std Pack	100	100	100	100	
5/8	Part Number			PPSA4316BSWX58	PPSA414BSWX58	
	Std Pack			100	100	
3/4	Part Number	PPSA418BSWX34	PPSA4532BSWX34	PPSA4316BSWX34	PPSA414BSWX34	PPSA4516BSWX34
	Std Pack	100	100	100	100	100
1	Part Number	PPSA418BSWX1	PPSA4532BSWX1	PPSA4316BSWX1	PPSA414BSWX1	PPSA4516BSWX1
	Std Pack	100	100	100	100	100
1 1/4	Part Number			PPSA4316BSWX114	PPSA414BSWX114	PPSA4516BSWX114
	Std Pack			100	100	100
1 1/2	Part Number			PPSA4316BSWX112	PPSA414BSWX112	PPSA4516BSWX112
	Std Pack			100	100	100
2	Part Number			PPSA4316BSWX2	PPSA414BSWX2	PPSA4516BSWX2
	Std Pack			100	100	100
2 1/2	Part Number			PPSA4316BSWX212	PPSA414BSWX212	PPSA4516BSWX212
	Std Pack			100	100	100
3	Part Number			PPSA4316BSWX3	PPSA414BSWX3	PPSA4516BSWX3
	Std Pack			100	100	100
4	Part Number				PPSA414BSWX4	
	Std Pack				100	

**All measurements are in inches**

## Common fasteners



**Socket screws** are machine screws with an internal hex socket (Allen) drive. Longer lengths may have a shank.



**Hex Coach Screws**, are large wood screws with hex heads. Typically used for wood construction and landscaping.



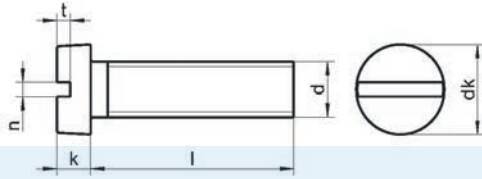
**Cup head Square neck bolts** have smooth, domed heads with a square section underneath that pulls into the material to prevent spinning during installation.



**Nuts** are used to fasten machine threaded fasteners in through-hole applications. Lock nuts help prevent loosening.



**Washers** spread the load over a greater surface area when tightening a bolt, screw or nut. Lock washers help preventing loosening.



		5.50	7.00	8.50	10.00	13.00
dk max.		5.50	7.00	8.50	10.00	13.00
k max.		2.00	2.60	3.30	3.90	5.00
n nom.		0.80	1.20	1.20	1.60	2.00
t min.		0.85	1.10	1.30	1.60	2.00
Length (l)	Size (d)	M3	M4	M5	M6	M8
6	Part Number	<b>CHSA4M3X6</b>	<b>CHSA4M4X6</b>			
	Std Pack	100	100			
8	Part Number	<b>CHSA4M3X8</b>	<b>CHSA4M4X8</b>	<b>CHSA4M5X8</b>		
	Std Pack	100	100	100		
10	Part Number	<b>CHSA4M3X10</b>	<b>CHSA4M4X10</b>	<b>CHSA4M5X10</b>	<b>CHSA4M6X10</b>	
	Std Pack	100	100	100	100	
12	Part Number	<b>CHSA4M3X12</b>	<b>CHSA4M4X12</b>	<b>CHSA4M5X12</b>	<b>CHSA4M6X12</b>	<b>CHSA4M8X12</b>
	Std Pack	100	100	100	100	100
16	Part Number	<b>CHSA4M3X16</b>	<b>CHSA4M4X16</b>	<b>CHSA4M5X16</b>	<b>CHSA4M6X16</b>	<b>CHSA4M8X16</b>
	Std Pack	100	100	100	100	100
20	Part Number	<b>CHSA4M3X20</b>	<b>CHSA4M4X20</b>	<b>CHSA4M5X20</b>	<b>CHSA4M6X20</b>	<b>CHSA4M8X20</b>
	Std Pack	100	100	100	100	100
25	Part Number	<b>CHSA4M3X25</b>	<b>CHSA4M4X25</b>	<b>CHSA4M5X25</b>	<b>CHSA4M6X25</b>	<b>CHSA4M8X25</b>
	Std Pack	100	100	100	100	100
30	Part Number	<b>CHSA4M3X30</b>	<b>CHSA4M4X30</b>	<b>CHSA4M5X30</b>	<b>CHSA4M6X30</b>	<b>CHSA4M8X30</b>
	Std Pack	100	100	100	100	100
35	Part Number		<b>CHSA4M4X35</b>	<b>CHSA4M5X35</b>	<b>CHSA4M6X35</b>	<b>CHSA4M8X35</b>
	Std Pack		100	100	100	100
40	Part Number		<b>CHSA4M4X40</b>	<b>CHSA4M5X40</b>	<b>CHSA4M6X40</b>	<b>CHSA4M8X40</b>
	Std Pack		100	100	100	100
45	Part Number		<b>CHSA4M4X45</b>	<b>CHSA4M5X45</b>	<b>CHSA4M6X45</b>	<b>CHSA4M8X45</b>
	Std Pack		100	100	100	100
50	Part Number		<b>CHSA4M4X50</b>	<b>CHSA4M5X50</b>	<b>CHSA4M6X50</b>	<b>CHSA4M8X50</b>
	Std Pack		100	100	100	100

All measurements are in mm

## Did you know?

The Phillips head is an improvement to the slotted screw

Cross-shaped grooves that do not extend to the edge of the screw head accept a Phillips-head screwdriver. These heads, which have a slight circular shape where the slots cross, provide a larger mating surface between the screw and the screwdriver, which minimises wear and helps prevent slipping.

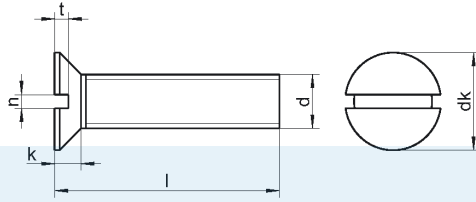
**A4**

# Countersunk Slot Metal Thread Screw

**CSS****316**

DIN 963

METRIC



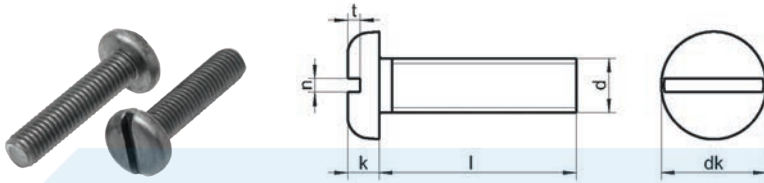
		5.60	7.50	9.20	11.00	14.50
dk max.		5.60	7.50	9.20	11.00	14.50
k max.		1.65	2.20	2.50	3.00	4.00
n nom.		0.80	1.00	1.20	1.60	2.00
t min.		0.60	0.80	1.00	1.20	1.60
Length (l)	Size (d)	M3	M4	M5	M6	M8
6	Part Number	<b>CSSA4M3X6</b>	<b>CSSA4M4X6</b>			
	Std Pack	100	100			
8	Part Number	<b>CSSA4M3X8</b>	<b>CSSA4M4X8</b>	<b>CSSA4M5X8</b>		
	Std Pack	100	100	100		
10	Part Number	<b>CSSA4M3X10</b>	<b>CSSA4M4X10</b>	<b>CSSA4M5X10</b>	<b>CSSA4M6X10</b>	
	Std Pack	100	100	100	100	
12	Part Number	<b>CSSA4M3X12</b>	<b>CSSA4M4X12</b>	<b>CSSA4M5X12</b>	<b>CSSA4M6X12</b>	<b>CSSA4M8X12</b>
	Std Pack	100	100	100	100	100
16	Part Number	<b>CSSA4M3X16</b>	<b>CSSA4M4X16</b>	<b>CSSA4M5X16</b>	<b>CSSA4M6X16</b>	<b>CSSA4M8X16</b>
	Std Pack	100	100	100	100	100
20	Part Number	<b>CSSA4M3X20</b>	<b>CSSA4M4X20</b>	<b>CSSA4M5X20</b>	<b>CSSA4M6X20</b>	<b>CSSA4M8X20</b>
	Std Pack	100	100	100	100	100
25	Part Number	<b>CSSA4M3X25</b>	<b>CSSA4M4X25</b>	<b>CSSA4M5X25</b>	<b>CSSA4M6X25</b>	<b>CSSA4M8X25</b>
	Std Pack	100	100	100	100	100
30	Part Number	<b>CSSA4M3X30</b>	<b>CSSA4M4X30</b>	<b>CSSA4M5X30</b>	<b>CSSA4M6X30</b>	<b>CSSA4M8X30</b>
	Std Pack	100	100	100	100	100
35	Part Number		<b>CSSA4M4X35</b>	<b>CSSA4M5X35</b>	<b>CSSA4M6X35</b>	<b>CSSA4M8X35</b>
	Std Pack		100	100	100	100
40	Part Number		<b>CSSA4M4X40</b>	<b>CSSA4M5X40</b>	<b>CSSA4M6X40</b>	<b>CSSA4M8X40</b>
	Std Pack		100	100	100	100
45	Part Number		<b>CSSA4M4X45</b>	<b>CSSA4M5X45</b>	<b>CSSA4M6X45</b>	<b>CSSA4M8X45</b>
	Std Pack		100	100	100	100
50	Part Number		<b>CSSA4M4X50</b>	<b>CSSA4M5X50</b>	<b>CSSA4M6X50</b>	<b>CSSA4M8X50</b>
	Std Pack		100	100	100	100

All measurements are in mm

## Did you know?

Over turning the screws can ruin their holding ability depending upon the thickness of your materials

Another issue that you can cause with overdriving a screw is stripping its head. When you do this, you no longer can tighten or loosen it when necessary. Stripping the threads on the screws is also a possibility when you turn the screws in the wrong direction or into a threaded washer in a crooked position. At times, this can prevent you from removing the screws.



dk max.	6.00	8.00	10.00	12.00	16.00	
k max.	1.80	2.40	3.00	3.60	4.80	
n	0.80	1.20	1.20	1.60	2.00	
t min.	0.70	1.00	1.20	1.40	1.90	
Length (l)	Size (d)	M3	M4	M5	M6	M8
6	Part Number	<b>PSSA4M3X6</b>	<b>PSSA4M4X6</b>			
	Std Pack	100	100			
8	Part Number	<b>PSSA4M3X8</b>	<b>PSSA4M4X8</b>	<b>PSSA4M5X8</b>		
	Std Pack	100	100	100		
10	Part Number	<b>PSSA4M3X10</b>	<b>PSSA4M4X10</b>	<b>PSSA4M5X10</b>	<b>PSSA4M6X10</b>	
	Std Pack	100	100	100	100	
12	Part Number	<b>PSSA4M3X12</b>	<b>PSSA4M4X12</b>	<b>PSSA4M5X12</b>	<b>PSSA4M6X12</b>	<b>PSSA4M8X12</b>
	Std Pack	100	100	100	100	100
16	Part Number	<b>PSSA4M3X16</b>	<b>PSSA4M4X16</b>	<b>PSSA4M5X16</b>	<b>PSSA4M6X16</b>	<b>PSSA4M8X16</b>
	Std Pack	100	100	100	100	100
20	Part Number	<b>PSSA4M3X20</b>	<b>PSSA4M4X20</b>	<b>PSSA4M5X20</b>	<b>PSSA4M6X20</b>	<b>PSSA4M8X20</b>
	Std Pack	100	100	100	100	100
25	Part Number	<b>PSSA4M3X25</b>	<b>PSSA4M4X25</b>	<b>PSSA4M5X25</b>	<b>PSSA4M6X25</b>	<b>PSSA4M8X25</b>
	Std Pack	100	100	100	100	100
30	Part Number	<b>PSSA4M3X30</b>	<b>PSSA4M4X30</b>	<b>PSSA4M5X30</b>	<b>PSSA4M6X30</b>	<b>PSSA4M8X30</b>
	Std Pack	100	100	100	100	100
35	Part Number		<b>PSSA4M4X35</b>	<b>PSSA4M5X35</b>	<b>PSSA4M6X35</b>	<b>PSSA4M8X35</b>
	Std Pack		100	100	100	100
40	Part Number		<b>PSSA4M4X40</b>	<b>PSSA4M5X40</b>	<b>PSSA4M6X40</b>	<b>PSSA4M8X40</b>
	Std Pack		100	100	100	100
45	Part Number		<b>PSSA4M4X45</b>	<b>PSSA4M5X45</b>	<b>PSSA4M6X45</b>	<b>PSSA4M8X45</b>
	Std Pack		100	100	100	100
50	Part Number		<b>PSSA4M4X50</b>	<b>PSSA4M5X50</b>	<b>PSSA4M6X50</b>	<b>PSSA4M8X50</b>
	Std Pack		100	100	100	100

All measurements are in mm

## Did you know?

Machine screws, also sometimes referred to as machine bolts, are normally smaller than the average screw

Typically, machine screws are designed to be fastened to an existing tapped hole on a metal surface, usually in conjunction with a corresponding nut. The main differentiating characteristics of machine screws are overall size, shape of head, slot type, length, material, and thread type.

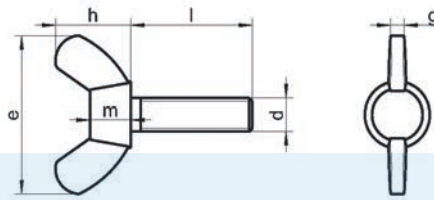
**A4**

# Wing Screw

**WSC****316**

DIN 316AF

METRIC



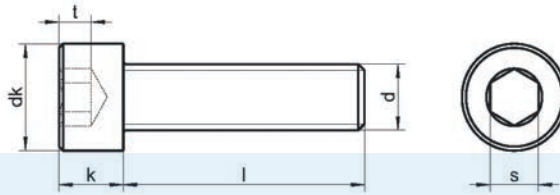
e max.		20.00	26.00	33.00
m max.		4.60	6.50	8.00
h max.		10.50	13.00	17.00
g max.		1.90	2.30	2.30
Length (l)	Size (d)	M4	M5	M6
10	Part Number	<b>WSCA4M4X10</b>	<b>WSCA4M5X10</b>	<b>WSCA4M6X10</b>
	Std Pack	100	100	100
12	Part Number	<b>WSCA4M4X12</b>	<b>WSCA4M5X12</b>	<b>WSCA4M6X12</b>
	Std Pack	100	100	100
16	Part Number	<b>WSCA4M4X16</b>	<b>WSCA4M5X16</b>	<b>WSCA4M6X16</b>
	Std Pack	100	100	100
20	Part Number	<b>WSCA4M4X20</b>	<b>WSCA4M5X20</b>	<b>WSCA4M6X20</b>
	Std Pack	100	100	100
25	Part Number	<b>WSCA4M4X25</b>	<b>WSCA4M5X25</b>	<b>WSCA4M6X25</b>
	Std Pack	100	100	100
30	Part Number	<b>WSCA4M4X30</b>	<b>WSCA4M5X30</b>	<b>WSCA4M6X30</b>
	Std Pack	100	100	100
35	Part Number		<b>WSCA4M5X35</b>	<b>WSCA4M6X35</b>
	Std Pack		100	100
40	Part Number		<b>WSCA4M5X40</b>	<b>WSCA4M6X40</b>
	Std Pack		100	100
50	Part Number		<b>WSCA4M5X50</b>	<b>WSCA4M6X50</b>
	Std Pack		100	100

All measurements are in mm

## Did you know?

The two main drive types associated with machine screws are slotted (flat head) and Phillips

There are also a number of specialized drives that they can come in, these are typically associated with tamper-resistant screws. Machine screws are always threaded the entire length of its shank. Threading on a machine screw is very important because the corresponding holes that they are being fastened into are typically tapped for a specific size and type of screw thread.



		3.80	4.50	5.50	7.00	8.50
dk max.		3.80	4.50	5.50	7.00	8.50
k max.		2.00	2.50	3.00	4.00	5.00
t min.		1.00	1.10	1.30	2.00	2.50
s nom.		1.50	2.00	2.50	3.00	4.00
Length (l)	Size (d)	M2	M2.5	M3	M4	M5
6	Part Number	<b>SCSA2M2X6</b>	<b>SCSA2M25X6</b>	<b>SCSA2M3X6</b>	<b>SCSA2M4X6</b>	<b>SCSA2M5X6</b>
	Std Pack	100	100	100	100	100
8	Part Number	<b>SCSA2M2X8</b>	<b>SCSA2M25X8</b>	<b>SCSA2M3X8</b>	<b>SCSA2M4X8</b>	<b>SCSA2M5X8</b>
	Std Pack	100	100	100	100	100
10	Part Number	<b>SCSA2M2X10</b>	<b>SCSA2M25X10</b>	<b>SCSA2M3X10</b>	<b>SCSA2M4X10</b>	<b>SCSA2M5X10</b>
	Std Pack	100	100	100	100	100
12	Part Number	<b>SCSA2M2X12</b>	<b>SCSA2M25X12</b>	<b>SCSA2M3X12</b>	<b>SCSA2M4X12</b>	<b>SCSA2M5X12</b>
	Std Pack	100	100	100	100	100
16	Part Number	<b>SCSA2M2X16</b>	<b>SCSA2M25X16</b>	<b>SCSA2M3X16</b>	<b>SCSA2M4X16</b>	<b>SCSA2M5X16</b>
	Std Pack	100	100	100	100	100
20	Part Number	<b>SCSA2M2X20</b>	<b>SCSA2M25X20</b>	<b>SCSA2M3X20</b>	<b>SCSA2M4X20</b>	<b>SCSA2M5X20</b>
	Std Pack	100	100	100	100	100
25	Part Number		<b>SCSA2M25X25</b>	<b>SCSA2M3X25</b>	<b>SCSA2M4X25</b>	<b>SCSA2M5X25</b>
	Std Pack		100	100	100	100
30	Part Number			<b>SCSA2M3X30</b>	<b>SCSA2M4X30</b>	<b>SCSA2M5X30</b>
	Std Pack			100	100	100
35	Part Number			<b>SCSA2M3X35</b>	<b>SCSA2M4X35</b>	<b>SCSA2M5X35</b>
	Std Pack			100	100	100
40	Part Number			<b>SCSA2M3X40</b>	<b>SCSA2M4X40</b>	<b>SCSA2M5X40</b>
	Std Pack			100	100	100
45	Part Number			<b>SCSA2M3X45</b>	<b>SCSA2M4X45</b>	<b>SCSA2M5X45</b>
	Std Pack			100	100	100
50	Part Number			<b>SCSA2M3X50</b>	<b>SCSA2M4X50</b>	<b>SCSA2M5X50</b>
	Std Pack			100	100	100
60	Part Number				<b>SCSA2M4X60</b>	<b>SCSA2M5X60</b>
	Std Pack				100	100
70	Part Number					<b>SCSA2M5X70</b>
	Std Pack					100
80	Part Number					<b>SCSA2M5X80</b>
	Std Pack					50
100	Part Number					<b>SCSA2M5X100</b>
	Std Pack					50

All measurements are in mm

## Did you know?

Socket cap screws have a hexagonal recess in the centre of the screw head to accept a hex wrench

The hexagonal recess coupled with a hex wrench increases the bite between the socket head screw and the tool. This results in less head damage than standard Phillips or slotted head screws. Like other head types, socket cap screws come in a variety of head and material types for a wide variety of applications.



A2

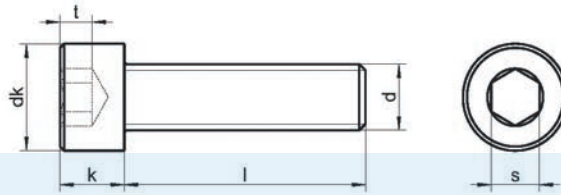
# Socket Cap Screw

SCS

304

DIN 912 / ISO 4762

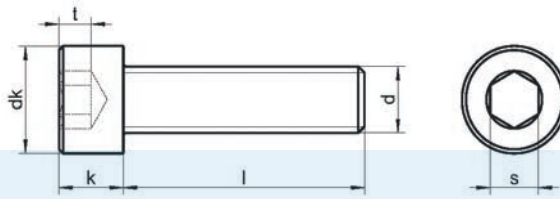
METRIC



dk max.	10.00	13.00	16.00	18.00	24.00
k max.	6.00	8.00	10.00	12.00	16.00
t min.	3.00	4.00	5.00	6.00	8.00
s nom.	5.00	6.00	8.00	10.00	14.00

Length (l)	Size (d)	M6	M8	M10	M12	M16
8	Part Number	<b>SCSA2M6X8</b>				
	Std Pack	100				
10	Part Number	<b>SCSA2M6X10</b>				
	Std Pack	100				
12	Part Number	<b>SCSA2M6X12</b>	<b>SCSA2M8X12</b>			
	Std Pack	100	100			
16	Part Number	<b>SCSA2M6X16</b>	<b>SCSA2M8X16</b>	<b>SCSA2M10X16</b>		
	Std Pack	100	100	100		
20	Part Number	<b>SCSA2M6X20</b>	<b>SCSA2M8X20</b>	<b>SCSA2M10X20</b>	<b>SCSA2M12X20</b>	
	Std Pack	100	100	100	100	
25	Part Number	<b>SCSA2M6X25</b>	<b>SCSA2M8X25</b>	<b>SCSA2M10X25</b>	<b>SCSA2M12X25</b>	
	Std Pack	100	100	100	100	
30	Part Number	<b>SCSA2M6X30</b>	<b>SCSA2M8X30</b>	<b>SCSA2M10X30</b>	<b>SCSA2M12X30</b>	<b>SCSA2M16X30</b>
	Std Pack	100	100	100	100	25
35	Part Number	<b>SCSA2M6X35</b>	<b>SCSA2M8X35</b>	<b>SCSA2M10X35</b>	<b>SCSA2M12X35</b>	<b>SCSA2M16X35</b>
	Std Pack	100	100	100	50	25
40	Part Number	<b>SCSA2M6X40</b>	<b>SCSA2M8X40</b>	<b>SCSA2M10X40</b>	<b>SCSA2M12X40</b>	<b>SCSA2M16X40</b>
	Std Pack	100	100	100	50	25
45	Part Number	<b>SCSA2M6X45</b>	<b>SCSA2M8X45</b>	<b>SCSA2M10X45</b>	<b>SCSA2M12X45</b>	<b>SCSA2M16X45</b>
	Std Pack	100	100	100	50	25
50	Part Number	<b>SCSA2M6X50</b>	<b>SCSA2M8X50</b>	<b>SCSA2M10X50</b>	<b>SCSA2M12X50</b>	<b>SCSA2M16X50</b>
	Std Pack	100	100	100	50	25
55	Part Number	<b>SCSA2M6X55</b>	<b>SCSA2M8X55</b>			
	Std Pack	50	50			
60	Part Number	<b>SCSA2M6X60</b>	<b>SCSA2M8X60</b>	<b>SCSA2M10X60</b>	<b>SCSA2M12X60</b>	<b>SCSA2M16X60</b>
	Std Pack	50	50	50	25	25
65	Part Number	<b>SCSA2M6X65</b>	<b>SCSA2M8X65</b>			
	Std Pack	50	50			
70	Part Number	<b>SCSA2M6X70</b>	<b>SCSA2M8X70</b>	<b>SCSA2M10X70</b>	<b>SCSA2M12X70</b>	<b>SCSA2M16X70</b>
	Std Pack	50	50	50	25	25
75	Part Number	<b>SCSA2M6X75</b>	<b>SCSA2M8X75</b>			
	Std Pack	50	50			
80	Part Number	<b>SCSA2M6X80</b>	<b>SCSA2M8X80</b>	<b>SCSA2M10X80</b>	<b>SCSA2M12X80</b>	<b>SCSA2M16X80</b>
	Std Pack	50	50	50	25	25
90	Part Number	<b>SCSA2M6X90</b>	<b>SCSA2M8X90</b>	<b>SCSA2M10X90</b>	<b>SCSA2M12X90</b>	<b>SCSA2M16X90</b>
	Std Pack	50	50	50	25	25
100	Part Number	<b>SCSA2M6X100</b>	<b>SCSA2M8X100</b>	<b>SCSA2M10X100</b>	<b>SCSA2M12X100</b>	<b>SCSA2M16X100</b>
	Std Pack	50	50	50	25	25
110	Part Number	<b>SCSA2M6X110</b>	<b>SCSA2M8X110</b>	<b>SCSA2M10X110</b>	<b>SCSA2M12X110</b>	<b>SCSA2M16X110</b>
	Std Pack	25	25	25	25	25
120	Part Number	<b>SCSA2M6X120</b>	<b>SCSA2M8X120</b>	<b>SCSA2M10X120</b>	<b>SCSA2M12X120</b>	<b>SCSA2M16X120</b>
	Std Pack	25	25	25	25	25
130	Part Number	<b>SCSA2M6X130</b>	<b>SCSA2M8X130</b>	<b>SCSA2M10X130</b>	<b>SCSA2M12X130</b>	<b>SCSA2M16X130</b>
	Std Pack	25	25	25	25	25
140	Part Number	<b>SCSA2M6X140</b>	<b>SCSA2M8X140</b>	<b>SCSA2M10X140</b>	<b>SCSA2M12X140</b>	<b>SCSA2M16X140</b>
	Std Pack	25	25	25	25	25
150	Part Number	<b>SCSA2M6X150</b>	<b>SCSA2M8X150</b>	<b>SCSA2M10X150</b>	<b>SCSA2M12X150</b>	<b>SCSA2M16X150</b>
	Std Pack	25	25	25	25	25

All measurements are in mm



dk max.	3.80	5.50	7.00	8.50	10.00	13.00
k max.	2.00	3.00	4.00	5.00	6.00	8.00
t min.	1.00	1.30	2.00	2.50	3.00	4.00
s nom.	1.50	2.50	3.00	4.00	5.00	6.00

Length (l)	Size (d)	M2	M3	M4	M5	M6	M8
6	Part Number	<b>SCSA4M2X6</b>	<b>SCSA4M3X6</b>	<b>SCSA4M4X6</b>			
	Std Pack	100	100	100			
8	Part Number	<b>SCSA4M2X8</b>	<b>SCSA4M3X8</b>	<b>SCSA4M4X8</b>			
	Std Pack	100	100	100			
10	Part Number	<b>SCSA4M2X10</b>	<b>SCSA4M3X10</b>	<b>SCSA4M4X10</b>	<b>SCSA4M5X10</b>	<b>SCSA4M6X10</b>	
	Std Pack	100	100	100	100	100	
12	Part Number	<b>SCSA4M2X12</b>	<b>SCSA4M3X12</b>	<b>SCSA4M4X12</b>	<b>SCSA4M5X12</b>	<b>SCSA4M6X12</b>	
	Std Pack	100	100	100	100	100	
16	Part Number	<b>SCSA4M2X16</b>	<b>SCSA4M3X16</b>	<b>SCSA4M4X16</b>	<b>SCSA4M5X16</b>	<b>SCSA4M6X16</b>	<b>SCSA4M8X16</b>
	Std Pack	100	100	100	100	100	100
20	Part Number	<b>SCSA4M2X20</b>	<b>SCSA4M3X20</b>	<b>SCSA4M4X20</b>	<b>SCSA4M5X20</b>	<b>SCSA4M6X20</b>	<b>SCSA4M8X20</b>
	Std Pack	100	100	100	100	100	100
25	Part Number		<b>SCSA4M3X25</b>	<b>SCSA4M4X25</b>	<b>SCSA4M5X25</b>	<b>SCSA4M6X25</b>	<b>SCSA4M8X25</b>
	Std Pack		100	100	100	100	100
30	Part Number		<b>SCSA4M3X30</b>	<b>SCSA4M4X30</b>	<b>SCSA4M5X30</b>	<b>SCSA4M6X30</b>	<b>SCSA4M8X30</b>
	Std Pack		100	100	100	100	100
35	Part Number		<b>SCSA4M3X35</b>	<b>SCSA4M4X35</b>	<b>SCSA4M5X35</b>	<b>SCSA4M6X35</b>	<b>SCSA4M8X35</b>
	Std Pack		100	100	100	100	100
40	Part Number		<b>SCSA4M3X40</b>	<b>SCSA4M4X40</b>	<b>SCSA4M5X40</b>	<b>SCSA4M6X40</b>	<b>SCSA4M8X40</b>
	Std Pack		100	100	100	100	100
45	Part Number		<b>SCSA4M3X45</b>	<b>SCSA4M4X45</b>	<b>SCSA4M5X45</b>	<b>SCSA4M6X45</b>	<b>SCSA4M8X45</b>
	Std Pack		100	100	100	100	100
50	Part Number		<b>SCSA4M3X50</b>	<b>SCSA4M4X50</b>	<b>SCSA4M5X50</b>	<b>SCSA4M6X50</b>	<b>SCSA4M8X50</b>
	Std Pack		100	100	100	100	100
55	Part Number					<b>SCSA4M6X55</b>	<b>SCSA4M8X55</b>
	Std Pack					50	50
60	Part Number			<b>SCSA4M4X60</b>	<b>SCSA4M5X60</b>	<b>SCSA4M6X60</b>	<b>SCSA4M8X60</b>
	Std Pack			100	100	50	50
65	Part Number					<b>SCSA4M6X65</b>	<b>SCSA4M8X65</b>
	Std Pack					50	50
70	Part Number				<b>SCSA4M5X70</b>	<b>SCSA4M6X70</b>	<b>SCSA4M8X70</b>
	Std Pack				100	50	50
75	Part Number					<b>SCSA4M6X75</b>	<b>SCSA4M8X75</b>
	Std Pack					50	50
80	Part Number				<b>SCSA4M5X80</b>	<b>SCSA4M6X80</b>	<b>SCSA4M8X80</b>
	Std Pack				100	50	50
90	Part Number				<b>SCSA4M5X90</b>	<b>SCSA4M6X90</b>	<b>SCSA4M8X90</b>
	Std Pack				100	50	50
100	Part Number				<b>SCSA4M5X100</b>	<b>SCSA4M6X100</b>	<b>SCSA4M8X100</b>
	Std Pack				100	50	50
110	Part Number					<b>SCSA4M6X110</b>	<b>SCSA4M8X110</b>
	Std Pack					25	25
120	Part Number					<b>SCSA4M6X120</b>	<b>SCSA4M8X120</b>
	Std Pack					25	25
130	Part Number					<b>SCSA4M6X130</b>	<b>SCSA4M8X130</b>
	Std Pack					25	25
140	Part Number					<b>SCSA4M6X140</b>	<b>SCSA4M8X140</b>
	Std Pack					25	25
150	Part Number					<b>SCSA4M6X150</b>	<b>SCSA4M8X150</b>
	Std Pack					25	25

All measurements are in mm

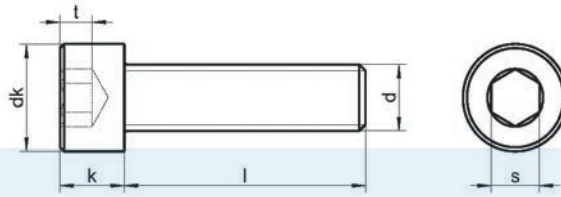
**A4**

# Socket Cap Screw

**SCS****316**

DIN 912 / ISO 4762

METRIC



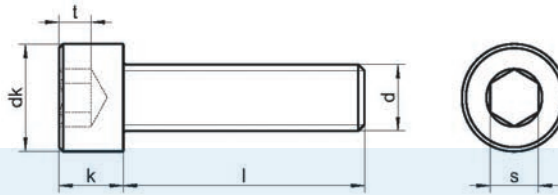
Length (l)	Size (d)	M10	M12	M16	M20
20	Part Number	<b>SCSA4M10X20</b>	<b>SCSA4M12X20</b>		
	Std Pack	100	50		
25	Part Number	<b>SCSA4M10X25</b>	<b>SCSA4M12X25</b>	<b>SCSA4M16X25</b>	
	Std Pack	100	50	25	
30	Part Number	<b>SCSA4M10X30</b>	<b>SCSA4M12X30</b>	<b>SCSA4M16X30</b>	
	Std Pack	100	50	25	
35	Part Number	<b>SCSA4M10X35</b>	<b>SCSA4M12X35</b>	<b>SCSA4M16X35</b>	
	Std Pack	100	50	25	
40	Part Number	<b>SCSA4M10X40</b>	<b>SCSA4M12X40</b>	<b>SCSA4M16X40</b>	<b>SCSA4M20X40</b>
	Std Pack	100	50	25	10
45	Part Number	<b>SCSA4M10X45</b>	<b>SCSA4M12X45</b>	<b>SCSA4M16X45</b>	<b>SCSA4M20X45</b>
	Std Pack	100	50	25	10
50	Part Number	<b>SCSA4M10X50</b>	<b>SCSA4M12X50</b>	<b>SCSA4M16X50</b>	<b>SCSA4M20X50</b>
	Std Pack	100	50	25	10
60	Part Number	<b>SCSA4M10X60</b>	<b>SCSA4M12X60</b>	<b>SCSA4M16X60</b>	<b>SCSA4M20X60</b>
	Std Pack	50	25	25	10
70	Part Number	<b>SCSA4M10X70</b>	<b>SCSA4M12X70</b>	<b>SCSA4M16X70</b>	<b>SCSA4M20X70</b>
	Std Pack	50	25	25	10
80	Part Number	<b>SCSA4M10X80</b>	<b>SCSA4M12X80</b>	<b>SCSA4M16X80</b>	<b>SCSA4M20X80</b>
	Std Pack	50	25	25	10
90	Part Number	<b>SCSA4M10X90</b>	<b>SCSA4M12X90</b>	<b>SCSA4M16X90</b>	<b>SCSA4M20X90</b>
	Std Pack	50	25	25	10
100	Part Number	<b>SCSA4M10X100</b>	<b>SCSA4M12X100</b>	<b>SCSA4M16X100</b>	<b>SCSA4M20X100</b>
	Std Pack	50	25	25	10
110	Part Number	<b>SCSA4M10X110</b>	<b>SCSA4M12X110</b>	<b>SCSA4M16X110</b>	
	Std Pack	25	25	25	
120	Part Number	<b>SCSA4M10X120</b>	<b>SCSA4M12X120</b>	<b>SCSA4M16X120</b>	
	Std Pack	25	25	25	
130	Part Number	<b>SCSA4M10X130</b>	<b>SCSA4M12X130</b>	<b>SCSA4M16X130</b>	
	Std Pack	25	25	25	
140	Part Number	<b>SCSA4M10X140</b>	<b>SCSA4M12X140</b>	<b>SCSA4M16X140</b>	
	Std Pack	25	25	25	
150	Part Number	<b>SCSA4M10X150</b>	<b>SCSA4M12X150</b>	<b>SCSA4M16X150</b>	
	Std Pack	25	25	25	

**All measurements are in mm**

## Did you know?

There are many different grades of stainless steel. The two commonly used grades are 304 and 316, with 316 being more corrosion resistant than 304

The rule of thumb is that if the fastener is in a corrosive environment (e.g. within 5km of the coast), 316 is preferable, particularly if the fastener is to be seen, as 316 is less likely to 'tea-stain' or develop a brown discolouration.



