

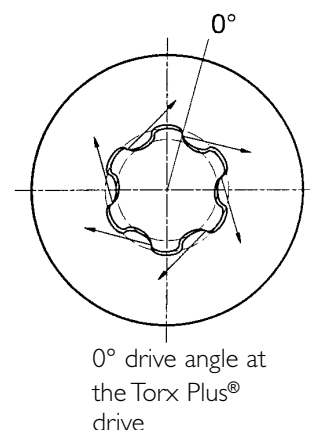
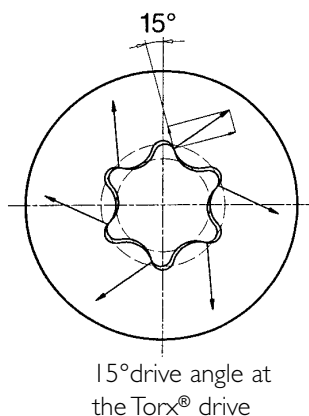
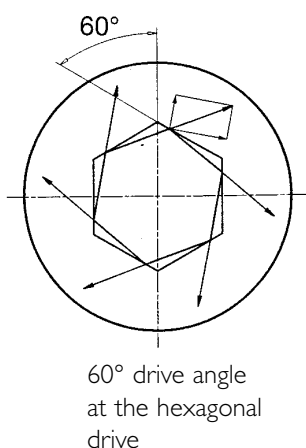
Torx Plus®

Torx Plus® is a further development of Torx® Original. The geometry is created from elliptic shapes. Above Torx® Original's good features Torx Plus® has, amongst others, the following advantages:

- The service life is on average, 100% longer.
- The torsion strength is on average, 25% higher.
- It is possible to transmit a higher turning torque.
- Less risk of unmeshing.
- Lower axial force.
- Longer tool service life than other grip systems.

The further developed design includes:

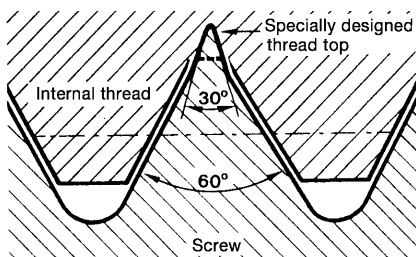
- To eliminate the radial forces that create tensions in the screw grip, one has succeeded to decrease the drive angle to 0°. The cross section area of the cams is increased to improve the grip.
- Another advantage is that it is possible to assemble with the existing tool for Torx if problems arise on the field.



Powerlok®

Locking screw in property class 10.9

Powerlok® has the same triangular-cylindrical shape as Taptite®. Thanks to the especially designed thread top Powerlok® gives you an excellent locking in holes which already have cut threads.



The design of the Powerlok®-thread.

Two performances

The Powerlok®-screws are available in two different hardening performances.

Powerlok N - toughened to property class 10.9, hardness HB 300-360.

Powerlok H - case-hardened to a surface hardness of HRC 47 and a core hardness of HRC 28-36, i.e. the same as for normal Taptite.

Field of application

Powerlok N - Everywhere where other types of locking screws or locking devices are used when fastening in holes.

Powerlok H - In materials that can not be transformed plastic, for example, cast iron, and extremely hard materials with HB >250, where Powerlok N can be deformed.

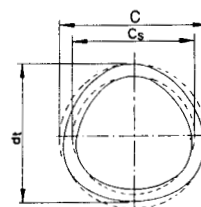


Table 141 Thread diameter Powerlok®

Thread	Circumscribed circle C		Two-point measure d _t		Point C _s
	min.	max.	min.	max.	max.
M 3	3,06	3,16	2,91	3,06	2,98
M 4	4,08	4,23	3,94	4,09	3,98
M 5	5,11	5,26	4,95	5,10	4,98
M 6	6,15	6,30	5,95	6,10	5,98
M 8	8,20	8,35	7,95	8,10	7,97
M10	10,25	10,40	9,95	10,10	9,97
M12	12,30	12,45	11,95	12,10	11,97

Table 142 Tightening torque in Nm

Thread	Powerlok N, 10.9	Powerlok H, R _m =900N/mm ²
M 3	1,5	1,1
M 4	3,5	2,5
M 5	7,0	5,0
M 6	12,0	8,5
M 8	29,0	20,0
M10	57,0	40,0
M12	99,0	70,0