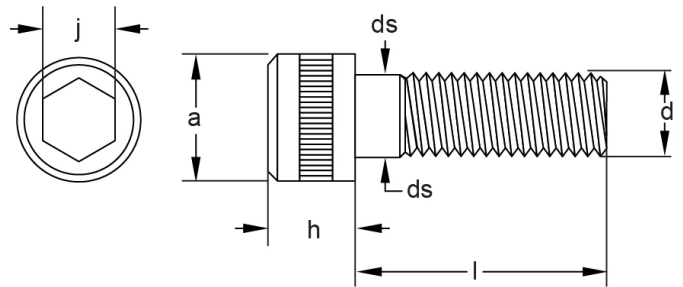


SOCKET SCREWS

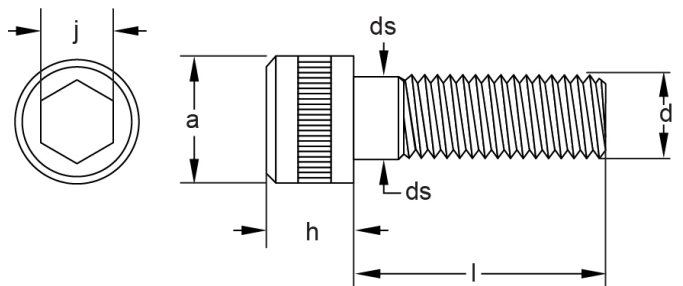
Socket screws

Metric Hexagon Socket Cap Screws, Property Class 12.9



Diameter mm	Pitch mm	a		ds		h		Thread	j
		Min	Max	Min	Max	Min	Max		
M2	0.40	3.62	3.80	1.86	2.00	1.91	2.00	16	1.5
M3	0.50	5.32	5.50	2.86	3.00	2.89	3.00	18	2.5
M4	0.70	6.78	7.00	3.82	4.00	3.88	4.00	20	3.0
M5	0.80	8.28	8.50	4.82	6.00	4.86	5.00	22	4.0
M6	1.00	9.78	10.00	5.82	6.00	5.85	6.00	24	5.0
M8	1.25	12.73	13.00	7.78	8.00	7.83	8.00	28	6.0
M10	1.50	15.73	16.00	9.78	10.00	9.81	10.00	32	8.0
M12	1.75	17.73	18.00	11.73	12.00	11.79	12.00	36	10.0
M14	2.00	20.67	21.00	13.73	14.00	13.57	14.00	40	12.0
M16	2.00	23.67	24.00	15.73	16.00	15.57	16.00	44	14.0
M20	2.50	29.67	30.00	19.67	20.00	19.48	20.00	52	17.0
M24	3.00	35.61	36.00	23.67	24.00	23.48	24.00	60	19.0
M30	3.50	44.61	45.00	29.67	30.00	29.48	30.00	72	22.0
M36	4.00	53.54	54.00	35.61	36.00	35.38	36.00	84	27.0
M42	4.50	62.54	63.00	41.61	42.00	41.38	42.00	96	32.0
M48	5.00	71.54	72.00	47.61	48.00	47.38	48.00	108	36.0

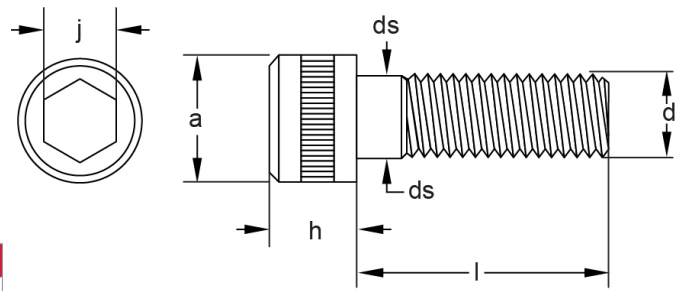
Metric Fine Hexagon Socket Cap Screws, Property Class 12.9



