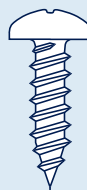


TECHNICAL DATA 1

Self-Tapping Screws

Self Tapping Screws
Gimlet Point

Gimlet point self-tapping screws have various references depending on the standard.

BS 4174 referred to as **Type AB**

DIN 7970 referred to as **Type B**

ISO 1478 referred to as **Type C**

Self Tapping Screws
Blunt Point

Blunt point self-tapping screws have various references depending on the standard.









BS 4174 referred to as **Type B**

DIN 7970 referred to as **Type BZ**








ISO 1478 referred to as **Type F**

* 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.








Manufacturing Standards for Head Tolerances

GAUGE	METRIC REF	HEAD DIMENSIONS BS4174 STANDARD																						GAUGE
																								
		C/R Pan		Slotted Pan				C/R Flange		C/R Csk (80°)		Slotted Csk (80°)				C/R RSD Csk (80°)		Slotted RSD Csk (80°)				Hex		
		BS4174		BS4174				BS4174		BS4174		BS4174				BS4174		BS4174				BS4174		
		DIA MAX	DEPTH MAX	DIA MAX	DEPTH MAX	SLOT WIDTH MAX	SLOT DEPTH NOM	DIA MAX	DEPTH MAX	DIA* MAX	DEPTH REF	DIA* MAX	DEPTH REF	SLOT WIDTH MAX	SLOT DEPTH NOM	DIA* MAX	DEPTH REF	DIA* MAX	DEPTH REF	SLOT WIDTH MAX	SLOT DEPTH NOM	A/F MAX	DEPTH MAX	
2	2.2	4.24	1.57	4.24	1.35	0.79	0.68			4.37	1.30	4.37	1.30	0.79	0.48	4.37	1.30	4.37	1.30	0.79	1.04			2
4	2.9	5.56	2.03	5.56	1.73	0.99	0.89	6.53	1.60	5.71	1.70	5.71	1.70	0.99	0.63	5.71	1.70	5.71	1.70	0.99	1.37	4.75	2.03	4
6	3.5	6.86	2.46	6.86	2.08	1.22	1.12	8.15	1.88	7.09	2.11	7.09	2.11	1.22	0.79	7.09	2.11	7.09	2.11	1.22	1.70	6.35	2.79	6
7	3.9																							7
8	4.2	8.18	2.92	8.18	2.44	1.37	1.32	9.75	2.36	8.43	2.54	8.43	2.54	1.37	0.94	8.43	2.54	8.43	2.54	1.37	2.03	6.35	2.92	8
10	4.8	9.47	3.38	9.47	2.79	1.52	1.55	11.38	2.90	9.78	2.95	9.78	2.95	1.52	1.12	9.78	2.95	9.78	2.95	1.52	2.39	7.92	3.05	10
12	5.5	10.80	3.84	10.80	3.18	1.70	1.75	13.00	3.15	11.13	3.35	11.13	3.35	1.70	1.27	11.13	3.35	11.13	3.35	1.70	2.72	7.92	3.94	12
14	6.3	12.50	4.44	12.50	3.66	1.90	2.01	14.55	3.68	12.88	3.89	12.88	3.89	1.90	1.47	12.88	3.89	12.88	3.89	1.90	3.15	9.53	4.83	14