		0.27	0.31	0.38	0.47	0.56	0.75
dk max.		0.27	0.31	0.38	0.47	0.56	0.75
k max.		0.16	0.19	0.25	0.31	0.38	0.50
t min.		0.08	0.09	0.12	0.15	0.18	0.25
s nom.		0.14	0.16	0.19	0.25	0.31	0.38
Length (l)	Size (d)	8-32	10-24	1/4	5/16	3/8	1/2
1/4	Part Number	SCSA2832UNCX14	SCSA21024UNCX14				
	Std Pack	100	100				
3/8	Part Number	SCSA2832UNCX38	SCSA21024UNCX38	SCSA214UNCX38			
	Std Pack	100	100	100			
1/2	Part Number	SCSA2832UNCX12	SCSA21024UNCX12	SCSA214UNCX12	SCSA2516UNCX12		
	Std Pack	100	100	100	100		
5/8	Part Number	SCSA2832UNCX58	SCSA21024UNCX58	SCSA214UNCX58	SCSA2516UNCX58		
	Std Pack	100	100	100	100		
3/4	Part Number	SCSA2832UNCX34	SCSA21024UNCX34	SCSA214UNCX34	SCSA2516UNCX34	SCSA238UNCX34	SCSA212UNCX34
	Std Pack	100	100	100	100	100	25
1	Part Number	SCSA2832UNC1	SCSA21024UNCX1	SCSA214UNCX1	SCSA2516UNCX1	SCSA238UNCX1	SCSA212UNC1
	Std Pack	100	100	100	100	100	25
1-1/4	Part Number			SCSA214UNCX114	SCSA2516UNCX114	SCSA238UNCX114	SCSA212UNCX114
	Std Pack			100	100	100	25
1-1/2	Part Number	SCSA2832UNC112	SCSA21024UNCX112	SCSA214UNCX112	SCSA2516UNCX112	SCSA238UNCX112	SCSA212UNCX112
	Std Pack	100	100	100	100	100	25
1-3/4	Part Number			SCSA214UNCX134	SCSA2516UNCX134	SCSA238UNCX134	SCSA212UNCX134
	Std Pack			100	100	100	25
2	Part Number		SCSA21024UNCX2	SCSA214UNCX2	SCSA2516UNCX2	SCSA238UNCX2	SCSA212UNCX2
	Std Pack		100	100	100	100	25
2-1/2	Part Number					SCSA238UNCX212	SCSA212UNCX212
	Std Pack					50	25
3	Part Number					SCSA238UNCX3	SCSA212UNCX3
	Std Pack					50	25

All measurements are in inches

## Did you know?

All Socket screws meet AISI, IFI, ANSI, ASME and ASTM standards and specifications

Socket screws are used in a wide variety of applications where both strength and cosmetics are important. They are found in tooling, metal stamping dies, plastic injection moulds, machinery, power transmission, hand and power tools and even furniture.

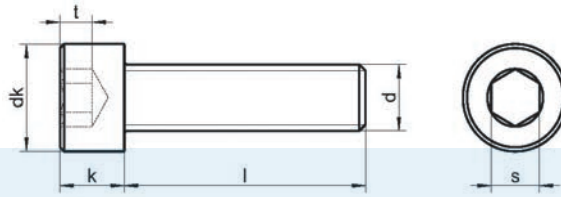
**A4**

# Socket Cap Screw

**SCS****316**

ANSI / ASME B18.3

UNC



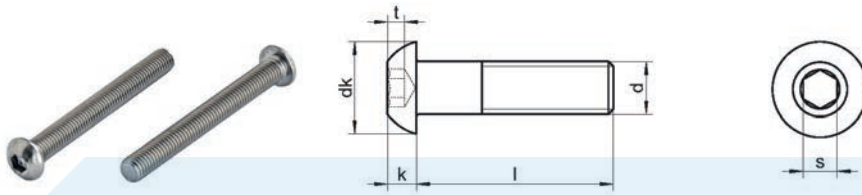
		10-24	1/4	5/16	3/8	1/2
dk max.		0.31	0.38	0.47	0.56	0.75
k max.		0.19	0.25	0.31	0.38	0.50
t min.		0.09	0.12	0.15	0.18	0.25
s nom.		0.16	0.19	0.25	0.31	0.38
Length (l)	Size (d)					
1/4	Part Number	<b>SCSA41024UNCX14</b>				
	Std Pack	100				
3/8	Part Number	<b>SCSA41024UNCX38</b>	<b>SCSA414UNCX38</b>			
	Std Pack	100	100			
1/2	Part Number	<b>SCSA41024UNCX12</b>	<b>SCSA414UNCX12</b>	<b>SCSA4516UNCX12</b>		
	Std Pack	100	100	100		
5/8	Part Number		<b>SCSA414UNCX58</b>	<b>SCSA4516UNCX58</b>		
	Std Pack		100	100		
3/4	Part Number	<b>SCSA41024UNCX34</b>	<b>SCSA414UNCX34</b>	<b>SCSA4516UNCX34</b>	<b>SCSA438UNCX34</b>	<b>SCSA412UNCX34</b>
	Std Pack	100	100	100	100	25
1	Part Number	<b>SCSA41024UNCX1</b>	<b>SCSA414UNCX1</b>	<b>SCSA4516UNCX1</b>	<b>SCSA438UNCX1</b>	<b>SCSA412UNCX1</b>
	Std Pack	100	100	100	100	25
1-1/4	Part Number		<b>SCSA414UNCX114</b>	<b>SCSA4516UNCX114</b>	<b>SCSA438UNCX114</b>	<b>SCSA412UNCX114</b>
	Std Pack		100	100	100	25
1-1/2	Part Number		<b>SCSA414UNCX112</b>	<b>SCSA4516UNCX112</b>	<b>SCSA438UNCX112</b>	<b>SCSA412UNCX112</b>
	Std Pack		100	100	100	25
1-3/4	Part Number		<b>SCSA414UNCX134</b>	<b>SCSA4516UNCX134</b>	<b>SCSA438UNCX134</b>	<b>SCSA412UNCX134</b>
	Std Pack		100	100	100	25
2	Part Number		<b>SCSA414UNCX2</b>	<b>SCSA4516UNCX2</b>	<b>SCSA438UNCX2</b>	<b>SCSA412UNCX2</b>
	Std Pack		100	100	100	25
2-1/2	Part Number				<b>SCSA438UNCX212</b>	<b>SCSA412UNCX212</b>
	Std Pack				50	25
3	Part Number				<b>SCSA438UNCX3</b>	<b>SCSA412UNCX3</b>
	Std Pack				50	25

**All measurements are in inches**

## Did you know?

Stainless socket screws have less tensile and yield strength than alloy sockets, but superior corrosion resistance

They also retain mechanical and performance capabilities at higher than ambient temperatures.



		5.70	7.60	9.50	10.50	14.00	17.50	21.00
dk max.		5.70	7.60	9.50	10.50	14.00	17.50	21.00
k max.		1.65	2.20	2.75	3.30	4.40	5.50	6.60
t min.		1.04	1.30	1.56	2.08	2.60	3.12	4.16
s nom.		2.00	2.50	3.00	4.00	5.00	6.00	8.00
Length (l)	Size (d)	M3	M4	M5	M6	M8	M10	M12
6	Part Number	<b>BCSA2M3X6</b>	<b>BCSA2M4X6</b>					
	Std Pack	100	100					
8	Part Number	<b>BCSA2M3X8</b>	<b>BCSA2M4X8</b>	<b>BCSA2M5X8</b>				
	Std Pack	100	100	100				
10	Part Number	<b>BCSA2M3X10</b>	<b>BCSA2M4X10</b>	<b>BCSA2M5X10</b>	<b>BCSA2M6X10</b>			
	Std Pack	100	100	100	100			
12	Part Number	<b>BCSA2M3X12</b>	<b>BCSA2M4X12</b>	<b>BCSA2M5X12</b>	<b>BCSA2M6X12</b>	<b>BCSA2M8X12</b>		
	Std Pack	100	100	100	100	100		
16	Part Number	<b>BCSA2M3X16</b>	<b>BCSA2M4X16</b>	<b>BCSA2M5X16</b>	<b>BCSA2M6X16</b>	<b>BCSA2M8X16</b>	<b>BCSA2M10X16</b>	
	Std Pack	100	100	100	100	100	50	
20	Part Number	<b>BCSA2M3X20</b>	<b>BCSA2M4X20</b>	<b>BCSA2M5X20</b>	<b>BCSA2M6X20</b>	<b>BCSA2M8X20</b>	<b>BCSA2M10X20</b>	<b>BCSA2M12X20</b>
	Std Pack	100	100	100	100	100	50	25
25	Part Number	<b>BCSA2M3X25</b>	<b>BCSA2M4X25</b>	<b>BCSA2M5X25</b>	<b>BCSA2M6X25</b>	<b>BCSA2M8X25</b>	<b>BCSA2M10X25</b>	<b>BCSA2M12X25</b>
	Std Pack	100	100	100	100	100	50	25
30	Part Number	<b>BCSA2M3X30</b>	<b>BCSA2M4X30</b>	<b>BCSA2M5X30</b>	<b>BCSA2M6X30</b>	<b>BCSA2M8X30</b>	<b>BCSA2M10X30</b>	<b>BCSA2M12X30</b>
	Std Pack	100	100	100	100	100	50	25
35	Part Number		<b>BCSA2M4X35</b>	<b>BCSA2M5X35</b>	<b>BCSA2M6X35</b>	<b>BCSA2M8X35</b>	<b>BCSA2M10X35</b>	<b>BCSA2M12X35</b>
	Std Pack		100	100	100	100	50	25
40	Part Number	<b>BCSA2M3X40</b>	<b>BCSA2M4X40</b>	<b>BCSA2M5X40</b>	<b>BCSA2M6X40</b>	<b>BCSA2M8X40</b>	<b>BCSA2M10X40</b>	<b>BCSA2M12X40</b>
	Std Pack	100	100	100	100	100	50	25
45	Part Number		<b>BCSA2M4X45</b>	<b>BCSA2M5X45</b>	<b>BCSA2M6X45</b>	<b>BCSA2M8X45</b>	<b>BCSA2M10X45</b>	
	Std Pack		100	100	100	100	50	
50	Part Number	<b>BCSA2M3X50</b>	<b>BCSA2M4X50</b>	<b>BCSA2M5X50</b>	<b>BCSA2M6X50</b>	<b>BCSA2M8X50</b>	<b>BCSA2M10X50</b>	<b>BCSA2M12X50</b>
	Std Pack	100	100	100	100	100	50	25
60	Part Number			<b>BCSA2M5X60</b>	<b>BCSA2M6X60</b>	<b>BCSA2M8X60</b>	<b>BCSA2M10X60</b>	<b>BCSA2M12X60</b>
	Std Pack			100	100	100	50	25
70	Part Number				<b>BCSA2M6X70</b>	<b>BCSA2M8X70</b>	<b>BCSA2M10X70</b>	<b>BCSA2M12X70</b>
	Std Pack				100	100	50	25
80	Part Number				<b>BCSA2M6X80</b>	<b>BCSA2M8X80</b>	<b>BCSA2M10X80</b>	<b>BCSA2M12X80</b>
	Std Pack				100	50	50	25
100	Part Number				<b>BCSA2M6X100</b>	<b>BCSA2M8X100</b>	<b>BCSA2M10X100</b>	<b>BCSA2M12X100</b>
	Std Pack				100	50	50	25

All measurements are in mm

## Did you know?

Stainless steel resists corrosion due to its naturally occurring protective layer of Chromium Oxide

When contaminants settle on stainless steel, depending on the grade and the surface finish, these can damage this protective layer, allowing oxygen to react with the iron.

If the stainless steel is exposed to rainwater, then this should wash these contaminants away, restoring the stainless steel's protective layer.



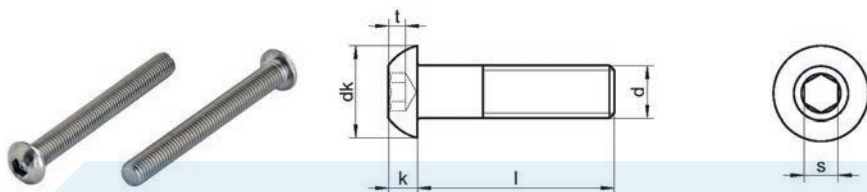
**A4**

# Button Cap Socket Screw

**BCS****316**

ISO 7380

METRIC



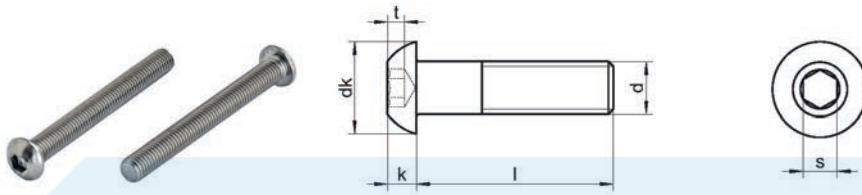
		5.70	7.60	9.50	10.50	14.00	17.50	21.00
dk max.		5.70	7.60	9.50	10.50	14.00	17.50	21.00
k max.		1.65	2.20	2.75	3.30	4.40	5.50	6.60
t min.		1.04	1.30	1.56	2.08	2.60	3.12	4.16
s nom.		2.00	2.50	3.00	4.00	5.00	6.00	8.00
Length (l)	Size (d)	M3	M4	M5	M6	M8	M10	M12
6	Part Number	<b>BCSA4M3X6</b>	<b>BCSA4M4X6</b>					
	Std Pack	100	100					
8	Part Number	<b>BCSA4M3X8</b>	<b>BCSA4M4X8</b>	<b>BCSA4M5X8</b>				
	Std Pack	100	100	100				
10	Part Number	<b>BCSA4M3X10</b>	<b>BCSA4M4X10</b>	<b>BCSA4M5X10</b>	<b>BCSA4M6X10</b>			
	Std Pack	100	100	100	100			
12	Part Number	<b>BCSA4M3X12</b>	<b>BCSA4M4X12</b>	<b>BCSA4M5X12</b>	<b>BCSA4M6X12</b>			
	Std Pack	100	100	100	100			
16	Part Number	<b>BCSA4M3X16</b>	<b>BCSA4M4X16</b>	<b>BCSA4M5X16</b>	<b>BCSA4M6X16</b>	<b>BCSA4M8X16</b>		
	Std Pack	100	100	100	100	100		
20	Part Number	<b>BCSA4M3X20</b>	<b>BCSA4M4X20</b>	<b>BCSA4M5X20</b>	<b>BCSA4M6X20</b>	<b>BCSA4M8X20</b>	<b>BCSA4M10X20</b>	<b>BCSA4M12X20</b>
	Std Pack	100	100	100	100	100	50	25
25	Part Number	<b>BCSA4M3X25</b>	<b>BCSA4M4X25</b>	<b>BCSA4M5X25</b>	<b>BCSA4M6X25</b>	<b>BCSA4M8X25</b>	<b>BCSA4M10X25</b>	<b>BCSA4M12X25</b>
	Std Pack	100	100	100	100	100	50	25
30	Part Number	<b>BCSA4M3X30</b>	<b>BCSA4M4X30</b>	<b>BCSA4M5X30</b>	<b>BCSA4M6X30</b>	<b>BCSA4M8X30</b>	<b>BCSA4M10X30</b>	<b>BCSA4M12X30</b>
	Std Pack	100	100	100	100	100	50	25
35	Part Number		<b>BCSA4M4X35</b>	<b>BCSA4M5X35</b>	<b>BCSA4M6X35</b>	<b>BCSA4M8X35</b>	<b>BCSA4M10X35</b>	<b>BCSA4M12X35</b>
	Std Pack		100	100	100	100	50	25
40	Part Number	<b>BCSA4M3X40</b>	<b>BCSA4M4X40</b>	<b>BCSA4M5X40</b>	<b>BCSA4M6X40</b>	<b>BCSA4M8X40</b>	<b>BCSA4M10X40</b>	<b>BCSA4M12X40</b>
	Std Pack	100	100	100	100	100	50	25
45	Part Number		<b>BCSA4M4X45</b>	<b>BCSA4M5X45</b>	<b>BCSA4M6X45</b>	<b>BCSA4M8X45</b>	<b>BCSA4M10X45</b>	
	Std Pack		100	100	100	100	50	
50	Part Number	<b>BCSA4M3X50</b>	<b>BCSA4M4X50</b>	<b>BCSA4M5X50</b>	<b>BCSA4M6X50</b>	<b>BCSA4M8X50</b>	<b>BCSA4M10X50</b>	<b>BCSA4M12X50</b>
	Std Pack	100	100	100	100	100	50	25
60	Part Number			<b>BCSA4M5X60</b>	<b>BCSA4M6X60</b>	<b>BCSA4M8X60</b>	<b>BCSA4M10X60</b>	<b>BCSA4M12X60</b>
	Std Pack			100	100	100	50	25
70	Part Number				<b>BCSA4M6X70</b>	<b>BCSA4M8X70</b>	<b>BCSA4M10X70</b>	<b>BCSA4M12X70</b>
	Std Pack				100	100	50	25
80	Part Number				<b>BCSA4M6X80</b>	<b>BCSA4M8X80</b>	<b>BCSA4M10X80</b>	<b>BCSA4M12X80</b>
	Std Pack				100	50	50	25
100	Part Number				<b>BCSA4M6X100</b>	<b>BCSA4M8X100</b>	<b>BCSA4M10X100</b>	<b>BCSA4M12X100</b>
	Std Pack				100	50	50	25

All measurements are in mm

## Did you know?

Button Head Socket Screws are designed for light fastening applications

Used when a wider bearing surface or smoother, finished appearance is desired. Not recommended for critical, high-strength applications.



		0.31	0.36	0.44	0.55	0.66	0.88
dk max.		0.31	0.36	0.44	0.55	0.66	0.88
k max.		0.09	0.10	0.13	0.17	0.20	0.27
t min.		0.05	0.07	0.09	0.11	0.12	0.18
s nom.		0.09	0.13	0.16	0.19	0.22	0.31
Length (l)	Size (d)	8-32	10-24	1/4	5/16	3/8	1/2
1/4	Part Number	<b>BCSA2832UNCX14</b>	<b>BCSA21024UNCX14</b>				
	Std Pack	100	100				
3/8	Part Number	<b>BCSA2832UNCX38</b>	<b>BCSA21024UNCX38</b>	<b>BCSA214UNCX38</b>			
	Std Pack	100	100	100			
1/2	Part Number	<b>BCSA2832UNCX12</b>	<b>BCSA21024UNCX12</b>	<b>BCSA214UNCX12</b>			
	Std Pack	100	100	100			
5/8	Part Number		<b>BCSA21024UNCX58</b>	<b>BCSA214UNCX58</b>	<b>BCSA2516UNCX58</b>		
	Std Pack		100	100	100		
3/4	Part Number	<b>BCSA2832UNCX34</b>	<b>BCSA21024UNCX34</b>	<b>BCSA214UNCX34</b>	<b>BCSA2516UNCX34</b>	<b>BCSA238UNCX34</b>	<b>BCSA212UNCX34</b>
	Std Pack	100	100	100	100	100	25
1	Part Number	<b>BCSA2832UNCX1</b>	<b>BCSA21024UNCX1</b>	<b>BCSA214UNCX1</b>	<b>BCSA2516UNCX1</b>	<b>BCSA238UNCX1</b>	<b>BCSA212UNCX1</b>
	Std Pack	100	100	100	100	100	25
1-1/4	Part Number			<b>BCSA214UNCX114</b>	<b>BCSA2516UNCX114</b>	<b>BCSA238UNCX114</b>	<b>BCSA212UNCX114</b>
	Std Pack			100	100	100	25
1-1/2	Part Number			<b>BCSA214UNCX112</b>	<b>BCSA2516UNCX112</b>	<b>BCSA238UNCX112</b>	<b>BCSA212UNCX112</b>
	Std Pack			100	100	100	25
2	Part Number			<b>BCSA214UNCX2</b>	<b>BCSA2516UNC2</b>	<b>BCSA238UNCX2</b>	<b>BCSA212UNCX2</b>
	Std Pack			100	100	100	25

All measurements are in inches

## Did you know?

Button Head Socket Screws have finer threads than wood screws

They are designed to be used in conjunction with a nut or tapped hole.  
Button Head Socket Screws are like a pan head but has a top that is more curved.

A2

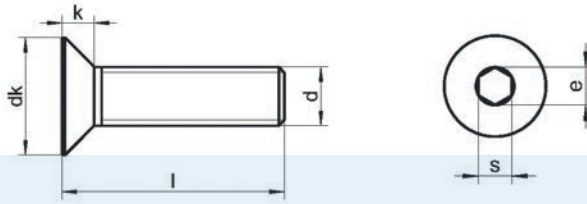
# Countersunk Socket Screw

CCS

304

DIN 7991 / ISO 10642

METRIC



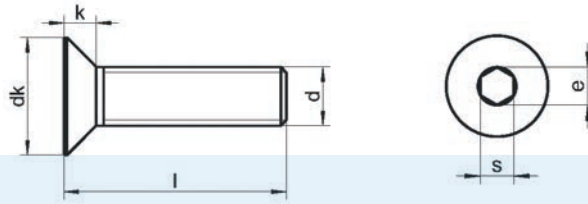
	dk max.	6.00	8.00	10.00	12.00	16.00	20.00	24.00	30.00
	k max.	1.70	2.30	2.80	3.30	4.40	5.50	6.50	7.50
	t max.	1.20	1.80	2.30	2.50	3.50	4.40	4.60	5.30
	s nom.	2.00	2.50	3.00	4.00	5.00	6.00	8.00	10.00
Length (l)	Size (d)	M3	M4	M5	M6	M8	M10	M12	M16
6	Part Number	<b>CCSA2M3X6</b>	<b>CCSA2M4X6</b>	<b>CCSA2M5X6</b>					
	Std Pack	100	100	100					
8	Part Number	<b>CCSA2M3X8</b>	<b>CCSA2M4X8</b>	<b>CCSA2M5X8</b>					
	Std Pack	100	100	100					
10	Part Number	<b>CCSA2M3X10</b>	<b>CCSA2M4X10</b>	<b>CCSA2M5X10</b>	<b>CCSA2M6X10</b>				
	Std Pack	100	100	100	100				
12	Part Number	<b>CCSA2M3X12</b>	<b>CCSA2M4X12</b>	<b>CCSA2M5X12</b>	<b>CCSA2M6X12</b>	<b>CCSA2M8X12</b>			
	Std Pack	100	100	100	100	100			
16	Part Number	<b>CCSA2M3X16</b>	<b>CCSA2M4X16</b>	<b>CCSA2M5X16</b>	<b>CCSA2M6X16</b>	<b>CCSA2M8X16</b>	<b>CCSA2M10X16</b>		
	Std Pack	100	100	100	100	100	50		
20	Part Number	<b>CCSA2M3X20</b>	<b>CCSA2M4X20</b>	<b>CCSA2M5X20</b>	<b>CCSA2M6X20</b>	<b>CCSA2M8X20</b>	<b>CCSA2M10X20</b>	<b>CCSA2M12X20</b>	
	Std Pack	100	100	100	100	100	50	25	
25	Part Number	<b>CCSA2M3X25</b>	<b>CCSA2M4X25</b>	<b>CCSA2M5X25</b>	<b>CCSA2M6X25</b>	<b>CCSA2M8X25</b>	<b>CCSA2M10X25</b>	<b>CCSA2M12X25</b>	
	Std Pack	100	100	100	100	100	50	25	
30	Part Number	<b>CCSA2M3X30</b>	<b>CCSA2M4X30</b>	<b>CCSA2M5X30</b>	<b>CCSA2M6X30</b>	<b>CCSA2M8X30</b>	<b>CCSA2M10X30</b>	<b>CCSA2M12X30</b>	<b>CCSA2M16X30</b>
	Std Pack	100	100	100	100	100	50	25	25
35	Part Number		<b>CCSA2M4X35</b>	<b>CCSA2M5X35</b>	<b>CCSA2M6X35</b>	<b>CCSA2M8X35</b>	<b>CCSA2M10X35</b>	<b>CCSA2M12X35</b>	<b>CCSA2M16X35</b>
	Std Pack		100	100	100	100	50	25	25
40	Part Number	<b>CCSA2M3X40</b>	<b>CCSA2M4X40</b>	<b>CCSA2M5X40</b>	<b>CCSA2M6X40</b>	<b>CCSA2M8X40</b>	<b>CCSA2M10X40</b>	<b>CCSA2M12X40</b>	<b>CCSA2M16X40</b>
	Std Pack	100	100	100	100	100	50	25	25
45	Part Number		<b>CCSA2M4X45</b>	<b>CCSA2M5X45</b>	<b>CCSA2M6X45</b>	<b>CCSA2M8X45</b>	<b>CCSA2M10X45</b>	<b>CCSA2M12X45</b>	<b>CCSA2M16X45</b>
	Std Pack		100	100	100	100	50	25	25
50	Part Number	<b>CCSA2M3X50</b>	<b>CCSA2M4X50</b>	<b>CCSA2M5X50</b>	<b>CCSA2M6X50</b>	<b>CCSA2M8X50</b>	<b>CCSA2M10X50</b>	<b>CCSA2M12X50</b>	<b>CCSA2M16X50</b>
	Std Pack	100	100	100	100	100	50	25	25
60	Part Number		<b>CCSA2M4X60</b>	<b>CCSA2M5X60</b>	<b>CCSA2M6X60</b>	<b>CCSA2M8X60</b>	<b>CCSA2M10X60</b>	<b>CCSA2M12X60</b>	<b>CCSA2M16X60</b>
	Std Pack		100	100	50	50	50	25	25
65	Part Number							<b>CCSA2M12X65</b>	
	Std Pack							25	
70	Part Number			<b>CCSA2M5X70</b>	<b>CCSA2M6X70</b>	<b>CCSA2M8X70</b>	<b>CCSA2M10X70</b>	<b>CCSA2M12X70</b>	<b>CCSA2M16X70</b>
	Std Pack			100	50	50	50	25	25
80	Part Number			<b>CCSA2M5X80</b>	<b>CCSA2M6X80</b>	<b>CCSA2M8X80</b>	<b>CCSA2M10X80</b>	<b>CCSA2M12X80</b>	<b>CCSA2M16X80</b>
	Std Pack			100	50	50	50	25	25
90	Part Number					<b>CCSA2M8X90</b>	<b>CCSA2M10X90</b>	<b>CCSA2M12X90</b>	<b>CCSA2M16X90</b>
	Std Pack					50	50	25	25
100	Part Number				<b>CCSA2M6X100</b>	<b>CCSA2M8X100</b>	<b>CCSA2M10X100</b>	<b>CCSA2M12X100</b>	<b>CCSA2M16X100</b>
	Std Pack				50	50	50	25	25

All measurements are in mm

## Did you know?

Countersunk Socket Screws are used when a flush mount, high strength screw is required

Often used for tools and dies where moving parts pass over an area.



	dk max.	6.00	8.00	10.00	12.00	16.00	20.00	24.00	30.00
	k max.	1.70	2.30	2.80	3.30	4.40	5.50	6.50	7.50
	t max.	1.20	1.80	2.30	2.50	3.50	4.40	4.60	5.30
	s nom.	2.00	2.50	3.00	4.00	5.00	6.00	8.00	10.00
Length (l)	Size (d)	M3	M4	M5	M6	M8	M10	M12	M16
6	Part Number	<b>CCSA4M3X6</b>	<b>CCSA4M4X6</b>	<b>CCSA4M5X6</b>					
	Std Pack	100	100	100					
8	Part Number	<b>CCSA4M3X8</b>	<b>CCSA4M4X8</b>	<b>CCSA4M5X8</b>					
	Std Pack	100	100	100					
10	Part Number	<b>CCSA4M3X10</b>	<b>CCSA4M4X10</b>	<b>CCSA4M5X10</b>	<b>CCSA4M6X10</b>				
	Std Pack	100	100	100	100				
12	Part Number	<b>CCSA4M3X12</b>	<b>CCSA4M4X12</b>	<b>CCSA4M5X12</b>	<b>CCSA4M6X12</b>	<b>CCSA4M8X12</b>			
	Std Pack	100	100	100	100	100			
16	Part Number	<b>CCSA4M3X16</b>	<b>CCSA4M4X16</b>	<b>CCSA4M5X16</b>	<b>CCSA4M6X16</b>	<b>CCSA4M8X16</b>			
	Std Pack	100	100	100	100	100			
20	Part Number	<b>CCSA4M3X20</b>	<b>CCSA4M4X20</b>	<b>CCSA4M5X20</b>	<b>CCSA4M6X20</b>	<b>CCSA4M8X20</b>	<b>CCSA4M10X20</b>	<b>CCSA4M12X20</b>	
	Std Pack	100	100	100	100	100	50	25	
25	Part Number	<b>CCSA4M3X25</b>	<b>CCSA4M4X25</b>	<b>CCSA4M5X25</b>	<b>CCSA4M6X25</b>	<b>CCSA4M8X25</b>	<b>CCSA4M10X25</b>	<b>CCSA4M12X25</b>	
	Std Pack	100	100	100	100	100	50	25	
30	Part Number	<b>CCSA4M3X30</b>	<b>CCSA4M4X30</b>	<b>CCSA4M5X30</b>	<b>CCSA4M6X30</b>	<b>CCSA4M8X30</b>	<b>CCSA4M10X30</b>	<b>CCSA4M12X30</b>	<b>CCSA4M16X30</b>
	Std Pack	100	100	100	100	100	50	25	25
35	Part Number			<b>CCSA4M5X35</b>	<b>CCSA4M6X35</b>	<b>CCSA4M8X35</b>	<b>CCSA4M10X35</b>	<b>CCSA4M12X35</b>	<b>CCSA4M16X35</b>
	Std Pack			100	100	100	50	25	25
40	Part Number	<b>CCSA4M3X40</b>	<b>CCSA4M4X40</b>	<b>CCSA4M5X40</b>	<b>CCSA4M6X40</b>	<b>CCSA4M8X40</b>	<b>CCSA4M10X40</b>	<b>CCSA4M12X40</b>	<b>CCSA4M16X40</b>
	Std Pack	100	100	100	100	100	50	25	25
45	Part Number		<b>CCSA4M4X45</b>	<b>CCSA4M5X45</b>	<b>CCSA4M6X45</b>	<b>CCSA4M8X45</b>	<b>CCSA4M10X45</b>	<b>CCSA4M12X45</b>	<b>CCSA4M16X45</b>
	Std Pack		100	100	100	100	50	25	25
50	Part Number	<b>CCSA4M3X50</b>	<b>CCSA4M4X50</b>	<b>CCSA4M5X50</b>	<b>CCSA4M6X50</b>	<b>CCSA4M8X50</b>	<b>CCSA4M10X50</b>	<b>CCSA4M12X50</b>	<b>CCSA4M16X50</b>
	Std Pack	100	100	100	100	100	50	25	25
60	Part Number		<b>CCSA4M4X60</b>	<b>CCSA4M5X60</b>	<b>CCSA4M6X60</b>	<b>CCSA4M8X60</b>	<b>CCSA4M10X60</b>	<b>CCSA4M12X60</b>	<b>CCSA4M16X60</b>
	Std Pack		100	100	50	50	50	25	25
70	Part Number			<b>CCSA4M5X70</b>	<b>CCSA4M6X70</b>	<b>CCSA4M8X70</b>	<b>CCSA4M10X70</b>	<b>CCSA4M12X70</b>	<b>CCSA4M16X70</b>
	Std Pack			100	50	50	50	25	25
80	Part Number			<b>CCSA4M5X80</b>	<b>CCSA4M6X80</b>	<b>CCSA4M8X80</b>	<b>CCSA4M10X80</b>	<b>CCSA4M12X80</b>	<b>CCSA4M16X80</b>
	Std Pack			100	50	50	50	25	25
90	Part Number					<b>CCSA4M8X90</b>	<b>CCSA4M10X90</b>	<b>CCSA4M12X90</b>	<b>CCSA4M16X90</b>
	Std Pack					50	50	25	25
100	Part Number				<b>CCSA4M6X100</b>	<b>CCSA4M8X100</b>	<b>CCSA4M10X100</b>	<b>CCSA4M12X100</b>	<b>CCSA4M16X100</b>
	Std Pack				50	50	50	25	25

All measurements are in mm

## Did you know?

It is unknown when hex keys were first invented, though evidence suggests that hex screws, as well as their corresponding six-point tools, have been around since the mid- to late 1800s

In the 1860s, for example, several patents appeared in the United States for hexagonal-shaped tools featuring six points of contact. Of course, it wasn't until the turn of the 20th century when hex keys became commonplace.

