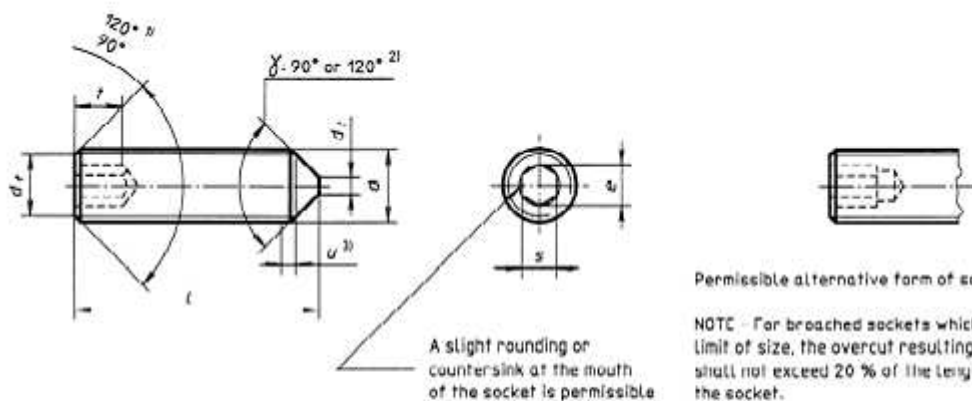


## Hexagon socket set screws with cone point



1) The 120° angle is a requirement for short-length screws of nominal length  $l$ , situated above the dotted stepped line in table 1.

2) The angle  $\gamma$  applies only to the portion of the point situated below the root diameter of the thread, and shall be 120° for nominal thread lengths situated above the dotted stepped line, and 90° for all other lengths.

3) Incomplete thread  $u \leq 2P$ .

Table 1

Dimensions in millimetres

Thread (d)			M1,6	M2	M2,5	M3	M4	M5	M6	M8	M10	M12	M16	M20	M24	
$P$ <sup>1)</sup>			0,35	0,4	0,45	0,5	0,7	0,8	1	1,25	1,6	1,75	2	2,5	3	
$d_c$ max.			0,4	0,5	0,65	0,75	1	1,25	1,5	2	2,5	3	4	5	6	
$d_2$			≈ Minor thread diameter													
$e$ min. <sup>2)</sup>			0,603	1,003	1,427	1,73	2,3	2,67	3,44	4,58	5,72	6,86	9,15	11,43	13,72	
			nom.	0,7	0,9	1,3	1,5	2	2,5	3	4	5	6	8	10	12
			max.	0,724	0,902	1,295	1,545	2,045	2,500	3,071	4,004	5,004	6,095	8,115	10,115	12,142
			min.	0,711	0,889	1,270	1,520	2,020	2,520	3,020	4,020	5,020	6,020	8,025	10,025	12,032
$r$ min. <sup>4)</sup>			0,7	0,8	1,2	1,2	1,5	2	2	3	4	4,8	6,4	8	10	
			<sup>5)</sup>	1,5	1,7	2	2	2,5	3	3,5	5	6	8	10	12	15
nom.			Approximate mass, in kilograms per 1 000 pieces ( $\rho = 7.85 \text{ kg/dm}^3$ ) (for information only)													
$l$ min.																
$l$ max.																
2	1,8	2,2	0,021	0,029												
2,5	2,3	2,7	0,025	0,037	0,063	0,07										
3	2,8	3,2	0,029	0,044	0,075	0,09	0,1									
4	3,70	4,24	0,037	0,050	0,1	0,13	0,10	0,25								
5	4,76	5,24	0,046	0,074	0,125	0,17	0,26	0,37	0,515							
6	5,76	6,24	0,054	0,089	0,15	0,21	0,34	0,49	0,69	1,00						
8	7,71	8,29	0,07	0,119	0,199	0,29	0,5	0,73	1,04	1,72	2,4					
10	9,71	10,29		0,148	0,249	0,37	0,66	0,97	1,39	2,35	3,41	4,7				
12	11,65	12,35			0,299	0,45	0,82	1,21	1,74	2,96	4,42	6,1	9,7			
16	15,65	16,35				0,61	1,14	1,69	2,44	4,24	6,43	8,9	14,9	22,2		
20	19,58	20,42					1,46	2,17	3,14	5,5	8,44	11,7	20,1	30,4	39,7	
25	24,58	25,42						2,77	4,02	7,08	10,9	15,3	26,6	40,7	54,2	
30	29,58	30,42							4,89	8,65	12,5	19,9	33,1	51	68,7	
35	34,5	35,5								10,2	16	22,3	39,8	61,3	83,2	
40	39,5	40,5								11,8	18,5	25,8	46,1	71,6	97,7	
45	44,5	45,5									21	29,3	52,6	81,9	112	
50	49,5	50,5									23,5	32,8	59,1	92,2	127	
55	54,4	55,0										36,3	65,6	103	141	
60	59,4	60,6											39,8	72,2	113	156

NOTE — Commercial lengths are those between the stepped, continuous, bold lines.

1)  $P$  = pitch of the thread2)  $e_{\min} = 1,14 \cdot s_{\min}$  except for sizes M1,6, M2 and M2,53)  $s$  shall be gauged by attribute methods, see annex A for gauges.

4) For screws with nominal lengths above the dotted stepped line.

5) For screws with nominal lengths below the dotted stepped line.

**Table 2**

<b>Material</b>		Steel	Stainless steel	Non-ferrous metal
<b>General requirements</b>	International Standard	ISO 8002		
<b>Thread</b>	Tolerances	5g/6g for class 45H; 6g for other classes		
	International Standards	ISO 261, ISO 965-2, ISO 965-3		
<b>Mechanical properties</b>	Property class	45H	A1, A2	...
	International Standards	ISO 898-5	ISO 3506	ISO 8839
<b>Tolerances</b>	Product grade	A		
	International Standard	ISO 4759-1		
<b>Finish</b>		Black oxide (thermal or chemical)	Plain	Plain
		Requirements for electroplating are given in ISO 4042.		
		If different electroplating requirements are desired or if requirements are needed for other finishes, they should be negotiated between customer and supplier.		
		Limits for surface discontinuities are given in ISO 6157-1 and ISO 6157-3.		
<b>Acceptability</b>		For acceptance procedure, see ISO 3269.		