

JINGLEFAST PROFILE



Jinglefast Industrial Co., Ltd Is The Merger Of Dayang Fastener Factory And Jinggong Standard Parts Factory, Who Is Iso9001 Professional Fastener Factory Founded In 2000, Specialized In The Production For Hex Bolts, Carriage Bolts, Hex Flange Bolts, Hex Lag Screw, Thread Rods, Hex Nuts And Washers.

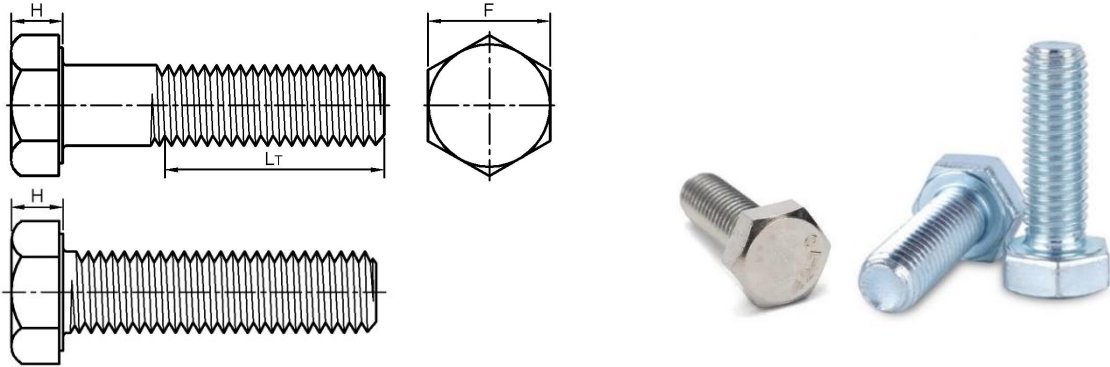
Ningbo Jinglefast Imp. & Exp. Co.,Ltd Was Established In 2010, As The Sales Department Located In Ningbo Central Business District (CBD) Enjoying Convenient Transportation, Large Sea Port And Superior Foreign Trade Policies.

With More Than 20 Years Development, Our Sales And Products Is Covering Almost All Countries And Regions Around The World, Especially American Market, From The North Canada Until The South Argentina.



MAIN PRODUCTS-Bolts

HEX BOLTS



Norm: ASME B18.2.1(Hex Cap Screws)

Grade: SAE J429 Gr.2/5/8

Material: Carbon/Alloy/Stainless steel/Brass

SIZE	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8
F	7/16	1/2	9/16	5/8	3/4	13/16	15/16	1-1/8	1-5/16
H	5/32	13/64	15/64	9/32	5/16	23/64	25/64	15/32	35/64
L _T	0.750	0.875	1.000	1.125	1.250	1.375	1.500	1.750	2.000
SIZE	1	1-1/8	1-1/4	1-3/8	1-1/2	1-3/4	2		
F	1-1/2	1-11/16	1-7/8	2-1/16	2-1/4	2-5/8	3		
H	39/64	11/16	25/32	27/32	15/16	1-3/32	1-7/32		
L _T	2.250	2.500	2.750	3.000	3.250	3.750	4.250		

Norm: DIN931&DIN933

Grade: ISO898-1 Cl.4.8/5.8/8.8/10.9

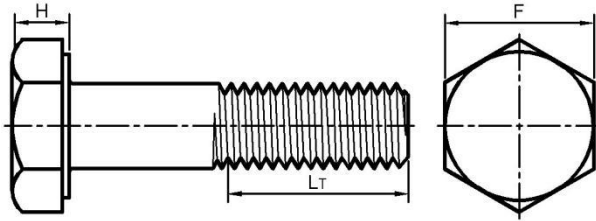
Material: Carbon/Alloy/Stainless steel/Brass

SIZE	M6	M8	M10	M12	M14	M16	M18	M20	M22
Pitch	1.0	1.25	1.5	1.75	2.0	2.0	2.5	2.5	2.5
F	10	13	17	19	22	24	27	30	32
H	4	5.3	6.4	7.5	8.8	10	11.5	12.5	14
L _T	18	22	26	30	34	38	42	46	50
SIZE	M24	M27	M30	M33	M36	M39	M42	M45	M48
Pitch	3	3	3.5	3.5	4	4	4.5	4.5	5
F	36	41	46	50	55	60	65	70	75
H	15	17	18.7	21	22.5	25	26	28	30
L _T	54	60	66	72	78	84	90	96	102

When the length of bolts $L \leq 125\text{mm}$, According to the above provisions of thread length

MAIN PRODUCTS-Bolts

HEAVY HEX STRUCTURAL BOLTS



Norm: ASME B18.2.6

Grade: ASTM A325-1/ASTM A490-1

Material: Carbon/Alloy steel

SIZE	1/2	5/8	3/4	7/8	1	1-1/8	1-1/4	1-3/8	1-1/2
F	7/8	1-1/16	1-1/4	1-7/16	1-5/8	1-13/16	2	2-3/16	2-3/8
H	5/16	25/64	15/32	35/64	39/64	11/16	25/32	27/32	15/16
L _T	1.00	1.25	1.38	1.50	1.75	2.00	2.00	2.25	2.25

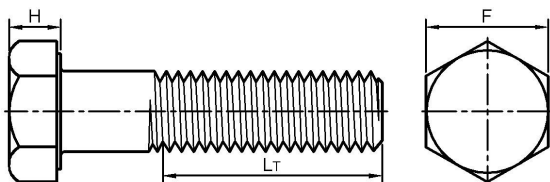
Norm: DIN6914

Grade: ISO898-1 Cl.10.9

Material: Alloy steel

SIZE	M12	M16	M20	M22	M24	M27	M30	M36
Pitch	1.75	2.0	2.5	2.5	3	3	3.5	4
F	22	27	32	36	41	46	50	60
H	8	10	13	14	15	17	19	23

STEEL TRANSMISSION TOWER BOLTS



Norm: ASME B18.2.1

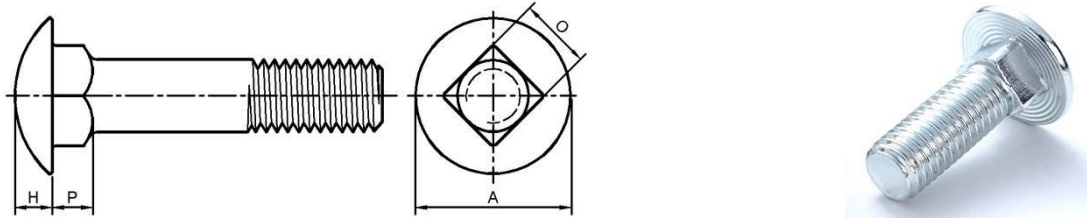
Grade: ASTM A394 T-0/1

Material: Carbon steel

SIZE	1/2	5/8	3/4	7/8	1
F	3/4	15/16	1-1/8	1-5/16	1-1/2
H	5/16	25/64	15/32	35/64	39/64
L _T	1-3/32	1-1/4	1-3/8	1-1/2	1-5/8

MAIN PRODUCTS-Bolts

MUSHROOM HEAD SQUARE NECK BOLTS (CARRIAGE BOLTS)



Norm: ASME B18.5

Grade: ASTM A307 Gr.A & SAE J429 Gr.2/5

Material: Carbon steel

SIZE		1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1
A	max	0.594	0.719	0.844	0.969	1.094	1.344	1.594	1.844	2.094
	min	0.563	0.688	0.782	0.907	1.032	1.219	1.469	1.719	1.969
H	max	0.145	0.176	0.208	0.239	0.270	0.344	0.406	0.459	0.531
	min	0.125	0.156	0.188	0.219	0.250	0.313	0.375	0.438	0.500
O	max	0.260	0.324	0.388	0.452	0.515	0.642	0.768	0.895	1.022
	min	0.245	0.307	0.368	0.431	0.492	0.616	0.741	0.865	0.990
P	max	0.156	0.187	0.219	0.250	0.281	0.344	0.406	0.469	0.531
	min	0.125	0.156	0.188	0.219	0.250	0.313	0.375	0.438	0.500

Norm: DIN603

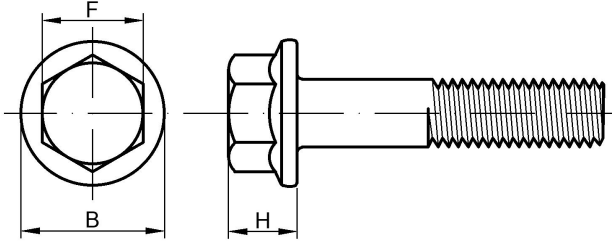
Grade: ISO898-1 Cl.4.8/8.8

Material: Carbon steel

SIZE		M5	M6	M8	M10	M12	M16	M20
A	max	13.55	16.55	20.65	24.65	30.65	38.8	46.8
	min	12.45	15.45	19.35	23.35	29.35	37.2	45.2
H	max	3.3	3.88	4.88	5.38	6.95	8.95	11.05
	min	2.7	3.12	4.12	4.62	6.05	8.05	9.95
O	max	5.48	6.48	8.58	10.58	12.7	16.7	20.84
	min	4.52	5.52	7.42	9.42	11.3	15.3	19.16
P	max	4.1	4.6	5.6	6.6	8.75	12.9	15.9
	min	2.9	3.4	4.4	5.4	7.25	11.1	14.1

MAIN PRODUCTS-Bolts

HEX FLANGE BOLTS



Norm: IFI-111

Grade: SAE J429 Gr.2/5/8

Material: Carbon/Alloy steel

SIZE	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4
F	3/8	1/2	9/16	5/8	3/4	13/16	15/16	1-1/8
B	0.56	0.68	0.81	0.93	1.07	1.19	1.33	1.59
H	0.28	0.32	0.39	0.46	0.51	0.57	0.62	0.73

