

FOR SECURE FASTENING AND EXTENDED WEAR
PART STABILITY AND LONGEVITY



TitanGrade

2021
CATALOGUE

Titan Grade Classification

Strength Classification	Head Marking	Diameter Range	Minimum Tensile Stress	Minimum Yield Stress	Proof Stress	Hardness Rockwell - HRC
Imperial Sysytem						
Titan Grade SAE Grade 9		1/4 to 1.3/8"	170,000 PSI 1172 MPa	150,000 PSI 1034 MPa	136,000 PSI 938 MPa	36 - 42 HRC
Titan Grade Xtra		1/4 to 1.1/2"	180,000 PSI 1241 MPa	160,000 PSI 1103 MPa	144,000 PSI 993 MPa	39 - 43 HRC
Metric Sysytem						
Titan Grade Class 10.9		M10 to M33	1040 Mpa (150,840PSI)	940 MPa (136,335 PSI)	830 MPa (120,380 PSI)	32 - 39 HRC
Titan Grade Class 12.9		M10 to M33	1220 Mpa (176,946PSI)	1100 MPa (159,542 PSI)	970 MPa (140,687 PSI)	39 - 44 HRC

Suggested Tightening Torque Values

- Torques given in the following table are indicative only.
- Torque has an approximately up to $\pm 35\%$ error on desired tension depending on many joint related parameters.
- Torque has been estimated using a nut friction factor of 0.19 which generally represents wear part tightening conditions as per the formula $TORQUE = TENSION \times FRICTION \times DIAMETER'$
- Blackened surface with light oil (mostly as supplied condition)
- Torque has been estimated to achieve 65% of the proof load

Imperial System - Titan Grade A9 bolts

Thread Diameter (in)	7/16"	1/2"	9/16"	5/8"	3/4"	7/8"	1"	1.1/8"	1.1/4"
UNC Torque	70	107	154	212	376	605	907	1286	1812
UNC Torque	78	119	171	239	417	665	989	1435	1998
UNC Torque	95	144	208	287	510	820	1230	1743	2457
UNC Torque	105	162	231	324	566	901	1341	1945	2709

Metric Fine Thread Series - Titan Grade 10.9 Bolts

Thread Diameter (in)	7/16"	1/2"	9/16"	5/8"	3/4"	7/8"	1"	1.1/8"	1.1/4"
Thread Size	70	107	154	212	376	605	907	1286	1812
Torque (Nm)	78	119	171	239	417	665	989	1435	1998
Torque (lb.ft)	95	144	208	287	510	820	1230	1743	2457

Metric Fine Thread Series - Titan Grade 12.9 Bolts

Thread Diameter (in)	7/16"	1/2"	9/16"	5/8"	3/4"	7/8"	1"	1.1/8"	1.1/4"
Thread Size	70	107	154	212	376	605	907	1286	1812
Torque (Nm)	78	119	171	239	417	665	989	1435	1998
Torque (lb.ft)	95	144	208	287	510	820	1230	1743	2457

Plow Bolts

Part Number	Cat Part number	Size	Length	Qty Items per Carton (approx.)
TG-PB58134	4F3653	5/8	1 3/4	260
TG-PB582	4F3654	5/8	2	240
TG-PB58214	3F5108	5/8	2 1/4	220
TG-PB58212	4F3656	5/8	2 1/2	220
TG-PB58234	4F3657	5/8	2 3/4	180
TG-PB583	4F3658	5/8	3	100
TG-PB58312	4F3665	5/8	3 1/2	145
TG-PB584	4F3671	5/8	4	120
TG-PB58412	-	5/8	4 1/2	110
TG-PB34214	4F7827	3/4	2 1/4	140
TG-PB34212	5J4773	3/4	2 1/2	130
TG-PB34234	5J4771	3/4	2 3/4	80
TG-PB34318	1J6762	3/4	3 1/8	110
TG-PB34314		3/4	3 1/4	100
TG-PB34312	5J5773	3/4	3 1/2	90
TG-PB34334	5F8933	3/4	3 1/8	110
TG-PB34414	1J0962	3/4	4 1/4	80
TG-PB78212	5J4772	7/8	2 1/2	100
TG-PB78234	6F0196	7/8	2 3/4	90
TG-PB783	5J2409	7/8	3	55
TG-PB78312	2J-2548	7/8	3 1/2	65
TG-PB784	-	7/8	4	60
TG-PB78414	2J5458	7/8	4 1/4	50
TG-PB1212	3J2801	1"	2 1/2	70
TG-PB13	4F4042	1"	3	60
TG-PB1314	4J9058	1"	3 1/4	40
TG-PB1312	4J9208	1"	3 1/2	50
TG-PB1334	8J2928	1"	3 3/4	50
TG-PB14	5P8136	1"	4	30
TG-PB1412	1J3527	1"	4 1/2	40
TG-PB15	1J4947	1"	5	20
TG-PB1512	-	1"	5 1/2	-
TG-PB114334	6V6535	1 1/4"	-	-
TG-PB114418	5P8823	1 1/4"	-	-
TG-PB1145	5P8361	1 1/4"	5	15
TG-PB114512	1981092	1 1/4"	5 1/2	20
TG-PB1146	-	1 1/4"	6	15
TG-PB138412	-	1 3/8"	4 1/2	10
TG-PB138512	-	1 3/8"	5 1/2	10
TG-PB1386	-	1 3/8"	6	10

Plow Nuts

Part Number	Cat Part number	Size	Lengh	Qty Items per Carton (aprox.)
TG-PN58	4K0367	5/8	-	550
TG-PN34	2J3506	3/4	-	250
TG-PN78	2J3505	7/8	-	50
TG-PN10	2J3507	1"	-	100
TG-PN114	3K9770	1 1/4"	-	50
TG-PN114C	CONE - 5P8362	1 1/4"	-	30
TG-PN138	-	1 3/8	-	50

Plow Washer

Part Number	Cat Part number	Size	Lengh	Qty Items per Carton (aprox.)
TG- PW58	5P8247	5/8	-	1000
TG-PW34	5P8248	3/4	-	850
TG-PW78	5P8249	7/8	-	580
TG-PW10	5P8250	1"	-	470
TG-PW114HD	4K0684	1 1/4	7.0MM THICK	10
TG-PW138	-	1 3/8	STD	-

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