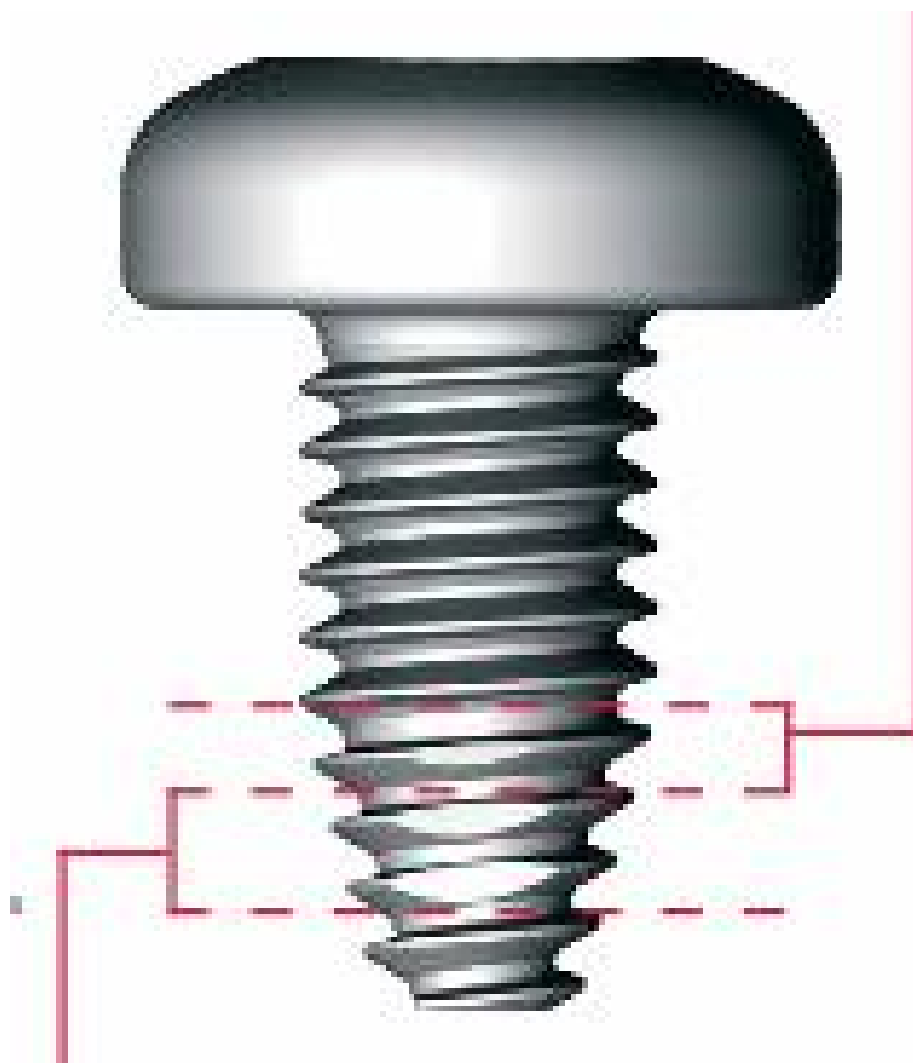


EJOT®

EJOT SHEETtracs®

Secure screw joint for thin
sheets with pilot holes



Authorised UK distributors for:



The EJOT SHEETtracs® is a self tapping screw designed for a safe joint in thin sheet metals with pilot holes.

Benefits:

High strength of the joints

High vibration resistance

Simple and safe assembly due to good alignment and low installation torque

High stripping torque due to a robust female thread

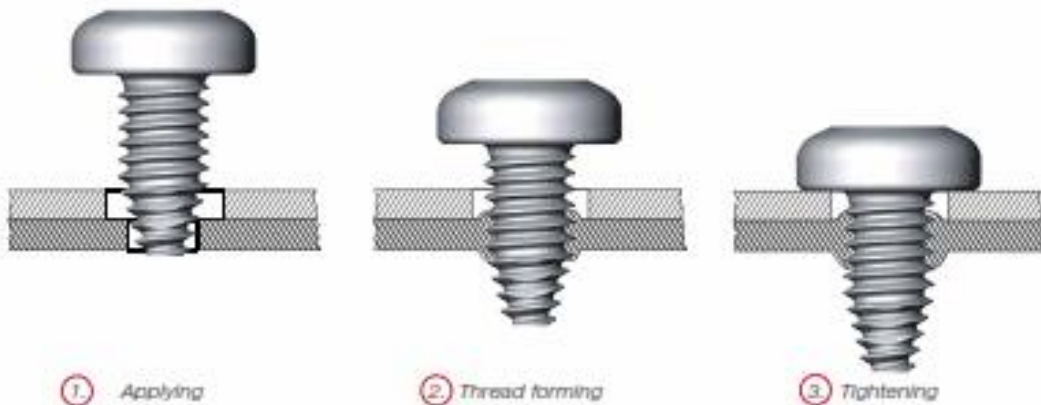
Metric compatible

The reduced screw flank angle of 45° creates a more stable female thread compared to common 60° threads.