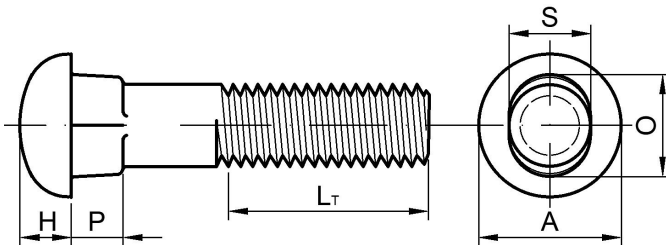
Norm: DIN6921

Grade: ISO898-1 Cl.4.8/8.8/10.9

Material: Carbon/Alloy steel

SIZE	M5	M6	M8	M10	M12	M14	M16	M20
F	8	10	13	15	16	18	21	27
B	11.8	14.2	18	22.3	26.6	30.5	35	43
H	5.4	6.6	8.1	9.2	11.5	12.8	14.4	17.1

OVAL NECK TRACK BOLT



Norm: ANSI/ASME B18.10

Grade: ASTM A307 Gr.A & SAE J429 Gr.2/5

Material: Carbon steel

SIZE	A	H	O	S	P	L _T
1/2	7/8	5/16	5/8	1/2	5/16	1-1/8
5/8	1-5/64	25/64	13/16	5/8	3/8	1-1/4
3/4	1-9/32	15/32	1-1/16	3/4	7/16	1-3/4

MAIN PRODUCTS-Bolts

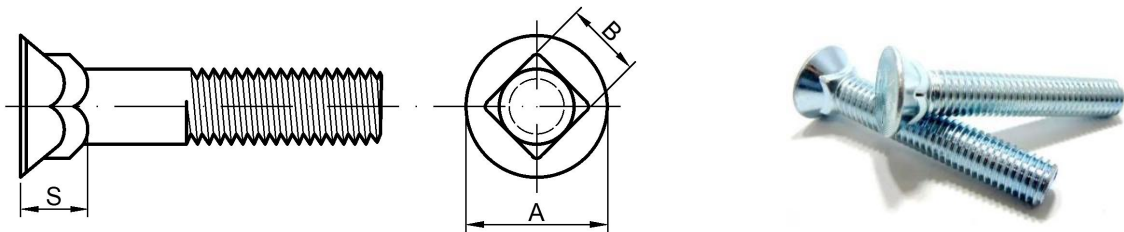
Norm: DIN5903

Grade: ISO898-1 Cl.4.8/8.8

Material: Carbon steel

SIZE	A	H	O	S	P	L _T
M10	19	6	14	10	5	19
M12	24	8	18	12	7	21
M16	30	10	22	16	8	27
M20	38	12.5	30	20	10	29

PLOW BOLTS



Norm: ASME B18.9 (No.3 Head)

Grade: ASTM A307 Gr.A & SAE J429 Gr.1/5

Material: Carbon steel

SIZE		5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1
A	max	0.605	0.708	0.826	0.945	1.045	1.147	1.303	1.512	1.700
	min	0.563	0.656	0.766	0.875	0.969	1.063	1.219	1.406	1.594
S	max	0.269	0.312	0.364	0.417	0.461	0.506	0.541	0.626	0.690
	min	0.243	0.281	0.328	0.375	0.416	0.456	0.491	0.563	0.627
B	max	0.325	0.387	0.450	0.515	0.578	0.640	0.765	0.906	1.031
	min	0.313	0.375	0.438	0.500	0.563	0.625	0.750	0.875	1.000

Norm: DIN608

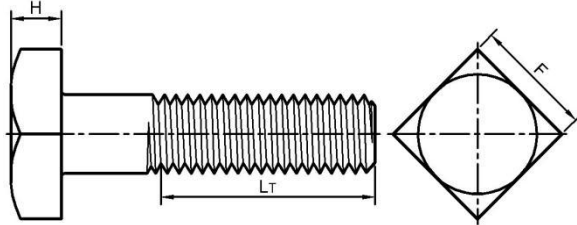
Grade: ISO898-1 Cl.4.8/8.8

Material: Carbon steel

SIZE	A		S		B	
	Max	Min	Max	Min	Max	Min
M10	19.65	18.35	8.45	7.55	10.58	9.42
M12	24.65	23.35	11.05	9.95	12.7	11.3

MAIN PRODUCTS-Bolts

SQUARE BOLTS



Norm: ASME B18.2.1

Grade: ASTM A307 Gr.A & SAE J429 Gr.2

Material: Carbon steel

SIZE	1/2	5/8	3/4	7/8	1	1-1/8	1-1/4	1-3/8	1-1/2
F	3/4	15/16	1-1/8	1-5/16	1-1/2	1-11/16	1-7/8	2-1/16	2-1/4
H	21/64	27/64	1/2	19/32	21/32	3/4	27/32	29/32	1
L _T	1.250	1.500	1.750	2.000	2.250	2.500	2.750	3.000	3.250

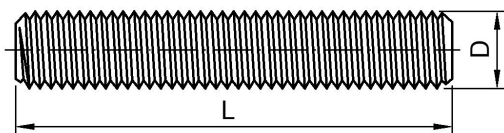
Norm: DIN21346

Grade: ISO898-1 Cl.4.8

Material: Carbon steel

SIZE	M16	M20	M24	M30
F	27	32	41	50
H	10	13	15	19
L _T	36	43	53	82

STUD BOLTS



Norm: ASME B18.31.2

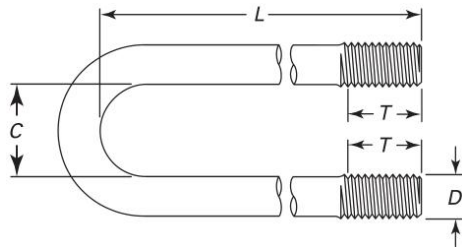
Grade: ASTM A307 Gr.A & SAE J429 Gr.2/5/8 & ASTM A193 B7/B7M/B8/B8M

Material: Carbon/Alloy/Stainless steel

L	Tolerance
To 12 in.	±0.062
Over 12 in. to 18 in.	±0.125
Over 18 in.	±0.250

MAIN PRODUCTS-Bolts

U BOLTS



D × L × C × T

Norm: ASME B18.31.5

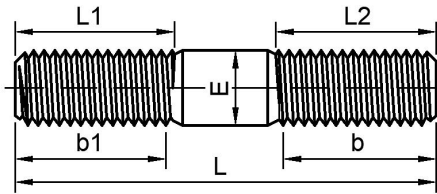
Grade: ASTM A307 Gr.A

Material: Carbon/Stainless steel

SIZE	L	C	T	Pipe Size	SIZE	L	C	T	Pipe Size
1/4-20	1-1/4	9/16	3/4	1/4	3/8-16	2-1/4	2	1-1/4	3/4
1/4-20	1-1/4	3/4	5/8	3/8	3/8-16	2-1/2	2-1/2	1-1/4	1
1/4-20	2-1/4	3/4	1-1/2	3/8	3/8-16	2-3/4	2-1/2	1-1/8	1-1/4
1/4-20	1-3/4	1	1	1/2	3/8-16	2-5/8	2-1/2	1-1/4	1-1/2
1/4-20	2	1	1	3/4	3/8-16	3-1/8	3	1-1/4	2
1/4-20	3-1/8	1	1-1/2	3/4	3/8-16	3-5/8	3	1-1/4	2-1/2
1/4-20	2-1/4	1-1/8	1-1/4	3/4	3/8-16	6-5/8	3	3	2-1/2
1/4-20	2-3/4	1-1/8	1-3/8	1	3/8-16	4-1/8	3	1-1/4	3
1/4-20	3-7/16	1-1/8	2-3/8	1	3/8-16	5-1/2	3-1/2	2-1/4	3-1/2
1/4-20	3	1-1/4	1-3/8	1-1/4	1/2-13	4-1/2	3-1/2	1-5/8	2-1/2
1/4-20	3-1/4	1-1/4	1-3/8	1-1/2	1/2-13	5	3-1/2	1-1/2	3
5/16-18	2-3/16	1-3/8	1-3/8	1/2	1/2-13	8-1/2	4	3	3
5/16-18	2-3/16	1-3/8	1	3/4	1/2-13	5-1/2	4	1-1/2	3-1/2
5/16-18	2-3/16	1-1/2	1	1	1/2-13	6	4-1/2	1-1/2	4
5/16-18	2-11/16	1-1/2	1-1/8	1-1/4	1/2-13	7-1/4	5-5/8	2	5
5/16-18	4-1/2	1-3/4	2	1-1/4	1/2-13	8-3/8	6-3/4	2	6
5/16-18	2-11/16	1-3/4	1	1-1/2	1/2-13	10-3/8	8-3/4	2	8
5/16-18	4-3/4	1-3/4	3	1-1/2	3/4-10	13-13/16	10-7/8	4	10
5/16-18	3-3/16	1-3/4	1	2	7/8-9	16-1/16	12-7/8	4-1/4	12
5/16-18	5-5/8	2	3	2	7/8-9	17-5/16	14-1/8	4-1/4	14
5/16-18	3-11/16	2	1	2-1/2	7/8-9	19-5/16	16-1/8	4-1/4	16
3/8-16	2-1/4	2	1-1/4	1/2	1-8	21-11/16	18-1/8	4-3/4	18

MAIN PRODUCTS-Studs & Threaded Rods

STUDS



Norm: IFI-136(DOUBLE END)

