



**Notes to figure 1:**

- a - The 120 degree angle is a requirement for the shortest length screws for each diameter.
- b - The 45 degree angle only applies to the portion of the point situated below the root diameter of the thread.
- c - There may be up to 2 incomplete threads at the end of the bolt.
- d - A slight radius.
- e - A slight rounding or countersink at the mouth of the socket may be present.

**Table 1: Dimensions & Tolerances according to ISO 4028 / DIN 915**

Thread, d		M1.6	M2	M2.5	M3	M4	M5	M6	M8	M10	M12	M16	M20	M24
thread pitch (standard metric coarse)		0.35	0.4	0.45	0.5	0.7	0.8	1	1.25	1.5	1.75	2	2.5	3
diameter of dog point	d <sub>p</sub> max.	0.80	1.00	1.50	2.00	2.50	3.50	4.00	5.50	7.00	8.50	12.00	15.00	18.00
	d <sub>p</sub> min.	0.55	0.75	1.25	1.75	2.25	3.2	3.7	5.2	6.64	8.14	11.57	14.57	17.57
diameter of the face	d <sub>f</sub>	≈ (approx.) Minor thread diameter												
socket width across corners	e min.	0.809	1.011	1.454	1.733	2.303	2.873	3.443	4.583	5.723	6.863	9.149	11.429	13.716
socket width across flats	s nom.	0.7	0.9	1.3	1.5	2	2.5	3	4	5	6	8	10	12
	s max.	0.724	0.913	1.300	1.580	2.080	2.580	3.080	4.095	5.140	6.140	8.175	10.175	12.212
	s min.	0.710	0.887	1.275	1.520	2.020	2.520	3.020	4.202	5.020	6.020	8.025	10.025	12.032
socket depth	t min. (shortest lengths)	0.7	0.8	1.2	1.2	1.5	2	2	3	4	4.8	6.4	8	10
	t min. (other lengths)	1.5	1.7	2	2	2.5	3	3.5	5	6	8	10	12	15
length of dog point (shortest screw lengths)	z max.	0.65	0.75	0.88	1.00	1.25	1.50	1.75	2.25	2.75	3.25	4.30	5.30	6.30
	z min.	0.40	0.50	0.63	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00	6.00
length of dog point (other screw lengths)	z max.	1.05	1.25	1.50	1.75	2.25	2.75	3.25	4.30	5.30	6.30	8.36	10.36	12.43
	z min.	0.80	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00	6.00	8.00	10.00	12.00

**Table 2: Shank Length Tolerance according to ISO 4028 / DIN 915**

<b>thread length (mm)</b>	<b>+/- (mm)</b>
2-3	0.2
4-6	0.24
8-10	0.29
12-16	0.35
20-30	0.42
35-50	0.5
55-60	0.6

For further details, please refer to the ISO/DIN standard document for this item.