This results in higher stripping torques and pull-out forces. The circular cross section is designed to maximise the thread engagement area compared to non circular thread geometries. The thread flank of 45° is designed asymmetrically, 30° on the load flank and 15° on the back flank. In the conical part the thread forming zone has reversed flank angles. This enables the screw to displace the sheet metal material into the installation direction.

The non-circular thread-forming zone enables simple and concentric insertion resulting in easy fastening of the screw with reduced installation torque.

Steps of joining:

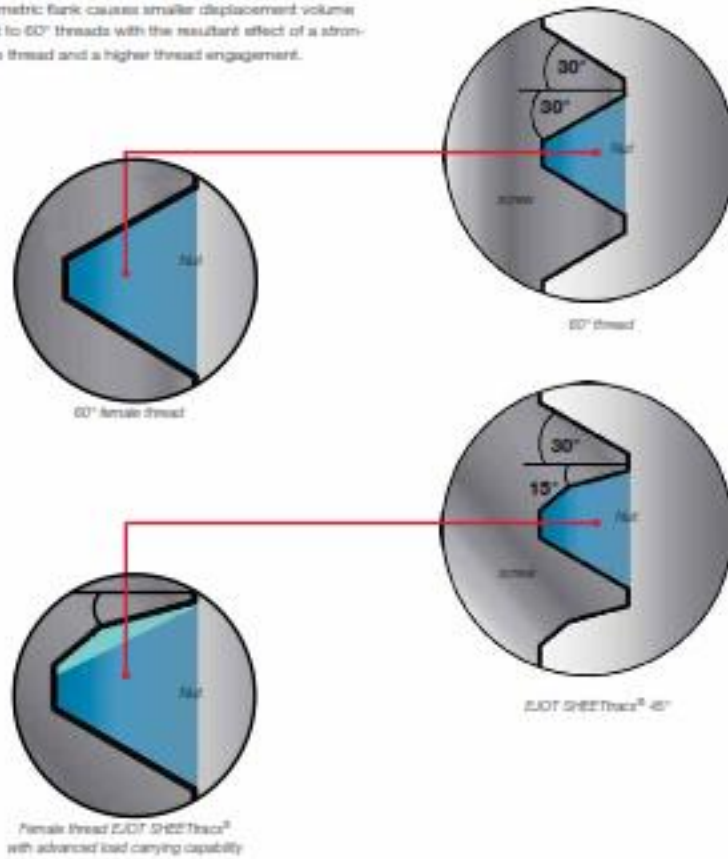


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Geometry of the thread flanks.

The asymmetric flank causes smaller displacement volume compared to 60° threads with the resultant effect of a stronger female thread and a higher thread engagement.



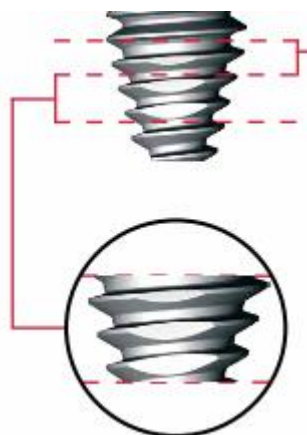
Reversed flank angle.



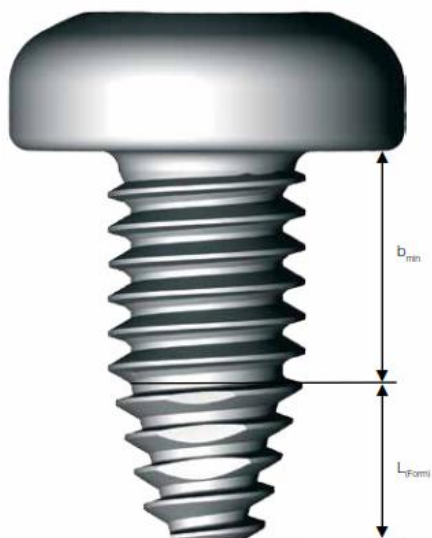
The thread forming zone's flank angle has been specifically designed. Since the through draft's direction is in the same direction as the fastening direction an additional increase in thread penetration depth can be expected. The thread-forming zone only affects the lead threads of the screw and ends before reaching the nominal diameter of the thread.