Grade: ASTM A307 Gr.A & SAE J429 Gr.2/5/8 & ASTM A354 BC/BD

Material: Carbon/Alloy/Stainless steel

SIZE		1/4	5/16	3/8	7/16	1/2	9/16	5/8
E (type2)	max	0.250	0.3125	0.375	0.4375	0.5	0.5625	0.625
	min	0.2127	0.2712	0.3287	0.385	0.4435	0.5016	0.5589
b1=b (min)	L≤6	0.75	0.875	1.0	1.125	1.25	1.375	1.5
	L>6	1.0	1.125	1.25	1.375	1.5	1.625	1.75
L1=L2 max	L≤6	0.875	1.031	1.188	1.344	1.5	1.656	1.812
	L>6	1.125	1.281	1.438	1.594	1.75	1.906	2.062
SIZE		3/4	7/8	1	1-1/8	1-1/4	1-3/8	1-1/2
E (type2)	max	0.75	0.875	1.0	1.125	1.25	1.375	1.5
	min	0.6773	0.7946	0.91	1.0228	1.1476	1.2563	1.3812
b1=b (min)	L≤6	1.75	2.0	2.25	2.5	2.75	3.0	3.25
	L>6	2.0	2.25	2.5	2.75	3.0	3.25	3.5
L1=L2 max	L≤6	2.125	2.438	2.75	3.062	3.375	3.688	4.0
	L>6	2.375	2.688	3.0	3.312	3.625	3.928	4.25

Norm: DIN835/938/939/940

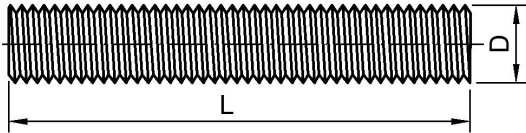
Grade: ISO898-1 Cl.8.8/10.9

Material: Carbon/Alloy/Stainless steel

SIZE		M3	M4	M5	M6	M8	M10	M12
b	L≤125	12	14	16	18	22	26	30
	125<L≤200	18	20	22	24	28	32	36
	L>200	-	-	-	-	-	45	49
SIZE		M16	M20	M24	M30	M36	M42	M48
b	L≤125	38	46	54	66	78	90	102
	125<L≤200	44	52	60	72	84	96	108
	L>200	57	65	73	85	97	109	121

MAIN PRODUCTS-Studs & Threaded Rods

THREADED RODS



Norm: ASME B18.31.3

Grade: ASTM A307 Gr.A & SAE J429 Gr.2/5/8 & ASTM A193 B7/B7M/B8/B8M

Material: Carbon/Alloy/Stainless steel

L	Tolerance
L < 6 ft.	±0.25 in.
L ≥ 6 ft.	±0.50 in.

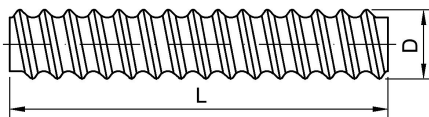
Norm: DIN975

Grade: ISO898-1 Cl.5.8/8.8/10.9

Material: Carbon/Stainless steel

L	Tolerance
L=1000mm	±10mm

COIL THREADED RODS



Norm:

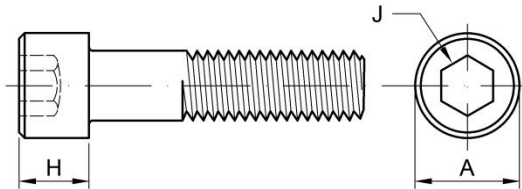
Grade: ASTM A307 Gr.A & SAE J429 Gr.2/5

Material: Carbon/Stainless steel

SIZE	Threads per Inch	Root Dia.		Diag. Root Dia.		Major Dia.	
		Max	Min	Max	Min	Max	Min
1/2	6	0.425	0.420	0.435	0.425	0.500	0.486
3/4	4.5	0.635	0.625	0.641	0.631	0.750	0.740
1	3.5	0.840	0.830	0.848	0.838	0.985	0.965
1-1/4	3.5	1.085	1.075	1.092	1.082	1.225	1.215

MAIN PRODUCTS-Screws

HEXAGON SOCKET HEAD CAP SCREWS



Norm: ASME B18.2.3

Grade: ASTM A574

Material: Alloy steel/Stainless steel

SIZE		1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8
A	max	0.375	0.469	0.562	0.656	0.750	0.938	1.125	1.312
	min	0.365	0.457	0.550	0.642	0.735	0.921	1.107	1.293
H	max	0.250	0.312	0.375	0.438	0.500	0.625	0.750	0.875
	min	0.244	0.306	0.368	0.430	0.492	0.616	0.740	0.864
J		3/16	1/4	5/16	3/8	3/8	1/2	5/8	3/4
SIZE		1	1-1/8	1-1/4	1-3/8	1-1/2	1-3/4	2	
A	max	1.500	1.688	1.875	2.062	2.250	2.625	3.000	
	min	1.479	1.665	1.852	2.038	2.224	2.597	2.970	
H	max	1.000	1.125	1.250	1.375	1.500	1.750	2.000	
	min	0.988	1.111	1.236	1.360	1.485	1.734	1.983	
J		3/4	7/8	7/8	1	1	1-1/4	1-1/2	

Norm: DIN912

Grade: ISO898-1 Cl.8.8/10.9/12.9

Material: Carbon/Alloy/Stainless steel

SIZE		M5	M6	M8	M10	M12	M16	M20
A	max	8.5	10	13	16	18	24	30
H	max	5	6	8	10	12	16	20
J		4	5	6	8	10	14	17
SIZE		M24	M30	M36	M42	M48	M56	
A	max	36	45	54	63	72	84	
H	max	24	30	36	42	48	56	
J		19	22	27	32	36	41	

MAIN PRODUCTS-Screws

MACHINE SCREWS



<p>Norm: ASME B18.6.3 Material: Carbon/Stainless steel</p>	
DRIVING FEATURES	<p>SLOTTED PHILLIPS PHILLIPS/SLOT. POZIDRIV SQUARE SQUARE/SLOT.</p>
HEAD TYPES	<p>FLAT HEAD OVAL HEAD PAN HEAD ROUND HEAD FILLISTER HEAD</p> <p>TRUSS HEAD ROUND WASHER HEAD HEX WASHER HEAD BINDING HEAD</p>

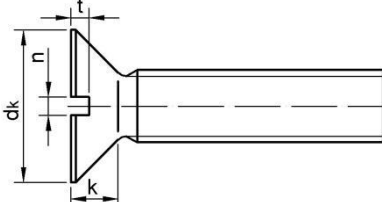
<p>Norm: DIN85 Material: Carbon/Stainless steel</p>		
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SLOTTED PAN HEAD SCREWS EN ISO 1580 (Replace DIN85)

SIZE		M2	M2.5	M3	M3.5	M4	M5	M6	M8	M10
dk	max	4.0	5.0	5.6	7.0	8.0	9.5	12.0	16.0	20.0
	min	3.7	4.7	5.3	6.64	7.64	9.14	11.57	15.57	19.48
k	max	1.3	1.5	1.8	2.1	2.4	3.0	3.6	4.8	6.0
n	max	0.7	0.8	1.0	1.2	1.51	1.51	1.91	2.31	2.81
	min	0.56	0.66	0.86	1.06	1.26	1.26	1.66	2.06	2.56
t	min	0.5	0.6	0.7	0.8	1.0	1.2	1.4	1.9	2.4

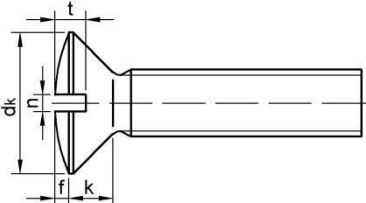
MAIN PRODUCTS-Screws

Norm: DIN963
Material: Carbon/Stainless steel



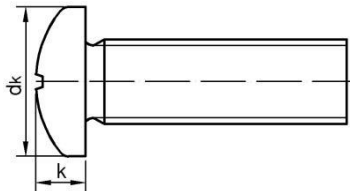
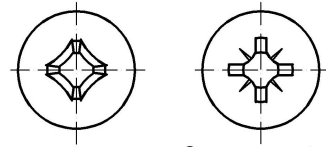
SLOTTED COUNTERSUNK FLAT HEAD SCREWS EN ISO 2009 (Replace DIN963)										
SIZE		M2	M2.5	M3	M3.5	M4	M5	M6	M8	M10
dk	max	3.8	4.7	5.5	7.3	8.4	9.3	11.3	15.8	18.3
	min	3.5	4.4	5.2	6.94	8.04	8.94	10.87	15.37	17.78
k	max	1.2	1.5	1.65	2.35	2.7	2.7	3.3	4.65	5
n	max	0.7	0.8	1.0	1.2	1.51	1.51	1.91	2.31	2.81
	min	0.56	0.66	0.86	1.06	1.26	1.26	1.66	2.06	2.56
t	min	0.4	0.5	0.6	0.9	1.0	1.1	1.2	1.8	2.0

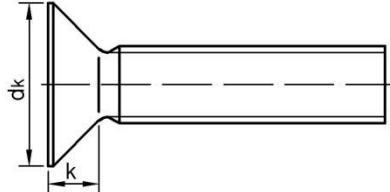
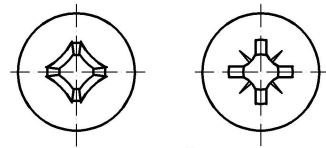
Norm: DIN964
Material: Carbon/Stainless steel

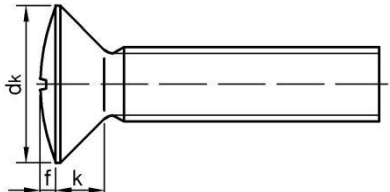
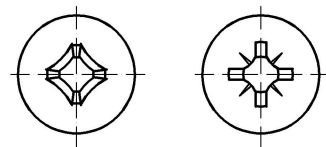