Diameter mm	Pitch mm	a		ds		h		Thread	j
		Min	Max	Min	Max	Min	Max		
M8	1.00	12.73	13.00	7.78	8.00	7.83	8.00	28	6.0
M10	1.25	15.73	16.00	9.78	10.00	9.81	10.00	32	8.0
M12	1.25	17.73	18.00	11.73	12.00	11.79	12.00	36	10.0
M14	1.50	20.67	21.00	13.73	14.00	13.57	14.00	40	12.0
M16	1.50	23.67	24.00	15.73	16.00	15.57	16.00	44	14.0

**UNC & UNF Hexagon Socket Cap Screws,
Alloy Steel**

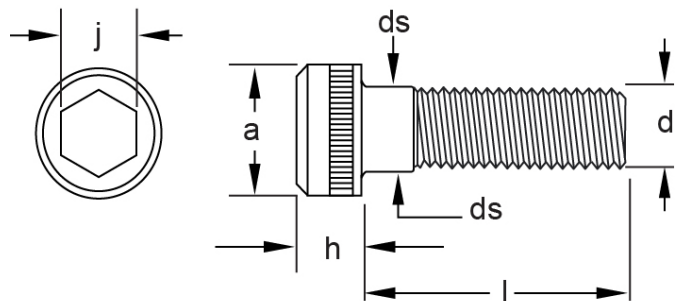
 **ASME B18.3 (1960 Series)**



Diameter	Pitch TPI		a	ds	h	j
	UNC	UNF				
No 4	40	48	0.183	0.112	0.112	3/32
No 5	40	44	0.205	0.125	0.125	3/32
No 6	32	40	0.226	0.138	0.138	7/64
No 8	32	36	0.270	0.164	0.164	9/64
No 10	24	32	0.312	0.190	0.190	5/32
1/4	20	28	0.375	0.250	0.250	3/16
5/16	18	24	0.469	0.313	0.313	1/4
3/8	16	24	0.562	0.375	0.375	5/16
7/16	14	20	0.656	0.438	0.438	3/8
1/2	13	20	0.750	0.500	0.500	3/8
5/8	11	18	0.938	0.625	0.625	1/2
3/4	10	16	1.125	0.750	0.750	5/8
7/8	9	14	1.125	0.875	0.875	3/4
1	8	12	1.312	1.000	1.000	3/4
1 1/4	7	12	1.875	1.250	1.250	7/8
1 1/2	6	12	2.250	1.500	1.500	1

**Metric Low Head Socket Cap Screws,
Property Class 10.9**

 **DIN 7984**



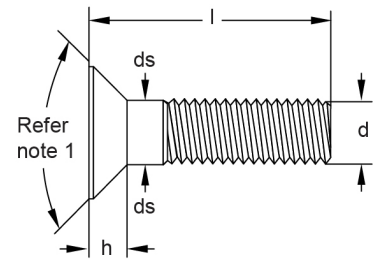
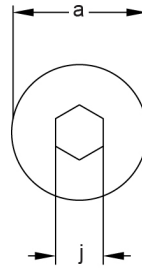
Diameter mm	Pitch mm	a	ds	h	j
		Max	Max	Max	Nom
M4	0.70	7.0	4.0	2.8	2.5
M5	0.80	8.5	5.0	3.5	3.0
M6	1.00	10.0	6.0	4.0	4.0
M8	1.25	13.0	8.0	5.0	5.0
M10	1.50	16.0	10.0	6.0	7.0
M12	1.75	18.0	12.0	7.0	8.0

