



Engineered to be harder, longer lasting, and reusable — Unbrako Durlok Hex Serrated Flange Screws are designed with long, ramp shaped, radial teeth that are blended evenly into a smooth, slightly conical outer surface. Earnest Machine stocks Unbrako Durlok Hex Serrated Flange Screws in metric sizes ranging from M5 to M20

## **PRODUCT ATTRIBUTES**

Designed for high-performance critical applications Built-in washer distributes clamping load over wider area Replaces traditional bolt and lock washer applications Sizes range from M5 to M20

# MARKETS FOR UNBRAKO DURLOK HEX SERRATED FLANGE SCREWS

Agriculture Equipment
Commercial Lawn Equipment
Robotics & Automation
Automotive

## THIS PRODUCT IS OFTEN CALLED...

Whiz Lock Screw Locking Head Screw Hex Washer Head Locking Screw

### **AVAILABLE VALUE ADDED SERVICES**

Bulk, full case & broken quantities Secondary & rework services available Custom packaging services Custom plating



### ADDITIONAL HEX FLANGE PRODUCT WE SUPPLY

Hex Flange Lag Screws
Hex Flange Screws
Metric & JIS Hex Flange Screws
Metric Stainless Steel Hex Flange Screws
Hex Serrated Flange Screws
Large Flange Hex Serrated Flange Screws
Stainless Steel Hex Serrated Flange Screws
Metric Hex Serrated Flange Screws
Hex Flange Nuts
Metric & JIS Hex Flange Nuts
Metric Stainless Steel Hex Flange Nuts
Hex Serrated Flange Lock Nuts
Large Flange Hex Serrated Flange Lock Nuts
Stainless Steel Hex Serrated Flange Lock Nuts
Metric & JIS Hex Serrated Flange Lock Nuts

Stainless Steel Hex Serrated Flange Lock Nu Metric & JIS Hex Serrated Flange Lock Nuts All Metal Hex Flange Lock Nuts Metric All Metal Hex Flange Lock Nuts Nylon Insert Hex Flange Lock Nuts Metric Nylon Insert Flange Lock Nuts



The right part.
The right quantity.
On-time.
Everytime.



## METRIC CLASS 12.9 UNBRAKO DURLOK HEX SERRATED FLANGE SCREWS

Unbrako Durlok Hex Serrated Flange Screws are manufactured in accordance with the latest revision of the following industry standards:

**DIN 6921** Dimensional Requirements

**ISO 898-1** Material and Physical Properties

ISO 261 Thread Requirements
ISO 6157-1 Surface Discontinuities

**ISO 3269** Inspection and Quality Assurance

## **THREADS**

Threads are made to the requirements of ISO 261 ISO 965-2 Class 6g

Thread acceptance per ISO 1502

## **PLATING**

Black Oxide

## **MATERIAL AND PHYSICAL PROPERTIES**

**Property Class 12.9** 



## **Chemical Composition:**

CARBON (C)		CARBON (C) PHOSPHORUS (P)		BORON (B)
Max	Min	Max	Max	Max
0.55	020	0.035	0.035	0.03

## Alloy

## PROPERTY CLASS 12.9

Mn, Cr, Mo, Ni, V, B

### **Hardness**

## **PROPERTY CLASS 12.9**

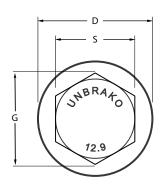
HRC 40-43

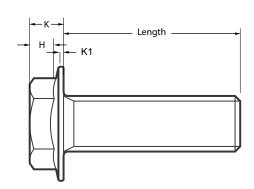
## **Tensile Strength**

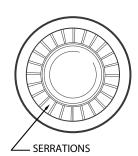
### **PROPERTY CLASS 12.9**

1220 MPa min

## DIMENSIONS FOR METRIC CLASS 12.9 DURLOK HEX SERRATED FLANGE SCREWS







SIZE	WIDTH ACROSS FLATS (S)		WIDTH ACROSS CORNERS (G)	FLANGE DIAMETER (D)	HEAD HEIGHT (K)	FLANGE THICKNESS (K1)	WRENCH HEIGHT (H)
	MAX	MIN	MIN	MAX	MAX	MIN	MIN
M5	8	7.78	8.71	12	4.5	1.0	2.09
M6	10	9.78	10.95	14	5.2	1.1	2.69
M8	13	12.73	14.26	18	7.2	1.3	4.21
M10	15	14.73	16.5	21	9.0	1.6	5.47
M12	17	15.73	17.62	25	11.0	1.9	6.71
M14	19	17.73	19.86	28	12.5	2.2	7.65
M16	22	20.67	23.15	32	16.0	3.8	9.27
M20	27	26.67	29.87	39	18.0	3.1	11.86