COUNTERSUNK SLOTTED RAISED HEAD SCREWS EN ISO 2010 (Replace DIN964)										
SIZE		M2	M2.5	M3	M3.5	M4	M5	M6	M8	M10
dk	max	3.8	4.7	5.5	7.3	8.4	9.3	11.3	15.8	18.3
	min	3.5	4.4	5.2	6.94	8.04	8.94	10.87	15.37	17.78
f ≈		0.5	0.6	0.7	0.8	1.0	1.2	1.4	2.0	2.3
k	max	1.2	1.5	1.65	2.35	2.7	2.7	3.3	4.65	5
n	max	0.7	0.8	1.0	1.2	1.51	1.51	1.91	2.31	2.81
	min	0.56	0.66	0.86	1.06	1.26	1.26	1.66	2.06	2.56
t	min	0.8	1.0	1.2	1.4	1.6	2.0	2.4	3.2	3.8

MAIN PRODUCTS-Screws

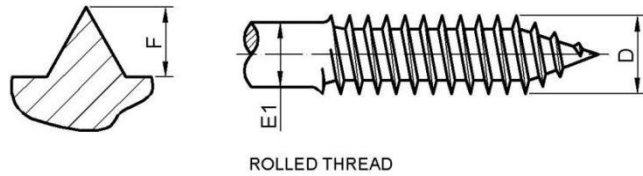
<p>Norm: DIN7985 Material: Carbon/Stainless steel</p>						<p>Cross recess type H Cross recess type Z</p>				
								<p>PAN HEAD SCREWS WITH TYPE H OR TYPE Z CROSS RECESS EN ISO 7045 (Replace DIN7985)</p>		
SIZE		M2	M2.5	M3	M3.5	M4	M5	M6	M8	M10
dk	max	4.0	5.0	5.6	7.0	8.0	9.5	12.0	16.0	20.0
	min	3.7	4.7	5.3	6.64	7.64	9.14	11.57	15.57	19.48
k	max	1.6	2.1	2.4	2.6	3.1	3.7	4.6	6.0	7.5

<p>Norm: DIN965 Material: Carbon/Stainless steel</p>						<p>Cross recess type H Cross recess type Z</p>				
								<p>CROSS RECESSED COUNTERSUNK FLAT HEAD SCREWS EN ISO 7046 (Replace DIN965)</p>		
SIZE		M2	M2.5	M3	M3.5	M4	M5	M6	M8	M10
dk	max	3.8	4.7	5.5	7.3	8.4	9.3	11.3	15.8	18.3
	min	3.5	4.4	5.2	6.94	8.04	8.94	10.87	15.37	17.78
k	max	1.2	1.5	1.65	2.35	2.7	2.7	3.3	4.65	5

<p>Norm: DIN966 Material: Carbon/Stainless steel</p>						<p>Cross recess type H Cross recess type Z</p>				
								<p>COUNTERSUNK RAISED HEAD SCREWS WITH TYPE H OR TYPE Z CROSS RECESS EN ISO 7047 (Replace DIN966)</p>		
SIZE		M2	M2.5	M3	M3.5	M4	M5	M6	M8	M10
dk	max	3.8	4.7	5.5	7.3	8.4	9.3	11.3	15.8	18.3
	min	3.5	4.4	5.2	6.94	8.04	8.94	10.87	15.37	17.78
f	\approx	0.5	0.6	0.7	0.8	1.0	1.2	1.4	2.0	2.3
k	max	1.2	1.5	1.65	2.35	2.7	2.7	3.3	4.65	5

MAIN PRODUCTS-Screws

WOOD SCREWS



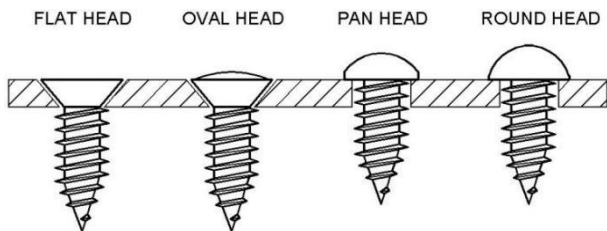
Norm: ASME B18.6.1

Material: Carbon/Stainless steel

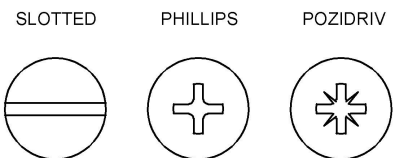
THREAD FOR WOOD SCREWS

SIZE		0	1	2	3	4	5	6	7	8
D	max	0.064	0.077	0.090	0.103	0.116	0.129	0.142	0.155	0.168
	min	0.053	0.066	0.079	0.092	0.105	0.118	0.131	0.144	0.157
E1	max	0.055	0.066	0.075	0.086	0.095	0.107	0.118	0.127	0.136
	min	0.044	0.055	0.064	0.075	0.084	0.096	0.107	0.116	0.125
F	min	0.010	0.010	0.010	0.014	0.016	0.018	0.020	0.022	0.023
SIZE		9	10	12	14	16	18	20	24	
D	max	0.181	0.194	0.220	0.246	0.272	0.298	0.324	0.376	
	min	0.170	0.183	0.209	0.235	0.261	0.287	0.313	0.365	
E1	max	0.147	0.157	0.176	0.201	0.214	0.237	0.260	0.303	
	min	0.136	0.146	0.165	0.190	0.203	0.226	0.249	0.292	
F	min	0.026	0.030	0.031	0.035	0.038	0.042	0.046	0.050	

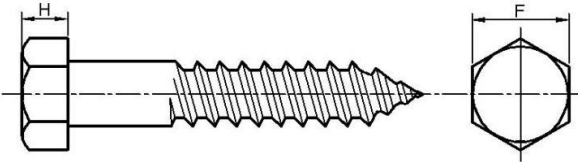
HEAD TYPES



DRIVING FEATURES

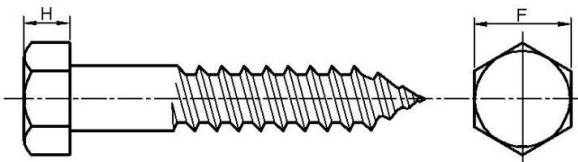


MAIN PRODUCTS-Screws



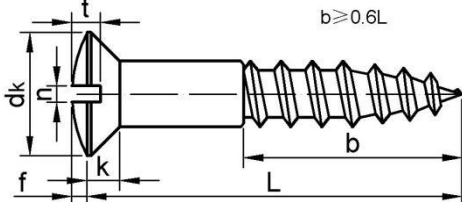
Norm: ASME B18.2.1
Material: Carbon/Stainless steel

HEX LAG SCREWS									
SIZE	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1
F	7/16	1/2	9/16	5/8	3/4	15/16	1-1/8	1-5/16	1-1/2
H	11/16	7/32	1/4	19/64	11/32	27/64	1/2	37/64	43/64



Norm: DIN571
Material: Carbon/Stainless steel

HEXAGON HEAD WOOD SCREWS								
SIZE	M4	M5	M6	M8	M10	M12	M16	M20
F	7	8	10	13	17	19	24	30
H	2.8	3.5	4	5.5	7	8	10	13



Norm: DIN95
Material: Carbon/Stainless steel

SLOTTED RAISED COUNTERSUNK (OVAL) HEAD WOOD SCREWS							
SIZE	2.5	3	3.5	4	4.5	5	6
dk	4.7	5.6	6.5	7.5	8.3	9.2	11
f ≈	0.6	0.75	0.9	1	1.1	1.25	1.5
k	max	1.5	1.65	1.93	2.2	2.35	3
n	0.6	0.8	0.8	1	1	1.2	1.6
t	max	1.2	1.45	1.7	1.9	2.1	2.8
	min	1	1.2	1.4	1.6	1.8	2.4

MAIN PRODUCTS-Screws

Norm: DIN96
Material: Carbon/Stainless steel

SLOTTED ROUND HEAD WOOD SCREWS								
SIZE	2	2.5	3	3.5	4	4.5	5	6
dk	4	5	6	7	8	9	10	12
k	1.4	1.7	2.1	2.4	2.8	3.1	3.5	4.2
n	0.5	0.6	0.8	0.8	1	1	1.2	1.6
t	max	0.9	1.1	1.35	1.6	1.8	2.3	2.7
	min	0.7	0.85	1.05	1.2	1.4	1.75	2.1

Norm: DIN97
Material: Carbon/Stainless steel

SLOTTED COUNTERSUNK (FLAT) HEAD WOOD SCREWS								
SIZE	2	2.5	3	3.5	4	4.5	5	6
dk	3.8	4.7	5.6	6.5	7.5	8.3	9.2	11
k	max	1.2	1.5	1.65	1.93	2.2	2.35	3
n		0.5	0.6	0.8	0.8	1	1	1.2
t	max	0.6	0.7	0.85	1	1.1	1.2	1.3
	min	0.4	0.5	0.6	0.7	0.8	0.9	1

Norm: DIN7996
Material: Carbon/Stainless steel

CROSS RECESSED ROUND HEAD WOOD SCREWS							
SIZE	2.5	3	3.5	4	4.5	5	6
dk	5	6	7	8	9	10	12
k	1.7	2.1	2.35	2.8	3.1	3.5	4.2

MAIN PRODUCTS-Screws

Norm: DIN7997
Material: Carbon/Stainless steel

CROSS RECESSED COUNTERSUNK (FLAT) HEAD WOOD SCREWS								
SIZE		2.5	3	3.5	4	4.5	5	6
dk		4.7	5.6	6.5	7.5	8.3	9.2	11
k	max	1.5	1.65	1.93	2.2	2.35	2.5	3