Hex keys are also known as Allen wrenches. In the early 1900s, the Connecticut-based Allen Manufacturing Company launched its own branded hex key, naming it the "Allen wrench." Today, hex keys are often referred to as Allen wrenches.

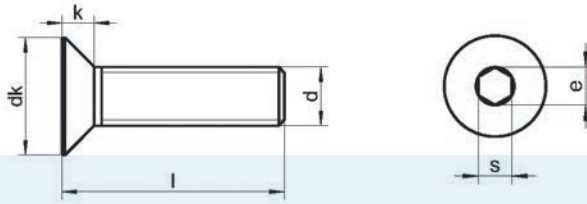
**A2**

# Countersunk Socket Screw

**CCS****304**

ANSI / ASME B18.3

UNC



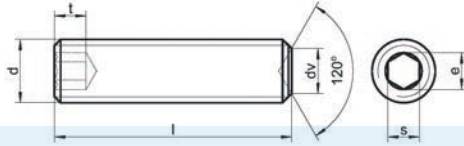
	dk max.	0.36	0.41	0.53	0.66	0.78	0.94
	k max.	0.11	0.13	0.16	0.20	0.23	0.25
	s nom.	0.09	0.13	0.16	0.19	0.22	0.31
Length (l)	Size (d)	8-32	10-24	1/4	5/16	3/8	1/2
1/4	Part Number	<b>CCSA2832UNCX14</b>					
	Std Pack	100					
3/8	Part Number	<b>CCSA2832UNCX38</b>	<b>CCSA21024UNCX38</b>	<b>CCSA214UNCX38</b>			
	Std Pack	100	100	100			
1/2	Part Number	<b>CCSA2832UNCX12</b>	<b>CCSA21024UNCX12</b>	<b>CCSA214UNCX12</b>			
	Std Pack	100	100	100			
5/8	Part Number		<b>CCSA21024UNCX58</b>	<b>CCSA214UNCX58</b>			
	Std Pack		100	100			
3/4	Part Number	<b>CCSA2832UNCX34</b>	<b>CCSA21024UNCX34</b>	<b>CCSA214UNCX34</b>	<b>CCSA2516UNCX34</b>	<b>CCSA238UNCX34</b>	<b>CCSA212UNCX34</b>
	Std Pack	100	100	100	100	100	25
1	Part Number	<b>CCSA2832UNCX1</b>	<b>CCSA21024UNCX1</b>	<b>CCSA214UNCX1</b>	<b>CCSA2516UNCX1</b>	<b>CCSA238UNCX1</b>	<b>CCSA212UNCX1</b>
	Std Pack	100	100	100	100	100	25
1-1/4	Part Number			<b>CCSA214UNCX114</b>	<b>CCSA2516UNCX114</b>	<b>CCSA238UNCX114</b>	<b>CCSA212UNCX114</b>
	Std Pack			100	100	100	25
1-1/2	Part Number			<b>CCSA214UNCX112</b>	<b>CCSA2516UNCX112</b>	<b>CCSA238UNCX112</b>	<b>CCSA212UNCX112</b>
	Std Pack			100	100	100	25
2	Part Number			<b>CCSA214UNCX2</b>	<b>CCSA2516UNCX2</b>	<b>CCSA238UNCX2</b>	<b>CCSA212UNCX2</b>
	Std Pack			100	100	100	25

**All measurements are in inches**

## Did you know?

Countersunk Head Socket Screws have a flat top and a tapered underside that is intended to be driven into a countersunk hole

Countersunk head socket screws have finer threads than wood screws. They are designed to be used in conjunction with a nut or tapped hole.



		1.40	2.00	2.50	3.00	5.00	6.00	8.00
dv max.		1.40	2.00	2.50	3.00	5.00	6.00	8.00
t min.		2.00	2.50	3.00	3.50	5.00	6.00	8.00
s nom.		1.50	2.00	2.50	3.00	4.00	5.00	6.00
e min.		1.73	2.30	2.87	3.44	4.58	5.72	6.86
Length (l)	Size (d)	M3	M4	M5	M6	M8	M10	M12
3	Part Number	<b>SSSA2M3X3</b>						
	Std Pack	100						
4	Part Number	<b>SSSA2M3X4</b>	<b>SSSA2M4X4</b>	<b>SSSA2M5X4</b>				
	Std Pack	100	100	100				
5	Part Number	<b>SSSA2M3X5</b>	<b>SSSA2M4X5</b>	<b>SSSA2M5X5</b>	<b>SSSA2M6X5</b>			
	Std Pack	100	100	100	100			
6	Part Number	<b>SSSA2M3X6</b>	<b>SSSA2M4X6</b>	<b>SSSA2M5X6</b>	<b>SSSA2M6X6</b>	<b>SSSA2M8X6</b>		
	Std Pack	100	100	100	100	100		
8	Part Number	<b>SSSA2M3X8</b>	<b>SSSA2M4X8</b>	<b>SSSA2M5X8</b>	<b>SSSA2M6X8</b>	<b>SSSA2M8X8</b>		
	Std Pack	100	100	100	100	100		
10	Part Number	<b>SSSA2M3X10</b>	<b>SSSA2M4X10</b>	<b>SSSA2M5X10</b>	<b>SSSA2M6X10</b>	<b>SSSA2M8X10</b>	<b>SSSA2M10X10</b>	
	Std Pack	100	100	100	100	100	100	
12	Part Number	<b>SSSA2M3X12</b>	<b>SSSA2M4X12</b>	<b>SSSA2M5X12</b>	<b>SSSA2M6X12</b>	<b>SSSA2M8X12</b>	<b>SSSA2M10X12</b>	<b>SSSA2M12X12</b>
	Std Pack	100	100	100	100	100	100	100
16	Part Number	<b>SSSA2M3X16</b>	<b>SSSA2M4X16</b>	<b>SSSA2M5X16</b>	<b>SSSA2M6X16</b>	<b>SSSA2M8X16</b>	<b>SSSA2M10X16</b>	<b>SSSA2M12X16</b>
	Std Pack	100	100	100	100	100	100	100
20	Part Number	<b>SSSA2M3X20</b>	<b>SSSA2M4X20</b>	<b>SSSA2M5X20</b>	<b>SSSA2M6X20</b>	<b>SSSA2M8X20</b>	<b>SSSA2M10X20</b>	<b>SSSA2M12X20</b>
	Std Pack	100	100	100	100	100	100	100
25	Part Number		<b>SSSA2M4X25</b>	<b>SSSA2M5X25</b>	<b>SSSA2M6X25</b>	<b>SSSA2M8X25</b>	<b>SSSA2M10X25</b>	<b>SSSA2M12X25</b>
	Std Pack		100	100	100	100	100	100
30	Part Number			<b>SSSA2M5X30</b>	<b>SSSA2M6X30</b>	<b>SSSA2M8X30</b>	<b>SSSA2M10X30</b>	<b>SSSA2M12X30</b>
	Std Pack			100	100	100	100	100
40	Part Number					<b>SSSA2M8X40</b>	<b>SSSA2M10X40</b>	
	Std Pack					100	100	
50	Part Number					<b>SSSA2M8X50</b>	<b>SSSA2M10X50</b>	
	Std Pack					100	100	

All measurements are in mm

## Did you know?

Socket set screws derive their holding power from compression of the point into the mating application

The more it is tightened, the greater the axial holding power of the screw. Common applications are shaft collars, crash bars on exit doors and knobs of many types.



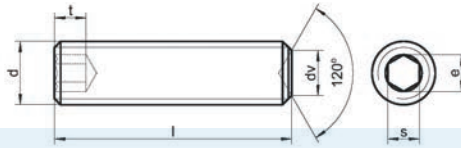
**A4**

# Socket Set Screw -Cup Point

**SSS****316**

DIN 916 / ISO 4029

METRIC



dv max.	1.40	2.00	2.50	3.00	5.00	6.00	8.00	
t min.	2.00	2.50	3.00	3.50	5.00	6.00	8.00	
s nom.	1.50	2.00	2.50	3.00	4.00	5.00	6.00	
e min.	1.73	2.30	2.87	3.44	4.58	5.72	6.86	
Length (l)	Size (d)	M3	M4	M5	M6	M8	M10	M12
3	Part Number	SSSA4M3X3						
	Std Pack	100						
4	Part Number	SSSA4M3X4	SSSA4M4X4					
	Std Pack	100	100					
5	Part Number	SSSA4M3X5	SSSA4M4X5	SSSA4M5X5				
	Std Pack	100	100	100				
6	Part Number	SSSA4M3X6	SSSA4M4X6	SSSA4M5X6	SSSA4M6X6			
	Std Pack	100	100	100	100			
8	Part Number	SSSA4M3X8	SSSA4M4X8	SSSA4M5X8	SSSA4M6X8	SSSA4M8X8		
	Std Pack	100	100	100	100	100		
10	Part Number	SSSA4M3X10	SSSA4M4X10	SSSA4M5X10	SSSA4M6X10	SSSA4M8X10	SSSA4M10X10	
	Std Pack	100	100	100	100	100	100	
12	Part Number	SSSA4M3X12	SSSA4M4X12	SSSA4M5X12	SSSA4M6X12	SSSA4M8X12	SSSA4M10X12	SSSA4M12X12
	Std Pack	100	100	100	100	100	100	100
16	Part Number	SSSA4M3X16	SSSA4M4X16	SSSA4M5X16	SSSA4M6X16	SSSA4M8X16	SSSA4M10X16	SSSA4M12X16
	Std Pack	100	100	100	100	100	100	100
20	Part Number	SSSA4M3X20	SSSA4M4X20	SSSA4M5X20	SSSA4M6X20	SSSA4M8X20	SSSA4M10X20	SSSA4M12X20
	Std Pack	100	100	100	100	100	100	100
25	Part Number		SSSA4M4X25	SSSA4M5X25	SSSA4M6X25	SSSA4M8X25	SSSA4M10X25	SSSA4M12X25
	Std Pack		100	100	100	100	100	100

All measurements are in mm

## Common Set Screw Point Styles:

**Cup:** most commonly used style; the thin edge design allows for high holding power for applications requiring quick, permanent and semi-permanent part assemblies.

**Cone:** highest holding power due to the sharp cone shaped point which allows for deep penetration of the part; commonly used in the permanent setting of parts.

**Flat:** due to the flat point design, this style is used in applications where frequent adjustments are required and minimal surface damage is desired.

**Half Dog:** also known as Extended Point or Pilot Point; it features a round nub that protrudes from the bottom of the set screw, thus extended or pilot point. The point is designed to align or mate with a slot.

**Oval:** like the flat point design, this style is also used in applications where frequent adjustments are required and minimal surface damage is desired

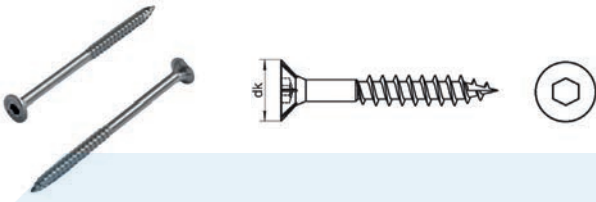
**Knurled:** the grooves on the cup- point are designed to improve grip and prevent backing out or loosening. Internal and external knurled styled points are available depending on manufacturer.

**BBS**

## Bugle Batten Screw T17 With Ribs

**A2**

METRIC

**304**

Gauge	Length (mm)	dk max.	Drive Type	TPI	Part Number	Std Pack
14G	35	14.30	Hex 5mm	10	<b>BBSA214GX35</b>	250
14G	50	14.30	Hex 5mm	10	<b>BBSA214GX50</b>	250
14G	65	14.30	Hex 5mm	10	<b>BBSA214GX65</b>	100
14G	75	14.30	Hex 5mm	10	<b>BBSA214GX75</b>	100
14G	100	14.30	Hex 5mm	10	<b>BBSA214GX100</b>	100
14G	120	14.30	Hex 5mm	10	<b>BBSA214GX120</b>	100
14G	150	14.30	Hex 5mm	10	<b>BBSA214GX150</b>	100

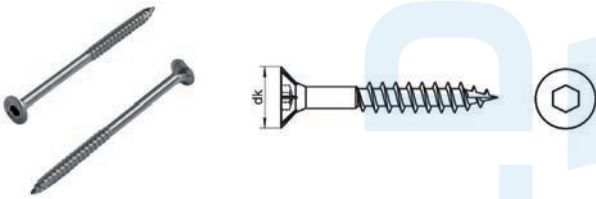
All measurements are in mm

**BBS**

## Bugle Batten Screw T17 With Ribs

**A4**

METRIC

**316**

Gauge	Length (mm)	dk max.	Drive Type	TPI	Part Number	Std Pack
14G	50	14.30	Hex 5mm	10	<b>BBSA414GX50</b>	250
14G	65	14.30	Hex 5mm	10	<b>BBSA414GX65</b>	100
14G	75	14.30	Hex 5mm	10	<b>BBSA414GX75</b>	100
14G	100	14.30	Hex 5mm	10	<b>BBSA414GX100</b>	100
14G	120	14.30	Hex 5mm	10	<b>BBSA414GX120</b>	100
14G	150	14.30	Hex 5mm	10	<b>BBSA414GX150</b>	100

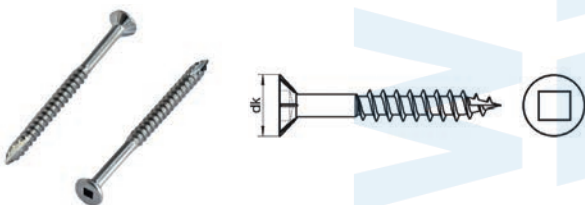
All measurements are in mm

**SDS**

## Square Drive Decking Screw T17

**A2**

METRIC

**304**

Gauge	Length (mm)	dk max.	Drive Type	TPI	Part Number	Std Pack
8G	50	8.20	#2	10	<b>SDSA28GX50</b>	200
10G	40	9.50	#2	12	<b>SDA210GX40</b>	200
10G	50	9.50	#2	12	<b>SDSA210GX50</b>	200
10G	50	9.50	#2	12	<b>SDSA210GX50R</b>	1000
10G	65	9.50	#2	12	<b>SDSA210GX65</b>	200
10G	65	9.50	#2	12	<b>SDSA210GX65R</b>	500
10G	75	9.50	#2	12	<b>SDSA210GX75</b>	200
12G	50	10.40	#2	11	<b>SDSA212GX50</b>	500
12G	65	10.40	#2	11	<b>SDSA212GX65</b>	500

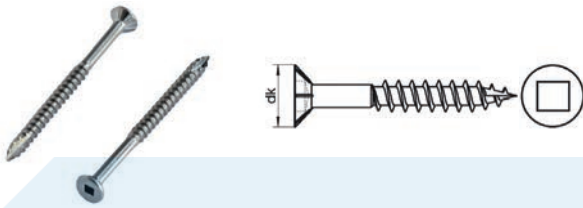
All measurements are in mm

**A4**

# Square Drive Decking Screw T17

**SDS****316**

METRIC



Gauge	Length (mm)	dk max.	Drive Type	TPI	Part Number	Std Pack
8G	50	8.20	#2	10	SDSA48GX50	200
10G	40	9.50	#2	12	SDSA410GX40	200
10G	50	9.50	#2	12	SDSA410GX50	200
10G	50	9.50	#2	12	SDSA410GX50R	1000
10G	65	9.50	#2	12	SDSA410GX65	200
10G	65	9.50	#2	12	SDSA410GX65R	500
10G	75	9.50	#2	12	SDSA410GX75	200
12G	65	10.40	#2	11	SDSA412GX65	500

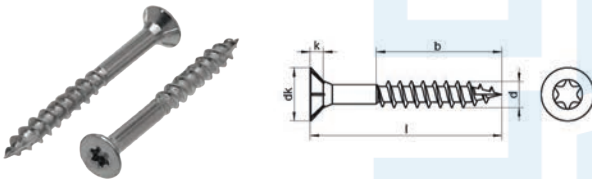
All measurements are in mm

**A2**

# Torx Drive Decking Screw T17

**SDX****304**

METRIC



Gauge	Length (mm)	dk max.	Drive Type	TPI	Part Number	Std Pack
10	50	9.50	T20	12	SDXA210GX50	200
10	65	9.50	T20	12	SDXA210GX65	500
12	50	11.00	T25	11	SDXA212GX50	200
12	65	11.00	T25	11	SDXA212GX65	500

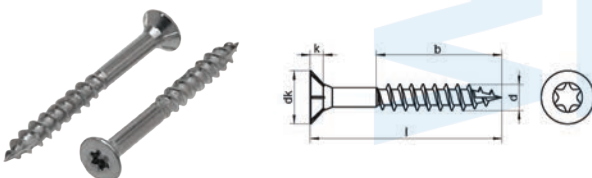
All measurements are in mm

**A4**

# Torx Drive Decking Screw T17

**SDX****316**

METRIC



Gauge	Length (mm)	dk max.	Drive Type	TPI	Part Number	Std Pack
10	50	9.50	T20	12	SDXA410GX50	200
10	65	9.50	T20	12	SDXA410GX65	500
12	50	11.00	T25	11	SDXA412GX50	200
12	65	11.00	T25	11	SDXA412GX65	500

All measurements are in mm

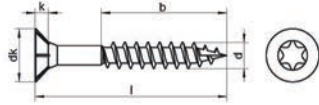
# SDX

## Torx Drive Decking Screw T17 - 12G Head

### A2

### 304

METRIC



Gauge	Length	dk max.	Drive Type	TPI	Head Size	Part Number	Std Pack
14	60	11.00	T25	10	12G	<b>SDXA214GX60S</b>	200
14	80	11.00	T25	10	12G	<b>SDXA214GX80S</b>	200

All measurements are in mm

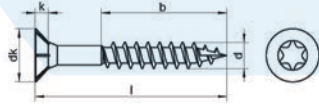
# SDX

## Torx Drive Decking Screw T17 - 12G Head

### A4

### 316

METRIC



Gauge	Length	dk max.	Drive Type	TPI	Head Size	Part Number	Std Pack
14	60	11.00	T25	10	12G	<b>SDXA414GX60S</b>	200
14	80	11.00	T25	10	12G	<b>SDXA414GX80S</b>	200

All measurements are in mm

# SDT

## Square Drive Decking Screw T17 - Trim Head

### A2

### 304

METRIC



Gauge	Length (mm)	dk max.	Drive Type	TPI	Part Number	Std Pack
8G	50	6.50	#1	10	<b>SDTA28GX50</b>	1000
10G	50	7.26	#1	8	<b>SDTA210GX50</b>	200
10G	65	7.26	#1	8	<b>SDTA210GX65</b>	200

All measurements are in mm

# SDT

## Square Drive Decking Screw T17 - Trim Head

### A4

### 316

METRIC



Gauge	Length (mm)	dk max.	Drive Type	TPI	Part Number	Std Pack
8G	50	6.50	#1	10	<b>SDTA48GX50</b>	1000

All measurements are in mm

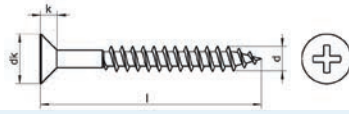
A2

## Countersunk Needle Point Chipboard Screw

CNP

304

METRIC



dk max.		8.10	9.50
k approx.		2.50	3.00
xr no.		P2	P2
Length (l)	Size (d)	8G (4.2mm)	10G (4.8mm)
19	Part Number	<b>CNPA28GX19</b>	
	Std Pack	1000	
25	Part Number	<b>CNPA28GX25</b>	<b>CNPA210GX25</b>
	Std Pack	1000	500
32	Part Number	<b>CNPA28GX32</b>	<b>CNPA210GX32</b>
	Std Pack	1000	500
38	Part Number	<b>CNPA28GX38</b>	<b>CNPA210GX38</b>
	Std Pack	1000	500
45	Part Number	<b>CNPA28GX45</b>	<b>CNPA210GX45</b>
	Std Pack	1000	500
50	Part Number	<b>CNPA28GX50</b>	<b>CNPA210GX50</b>
	Std Pack	1000	500
65	Part Number		<b>CNPA210GX65</b>
	Std Pack		500
75	Part Number		<b>CNPA210GX75</b>
	Std Pack		500
100	Part Number		<b>CNPA210GX100</b>
	Std Pack		500

All measurements are in mm

A2

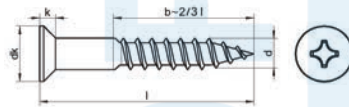
## Countersunk Phillips Wood Screw

CWS

304

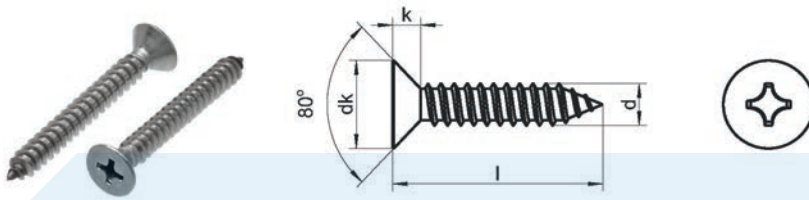
JIS B 1112

METRIC



dk max.		5.50	6.80	8.10	9.50	10.80	12.40
k approx.		1.70	2.10	2.50	3.00	3.40	3.80
xr no.		P1	P2	P2	P2	P3	P3
Length (l)	Size (d)	4G (2.9mm)	6G (3.5mm)	8G (4.2mm)	10G (4.8mm)	12G (5.5mm)	14G (6.3mm)
13	Part Number	<b>CWSA24GX13</b>					
	Std Pack	200					
16	Part Number	<b>CWSA24GX16</b>	<b>CWSA26GX16</b>				
	Std Pack	200	200				
19	Part Number	<b>CWSA24GX19</b>	<b>CWSA26GX19</b>	<b>CWSA28GX19</b>			
	Std Pack	200	200	100			
25	Part Number		<b>CWSA26GX25</b>	<b>CWSA28GX25</b>	<b>CWSA210GX25</b>		
	Std Pack		200	100	100		
32	Part Number			<b>CWSA28GX32</b>	<b>CWSA210GX32</b>	<b>CWSA212GX32</b>	
	Std Pack			100	100	100	
38	Part Number			<b>CWSA28GX38</b>	<b>CWSA210GX38</b>	<b>CWSA212GX38</b>	
	Std Pack			100	100	100	
45	Part Number				<b>CWSA210GX45</b>	<b>CWSA212GX45</b>	
	Std Pack				100	100	
50	Part Number				<b>CWSA210GX50</b>	<b>CWSA212GX50</b>	<b>CWSA214GX50</b>
	Std Pack				100	100	100
65	Part Number					<b>CWSA212GX65</b>	<b>CWSA214GX65</b>
	Std Pack					100	100
75	Part Number						<b>CWSA214GX75</b>
	Std Pack						100

All measurements are in mm



dk max.	4.30	5.50	6.80	8.10	9.50	10.80	12.40	
k max.	1.30	1.70	2.10	2.50	3.00	3.40	3.80	
xr no.	P1	P1	P2	P2	P2	P3	P3	
Length (l)	Size (d)	2G (2.2mm)	4G (2.9mm)	6G (3.5mm)	8G (4.2mm)	10G (4.8mm)	12G (5.5mm)	14G (6.3mm)
6.5	Part Number	<b>CSTA226X6</b>	<b>CSTA246X6</b>	<b>CSTA266X6</b>	<b>CSTA286X6</b>			
	Std Pack	200	200	200	200			
9.5	Part Number	<b>CSTA226X95</b>	<b>CSTA246X95</b>	<b>CSTA266X95</b>	<b>CSTA286X95</b>	<b>CSTA2106X95</b>		
	Std Pack	200	200	200	200	100		
13	Part Number	<b>CSTA226X13</b>	<b>CSTA246X13</b>	<b>CSTA266X13</b>	<b>CSTA286X13</b>	<b>CSTA2106X13</b>	<b>CSTA2126X13</b>	<b>CSTA2146X13</b>
	Std Pack	200	200	200	200	100	100	100
16	Part Number	<b>CSTA226X16</b>	<b>CSTA246X16</b>	<b>CSTA266X16</b>	<b>CSTA286X16</b>	<b>CSTA2106X16</b>	<b>CSTA2126X16</b>	<b>CSTA2146X16</b>
	Std Pack	200	200	200	200	100	100	100
19	Part Number	<b>CSTA226X19</b>	<b>CSTA246X19</b>	<b>CSTA266X19</b>	<b>CSTA286X19</b>	<b>CSTA2106X19</b>	<b>CSTA2126X19</b>	<b>CSTA2146X19</b>
	Std Pack	200	200	200	200	100	100	100
25	Part Number		<b>CSTA246X25</b>	<b>CSTA266X25</b>	<b>CSTA286X25</b>	<b>CSTA2106X25</b>	<b>CSTA2126X25</b>	<b>CSTA2146X25</b>
	Std Pack		200	200	200	100	100	100
32	Part Number		<b>CSTA246X32</b>	<b>CSTA266X32</b>	<b>CSTA286X32</b>	<b>CSTA2106X32</b>	<b>CSTA2126X32</b>	<b>CSTA2146X32</b>
	Std Pack		200	200	200	100	100	100
38	Part Number			<b>CSTA266X38</b>	<b>CSTA286X38</b>	<b>CSTA2106X38</b>	<b>CSTA2126X38</b>	<b>CSTA2146X38</b>
	Std Pack			200	200	100	100	100
45	Part Number			<b>CSTA266X45</b>	<b>CSTA286X45</b>	<b>CSTA2106X45</b>	<b>CSTA2126X45</b>	<b>CSTA2146X45</b>
	Std Pack			200	200	100	100	100
50	Part Number			<b>CSTA266X50</b>	<b>CSTA286X50</b>	<b>CSTA2106X50</b>	<b>CSTA2126X50</b>	<b>CSTA2146X50</b>
	Std Pack			200	200	100	100	100
65	Part Number				<b>CSTA286X65</b>	<b>CSTA2106X65</b>	<b>CSTA2126X65</b>	<b>CSTA2146X65</b>
	Std Pack				100	100	100	100
75	Part Number				<b>CSTA286X75</b>	<b>CSTA2106X75</b>	<b>CSTA2126X75</b>	<b>CSTA2146X75</b>
	Std Pack				100	100	100	100
100	Part Number				<b>CSTA286X100</b>	<b>CSTA2106X100</b>	<b>CSTA2126X100</b>	<b>CSTA2146X100</b>
	Std Pack				100	100	100	100

All measurements are in mm

## Did you know?

Bugle Batten Screws are pretty much an Australian invention

Traditionally, coach screws have been the fastener of choice for a lot of timber joints but either the hexagon head sticks up and causes trip hazards or the sharp edges and protrusions make them unsuitable for areas of public use, it also takes a fair amount of extra work to neatly counterbore and sink the heads.

To get around this problem the Batten Screw was developed, it has a countersunk head so it lies flat in the timber and has an internal hex drive so you can get plenty of leverage to tighten them up. To make countersinking even easier they are manufactured with ribs under the head so you can drive them straight in and they will cut the countersink themselves. The head is also a special shape known as a bugle head instead of a straight countersink, the idea being the bugle form won't promote timber splitting as it countersinks due to the shallow change in angle.