SOCKET SCREWS

Metric Flat Countersunk Socket Head Screws



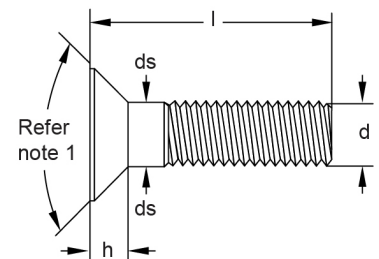
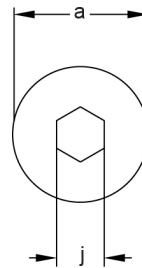
Diameter	Pitch mm	a		ds	h	j
		Min	Max	Max	Max	Nom
M3	0.50	5.70	6.00	3.0	1.70	2.0
M4	0.70	7.64	8.00	4.0	2.30	2.5
M5	0.80	9.64	10.00	5.0	2.80	3.0
M6	1.00	11.57	12.00	6.0	3.30	4.0
M8	1.25	15.57	16.00	8.0	4.40	5.0
M10	1.50	19.48	20.00	10.0	5.50	6.0
M12	1.75	23.48	24.00	12.0	6.50	8.0
M14	2.00	26.48	27.00	14.0	7.00	10.0
M16	2.00	29.48	30.00	16.0	7.50	10.0
M20	2.50	35.38	36.00	20.0	8.50	12.0
M24	3.00	38.38	39.00	24.0	14.00	14.0



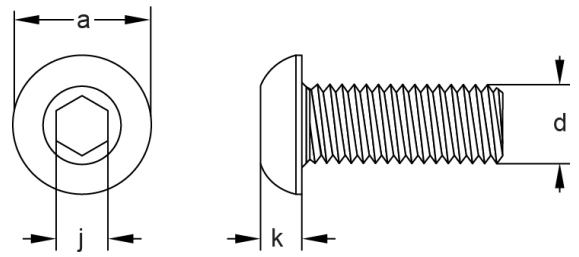
UNC & UNF Flat Countersunk Socket Head Screws



Diameter	Pitch TPI		a		ds	h	j
	UNC	UNF	Min	Max	Max	ref	Nom
No 4	40	48	0.218	0.255	0.1120	0.083	1/16
No 5	40	44	0.240	0.281	0.1250	0.090	5/64
No 6	32	40	0.263	0.307	0.1380	0.097	5/64
No 8	32	36	0.311	0.359	0.1640	0.112	3/32
No 10	24	32	0.359	0.411	0.1900	0.127	1/8
1/4	20	28	0.480	0.531	0.2500	0.161	5/32
5/16	18	24	0.600	0.656	0.3125	0.198	3/16
3/8	16	24	0.720	0.781	0.3750	0.234	7/32
7/16	14	20	0.781	0.844	0.4375	0.234	1/4
1/2	13	20	0.872	0.938	0.5000	0.251	5/16
5/8	11	18	1.112	1.188	0.6250	0.324	3/8
3/4	10	16	1.355	1.438	0.7500	0.396	1/2
7/8	9	14	1.604	1.688	0.8750	0.468	9/16
1	8	12	1.841	1.938	1.0000	0.540	5/8

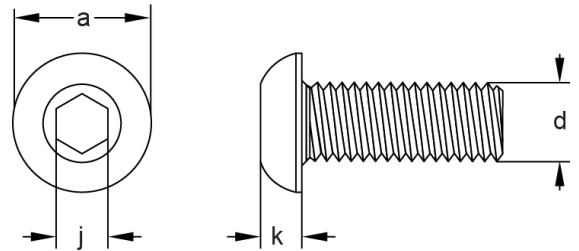


Metric Socket Button Head Screws



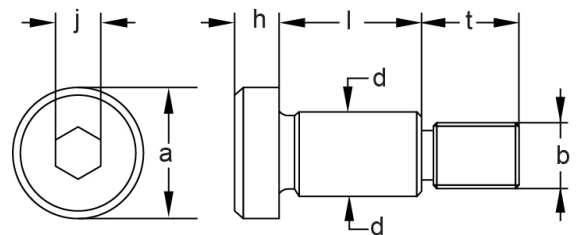
Diameter	Pitch mm	a	j	k
		Max	Nom	Max
M3	0.50	5.70	2.0	1.65
M4	0.70	7.60	2.5	2.20
M5	0.80	9.50	3.0	2.75
M6	1.00	10.50	4.0	3.30
M8	1.25	14.00	5.0	4.40
M10	1.50	17.50	6.0	5.50
M12	1.75	21.00	8.0	6.60
M16	2.00	28.00	10.0	8.80