SELF-DRILLING TAPPING SCREWS



Norm: SAE J78
Material: Carbon/Stainless steel

THREADS AND POINTS FOR TYPE BSD SELF-DRILLING TAPPING SCREWS										
SIZE		D		d		Z	L			
		Major Dia.		Minor Dia.		Protrusion	Formed		Milled	
		Max	Min	Max	Min	Ref.	90°	CSK	90°	CSK
4	24	0.114	0.110	0.086	0.082	0.163	5/16	3/8	3/8	7/16
6	20	0.139	0.135	0.104	0.099	0.190	5/16	3/8	3/8	7/16
8	16	0.166	0.161	0.122	0.116	0.211	3/8	7/16	7/16	1/2
10	16	0.189	0.183	0.141	0.135	0.235	7/16	1/2	15/32	19/32
12	14	0.215	0.209	0.164	0.157	0.283	1/2	5/8	17/32	21/32
1/4	14	0.246	0.240	0.192	0.185	0.318	1/2	5/8	17/32	11/16

HEAD TYPES

FLAT HEAD
OVAL HEAD
PAN HEAD
FILLISTER HEAD

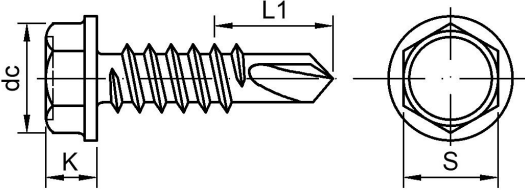
TRUSS HEAD
ROUND HEAD
HEX WASHER HEAD

DRIVING FEATURES

PHILLIPS
POZIDRIV

MAIN PRODUCTS-Screws

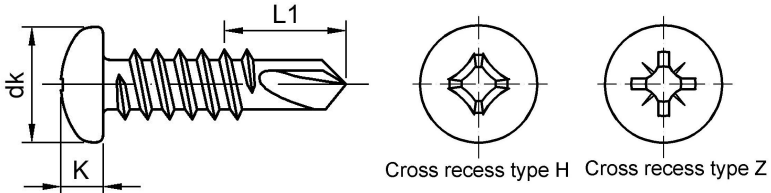
Norm: DIN7504-K
Material: Carbon/Stainless steel



HEX WASHER HEAD SELF DRILLING SCREWS

SIZE	ST3.5	ST4.2	ST4.8	ST5.5	ST6.3
P	1.3	1.4	1.6	1.8	1.8
dc	8.3	8.8	10.5	11	13.2
k	3.45	4.25	4.45	5.45	6.45
s	5.5	7	8	8	10
L1	6	7	9	11	12

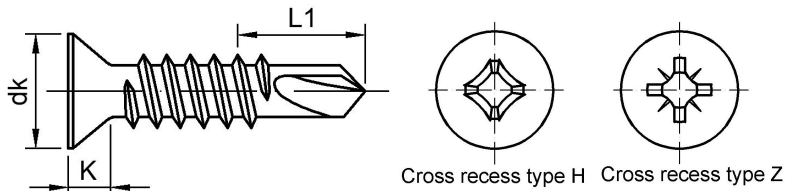
Norm: DIN7504-N
Material: Carbon/Stainless steel



PAN HEAD SELF DRILLING SCREWS

SIZE	ST2.9	ST3.5	(ST3.9)	ST4.2	ST4.8	ST5.5
P	1.1	1.3	1.3	1.4	1.6	1.8
dk	5.6	6.9	7.5	8.2	9.5	10.8
k	2.2	2.6	2.8	3.05	3.55	3.95
L1	4.5	5	6	7	8	9
Driving#	1	2	2	2	2	3

Norm: DIN7504-P
Material: Carbon/Stainless steel

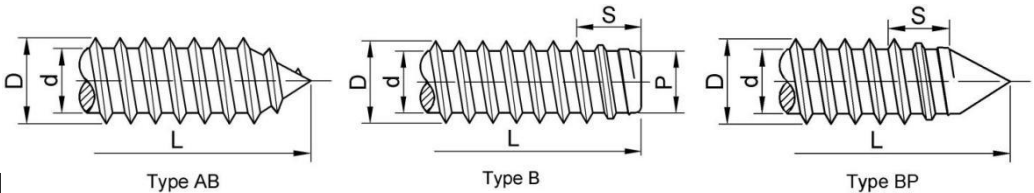


FLAT HEAD SELF DRILLING SCREWS

SIZE	ST3.5	(ST3.9)	ST4.2	ST4.8	ST5.5
P	1.3	1.3	1.4	1.6	1.8
dk	6.8	7.5	8.1	9.5	10.8
k	2.1	2.3	2.5	3	3.4
L1	5	6	7	8	10
Driving#	2	2	2	2	3

MAIN PRODUCTS-Screws

TAPPING SCREWS(SHEET METAL SCREWS)



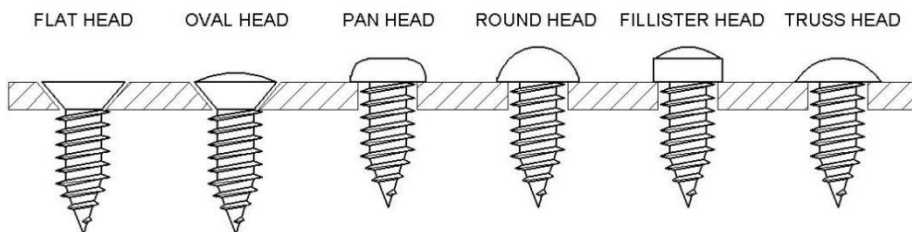
Norm: ASME B18.6.4

Material: Carbon/Stainless steel

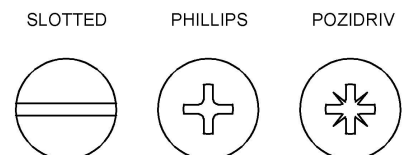
THREADS AND POINTS FOR TAPPING SCREWS

Size	D		d		P	S		L					
	Major Dia.		Minor Dia.		Point Dia	Point Taper Length		Type AB		Type B		Type BP	
	Max	Min	Max	Min	Ref	Max	Min	90° Heads	Csk Heads	90° Heads	Csk Heads	90° Heads	Csk Heads
0	0.060	0.054	0.036	0.033	0.031	0.042	0.031	1/8	5/32	1/8	1/8	5/32	3/16
1	0.075	0.069	0.049	0.046	0.044	0.048	0.036	5/32	3/16	1/8	5/32	3/16	7/32
2	0.088	0.082	0.064	0.060	0.058	0.062	0.047	3/16	7/32	5/32	3/16	1/4	9/32
3	0.101	0.095	0.075	0.071	0.068	0.071	0.054	3/16	1/4	3/16	7/32	9/32	5/16
4	0.114	0.108	0.086	0.082	0.079	0.083	0.063	7/32	9/32	3/16	1/4	5/16	11/32
5	0.130	0.123	0.094	0.090	0.087	0.100	0.075	1/4	5/16	7/32	9/32	11/32	13/32
6	0.139	0.132	0.104	0.099	0.095	0.100	0.075	9/32	11/32	1/4	9/32	3/8	7/16
7	0.154	0.147	0.115	0.109	0.105	0.105	0.079	5/16	3/8	1/4	5/16	13/32	15/32
8	0.166	0.159	0.122	0.116	0.112	0.111	0.083	5/16	3/8	9/32	11/32	7/16	1/2
10	0.189	0.182	0.141	0.135	0.130	0.125	0.094	3/8	7/16	5/16	3/8	1/2	19/32
12	0.215	0.208	0.164	0.157	0.152	0.143	0.107	7/16	21/32	11/32	7/16	9/16	21/32
1/4	0.246	0.237	0.192	0.185	0.179	0.143	0.107	1/2	19/32	3/8	1/2	21/32	3/4
5/16	0.315	0.306	0.244	0.236	0.230	0.167	0.125	5/8	3/4	15/32	19/32	27/32	31/32
3/8	0.380	0.371	0.309	0.299	0.293	0.167	0.125	3/4	29/32	17/32	11/16	15/16	1-1/8
7/16	0.440	0.429	0.359	0.349	0.343	0.200	0.150	7/8	1-1/32	5/8	25/32	1-1/8	1-1/4
1/2	0.504	0.493	0.423	0.413	0.407	0.200	0.150	1	1-5/32	11/16	27/32	1-1/4	1-13/32

HEAD TYPES



DRIVING FEATURES



MAIN PRODUCTS-Screws

Norm: DIN7971
Material: Carbon/Stainless steel

Cone end, Type C Flat end, Type F

SLOTTED PAN HEAD TAPPING SCREWS ISO1481 (Replace DIN7971)										
SIZE		ST 2.2	ST 2.9	ST 3.5	ST 4.2	ST 4.8	ST 5.5	ST 6.3	ST 8	ST 9.5
dk	max	4	5.6	7	8	9.5	11	12	16	20
	min	3.7	5.3	6.6	7.6	9.1	10.6	11.6	15.6	19.5
k	max	1.3	1.8	2.1	2.4	3	3.2	3.6	4.8	6
n	max	0.7	1	1.2	1.51	1.51	1.91	1.91	2.31	2.81
	min	0.56	0.86	1.06	1.26	1.26	1.66	1.66	2.06	2.56
t	min	0.5	0.7	0.8	1	1.2	1.3	1.4	1.9	2.4

