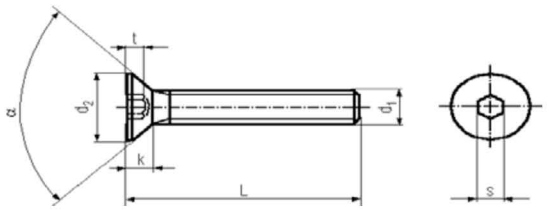

**********Notice**********

Lindstrom Metric, LLC will supply all Flat Head Socket Cap Screws With Full Thread, not according to below formulas.

Thread Size d1		(M2)	(M2.5)	M3	M4	M5	M6	M8	M10	M12	(M14)	M16	(M18)	M20	(M22)	M24
Thread Pitch		0.4	0.45	0.5	0.7	0.8	1	1.25	1.5	1.75	2	2	2.5	2.5	2.5	3
Head Angle a		90°	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°	90°	60°	60°
DIN 7991 Thread Length Formula	For Lengths ≤125mm	10	11	12	14	16	18	22	26	30	34	38	42	46	50	54
	For Lengths >125mm≤200mm						24	28	32	36	40	44	48	52	56	60
	For Lengths >200 mm								45	49	53	57	61	65	69	73
	ISO 10642 & ANSI B18.3.5M use a shank length / grip length formula to determine thread length. - Refer to full ISO or ANSI standard for more details.															
DIN 7991 Head Dia. d2	min.	3.70	4.70	5.70	7.64	9.64	11.57	15.57	19.48	23.48	26.48	29.48	32.38	35.38	35.38	38.38
	max. = nominal	4.00	5.00	6.00	8.00	10.00	12.00	16.00	20.00	24.00	27.00	30.00	33.00	36.00	36.00	39.00
ISO 10642 Head Dia. d2	min.			5.54	7.53	9.43	11.34	15.24	19.22	23.12	26.52	29.01		36.05		
	max. = theoretical			6.72	8.96	11.20	13.44	17.92	22.40	26.88	30.80	33.60		40.32		
ANSI B18.3.5M Head Dia. d2	min.			5.35	7.80	9.75	11.70	15.65	19.50	23.40	26.18	23.76		34.60		
	max. = theoretical			6.72	8.96	11.20	13.44	17.92	22.40	26.88	30.24	33.60		40.32		
	ISO 10642 & ANSI B18.3.5M use a theoretical value for the max head diameter, which represents the exact diameter of a hole countersunk to exactly 90° in which a screw having the maximum head size will fit flush. - Refer to full ISO or ANSI standard for more details.															
DIN 7991 Head Height k	max.	1.2	1.5	1.7	2.3	2.8	3.3	4.4	5.5	6.5	7.0	7.5	8.0	8.5	13.1	14.0
ISO 10642 Head Height k	max. = reference			1.86	2.48	3.10	3.72	4.96	6.20	7.44	8.40	8.80		10.16		
ANSI B18.3.5M Head Height k	max. = reference			1.86	2.48	3.10	3.72	4.96	6.20	7.44	8.12	8.80		10.16		
	ISO 10642 & ANSI B18.3.5M show Head Height k as a reference point only. - Refer to full ISO or ANSI standard for more details.															
	For DIN 7991 / ISO 10642 / ANSI B18.3.5M, the overall length of the screw includes the head.															
DIN 7991 Key Size s	Nominal Size	1.3	1.5	2	2.5	3	4	5	6	8	10	10	12	12	14	14
	min.	1.275	1.545	2.020	2.520	3.020	4.020	5.020	6.020	8.025	10.025	10.025	12.032	12.032	14.032	14.032
	max.	1.300	1.520	2.100	2.600	3.100	4.120	5.140	6.140	8.175	10.175	10.175	12.212	12.212	14.212	14.212
ISO 10642 Key Size s	Nominal Size			2	2.5	3	4	5	6	8	10	10		12		
	min.			2.020	2.520	3.020	4.020	5.020	6.020	8.025	10.025	10.025		12.032		
	max.			2.060	2.580	3.080	4.095	5.140	6.140	8.175	10.175	10.175		12.212		
ANSI B18.3.5M Key Size s	Nominal Size			2	2.5	3	4	5	6	8	10	10		12		
	min.			2.020	2.520	3.020	4.020	5.020	6.020	8.025	10.025	10.025		12.032		
	max.			2.045	2.560	3.071	4.084	5.084	6.095	8.115	10.115	10.115		12.142		
DIN 7991 Key Engagement t	min.	0.750	0.800	0.950	1.550	2.050	2.250	3.200	4.100	4.300	4.500	5.000	5.200	5.600	8.440	9.870
ISO 10642 Key Engagement t	min.			1.100	1.500	1.900	2.200	3.000	3.600	4.300	4.500	4.800		5.600		
ANSI B18.3.5M Key Engagement t	min.			1.100	1.500	1.900	2.200	3.000	3.600	4.300	4.700	4.800		5.600		

Length Tolerance	DIN 7991 / ISO 10642		ANSI B18.3.5M		Length Tolerance	DIN 7991 / ISO 10642		ANSI B18.3.5M	
Nominal Length	min.	max.	min.	max.	Nominal Length	min.	max.	min.	max.
(4)	3.76	4.24	3.70	4.30	30	29.58	30.42	29.50	30.50
(5)	4.76	5.24	4.70	5.30	35	34.50	35.50	34.50	35.50
(6)	5.76	6.24	5.70	6.30	40	39.50	40.50	39.50	40.50
8	7.71	8.29	7.70	8.30	45	44.50	45.50	44.50	45.50
10	9.71	10.29	9.70	10.30	50	49.50	50.50	49.50	50.50
12	11.65	12.35	11.70	12.30	(55)	54.40	55.60	54.50	55.50
(14)	13.65	14.35	13.70	14.30	60	59.40	60.60	59.50	60.50
16	15.65	16.35	15.70	16.30	(65)	64.40	65.60	64.20	65.80
(18)	17.65	18.35	17.50	18.50	70	69.40	70.60	69.20	70.80
20	19.58	20.42	19.50	20.50	(75)	74.40	75.60	74.20	75.80
(22)	21.58	22.42	21.50	22.50	80	79.40	80.60	79.20	80.80
25	24.58	25.42	24.50	25.50	90	89.30	90.70	89.20	90.80
(28)	27.58	28.42	27.50	28.50	100	99.30	100.70	99.20	100.80

********Notice********

Diameters and or Lengths shown with ( ) are not shown in some standards and are not recommended for use in new design.

********Notice********

DIN 7991, ISO 10642, and ANSI B18.3.5M are not intended for high strength applications. The only purpose of having them produced in property class 10.9 or 12.9 is to increase the wear resistance of the socket drive.

	DIN 7991 / ISO 10642		ANSI B18.3.5M
Material	Steel	Stainless Steel	Steel
Property Class	10.9	A2 & A4	12.9
Tensile Strength	145000 psi	101500 psi	150800 psi
Finish	Furnace Black	Plain	Furnace Black
Thread Tolerance	6g	6g	4g6g

FOR MORE DETAILED INFORMATION, PLEASE REFER TO COMPLETE DIN, ISO OR ANSI STANDARD, WHICH ARE THE GOVERNING STANDARDS

DIN 7991 (1986) / ISO 10642 (1997) / ANSI B18.3.5M (1986 REV. 1993)- LFG 10/01/2016 REVISED

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