UNC & UNF Socket Button Head



Diameter	a	j	k
	Max	Nom	Max
No 4	0.213	1/16	0.059
No 6	0.262	5/64	0.073
No 8	0.312	3/32	0.087
No 10	0.361	1/8	0.101
1/4	0.437	5/32	0.132
5/16	0.547	3/16	0.166
3/8	0.656	7/32	0.199
1/2	0.875	5/16	0.265
5/8	1.000	3/8	0.331

Metric Socket Shoulder Screws



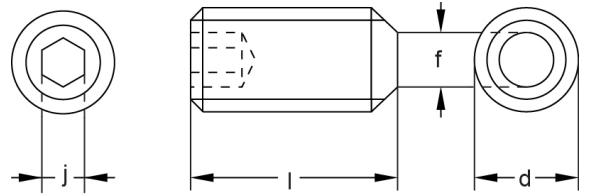
Normal Size	d		a	h	b	t	j
	Min	Max	Min	Max	Max	Max	Nom
M5	5.960	5.990	10.00	4.5	M5	9.50	3.0
M6	7.951	7.987	13.00	5.5	M6	11.00	4.0
M8	9.951	9.987	16.00	7.0	M8	13.00	5.0
M10	11.941	11.984	18.00	9.0	M10	16.00	6.0
M12	15.941	15.984	24.00	11.0	M12	18.00	8.0
M16	19.928	19.980	30.00	14.0	M16	22.00	10.0
M20	23.928	23.980	36.00	16.0	M20	27.00	12.0

SOCKET SCREWS

Socket Set Screws Metric Coarse Pitch Threads

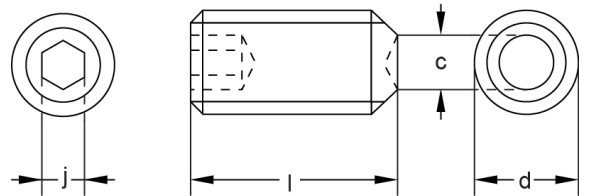
ISO 4026 to 4029

Diameter	j	f	c	h	p
	Nom	Max	Max	Max	Max
M2	0.9	1.0	1.0		
M2.5	1.3	1.5	1.2		
M3	1.5	2.0	1.4	2.0	1
M4	2.0	2.5	2.0	2.5	1.25
M5	2.5	3.5	2.5	3.5	1.5
M6	3.0	4.0	3.0	4.0	1.75
M8	4.0	5.5	5.0	5.5	2.25
M10	5.0	7.0	6.0	7.0	2.75
M12	6.0	8.5	8.0	8.5	3.25
M16	8.0	12.0	10.0	12.0	4.3
M20	10.0	15.0	14.0	15.0	5.3
M24	12.0	18.0	16.0	18.0	6.3