Norm: DIN7972
Material: Carbon/Stainless steel

Cone end, Type C Flat end, Type F

SLOTTED COUNTERSUNK (FLAT) HEAD TAPPING SCREWS ISO1482 (Replace DIN7972)										
SIZE		ST 2.2	ST 2.9	ST 3.5	ST 4.2	ST 4.8	ST 5.5	ST 6.3	ST 8	ST 9.5
dk	max	3.8	5.5	7.3	8.4	9.3	10.3	11.3	15.8	18.3
	min	3.5	5.2	6.9	8	8.9	9.9	10.9	15.4	17.8
k	max	1.1	1.7	2.35	2.6	2.8	3	3.15	4.65	5.25
n	max	0.7	1	1.2	1.51	1.51	1.91	1.91	2.31	2.81
	min	0.56	0.86	1.06	1.26	1.26	1.66	1.66	2.06	2.56
t	min	0.4	0.6	0.9	1	1.1	1.1	1.2	1.8	2

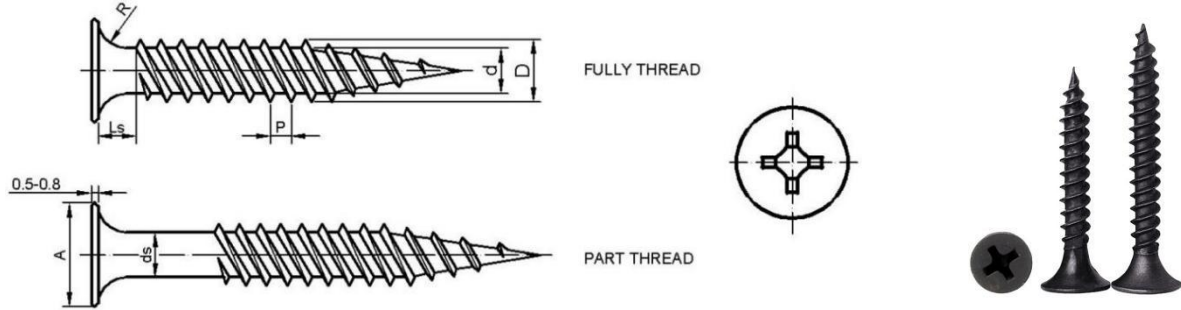
Norm: DIN7973
Material: Carbon/Stainless steel

Cone end, Type C Flat end, Type F Cross recess type H Cross recess type Z

CROSS RECESSED PAN HEAD TAPPING SCREWS ISO7049 (Replace DIN7981)										
SIZE		ST 2.2	ST 2.9	ST 3.5	ST 4.2	ST 4.8	ST 5.5	ST 6.3	ST 8	ST 9.5
dk	max	4	5.6	7	8	9.5	11	12	16	20
	min	3.7	5.3	6.6	7.6	9.1	10.6	11.6	15.6	19.5
k	max	1.6	2.4	2.6	3.1	3.7	4	4.6	6	7.5
	min	1.4	2.15	2.35	2.8	3.4	3.7	4.3	5.6	7.1

MAIN PRODUCTS-Screws

DRYWALL SCREWS



Norm: ANSI
Grade: Case Harden
Material: Carbon Unit: mm

SIZE	SINGLE LEAD				DOUBLE LEAD				
	6	7	8	10	6	7	8	10	
P	2.54	2.82	2.82	2.82	1.41	1.59	1.69	2.12	
D	max	4.00	4.30	4.75	5.35	3.60	4.00	4.30	4.95
	min	3.65	3.90	4.35	4.90	3.40	3.75	4.05	4.70
d	max	2.45	2.65	2.85	3.45	2.35	2.55	2.80	3.40
	min	2.25	2.45	2.65	3.25	2.15	2.35	2.60	3.20
A	max	8.40			8.80	8.40			8.80
	min	8.00			8.40	8.00			8.40
Ls	max	6.00			7.00	6.00			7.00
R	≈	4.50	4.50	5.00	5.00	4.50	4.50	5.00	5.00
ds	≈	2.70	2.85	3.15	3.50	2.70	2.85	3.15	3.50

Norm: -ISO-DIN-
Grade: Case Harden
Material: Carbon Unit: mm

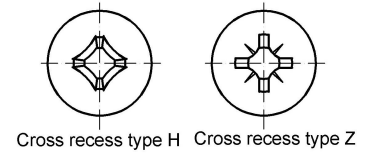
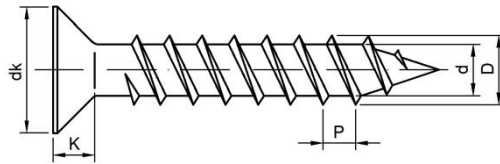
SIZE	SINGLE LEAD				DOUBLE LEAD				
	3.5	3.9	4.2	4.8	3.5	3.9	4.2	4.8	
P	2.8	2.8	2.8	3.1	1.4	1.6	1.7	2.1	
D	max	3.9	4.2	4.6	5.3	3.6	3.9	4.3	4.9
	min	3.65	3.9	4.3	4.9	3.4	3.7	4.05	4.7
d	max	2.45	2.5	3.0	3.5	2.42	2.6	3.0	3.4
	min	2.25	2.35	2.8	3.2	2.27	2.4	2.8	3.2
A	max	8.5			9.4	8.5			9.4
	min	7.9			8.5	7.9			8.5
Ls	max	6.5				6.5			
R	max	5.0				5.0			

MAIN PRODUCTS-Screws

CHIPBOARD SCREWS

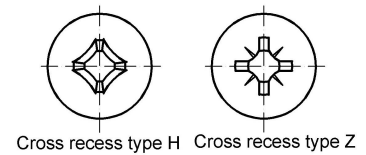
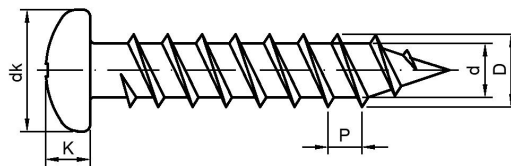


Norm: DIN7505-A
Grade: Case Harden
Material: Carbon steel



SIZE	2.5	3	3.5	4.0	4.5	5.0	6.0
P±10%	1.10	1.35	1.60	1.80	2.00	2.20	2.60
D	max	2.5	3	3.5	4.0	4.5	6.0
	min	2.25	2.75	3.2	3.7	4.2	5.7
d	max	1.5	1.9	2.15	2.5	2.7	3.7
	min	1.1	1.5	1.67	2.02	2.22	3.22
dk	max	5	6	7	8	9	12
	min	4.7	5.7	6.64	7.64	8.64	11.57
k≈	1.4	1.8	2.0	2.35	2.55	2.85	3.35

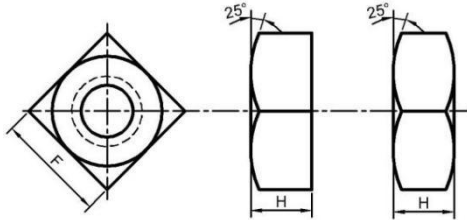
Norm: DIN7505-B
Grade: Case Harden
Material: Carbon steel



SIZE	2.5	3	3.5	4.0	4.5	5.0	6.0
P±10%	1.10	1.35	1.60	1.80	2.00	2.20	2.60
D	max	2.5	3	3.5	4.0	4.5	6.0
	min	2.25	2.75	3.2	3.7	4.2	5.7
d	max	1.5	1.9	2.15	2.5	2.7	3.7
	min	1.1	1.5	1.67	2.02	2.22	3.22
dk	max	5	6	7	8	9	12
	min	4.52	5.52	6.42	7.42	8.42	11.3
k	2	2.25	2.6	2.8	3	3.5	4.1

MAIN PRODUCTS-Nuts

SQUARE NUTS



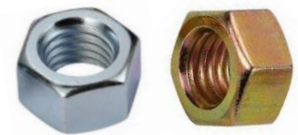
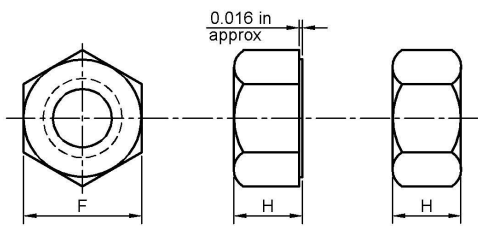
Norm: ASME/ANSI B18.2.2
Grade: ASTM A563 Gr.A
Material: Carbon/Stainless steel

SIZE	1/2	5/8	3/4	7/8	1	1-1/8	1-1/4	1-3/8	1-1/2
F	13/16	1	1-1/8	1-5/16	1-1/2	1-11/16	1-7/8	2-1/16	2-1/4
H	7/16	35/64	21/32	49/64	7/8	1	1-3/32	1-13/64	1-5/16

Norm: DIN557
Grade: ISO898-2 Cl.5
Material: Carbon/Stainless steel

SIZE	M5	M6	M8	M10	M12	M16
F	8	10	13	17	19	24
H	4	5	6.5	8	10	13

HEX NUTS



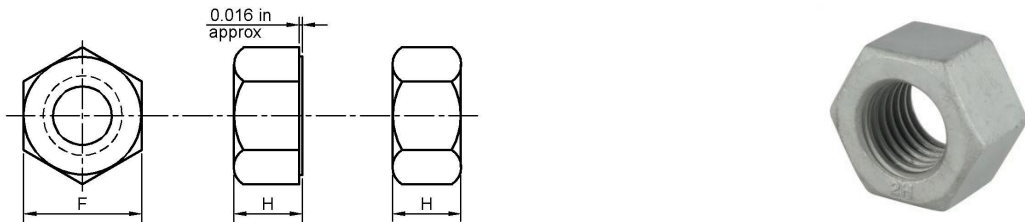
Norm: ASME/ANSI B18.2.2
Grade: SAE J995 Gr.2/5/8 & ASTM A563 Gr.A/B
Material: Carbon/Stainless steel

