

# Technical Data

# Type BT Thread Cutting Screws



Manufacturing Standard BS4174

\* Max countersunk head diameters are theoretical diameters of head to sharp corners and are the diameter to which holes should be countersunk to enable the screwheads to fit flush with the surface.

## Head Dimensions, Thread Dimensions & Recommended Hole Sizes

GAUGE	METRIC REF	HEAD DIMENSIONS											RECESS SIZE		THREAD DIMENSIONS (BS4174)						MECHANICAL PROPERTIES		
		PAN				FLANGE				CSK (80°)			CR (Z)	T-DRIVE® (PAN ONLY)	GAUGE	METRIC REF	T.P.L	MAJOR d1		MINOR d2		GAUGE	MIN TORSIONAL LOAD NM
		DIA MAX	DIA MIN	DEPTH MAX	DEPTH MIN	DIA MAX	DIA MIN	DEPTH MAX	DEPTH MIN	DIA MAX	DIA MIN	DEPTH REF						MAX	MIN	MAX	MIN		
4	2.9	5.56	5.21	2.03	1.78	6.53	6.12	1.60	1.35	5.71	4.95	1.70	1	T10	4	2.9	24	2.90	2.79	2.18	2.08	4	1.47
6	3.5	6.86	6.50	2.46	2.21	8.15	7.70	1.88	1.57	7.09	6.20	2.11	2	T15	6	3.5	20	3.53	3.43	2.64	2.51	6	2.70
8	4.2	8.18	7.77	2.92	2.67	9.75	9.24	2.36	2.01	8.43	7.42	2.54	2	T20	8	4.2	18	4.22	4.09	3.10	2.95	8	4.40
10	4.8	9.47	9.07	3.38	3.10	11.38	10.80	2.90	2.51	9.78	8.64	2.95	2	T25	10	4.8	16	4.80	4.65	3.58	3.43	10	6.30

Dimensions in Millimetres

LENGTH TOLERANCES (BS4174)					
LENGTH NOM		TYPE BT			
		MAX		MIN	
MM	INCH	MM	INCH	MM	INCH
4.5	3/16	4.76	0.188	4.16	0.164
6.5	1/4	6.35	0.250	5.60	0.220
7.9	5/16	7.94	0.312	7.19	0.282
9.5	3/8	9.52	0.375	8.77	0.345
13	1/2	12.70	0.500	11.80	0.465
16	5/8	15.88	0.625	14.98	0.590
19	3/4	19.05	0.750	18.00	0.709
22	7/8	22.22	0.875	21.17	0.833
25	1	25.40	1.000	24.35	0.959
32	1 1/4	31.75	1.250	30.50	1.201
38	1 1/2	38.10	1.500	36.85	1.451
45	1 3/4	44.45	1.750	43.20	1.701
50	2	50.80	2.000	49.30	1.941

GAUGE	RECOMMENDED HOLE SIZES							
	METAL APPLICATIONS				PLASTIC APPLICATIONS			
	ALUMINIUM & ZINC ALLOY DIE CASTINGS		SHEET METAL		PHENOLICS	CELLULOSE ACETATE & NITRATE ACRYLIC & STYRENE RESINS	DEPTH OF PENETRATION	
	METAL THICKNESS	HOLE DIA	METAL THICKNESS	HOLE DIA			HOLE DIA	HOLE DIA
4	2.36	2.50	0.79	2.35	2.65	2.55	3.0	8.0
	3.18	2.55	1.22	2.40				
	4.75	2.55	1.60	2.45				
	6.35	2.55	-	-				
6	3.18	3.00	1.22	2.85	3.10	3.10	5.0	9.5
	4.75	3.10	1.60	2.90				
	6.35	3.15	2.39	3.00				
	7.92	3.15	-	-				
8	3.18	3.80	1.22	3.30	3.70	3.60	6.5	12.5
	4.75	3.80	1.60	3.40				
	6.35	3.80	2.39	3.60				
	7.92	3.90	3.18	3.70				
10	3.18	4.20	1.60	3.80	4.30	4.20	8.0	16.0
	4.75	4.20	2.39	3.90				
	6.35	4.30	3.18	4.10				
	7.92	4.30	4.75	4.20				
NOTES	i. Sheet Aluminium and brass ; slightly decrease hole diameter ii. Allow two full threads of engagement above cutting flutes				i. Holes should be counterbored to minimise the possibility of material fracturing			

Dimensions in Millimetres

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