

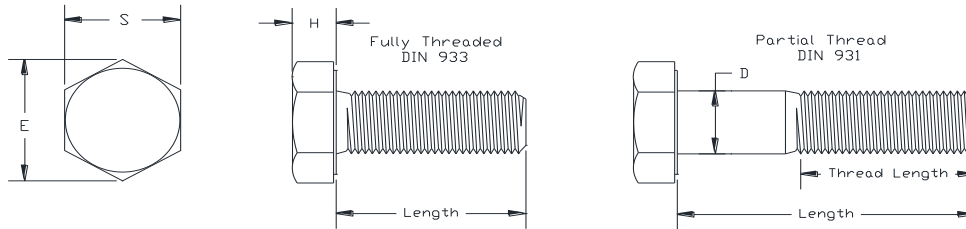
Metric Hex Head Cap Screw

Partial Thread (DIN 931)

Full Thread (DIN 933)

8/22/18

Earnest's line of metric hex cap screws are made to the dimensional requirements per the German industrial standards DIN 931 and 933. DIN 931 defines the dimensional requirements for partially threaded sizes and DIN 933 defines the dimensional requirements for fully threaded sizes.



Size	Thread Pitch	S WAF		E WAC	H Head Height		Body Dia. (for DIN 931)		Thread Length* (for DIN 931)	DIN 931 Partial Thread Starts at
		Max	Min	Min	Max	Min	Max	Min	Min	
M6	1.0	10	9.78	11.05	4.15	3.85	6.0	5.82	18	30
M8	1.25	13	12.73	14.38	5.45	5.15	8.0	7.78	22	35
M10	1.5	17	16.73	18.9	6.58	6.22	10.0	9.78	26	40
M12	1.75	19	18.67	21.1	7.68	7.32	12.0	11.73	30	45
M14	2.0	22	21.67	24.49	8.98	8.62	14.0	13.73	34	50
M16	2.0	24	23.67	26.75	10.18	9.82	16.0	15.73	38	55
M18	2.5	27	26.67	30.14	11.72	11.28	18.0	17.73	42	65
M20	2.5	30	29.67	33.53	12.72	12.28	20.0	19.67	46	65
M22	2.5	32	31.61	35.72	14.22	13.78	22.0	21.67	50	70
M24	3.0	36	35.38	39.98	15.22	14.78	24.0	23.67	54	80
M30	3.5	46	45.0	50.85	19.12	18.28	30.0	29.48	60	90
M36	4.0	55	53.8	60.79	22.92	22.08	36.0	35.38	66	110

*thread lengths listed are min thread lengths for DIN 931 cap screws in length up to 125mm long

Material:

Earnest offers metric cap screws in the two most popular strength levels. Property Class 8.8 (medium strength grade that corresponds to the inch strength level Grade 5) and Property Class 10.9 (high strength grade that corresponds to the inch strength level Grade 8)



Property Class 8.8



Property Class 10.9

Material:

Tensile Strength: dia. up to M16
dia. over M16

Proof Load Strength: dia. up to M16
dia. over M16

Rockwell Hardness: dia. up to M16
dia. over M16

Medium Carbon Steel

800 MPa min

830 MPa min

640 MPa min

600 MPa min

Rc 22/32

Rc 23/34

Alloy Steel

1,040 MPa min

1,040 MPa min

940 MPa min

940 MPa min

Rc 32/39

Rc 32/39

Platings:

Our DIN metric hex cap screws are stocked in Plain finish or Zinc plated. Zinc plated parts are RoHS/REACH compliant zinc with trivalent clear chromate per the requirements of ASTM F1941 Fe/Zn 5BN (.0002" min thickness) Other platings and coatings are available upon request.