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Non-circular thread forming zone



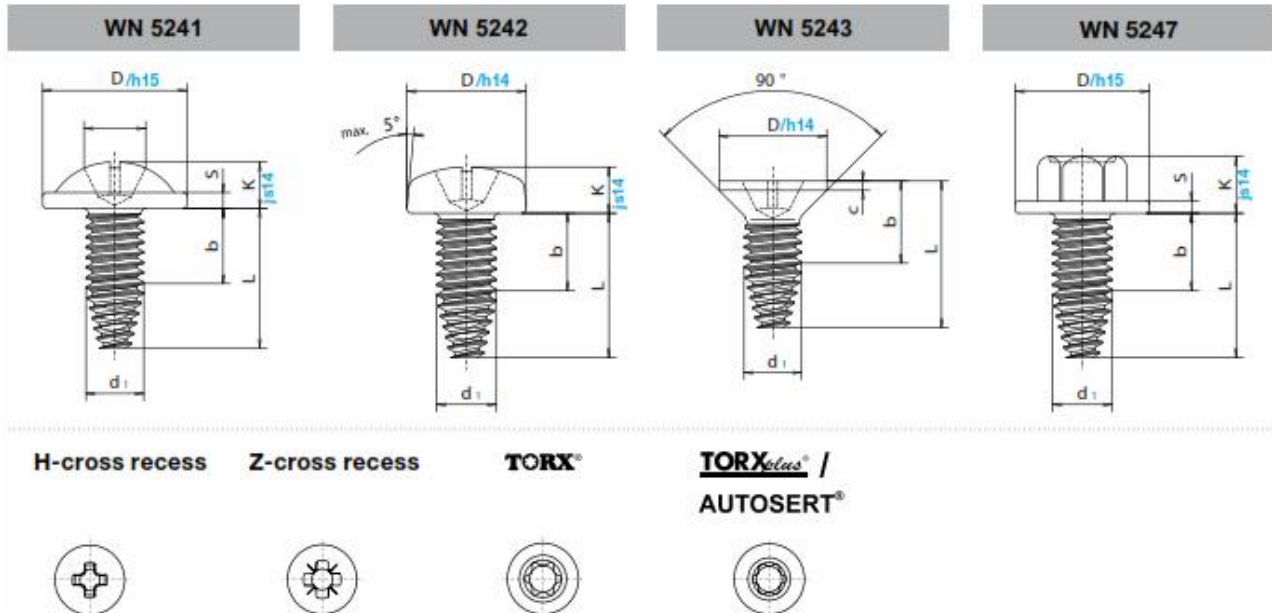
The non-circular thread-forming zone enables simple and concentric insertion resulting in easy fastening of the screw. The raised thread areas enable a safe penetration sheet into the metal.



SHEETtracs®	25	30	35	40	50	60
Nominal-Ø [mm]	2,5	3,0	3,5	4,0	5,0	6,0
length of forming zone (mm)	4,40	4,95	5,65	6,05	7,15	8,60

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Designs



SHEETtracs®			25	30	35	40	50	60
External-Ø	d ₁		2,50	3,00	3,50	4,00	5,00	6,00
External-Ø tolerance			+0,10	+0,10	+0,10	+0,12	+0,12	+0,14
Thread pitch	P		0,45	0,50	0,60	0,70	0,80	1,00

WN 5241								
Head-Ø	D		7,50	9,00	10,00	11,50	14,50	
Head height	K		2,40	2,50	3,20	4,00	4,60	
Washer thickness	s		0,80	0,90	1,10	1,30	1,50	
H-cross-recess Penetration depth	t	min.	1,07	1,33	1,98	2,24	2,84	
		max.	1,70	1,96	2,61	2,90	3,50	
Z-cross-recess Penetration depth	t	min.	1,08	1,40	2,01	2,27	2,91	
		max.	1,54	1,86	2,47	2,73	3,37	
Cross size H/Z			1	2	2	3	3	

WN 5242								
Head-Ø	D		5,00	6,00	7,00	8,00	10,00	12,00
Head height	K		2,20	2,40	3,10	3,30	3,90	4,90
H-cross-recess Penetration depth	t	min.	1,30	1,70	1,74	2,04	2,77	3,03
		max.	1,60	2,00	2,24	2,54	3,27	3,53
Z-cross-recess Penetration depth	t	min.	1,27	1,68	1,65	1,90	2,64	3,02
		max.	1,52	1,93	2,11	2,36	3,10	3,48
Cross size H/Z			1	1	2	2	2	3

