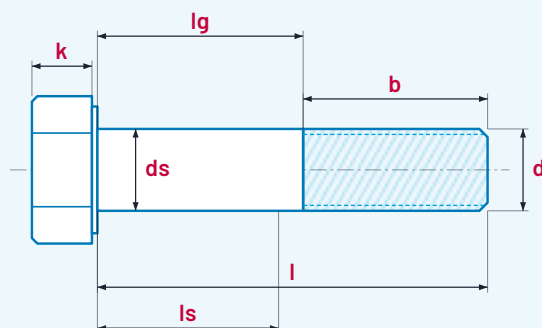


High-strength structural bolts (HV)

DIN 6914 · ISO 7411 · large width across flats
Successor standard EN 14399-4



LEGEND

d	Nominal thread diameter
b	Thread length
ds	Shank diameter
dw	Bearing face diameter
k	Head height
s	Width across flats
e	Width across corners
l	Nominal length
ls	Plain shank length, min.
lg	Grip length, max.

DIMENSIONS IN MM

THREAD D		M12	M16	M20	M22	M24	M27	M30	M36
P		1.75	2	2.5	2.5	3	3	3.5	4
b	above the step ¹	21	26	31	32	34	37	40	48
	below the step ¹	23	28	33	34	37	39	42	50
c	min.	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	max.	0.6	0.6	0.8	0.8	0.8	0.8	0.8	0.8
da	max.	15.2	19.2	24	26	28	32	35	41
ds	nominal	12	16	20	22	24	27	30	36
	min.	11.3	15.3	19.16	21.16	23.16	26.16	29.16	35
	max.	12.7	16.7	20.84	22.84	24.84	27.84	30.84	37
dw	min.	20	25	30	34	39	43.5	47.5	57
e	min.	23.91	29.56	35.03	39.55	45.2	50.85	55.37	66.44
k	nominal	8	10	13	14	15	17	19	23
	min.	7.55	9.25	12.1	13.1	14.1	16.1	17.95	21.95
	max.	8.45	10.75	13.9	14.9	15.9	17.9	20.05	24.05
k'	min.	5.28	6.47	8.47	9.17	9.87	11.27	12.56	15.36
r	min.	1.2	1.2	1.5	1.5	1.5	2	2	2
s	nominal = max.	22	27	32	36	41	46	50	60
	min.	21.16	26.16	31	35	40	45	49	58.8

¹ Thread length **b** depends on the bolt length. The blue line in the length table on page 2 marks the step: lengths above it use the first value of **b**, lengths below it the second.

System. Property class 10.9, for preloaded joints in steel structures. Use with nuts DIN 6915 (class 10) and washers DIN 6916.

High-strength structural bolts (HV)

DIN 6914 · length table

continued

SHANK LENGTH LS MIN. AND GRIP LENGTH LG MAX., IN MM

LENGTH L			M12		M16		M20		M22		M24		M27		M30		M36	
NOM.	MIN.	MAX.	LS	LG	LS	LG	LS	LG	LS	LG	LS	LG	LS	LG	LS	LG	LS	LG
30	28.95	31.05	3.75	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	33.75	36.25	8.75	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	38.75	41.25	13.75	19	8	14	-	-	-	-	-	-	-	-	-	-	-	-
45	43.75	46.25	16.75	22	13	19	6.5	14	-	-	-	-	-	-	-	-	-	-
50	48.75	51.25	21.75	27	18	24	11.5	19	10.5	18	-	-	-	-	-	-	-	-
55	53.5	56.5	26.75	32	23	29	16.5	24	15.5	23	-	-	-	-	-	-	-	-
60	58.5	61.5	31.75	37	28	34	21.5	29	20.5	28	17	26	-	-	-	-	-	-
65	63.5	66.5	36.75	42	33	39	26.5	34	25.5	33	22	31	-	-	-	-	-	-
70	68.5	71.5	41.75	47	38	44	31.5	39	30.5	38	27	36	24	33	-	-	-	-
75	73.5	76.5	46.75	52	41	47	36.5	44	35.5	43	32	41	29	38	24.5	35	-	-
80	78.5	81.5	51.75	57	46	52	41.5	49	40.5	48	37	46	34	43	29.5	40	-	-
85	83.25	86.75	56.75	62	51	57	46.5	54	45.5	53	42	51	39	48	34.5	45	25	37
90	88.25	91.75	61.75	67	56	62	49.5	57	48.5	56	44	53	44	53	39.5	50	30	42
95	93.25	96.75	66.75	72	61	67	54.5	62	53.5	61	49	58	49	58	44.5	55	35	47
100	98.25	101.75	-	-	66	72	59.5	67	58.5	66	54	63	52	61	47.5	58	40	52
105	103.25	106.75	-	-	71	77	64.5	72	63.5	71	59	68	57	66	52.5	63	43	55
110	108.25	111.75	-	-	76	82	69.5	77	68.5	76	64	73	62	71	57.5	68	48	60
115	113.25	116.75	-	-	81	87	74.5	82	73.5	81	69	78	67	76	62.5	73	53	65
120	118.25	121.75	-	-	86	92	79.5	87	78.5	86	74	83	72	81	67.5	78	58	70
125	123	127	-	-	91	97	84.5	92	83.5	91	79	88	77	86	72.5	83	63	75
130	128	132	-	-	96	102	89.5	97	88.5	96	84	93	82	91	77.5	88	68	80
135	133	137	-	-	-	-	94.5	102	93.5	101	89	98	87	96	82.5	93	73	85
140	138	142	-	-	-	-	99.5	107	98.5	106	94	103	92	101	87.5	98	78	90
145	143	147	-	-	-	-	104.5	112	103.5	111	99	108	97	106	92.5	103	83	95
150	148	152	-	-	-	-	109.5	117	108.5	116	104	113	102	111	97.5	108	88	100
155	151	159	-	-	-	-	114.5	122	113.5	121	109	118	107	116	102.5	113	93	105
160	156	164	-	-	-	-	-	-	118.5	126	114	123	112	121	107.5	118	98	110
165	161	169	-	-	-	-	-	-	123.5	131	119	128	117	126	112.5	123	103	115
170	166	174	-	-	-	-	-	-	-	-	124	133	122	131	117.5	128	108	120
175	171	179	-	-	-	-	-	-	-	-	129	138	127	136	122.5	133	113	125
180	176	184	-	-	-	-	-	-	-	-	134	143	132	141	127.5	138	118	130
185	180.4	189.6	-	-	-	-	-	-	-	-	139	148	137	146	132.5	143	123	135
190	185.4	194.6	-	-	-	-	-	-	-	-	144	153	142	151	137.5	148	128	140
195	190.4	199.6	-	-	-	-	-	-	-	-	149	158	147	156	142.5	153	133	145
200	195.4	204.6	-	-	-	-	-	-	-	-	-	-	152	161	147.5	158	138	150

- = not listed.