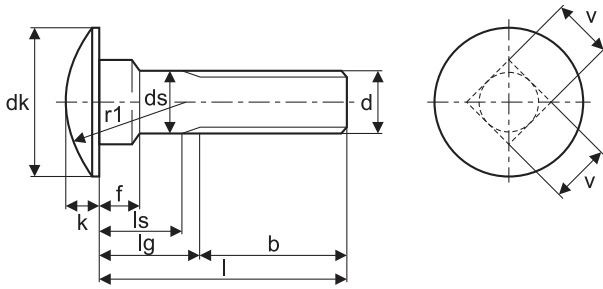


# Mushroom Head Square Neck Bolts (Cup Square)

## DIN 603 Mild Steel



### DIN 603 Dimensions of bolts

Nominal size and thread diameter d	Pitch of thread p	Thread Length b			Diameter of head dk		Diameter of unthreaded shank ds		Depth of square under head f		Thickness of head k		Radius of head r1	Width across flats of square under head v	
		Bolt ≤125	Bolt 125-200	Bolt ≥200	max.	min.	max.	min.	max.	min.	max.	min.		max.	min.
M5	0.80	16	22	-	13.55	12.45	5.00	4.52	4.10	2.90	3.30	2.70	10.7	5.48	4.52
M6	1.00	18	24	-	16.55	15.45	6.00	5.52	4.60	3.40	3.88	3.12	12.6	6.48	5.52
M8	1.25	22	28	41	20.65	19.35	8.00	7.42	5.60	4.40	4.88	4.12	16.0	8.58	7.42
M10	1.50	26	32	45	24.65	23.35	10.00	9.42	6.60	5.40	5.38	4.62	19.2	10.58	9.42
M12	1.75	30	36	49	30.65	29.35	12.00	11.30	8.75	7.25	6.95	6.05	24.1	12.70	11.30
M16	2.00	38	44	57	38.80	37.20	16.00	15.30	12.90	11.10	8.95	8.05	29.3	16.70	15.30
M20	2.50	46	52	65	46.80	45.20	20.00	19.16	15.90	14.10	11.05	9.95	33.9	20.84	19.16

Nominal size	min.	max.	M5		M6		M8		M10		M12		M16		M20	
			ls min.	lg max.	ls min.	lg max.	ls min.	lg max.	ls min.	lg max.	ls min.	lg max.	ls min.	lg max.	ls min.	lg max.
16	15.1	16.9	-	8	-	10	-	-	-	-	-	-	-	-	-	-
20	18.95	21.05	-	8	-	10	-	12	-	14	-	-	-	-	-	-
25	23.95	26.05	-	8	-	10	-	12	-	14	-	-	-	-	-	-
30	26.95	31.05	-	18	-	10	-	12	-	14	-	18	-	-	-	-
35	33.75	36.25	15	19	12	17	-	12	-	14	-	18	-	-	-	-
40	38.75	41.25	20	24	17	22	11.75	18	-	14	-	18	-	-	-	-
45	43.75	46.25	25	29	22	27	16.75	23	11.5	19	-	18	-	-	-	-
50	48.75	51.25	30	34	27	32	21.75	28	16.5	24	-	18	-	-	-	-
55	53.50	56.50	35	39	32	37	26.75	33	21.5	29	16.25	25	-	23	-	-
60	58.50	61.50	40	44	37	42	31.75	38	26.5	34	21.25	30	-	23	-	-
65	63.50	66.50	45	49	42	47	36.75	43	31.5	39	26.75	35	17	27	-	-
70	68.50	71.50	50	54	47	52	41.75	48	36.5	44	31.25	40	22	32	-	28.5
80	78.50	81.50	60	64	57	62	51.75	58	46.5	54	41.25	50	32	42	21.5	34.0
90	88.25	91.75	-	-	67	72	61.75	68	56.5	64	51.25	60	42	52	31.5	44.0
100	98.25	101.75	-	-	77	82	71.75	78	66.5	74	61.25	70	52	62	41.5	54.0
110	108.25	111.75	-	-	87	92	81.75	88	76.5	84	71.25	80	62	72	51.5	64.0
120	118.25	121.75	-	-	97	102	91.75	98	86.5	94	81.25	90	72	82	61.5	74.0
130	128.00	132.00	-	-	101	106	95.75	102	90.5	98	85.25	94	76	86	65.5	78.0
140	136.00	142.00	-	-	111	116	105.75	112	108.5	108	95.25	104	86	96	75.5	88.0
150	148.00	152.00	-	-	121	126	115.75	122	110.5	118	105.25	114	96	106	85.5	98.0
160	156.00	164.00	-	-	-	-	-	-	120.5	128	115.25	124	106	116	95.5	108.0
180	176.00	184.00	-	-	-	-	-	-	140.5	148	135.25	144	126	136	115.5	128.0
200	195.4	204.6	-	-	-	-	-	-	160.5	168	155.25	164	146	156	135.5	148.0

# Mushroom Head Square Neck Bolts (Cup Square)

## DIN 603 Mild Steel

### Specification for bolts and reference standards

Characteristic		Standard
Material		Steel
General requirements		According to DIN 261 Part 1.
Screw thread	Tolerance	8g
	Standard	DIN 13 Part 13
Mechanical Properties	Strength category <sup>a</sup>	3.6 or 4.6 at manufacturer's discretion. 8.8 or other steel groups and strength categories only on agreement.
	Standard	DIN ISO 898 Part 1
Permissible dimensional deviations	Product grade	C (previous type g)
	Standard	DIN ISO 4759 Part 1
Surface		DIN 267 Part 2 applies to the peak-to-valley heights of surfaces permissible.
		Permissible surface defects according to DIN 267 Part 19.
		Galvanic surface protection according to DIN 267 Part 9.
		Hot dip galvanising according to DIN 267 Part 10.
Acceptance testing		According to DIN 267 Part 5.
<sup>a</sup> If a specific strength category is required this must be indicated in the designation, e.g. Cup Square DIN 603 - M10 x 70 - 4.6 .		