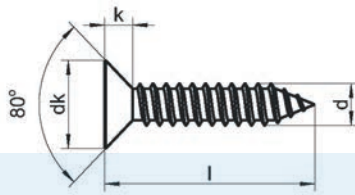
**A4**

# Countersunk Phillips Self Tapping Screw

**CST****316**

DIN 7982C / ISO 7050

METRIC



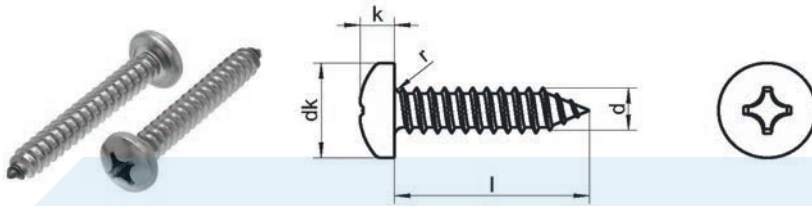
dk max.	5.50	6.80	8.10	9.50	10.80	12.40	
k max.	1.70	2.10	2.50	3.00	3.40	3.80	
xr no.	P1	P2	P2	P2	P3	P3	
Length (l)	Size (d)	4G (2.9mm)	6G (3.5mm)	8G (4.2mm)	10G (4.8mm)	12G (5.5mm)	14G (6.3mm)
6.5	Part Number	<b>CSTA446X6</b>	<b>CSTA466X6</b>	<b>CSTA486X6</b>			
	Std Pack	100	100	100			
9.5	Part Number	<b>CSTA446X95</b>	<b>CSTA466X95</b>	<b>CSTA486X95</b>			
	Std Pack	100	100	100			
13	Part Number	<b>CSTA446X13</b>	<b>CSTA466X13</b>	<b>CSTA486X13</b>	<b>CSTA4106X13</b>	<b>CSTA4126X13</b>	<b>CSTA4146X13</b>
	Std Pack	100	100	100	100	100	100
16	Part Number	<b>CSTA446X16</b>	<b>CSTA466X16</b>	<b>CSTA486X16</b>	<b>CSTA4106X16</b>	<b>CSTA4126X16</b>	<b>CSTA4146X16</b>
	Std Pack	100	100	100	100	100	100
19	Part Number	<b>CSTA446X19</b>	<b>CSTA466X19</b>	<b>CSTA486X19</b>	<b>CSTA4106X19</b>	<b>CSTA4126X19</b>	<b>CSTA4146X19</b>
	Std Pack	100	100	100	100	100	100
25	Part Number	<b>CSTA446X25</b>	<b>CSTA466X25</b>	<b>CSTA486X25</b>	<b>CSTA4106X25</b>	<b>CSTA4126X25</b>	<b>CSTA4146X25</b>
	Std Pack	100	100	100	100	100	100
32	Part Number		<b>CSTA466X32</b>	<b>CSTA486X32</b>	<b>CSTA4106X32</b>	<b>CSTA4126X32</b>	<b>CSTA4146X32</b>
	Std Pack		100	100	100	100	100
38	Part Number		<b>CSTA466X38</b>	<b>CSTA486X38</b>	<b>CSTA4106X38</b>	<b>CSTA4126X38</b>	<b>CSTA4146X38</b>
	Std Pack		100	100	100	100	100
45	Part Number		<b>CSTA466X45</b>	<b>CSTA486X45</b>	<b>CSTA4106X45</b>	<b>CSTA4126X45</b>	<b>CSTA4146X45</b>
	Std Pack		100	100	100	100	100
50	Part Number		<b>CSTA466X50</b>	<b>CSTA486X50</b>	<b>CSTA4106X50</b>	<b>CSTA4126X50</b>	<b>CSTA4146X50</b>
	Std Pack		100	100	100	100	100
65	Part Number			<b>CSTA486X65</b>	<b>CSTA4106X65</b>	<b>CSTA4126X65</b>	<b>CSTA4146X65</b>
	Std Pack			100	100	100	100
75	Part Number			<b>CSTA486X75</b>	<b>CSTA4106X75</b>	<b>CSTA4126X75</b>	<b>CSTA4146X75</b>
	Std Pack			100	100	100	100
100	Part Number			<b>CSTA486X100</b>	<b>CSTA4106X100</b>	<b>CSTA4126X100</b>	<b>CSTA4146X100</b>
	Std Pack			100	100	100	100

All measurements are in mm

## Did you know?

Self-tapping screws come in all sizes and tip types, and they have various shaped heads

When you choose the right size self-tapping screw, you should consider the length of the screw tip, according to the material's thickness. There must be enough space for the tip of the drilled screw to fully enter the material before the threading begins. Otherwise the driving in of the screw will cause thread stripping and the result won't be properly secure.



Length (l)	Size (d)	2G (2.2mm)	4G (2.9mm)	6G (3.5mm)	8G (4.2mm)	10G (4.8mm)	12G (5.5mm)	14G (6.3mm)
6.5	Part Number	<b>PSTA226X6</b>	<b>PSTA246X6</b>	<b>PSTA266X6</b>	<b>PSTA286X6</b>			
	Std Pack	200	200	200	200			
9.5	Part Number	<b>PSTA226X95</b>	<b>PSTA246X95</b>	<b>PSTA266X95</b>	<b>PSTA286X95</b>	<b>PSTA2106X95</b>		
	Std Pack	200	200	200	200	100		
13	Part Number		<b>PSTA246X13</b>	<b>PSTA266X13</b>	<b>PSTA286X13</b>	<b>PSTA2106X13</b>	<b>PSTA2126X13</b>	<b>PSTA2146X13</b>
	Std Pack		200	200	200	100	100	100
16	Part Number		<b>PSTA246X16</b>	<b>PSTA266X16</b>	<b>PSTA286X16</b>	<b>PSTA2106X16</b>	<b>PSTA2126X16</b>	<b>PSTA2146X16</b>
	Std Pack		200	200	200	100	100	100
19	Part Number		<b>PSTA246X19</b>	<b>PSTA266X19</b>	<b>PSTA286X19</b>	<b>PSTA2106X19</b>	<b>PSTA2126X19</b>	<b>PSTA2146X19</b>
	Std Pack		200	200	200	100	100	100
25	Part Number		<b>PSTA246X25</b>	<b>PSTA266X25</b>	<b>PSTA286X25</b>	<b>PSTA2106X25</b>	<b>PSTA2126X25</b>	<b>PSTA2146X25</b>
	Std Pack		200	200	200	100	100	100
32	Part Number		<b>PSTA246X32</b>	<b>PSTA266X32</b>	<b>PSTA286X32</b>	<b>PSTA2106X32</b>	<b>PSTA2126X32</b>	<b>PSTA2146X32</b>
	Std Pack		200	200	200	100	100	100
38	Part Number			<b>PSTA266X38</b>	<b>PSTA286X38</b>	<b>PSTA2106X38</b>	<b>PSTA2126X38</b>	<b>PSTA2146X38</b>
	Std Pack			200	200	100	100	100
45	Part Number			<b>PSTA266X45</b>	<b>PSTA286X45</b>	<b>PSTA2106X45</b>	<b>PSTA2126X45</b>	<b>PSTA2146X45</b>
	Std Pack			200	200	100	100	100
50	Part Number			<b>PSTA266X50</b>	<b>PSTA286X50</b>	<b>PSTA2106X50</b>	<b>PSTA2126X50</b>	<b>PSTA2146X50</b>
	Std Pack			200	200	100	100	100
65	Part Number				<b>PSTA286X65</b>	<b>PSTA2106X65</b>	<b>PSTA2126X65</b>	<b>PSTA2146X65</b>
	Std Pack				100	100	100	100
75	Part Number				<b>PSTA286X75</b>	<b>PSTA2106X75</b>	<b>PSTA2126X75</b>	<b>PSTA2146X75</b>
	Std Pack				100	100	100	100
100	Part Number				<b>PSTA286X100</b>	<b>PSTA2106X100</b>	<b>PSTA2126X100</b>	<b>PSTA2146X100</b>
	Std Pack				100	100	100	100

All measurements are in mm

## Did you know?

Self Tapping Screws function by having a cutting edge which drills away the material, making a tiny hole for the screw to go into

This has nothing to do with the point of the screw, but has everything to do with the threads which are designed to cut through the material.

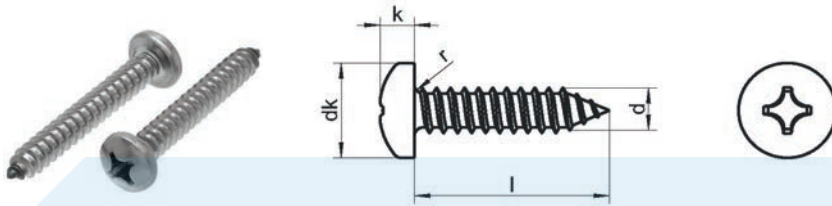
**A4****316**

# Pan Phillips Self Tapping Screw

**PST**

DIN 7981C / ISO 7049

METRIC



dk max.	5.60	6.90	8.20	9.50	10.80	12.50	
k max.	2.20	2.60	3.05	3.55	3.95	4.55	
xr no.	P1	P2	P2	P2	P3	P3	
Length (l)	Size (d)	4G (2.9mm)	6G (3.5mm)	8G (4.2mm)	10G (4.8mm)	12G (5.5mm)	14G (6.3mm)
6.5	Part Number	<b>PSTA446X6</b>	<b>PSTA466X6</b>	<b>PSTA486X6</b>			
	Std Pack	100	100	100			
9.5	Part Number	<b>PSTA446X95</b>	<b>PSTA466X95</b>	<b>PSTA486X95</b>			
	Std Pack	100	100	100			
13	Part Number	<b>PSTA446X13</b>	<b>PSTA466X13</b>	<b>PSTA486X13</b>	<b>PSTA4106X13</b>	<b>PSTA4126X13</b>	<b>PSTA4146X13</b>
	Std Pack	100	100	100	100	100	100
16	Part Number	<b>PSTA446X16</b>	<b>PSTA466X16</b>	<b>PSTA486X16</b>	<b>PSTA4106X16</b>	<b>PSTA4126X16</b>	<b>PSTA4146X16</b>
	Std Pack	100	100	100	100	100	100
19	Part Number	<b>PSTA446X19</b>	<b>PSTA466X19</b>	<b>PSTA486X19</b>	<b>PSTA4106X19</b>	<b>PSTA4126X19</b>	<b>PSTA4146X19</b>
	Std Pack	100	100	100	100	100	100
25	Part Number	<b>PSTA446X25</b>	<b>PSTA466X25</b>	<b>PSTA486X25</b>	<b>PSTA4106X25</b>	<b>PSTA4126X25</b>	<b>PSTA4146X25</b>
	Std Pack	100	100	100	100	100	100
32	Part Number		<b>PSTA466X32</b>	<b>PSTA486X32</b>	<b>PSTA4106X32</b>	<b>PSTA4126X32</b>	<b>PSTA4146X32</b>
	Std Pack		100	100	100	100	100
38	Part Number		<b>PSTA466X38</b>	<b>PSTA486X38</b>	<b>PSTA4106X38</b>	<b>PSTA4126X38</b>	<b>PSTA4146X38</b>
	Std Pack		100	100	100	100	100
45	Part Number		<b>PSTA466X45</b>	<b>PSTA486X45</b>	<b>PSTA4106X45</b>	<b>PSTA4126X45</b>	<b>PSTA4146X45</b>
	Std Pack		100	100	100	100	100
50	Part Number		<b>PSTA466X50</b>	<b>PSTA486X50</b>	<b>PSTA4106X50</b>	<b>PSTA4126X50</b>	<b>PSTA4146X50</b>
	Std Pack		100	100	100	100	100
65	Part Number			<b>PSTA486X65</b>	<b>PSTA4106X65</b>	<b>PSTA4126X65</b>	<b>PSTA4146X65</b>
	Std Pack			100	100	100	100
75	Part Number			<b>PSTA486X75</b>	<b>PSTA4106X75</b>	<b>PSTA4126X75</b>	<b>PSTA4146X75</b>
	Std Pack			100	100	100	100
100	Part Number			<b>PSTA486X100</b>	<b>PSTA4106X100</b>	<b>PSTA4126X100</b>	<b>PSTA4146X100</b>
	Std Pack			100	100	100	100

All measurements are in mm

## Did you know?

The most common uses for Self-Tapping Screws:

- 1 & 2 - layer thin gauge sheet metal securing
- Fastening of aluminium sections to each other and into screw flutes
- Screwing into plastic housings
- Fixing metal brackets into ply and timber

# CSQ

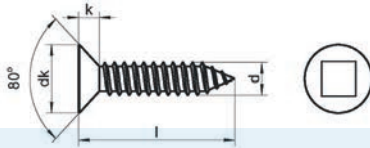
## Countersunk Square Self Tapping Screw

A2

DIN 7982C / ISO 7050

METRIC

304



dk max.		6.80	8.10	9.50
k max.		2.10	2.50	3.00
Drive Type		#2	#2	#2
Length (l)	Size (d)	6G (3.5mm)	8G (4.2mm)	10G (4.8mm)
13	Part Number	<b>CSQA26GX13</b>	<b>CSQA28GX13</b>	<b>CSQA210GX13</b>
	Std Pack	100	100	100
16	Part Number	<b>CSQA26GX16</b>	<b>CSQA28GX16</b>	<b>CSQA210GX16</b>
	Std Pack	100	100	100
19	Part Number	<b>CSQA26GX19</b>	<b>CSQA28GX19</b>	<b>CSQA210GX19</b>
	Std Pack	100	100	100
25	Part Number	<b>CSQA26GX25</b>	<b>CSQA28GX25</b>	<b>CSQA210GX25</b>
	Std Pack	100	100	100
32	Part Number	<b>CSQA26GX32</b>	<b>CSQA28GX32</b>	<b>CSQA210GX32</b>
	Std Pack	100	100	100
38	Part Number	<b>CSQA26GX38</b>	<b>CSQA28GX38</b>	<b>CSQA210GX38</b>
	Std Pack	100	100	100
45	Part Number	<b>CSQA26GX45</b>	<b>CSQA28GX45</b>	<b>CSQA210GX45</b>
	Std Pack	100	100	100
50	Part Number	<b>CSQA26GX50</b>	<b>CSQA28GX50</b>	<b>CSQA210GX50</b>
	Std Pack	100	100	100
65	Part Number		<b>CSQA28GX65</b>	<b>CSQA210GX65</b>
	Std Pack		100	100
75	Part Number		<b>CSQA28GX75</b>	<b>CSQA210GX75</b>
	Std Pack		100	100

All measurements are in mm

# PSQ

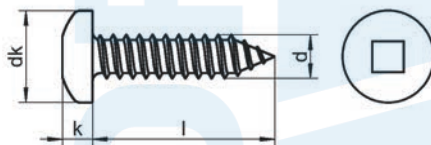
## Pan Square Self Tapping Screw

A2

DIN 7981C / ISO 7049

METRIC

304



dk max.		6.90	8.20	9.50
k max.		2.60	3.05	3.55
Drive Type		#2	#2	#2
Length (l)	Size (d)	6G (3.5mm)	8G (4.2mm)	10G (4.8mm)
13	Part Number	<b>PSQA26GX13</b>	<b>PSQA28GX13</b>	<b>PSQA210GX13</b>
	Std Pack	200	100	100
16	Part Number	<b>PSQA26GX16</b>	<b>PSQA28GX16</b>	<b>PSQA210GX16</b>
	Std Pack	200	100	100
19	Part Number	<b>PSQA26GX19</b>	<b>PSQA28GX19</b>	<b>PSQA210GX19</b>
	Std Pack	200	100	100
25	Part Number	<b>PSQA26GX25</b>	<b>PSQA28GX25</b>	<b>PSQA210GX25</b>
	Std Pack	200	100	100
32	Part Number	<b>PSQA26GX32</b>	<b>PSQA28GX32</b>	<b>PSQA210GX32</b>
	Std Pack	200	100	100
38	Part Number	<b>PSQA26GX38</b>	<b>PSQA28GX38</b>	<b>PSQA210GX38</b>
	Std Pack	200	100	100
45	Part Number	<b>PSQA26GX45</b>	<b>PSQA28GX45</b>	<b>PSQA210GX45</b>
	Std Pack	200	100	100
50	Part Number	<b>PSQA26GX50</b>	<b>PSQA28GX50</b>	<b>PSQA210GX50</b>
	Std Pack	200	100	100
65	Part Number		<b>PSQA28GX65</b>	<b>PSQA210GX65</b>
	Std Pack		100	100
75	Part Number		<b>PSQA28GX75</b>	<b>PSQA210GX75</b>
	Std Pack		100	100

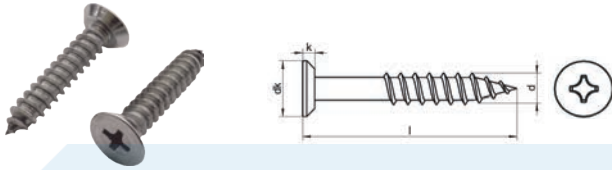
All measurements are in mm

**A2**

# Countersunk Undercut Phillips Self Tapping Screw

**CUP****304**

METRIC



dk max.		8.10	9.50
k max.		2.50	3.00
sr no.		P2	P2
Length (l)	Size (d)	8G (4.2mm)	10G (4.8mm)
13	Part Number	<b>CUPA28GX13</b>	<b>CUPA210GX13</b>
	Std Pack	1000	500
16	Part Number	<b>CUPA28GX16</b>	<b>CUPA210GX16</b>
	Std Pack	1000	500
19	Part Number	<b>CUPA28GX19</b>	<b>CUPA210GX19</b>
	Std Pack	1000	500
25	Part Number	<b>CUPA28GX25</b>	<b>CUPA210GX25</b>
	Std Pack	1000	500

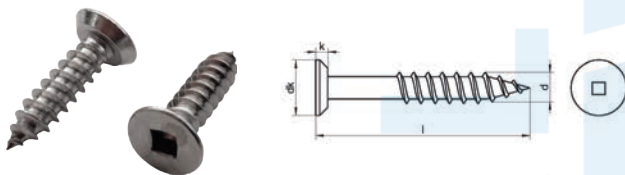
All measurements are in mm

**A2**

# Countersunk Undercut Square Drive Self Tapping Screw

**CUS****304**

METRIC



dk max.		8.10	9.50
k max.		2.50	3.00
Drive Type		#2	#2
Length (l)	Size (d)	8G (4.2mm)	10G (4.8mm)
13	Part Number	<b>CUSA28GX13</b>	<b>CUSA210GX13</b>
	Std Pack	1000	500
19	Part Number	<b>CUSA28GX19</b>	<b>CUSA210GX19</b>
	Std Pack	1000	500

All measurements are in mm

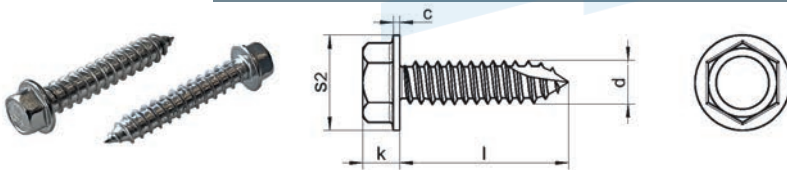
**A2**

# Hex Flange Pit Screw T17

**TPS****304**

AS 3566

METRIC



Type (d)	Length (l)	s2 max.	k max.	c min.	Drive Size	Drive Type	Part Number	Std Pack
14G	35.00	13.50	5.90	1.00	5/16"	Hex Socket	<b>TPSA214GX35</b>	500

All measurements are in mm

# XFS

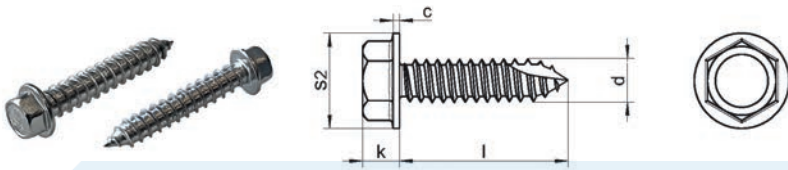
## Hex Flange Pit Screw T17

AS 3566

METRIC

A4

316



S2 max.		11.00	13.50
k max.		5.40	5.90
c min.		1.00	1.00
Drive Size		5/16"	5/16"
Drive Type		Hex Socket	Hex Socket
Length (l)	Size (d)	12G (5.5mm)	14G (6.3mm)
22	Part Number	<b>XFSA412GX22</b>	
	Std Pack	1000	
25	Part Number	<b>XFSA412GX25</b>	<b>XFSA414GX25</b>
	Std Pack	1000	1000
32	Part Number	<b>XFSA412GX32</b>	<b>XFSA414GX32</b>
	Std Pack	1000	1000
35	Part Number		<b>TPSA414GX35</b>
	Std Pack		500
38	Part Number	<b>XFSA412GX38</b>	<b>XFSA414GX38</b>
	Std Pack	1000	1000
45	Part Number	<b>XFSA412GX45</b>	<b>XFSA414GX45</b>
	Std Pack	1000	1000
50	Part Number	<b>XFSA412GX50</b>	<b>XFSA414GX50</b>
	Std Pack	1000	1000
65	Part Number	<b>XFSA412GX65</b>	<b>XFSA414GX65</b>
	Std Pack	1000	500
75	Part Number		<b>XFSA414GX75</b>
	Std Pack		500
90	Part Number		<b>XFSA414GX90</b>
	Std Pack		500

All measurements are in mm

# XFP

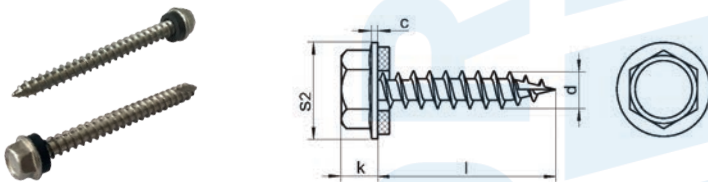
## Hex Flange Pit Screw w/Neo T17

AS 3566

METRIC

A4

316



S2 max.		11.00	13.50
k max.		5.40	5.90
c min.		1.00	1.00
Drive Size		5/16"	5/16"
Drive Type		Hex Socket	Hex Socket
Length (l)	Size (d)	12G (5.5mm)	14G (6.3mm)
22	Part Number	<b>XFPA412GX22</b>	
	Std Pack	1000	
25	Part Number	<b>XFPA412GX25</b>	<b>XFPA414GX25</b>
	Std Pack	1000	1000
32	Part Number	<b>XFPA412GX32</b>	<b>XFPA414GX32</b>
	Std Pack	1000	1000
38	Part Number	<b>XFPA412GX38</b>	<b>XFPA414GX38</b>
	Std Pack	1000	1000
45	Part Number	<b>XFPA412GX45</b>	<b>XFPA414GX45</b>
	Std Pack	1000	1000
50	Part Number	<b>XFPA412GX50</b>	<b>XFPA414GX50</b>
	Std Pack	1000	1000
65	Part Number	<b>XFPA412GX65</b>	<b>XFPA414GX65</b>
	Std Pack	1000	500
75	Part Number		<b>XFPA414GX75</b>
	Std Pack		500
90	Part Number		<b>XFPA414GX90</b>
	Std Pack		500

All measurements are in mm



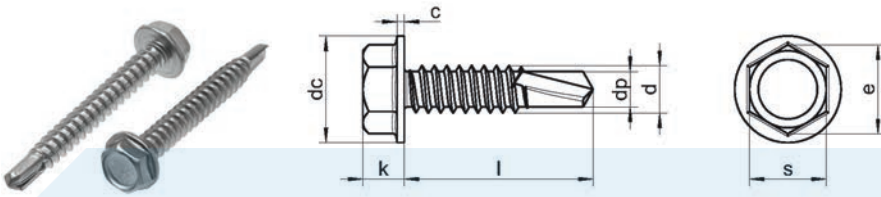
**A2****304**

# Hexagon Flange Self Drilling Screw

**XDS**

DIN 7504K

METRIC



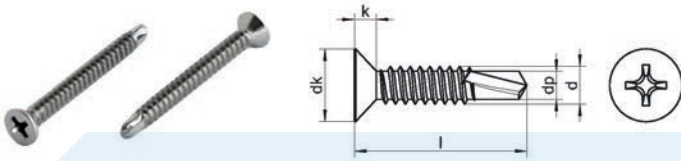
dc max.		8.30	8.30	8.80	10.50	11.00	13.50
k max.		3.40	3.40	4.10	4.30	5.40	5.90
c min.		0.60	0.60	0.80	0.90	1.00	1.00
e min.		5.96	5.96	7.59	8.71	8.71	10.95
s max.		5.50	5.50	7.00	8.00	8.00	10.00
dp max.		2.80	3.10	3.60	4.10	4.80	5.80
Length (l)	Size (d)	6G (3.5mm)	7G (3.9mm)	8G (4.2mm)	10G (4.8mm)	12G (5.5mm)	14G (6.3mm)
9.5	Part Number	<b>XDSA2M35X95</b>					
	Std Pack	1000					
13	Part Number	<b>XDSA2M35X13</b>	<b>XDSA2M39X13</b>	<b>XDSA2M42X13</b>	<b>XDSA2M48X13</b>		
	Std Pack	1000	1000	1000	1000		
16	Part Number	<b>XDSA2M35X16</b>	<b>XDSA2M39X16</b>	<b>XDSA2M42X16</b>	<b>XDSA2M48X16</b>		
	Std Pack	1000	1000	1000	1000		
19	Part Number	<b>XDSA2M35X19</b>	<b>XDSA2M39X19</b>	<b>XDSA2M42X19</b>	<b>XDSA2M48X19</b>	<b>XDSA2M55X19</b>	<b>XDSA2M63X19</b>
	Std Pack	1000	1000	1000	1000	1000	1000
22	Part Number		<b>XDSA2M39X22</b>	<b>XDSA2M42X22</b>	<b>XDSA2M48X22</b>	<b>XDSA2M55X22</b>	<b>XDSA2M63X22</b>
	Std Pack		1000	1000	1000	1000	1000
25	Part Number	<b>XDSA2M35X25</b>	<b>XDSA2M39X25</b>	<b>XDSA2M42X25</b>	<b>XDSA2M48X25</b>	<b>XDSA2M55X25</b>	<b>XDSA2M63X25</b>
	Std Pack	1000	1000	1000	1000	1000	1000
32	Part Number		<b>XDSA2M39X32</b>	<b>XDSA2M42X32</b>	<b>XDSA2M48X32</b>	<b>XDSA2M55X32</b>	<b>XDSA2M63X32</b>
	Std Pack		1000	1000	1000	1000	1000
38	Part Number		<b>XDSA2M39X38</b>	<b>XDSA2M42X38</b>	<b>XDSA2M48X38</b>	<b>XDSA2M55X38</b>	<b>XDSA2M63X38</b>
	Std Pack		1000	1000	1000	1000	1000
45	Part Number			<b>XDSA2M42X45</b>	<b>XDSA2M48X45</b>	<b>XDSA2M55X45</b>	<b>XDSA2M63X45</b>
	Std Pack			1000	1000	1000	500
50	Part Number			<b>XDSA2M42X50</b>	<b>XDSA2M48X50</b>	<b>XDSA2M55X50</b>	<b>XDSA2M63X50</b>
	Std Pack			1000	1000	500	1000
60	Part Number					<b>XDSA2M55X60</b>	
	Std Pack					1000	
70	Part Number					<b>XDSA2M55X70</b>	
	Std Pack					1000	

**All measurements are in mm**

## Did you know?

### The most common uses for Self-Drilling Screws:

- Cladding and metal roofing
- HVAC – duct, clips and brackets
- Carports/sheds/garages
- General construction
- Steel framing



Length (l)	Size (d)	6G (3.5mm)	7G (3.9mm)	8G (4.2mm)	10G (4.8mm)
	dk max.	6.80	7.50	8.10	9.50
	k max.	2.10	2.30	2.50	3.00
	dp max.	2.80	3.10	3.60	4.10
	xr no.	P2	P2	P2	P2
13	Part Number	<b>CDSA2M35X13</b>		<b>CDSA2M42X13</b>	<b>CDSA2M48X13</b>
	Std Pack	1000		1000	1000
16	Part Number	<b>CDSA2M35X16</b>	<b>CDSA2M39X16</b>	<b>CDSA2M42X16</b>	<b>CDSA2M48X16</b>
	Std Pack	1000	1000	1000	1000
19	Part Number	<b>CDSA2M35X19</b>	<b>CDSA2M39X19</b>	<b>CDSA2M42X19</b>	<b>CDSA2M48X19</b>
	Std Pack	1000	1000	1000	1000
22	Part Number	<b>CDSA2M35X22</b>	<b>CDSA2M39X22</b>	<b>CDSA2M42X22</b>	<b>CDSA2M48X22</b>
	Std Pack	1000	1000	1000	1000
25	Part Number	<b>CDSA2M35X25</b>	<b>CDSA2M39X25</b>	<b>CDSA2M42X25</b>	<b>CDSA2M48X25</b>
	Std Pack	1000	1000	1000	1000
32	Part Number		<b>CDSA2M39X32</b>	<b>CDSA2M42X32</b>	<b>CDSA2M48X32</b>
	Std Pack		1000	1000	1000
38	Part Number		<b>CDSA2M39X38</b>	<b>CDSA2M42X38</b>	<b>CDSA2M48X38</b>
	Std Pack		1000	1000	1000
45	Part Number			<b>CDSA2M42X45</b>	<b>CDSA2M48X45</b>
	Std Pack			1000	1000
50	Part Number			<b>CDSA2M42X50</b>	<b>CDSA2M48X50</b>
	Std Pack			1000	1000
60	Part Number			<b>CDSA2M42X60</b>	
	Std Pack			1000	

All measurements are in mm

## Did you know?

Self Drilling Screws are similar to sheet metal screws

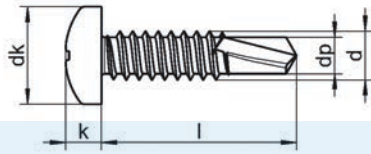
The difference is that they have a drill-shaped point to cut through sheet metal or steel which eliminates the need for drilling a pilot hole. These self-drilling screws are designed for use in soft steel or other metals.

