



# MATERIAL GRADE 8.8 & 10.9 COMPARISON

## MATERIAL GRADE COMPARISONS 8.8 & 10.9

### 8.8 GRADE COMPARISONS

	BS 3692 Gr. 8.8		SAE J429 Gr. 5		ISO 898-1 Gr. 8.8		ASTM A325M-1		BS4395 I (8.8)		ASTM A193 B7		ASTM A320 L7
PRODUCT RANGE mm	<= 16	> 16	<= 1"	> 1"	<= 16	> 16	<= 24	> 24	<= 24	> 24	<= 64	> 64	
PROOF STRESS N/mm <sup>2</sup>	580	600	580	510	580	600	600	600	587	512	720	655	724
TENSILE STRESS N/mm <sup>2</sup>	800	830	830	724	800	830	830	830	827	725	860	795	862
HARDNESS HRC	22 ~ 32	23 ~ 34	19 ~ 34	19 ~ 34	22 ~ 32	23 ~ 34	25 ~ 34	19 ~ 30	25 ~ 34	25 ~ 34	~35	~35	-
ELONGATION %	12	12	14	14	12	12	14	14	12	12	16	16	16
MATERIAL	Carbon Steel Quenched & Tempered		Medium Carbon Steel Quenched and Tempered		Carbon Steel Quenched and Tempered		Medium Carbon or Alloy Steel Quenched and Tempered		Medium Carbon Steel Quenched and Tempered		Chromium – Molybdenum Steel		Chromium – Molybdenum Steel
DIMENSION	NORMAL HEX		NORMAL HEX		NORMAL HEX		HEAVY HEX		HEAVY HEX		HEAVY HEX		HEAVY HEX
COMPATIBLE NUT	BS 3692 Gr. 8		SAE J995 Gr. 5		ISO 898-2 Gr. 8		ASTM A563M 8S		BS4395 I Gr. 10		ASTM A194 2H		ASTM

### Drawing



### 10.9 GRADE COMPARISONS

	BS 3692 Gr. 10.9	SAE J429 Gr. 8	ISO 898-1 Gr. 10.9	ASTM A490M-1	BS4395 II (10.9)	DIN 6914
PROOF STRESS N/mm <sup>2</sup>	830	830	830	830	776	830
TENSILE STRESS N/mm <sup>2</sup>	1040	1040	1040	1040 ~ 1200	981	1040
HARDNESS HRC	32 ~ 39	33 ~ 39	32 ~ 39	33 ~ 39	27 ~ 38	32 ~ 39
ELONGATION %	10	12	10	14	9	10
MATERIAL	Carbon Steel With B, Mn or Cr Quenched & Tempered	Medium Carbon Steel or Alloy Steel Quenched and Tempered	Carbon Steel B, Mn or Cr Quenched & Tempered	Alloy Steel Quenched and Tempered	Alloy Steel Quenched and Tempered	Alloy Steel Quenched and Tempered
DIMENSION	NORMAL HEX	NORMAL HEX	NORMAL HEX	HEAVY HEX	HEAVY HEX	HEAVY HEX
COMPATIBLE NUT	BS 3692 Gr. 10	SAE J995 Gr. 8	ISO 898-2 Gr. 10	ASTM A563M 10.S	BS4395 II Gr. 12	DIN 6915