SIZE	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8
F	7/16	1/2	9/16	11/16	3/4	7/8	15/16	1-1/8	1-5/16
H	7/32	17/64	21/64	3/8	7/16	31/64	35/64	41/64	3/4
SIZE	1	1-1/8	1-1/4	1-3/8	1-1/2				
F	1-1/2	1-11/16	1-7/8	2-1/16	2-1/4				
H	55/64	31/32	1-1/16	1-11/64	1-9/32				

MAIN PRODUCTS-Nuts

Norm: DIN934									
Grade: ISO898-2 Cl.6/8/10									
Material: Carbon/Stainless steel									
SIZE	M3	M4	M5	M6	M8	M10	M12	M14	M16
F	5.5	7	8	10	13	17	19	22	24
H	2.4	3.2	4	5	6.5	8	10	11	13
SIZE	M18	M20	M22	M24	M27	M30	M33	M36	M39
F	27	30	32	36	41	46	50	55	60
H	15	16	18	19	22	24	26	29	31
SIZE	M42	M45	M48	M52	M56	M60	M64	M68	M72
F	65	70	75	80	85	90	95	100	105
H	34	36	38	42	45	48	51	54	58

HEAVY HEX NUTS

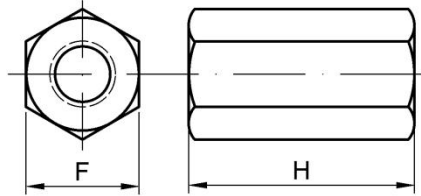


Norm: ASME/ANSI B18.2.2									
Grade: SAE J995 Gr.2 & ASTM A563 Gr.A/DH & ASTM A194 2H									
Material: Carbon									
SIZE	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8
F	1/2	9/16	11/16	3/4	7/8	15/16	1-1/16	1-1/4	1-7/16
H	15/64	19/64	23/64	27/64	31/64	35/64	39/64	47/64	55/64
SIZE	1	1-1/8	1-1/4	1-3/8	1-1/2	1-5/8	1-3/4	1-7/8	2
F	1-5/8	1-13/16	2	2-3/16	2-3/8	2-9/16	2-3/4	2-15/16	3-1/8
H	63/64	1-7/64	1-7/32	1-11/32	1-15/32	1-19/32	1-23/32	1-27/32	1-31/32

Norm: DIN6915								
Grade: ISO898-2 Cl.10								
Material: Carbon								
SIZE	M12	M16	M20	M22	M24	M27	M30	M36
F	22	27	32	36	41	46	50	60
H	10	13	16	18	20	22	24	29

MAIN PRODUCTS-Nuts

HEX COUPLING NUTS

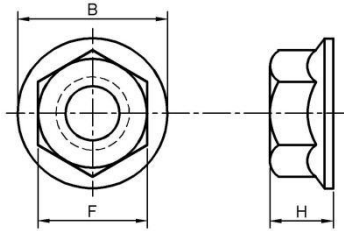


Norm: IFI-128									
Grade: SAE J995 Gr.2 & ASTM A563 Gr.A									
Material: Carbon/Stainless steel									
SIZE	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8
F	3/8	1/2	9/16	11/16	3/4	7/8	15/16	1-1/8	1-5/16
H	3/4	15/16	1-1/8	1-5/16	1-1/2	1-11/16	1-7/8	2-1/4	2-5/8

Norm: DIN6334									
Grade: ISO898-2 Cl.6									
Material: Carbon/Stainless steel									
SIZE	M6	M8	M10	M12	M14	M16	M18	M20	M22
F	10	13	17	19	22	24	27	30	32
H	18	24	30	36	42	48	54	60	66
SIZE	M24	M27	M30	M33	M36				
F	36	41	46	50	55				
H	72	81	90	99	108				

MAIN PRODUCTS-Nuts

HEX FLANGE NUTS



Norm: IFI-145

Grade: SAE J995 Gr.2/5/8

Material: Carbon/Stainless steel

SIZE		1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4
F		7/16	1/2	9/16	11/16	3/4	7/8	15/16	1-1/8
B	max	0.594	0.680	0.750	0.937	1.031	1.188	1.281	1.500
	min	0.574	0.660	0.728	0.910	1.000	1.155	1.248	1.460
H	max	0.236	0.283	0.347	0.395	0.458	0.506	0.569	0.675
	min	0.222	0.268	0.330	0.375	0.437	0.483	0.545	0.627

Norm: DIN6923

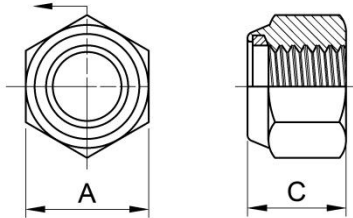
Grade: ISO898-2 Cl.6/8/10

Material: Carbon/Stainless steel

SIZE		M5	M6	M8	M10	M12	M14	M16	M20
F		8	10	13	15	18	21	24	30
B	max	11.8	14.2	17.9	21.8	26	29.9	34.5	42.8
	min	4.7	5.7	7.6	9.6	11.6	13.3	15.3	18.9

MAIN PRODUCTS-Nuts

NYLON INSERT LOCKNUTS



Norm: ASME B18.16.6
Grade: SAE J995 Gr.2/5/8
Material: Carbon

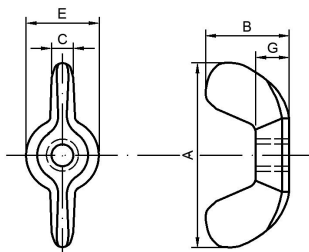
SIZE		1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8
A	max	0.439	0.502	0.564	0.627	0.752	0.877	0.940	1.064	1.252
	min	0.430	0.489	0.551	0.616	0.736	0.861	0.922	1.052	1.239
C	max	0.328	0.359	0.468	0.468	0.609	0.656	0.765	0.890	0.999
	min	0.298	0.329	0.438	0.438	0.579	0.626	0.735	0.860	0.969
SIZE		1	1-1/8	1-1/4	1-3/8	1-1/2				
A	max	1.440	1.627	1.815	2.008	2.197				
	min	1.427	1.614	1.801	1.973	2.159				
C	max	1.078	1.203	1.422	1.609	1.640				
	min	1.016	1.141	1.360	1.547	1.578				

Norm: DIN985
Grade: DIN267-4 Cl.5/8/10
Material: Carbon

SIZE		M3	M4	M5	M6	M7	M8	M10	M12	M14
A	max	5.5	7	8	10	11	13	17	19	22
C	min	4	5	5	6	7.5	8	10	12	14
SIZE		M16	M18	M20	M22	M24	M27	M30	M33	M36
A	max	24	27	30	32	36	41	46	50	55
C	max	16	18.5	20	22	24	27	30	33	36
SIZE		M39	M42	M45	M48					
A	max	60	65	70	75					
C	max	39	42	45	48					

MAIN PRODUCTS-Nuts

WING NUTS



Norm: ASME B18.16.9(Type A)
Material: Carbon/Stainless steel

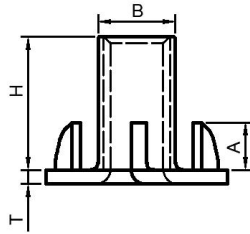
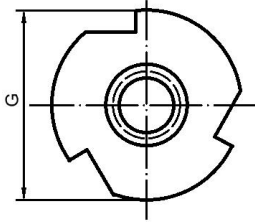
SIZE	Threads per Inch	Series	Nut Blank	A		B		C		E		G	
				Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1/4	20&28	Light	B	1.10	0.97	0.57	0.43	0.18	0.14	0.50	0.45	0.22	0.17
		Regular	C	1.25	1.12	0.66	0.53	0.21	0.17	0.58	0.51	0.25	0.20
		Heavy	D	1.44	1.31	0.79	0.65	0.24	0.20	0.70	0.64	0.30	0.26
5/16	18&24	Light	C	1.25	1.12	0.66	0.53	0.21	0.17	0.58	0.51	0.25	0.20
		Regular	D	1.44	1.31	0.79	0.65	0.24	0.20	0.70	0.64	0.30	0.26
		Heavy	E	1.94	1.81	1.00	0.87	0.33	0.26	0.93	0.86	0.39	0.35
3/8	16&24	Light	D	1.44	1.31	0.79	0.65	0.24	0.20	0.70	0.64	0.30	0.26
		Regular	E	1.94	1.81	1.00	0.87	0.33	0.26	0.93	0.86	0.39	0.35
7/16	14&20	Light	E	1.94	1.81	1.00	0.87	0.33	0.26	0.93	0.86	0.39	0.35
		Heavy	F	2.76	2.62	1.44	1.31	0.40	0.34	1.19	1.13	0.55	0.51
1/2	13&20	Light	E	1.94	1.81	1.00	0.87	0.33	0.26	0.93	0.86	0.39	0.35
		Heavy	F	2.76	2.62	1.44	1.31	0.40	0.34	1.19	1.13	0.55	0.51
9/16	12&18	Heavy	F	2.76	2.62	1.44	1.31	0.40	0.34	1.19	1.13	0.55	0.51
5/8	11&18	Heavy	F	2.76	2.62	1.44	1.31	0.40	0.34	1.19	1.13	0.55	0.51
3/4	10&16	Heavy	F	2.76	2.62	1.44	1.31	0.40	0.34	1.19	1.13	0.55	0.51

Norm: DIN315
Material: Carbon/Stainless steel

SIZE	M4	M5	M6	M8	M10	M12	M16	M20	M24	
A	max	20	26	33	39	51	65	73	90	110
	min	18	24	30	36	48	62	70	86	106
B	max	10.5	13	17	20	25	33.5	37.5	46.5	56.5
	min	8.5	11	15	18	23	31	35	44	53.5
G	max	4.6	6.5	8	10	12	14	17	21	25
	min	3.2	4	5	6.5	8	10	13	16	20