**A2****304**

# Pan Phillips Self Drilling Screw

DIN 7504M

METRIC

**PDS**

		6G (3.5mm)	7G (3.9mm)	8G (4.2mm)	10G (4.8mm)
dk max.		6.90	7.50	8.20	9.50
k approx.		2.60	2.80	3.05	3.55
dp max.		2.80	3.10	3.60	4.10
xr no.		P2	P2	P2	P2
Length (l)	Size (d)	6G (3.5mm)	7G (3.9mm)	8G (4.2mm)	10G (4.8mm)
9.5	Part Number	<b>PDSA2M35X95</b>			
	Std Pack	1000			
13	Part Number	<b>PDSA2M35X13</b>	<b>PDSA2M39X13</b>	<b>PDSA2M42X13</b>	<b>PDSA2M48X13</b>
	Std Pack	1000	1000	1000	1000
16	Part Number	<b>PDSA2M35X16</b>	<b>PDSA2M39X16</b>	<b>PDSA2M42X16</b>	<b>PDSA2M48X16</b>
	Std Pack	1000	1000	1000	1000
19	Part Number	<b>PDSA2M35X19</b>	<b>PDSA2M39X19</b>	<b>PDSA2M42X19</b>	<b>PDSA2M48X19</b>
	Std Pack	1000	1000	1000	1000
22	Part Number	<b>PDSA2M35X22</b>	<b>PDSA2M39X22</b>	<b>PDSA2M42X22</b>	<b>PDSA2M48X22</b>
	Std Pack	1000	1000	1000	1000
25	Part Number	<b>PDSA2M35X25</b>	<b>PDSA2M39X25</b>	<b>PDSA2M42X25</b>	<b>PDSA2M48X25</b>
	Std Pack	1000	1000	1000	1000
32	Part Number		<b>PDSA2M39X32</b>	<b>PDSA2M42X32</b>	<b>PDSA2M48X32</b>
	Std Pack		1000	1000	1000
38	Part Number		<b>PDSA2M39X38</b>	<b>PDSA2M42X38</b>	<b>PDSA2M48X38</b>
	Std Pack		1000	1000	1000
45	Part Number			<b>PDSA2M42X45</b>	<b>PDSA2M48X45</b>
	Std Pack			1000	1000
50	Part Number			<b>PDSA2M42X50</b>	<b>PDSA2M48X50</b>
	Std Pack			1000	1000

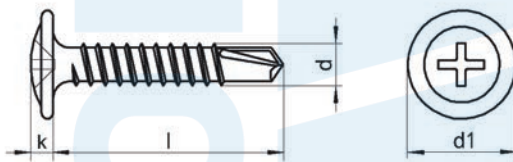
All measurements are in mm

**A2****304**

# Wafer Phillips Self Drilling Screw

DIN 7504N

METRIC

**WDS**

		8G (4.2mm)	10G (4.8mm)	12G (5.5mm)
d1 max.		7.80	8.70	10.30
k approx.		2.40	2.60	3.30
xr no.		P2	P2	P3
Length (l)	Size (d)	8G (4.2mm)	10G (4.8mm)	12G (5.5mm)
13	Part Number	<b>WDSA2M42X13</b>		
	Std Pack	1000		
16	Part Number	<b>WDSA2M42X16</b>	<b>WDSA2M48X16</b>	
	Std Pack	1000	1000	
19	Part Number	<b>WDSA2M42X19</b>	<b>WDSA2M48X19</b>	<b>WDSA2M55X19</b>
	Std Pack	1000	1000	1000
22	Part Number	<b>WDSA2M42X22</b>	<b>WDSA2M48X22</b>	<b>WDSA2M55X22</b>
	Std Pack	1000	1000	1000
25	Part Number	<b>WDSA2M42X25</b>	<b>WDSA2M48X25</b>	<b>WDSA2M55X25</b>
	Std Pack	1000	1000	1000
32	Part Number	<b>WDSA2M42X32</b>	<b>WDSA2M48X32</b>	<b>WDSA2M55X32</b>
	Std Pack	1000	1000	1000
38	Part Number	<b>WDSA2M42X38</b>	<b>WDSA2M48X38</b>	<b>WDSA2M55X38</b>
	Std Pack	1000	1000	1000
45	Part Number	<b>WDSA2M42X45</b>	<b>WDSA2M48X45</b>	<b>WDSA2M55X45</b>
	Std Pack	1000	1000	1000
50	Part Number	<b>WDSA2M42X50</b>	<b>WDSA2M48X50</b>	<b>WDSA2M55X50</b>
	Std Pack	1000	1000	1000

All measurements are in mm

# YCXS

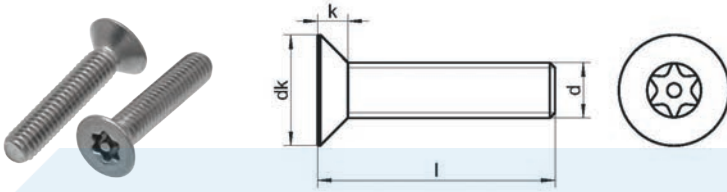
## Countersunk Post Torx Metal Thread Screw

### A2

DIN 7991 - POST TORX

METRIC

### 304



dk max.		8.00	12.00	16.00	20.00
k max.		2.30	3.30	4.40	5.50
Driver Size		T20	T30	T40	T45
Length (l)	Size (d)	M4	M6	M8	M10
10	Part Number	YCXA2M4X10	YCXA2M6X10		
	Std Pack	100	100		
12	Part Number	YCXA2M4X12	YCXA2M6X12	YCXA2M8X12	
	Std Pack	100	100	100	
16	Part Number	YCXA2M4X16	YCXA2M6X16	YCXA2M8X16	
	Std Pack	100	100	100	
20	Part Number	YCXA2M4X20	YCXA2M6X20	YCXA2M8X20	YCXA2M10X20
	Std Pack	100	100	100	100
25	Part Number	YCXA2M4X25	YCXA2M6X25	YCXA2M8X25	YCXA2M10X25
	Std Pack	100	100	100	100
30	Part Number		YCXA2M6X30	YCXA2M8X30	YCXA2M10X30
	Std Pack		100	100	100
40	Part Number		YCXA2M6X40	YCXA2M8X40	YCXA2M10X40
	Std Pack		100	100	100
50	Part Number		YCXA2M6X50	YCXA2M8X50	
	Std Pack		100	100	
60	Part Number		YCXA2M6X60	YCXA2M8X60	
	Std Pack		100	100	

All measurements are in mm

# YBXS

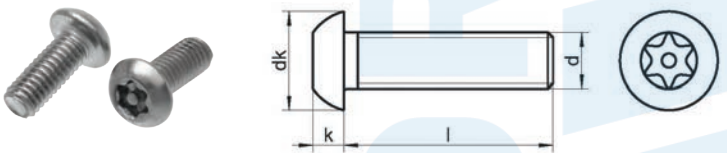
## Button Post Torx Metal Thread Screw

### A2

ISO 7380 - POST TORX

METRIC

### 304

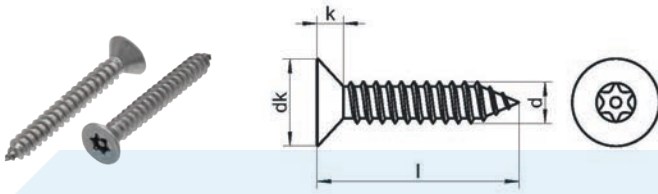


dk max.		7.60	10.50	14.00	17.50
k max.		2.20	3.30	4.40	5.50
Driver Size		T20	T30	T40	T45
Length (l)	Size (d)	M4	M6	M8	M10
10	Part Number	YBXA2M4X10	YBXA2M6X10		
	Std Pack	100	100		
12	Part Number	YBXA2M4X12	YBXA2M6X12	YBXA2M8X12	
	Std Pack	100	100	100	
16	Part Number	YBXA2M4X16	YBXA2M6X16	YBXA2M8X16	
	Std Pack	100	100	100	
20	Part Number	YBXA2M4X20	YBXA2M6X20	YBXA2M8X20	YBXA2M10X20
	Std Pack	100	100	100	100
25	Part Number	YBXA2M4X25	YBXA2M6X25	YBXA2M8X25	YBXA2M10X25
	Std Pack	100	100	100	100
30	Part Number		YBXA2M6X30	YBXA2M8X30	YBXA2M10X30
	Std Pack		100	100	100
40	Part Number		YBXA2M6X40	YBXA2M8X40	YBXA2M10X40
	Std Pack		100	100	100
50	Part Number		YBXA2M6X50	YBXA2M8X50	
	Std Pack		100	100	
60	Part Number		YBXA2M6X60	YBXA2M8X60	
	Std Pack		100	100	

All measurements are in mm

**A2****Countersunk Post Torx Self Tapping Screw****YCXT****304**

METRIC

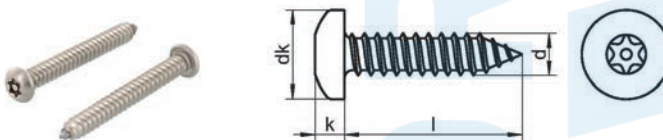


dk max.	6.60	7.90	9.30	
k max.	2.10	2.50	3.00	
Driver Size	T15	T20	T25	
<b>Length (l)</b>	<b>Size (d)</b>	<b>6G (3.5mm)</b>	<b>8G (4.2mm)</b>	<b>10G (4.8mm)</b>
13	Part Number	<b>YCXTA26GX13</b>	<b>YCXTA28GX13</b>	<b>YCXTA210GX13</b>
	Std Pack	100	100	100
19	Part Number	<b>YCXTA26GX19</b>	<b>YCXTA28GX19</b>	<b>YCXTA210GX19</b>
	Std Pack	100	100	100
25	Part Number	<b>YCXTA26GX25</b>	<b>YCXTA28GX25</b>	<b>YCXTA210GX25</b>
	Std Pack	100	100	100
32	Part Number	<b>YCXTA26GX32</b>	<b>YCXTA28GX32</b>	<b>YCXTA210GX32</b>
	Std Pack	100	100	100
38	Part Number	<b>YCXTA26GX38</b>	<b>YCXTA28GX38</b>	<b>YCXTA210GX38</b>
	Std Pack	100	100	100
50	Part Number			<b>YCXTA210GX50</b>
	Std Pack			100

All measurements are in mm

**A2****Button Post Torx Self Tapping Screw****YBXT****304**

METRIC



dk max.	6.70	7.40	9.30	
k max.	2.50	2.10	2.60	
Driver Size	T10	T15	T25	
<b>Length (l)</b>	<b>Size (d)</b>	<b>6G (3.5mm)</b>	<b>8G (4.2mm)</b>	<b>10G (4.8mm)</b>
13	Part Number	<b>YBXTA26GX13</b>	<b>YBXTA28GX13</b>	<b>YBXTA210GX13</b>
	Std Pack	100	100	100
19	Part Number	<b>YBXTA26GX19</b>	<b>YBXTA28GX19</b>	<b>YBXTA210GX19</b>
	Std Pack	100	100	100
25	Part Number	<b>YBXTA26GX25</b>	<b>YBXTA28GX25</b>	<b>YBXTA210GX25</b>
	Std Pack	100	100	100
32	Part Number	<b>YBXTA26GX32</b>	<b>YBXTA28GX32</b>	<b>YBXTA210GX32</b>
	Std Pack	100	100	100
38	Part Number	<b>YBXTA26GX38</b>	<b>YBXTA28GX38</b>	<b>YBXTA210GX38</b>
	Std Pack	100	100	100
50	Part Number			<b>YBXTA210GX50</b>
	Std Pack			100

All measurements are in mm

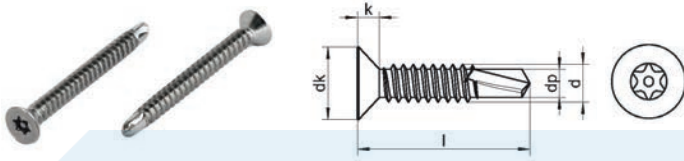
# YCDX

## Countersunk Post Torx Self Drilling Screw

A2

304

METRIC



dk max.		7.90	9.30
k max.		2.50	3.00
Driver Size		T20	T25
<b>Length (l)</b>	<b>Size (d)</b>	<b>8G (4.2mm)</b>	<b>10G (4.8mm)</b>
13	Part Number	YCDXA2M42X13	YCDXA2M48X13
	Std Pack	100	100
19	Part Number	YCDXA2M42X19	YCDXA2M48X19
	Std Pack	100	100
25	Part Number	YCDXA2M42X25	YCDXA2M48X25
	Std Pack	100	100

All measurements are in mm

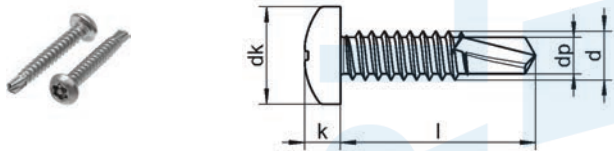
# YBDX

## Button Post Torx Self Drilling Screw

A2

304

METRIC



dk max.		7.40	9.30
k max.		2.10	2.60
Driver Size		T20	T25
<b>Length (l)</b>	<b>Size (d)</b>	<b>8G (4.2mm)</b>	<b>10G (4.8mm)</b>
13	Part Number	YBDXA2M42X13	YBDXA2M48X13
	Std Pack	100	100
19	Part Number	YBDXA2M42X19	YBDXA2M48X19
	Std Pack	100	100
25	Part Number	YBDXA2M42X25	YBDXA2M48X25
	Std Pack	100	100

All measurements are in mm

### Did you know?

There are two main types of tamper proof screws.

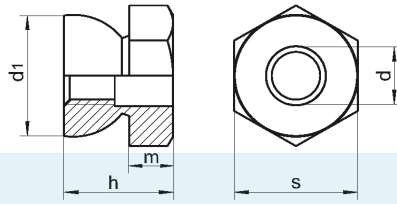
**Tamper proof «One Way screws»** - These are typically installed using a conventional screwdriver... but once installed cannot be removed.

**Tamper resistant «Two Way screws»** - these are Anti-tamper screws that can be removed at a later date if required... but you will need a special matching security screwdriver tool to install or remove them.



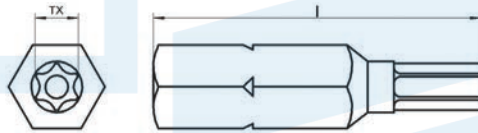
**A4****Shear Nut****SHN****316**

METRIC



Size (Ø)	m	s	h	d1	Part Number	Std Pack
M6	3.50	10.00	9.50	9.80	SHNA4M6	100
M8	4.00	13.00	12.00	12.80	SHNA4M8	100
M10	5.00	17.00	15.00	16.80	SHNA4M10	100
M12	5.50	19.00	16.00	18.80	SHNA4M12	100

All measurements are in mm

**A2****Driver Bit - Post Torx Security****YDBI****304**

Type	Length	Part Number	Std Pack
T10	50.00	YDBI50MM10PX	10
T15	50.00	YDBI50MM15PX	10
T20	50.00	YDBI50MM20PX	10
T25	50.00	YDBI50MM25PX	10
T30	50.00	YDBI50MM30PX	10
T40	50.00	YDBI50MM40PX	10
T45	50.00	YDBI50MM45PX	10

All measurements are in mm

**Did you know?**

Security Screws come in many different types and sizes.

They are all designed to; prevent unauthorised access to protected areas, to deter vandalism, or to prevent the theft or removal of the items they are used to secure.

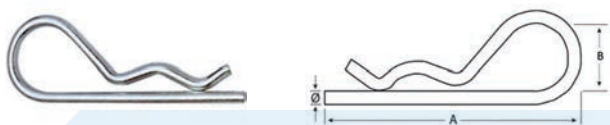
# RCL

## R Clip

A2

304

METRIC



Size (Ø)	A	B	Part Number	Std Pack
M2.0	40.00	9.53	RCLA2M2X40	200
M2.4	59.00	15.88	RCLA2M24X59	200
M3.2	68.00	14.29	RCLA2M32X68	100
M3.8	75.00	19.05	RCLA2M38X75	100
M5.0	96.00	23.81	RCLA2M5X96	50
M6.2	102.00	23.81	RCLA2M62X102	50

All measurements are in mm

# INOX

# SPI

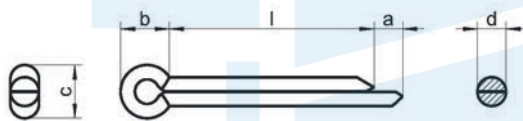
## Split Pin (Cotter Pin)

A2

304

METRIC

DIN 94 / ISO 1234



	a	1.60	1.60	2.50	2.50	2.50	2.50
	b	2.40	3.00	3.00	4.00	4.00	5.00
	c	1.40	1.80	2.00	3.60	3.60	4.60
Length (l)	Size (d)	0.8	1.0	1.2	1.6	2	2.5
10	Part Number	SPIA2M08X10	SPIA2M1X10		SPIA2M16X10	SPIA2M2X10	
	Std Pack	200	200		200	200	
12	Part Number	SPIA2M08X12	SPIA2M1X12	SPIA2M12X12	SPIA2M16X12	SPIA2M2X12	SPIA2M25X12
	Std Pack	200	200	200	200	200	200
14	Part Number				SPIA2M16X14		
	Std Pack				200		
16	Part Number	SPIA2M08X16	SPIA2M1X16	SPIA2M12X16	SPIA2M16X16	SPIA2M2X16	SPIA2M25X16
	Std Pack	200	200	200	200	200	200
20	Part Number	SPIA2M08X20	SPIA2M1X20	SPIA2M12X20	SPIA2M16X20	SPIA2M2X20	SPIA2M25X20
	Std Pack	200	200	200	200	200	200
25	Part Number		SPIA2M1X25	SPIA2M12X25	SPIA2M16X25	SPIA2M2X25	SPIA2M25X25
	Std Pack		200	200	200	200	200
32	Part Number			SPIA2M12X32	SPIA2M16X32	SPIA2M2X32	SPIA2M25X32
	Std Pack			200	200	200	200
36	Part Number						SPIA2M25X36
	Std Pack						200
40	Part Number				SPIA2M16X40	SPIA2M2X40	SPIA2M25X40
	Std Pack				200	200	200
50	Part Number						SPIA2M25X50
	Std Pack						200

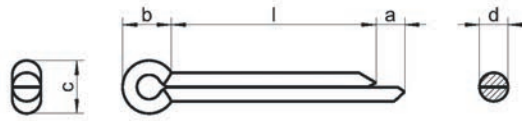
All measurements are in mm

**A2****304**

# Split Pin (Cotter Pin)

DIN 94 / ISO 1234

METRIC

**SPI**

	a	3.20	4.00	4.00	4.00	4.00	6.30
	b	6.40	8.00	10.00	12.60	16.00	20.00
	c	5.80	7.40	9.20	11.80	15.00	19.00
Length (l)	Size (d)	3.2	4.0	5	6.3	8	10
10	Part Number	<b>SPIA2M32X10</b>					
	Std Pack	200					
12	Part Number	<b>SPIA2M32X12</b>					
	Std Pack	200					
16	Part Number	<b>SPIA2M32X16</b>					
	Std Pack	200					
20	Part Number	<b>SPIA2M32X20</b>	<b>SPIA2M4X20</b>	<b>SPIA2M5X20</b>			
	Std Pack	200	100	100			
25	Part Number	<b>SPIA2M32X25</b>	<b>SPIA2M4X25</b>	<b>SPIA2M5X25</b>	<b>SPIA2M63X25</b>		
	Std Pack	200	100	100	100		
32	Part Number	<b>SPIA2M32X32</b>	<b>SPIA2M4X32</b>	<b>SPIA2M5X32</b>	<b>SPIA2M63X32</b>		
	Std Pack	200	100	100	100		
36	Part Number	<b>SPIA2M32X36</b>	<b>SPIA2M4X36</b>	<b>SPIA2M5X36</b>			
	Std Pack	200	100	100			
40	Part Number	<b>SPIA2M32X40</b>	<b>SPIA2M4X40</b>	<b>SPIA2M5X40</b>	<b>SPIA2M63X40</b>		
	Std Pack	200	100	100	100		
45	Part Number	<b>SPIA2M32X45</b>	<b>SPIA2M4X45</b>	<b>SPIA2M5X45</b>	<b>SPIA2M63X45</b>		
	Std Pack	200	100	100	100		
50	Part Number	<b>SPIA2M32X50</b>	<b>SPIA2M4X50</b>	<b>SPIA2M5X50</b>	<b>SPIA2M63X50</b>	<b>SPIA2M8X50</b>	<b>SPIA2M10X50</b>
	Std Pack	200	100	100	100	50	50
63	Part Number	<b>SPIA2M32X63</b>	<b>SPIA2M4X63</b>	<b>SPIA2M5X63</b>	<b>SPIA2M63X63</b>	<b>SPIA2M8X63</b>	<b>SPIA2M10X63</b>
	Std Pack	200	100	100	100	50	50
71	Part Number			<b>SPIA2M5X71</b>			
	Std Pack			100			
80	Part Number	<b>SPIA2M32X80</b>	<b>SPIA2M4X80</b>	<b>SPIA2M5X80</b>	<b>SPIA2M63X80</b>	<b>SPIA2M8X80</b>	<b>SPIA2M10X80</b>
	Std Pack	200	100	100	100	50	50
90	Part Number			<b>SPIA2M5X90</b>		<b>SPIA2M8X90</b>	<b>SPIA2M10X90</b>
	Std Pack			100		50	50
100	Part Number			<b>SPIA2M5X100</b>	<b>SPIA2M63X100</b>	<b>SPIA2M8X100</b>	<b>SPIA2M10X100</b>
	Std Pack			100	100	50	50

All measurements are in mm

## Did you know?

The Split pin form is similar to a nail ripped in two parts in the longitudinal direction

Although in fact they are made up of the metal bar with a semi-circular sector which is folded and has a formed eyelet. The two ends are not with the same length because these are in different size and the opening is strongly facilitated.

# SPI

## Split Pin (Cotter Pin)

DIN 94 / ISO 1234

METRIC

### A4

### 316



	a	2.50	3.20	4.00	4.00	4.00	4.00	6.30
	b	5.00	6.40	8.00	10.00	12.60	16.00	20.00
	c	4.60	5.80	7.40	9.20	11.80	15.00	19.00
Length (l)	Size (d)	M2.5	M3.2	M4	M5	M6.3	M8	M10
12	Part Number	<b>SPIA4M25X12</b>						
	Std Pack	100						
16	Part Number	<b>SPIA4M25X16</b>	<b>SPIA4M32X16</b>					
	Std Pack	100	100					
20	Part Number	<b>SPIA4M25X20</b>	<b>SPIA4M32X20</b>	<b>SPIA4M4X20</b>	<b>SPIA4M5X20</b>			
	Std Pack	100	100	100	100			
25	Part Number	<b>SPIA4M25X25</b>	<b>SPIA4M32X25</b>	<b>SPIA4M4X25</b>	<b>SPIA4M5X25</b>			
	Std Pack	100	100	100	100			
32	Part Number		<b>SPIA4M32X32</b>	<b>SPIA4M4X32</b>	<b>SPIA4M5X32</b>	<b>SPIA4M63X32</b>		
	Std Pack		100	100	100	100		
36	Part Number	<b>SPIA4M25X36</b>	<b>SPIA4M32X36</b>	<b>SPIA4M4X36</b>	<b>SPIA4M5X36</b>	<b>SPIA4M63X36</b>		
	Std Pack	100	100	100	100	100		
40	Part Number	<b>SPIA4M25X40</b>	<b>SPIA4M32X40</b>	<b>SPIA4M4X40</b>	<b>SPIA4M5X40</b>	<b>SPIA4M63X40</b>		
	Std Pack	100	100	100	100	100		
50	Part Number	<b>SPIA4M25X50</b>	<b>SPIA4M32X50</b>	<b>SPIA4M4X50</b>	<b>SPIA4M5X50</b>	<b>SPIA4M63X50</b>	<b>SPIA4M8X50</b>	<b>SPIA4M10X50</b>
	Std Pack	100	100	100	100	100	50	50
63	Part Number			<b>SPIA4M4X63</b>	<b>SPIA4M5X63</b>	<b>SPIA4M63X63</b>	<b>SPIA4M8X63</b>	<b>SPIA4M10X63</b>
	Std Pack			100	100	100	50	50
71	Part Number				<b>SPIA4M5X71</b>			
	Std Pack				100			
80	Part Number			<b>SPIA4M4X80</b>	<b>SPIA4M5X80</b>	<b>SPIA4M63X80</b>	<b>SPIA4M8X80</b>	<b>SPIA4M10X80</b>
	Std Pack			100	100	100	50	50
100	Part Number				<b>SPIA4M5X100</b>	<b>SPIA4M63X100</b>	<b>SPIA4M8X100</b>	<b>SPIA4M10X100</b>
	Std Pack				100	100	50	50

All measurements are in mm

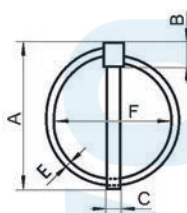
# LPI

## Linch Pin

METRIC

### A2

### 304



Size (Ø)	A	B	C	E	F	Part Number	Std Pack
M4	49.60	7.50	4.40	2.40	39.00	<b>LPIA2M4</b>	20
M6	56.20	8.00	6.00	3.20	44.80	<b>LPIA2M6</b>	20
M8	56.50	8.40	7.40	3.10	44.90	<b>LPIA2M8</b>	10
M10	56.50	10.70	10.60	3.20	43.40	<b>LPIA2M10</b>	10

All measurements are in mm

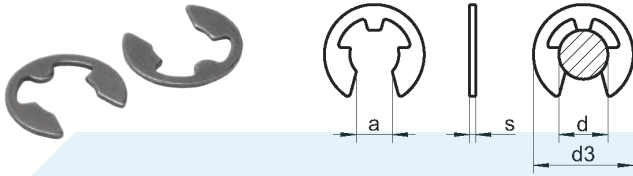
# E-Type Circlip

ETC

1.4122

DIN 6799

METRIC



Gauge	For $\emptyset$	d3	s	a	Part Number	Std Pack
M1.2	1.40 - 2.00	3.25	0.30	1.01	ETC1412M012	100
M1.5	2.00 - 2.50	4.25	0.40	1.28	ETC1412M015	100
M1.9	2.50 - 3.00	4.80	0.50	1.61	ETC1412M019	100
M2.3	3.00 - 4.00	6.30	0.60	1.94	ETC1412M023	100
M3.2	4.00 - 5.00	7.30	0.60	2.70	ETC1412M032	100
M4	5.00 - 7.00	9.30	0.70	3.34	ETC1412M04	100
M5	6.00 - 8.00	11.30	0.70	4.11	ETC1412M05	100
M6	7.00 - 9.00	12.30	0.70	5.26	ETC1412M06	100
M7	8.00 - 11.00	14.30	0.90	5.84	ETC1412M07	50
M8	9.00 - 12.00	16.30	1.00	6.52	ETC1412M08	50
M9	10.00 - 14.00	18.80	1.10	7.63	ETC1412M09	50
M10	11.00 - 15.00	20.40	1.20	8.32	ETC1412M10	50
M12	13.00 - 18.00	23.40	1.30	10.45	ETC1412M12	25
M15	16.00 - 24.00	29.40	1.50	12.61	ETC1412M15	25
M19	20.00 - 31.00	37.60	1.75	15.92	ETC1412M19	25
M24	25.00 - 38.00	44.60	2.00	21.88	ETC1412M24	25

All measurements are in mm

## Did you know?

### Stainless Steel falls into four distinct "Families"

Families refer to specific properties and give an idea as to the ratio of various metals in the alloy.

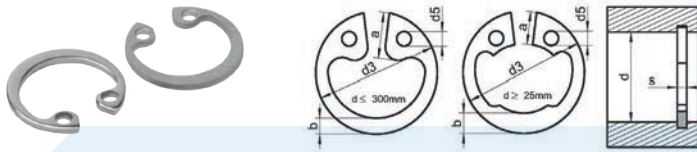
**Austenitic Stainless Steel** is the most popular and widely used around the world. They offer excellent corrosion resistance and creep resistance while remaining great for welding. Popular grades of austenitic stainless steel include 303, 304, 316, 310 and 321 grades.

**Ferritic Stainless Steel** is the most cost-effective due to its lower nickel content. Most are magnetic and offer good corrosion resistance and weldability as well.

Popular in indoor applications, such as kitchenware, or out-of-sight applications, such as exhaust, these alloys are well suited for situation where visual appeal isn't as important as cost and performance. Common grades of ferritic stainless steel include 409 and 430 grades

**Duplex Stainless Steel** offers a combination of properties from both Austenitic and Ferritic Stainless Steels. Most offer good weldability and formability in comparison to other families of steel. Some offer improved corrosion resistance. Chloride-resistant stainless steels are especially popular in offshore use. Common duplex alloys include are 318L, LDX 2101, LDX 2304, 2507 and 4501 grades.

**Martensitic & Precipitation Hardening Stainless Steel** is the least common. It is used in applications requiring a precise, hardened edge, such as knives, scissors, razors, and medical tools. These stainless-steel alloys offer moderate to good corrosion resistance and remain magnetic after hardening. Common grades of martensitic and precipitation hardening steels include 410 and 420 grades.



Gauge	s	d3	d5 min.	a max.	b	Part Number	Std Pack
M8	0.80	8.70	1.00	2.40	1.10	ICL1412M08	100
M9	0.80	9.80	1.00	2.50	1.30	ICL1412M09	100
M10	1.00	10.80	1.20	3.20	1.40	ICL1412M10	50
M11	1.00	11.80	1.20	3.30	1.50	ICL1412M11	50
M12	1.00	13.00	1.50	3.60	1.70	ICL1412M12	50
M13	1.00	14.10	1.50	3.60	1.80	ICL1412M13	50
M14	1.00	15.10	1.70	3.70	1.90	ICL1412M14	50
M15	1.00	16.20	1.70	3.70	2.00	ICL1412M15	50
M16	1.00	17.30	1.70	3.80	2.00	ICL1412M16	50
M17	1.00	18.30	1.70	3.90	2.10	ICL1412M17	50
M18	1.00	19.50	2.00	4.10	2.20	ICL1412M18	50
M19	1.00	20.50	2.00	4.10	2.20	ICL1412M19	50
M20	1.00	21.50	2.00	4.20	2.30	ICL1412M20	25
M21	1.00	22.50	2.00	4.20	2.40	ICL1412M21	25
M22	1.00	23.50	2.00	4.20	2.50	ICL1412M22	25
M24	1.20	25.90	2.00	4.40	2.60	ICL1412M24	25
M25	1.20	26.90	2.00	4.50	2.70	ICL1412M25	25
M26	1.20	27.90	2.00	4.70	2.80	ICL1412M26	25
M28	1.20	30.10	2.00	4.80	2.90	ICL1412M28	25
M30	1.20	32.10	2.00	4.80	3.00	ICL1412M30	10
M32	1.20	34.40	2.50	5.40	3.20	ICL1412M32	10
M35	1.50	37.80	2.50	5.40	3.40	ICL1412M35	10
M36	1.50	38.80	2.50	5.40	3.50	ICL1412M36	10
M38	1.50	40.80	2.50	5.50	3.70	ICL1412M38	10
M40	1.75	43.50	2.50	5.80	3.90	ICL1412M40	5
M42	1.75	45.50	2.50	5.90	4.10	ICL1412M42	5
M47	1.75	50.50	2.50	6.40	4.40	ICL1412M47	5
M50	2.00	54.20	2.50	6.50	4.60	ICL1412M50	5
M52	2.00	56.20	2.50	6.70	4.70	ICL1412M52	5
M58	2.00	62.20	2.50	6.90	5.20	ICL1412M58	5
M60	2.00	64.20	2.50	7.30	5.40	ICL1412M60	5
M62	2.00	66.20	2.50	7.30	5.50	ICL1412M62	5
M65	2.50	69.20	3.00	7.60	5.80	ICL1412M65	5

All measurements are in mm

## Did you know?

Alloy Group	Magnetic response	Work hardening rate	Corrosion resistance	Hardenable	Ductility	High temperature resistance	Low temperature resistance	Weldability
Austenitic	Generally no	Very high	High	By cold work	Very high	Very high	Very high	Very high
Duplex	Yes	Medium	Very high	No	Medium	Low	Medium	High
Ferritic	Yes	Medium	Medium	No	Medium	High	Low	Low
Martensitic	Yes	Medium	Medium	Quench & temper	Low	Low	Low	Low
Precipitation hardening	Yes	Medium	Medium	Age harden	Medium	Low	Low	High



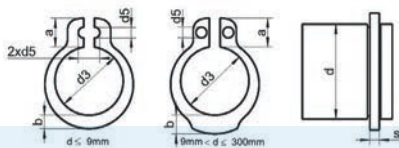
# External Circlip

# ECL

## 1.4122

DIN 471

METRIC



Gauge	s	d3	d5 min.	a max.	b	Part Number	Std Pack
M3	0.40	2.70	1.00	1.90	0.80	ECL1412M03	100
M4	0.40	3.70	1.00	2.20	0.90	ECL1412M04	100
M5	0.60	4.70	1.00	2.50	1.10	ECL1412M05	100
M6	0.70	5.60	1.20	2.70	1.30	ECL1412M06	100
M7	0.80	6.50	1.20	3.10	1.40	ECL1412M07	100
M8	0.80	7.40	1.20	3.20	1.50	ECL1412M08	100
M9	1.00	8.40	1.20	3.30	1.70	ECL1412M09	100
M10	1.00	9.30	1.50	3.30	1.80	ECL1412M10	50
M11	1.00	10.20	1.50	3.30	1.80	ECL1412M11	50
M12	1.00	11.00	1.70	3.30	1.80	ECL1412M12	50
M13	1.00	11.90	1.70	3.40	2.00	ECL1412M13	50
M14	1.00	12.90	1.70	3.50	2.10	ECL1412M14	50
M15	1.00	13.80	1.70	3.60	2.20	ECL1412M15	50
M16	1.00	14.70	1.70	3.70	2.20	ECL1412M16	50
M17	1.00	15.70	1.70	3.80	2.30	ECL1412M17	50
M18	1.20	16.50	2.00	3.90	2.40	ECL1412M18	50
M19	1.20	17.50	2.00	3.90	2.50	ECL1412M19	50
M20	1.20	18.50	2.00	4.00	2.60	ECL1412M20	25
M21	1.20	19.50	2.00	4.10	2.70	ECL1412M21	25
M22	1.20	20.50	2.00	4.20	2.80	ECL1412M22	25
M23	1.20	21.40	2.00	4.30	2.90	ECL1412M23	25
M24	1.20	22.20	2.00	4.40	3.00	ECL1412M24	25
M25	1.20	23.20	2.00	4.40	3.00	ECL1412M25	25
M26	1.20	24.20	2.00	4.50	3.10	ECL1412M26	25
M27	1.20	25.10	2.00	4.60	3.10	ECL1412M27	25
M28	1.50	25.90	2.00	4.70	3.20	ECL1412M28	25
M29	1.50	26.90	2.00	4.80	3.40	ECL1412M29	25
M30	1.50	27.90	2.00	5.00	3.50	ECL1412M30	10
M32	1.50	29.60	2.50	5.20	3.60	ECL1412M32	10
M34	1.50	31.50	2.50	5.40	3.80	ECL1412M34	10
M35	1.50	32.20	2.50	5.60	3.90	ECL1412M35	10
M36	1.75	33.20	2.50	5.60	4.00	ECL1412M36	10
M38	1.75	35.20	2.50	5.80	4.20	ECL1412M38	10
M39	1.75	36.00	2.50	5.90	4.30	ECL1412M39	10
M40	1.75	36.50	2.50	6.00	4.40	ECL1412M40	5
M42	1.75	38.50	2.50	6.50	4.50	ECL1412M42	5
M45	1.75	41.50	2.50	6.70	4.70	ECL1412M45	5
M48	1.75	44.50	2.50	6.90	5.00	ECL1412M48	5
M50	2.00	45.80	2.50	6.90	5.10	ECL1412M50	5
M55	2.00	50.80	2.50	7.20	5.40	ECL1412M55	5
M60	2.00	55.80	2.50	7.40	5.80	ECL1412M60	5
M65	2.50	60.80	3.00	7.80	6.30	ECL1412M65	5
M70	2.50	65.50	3.00	8.10	6.60	ECL1412M70	1
M75	2.50	70.50	3.00	8.40	7.00	ECL1412M75	1
M80	2.50	74.50	3.00	8.60	7.40	ECL1412M80	1
M85	3.00	79.50	3.50	8.70	7.80	ECL1412M85	1
M95	3.00	89.50	3.50	9.40	8.60	ECL1412M95	1
M100	3.00	94.50	3.50	9.60	9.00	ECL1412M100	1

All measurements are in mm

## Did you know?

Circlips allow rotation but restrict the lateral movement of shafts and dowel pins

Due to its simplicity and efficiency in keeping mechanical parts together, circlips are being used in some of the most cutting-edge manufacturing techniques and processes today. Owing to their self-locking mechanism and their flexibility circlips are easy to use and to train workers on their usage which usually requires are a c clip plier.