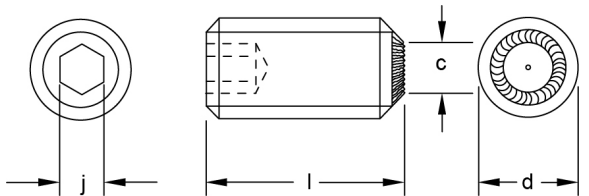
ISO 4026

Flat Point



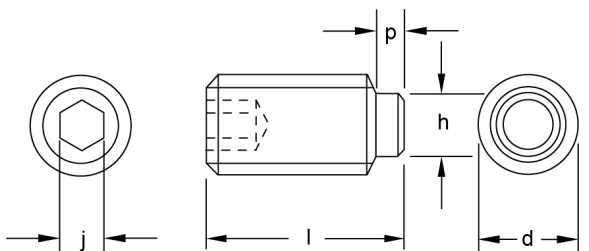
ISO 4029

Cup Point



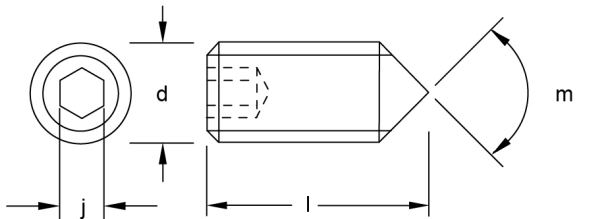
ISO 4029

Knurled Cup Point



ISO 4028

Dog Point



ISO 4027

Cone Point

Socket Set Screws UNC, UNF Threads

ASME B18.3

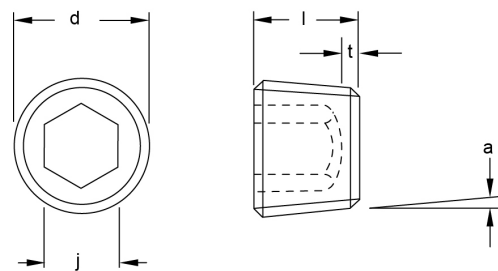
Diameter	j	f	c	r	h	p
	Nom	Max	Max	Max	Max	Max
No 5	1/16	0.067	0.067	0.094	0.083	0.033
No 6	1/16	0.074	0.074	0.104	0.092	0.038
No 8	5/64	0.087	0.087	0.123	0.109	0.043
No 10	3/32	0.102	0.102	0.142	0.127	0.049
1/4	1/8	0.132	0.132	0.188	0.156	0.067
5/16	5/32	0.172	0.172	0.234	0.203	0.082
3/8	3/16	0.212	0.212	0.281	0.250	0.099
7/16	7/32	0.252	0.252	0.328	0.297	0.114
1/2	1/4	0.291	0.291	0.375	0.344	0.130
5/8	5/16	0.371	0.371	0.469	0.496	0.164
3/4	3/8	0.450	0.450	0.562	0.562	0.196
7/8	1/2	0.530	0.530	0.656	0.656	0.227
1	9/16	0.609	0.609	0.750	0.750	0.260

NPTF Dryseal Type Plugs Taper, 3/4" per foot



ASME B2.2 & B1.20.3

NPTF Size	d Nom	Pitch TPI	j Nom	k Min	Overall length l		
					Nom	Min	Max
1/8	0.405	27	3/16	0.062	5/16	0.300	0.324
1/4	0.540	18	1/4	0.073	7/16	0.417	0.457
3/8	0.675	18	5/16	0.084	1/2	0.480	0.520
1/2	0.840	14	3/8	0.095	9/16	0.542	0.582
3/4	1.050	14	9/16	0.125	5/8	0.605	0.645
1	1.315	11.5	5/8	0.125	3/4	0.730	0.770
1 1/4	1.660	11.5	3/4	0.156	13/16	0.792	0.832
1 1/2	1.900	11.5	1	0.156	13/16	0.780	0.843

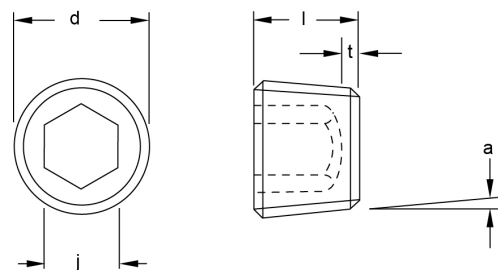


BSPT Dryseal Type Plugs Taper, 3/4" per foot



BS 21

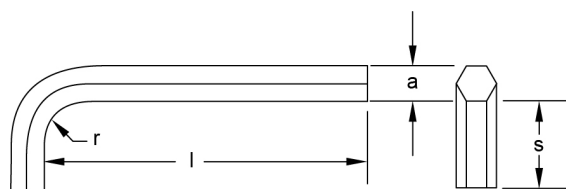
BSPT Size	d Nom	Pitch TPI	j Nom	k Min	Overall length l		
					Nom	Min	Max
1/8	0.399	28	3/16	0.081	3/8	0.370	0.380
1/4	0.538	19	1/4	0.112	1/2	0.495	0.505
3/8	0.679	19	5/16	0.161	9/16	0.557	0.567
1/2	0.853	14	3/8	0.175	11/16	0.682	0.692
5/8	0.933	14	1/2	0.175	3/4	0.745	0.755
3/4	1.072	14	9/16	0.238	13/16	0.807	0.817
1	1.332	11	5/8	0.238	1	0.995	1.005
1 1/4	1.703	11	3/4	0.350	1 1/4	1.245	1.255
1 1/2	1.933	11	3/4	0.350	1 1/4	1.245	1.255



