

ALTRACS PLUS®

Screw for metal

ALtracs® Plus screws are thread-forming fasteners developed for maximum strength in light alloy assemblies and other non-ferrous metals such as zinc, copper, brass etc., up to 140 HB

Main Properties

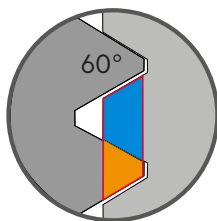
- High joint strength
- Safety against dynamic loads
- Consistently high clamp loads
- Self-locking vibration resistance
- Easy lead-in, low drive torque
- High stripping torque
- Opportunity to reduce installation depth
- Compatible with machine screw threads

Features

ALtracs® Plus Thread

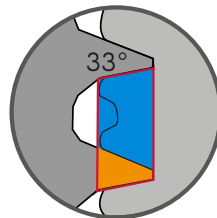
The unique ALtracs® Plus thread geometry provides greater shear area between threads resulting in higher pull out and strip out performance.

Standard 60° thread



$$\frac{A_{\text{Nut}}}{A_{\text{Screw}}} \approx \frac{1.5}{1}$$

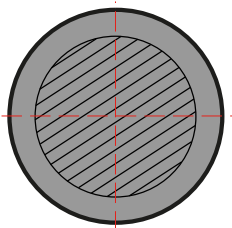
ALtracs® Plus Thread



$$\frac{A_{\text{Nut}}}{A_{\text{Screw}}} \approx \frac{3}{1}$$

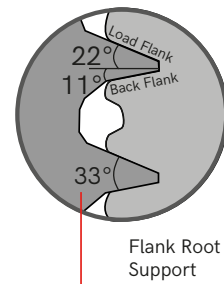
Thread Cross Section

The round body shape provides greater thread engagement compared to trilobular fasteners. This provides improved clamp retention and better long term joint behavior.



Flank Geometry

The smaller 33 degree flank angle of the ALtracs® Plus fastener creates a stronger internal thread in the mating material than screws with a 60 degree flank angle. The larger tooth area of the female thread results in a more robust joint. The asymmetric flank design optimizes material displacement during the thread forming process and ensures maximum thread engagement. The profile of the lower thread flank delivers increased strength.



Thread Forming Region

The tapered thread forming lead-in with sharp crested threads helps to minimize debris generation and lowers drive torque.

Thread Compatibility

The ALtracs® Plus is designed to be completely interchangeable with machine screws. Therefore, ALtracs® Plus can be used in existing tapped machine screw threads of the same size or alternately, a machine screw of the same size can be used in the thread formed by an ALtracs® Plus fastener, eliminating any field service concerns.

Specifications

- Material: ALtracs® Plus fasteners are manufactured from carbon steel and neutral hardened to 320-380 HV
- Sizes: external thread \varnothing from 2.0 to 14 mm
- Head Styles: can be used with any external or internal head designs; pan, hex washer, and flat styles standard
- Specials: shoulder screws, sems, double end studs, collar studs; others as required
- Drive System: can use any system
- Coatings & Platings: as required

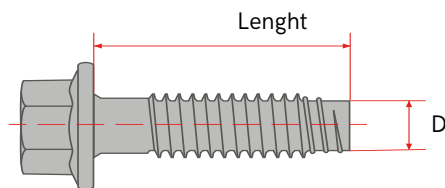
ALtracs® Plus is a registered trademark of EJOT Verbindungstechnik GmbH & Co. KG.