# WRO

## Wire Rope - 1x19 Construction - Rigid

### A4

### 316

METRIC



Size (Ø)	3.2 (MBL 8.44kN)	4.0 (MBL 13.20kN)	5.0 (MBL 20.61kN)	6.0 (MBL 29.67kN)
<b>Part Number</b>	<b>WR01X19A4M32X50</b>			
Length (m)	50			
<b>Part Number</b>	<b>WR01X19A4M32X100</b>			
Length (m)	100			
<b>Part Number</b>	<b>WR01X19A4M32</b>	<b>WR01X19A4M4</b>	<b>WR01X19A4M5</b>	<b>WR01X19A4M6</b>
Length (m)	305	305	305	305
<b>Part Number</b>	<b>WR01X19A4M32X1000</b>			
Length (m)	1000			

All measurements are in mm

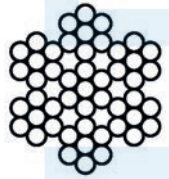
# WRO

## Wire Rope - 7x7 Construction - Semi Flexible

### A4

### 316

METRIC



Size (Ø)	0.6 (MBL 0.22kN)	1.0 (MBL 0.61kN)	1.5 (MBL 1.37kN)	2.0 (MBL 2.44kN)	2.5 (MBL 3.81kN)	3.2 (MBL 6.24kN)
<b>Part Number</b>						<b>WR07X7A4M32X50</b>
Length (m)						50
<b>Part Number</b>						<b>WR07X7A4M32X100</b>
Length (m)						100
<b>Part Number</b>	<b>WR07X7A4M06</b>	<b>WR07X7A4M1</b>	<b>WR07X7A4M15</b>	<b>WR07X7A4M2</b>	<b>WR07X7A4M25</b>	<b>WR07X7A4M32</b>
Length (m)	305	305	305	305	305	305
<b>Part Number</b>						<b>WR07X7A4M32X1000</b>
Length (m)						1000

All measurements are in mm

Size (Ø)	4.0 (MBL 9.75kN)	5.0 (MBL 15.23kN)	6.0 (MBL 22.00kN)	8.0 (MBL 39.00kN)	10.0 (MBL 61.00kN)
<b>Part Number</b>			<b>WR07X7A4M6X50</b>	<b>WR07X7A4M8X50</b>	<b>WR07X7A4M10X50</b>
Length (m)			50	50	50
<b>Part Number</b>	<b>WR07X7A4M4X100</b>	<b>WR07X7A4M5X100</b>			
Length (m)	100	100			
<b>Part Number</b>	<b>WR07X7A4M4</b>	<b>WR07X7A4M5</b>	<b>WR07X7A4M6</b>	<b>WR07X7A4M8</b>	<b>WR07X7A4M10</b>
Length (m)	305	305	305	305	305
<b>Part Number</b>					
Length (m)					

## Did you know?

1x19 Wire Rope is very stiff

It is commonly used for fixed “straight line” rigging only such as mast stays and structural applications.

**A4**

# Wire Rope - 7X19 Construction - Flexible

**WRO****316**

METRIC



Size (Ø)	1.5 (MBL 1.28kN)	2.0 (MBL 2.27kN)	2.5 (MBL 3.55kN)	3.2 (MBL 5.82kN)	4.0 (MBL 9.09kN)
Part Number				<b>WR07X19A4M32X50</b>	
Length (m)				50	
Part Number				<b>WR07X19A4M32X100</b>	<b>WR07X19A4M4X100</b>
Length (m)				100	100
Part Number	<b>WR07X19A4M15</b>	<b>WR07X19A4M2</b>	<b>WR07X19A4M25</b>	<b>WR07X19A4M32</b>	<b>WR07X19A4M4</b>
Length (m)	305	305	305	305	305
Part Number				<b>WR07X19A4M32X1000</b>	
Length (m)				1000	

Size (Ø)	5.0 (MBL 14.21kN)	6.0 (MBL 20.50kN)	8.0 (MBL 36.40kN)	10.0 (MBL 82.43kN)	12.0 (MBL 118.69kN)
Part Number		<b>WR07X19A4M6X50</b>	<b>WR07X19A4M8X50</b>	<b>WR07X19A4M10X50</b>	<b>WR07X19A4M12X50</b>
Length (m)		50	50	50	50
Part Number	<b>WR07X19A4M5X100</b>				
Length (m)	100				
Part Number	<b>WR07X19A4M5</b>	<b>WR07X19A4M6</b>	<b>WR07X19A4M8</b>	<b>WR07X19A4M10</b>	<b>WR07X19A4M12</b>
Length (m)	305	305	305	305	305
Part Number	<b>WR07X19A4M5X1000</b>				
Length (m)	1000				

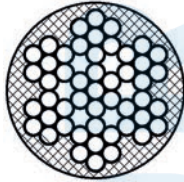
All measurements are in mm

**A4**

# Wire Rope PVC (White) - 7x7 Construction - Insulated

**WRO****316**

METRIC



Size (Ø)	3.2 (4mm O.D) (MBL 6.24kN)	4.0 (5mm O.D) (MBL 15.23kN)
Part Number	<b>WR0PVC7X7A4M32</b>	<b>WR0PVC7X7A4M4</b>
Length (m)	305	305

All measurements are in mm

## Did you know?

### 7x19 Wire Rope is flexible

It is the most flexible and easiest construction to work with. Commonly used in either fixed rigging or limited working rope applications such as on a boat winch.

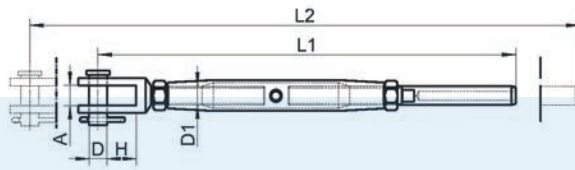
# RSC

## Rigging Screw - Jaw / Swage

A4

316

METRIC



Size (D1)	L1	A	D	H	L2	Cable size mm	Part Number	Std Pack
M5	155.00	6.50	5.00	10.00	215.00	3.20	RSCA4M5X32	10
M6	175.00	7.50	6.00	10.00	245.00	4.00	RSCA4M6X4	5
M10	230.00	12.00	9.00	14.00	320.00	5.00	RSCA4M10X5	5
M10	285.00	14.00	12.00	20.00	400.00	6.00	RSCA4M10X6	5

All measurements are in mm

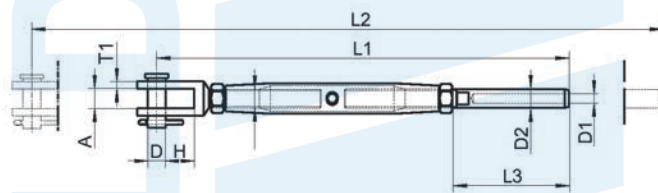
# RSM

## Rigging Screw Mini - Jaw / Swage

A4

316

METRIC



Size (D)B5:M6	L1	L2	L3	A	H	T1	D1	D2	Cable size mm	Part Number	Std Pack
M5	102.00	135.00	16.50	7.80	10.00	2.00	3.50	6.30	3.20	RSMA4M5X32	10

All measurements are in mm

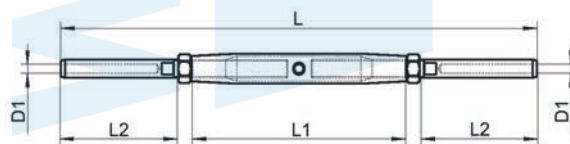
# RSS

## Rigging Screw - Swage / Swage

A4

316

METRIC

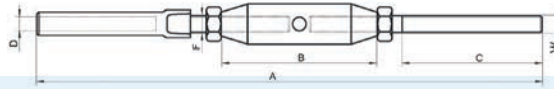


Size	L	L1	L2	D1	Cable size mm	Part Number	Std Pack
M5	190.00	80.00	52.00	3.00	3.20	RSSA4M5X32	10

All measurements are in mm

**A4****Rigging Screw - Machine Thread / Swage****RMS****316**

METRIC

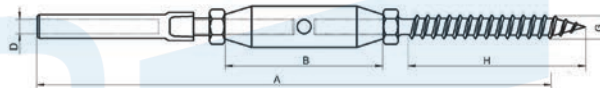


Size (W)	F	A	B	C	D	Cable size mm	Part Number	Std Pack
M6	5.00	190.00	80.00	40.00	3.20	3.20	RMSA4M6X32	10

All measurements are in mm

**A4****Rigging Screw - Lag / Swage****RLS****316**

METRIC

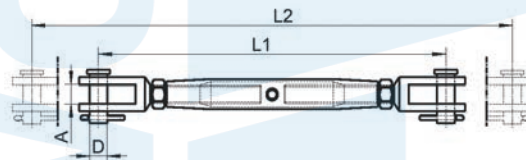


Size (G)	A	B	D	H	Cable size mm	Part Number	Std Pack	Std Pack
M5	185.00	80.00	3.50	40.00	3.20	RLSA4M5X32	10	10

All measurements are in mm

**A4****Rigging Screw - Jaw / Jaw****RTB****316**

METRIC



Size (D)	L2	L1	A	Part Number	Std Pack
M5	125.00	80.00	10.50	RTBA4M5	10
M6	140.00	92.00	10.50	RTBA4M6	5
M8	170.00	112.00	11.50	RTBA4M8	5
M10	190.00	120.00	15.50	RTBA4M10	2
M12	240.00	150.00	19.20	RTBA4M12	2

All measurements are in mm

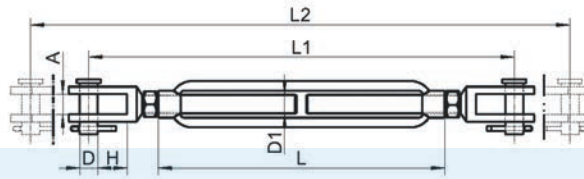
# TJJ

## Turnbuckle With Nuts - Jaw / Jaw

A4

316

METRIC



Size (D1)	L1	L2	L	A	D	H	Part Number	Std Pack
M5	120.00	170.00	70.00	6.50	5.00	10.00	TJJA4M5	10
M6	140.00	205.00	90.00	7.50	6.00	10.00	TJJA4M6	5
M8	180.00	270.00	120.00	11.00	8.00	11.00	TJJA4M8	5
M10	220.00	330.00	150.00	12.00	9.00	14.00	TJJA4M10	2
M12	300.00	455.00	200.00	14.00	12.00	20.00	TJJA4M12	2

All measurements are in mm

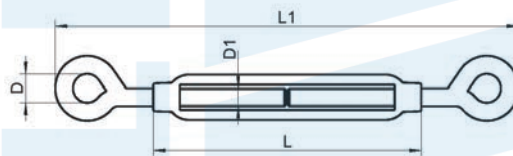
# TEE

## Turnbuckle With Nuts - Eye / Eye

A4

316

METRIC



Size (D1)	L	L1	D	Part Number	Std Pack
M4	55.00	100.00	8.00	TEEA4M4	10
M5	70.00	120.00	10.00	TEEA4M5	10
M6	90.00	150.00	10.00	TEEA4M6	5
M8	120.00	200.00	14.00	TEEA4M8	5
M10	150.00	240.00	16.00	TEEA4M10	2
M12	200.00	310.00	18.00	TEEA4M12	2
M16	250.00	390.00	26.00	TEEA4M16	1
M20	300.00	440.00	30.00	TEEA4M20	1

All measurements are in mm

### Did you know?

Rigging screws are used to provide a means for length adjustment and for tensioning. They are also used with guys for masts, towers, other structures and engineering applications.

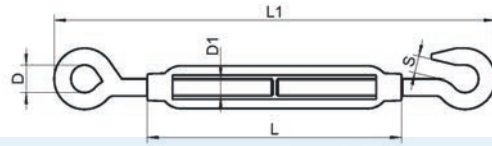


**A4**

## Turnbuckle With Nuts - Hook / Eye

**THE****316**

METRIC



Size (D1)	L	L1	D	S	Part Number	Std Pack
M4	55.00	100.00	8.00	8.00	THEA4M4	10
M5	70.00	120.00	10.00	8.00	THEA4M5	10
M6	90.00	150.00	10.00	9.00	THEA4M6	5
M8	120.00	200.00	14.00	11.00	THEA4M8	5
M10	150.00	240.00	16.00	12.00	THEA4M10	2
M12	200.00	310.00	18.00	14.00	THEA4M12	2
M16	250.00	390.00	26.00	16.00	THEA4M16	1
M20	300.00	440.00	30.00	18.00	THEA4M20	1

All measurements are in mm

**A4**

## Turnbuckle With Nuts - Hook / Hook

**THH****316**

METRIC



Size (D1)	L	L1	S	Part Number	Std Pack
M4	55.00	100.00	8.00	THHA4M4	10
M5	70.00	120.00	8.00	THHA4M5	10
M6	90.00	150.00	9.00	THHA4M6	5
M8	120.00	200.00	11.00	THHA4M8	5
M10	150.00	240.00	12.00	THHA4M10	2
M12	200.00	310.00	14.00	THHA4M12	2
M16	250.00	390.00	16.00	THHA4M16	1
M20	300.00	440.00	18.00	THHA4M20	1

All measurements are in mm

### Did you know?

Turnbuckles have the same applications as rigging screws

They have a generally smaller size range and shorter adjustment. The main benefit of a turnbuckle is that it may have a greater ability to be tightened under load.

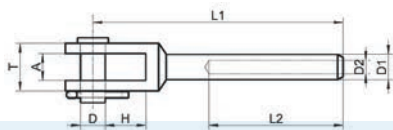
# FTE

## Fork Terminal - Jaw / Swage

A4

316

METRIC



Size (D)	Wire Size	L1	L2	A	D1	D2	H	Part Number	Std Pack
M5	3.20	65.00	38.00	7.50	6.35	3.50	9.00	FTEA4M5X32	10
M6	4.00	65.00	32.00	8.20	7.50	4.40	10.00	FTEA4M6X4MM	5
M8	5.00	73.00	45.00	9.20	9.00	5.30	14.00	FTEA4M8X5MM	2
M10	6.00	88.00	57.00	12.00	12.50	6.40	20.00	FTEA4M10X6MM	2

All measurements are in mm

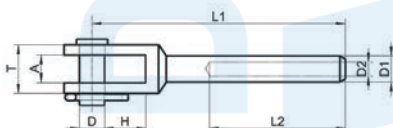
# FTM

## Fork Terminal Mini - Jaw / Swage

A4

316

METRIC



Size (D)	Wire Size	L1	L2	A	D1	D2	H	T	Part Number	Std Pack
M5	3.20	46.00	25.50	7.80	6.20	3.30	10.00	11.50	FTMA4M5X32	10

All measurements are in mm

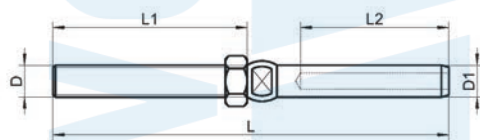
# STE

## Swage / Stud Terminal

A4

316

METRIC



Size (D)	Wire Size	Thread	L	L1	L2	D1	Part Number	Std Pack
M5	3.20	Right	90.00	40.00	22.00	6.00	STEA4M5X32	10
M5	3.20	Left	90.00	40.00	22.00	6.00	STEA4M5X32L	10
M6	3.20	Right	100.00	48.00	39.00	6.00	STEA4M6X32	10
M6	3.20	Left	100.00	48.00	39.00	6.00	STEA4M6X32L	10
M6	4.00	Right	100.00	48.00	39.00	7.50	STEA4M6X4	5
M6	4.00	Left	100.00	48.00	39.00	7.50	STEA4M6X4L	5
M10	5.00	Right	170.00	56.00	60.00	9.00	STEA4M10X5	2

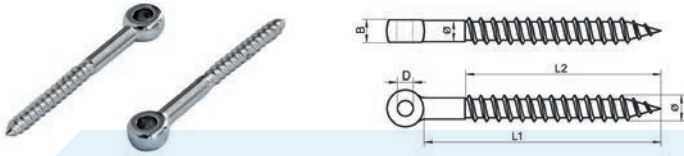
All measurements are in mm

**A4**

# Lag Eye Screw

**LES****316**

METRIC



Size	L1	L2	D	B	Part Number	Std Pack
M6	40.00	35.00	6.30	7.00	LESA4M6X40	10
M6	60.00	40.00	6.30	7.00	LESA4M6X60	10
M8	60.00	40.00	8.40	9.00	LESA4M8X60	5
M8	80.00	55.00	8.40	9.00	LESA4M8X80	5
M10	80.00	55.00	10.20	11.00	LESA4M10X80	5
M10	100.00	65.00	10.20	11.00	LESA4M10X100	5

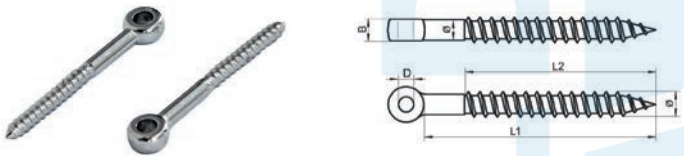
All measurements are in mm

**A4**

# Lag Eye Screw - Small Eye

**LES****316**

METRIC



Size	L1	L2	D	B	Part Number	Std Pack
M6	60.00	40.00	6.30	5.60	LESA4M6X60S	10

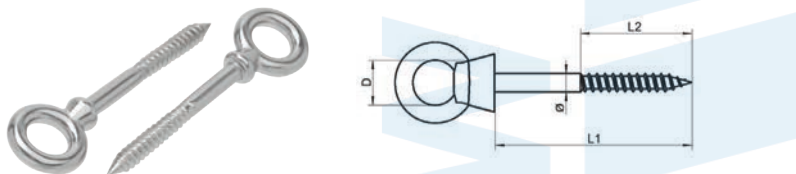
All measurements are in mm

**A4**

# Lag Eye Screw with Collar

**LCS****316**

METRIC



Size (Ø)	L1	L2	D	Part Number	Std Pack
M6	40.00	24.00	14.00	LCSA4M6X40	10
M6	60.00	36.00	14.00	LCSA4M6X60	10
M8	60.00	36.00	18.40	LCSA4M8X60	5
M8	80.00	48.00	18.40	LCSA4M8X80	5
M10	80.00	48.00	23.00	LCSA4M10X80	5
M10	100.00	60.00	22.00	LCSA4M10X100	5
M12	120.00	72.00	27.30	LCSA4M12X120	2

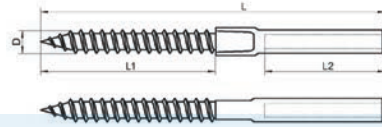
All measurements are in mm

# LST

## Lag / Swage Terminal

**A4****316**

METRIC



Size (D)	Wire Dia.	Thread	L	L1	L2	Part Number	Std Pack
M6	3.20	Right	97.00	48.00	38.00	LSTA4M6X32	10
M6	3.20	Left	97.00	48.00	38.00	LSTA4M6X32L	10
M8	4.00	Right	115.00	54.00	45.00	LSTA4M8X4	5
M8	4.00	Left	115.00	54.00	45.00	LSTA4M8X4L	5

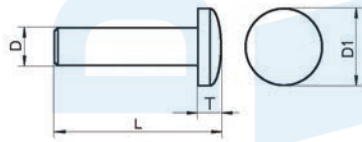
All measurements are in mm

# RTE

## Rod Terminal

**A4****316**

METRIC



Size	D	Wire Rope	D1	L	T	Part Number	Std Pack
M6	6.35	3.20	10.00	32.00	3.00	RTEA4M6X32	10

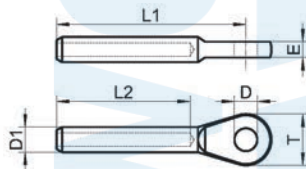
All measurements are in mm

# ETE

## Eye Terminal

**A4****316**

METRIC



Size (D1)	Wire Size	L1	L2	E	D	T	Part Number	Std Pack
M6	3.20	55.00	36.00	4.00	6.50	14.00	ETEA4M6X32	10
M8	4.00	65.00	39.00	6.00	8.50	18.00	ETEA4M8X4	5
M10	5.00	80.00	50.00	7.00	10.00	22.00	ETEA4M10X5	2
M12	6.00	94.00	62.00	8.00	12.50	28.00	ETEA4M12X6	2

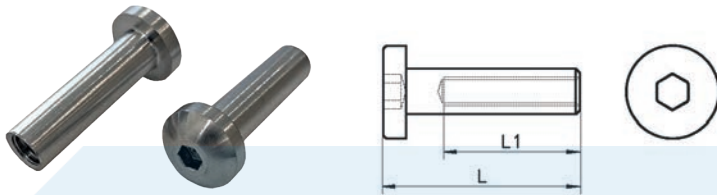
All measurements are in mm

**A4**

# Hex Socket Tensioner

**XST****316**

METRIC



Size	L	L1	Part Number	Std Pack
M6	33.00	27.50	<b>XSTA4M6</b>	10

All measurements are in mm

**A2**

# Wire Eye Strap

**WES****304**

METRIC



Size (D)	D1	L	H	Part Number	Std Pack
M4	3.20	40.00	16.00	<b>WESA2M4</b>	10
M5	4.20	50.00	18.00	<b>WESA2M5</b>	10
M6	5.00	60.00	22.00	<b>WESA2M6</b>	10
M8	6.00	63.00	24.00	<b>WESA2M8</b>	10

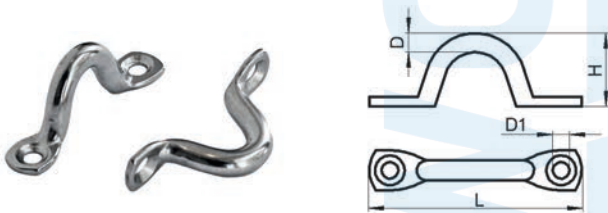
All measurements are in mm

**A4**

# Wire Eye Strap

**WES****316**

METRIC



Size (D)	D1	L	H	Part Number	Std Pack
M4	3.20	40.00	16.00	<b>WESA4M4</b>	10
M5	4.20	50.00	18.00	<b>WESA4M5</b>	10
M6	5.00	60.00	22.00	<b>WESA4M6</b>	10
M8	6.00	63.00	24.00	<b>WESA4M8</b>	10

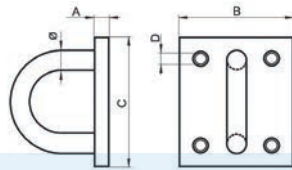
All measurements are in mm

# SEP

## Square Eye Pad

### A2

### 304



METRIC

Size Ø	A	B	C	D	Part Number	Std Pack
M5	2.50	30.00	35.00	4.30	SEPA2M5	10
M6	2.50	35.00	40.00	5.30	SEPA2M6	10
M8	3.00	40.00	50.00	5.50	SEPA2M8	5
M10	3.50	48.00	60.00	5.50	SEPA2M10	5

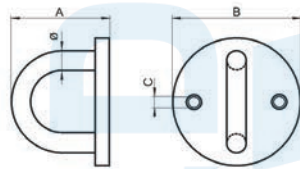
All measurements are in mm

# REP

## Round Eye Pad

### A4

### 316



METRIC

Size Ø	A	B	C	Part Number	Std Pack
M5	20.50	33.00	4.50	REPA4M5	10
M6	25.50	40.00	4.50	REPA4M6	10
M8	31.00	50.00	5.50	REPA4M8	5

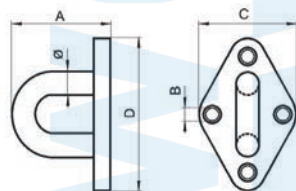
All measurements are in mm

# DEP

## Diamond Eye Pad

### A4

### 316



METRIC

Size Ø	A	B	C	D	Part Number	Std Pack
M5	22.50	4.00	36.50	59.00	DEPA4M5	10
M6	26.50	4.00	39.50	64.00	DEPA4M6	10
M8	33.00	5.00	50.00	80.00	DEPA4M8	5

All measurements are in mm

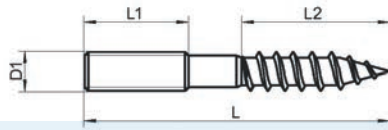


**A4**

# Double Thread Screw - Lag/Machine

**DTS****316**

METRIC



Size (D1)	L	L1	L2	Part Number	Std Pack
M8	100.00	40.00	47.00	<b>DTSA4M8X100</b>	5
M10	60.00	20.00	37.00	<b>DTSA4M10X60</b>	5
M10	80.00	20.00	47.00	<b>DTSA4M10X80</b>	5
M10	100.00	30.00	57.00	<b>DTSA4M10X100</b>	5
M12	70.00	23.00	35.00	<b>DTSA4M12X70</b>	5
M12	80.00	29.00	40.00	<b>DTSA4M12X80</b>	5
M12	100.00	33.00	55.00	<b>DTSA4M12X100</b>	5
M12	110.00	39.00	60.00	<b>DTSA4M12X110</b>	5
M12	120.00	43.00	65.00	<b>DTSA4M12X120</b>	5

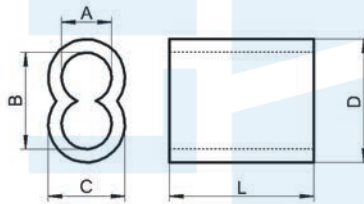
All measurements are in mm

**Nickel Plated Copper**

# Nickel Plated Copper Ferrule

**NPS**

METRIC



Size	A	B	C	D	L	Part Number	Std Pack
M1.5	4.28	6.22	2.13	4.25	10.00	<b>NPSM15</b>	100
M2	5.45	7.80	2.60	4.90	10.00	<b>NPSM2</b>	100
M2.5	6.80	10.15	3.50	6.90	13.00	<b>NPSM25</b>	100
M3.2	7.17	10.45	3.75	6.98	13.00	<b>NPSM32</b>	100
M4	9.15	14.00	4.80	9.50	18.00	<b>NPSM4</b>	20
M5	10.97	16.90	5.80	11.60	22.00	<b>NPSM5</b>	20
M6	13.00	20.40	6.75	14.00	28.00	<b>NPSM6</b>	20

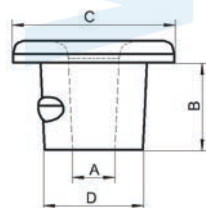
All measurements are in mm

**Nylon**

# Nylon Grommet - Split

**NGR**

METRIC

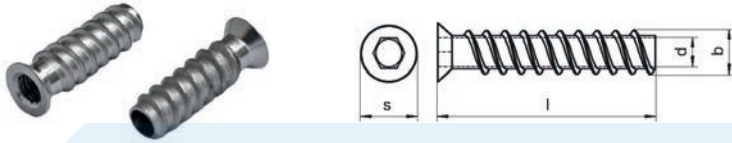


Type	Colour	Hole size	Cable range	A	B	C	D	Part Number	Std Pack
Nylon	Black	11/32"	3.2 - 5.0 mm	4.20	8.00	13.00	9.00	<b>NGRBLA</b>	200
Nylon	Grey	11/32"	3.2 - 5.0 mm	4.20	8.00	13.00	9.00	<b>NGRGRY</b>	200

All measurements are in mm

**CTI****Countersunk Timber Insert****A4****316**

METRIC



Size (d)	b	l	s	Thread	Part Number	Std Pack
M6	10.00	30.00	12.50	Right	<b>CTIA4M6</b>	10
M6	10.00	30.00	12.50	Left	<b>CTIA4M6L</b>	10

All measurements are in mm

**CPW****Cable Pivot Washer****A4****316**

METRIC

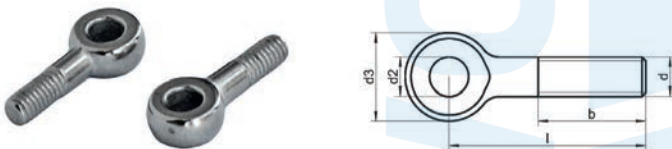


Size Ø	A1	D	Part Number	Std Pack
M6	6.10	13.00	<b>CPWA4M6</b>	10
M8	8.20	13.00	<b>CPWA4M8</b>	10

All measurements are in mm

**MEB****Mini Eye Bolt****A4****316**

METRIC



Size (d)	l	b	d2	d3	Part Number	Std Pack
M6	24.00	10.00	6.00	14.00	<b>MEBA4M6X10</b>	10
M6	38.00	25.00	6.00	14.00	<b>MEBA4M6X25</b>	10

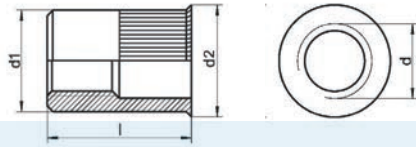
All measurements are in mm

**A2**

## Rivet Nut - Small Flange

**RNS****304**

METRIC



Size (d)	Thread	d1	d2	clamping range	l	Part Number	Std Pack
M5	Right	7.10	7.70	0.5-3.0mm	11.80	<b>RNSA2M5</b>	100
M6	Right	9.50	10.50	0.7-3.3mm	14.60	<b>RNSA2M6</b>	100
M6	Left	9.50	10.50	0.7-3.3mm	14.60	<b>RNSA2M6L</b>	100
M8	Right	10.60	11.50	0.9-3.7mm	16.00	<b>RNSA2M8</b>	100
M10	Right	14.20	15.30	1.0-3.6mm	17.00	<b>RNSA2M10</b>	100

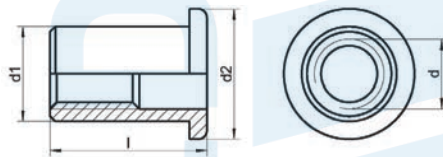
All measurements are in mm

**A2**

## Rivet Nut - Large Flange

**RNL****304**

METRIC



Size (d)	Thread	d1	d2	clamping range	l	Part Number	Std Pack
M5	Right	6.90	10.00	3.0-5.5mm	13.50	<b>RNLA2M5</b>	100
M6	Right	8.90	12.00	3.0-5.5mm	16.00	<b>RNLA2M6</b>	100
M6	Left	8.90	12.00	3.0-5.5mm	16.00	<b>RNLA2M6L</b>	100
M8	Right	10.90	15.00	3.0-5.5mm	18.50	<b>RNLA2M8</b>	100

All measurements are in mm

### Did you know?

A Rivet Nut Installs blind in sheet metal, plastics and tubular materials

Can be used as a rivet to assemble two or more materials and as a nut for the attachment of a mating part with a screw. It Installs mechanically without deforming the parent material. Installs with inexpensive hand tools for field repair or consumer kit installation.