MAIN PRODUCTS-Nuts

TEE NUTS



Norm: Inch

Material: Carbon/Stainless steel

SIZE	A	B	G	H	T
6-32	1/8	0.188	1/2	1/4	0.035
8-32	7/32	0.208	23/32	1/4	0.030
10-24	7/32	0.243	3/4	5/16	0.040
	5/16			7/16	
10-32	7/32	0.243	3/4	5/16	0.040
	5/16			7/16	
1/4-20	3/16	0.305	3/4	1/4	0.047
	7/32			5/16	
	1/4			3/8	
	5/16			7/16	
	3/8			9/16	
5/16-18	9/32	0.390	7/8	5/16	0.063
	1/4			3/8	
	1/4			7/16	
	5/16			5/8	
3/8-16	9/32	0.420	1	5/16	0.063
	11/32			7/16	

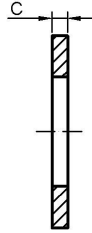
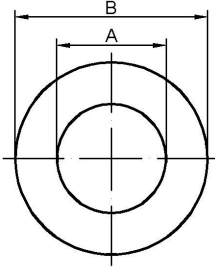
Norm: DIN1624

Material: Carbon/Stainless steel

SIZE	M3	M4	M5	M6	M8	M10
A	3.5	4.5	5.5	7	7.5	9
B	4.3	5	6.3	7.3	9.7	11.9
H	5	6	8	9	11	12
G	13	15	17	19	22	25

MAIN PRODUCTS-Washers

PLAIN WASHERS



Norm: ASME B18.22.1

Grade:

Material: Carbon/Alloy/Stainless steel/Brass

SIZE	1/4		5/16		3/8		7/16		1/2	
	SAE	USS	SAE	USS	SAE	USS	SAE	USS	SAE	USS
A	0.281	0.312	0.344	0.375	0.406	0.438	0.469	0.500	0.531	0.562
B	0.625	0.734	0.688	0.875	0.812	1.000	0.922	1.250	1.062	1.375
C	0.065	0.065	0.065	0.083	0.065	0.083	0.065	0.083	0.095	0.109

SIZE	9/16		5/8		3/4		7/8		1	
	SAE	USS	SAE	USS	SAE	USS	SAE	USS	SAE	USS
A	0.594	0.625	0.656	0.688	0.812	0.812	0.938	0.938	1.062	1.062
B	1.156	1.469	1.312	1.750	1.469	2.000	1.750	2.250	2.000	2.500
C	0.095	0.109	0.095	0.134	0.134	0.148	0.134	0.165	0.134	0.165

SIZE	1-1/8		1-1/4		1-3/8		1-1/2			
	SAE	USS	SAE	USS	SAE	USS	SAE	USS		
A	1.250	1.250	1.375	1.375	1.500	1.500	1.625	1.625		
B	2.250	2.750	2.500	3.000	2.750	3.250	3.000	3.500		
C	0.134	0.165	0.165	0.165	0.165	0.180	0.165	0.180		

Norm: DIN125A

Grade: 100HV/140HV/200HV

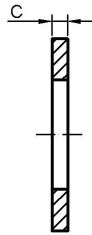
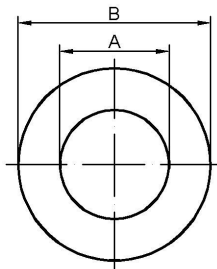
Material: Carbon/Alloy/Stainless steel/Brass

SIZE		4	5	6	8	10	12	16	20	24	30	36
A	max	4.48	5.48	6.62	8.62	10.77	13.27	17.27	21.33	25.33	31.39	37.62
	min	4.30	5.30	6.40	8.40	10.50	13.00	17.00	21.00	25.00	31.00	37.00
B	max	9	10	12	16	20	24	30	37	44	56	66
C		0.8	1	1.6	1.6	2	2.5	3	3	4	4	5

MAIN PRODUCTS-Washers

Norm: DIN9021												
Grade:												
Material: Carbon/Alloy/Stainless steel/Brass												
SIZE	4	5	6	8	10	12	16	20	24	30	36	
A	max	4.48	5.48	6.62	8.62	10.77	13.27	17.27	22.52	26.84	34.00	40.00
	min	4.30	5.30	6.40	8.40	10.50	13.00	17.00	22.00	26.00	33.00	39.00
B	max	12	15	18	24	30	37	50	60	72	92	110
C		1	1.2	1.6	2	2.5	3	3	4	5	6	8

HARDENED STRUCTURAL WASHERS

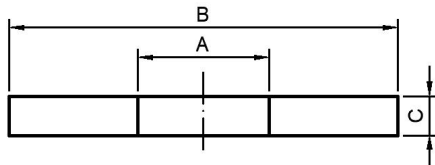


Norm: ASTM F436								
Grade: HRC38-45								
Material: Carbon steel								
SIZE	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8
A	9/32	11/32	13/32	15/32	17/32	11/16	13/16	15/16
B	5/8	11/16	13/16	59/64	1-1/16	1-5/16	1-15/32	1-3/4
C	max	0.051	0.051	0.051	0.051	0.097	0.122	0.136
	min	0.080	0.080	0.080	0.080	0.177	0.177	0.177
SIZE	1	1-1/8	1-1/4	1-3/8	1-1/2	1-3/4	2	2-1/4
A	1-1/8	1-1/4	1-3/8	1-1/2	1-5/8	1-7/8	2-1/8	2-3/8
B	2	2-1/4	2-1/2	2-3/4	3	3-3/8	3-3/4	4
C	max	0.136	0.136	0.136	0.136	0.136	0.178	0.24
	min	0.177	0.177	0.177	0.177	0.177	0.280	0.34
SIZE	2-1/2	2-3/4	3	3-1/4	3-1/2	3-3/4	4	
A	2-5/8	2-7/8	3-1/8	3-3/8	3-5/8	3-7/8	4-1/8	
B	4-1/2	5	5-1/2	6	6-1/2	7	7-1/2	
C	max	0.24	0.24	0.24	0.24	0.24	0.24	
	min	0.34	0.34	0.34	0.34	0.34	0.34	

MAIN PRODUCTS-Washers

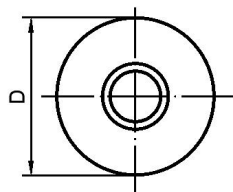
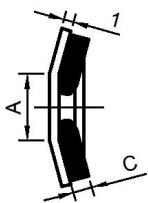
Norm: DIN6916								
Grade: 295~350HV10								
Material: Carbon steel								
SIZE	M12	M16	M20	M22	M24	M27	M30	M36
A	13	17	21	23	25	28	31	37
B	24	30	37	39	44	50	56	66
C	3	4	4	4	4	5	5	6

SQUARE WASHERS



Norm: DIN436								
Grade: 100HV								
Material: Carbon/Stainless steel								
SIZE	M10	M12	M16	M20	M22	M24	M27	M30
A	11	13.5	17.5	22	24	26	30	33
B	30	40	50	60	70	80	90	95
C	3	4	5	5	6	6	6	6
SIZE	M33	M36	M39	M42	M45	M48	M52	
A	36	39	42	45	48	52	56	
B	100	110	125	135	140	150	160	
C	6	8	8	8	8	10	10	

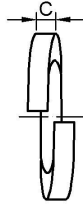
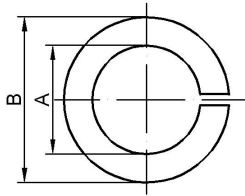
EPDM BONDED SEALING WASHERS



SIZE(D)	16	18	22	25
A	6.7	6.7	6.7	6.7
C	2	3	3	3

MAIN PRODUCTS-Washers

SPRING LOCK WASHERS



Norm: ASME B18.21.1

Grade: HRC38-46

Material: Carbon/Stainless steel

SIZE		1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4
A	max	0.260	0.322	0.385	0.450	0.512	0.574	0.641	0.766
	min	0.252	0.314	0.377	0.440	0.502	0.564	0.628	0.753
B	max	0.487	0.583	0.680	0.776	0.869	0.965	1.073	1.265
C	min	0.062	0.078	0.094	0.109	0.125	0.141	0.156	0.188
SIZE		7/8	1	1-1/8	1-1/4	1-3/8	1-1/2	1-3/4	2
A	max	0.894	1.024	1.153	1.280	1.408	1.534	1.789	2.039
	min	0.878	1.003	1.129	1.254	1.379	1.504	1.758	2.008
B	max	1.459	1.656	1.847	2.036	2.219	2.419	2.679	2.936
C	min	0.219	0.250	0.281	0.312	0.344	0.375	0.389	0.422

Norm: DIN127B

Grade: HV430-530

Material: Carbon/Stainless steel

SIZE		4	5	6	8	10	12	16	20	24	30	36
A	max	4.4	5.4	6.5	8.5	10.7	12.7	17	21.2	25.5	31.7	37.7
	min	4.1	5.1	6.1	8.1	10.2	12.2	16.2	20.2	24.5	30.5	36.5
B	max	7.6	9.2	11.8	14.8	18.1	21.1	27.4	33.6	40	48.2	58.2
C		0.9	1.2	1.6	2	2.2	2.5	3.5	4	5	6	6

OTHER PRODUCTS



Hole Pin



Flat Head Toilet Bolt



Hole Flat Head Bolt



Rail Nail



Boconcave Nut



Pig Tail Screw



Sleeve Anchor Bolts



G43 Chain with Twin Clevis



Dome Head Bolt