## **Unbrako Durlok Hex Serrated Flange Screws - Metric**

## **Metric Class 12.9**

#### THREAD GRADE FINISH PART # M6-1.0x12 ISO 12.9 Coarse Black Oxide 962626 M6-1.0x16 ISO 12.9 Full Coarse Black Oxide 962629 M6-1.0x20 ISO 12.9 Full Coarse Black Oxide 962632 M6-1.0x25 ISO 12.9 Full Black Oxide 962635 Coarse M6-1.0x30 ISO 12.9 Full Coarse Black Oxide 962638

M8-1.25x12	ISO 12.9	Full	Coarse	Black Oxide	962641
M8-1.25x16	ISO 12.9	Full	Coarse	Black Oxide	962644
M8-1.25x20	ISO 12.9	Full	Coarse	Black Oxide	962647
M8-1.25x25	ISO 12.9	Full	Coarse	Black Oxide	962650
M8-1.25x30	ISO 12.9	Full	Coarse	Black Oxide	962653
M8-1.25x35	ISO 12.9	Full	Coarse	Black Oxide	962656
M8-1.25x40	ISO 12.9	Full	Coarse	Black Oxide	962659
M8-1.25x50	ISO 12.9	Full	Coarse	Black Oxide	962662

M10-1.5x16	ISO 12.9	Full	Coarse	Black Oxide	962500
M10-1.5x20	ISO 12.9	Full	Coarse	Black Oxide	962503
M10-1.5x25	ISO 12.9	Full	Coarse	Black Oxide	962506
M10-1.5x30	ISO 12.9	Full	Coarse	Black Oxide	962509
M10-1.5x35	ISO 12.9	Full	Coarse	Black Oxide	962512
M10-1.5x40	ISO 12.9	Full	Coarse	Black Oxide	962515
M10-1.5x45	ISO 12.9	Full	Coarse	Black Oxide	962518
M10-1.5x50	ISO 12.9	Full	Coarse	Black Oxide	962521

M12-1.75x20	ISO 12.9	Full	Coarse	Black Oxide	962524
M12-1.75x25	ISO 12.9	Full	Coarse	Black Oxide	962527
M12-1.75x30	ISO 12.9	Full	Coarse	Black Oxide	962530
M12-1.75x35	ISO 12.9	Full	Coarse	Black Oxide	962533
M12-1.75x40	ISO 12.9	Full	Coarse	Black Oxide	962536
M12-1.75x45	ISO 12.9	Full	Coarse	Black Oxide	962539
M12-1.75x50	ISO 12.9	Full	Coarse	Black Oxide	962542
M12-1.75x55	ISO 12.9	Full	Coarse	Black Oxide	962545
M12-1.75x60	ISO 12.9	Full	Coarse	Black Oxide	962548
M12-1.75x70	ISO 12.9	Full	Coarse	Black Oxide	962551
M12-1.75x80	ISO 12.9	Full	Coarse	Black Oxide	962554

M14-2.0x25	ISO 12.9	Full	Coarse	Black Oxide	962557
M14-2.0x30	ISO 12.9	Full	Coarse	Black Oxide	962560
M14-2.0x35	ISO 12.9	Full	Coarse	Black Oxide	962563
M14-2.0x40	ISO 12.9	Full	Coarse	Black Oxide	962566
M14-2.0x45	ISO 12.9	Full	Coarse	Black Oxide	962569

## **Metric Class 12.9**

SIZE	GRADE	THREAD	PITCH	FINISH	PART #
M14-2.0x50	ISO 12.9	Full	Coarse	Black Oxide	962572
M14-2.0x60	ISO 12.9	Full	Coarse	Black Oxide	962575

M16-2.0x30	ISO 12.9	Full	Coarse	Black Oxide	962578
M16-2.0x35	ISO 12.9	Full	Coarse	Black Oxide	962581
M16-2.0x40	ISO 12.9	Full	Coarse	Black Oxide	962584
M16-2.0x45	ISO 12.9	Full	Coarse	Black Oxide	962587
M16-2.0x50	ISO 12.9	Full	Coarse	Black Oxide	962590
M16-2.0x60	ISO 12.9	Full	Coarse	Black Oxide	962593
M16-2.0x70	ISO 12.9	Full	Coarse	Black Oxide	962596
M16-2.0x80	ISO 12.9	Full	Coarse	Black Oxide	962599
M16-2.0x90	ISO 12.9	Full	Coarse	Black Oxide	962602
M16-2.0x100	ISO 12.9	Full	Coarse	Black Oxide	962605

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M20-2.5x40	ISO 12.9	Full	Coarse	Black Oxide	962608
M20-2.5x50	ISO 12.9	Full	Coarse	Black Oxide	962611
M20-2.5x60	ISO 12.9	Full	Coarse	Black Oxide	962614
M20-2.5x70	ISO 12.9	Full	Coarse	Black Oxide	962617
M20-2.5x80	ISO 12.9	Full	Coarse	Black Oxide	962620
M20-2.5x90	ISO 12.9	Full	Coarse	Black Oxide	962623