Tolerances
to BS 4174

GAUGE	METRIC REF	HEAD DIMENSIONS DIN STANDARDS																		GAUGE		
																						
		C/R Pan		Slotted Pan				C/R Csk (80°)		Slotted Csk (80°)				C/R RSD Csk (80°)		Slotted RSD Csk (80°)					Hex	
		DIN 7981		DIN 7971				DIN 7982		DIN 7972				DIN 7983		DIN 7973					DIN 7976	
		DIA MAX	DEPTH MAX	DIA MAX	DEPTH MAX	SLOT WIDTH NOM	SLOT DEPTH MAX	DIA* MAX	DEPTH REF	DIA* MAX	DEPTH REF	SLOT WIDTH NOM	SLOT DEPTH MAX	DIA* MAX	DEPTH REF	DIA* MAX	DEPTH REF	SLOT WIDTH NOM	SLOT DEPTH MAX		A/F	DEPTH NOM
2	2.2	4.2	1.8	4.2	1.35	0.6	0.8	4.3	1.3	4.3	1.3	0.6	0.6	4.3	1.3	4.3	1.3	0.6	1.15	3.2	1.3	2
4	2.9	5.6	2.2	5.6	1.75	0.8	1.0	5.5	1.7	5.5	1.7	0.8	0.75	5.5	1.7	5.5	1.7	0.8	1.5	5.0	1.5	4
6	3.5	6.9	2.6	6.9	2.1	1.0	1.25	6.8	2.1	6.8	2.1	1.0	0.95	6.8	2.1	6.8	2.1	1.0	1.9	5.5	2.3	6
7	3.9	7.5	2.8	7.5	2.25	1.0	1.4	7.5	2.3	7.5	2.3	1.0	1.05	7.5	2.3	7.5	2.3	1.0	2.05	7.0	2.3	7
8	4.2	8.2	3.05	8.2	2.45	1.2	1.5	8.1	2.5	8.1	2.5	1.2	1.15	8.1	2.5	8.1	2.5	1.2	2.25	7.0	2.8	8
10	4.8	9.5	3.55	9.5	2.8	1.2	1.7	9.5	3.0	9.5	3.0	1.2	1.35	9.5	3.0	9.5	3.0	1.2	2.6	8.0	3.0	10
12	5.5	10.8	3.95	10.8	3.2	1.6	1.95	10.8	3.4	10.8	3.4	1.6	1.5	10.8	3.4	10.8	3.4	1.6	2.95	8.0	4.0	12
14	6.3	12.5	4.55	12.5	3.65	1.6	2.2	12.4	3.8	12.4	3.8	1.6	1.75	12.4	3.8	12.4	3.8	1.6	3.45	10.0	4.8	14

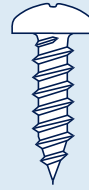
Tolerances
to DIN 267

GAUGE	METRIC REF	HEAD DIMENSIONS ISO STANDARDS																				GAUGE						
																												
		C/R Pan		Slotted Pan				C/R Csk (90°)				Slotted Csk (90°)				C/R RSD Csk (90°)				Slotted RSD Csk (90°)				Hex				
		ISO 7049		ISO 1481				ISO 7050				ISO 1482				ISO 7051				ISO 1483				ISO 1479				
		DIA MAX	DEPTH MAX	DIA MAX	DEPTH MAX	SLOT WIDTH NOM	SLOT DEPTH MIN	DIA * MAX	DIA ACTUAL MAX MIN		DEPTH REF	DIA * MAX	DEPTH MAX	SLOT WIDTH NOM	SLOT DEPTH MAX	DIA * MAX	DEPTH MAX	DIA * MAX	DEPTH MAX	SLOT WIDTH NOM	SLOT DEPTH MAX	A/F	DEPTH MAX					
2	2.2	4.0	1.6	4.0	1.3	0.5	0.5	4.4	3.8	3.5	1.1	4.4	1.1	0.5	0.6	4.4	1.1	4.4	1.1	0.5	1.0	3.2	1.6	2				
4	2.9	5.6	2.4	5.6	1.8	0.8	0.7	6.3	5.5	5.2	1.7	6.3	1.7	0.8	0.85	6.3	1.7	6.3	1.7	0.8	1.45	5.0	2.3	4				
6	3.5	7.0	2.6	7.0	2.1	1.0	0.8	8.2	7.3	6.9	2.35	8.2	2.35	1.0	1.2	8.2	2.35	8.2	2.35	1.0	1.7	5.5	2.6	6				
7	3.9																							7				
8	4.2	8.0	3.1	8.0	2.4	1.2	1.0	9.4	8.4	8.0	2.6	9.4	2.6	1.2	1.3	9.4	2.6	9.4	2.6	1.2	1.9	7.0	3.0	8				
10	4.8	9.5	3.7	9.5	3.0	1.2	1.2	10.4	9.3	8.9	2.8	10.4	2.8	1.2	1.4	10.4	2.8	10.4	2.8	1.2	2.4	8.0	3.8	10				
12	5.5	11.0	4.0	11.0	3.2	1.6	1.3	11.5	10.3	9.9	3.0	11.5	3.0	1.6	1.5	11.5	3.0	11.5	3.0	1.6	2.6	8.0	4.1	12				
14	6.3	12.0	4.6	12.0	3.6	1.6	1.4	12.6	11.3	10.9	3.15	12.6	3.15	1.6	1.6	12.6	3.15	12.6	3.15	1.6	2.8	10.0	4.7	14				