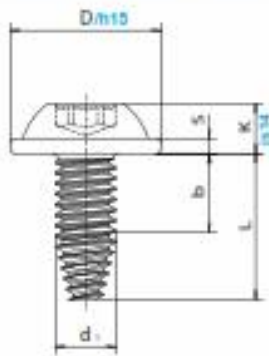
WN 5243								
Head-Ø	D		5,00	6,00	7,00	8,40	10,00	12,50
cyl. head height	c _{max}		0,55	0,60	0,65	0,70	0,75	0,85
H-cross-recess Penetration depth	t	min.	1,25	1,50	1,40	1,62	2,10	2,80
		max.	1,55	1,80	1,70	2,12	2,60	3,30
Z-cross-recess Penetration depth	t	min.	1,22	1,48	1,34	1,60	2,06	2,46
		max.	1,47	1,73	1,79	2,06	2,51	2,92
Cross size H/Z			1	1	2	2	2	3

WN 5247							
Washer-Ø	D		7,50	8,30	9,00	11,00	13,00
Head height	K		3,00	3,40	3,80	4,30	5,00
Width across flats	SW		5,00	5,50	5,50	7,00	8,00
Washer thickness	s		0,60	0,80	0,80	1,00	1,20

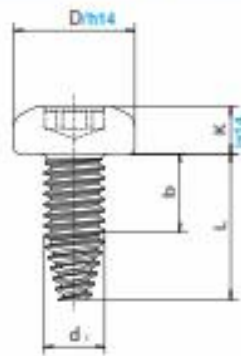
Authorised UK distributors for:

Designs

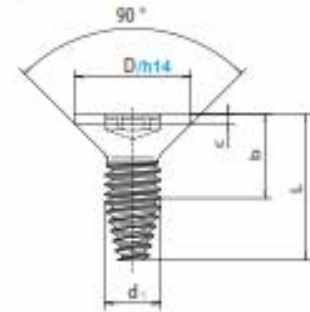
WN 5251



WN 5252



WN 5254



Example of ordering:

Description of EJOT SHEETtracs® screw with TORX® -recess,
-Ø 4,0 mm and length L = 20 mm

EJOT SHEETtracs® screw WN 5252 40 x 20

b = useful thread length
L = length tolerance
see page 10

SHEETtracs®			25	30	35	40	50	60
External-Ø	d ₁		2,50	3,00	3,50	4,00	5,00	6,00
External-Ø tolerance			+0,10	+0,10	+0,10	+0,12	+0,12	+0,14
Thread pitch	P		0,45	0,50	0,60	0,70	0,80	1,00

WN 5251			25	30	35	40	50	60
Head-Ø	D		6,00	7,50	9,00	10,00	11,50	14,50
Head height	K		2,00	2,25	2,50	3,00	3,60	4,40
Washerthickness	s		0,60	0,70	0,80	1,10	1,40	1,50
TORX®			T8	T10	T15	T20	T25	T30
	A _{total}		2,40	2,80	3,35	3,95	4,50	5,60
Eindringtiefe	t	min.	0,95	1,00	1,10	1,25	1,60	2,00
		max.	1,15	1,30	1,40	1,70	2,00	2,40

WN 5252			25	30	35	40	50	60
Head-Ø	D		5,00	6,00	7,00	8,00	10,00	12,00
Head height	K		2,00	2,25	2,50	3,00	3,60	4,40
TORX®			T8	T10	T15	T20	T25	T30
	A _{total}		2,40	2,80	3,35	3,95	4,50	5,60
penetration depth	t	min.	0,95	1,00	1,10	1,25	1,60	2,00
		max.	1,15	1,30	1,40	1,70	2,00	2,40

WN 5254			25	30	35	40	50	60
Head-Ø	D		5,00	6,00	7,00	8,40	10,00	12,50
cyl. head heigh	c _{max}		0,55	0,60	0,65	0,70	0,75	0,85
TORX®			T8	T10	T15	T20	T25	T30
	A _{total}		2,40	2,80	3,35	3,95	4,50	5,60
penetration depth	t	min.	0,70	0,75	0,85	1,10	1,15	1,40
		max.	0,90	1,10	1,15	1,55	1,55	1,80

Authorised UK distributors for: