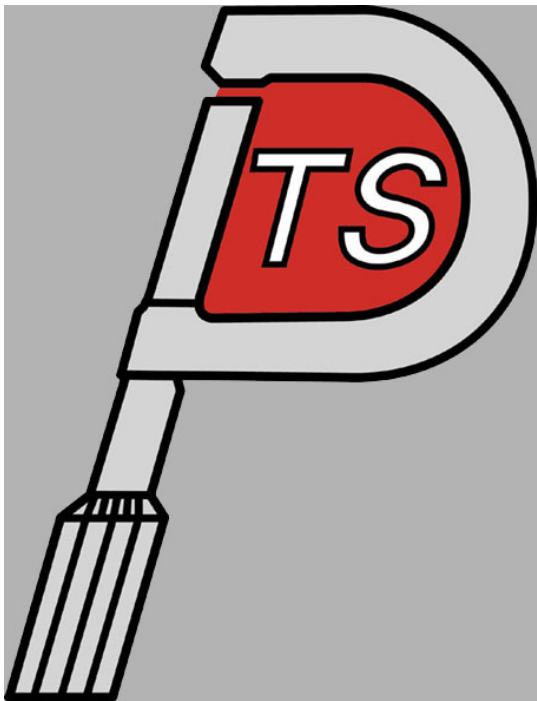


**Precision Technology Supplies
Ltd**



**Stainless Steel
Metric Micro Screws
Handbook**

Stainless Steel Material Properties

Stainless Steel

Stainless Steel falls into three basic material groups.

Austenitic (A)

Martensitic (M)

Ferritic (F)

Martensitic and Ferritic groups are rarely used for the production of commercial fasteners and are not included for that reason.

Austenitic or Chromium-nickel Steel is the most commonly used for fasteners and is subdivided into 3 steel grades each with its own specific properties.

A1 = Free cutting quality, superior machinability due to higher Phosphorus and Sulphur content, the general corrosion resistance is lower. Seldom used in mass produced fasteners.

Most commonly used grade of Stainless Steel also called 18/8.

A2 = Outstanding corrosion resistance under normal atmospheric conditions, wet surroundings, oxidizing and organic acids and many alkalic and salt solutions.

Highest level of corrosion resistance also called "Acid Proof". Increased nickel content and the addition of molybdenum. More resistant to aggressive climates such as seawater (chlorides) and industrial (sulphur dioxide) climate and oxidizing acids.










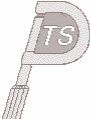


Chemical Composition

The wide limits for the percentages of the alloying elements in ISO3506 allow for a great choice of austenitic steel types. The following table lists some of the most popular types.

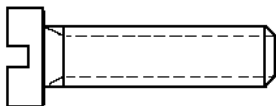
Grade	Chemical Composition % ¹⁾								Type			
	C	Si	Mn	P	S	Cr	Mo ⁸⁾	Ni	W.Nr	AISI	ISO	Notes
A1	0.12	1.0	2.0	0.20	0.15-0.35	17.0-19.0	0.60	8.0-10.0	1.4305	303	17	2,3
A2	0.08	1.0	2.0	0.05	0.03	17.0-20.0		8.0-13.0	1.4301	304	11	3,4,6,7
									1.4541	321	15	5
A4	0.08	1.0	2.0	0.05	0.03	16.0-18.5	2.0-3.0	10.0-14.0	1.4401	316	20	3,4,6
									1.4571	316Ti	21	5

Notes: - 1) Maximum values unless stated otherwise. 2) Sulphur may be substituted by Selenium 3) May contain Titanium <5 x C up to 0.8%. 4) May contain Niobium and/or Tantalum > 10 x C up to 1.0%. 5) Containing Titanium >5 x C up to 0.8%. 6) May contain Copper up to 4.0% 7) Molybdenum may also be present at manufacturers option. 8) Maximum Molybdenum content may be specified by customer in certain applications.

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Pozi Csk Head	965	6
Pozi Pan Head 	7985 	7
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Pins - Spring & Dowel	Din 7 & Din 1481	19
Self Tapping Screws	Din 7981/7982	20

Slotted Cheese Head Machine Screws - Din 84



Dimensional Data

Diameter	M1.0	M1.2	M1.4	M1.6	M2.0	M2.6	M3.0
Pitch	0.25	0.25	0.30	0.35	0.40	0.45	0.50
Head Height	0.7	0.8	0.9	1.0	1.3	1.6	2.0
Head Diameter	2.0	2.3	2.6	3.0	3.8	4.5	5.5
Slot Depth	0.25	0.30	0.40	0.45	0.60	0.70	0.85
Slot Width	0.25	0.30	0.30	0.40	0.50	0.60	0.80

Stock Range

	M1	M1.2	M1.4	M1.6	M2	M2.5	M3
2							
3							
4							
5							
6							
8							
10							
12							
14							
16							
18							
20							
22							
25							
30							
40							
50							

Stock



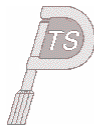
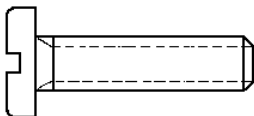
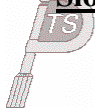
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2-311464

Slotted Pan Head Machine Screws - Din 85



Dimensional Data

Diameter	M2.0	M2.5	M3
Pitch	0.40	0.45	0.50
Head Height	1.3	1.5	1.8
Head Diameter	4	5	6
Slot Depth	0.4	0.5	0.7
Slot Width	0.6	0.6	0.8

Stock Range

	M 2	M 2.5	M 3
3			
4			
5			
6			
8			
10			
12			
14			
16			
18			
20			
22			
25			
30			
35			
40			
45			

Stock

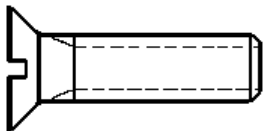
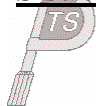


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Slotted Countersunk Machine Screws - Din 963



Dimensional Data

Diameter	M1.0	M1.2	M1.4	M1.6	M2.0	M2.5	M3.0
Pitch	0.25	0.25	0.30	0.35	0.40	0.45	0.50
Head Height	0.7	0.8	0.9	1.0	1.3	1.6	2.0
Head Diameter	2.0	2.3	2.6	3.0	3.8	4.5	5.5
Slot Depth	0.25	0.30	0.40	0.45	0.60	0.70	0.85
Slot Width	0.25	0.30	0.30	0.40	0.50	0.60	0.80

Stock Range



	M1	M1.2	M1.4	M1.6	M2	M2.5	M3
2							
3							
4							
5							
6							
8							
10							
12							
14							
16							
18							
20							
22							
25							
30							
35							

Stock

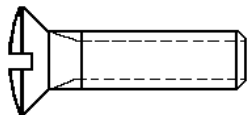


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Slotted Raised Csk Machine Screws - Din 964



Dimensional Data

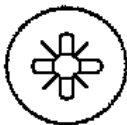
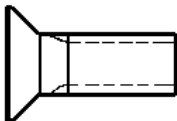
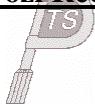
Diameter	M2.0	M2.5	M3
Pitch	0.40	0.45	0.50
Head Height	1.2	1.5	1.65
Head Diameter	3.8	4.7	5.6
Slot Depth	0.8	1	1.2
Slot Width	0.5	0.5	0.8

Stock Range

	M 2	M 2.5	M 3
5			
6			
8			
10			
12			
16			
20			
25			
30			
35			
40			
45			
50			

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Pozi Recess Countersunk Machine Screws - Din 965



Dimensional Data

Diameter	M1.6	M2	M2.5	M3	M3.5
Pitch	0.35	0.40	0.45	0.50	0.60
Head Height	0.96	1.2	1.5	1.65	1.93
Head Diameter	3	3.8	4.7	5.6	6.5
Driver Size	0	0	1	1	2

Stock Range

	M 1.6	M 2	M 2.5	M 3	M 3.5
3	Stock	Stock	Stock	Stock	Stock
4	Stock	Stock	Stock	Stock	Stock
5	Stock	Stock	Stock	Stock	Stock
6	Stock	Stock	Stock	Stock	Stock
8	Stock	Stock	Stock	Stock	Stock
10	Stock	Stock	Stock	Stock	Stock
12	Stock	Stock	Stock	Stock	Stock
14	Stock	Stock	Stock	Stock	Available to Order
16	Stock	Stock	Stock	Stock	Stock
18	Stock	Stock	Stock	Stock	Stock
20	Stock	Stock	Stock	Stock	Stock
22	Stock	Available to Order	Available to Order	Available to Order	Stock
25	Stock	Stock	Stock	Stock	Stock
30	Stock	Stock	Stock	Stock	Stock
35	Stock	Stock	Stock	Stock	Stock
40	Stock	Stock	Stock	Stock	Stock
50	Stock	Stock	Stock	Stock	Stock

Stock

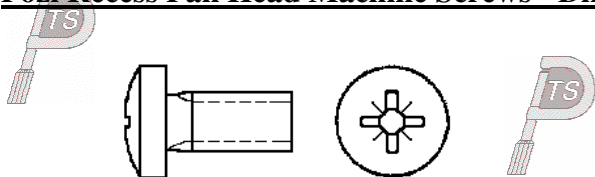


Available to Order



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Pozi Recess Pan Head Machine Screws - Din 7985



Dimensional Data

Diameter	M1.6	M2	M2.5	M3	M3.5
Pitch	0.35	0.40	0.45	0.50	0.60
Head Height	1.3	1.6	2	2.4	2.6
Head Diameter	3.2	4	5	6	7
Driver Size	0	0	1	1	2

Stock Range

	M 1.6	M 2	M 2.5	M 3	M 3.5
3					
4					
5					
6					
8					
10					
12					
14	Available to Order				Available to Order
16	Available to Order				
18	Available to Order				Available to Order
20					
22		Available to Order	Available to Order	Available to Order	Available to Order
25					
30					
35					
40					
50					

Stock

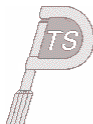
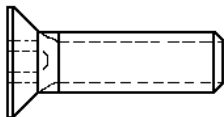


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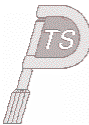
Socket Countersunk Screws - Din 7991



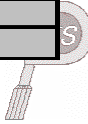
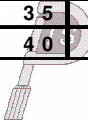
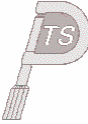
Dimensional Data

Diameter	M2	M2.5	M3
Pitch	0.40	0.45	0.50
Head Diameter	4.00	5.00	6.00
Head Height	1.24	1.55	1.70
Key Size	1.27	1.50	2.00
Key Engagement	0.65	0.80	1.20

Stock Range

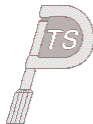
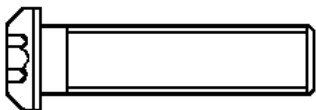


	M 2	M 2.5	M 3
3			
4			
5			
6			
8			
10			
12			
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20			
25			
30			
35			
40			



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Socket Button Head Screws - ISO 7380



Dimensional Data

Diameter	M2.0	M2.5	M3
Pitch	0.40	0.45	0.50
Head Diameter	3.50	4.50	5.50
Head Height	1.30	1.50	1.60
Key Size	1.27	1.50	2.00
Key Engagement	0.80	1.00	1.35

Stock Range

	M 2	M 2.5	M 3
3			
4			
5			
6			
8			
10			
12			
14			
16			
20			
22			
25			
30			

Stock



Available to Order



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Socket Setscrews - Flat, Cone, Dog and Cup Point

Din 913, 914, 915 and 916



Din 913



Din 914



Din 915



Din 916

Dimensional Data

Diameter	M1.6	M2	M2.5	M3
Socket Size	0.7	0.9	1.3	1.5
Key Engagement	0.7	0.8	1.2	1.2
Flat Point Diameter	0.8	1.0	1.5	2.0
Dog Point Diameter	*	1.0	1.5	2.0
Cup Point Diameter	0.8	1.0	1.2	1.4

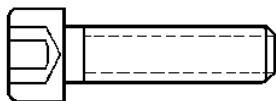
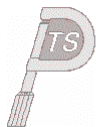
Stock Range

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2	! "	! \$		
2.5		! " \$! \$! "
3	! "	! " \$ %	! " \$ %	! " \$
4	! "	! " \$ %	! " \$ %	! " \$ %
5	! "	! " \$ %	! " \$ %	! " \$ %
6	! "	! " \$ %	! " \$ %	! " \$ %
8	!	! " \$ %	! " \$ %	! " \$ %
10	!	! " \$ %	! " \$ %	! " \$ %
12	!	! "	! "	! " \$ %
16		! "	! "	! " \$ %
20				! " \$ %
25				! " \$ %
30				! " \$ %

! = Din 916 " = Din 913 \$ = Din 914 % = Din 915

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Socket Capscrews - Din 912



Dimensional Data

Diameter	M1.6	M2	M2.5	M3
Pitch	0.35	0.40	0.45	0.50
Head Diameter	3.00	3.80	4.50	5.50
Head Height (max)	1.60	2.00	2.50	3.00
Key Size	1.50	1.50	2.00	2.50
Key Engagement (min)	0.70	1.00	1.10	1.30

Stock Range

	M1.6	M2	M2.5	M3
3				
4				
5				
6				
8				
10				
12				
14	Available to Order			
16				
18			Available to Order	
20				
22		Available to Order	Available to Order	
25				
30				
35				
40				
50				

Stock

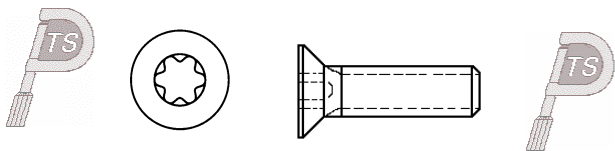


Available to Order



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TX Drive Six Lobe Recess Countersunk Screws



Dimensional Data

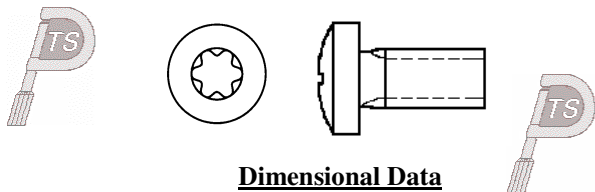
Diameter	M1.6	M2	M2.5	M3	M4
Pitch	0.35	0.40	0.45	0.50	0.70
Head Diameter	3	3.8	4.7	5.6	7.5
Head Height	0.96	1.2	1.5	1.65	2.2
T-No	T5	T6	T8	T10	T20

Stock Range

	M1.6	M2	M2.5	M3	M4
3					
4					
5					
6					
8					
10					
12					
16					
20					
25					
30					

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TX Drive Six Lobe Recess Pan Head Screws



Dimensional Data

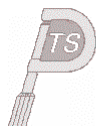
Diameter	M1.6	M2	M2.5	M3	M4
Pitch	0.35	0.40	0.45	0.50	0.70
Head Diameter	3.2	4	5	6	8
Head Height	1.3	1.6	2	2.4	3.1
T-No	T5	T6	T8	T10	T20

Stock Range

	M1.6	M2	M2.5	M3	M4
3					
4					
5					
6					
8					
10					
12					
16					
20					
25					
30					

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Slotted Set Screws - Flat & Cone Point



Din 551



Din 553

Dimensional Data

Diameter	M1.4	M1.6	M2	M2.5	M3
Pitch	0.30	0.35	0.40	0.45	0.50
Slot Width	0.20	0.25	0.25	0.40	0.40
Slot Depth (Min)	0.48	0.56	0.64	0.72	0.80
Slot Depth (Max)	0.63	0.74	0.84	0.95	1.05

Stock Range

	M1.4	M1.6	M2	M2.5	M3
2					
3					
4					
5					
6					
8					
10					
12					
16					
20					

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Hexagon Full, Hexagon Lock, Nylon Insert & Square Nuts. Din 934, Din 439, Din 985 & Din 562



Din 934



Din 985



Din 562



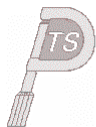
Dimensional Data

Diameter	M1.0	M1.2	M1.4	M1.6	M1.8	M2	M2.5	M3
Pitch	0.25	0.25	0.30	0.35	0.35	0.40	0.45	0.50
Across Flats	2.5	3	3	3.2	3.5	4	5	5.5
Nut Thickness (Max)								
Full Nuts	0.8	1	1.2	1.3	1.4	1.6	2	2.4
Lock Nuts			1	1		1.2	1.6	1.8
Square Nuts				1		1.2	1.6	1.8
Nylon Insert Nuts								
Hex Depth						2	2.2	2.4
Overall Height						3	3.5	4

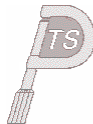
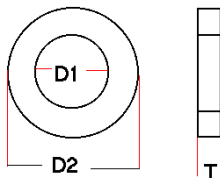
Stock Range

	M1.0	M1.2	M1.4	M1.6	M1.8	M2	M2.5	M3
Full Nuts								
Lock Nuts								
Nylon Insert								
Square								

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Flat Washers Din 125, Din 433, Din 9021

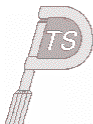


Dimensional Data

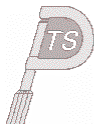
Screw Size	M1	M1.2	M1.4	M1.6	M2	M2.5	M3
D1	1.1	1.3	1.5	1.7	2.2	2.7	3.2
Din 9021 D2						8.0	9.0
Din 9021 T						0.8	0.8
Din 433 D2	2.5	3.0	3.0	3.5	4.5	5.0	6.0
Din 433 T	0.3	0.3	0.3	0.3	0.5	0.5	0.5
Din 125A D2	3.0	3.5	4.0	4.0	5.0	6.5	7.0
Din 125A T	0.3	0.3	0.3	0.3	0.3	0.5	0.5

Stock Range

	M1.0	M1.2	M1.4	M1.6	M2	M2.5	M3
Din 125A							
Din 433							
Din 9021							



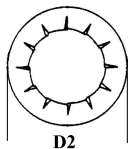
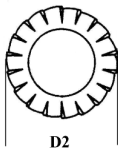
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Lock Washers - Spring, Shakeproof

Din 127, 7980, 6797 & 6798



Din 127 & 7980

Din 6798 & Din 6797 Internal & External

Dimensional Data

Screw Size MM	M2	M2.5	M3
Din 7980 D2	4.4	4.7	5.6
Din 7980 T	0.6	0.8	1.0
Din 127 D2	4.4	5.1	6.2
Din 127 T	0.5	0.6	0.8
Din 6797 & 6798 D2	4.5	5.5	6.0
Din 6797 & 6798 T	0.3	0.4	0.4

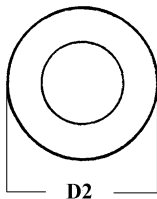
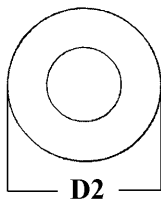
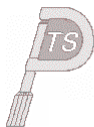
Stock Range

Screw Size	M2	M2.5	M3
Din 127			
Din 7980			
Din 6797			
Din 6798			

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Lock Washers - Curved & Crinkle

Din 137A & BS 4463



Din 137A

BS 4463

Dimensional Data

Screw Size MM	M1.2	M1.4	M1.6	M2	M2.5	M3
Din 137A D2	3.0	3.0	4.0	4.5	5.5	6.0
Din 137A T	0.2	0.3	0.3	0.3	0.3	0.4
BS 4463 D2			3.7	4.6	5.8	6.4
BS 4463 T			0.2	0.2	0.2	0.2
BS 4463 H			0.5	0.5	0.5	0.6

Stock Range

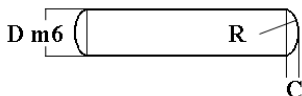
	M1.2	M1.4	M1.6	M2	M2.5	M3
Din 137A						
BS 4463						

Tel: +44 (0)1342-410758

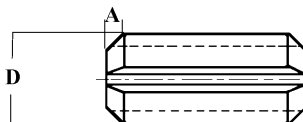
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Dowel Pins & Spring Pins

Din 7 & Din 1481



Din 7



Din 1481

Dimensional Data

Diameter (D)	1	1.5	2	2.5	3
Din 7 R	1	1.6	2	2.6	3
Din 7 C	0.15	0.23	0.3	0.4	0.45
Din 1481 D (min)	1.2	1.7	2.3	2.8	3.3
Din 1481 A	0.15	0.25	0.35	0.4	0.5
Din 1481	0.2	0.3	0.4	0.5	0.6
Material Thickness					

Stock Range

	1	1.5	2	2.5	3
3	!	!	!	!	!
4	!"	!"	!"	!"	!"
5	!"	!"	!"	!"	!"
6	!"	!"	!"	!"	!"
8	!"	!"	!"	!"	!"
10	!"	!"	!"	!"	!"
12	!"	!"	!"	!"	!"
14	!"	!"	!"	!"	!"
16	!"	!"	!"	!"	!"
20	!"	!"	!"	!"	!"
22		!"	!"	!"	!"
24			!"	!"	!"
26			!"	!"	!"
28			!"	!"	!"
30			!"	!"	!"
32				!"	!"
36				!"	!"
40				!"	!"

! = Din 7

" = Din 1481

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Self Tapping Screws Pozi Pan & Pozi Countersunk Type AB & B

Din 7981 & 7982



Din 7981 AB



Din 7982 AB



Din 7981 B

Dimensional Data

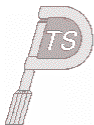
Metric Diameter	2.2	2.9
Gauge No	2	4
Din 7981 Head Diameter	4.2	5.6
Din 7981 Head Height	1.8	2.2
Din 7982 Head Diameter	4.3	5.5
Din 7982 Head Height	1.3	1.7
Driver No	0	1

Stock Range

Size	No2 (2.2)	No4 (2.9)
Length (mm)		
3/16 (4.5)	\$	\$
1/4 (6.5)	\$ %!	\$ %!
5/16 (8.0)	\$ %!	\$ %!
3/8 (9.5)	\$ %!	\$ %!
1/2 (13)	\$ %!	\$ %!
5/8 (16)		\$ %
3/4 (19)		\$ %
1 (25)		\$ %

\$ = Din 7981 AB % = Din 7982 AB ! = Din 7981 B

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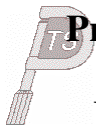
Also Available



**Full range of Metric Stainless Fasteners
From M1 to M20 Diameter**



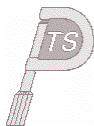
Unified (American) Threaded Fasteners



Precision Turned Parts



Brass Micro Screws



Steel Micro Screws



Decking Screws

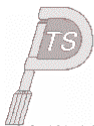
Nylon Fasteners



Grommets & Cable Ties



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