SOCKET SCREWS

Metric Hexagon Socket Wrenches

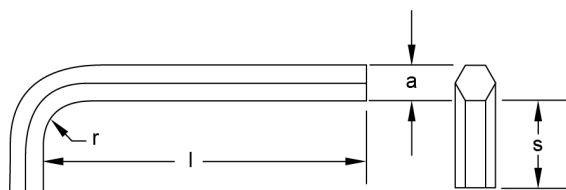
 **ISO 2936 DIN911**



Key Size a			r	s	Std Series	Long Series
Nom mm	Min	Max	Approx	Nom	l Nom	l Nom
1.5	1.47	1.50	3.0	14.0	45.0	62.0
2	1.97	2.00	4.0	16.0	50.0	75.0
2.5	2.47	2.50	5.0	18.0	56.0	85.0
3	2.96	3.00	6.0	20.0	63.0	90.0
4	3.96	4.00	7.0	25.0	70.0	100.0
5	4.96	5.00	8.0	28.0	80.0	115.0
6	5.95	6.00	9.0	32.0	90.0	135.0
8	7.95	8.00	11.0	36.0	100.0	150.0
10	9.95	10.00	12.0	40.0	112.0	170.0
12	11.95	12.00	14.0	45.0	125.0	190.0
14	13.93	14.00	16.0	56.0	140.0	215.0
17	16.93	17.00	19.0	60.0	160.0	245.0
19	18.93	19.00	21.0	70.0	180.0	265.0
22	21.93	22.00	24.0	80.0	200.0	275.0
24	23.93	24.00	26.0	90.0	224.0	299.0
27	26.82	27.00	29.0	100.0	250.0	315.0
32	31.82	32.00	34.0	125.0	315.0	364.0

Imperial Hexagon Socket Wrenches

 **ASME B18.3**



Key Size a			r	s	Short Series	Long Series
Nom mm	Min	Max	Min	Min	l Max	l Max
0.028	0.0275	0.0280	0.062	0.125	1.312	2.688
0.035	0.0345	0.0350	0.062	0.250	1.312	2.766
0.050	0.0490	0.0500	0.062	0.438	1.750	2.938
1/16	0.0615	0.0625	0.062	0.469	1.844	3.094
5/64	0.0771	0.0781	0.078	0.516	1.969	3.281
3/32	0.0927	0.0937	0.094	0.562	2.094	3.469
7/64	0.1079	0.1094	0.109	0.609	2.219	3.656
1/8	0.1235	0.1250	0.125	0.656	2.344	3.844
9/64	0.1391	0.1406	0.141	0.703	2.469	4.031
5/32	0.1547	0.1563	0.156	0.750	2.594	4.219
3/16	0.1860	0.1875	0.188	0.844	2.844	4.594
7/32	0.2172	0.2187	0.219	0.938	3.094	4.969
1/4	0.2485	0.2500	0.250	1.031	3.344	5.344
5/16	0.3110	0.3125	0.312	1.156	3.844	6.094
3/8	0.3730	0.3750	0.375	1.281	4.344	6.844
7/16	0.3455	0.4375	0.438	1.406	4.844	7.594
1/2	0.4975	0.5000	0.500	1.531	5.344	8.344
9/16	0.5600	0.5625	0.562	1.656	5.844	9.094
5/8	0.6225	0.6250	0.625	1.781	6.344	9.844
3/4	0.7470	0.7500	0.750	2.031	7.344	11.344
7/8	0.8720	0.8750	0.875	2.281	8.344	12.844
1	0.9970	1.0000	1.000	2.531	9.344	14.344