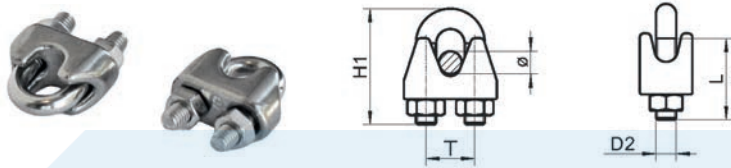
# WRG

## Wire Rope Grip

A4

316

METRIC



Size (Ø)	D2	H1	L	T	Part Number	Std Pack
2mm	M3	17.00	11.00	7.00	WRGA42MM	10
2.5mm	M3	19.00	11.00	7.50	WRGA425MM	10
3mm	M3	21.00	11.00	8.00	WRGA43MM	10
4mm	M4	23.00	12.00	10.00	WRGA44MM	10
5mm	M5	26.00	15.00	12.00	WRGA45MM	10
6mm	M6	32.00	18.00	14.00	WRGA46MM	5
8mm	M6	35.00	18.00	16.00	WRGA48MM	5
10mm	M8	44.00	22.00	19.00	WRGA410MM	5
13mm	M10	55.00	30.00	25.00	WRGA413MM	2
16mm	M14	75.00	35.00	27.00	WRGA416MM	2
19mm	M14	80.00	53.00	32.00	WRGA419MM	2

All measurements are in mm

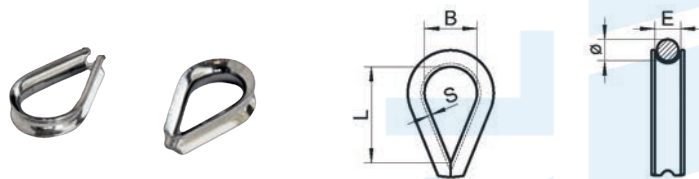
# WRT

## Wire Rope Thimble

A4

316

METRIC



Wire rope (Ø)	E	B	L	S	Part Number	Std Pack
2mm	2.00	7.00	10.00	1.00	WRTA4M2	100
2.5mm	2.50	8.00	14.00	1.00	WRTA4M25	100
3mm	3.00	10.00	17.00	1.00	WRTA4M3	100
4mm	4.00	11.00	18.00	1.00	WRTA4M4	50
5mm	5.60	13.00	20.00	1.20	WRTA4M5	20
6mm	6.50	15.00	25.00	1.20	WRTA4M6	20
8mm	9.00	18.00	33.00	1.50	WRTA4M8	10
10mm	11.00	23.00	41.00	2.00	WRTA4M10	10
12mm	14.00	27.00	48.00	2.00	WRTA4M12	5
14mm	15.00	34.00	53.00	2.50	WRTA4M14	5
16mm	17.00	36.00	57.00	3.00	WRTA4M16	5
18mm	19.00	40.00	67.00	3.00	WRTA4M18	5
20mm	22.00	45.00	75.00	4.00	WRTA4M20	5

All measurements are in mm

### Did you know?

Stainless steel wire rope thimbles are for forming reinforced eyes in wire ropes

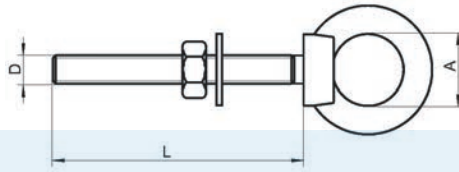
This will provide a longer lasting wear surface and help to support the wire rope eye. Simply loop the cable around the outer groove and secure with a ferrule or wire rope grip.

**A2**

# Eye Bolt With Nut and Washers

**EBO****304**

METRIC



Size (D)	L	A	Part Number	Std Pack
M6	40.00	13.00	EBOA2M6X40	10
M6	50.00	13.00	EBOA2M6X50	10
M6	60.00	13.00	EBOA2M6X60	10
M6	80.00	13.00	EBOA2M6X80	10
M6	100.00	13.00	EBOA2M6X100	10
M8	60.00	17.00	EBOA2M8X60	10
M8	80.00	17.00	EBOA2M8X80	10
M8	100.00	17.00	EBOA2M8X100	10
M8	130.00	17.00	EBOA2M8X130	10
M10	60.00	21.00	EBOA2M10X60	5
M10	80.00	21.00	EBOA2M10X80	5
M10	100.00	21.00	EBOA2M10X100	5
M10	110.00	21.00	EBOA2M10X110	5
M10	120.00	21.00	EBOA2M10X120	5
M10	150.00	21.00	EBOA2M10X150	5
M12	80.00	25.00	EBOA2M12X80	5
M12	100.00	25.00	EBOA2M12X100	5
M12	110.00	25.00	EBOA2M12X110	5
M12	120.00	25.00	EBOA2M12X120	5
M12	150.00	25.00	EBOA2M12X150	5

All measurements are in mm

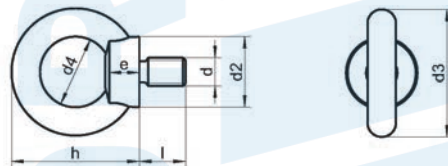
**A4**

# Collared Eye Bolt

**EBO****316**

DIN 580

METRIC



Size (d)	d2	d3	d4	h	l	e	Part Number	Std Pack
M6	19.00	27.00	14.00	27.50	12.00	6.00	EBOA4M6	10
M8	20.00	36.00	20.00	36.00	13.00	6.00	EBOA4M8	5
M10	25.00	45.00	25.00	45.00	17.00	8.00	EBOA4M10	5
M12	30.00	54.00	30.00	54.00	20.50	10.00	EBOA4M12	2
M16	35.00	63.00	35.00	63.00	27.00	12.00	EBOA4M16	2
M20	40.00	72.00	40.00	72.00	30.00	14.00	EBOA4M20	1
M24	50.00	90.00	50.00	90.00	36.00	18.00	EBOA4M24	1

All measurements are in mm

## Did you know?

It's most common to find DIN 580 eyebolt being used to secure wire ropes or cables to a particular fixed structure

They're threaded on one end for optimum fit with no twisting, which makes them the ideal choice for a wide range of different purposes.

# EBJ

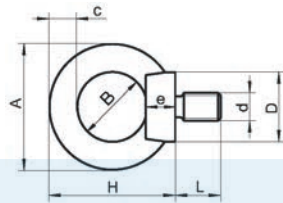
## Collared Eye Bolt

JIS B 1168

METRIC

A4

316



Size (d)	A	B	C	D	H	L	e	Part Number	Std Pack
M6	26.00	16.00	5.00	13.00	26.50	12.50	4.90	<b>EBJA4M6</b>	10
M8	32.60	20.00	6.30	16.00	33.30	15.00	5.00	<b>EBJA4M8</b>	5
M10	41.00	25.00	8.00	20.00	41.50	18.00	7.00	<b>EBJA4M10</b>	5
M12	50.00	30.00	10.00	25.00	51.00	22.00	9.00	<b>EBJA4M12</b>	2
M16	60.00	35.00	12.50	30.00	60.00	27.00	11.00	<b>EBJA4M16</b>	2
M20	72.00	40.00	16.00	35.00	71.00	30.00	13.00	<b>EBJA4M20</b>	1
M24	90.00	50.00	20.00	45.00	90.00	38.00	18.00	<b>EBJA4M24</b>	1

All measurements are in mm

# LEN

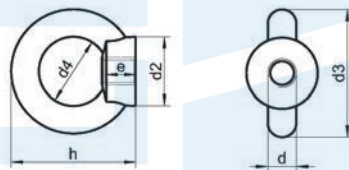
## Collared Eye Nut

DIN 582

METRIC

A4

316



Size (d)	d2	d3	d4	h	e	Part Number	Std Pack
M6	16.00	36.00	20.00	36.00	8.50	<b>LENA4M6</b>	10
M8	20.00	36.00	20.00	36.00	8.50	<b>LENA4M8</b>	5
M10	25.00	45.00	25.00	45.00	10.00	<b>LENA4M10</b>	5
M12	30.00	54.00	30.00	53.00	11.00	<b>LENA4M12</b>	2
M16	35.00	63.00	35.00	63.00	13.00	<b>LENA4M16</b>	2
M20	40.00	72.00	40.00	71.00	16.00	<b>LENA4M20</b>	1
M24	50.00	90.00	50.00	84.00	20.00	<b>LENA4M24</b>	1

All measurements are in mm

### Did you know?

Stainless steel drop forged eye bolts are generally rust proof

It is because of the steel ingredients that consist of chromium, silicon, molybdenum, iron, nickel, and very minimal quantities of carbon.

Due to this fact, stainless steel forged eye bolts will be more durable in marine applications. Furthermore, the smooth look makes this kind of forged eye bolts fit for architectural uses, and common option in food processing and pharmaceutical industries.



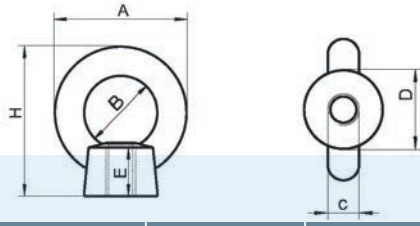
**A4**

# Collared Eye Nut

**LEJ****316**

JIS B 1169

METRIC



Size (c)	D	B	H	E	A	Part Number	Std Pack
M6	13.00	16.00	32.50	10.00	26.00	LEJA4M6	10
M8	16.00	20.00	39.30	12.00	32.60	LEJA4M8	5
M10	20.00	25.00	48.50	15.00	41.00	LEJA4M10	5
M12	25.00	30.00	61.00	19.00	50.00	LEJA4M12	2
M16	30.00	35.00	72.00	23.00	60.00	LEJA4M16	2
M20	35.00	40.00	86.00	28.00	72.00	LEJA4M20	1
M24	45.00	50.00	111.00	38.00	90.00	LEJA4M24	1

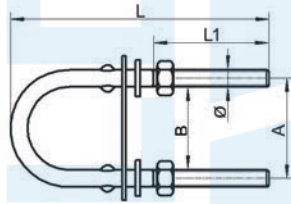
All measurements are in mm

**A2**

# U Bolt With Nuts, Washers & Plate

**UBO****304**

METRIC



Size (Ø)	A	B	L	L1	Part Number	Std Pack
M5	35	30	80	40	UBOA2M5X80	10
M6	35	29	90	45	UBOA2M6X90	10
M8	35	27	80	40	UBOA2M8X80	10
M8	35	27	100	60	UBOA2M8X100	10
M10	50	40	90	50	UBOA2M10X90	5
M10	50	40	130	75	UBOA2M10X130	5
M12	60	53	150	85	UBOA2M12X150	5

All measurements are in mm

## Did you know?

U-bolts have primarily been used to support pipework, pipes through which fluids and gasses pass

As such, U-bolts were measured using pipe-work engineering speak. A U-bolt would be described by the size of pipe it was supporting. U-bolts are also used to hold ropes together.

For example, a 40 Nominal Bore U-bolt would be asked for by pipe work engineers, and only they would know what that meant. The 40 nominal bore part bears little resemblance to the size and dimensions of the U-bolt. The nominal bore of a pipe is a measurement of the inside diameter of the pipe. Engineers are interested in this because they design a pipe by the amount of fluid / gas it can transport.

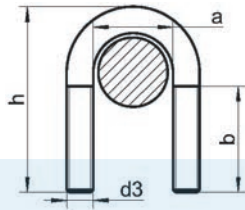
# UBO

## U Bolt With Nuts

A4

316

METRIC



Size (Ø)	h	h-d3	To suit NB	a	b	Part Number	Std Pack
M10	77.00	67.00	15.00	22.00	40.00	UB0A4M10X67	5
M10	88.00	78.00	20.00	27.00	50.00	UB0A4M10X78	5
M10	96.00	86.00	25.00	35.00	50.00	UB0A4M10X86	5
M10	104.00	94.00	32.00	43.00	50.00	UB0A4M10X94	5
M10	110.00	100.00	40.00	49.00	50.00	UB0A4M10X100	5
M10	121.00	111.00	50.00	60.00	50.00	UB0A4M10X111	5
M12	139.00	127.00	65.00	76.00	50.00	UB0A4M12X127	2
M12	152.00	140.00	80.00	89.00	50.00	UB0A4M12X140	2
M12	164.00	152.00	90.00	102.00	50.00	UB0A4M12X152	2
M12	177.00	165.00	100.00	114.00	50.00	UB0A4M12X165	2

All measurements are in mm

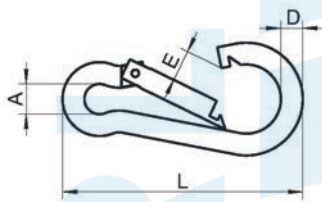
# SHO

## Spring Hook

A4

316

METRIC



Size (D)	L	A	E	Part Number	Std Pack
M3	30.00	5.00	6.00	SH0A4M3	10
M4	40.00	6.50	6.00	SH0A4M4	10
M5	50.00	8.00	7.00	SH0A4M5	10
M6	60.00	9.00	8.00	SH0A4M6	10
M7	70.00	10.00	9.00	SH0A4M7	10
M8	80.00	12.00	9.00	SH0A4M8	10
M10	100.00	15.00	12.00	SH0A4M10	5
M12	140.00	20.00	19.00	SH0A4M12	5

All measurements are in mm

### Did you know?

Snap hooks are equipped with a durable spring that allows for strong, quick attachment to a rope, cable, chain, or other line

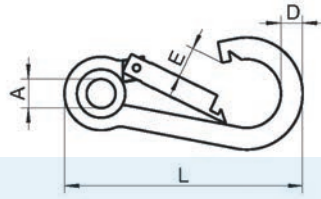
In its most basic form, a snap hook is a roughly question-mark shaped metal hook with a hollow section into which the spring-loaded closing bar is fitted. There will also be a small appendage that catches the snap hook and opens it when pressed with the thumb. Upon release of the knob, the gate snaps close by the spring's action.

**A4**

# Spring Hook With Eye

**SHE****316**

METRIC



Size (D)	L	A	E	Part Number	Std Pack
M5	50.00	6.50	7.00	SHEA4M5	10
M6	60.00	7.50	8.00	SHEA4M6	10
M7	70.00	9.00	8.00	SHEA4M7	10
M8	80.00	10.00	9.00	SHEA4M8	10
M10	100.00	13.00	12.00	SHEA4M10	5
M12	140.00	18.00	19.00	SHEA4M12	5

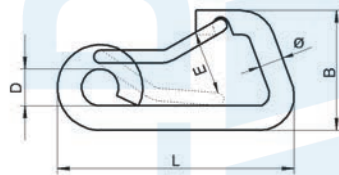
All measurements are in mm

**A4**

# Asymmetric Snap Hook

**SH2****316**

METRIC



Size (Ø)	D	B	L	E	Part Number	Std Pack
M6	7.00	35.00	61.00	10.00	SH2A4M6	10
M8	11.00	48.00	81.00	13.00	SH2A4M8	10
M10	13.00	58.00	102.00	15.00	SH2A4M10	5
M12	16.00	70.00	122.00	21.00	SH2A4M12	5

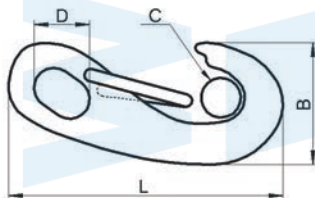
All measurements are in mm

**A4**

# Spring Snap Hook Cast

**SSH****316**

METRIC



L	B	C	D	Part Number	Std Pack
50	24.00	10.00	10.50	SSHA4M50	10
70	31.00	12.00	13.00	SSHA4M70	5
100	46.00	22.00	21.00	SSHA4M100	5

All measurements are in mm

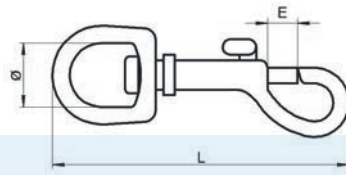
# SSB

## Swivel Snap Bolt

A2

304

METRIC



Size (Ø)	L	E	Part Number	Std Pack
10mm	65.00	7.00	SSBA210	5
13mm	90.00	11.00	SSBA213	5
16mm	92.00	12.00	SSBA216	5
19mm	94.00	12.00	SSBA219	5
25mm	101.00	16.00	SSBA225	5

All measurements are in mm

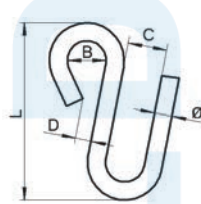
# SH3

## S Hook - Long Arm

A2

304

METRIC



Size (Ø)	L	B	C	D	Part Number	Std Pack
M5	52.00	9.00	9.00	3.00	SH3A2M5	10
M6	64.00	10.00	10.00	5.00	SH3A2M6	10
M8	75.00	16.00	17.00	5.00	SH3A2M8	10
M9	84.00	18.00	19.00	7.00	SH3A2M9	10

All measurements are in mm

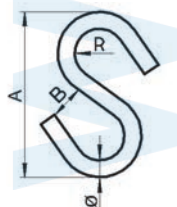
# SH4

## S Hook - Symmetrical

A2

304

METRIC



Size (Ø)	A	B	R	Part Number	Std Pack
M5	51.00	10.00	5.00	SH4A2M5	10
M6	64.00	10.00	6.00	SH4A2M6	10
M8	82.00	13.00	8.00	SH4A2M8	10
M9	97.00	15.00	9.00	SH4A2M9	10

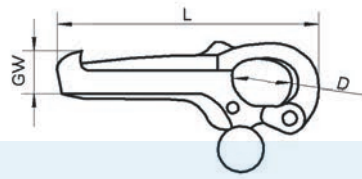
All measurements are in mm

**A4**

## Pelican Hook

**PHO****316**

METRIC



Size (GW)	L	D	Part Number	Std Pack
M6	75.00	18.50	PH0A4M6	5
M8	100.00	27.00	PH0A4M8	5
M10	144.00	35.00	PH0A4M10	5

All measurements are in mm

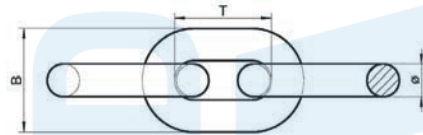
**A2**

## Short Link Chain

**CSL****304**

DIN 766

METRIC



Size (Ø)	B	T	Weight kg/m	Length m	Part Number	Std Pack
M2	8.00	12.00	0.12	50.00	CSLA2M2	1
M3	12.00	16.00	0.16	50.00	CSLA2M3	1
M4	13.60	16.00	0.32	25.00	CSLA2M4	1
M5	17.00	18.50	0.50	25.00	CSLA2M5	1
M6	20.40	18.50	0.75	25.00	CSLA2M6	1
M8	27.20	24.00	1.35	25.00	CSLA2M8	1

All measurements are in mm

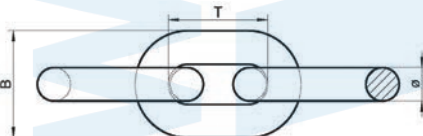
**A4**

## Short Link Chain

**CSL****316**

DIN 766

METRIC



Size (Ø)	B	T	Weight kg/m	Length m	Part Number	Std Pack
M2	8.00	12.00	0.12	50.00	CSLA4M2	1
M3	12.00	16.00	0.16	50.00	CSLA4M3	1
M4	13.60	16.00	0.32	25.00	CSLA4M4	1
M5	17.00	18.50	0.50	25.00	CSLA4M5	1
M6	20.40	18.50	0.75	25.00	CSLA4M6	1
M8	27.20	24.00	1.35	25.00	CSLA4M8	1

All measurements are in mm

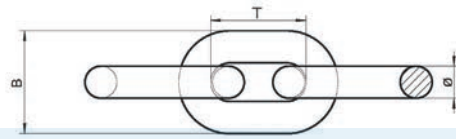
# CML

## Medium Link Chain

A4

316

METRIC



Size (Ø)	B	T	Weight kg/m	Length m	Part Number	Std Pack
M4	16.00	18.70	0.30	25.00	CMLA4M4	1
M5	19.40	22.00	0.50	25.00	CMLA4M5	1
M6	23.60	25.70	0.77	25.00	CMLA4M6	1
M8	29.70	32.00	1.30	25.00	CMLA4M8	1
M10	36.30	38.90	2.05	10.00	CMLA4M10	1
M12	44.00	45.90	2.95	10.00	CMLA4M12	1
M16	56.50	59.60	5.00	10.00	CMLA4M16	1

All measurements are in mm

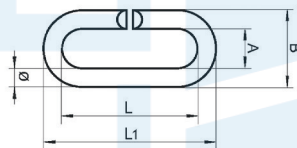
# CLI

## C Link

A4

316

METRIC



Size (Ø)	A	B	L	L1	Part Number	Std Pack
M5	8.00	17.50	20.00	30.00	CLIA4M5	10
M6	9.00	21.00	24.00	36.00	CLIA4M6	10
M8	12.00	28.00	32.00	48.00	CLIA4M8	5
M10	15.00	35.00	40.00	60.00	CLIA4M10	5
M12	18.00	42.00	48.00	72.00	CLIA4M12	2

All measurements are in mm

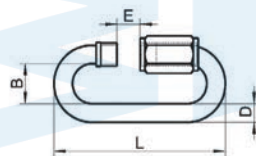
# QLI

## Quick Link

A4

316

METRIC



Size (D)	L	B	E	Part Number	Std Pack
M4	32.00	12.00	5.50	QLIA4M4	10
M5	39.00	13.00	6.50	QLIA4M5	10
M6	45.00	14.00	7.50	QLIA4M6	10
M8	58.00	17.00	10.00	QLIA4M8	5
M10	69.00	21.00	12.00	QLIA4M10	5

All measurements are in mm



**A4**

# D Shackle

**DSH****316**

METRIC



Size (Ø)	B	L	Part Number	Std Pack
M4	16.00	14.00	<b>DSHA4M4</b>	10
M5	20.00	14.50	<b>DSHA4M5</b>	10
M6	24.00	21.00	<b>DSHA4M6</b>	10
M7	24.00	23.50	<b>DSHA4M7</b>	5
M8	32.00	28.00	<b>DSHA4M8</b>	5
M10	40.00	36.00	<b>DSHA4M10</b>	5
M12	48.00	44.00	<b>DSHA4M12</b>	2
M13	52.00	46.50	<b>DSHA4M13</b>	2
M16	64.00	56.00	<b>DSHA4M16</b>	2
M19	76.00	65.50	<b>DSHA4M19</b>	1
M22	88.00	74.00	<b>DSHA4M22</b>	1

All measurements are in mm

**A4**

# D Shackle - Long

**DSL****316**

METRIC



Size (Ø)	A	L	Part Number	Std Pack
M4	8.00	32.00	<b>DSL4M4</b>	10
M5	10.00	40.00	<b>DSL4M5</b>	10
M6	12.00	48.00	<b>DSL4M6</b>	10
M8	16.00	64.00	<b>DSL4M8</b>	5
M10	20.00	80.00	<b>DSL4M10</b>	5
M12	24.00	96.00	<b>DSL4M12</b>	2

All measurements are in mm

## Did you know?

Long D-shackles are designed for application where a quick setup with long reach opening are required

They are designed to be secured by hand tensioning the pin. The Long D Shackle is stainless steel and is used in the fishing, education, sports, building and heavy industrial sectors.

# DSC

## D Shackle With Captive Pin

A4

316

METRIC



Size (Ø)	A	B	L	Part Number	Std Pack
M4	9.00	18.00	15.00	<b>DSCA4M4</b>	10
M5	10.00	20.00	16.50	<b>DSCA4M5</b>	10
M6	12.00	24.00	21.00	<b>DSCA4M6</b>	10
M8	16.00	32.00	28.00	<b>DSCA4M8</b>	5
M10	20.00	40.00	34.00	<b>DSCA4M10</b>	5
M12	24.00	48.00	36.00	<b>DSCA4M12</b>	2

All measurements are in mm

# DSW

## D Shackle - Wide Mouth

A4

316

METRIC



Size (Ø)	A	B	Part Number	Std Pack
M5	20.00	27.50	<b>DSWA4M5</b>	10
M6	24.00	33.00	<b>DSWA4M6</b>	10
M8	32.00	44.00	<b>DSWA4M8</b>	5
M10	40.00	55.00	<b>DSWA4M10</b>	5
M12	48.00	66.00	<b>DSWA4M12</b>	2

All measurements are in mm

### Did you know?

Wide Body Shackles are made with a larger mouth compared to standard shackle

Using a wide body shackle over a standard shackle gives the user a larger working area for the shackle to fit over/attach to.

**A4**

# Bow Shackle

**BSH****316**

METRIC



Size (Ø)	A	R	L	Part Number	Std Pack
M4	8.000	13.000	20.000	<b>BSHA4M4</b>	10
M5	10.800	17.000	23.000	<b>BSHA4M5</b>	10
M6	13.000	21.000	31.000	<b>BSHA4M6</b>	10
M8	17.500	28.000	36.500	<b>BSHA4M8</b>	5
M10	21.500	35.500	44.000	<b>BSHA4M10</b>	5
M12	27.000	41.000	52.500	<b>BSHA4M12</b>	2
M16	32.000	54.000	73.500	<b>BSHA4M16</b>	2
M19	35.600	64.400	85.000	<b>BSHA4M19</b>	1
M22	41.000	74.000	94.000	<b>BSHA4M22</b>	1

All measurements are in mm

**A4**

# Twist Shackle

**TSH****316**

METRIC



Size (Ø)	A	L	Part Number	Std Pack
M4	8.00	23.00	<b>TSHA4M4</b>	10
M5	10.00	27.00	<b>TSHA4M5</b>	10
M6	12.00	30.00	<b>TSHA4M6</b>	10
M8	16.00	42.00	<b>TSHA4M8</b>	5
M10	20.00	55.00	<b>TSHA4M10</b>	5
M12	24.00	66.00	<b>TSHA4M12</b>	5

All measurements are in mm

## Did you know?

Twisted shackles are a twisted-U shaped bar secured by a bolt at the opening

These are used as a primary link for connecting gears in various rigging systems, including industrial rigging, ships and boats. Different types of shackles are manufactured for diverse applications and in various materials.

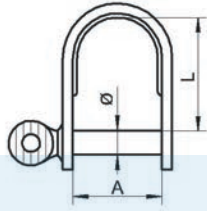
# SSH

## Strap Shackle

A2

304

METRIC



Size (Ø)	A	L	Part Number	Std Pack
M5	12.50	20.00	SSHA2M5	10
M6	15.00	24.00	SSHA2M6	10
M8	18.00	44.00	SSHA2M8	10

All measurements are in mm

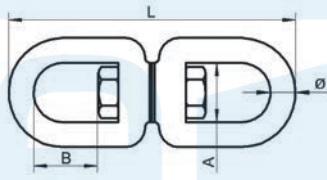
# SEE

## Swivel - Eye / Eye

A4

316

METRIC



Size (Ø)	L	B	A	Part Number	Std Pack
M5	60.00	13.00	13.00	SEEA4M5	10
M6	65.00	15.00	15.00	SEEA4M6	10
M8	90.00	22.00	20.00	SEEA4M8	5
M10	110.00	26.00	23.00	SEEA4M10	5

All measurements are in mm

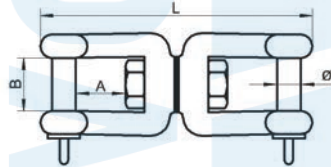
# SJJ

## Swivel - Jaw / Jaw

A4

316

METRIC



Size (Ø)	L	B	A	Part Number	Std Pack
M5	60.00	10.00	11.00	SJJA4M5	10
M6	66.00	12.00	11.00	SJJA4M6	10
M8	94.00	16.00	16.00	SJJA4M8	5
M10	118.00	20.00	22.00	SJJA4M10	5

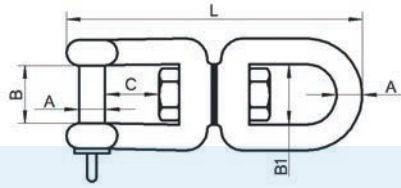
All measurements are in mm

**A4**

## Swivel - Jaw / Eye

**SJE****316**

METRIC



Size (A)	L	B	C	B1	Part Number	Std Pack
M5	60.00	10.00	11.00	13.00	SJEA4M5	10
M6	66.00	12.00	11.00	15.00	SJEA4M6	10
M8	94.00	16.00	16.00	20.00	SJEA4M8	5
M10	118.00	20.00	22.00	24.00	SJEA4M10	5

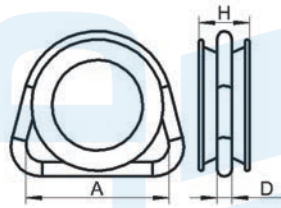
All measurements are in mm

**A4**

## D Ring Thimble

**DRT****316**

METRIC



Size (D)	A	H	Part Number	Std Pack
M6	30.00	5.10	DRTA4M6	10
M8	50.00	7.80	DRTA4M8	5
M10	65.00	21.00	DRTA4M10	5

All measurements are in mm

## Did you know?

Our Swivels are ideal for various marine and industrial rigging applications

They are made from grade 316 stainless steel for maximum corrosion resistance and durability.

D-Ring Thimbles are generally sewn into the webbing of a shade sail to create a secure fixing point between the sail and an anchor point

They have a floating rolled ring inside a welded thimble. D-Rings are made from high quality marine grade stainless steel and are specifically designed for general purpose, marine and shade sail applications and for use with seatbelt webbing.