ALTRACS PLUS®

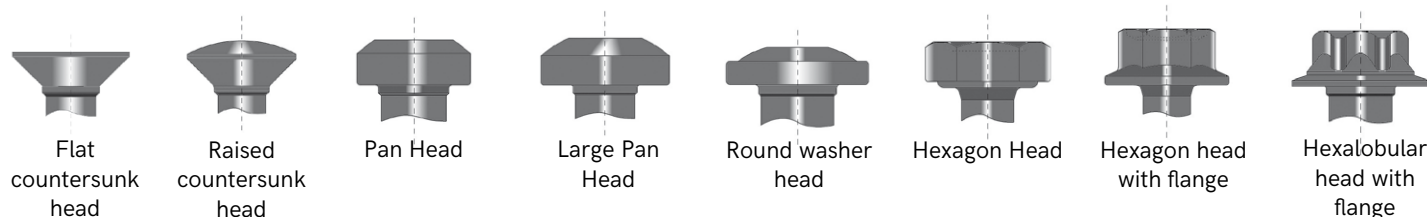
Screw for metal

Technical data sheet

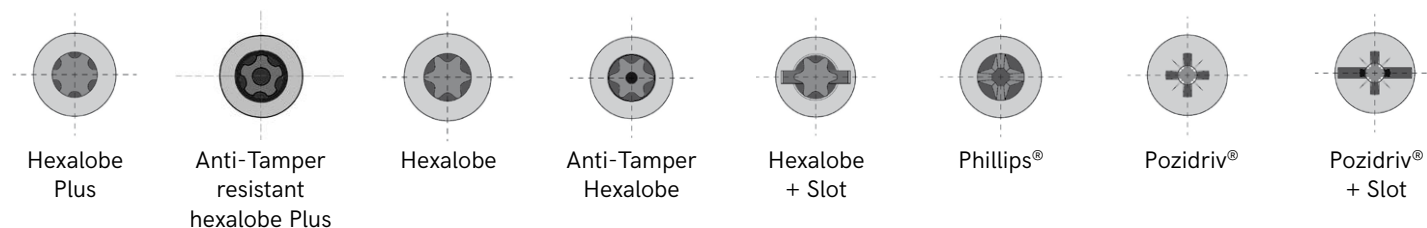
Material: neutral hardened steel (320-380 HV or tensile strength >1000N/mm²) or austenitic steel upon request.



Head shapes



Socket type



Dia nom.	20	22	25	30	35	40	50	60	70	80	90	100	120	140
D	2.0	2.2	2.5	3.0	3.5	4.0	5.0	6.0	7.0	8.0	9.0	10.0	12.0	14.0
Length														
3,5 +/- 0,24														
4 +/- 0,24	4													
4,5 +/- 0,24	4.5	4.5												
5 +/- 0,24	5	5	5											
6 +/- 0,24	6	6	8	6										
7 +/- 0,29	6	7	7	7	7									
8 +/- 0,29	6	7	8	7	8	8								
9 +/- 0,29	6	7	8	7	9	9								
10 +/- 0,29	6	7	8	9	9	10	10	12						
12 +/- 0,35	6	7	8	9	11	10	12	14	14					
14 +/- 0,35	6	7	8	9	11	12	12	14	16	16				
16 +/- 0,35	6	7	8	9	11	12	15	14	16	19	18			
18 +/- 0,35	6	7	8	9	11	12	15	18	16	19	20	20		
20 +/- 0,42	6	7	8	9	11	12	15	18	21	19	21	22		
22 +/- 0,42		7	8	9	11	12	15	18	21	24	21	23	25	
25 +/- 0,42			8	9	11	12	15	18	21	24	27	23	28	30
30 +/- 0,42				9	11	12	15	18	21	24	27	30	28	32
35 +/- 0,50					11	12	15	18	21	24	27	30	36	32
40 +/- 0,50						12	15	18	21	24	27	30	36	42
50 +/- 0,50							15	18	21	24	27	30	36	42
60 +/- 0,60								18	21	24	27	30	36	42
70 +/- 0,60									21	24	27	30	36	42
80 +/- 0,60										24	27	30	36	42
90 +/- 0,70											27	30	36	42
100 +/- 0,70												30	36	42

Values in mm

= min. length
(countersunk head)

= max length

with alternative thread
forming zone available

Manufacturing range does not
necessary indicate stock items