Tolerances to
ISO 4759/1

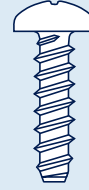
TECHNICAL DATA 1

Self-Tapping Screws



Self Tapping Screws Gimlet Point

Gimlet point self-tapping screws have various references depending on the standard.
BS 4174 referred to as **Type AB**
DIN 7970 referred to as **Type B**
ISO 1478 referred to as **Type C**



Self Tapping Screws Blunt Point

Blunt point self-tapping screws have various references depending on the standard.
BS 4174 referred to as **Type B**
DIN 7970 referred to as **Type BZ**
ISO 1478 referred to as **Type F**

Manufacturing Standards for Thread, Length Tolerances and Mechanical Properties

THREAD DIMENSIONS										MECHANICAL PROPERTIES		RECESS REFERENCES					
GAUGE	METRIC REF	T.P.L.	MAJOR DIA				MINOR DIA				GAUGE	MIN TORSIONAL LOAD NM	GAUGE	CRUCIFORM		T-DRIVE	
			MAX		MIN		MAX		MIN					CRUCIFORM	PAN	CSK	
			BS, DIN, ISO	BS	DIN	ISO	BS, DIN, ISO	BS	DIN	ISO							
2	2.2	32	2.24	2.13	2.10	2.10	1.63	1.52	1.52	1.52	2	0.45	2	1	T8		
4	2.9	24	2.90	2.79	2.76	2.76	2.18	2.08	2.08	2.08	4	1.47	4	1	T10	T8	
6	3.5	20	3.53	3.43	3.35	3.35	2.64	2.51	2.51	2.51	6	2.70	6	2	T15	T10	
7	3.9	19	3.91	3.78	3.73	3.73	2.92	2.77	2.77	2.77	7	3.55	7	2	T15	T15	
8	4.2	18	4.22	4.09	4.04	4.04	3.10	2.95	2.95	2.95	8	4.40	8	2	T20	T20	
10	4.8	16	4.80	4.65	4.62	4.62	3.58	3.43	3.43	3.43	10	6.30	10	2	T25	T25	
12	5.5	14	5.46	5.31	5.28	5.28	4.17	3.99	3.99	3.99	12	9.90	12	3	T27	T25	
14	6.3	14	6.25	6.10	6.03	6.03	4.88	4.70	4.70	4.70	14	16.00	14	3	T30	T30	