# RRI

## Round Ring - Welded

A4

316

METRIC



Size (D)	L	Part Number	Std Pack
M3	25.00	RRIA4M3X25	20
M4	20.00	RRIA4M4X20	20
M4	25.00	RRIA4M4X25	20
M4	30.00	RRIA4M4X30	20
M4	40.00	RRIA4M4X40	20
M5	20.00	RRIA4M5X20	10
M5	25.00	RRIA4M5X25	10
M5	30.00	RRIA4M5X30	10
M5	40.00	RRIA4M5X40	10
M5	50.00	RRIA4M5X50	10
M6	25.00	RRIA4M6X25	10
M6	30.00	RRIA4M6X30	10
M6	40.00	RRIA4M6X40	10
M6	50.00	RRIA4M6X50	10
M8	40.00	RRIA4M8X40	5
M8	50.00	RRIA4M8X50	5
M8	65.00	RRIA4M8X65	5
M8	75.00	RRIA4M8X75	5
M10	40.00	RRIA4M10X40	5
M10	50.00	RRIA4M10X50	5
M10	75.00	RRIA4M10X75	5
M10	100.00	RRIA4M10X100	5
M12	75.00	RRIA4M12X75	5
M12	100.00	RRIA4M12X100	5

All measurements are in mm

# DRI

## D Ring - Welded

A4

316

METRIC



Size (Ø)	L	H	Part Number	Std Pack
M3	25.00	23.00	DRIA4M3X25	20
M4	25.00	23.00	DRIA4M4X25	20
M5	25.00	23.00	DRIA4M5X25	10
M5	40.00	36.00	DRIA4M5X40	10
M5	50.00	47.00	DRIA4M5X50	10
M6	25.00	23.00	DRIA4M6X25	10
M6	30.00	26.00	DRIA4M6X30	10
M6	40.00	36.00	DRIA4M6X40	10
M6	50.00	47.00	DRIA4M6X50	10

All measurements are in mm



**A4**

## Triangle Ring - Welded

**TRI****316**

METRIC



Size (D)	A	Part Number	Std Pack
M5	30.00	TRIA4M5X30	10
M6	40.00	TRIA4M6X40	10
M8	50.00	TRIA4M8X50	5

All measurements are in mm

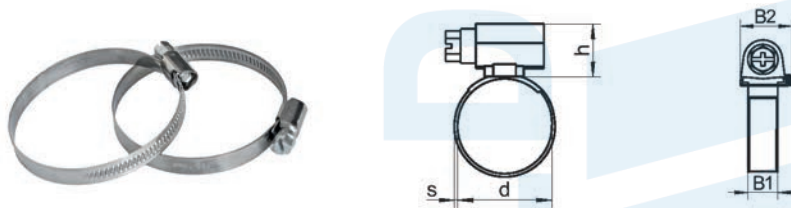
**A2**

## Hose Clamp - Worm Drive

**HCW****304**

DIN 3017

METRIC



Universal Size	d	B1	B2 max.	Part Number	Std Pack
000	10-16mm	9mm	14mm	HCWA2000	10
00	12-22mm	9mm	14mm	HCWA200	10
0	16-27mm	9mm	14mm	HCWA20	10
1A	20-32mm	9mm	14mm	HCWA21A	10
1	25-40mm	9mm	14mm	HCWA21	10
1X	30-45mm	9mm	14mm	HCWA21X	10
2A	35-50mm	9mm	14mm	HCWA22A	10
2	40-60mm	9mm	14mm	HCWA22	10
3	50-70mm	9mm	14mm	HCWA23	10
3A	60-80mm	12mm	20mm	HCWA23A	5
4	70-90mm	12mm	20mm	HCWA24	5
4A	80-100mm	12mm	20mm	HCWA24A	5
5	90-110mm	12mm	20mm	HCWA25	5
5A	100-120mm	12mm	20mm	HCWA25A	5
6	110-130mm	12mm	20mm	HCWA26	5
6A	120-140mm	12mm	20mm	HCWA26A	5

All measurements are in mm

### Did you know?

Hose clamps are typically limited to moderate pressures, such as those found in automotive and home applications

At high pressures, especially with large hose sizes, the clamp would have to be unwieldy to be able to withstand the forces expanding it without allowing the hose to slide off the barb or a leak to form. For these high-pressure applications, compression fittings, thick crimp fittings, or other designs are normally used.

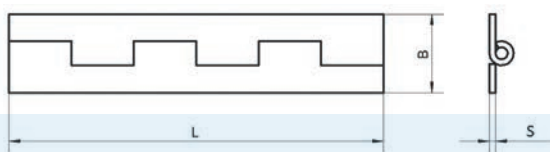
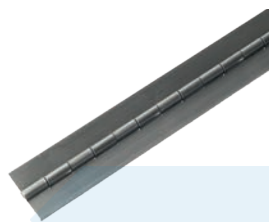
# PHI

## Piano Hinge - Undrilled

A2

304

METRIC



B	L	S	Part Number	Std Pack
M25	1800.00	1.20	PHIA2M25	1
M32	1800.00	1.20	PHIA2M32	1
M38	1800.00	1.20	PHIA2M38	1
M50	1800.00	1.50	PHIA2M50	1

All measurements are in mm

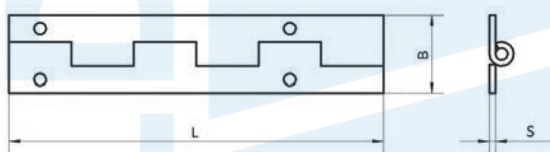
# PHI

## Piano Hinge - Drilled

A2

304

METRIC



B	L	S	Part Number	Std Pack
M25	1800.00	1.20	PHIA2M25D	1
M32	1800.00	1.20	PHIA2M32D	1
M38	1800.00	1.20	PHIA2M38D	1
M50	1800.00	1.50	PHIA2M50D	1

All measurements are in mm

### Did you know?

Piano Hinges are also known as continuous hinges

Piano hinges are generally manufactured in long lengths, which is advantageous for providing support along the entire length of the rotational device the hinge supports, or for simply stocking a desired quantity of hinge locally, that can be pulled from stock, cut-to-length, and installed piecemeal as needed. Piano hinges are usually simple by design- flat, straight, and symmetric.



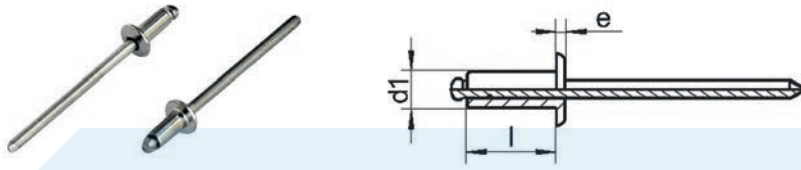
# RIV

## Blind Rivets

A2

304

METRIC



Type	d1	l	e	Grip Range mm	Part Number	Std Pack
4-2	3.20	6.30	2.00	1.6 - 3.2	RIVA242	1000
4-3	3.20	7.90	2.00	3.2 - 4.8	RIVA243	1000
4-4	3.20	9.50	2.00	4.8 - 6.4	RIVA244	1000
4-5	3.20	11.10	2.00	6.4 - 7.9	RIVA245	1000
4-6	3.20	12.70	2.00	7.9 - 9.5	RIVA246	1000
4-8	3.20	16.40	2.00	9.5 - 12.7	RIVA248	1000
5-2	4.00	7.10	2.50	1.6 - 3.2	RIVA252	1000
5-3	4.00	8.70	2.50	3.2 - 4.8	RIVA253	1000
5-4	4.00	10.30	2.50	4.8 - 6.4	RIVA254	1000
5-5	4.00	11.90	2.50	6.4 - 7.9	RIVA255	1000
5-6	4.00	13.50	2.50	6.4 - 9.5	RIVA256	1000
5-8	4.00	17.10	2.50	9.5 - 12.7	RIVA258	500
6-2	4.80	7.90	2.90	1.6 - 3.2	RIVA262	500
6-3	4.80	9.50	2.90	3.2 - 4.8	RIVA263	500
6-4	4.80	11.00	2.90	4.8 - 6.4	RIVA264	500
6-5	4.80	12.60	2.90	5.6 - 7.9	RIVA265	500
6-6	4.80	14.20	2.90	6.3 - 9.5	RIVA266	500
6-8	4.80	17.90	2.90	9.5 - 12.7	RIVA268	500
6-10	4.80	21.10	2.90	12.7 - 15.9	RIVA2610	500
6-12	4.80	24.20	2.90	15.9 - 19.1	RIVA2612	250

All measurements are in mm

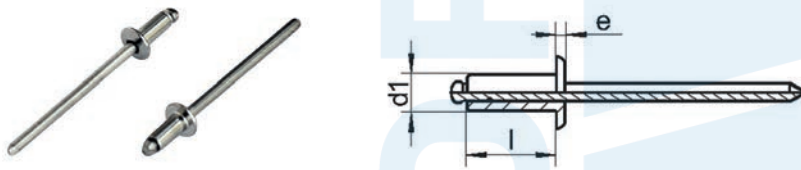
# RIV

## Blind Rivets

A4

316

METRIC



Type	d1	l	e	Grip Range mm	Part Number	Std Pack
4-2	3.20	6.30	2.00	1.6 - 3.2	RIVA442	1000
4-3	3.20	7.90	2.00	3.2 - 4.8	RIVA443	1000
4-4	3.20	9.50	2.00	4.8 - 6.4	RIVA444	1000
4-5	3.20	11.10	2.00	6.4 - 7.9	RIVA445	1000
4-6	3.20	12.70	2.00	7.9 - 9.5	RIVA446	1000
4-8	3.20	16.40	2.00	9.5 - 12.7	RIVA448	1000
5-2	4.00	7.10	2.50	1.6 - 3.2	RIVA452	1000
5-3	4.00	8.70	2.50	3.2 - 4.8	RIVA453	1000
5-4	4.00	10.30	2.50	4.8 - 6.4	RIVA454	1000
5-5	4.00	11.90	2.50	6.4 - 7.9	RIVA455	1000
5-6	4.00	13.50	2.50	6.4 - 9.5	RIVA456	1000
5-8	4.00	17.10	2.50	9.5 - 12.7	RIVA458	500
6-2	4.80	7.90	2.90	1.6 - 3.2	RIVA462	500
6-3	4.80	9.50	2.90	3.2 - 4.8	RIVA463	500
6-4	4.80	11.00	2.90	4.8 - 6.4	RIVA464	500
6-5	4.80	12.60	2.90	5.6 - 7.9	RIVA465	500
6-6	4.80	14.20	2.90	6.3 - 9.5	RIVA466	500
6-8	4.80	17.90	2.90	9.5 - 12.7	RIVA468	500
6-10	4.80	21.10	2.90	12.7 - 15.9	RIVA4610	500
6-12	4.80	24.20	2.90	15.9 - 19.1	RIVA4612	250

All measurements are in mm

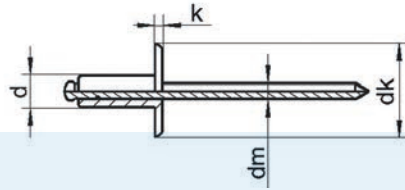


**A2**

# Large Flange Rivets

**RIL****304**

METRIC



Type	d	dk min.	k	dm	Grip Range mm	Part Number	Std Pack
4-2	3.20	8.80	1.60	2.00	1.6 - 3.2	RILA242	1000
4-3	3.20	8.80	1.60	2.00	3.2 - 4.8	RILA243	1000
4-4	3.20	8.80	1.60	2.00	4.8 - 6.4	RILA244	1000
4-6	3.20	8.80	1.60	2.00	6.4 - 7.9	RILA246	1000
4-8	3.20	8.80	1.60	2.00	7.9 - 9.5	RILA248	1000
5-2	4.00	11.00	1.90	2.50	1.6 - 3.2	RILA252	1000
5-3	4.00	11.00	1.90	2.50	3.2 - 4.8	RILA253	1000
5-4	4.00	11.00	1.90	2.50	4.8 - 6.4	RILA254	1000
5-6	4.00	11.00	1.90	2.50	6.4 - 7.9	RILA256	1000
5-8	4.00	11.00	1.90	2.50	6.4 - 9.5	RILA258	500
6-2	4.80	13.00	2.10	2.90	1.6 - 3.2	RILA262	500
6-3	4.80	13.00	2.10	2.90	3.2 - 4.8	RILA263	500
6-4	4.80	13.00	2.10	2.90	4.8 - 6.4	RILA264	500
6-6	4.80	13.00	2.10	2.90	6.3 - 9.5	RILA266	250
6-8	4.80	13.00	2.10	2.90	9.5 - 12.7	RILA268	500
6-10	4.80	13.00	2.10	2.90	12.7 - 15.9	RILA2610	500
6-12	4.80	13.00	2.10	2.90	15.9 - 19.1	RILA2612	250

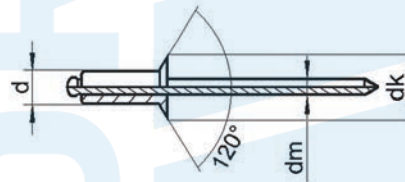
All measurements are in mm

**A2**

# Countersunk Rivets

**RIC****304**

METRIC



Type	d	dk min.	dm	Grip Range mm	Part Number	Std Pack
4-2	3.20	5.60	2.00	1.6 - 3.2	RICA242	1000
4-3	3.20	5.60	2.00	3.2 - 4.8	RICA243	1000
4-4	3.20	5.60	2.00	4.8 - 6.4	RICA244	1000
4-6	3.20	5.60	2.00	6.4 - 9.5	RICA246	1000
4-8	3.20	5.60	2.00	9.5 - 12.7	RICA248	1000
5-2	4.00	7.00	2.50	1.6 - 3.2	RICA252	1000
5-3	4.00	7.00	2.50	3.2 - 4.8	RICA253	1000
5-4	4.00	7.00	2.50	4.8 - 6.4	RICA254	1000
5-6	4.00	7.00	2.50	6.4 - 9.5	RICA256	1000
5-8	4.00	7.00	2.50	9.5 - 12.7	RICA258	500
6-2	4.80	8.50	2.90	1.6 - 3.2	RICA262	500
6-3	4.80	8.50	2.90	3.2 - 4.8	RICA263	500
6-4	4.80	8.50	2.90	4.8 - 6.4	RICA264	500
6-6	4.80	8.50	2.90	6.4 - 9.5	RICA266	500
6-8	4.80	8.50	2.90	9.5 - 12.7	RICA268	500
6-10	4.80	8.50	2.90	12.7 - 15.9	RICA2610	500
6-12	4.80	8.50	2.90	15.9 - 19.1	RICA2612	250

All measurements are in mm

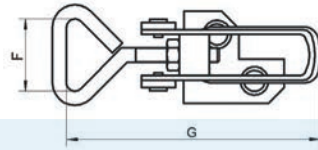
# TLA

## Toggle Latch

A2

304

METRIC



Size	G	F	Part Number	Std Pack
Small	78-87	18.30	TLAA2IW1	1
Medium	110-120	23.00	TLAA2IW2	1
Large	155 - 165	35.90	TLAA2IW3	1

All measurements are in mm

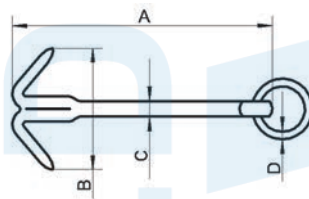
# AHO

## Anchor Hooks

A4

316

METRIC



A	B	C	D	Part Number	Std Pack
205	160.00	13.00	6.00	AHOA4205	1
220	245.00	14.00	8.00	AHOA4220	1

All measurements are in mm

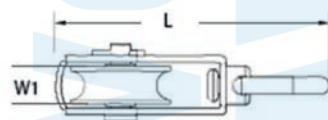
# MBL

## Mame Block - Single Nylon Sheave

A2

304

METRIC

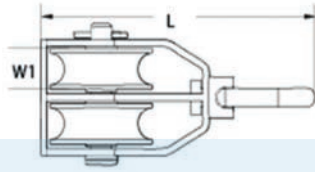


Size	W1	L	BL	Rope	Part Number	Std Pack
M25	8.00	86.00	1,500kg	Up to 6mm	MBLA225NS	1
M32	9.00	99.00	1,700kg	Up to 9mm	MBLA232NS	1
M50	12.00	131.00	2,800kg	Up to 12mm	MBLA250NS	1

All measurements are in mm

**A2****Mame Block - Double Nylon Sheave****MBL****304**

METRIC

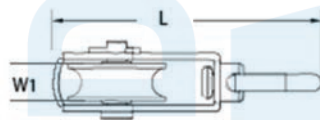


Size	W1	L	BL	Rope	Part Number	Std Pack
M25	8.00	80.00	1,500kg	Up to 6mm	<b>MBLA225ND</b>	1
M32	9.00	95.00	1,500kg	Up to 9mm	<b>MBLA232ND</b>	1
M50	13.00	128.00	2,500kg	Up to 12mm	<b>MBLA250ND</b>	1

All measurements are in mm

**A2****Mame Block - Single Stainless Sheave****MBL****304**

METRIC

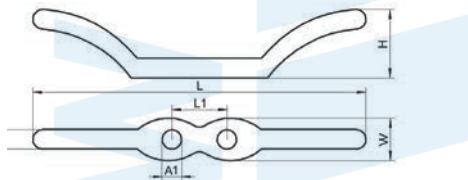


Size	W1	L	BL	Rope	Part Number	Std Pack
M25	10.00	86.00	1,500kg	Up to 6mm	<b>MBLA225SS</b>	1
M32	12.00	99.00	1,800kg	Up to 9mm	<b>MBLA232SS</b>	1
M50	13.00	131.00	3,500kg	Up to 12mm	<b>MBLA250SS</b>	1

All measurements are in mm

**A4****Rope Cleat - Type 4015****CLR****316**

METRIC



Size	L1	W	H	D	A1	Part Number	Std Pack
67MM	11.00	10.50	13.00	4.00	4.00	<b>CLRA4067MM</b>	1
112MM	20.00	14.00	20.00	6.00	5.50	<b>CLRA4112MM</b>	1
150MM	23.00	17.00	26.00	8.00	6.50	<b>CLRA4150MM</b>	1

All measurements are in mm



# DBI

## Driver Bit - Square Drive



Type	Length	Part Number	Std Pack
#1	25.00	DBI25MM1SQ	10
#2	50.00	DBI50MM2SQ	10

All measurements are in mm

# DBI

## Driver Bit - Torx Drive



Type	Length	Part Number	Std Pack
T20	50.00	DBI50MM20TX	10
T25	50.00	DBI50MM25TX	10
T30	50.00	DBI50MM30TX	10

All measurements are in mm

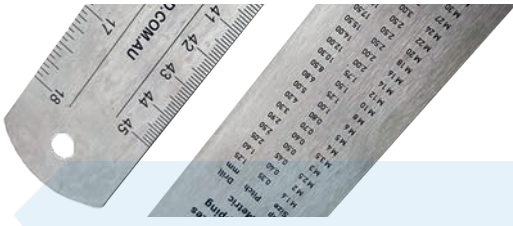
# SOAP

## Stainless Steel Soap - Retail Pack



Part Number	Std Pack
SOAPRETAIL	1

All measurements are in mm



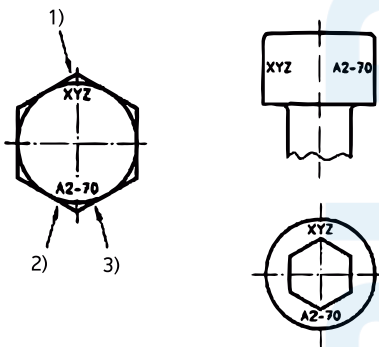
Length	Part Number	Std Pack
450mm	RULER450MM	1

All measurements are in mm

## Marking of Stainless Steel Screws and Nuts

The marking of stainless screws and nuts must contain the steel group, strength class and manufacturer's sign.

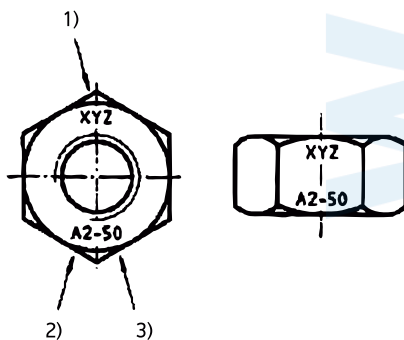
### Marking of screws according to DIN ISO 3506-1



Hexagonal screws and socket cap screws with hexagonal socket as of an M5 nominal diameter should be clearly marked according the marking system. Where at all possible, the marking should be placed on the screw head.

- 1) Manufacturer's identification mark
- 2) Steel grade
- 3) Property class

### Marking of screws according to DIN ISO 3506-2



Nuts with a thread nominal diameter as of 5 mm should be clearly marked according the following marking system. Marking on just one bearing surface is permitted and may only be used if recessed, Marking on the spanner flats is also possible.

- 1) Manufacturer's identification mark
- 2) Steel grade
- 3) Property class

# INOX

## TECHNICAL INFORMATION



# Common Fasteners



**Hex bolts** are used in machinery and construction. Can be used with a nut, or in a tapped hole. Fully threaded hex bolts are also known as **Set Screws/ Bolts**.



**Batten screws** have large threads and a smooth shank for pulling two pieces of material together. They can be used in wood and other soft materials.



**Sheet metal screws** have sharp points and threads, and are designed to be driven directly into sheet metal. They can also be used in softer materials like plastic, fiberglass, or wood.



**Machine screws** are fully threaded for use with a nut or in a tapped hole. Can also be known as a **Metal Thread Screw**.



**Socket screws** are machine screws with an internal hex socket (Allen) drive. Longer lengths may have a shank.



**Hex Coach Screws**, are large wood screws with hex heads. Typically used for wood construction and landscaping.



**Cup head Square neck bolts** have smooth, domed heads with a square section underneath that pulls into the material to prevent spinning during installation.



**Nuts** are used to fasten machine threaded fasteners in through-hole applications. **Lock nuts** help prevent loosening.



**Washers** spread the load over a greater surface area when tightening a bolt, screw or nut. **Lock washers** help preventing loosening.

## Drive Types



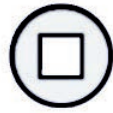
Phillips



Slotted



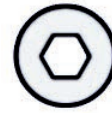
Pozidriv



Square



Combo



Hex socket  
(Allen)



Torx

**Phillips** and **Slotted** drives are common in screws, but prone to cam-out (stripping). **Combo** drives, that can be used with either driver, are available for many fastener types. **Posidriv** are similar to Phillips, but less prone to cam-out. **Hex socket (Allen)** drives are compact and easy to drive, but prone to cam-out. **Torx** and **Square** drive are resistant to cam-out and can be installed single-handed.

## Head Styles



**Hex heads** are typically used with larger bolt and screws.



**Round heads** are tall domed heads, used primarily for a decorative purposes.



**Pan heads** have a slightly domed head that sits above the surface.



**Socket heads** are narrow with a socket drive, and knurled or smooth sides.



**Countersunk heads** are installed in a countersunk hole for a fl at surface.



**Button heads** feature a medium dome. Typically used with hex socket drive.

## Thread Count And Thread Pitch

Machine threaded fasteners specify a thread density in Threads Per Inch (US) or as a Thread Pitch in mm (Metric).

For a given diameter, a fastener may be available in coarse (standard), fine and sometimes super fine thread.

# Thread guide

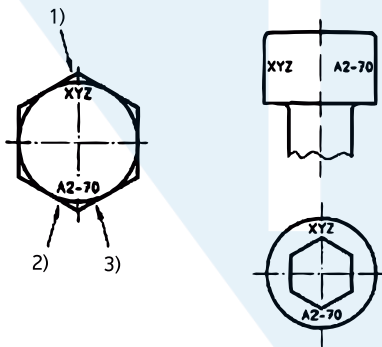
Size			Pitch (mm)		Threads Per Inch (TPI)		
			Coarse	Fine	UNC	UNF	BSW
M1.6		#0	0.35			80	
M2		#1	0.4			72	
		#2			56	64	
M2.5		#3	0.45		48	56	
		#4			40	48	
M3	1/8"	#5	0.5		40	44	40
M3.5		#6	0.6		32	40	
M4		#8	0.7		32	36	
M5	3/16"	#10	0.8		24	32	24
		#12			24	28	
M6	1/4"		1		20	28	20
M8	5/16"		1.25	1	18	24	18
M10	3/8"		1.5	1.25	16	24	16
	7/16"				14	20	14
M12	1/2"		1.75	1.5	13	20	12
M14	9/16"		2	1.5	12	18	12
M16	5/8"		2	1.5	11	18	11
M18			2.5	1.5			
M20	3/4"		2.5	1.5	10	16	10
M22	7/8"		2.5	1.5	3	14	9
M24	1"		3	2	8	12(14)	8
M27	1 1/8"		3	2	7	12	7
M30	1 1/4"		3.5	2	7	12	7
M33	1 3/8"		3.5	2	6	12	6
M36	1 1/2"		4	3	6	12	6
M39	1 5/8"		4	3			5
M42			4.5				
M45	1 3/4"		4.5		5		5
M48	1 7/8"		5				



# Marking of Stainless Steel Screws and Nuts

The marking of stainless screws and nuts must contain the steel group, strength class and manufacturer's sign.

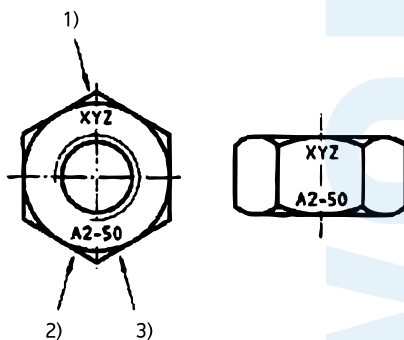
## Marking of screws according to DIN ISO 3506-1



Hexagonal screws and socket cap screws with hexagonal socket as of an M5 nominal diameter should be clearly marked according the marking system. Where at all possible, the marking should be placed on the screw head.

- 1) Manufacturer's identification mark
- 2) Steel grade
- 3) Property class

## Marking of screws according to DIN ISO 3506-2



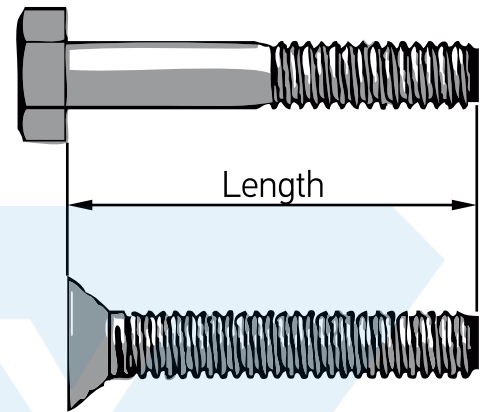
Nuts with a thread nominal diameter as of 5 mm should be clearly marked according the following marking system. Marking on just one bearing surface is permitted and may only be used if recessed, Marking on the spanner flats is also possible.

- 1) Manufacturer's identification mark
- 2) Steel grade
- 3) Property class

## Measuring Fasteners

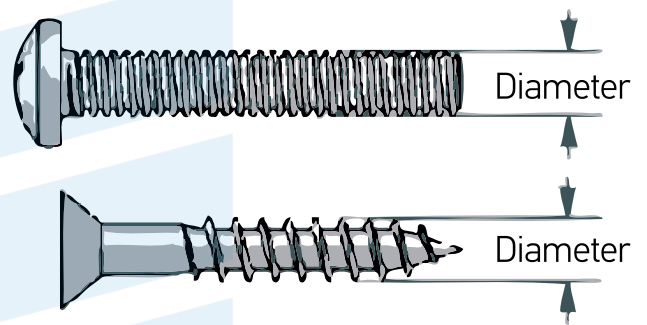
Fastener length is usually measured from where the material is to be to the end of the fastener.

Countersunk fasteners are measured overall and non-countersunk fasteners are measured from under the head.



## Measuring Diameters

For most types of fasteners, the diameter is measured on the outside of the threads.

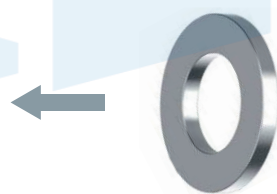


## Nut And Washer Sizes

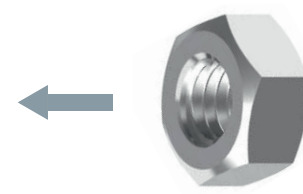
Nut and washer sizes indicate **the screw or bolt they fit**. For example:



3/8" Hex Bolt



3/8" Washer



3/8" Nut

# Self Tapping & Self Drilling Gauge/mm Conversion

Self tapping & self drilling gauge to mm conversion chart

GAUGE	4	6	7	8	10	12	14	16	18	20
SIZE (MM)	2.9	3.5	3.9	4.2	4.8	5.5	6.3	7	7.7	8.4

## Fastener Materials and Coatings

**Alloy steel** is highly hardened and usually black oxide and/or oil coated, offering little corrosion resistance.

**Brass** and **bronze** are copper alloys with good corrosion resistance. More expensive than steel, these materials are typically used for decorative applications.

**Zinc Plated steel** is shiny and typically 3 microns thick, where you only need superficial protection, indoors in a dry climate (and want the aesthetic value) go for zinc plating.

**Chrome** and **nickel plated steel** are smooth and polished for appearance. The plating offers moderate corrosion resistance.

**Stainless steel** offers good corrosion resistance, making it suitable for outdoor and marine applications.

**Hot-dipped galvanised steel** has a thicker zinc coating for better corrosion resistance, making it suitable for outdoor use. Because of the thick plating 50 microns, only galvanised nuts and washers will fit galvanised bolts.

## Stainless Steel Properties

### What Is A2-70 Stainless Steel?

**DIN/ISO A2 Stainless Steel** is a corrosion resistant steel; it is also known as ASTM-304. A2 / ASTM-304 is an 18/8 Stainless Steel: this designates a metallurgical content of 18% chromium & 8% nickel.

A bolt marked A2-70 is a 304 stainless steel bolt with a 700 n/mm<sup>2</sup> tensile strength. The 70 representing the tensile strength divided by 10. 50 & 80 Grades are also available but are not all that common.

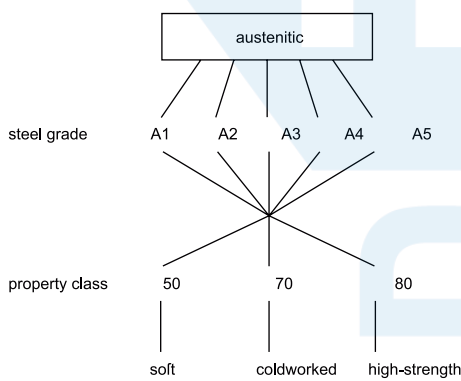
A2 / 304 Stainless Steel is what is known as an austenitic stainless steel: it is (mostly) non-magnetic though some residual magnetism can be introduced when the material is cold worked.

A2 / 304 Stainless Steel is one of the most highly corrosion-resistant materials available to the designer and engineer.

# Grading of Stainless Steel Fasteners

## Labelling system for grades of stainless steels and their strength classes

Stainless steels divide into three groups of steels — austenitic, ferritic and martensitic. Austenitic steel is by far the commonest and offers the greatest scope for use. The steel groups and strength classes are designated by a four-digit sequence of letters and numbers as shown in the following example. DIN EN ISO 3506 governs screws and nuts made from stainless steel.



Example: A2 - 80

A = austenitic steel

2 = type of alloy within group A

80 = tensile strength of at least 800 N/mm<sup>2</sup>, cold work hardened

## Common stainless steels and their chemical composition

	Material designation	Material no.	C %	Si ≤%	Mn ≤%	Cr %	Mo %	Ni %	Altri %
A2	X 5 Cr Ni 1810	1.4301	≤0.07	1.0	2.0	17.5 to 19.5	-	8.0 to 10.5	-
	X 2 Cr Ni 1811	1.4306	≤0.03	1.0	2.0	18.9 to 20.0	-	10.0 to 12.0	-
	X 8 Cr Ni 19/10	1.4303	≤0.07	1.0	2.0	17.0 to 19.0	-	11.0 to 13.0	-
A3	X 6 Cr Ni Ti 1811	1.4541	≤0.10	1.0	2.0	17.0 to 19.0	-	9.0 to 12.0	Ti ≥ 5 X % C
A4	X 5 Cr Ni Mo 1712	1.4401	≤0.07	1.0	2.0	16.5 to 18.5	2.0 to 2.5	10.0 to 13.0	-
	X 5 Cr Ni Mo 1712	1.4401	≤0.03	1.0	2.0	16.5 to 18.5	2.0 to 2.5	10.0 to 13.0	-
A5	X 6 Cr Ni Mo Ti 1712	1.4541	≤0.10	1.0	2.0	16.5 to 18.5	2.0 to 2.5	10.5 to 13.5	Ti ≥ 5 X % C

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