LENGTH TOLERANCES (BS4174)										LENGTH TOLERANCES (DIN 267)					LENGTH TOLERANCES (ISO)				
LENGTH	NOM	TYPE AB				TYPE B				LENGTH	TYPE B		TYPE BZ		LENGTH	TYPE C		TYPE F	
		MAX		MIN		MAX		MIN			MAX	MIN	MAX	MIN		MAX	MIN		
		MM	INCH	MM	INCH	MM	INCH	MM	INCH										
3.2	1/8	3.78	0.149	2.58	0.102	3.18	0.125	2.58	0.102	4.5	5.10	3.90	4.5	3.9	4.5	5.3	3.7	4.5	3.7
4.5	3/16	5.36	0.211	4.16	0.164	4.76	0.188	4.16	0.164	6.5	7.10	5.90	6.5	5.75	6.5	7.3	5.7	6.5	5.7
6.5	1/4	7.10	0.280	5.60	0.220	6.35	0.250	5.60	0.220	9.5	10.25	8.75	9.5	8.75	9.5	10.3	8.7	9.5	8.7
7.9	5/16	8.73	0.342	7.10	0.282	7.94	0.312	7.19	0.282	13	13.90	12.10	13.0	12.1	13	13.8	12.2	13.0	12.2
9.5	3/8	10.27	0.404	8.77	0.345	9.52	0.375	8.77	0.345	16	16.90	15.10	16.0	15.10	16	16.8	15.2	16.0	15.2
13	1/2	13.60	0.535	11.80	0.465	12.70	0.500	11.80	0.465	19	20.05	17.95	19.0	17.95	19	19.8	18.2	19.0	18.2
16	5/8	16.78	0.661	14.98	0.590	15.88	0.625	14.98	0.590	22	23.05	20.95	22.0	20.95	22	22.8	21.2	22.0	20.7
19	3/4	20.10	0.791	18.00	0.709	19.05	0.750	18.00	0.709	25	26.05	23.95	25.0	23.95	25	25.8	24.2	25.0	23.7
22	7/8	23.27	0.916	21.17	0.833	22.22	0.875	21.17	0.833	32	33.25	30.75	32.0	30.75	32	33.3	30.7	32.0	30.7
25	1	26.45	1.041	24.35	0.958	25.40	1.000	24.35	0.958	38	39.25	36.75	38.0	36.75	38	39.3	36.7	38.0	36.7
32	1 1/4	33.00	1.300	30.50	1.201	31.75	1.250	30.50	1.201	45	46.25	43.75	45.0	43.75	45	46.3	43.7	45.0	43.5
38	1 1/2	39.35	1.549	36.85	1.451	38.10	1.500	36.85	1.451	50	51.25	48.75	50.0	48.50	50	51.3	48.7	50.0	48.5
45	1 3/4	45.70	1.799	43.20	1.701	44.45	1.750	43.20	1.701										
50	2	52.30	2.059	49.30	1.941	50.80	2.000	49.30	1.941										
										Dimensions in Millimetres									

Dimensions in Millimetres

TECHNICAL DATA 1

Self-Tapping Screws

Due to the variety of the hardness of metals and the different operating conditions, it may be found necessary to vary these dimensions which should be used only as a guide.

Recommended Hole Sizes

GAUGE	METRIC REF.	Metal Thickness		Pierced or extruded hole diameter	Drilled or clean punched holes		METRIC REF.	GAUGE
		MM	Inches		Hole diameter			
					MM	Inches		
2	2.2	0.45	0.018	—	1.60	0.063	2.2	2
		0.91	0.036	—	1.85	0.073		
		1.62	0.064	—	1.95	0.077		
4	2.9	0.45	0.018	—	2.05	0.081	2.9	4
		0.91	0.036	0.098	2.30	0.091		
		1.62	0.064	—	2.40	0.095		
		2.03	0.080	—	2.60	0.102		
6	3.5	0.45	0.018	—	2.35	0.092	3.5	6
		0.91	0.036	0.111	2.80	0.110		
		1.62	0.064	—	2.95	0.116		
		2.03	0.080	—	3.10	0.122		
		2.64	0.104	—	3.20	0.126		

GAUGE	METRIC REF.	Metal Thickness		Pierced or extruded hole diameter	Drilled or clean punched holes		METRIC REF.	GAUGE
					Hole diameter			
		MM	Inches	Inches	MM	Inches		
8	4.2	0.71	0.028	—	2.90	0.114	4.2	8
		0.91	0.036	0.136	3.10	0.122		
		1.22	0.048	—	3.20	0.126		
		1.62	0.064	—	3.40	0.134		
		2.64	0.104	—	3.70	0.146		
		3.18	0.125	—	3.80	0.150		
10	4.8	0.71	0.028	—	3.40	0.134	4.8	10
		1.22	0.048	—	3.60	0.142		
		1.62	0.064	—	3.80	0.150		
		2.64	0.104	—	4.10	0.161		
		3.18	0.125	—	4.30	0.169		
		4.75	0.187	—	4.50	0.177		
12	5.5	0.71	0.028	—	4.10	0.161	5.5	12
		1.22	0.048	—	4.30	0.169		
		1.62	0.064	—	4.50	0.177		
		2.64	0.104	—	4.80	0.189		
		3.18	0.125	—	4.90	0.193		
		4.75	0.187	—	5.10	0.201		
14	6.3	1.22	0.048	—	4.80	0.189	6.3	14
		1.62	0.064	—	5.20	0.205		
		2.03	0.080	—	5.40	0.213		
		3.18	0.125	—	5.70	0.224		
		4.75	0.187	—	5.90	0.232		
		6.35	0.250	—	6.00	0.236		