1. General dimension tolerance for parts formed by press working from sheet metal JIS B 0408—1991—

Table 1. General dimension tolerances of punching Units: mm

Standard dimension		Grade A	Grade B	Grade C
	No more than 6	±0.05	±0.1	±0.3
More than 6	No more than 30	±0.1	±0.2	±0.5
More than 30	No more than 120	±0.15	±0.3	±0.8
More than 120	No more than 400	±0.2	±0.5	±1.2
More than 400	No more than 1000	±0.3	±0.8	±2
More than 1000	No more than 2000	±0.5	±1.2	±3

Note Grade A, B, and C are equivalent to tolerance grades f, m, and c in JIS B 0405.

Table 2. General dimensional tolerances of bending and drawing Units: mm

Standard dimension		Grade A	Grade B	Grade C
	No more than 6	±0.1	±0.3	±0.5
More than 6	No more than 30	±0.2	±0.5	±1
More than 30	No more than 120	±0.3	±0.8	±1.5
More than 120	No more than 400	±0.5	±1.2	±2.5
More than 400	No more than 1000	±0.8	±2	±4
More than 1000	No more than 2000	±1.2	±3	±6

Note Grade A, B, and C are equivalent to tolerance grades f, m, and c in JIS B 0405.

2. General tolerances for parts formed by shear from metal plates JIS B 0410—1991—

Table 1. General dimensional tolerances of cut widths Units: mm

Standard dimension		Material thickness (t) class							
		$t \leqq 1.6$		$1.6 < t \leqq 3$		$3 < t \leqq 6$		$6 < t \leqq 12$	
		Grade							
		Grade A	Grade B	Grade A	Grade B	Grade A	Grade B	Grade A	Grade B
	No more than 30	±0.1	±0.3	—	—	—	—	—	—
More than 30	No more than 120	±0.2	±0.5	±0.3	±0.5	±0.8	±1.2	—	±1.5
More than 120	No more than 400	±0.3	±0.8	±0.4	±0.8	±1	±1.5	—	±2
More than 400	No more than 1000	±0.5	±1	±0.5	±1.2	±1.5	±2	—	±2.5
More than 1000	No more than 2000	±0.8	±1.5	±0.8	±2	±2	±3	—	±3
More than 2000	No more than 4000	±1.2	±2	±1.2	±2.5	±3	±4	—	±4

Table 2. General tolerances of straightness Units: mm

Nominal dimension of cut length		Material thickness (t) class							
		$t \leqq 1.6$		$1.6 < t \leqq 3$		$3 < t \leqq 6$		$6 < t \leqq 12$	
		Grade							
		Grade A	Grade B	Grade A	Grade B	Grade A	Grade B	Grade A	Grade B
	No more than 30	0.1	0.2	—	—	—	—	—	—
More than 30	No more than 120	0.2	0.3	0.2	0.3	0.5	0.8	—	1.5
More than 120	No more than 400	0.3	0.5	0.3	0.5	0.8	1.5	—	2
More than 400	No more than 1000	0.5	0.8	0.5	1	1.5	2	—	3
More than 1000	No more than 2000	0.8	1.2	0.8	1.5	2	3	—	4
More than 2000	No more than 4000	1.2	2	1.2	2.5	3	5	—	6

Table 3. General tolerances for perpendicularity Units: mm

Nominal length of short side		Material thickness (t) class					
		$t \leqq 3$		$3 < t \leqq 6$		$6 < t \leqq 12$	
		Grade					
		Grade A	Grade B	Grade A	Grade B	Grade A	Grade B
	No more than 30	—	—	—	—	—	—
More than 30	No more than 120	0.3	0.5	0.5	0.8	—	1.5
More than 120	No more than 400	0.8	1.2	1	1.5	—	2
More than 400	No more than 1000	1.5	3	2	3	—	3
More than 1000	No more than 2000	3	6	4	6	—	6
More than 2000	No more than 4000	6	10	6	10	—	10

1. Regular cut dimension tolerance JIS B 0405 —1991—

Tolerances for length excluding chamfered portion Units: mm

Tolerance class		Standard dimension range							
Symbol	Description	Over 0.5 (1) to 3 incl.	Over 3 to 6 incl.	Over 6 to 30 incl.	Over 30 to 120 incl.	Over 120 to 400 incl.	Over 400 to 1000 incl.	Over 1000 to 2000 incl.	Over 2000 to 4000 incl.
		Tolerance							
f	Precision grade	±0.05	±0.05	±0.1	±0.15	±0.2	±0.3	±0.5	—
m	Medium class	±0.1	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2
c	Coarse class	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	±4
v	Very coarse class	—	±0.5	±1	±1.5	±2.5	±4	±6	±8

Note (1): Tolerances for standard dimensions of less than 0.5 mm shall be specified individually.

2. Tolerance for length of chamfered portion (radius of rounding for edges and edge chamfering dimension)

Units: mm

Tolerance class		Standard dimension range		
Symbol	Description	Over 0.5 (2) to 3 incl.	Over 3 to 6 incl.	Over 6
		Tolerance		
f	Precision grade	±0.2	±0.5	±1
m	Medium class			
c	Coarse class	±0.4	±1	±2
v	Very coarse class			

Note (2): Tolerances for standard dimensions of less than 0.5 mm shall be specified individually.

3. Angle tolerance

Tolerance class		Length of shorter side of angle (Units: mm)				
Symbol	Description	10 or less	Over 10 to 50 incl.	Over 50 to 120 incl.	Over 120 to 400 incl.	Over 400
		Tolerance				
f	Precision grade	±1°	±30′	±20′	±10′	± 5′
m	Medium class					
c	Coarse class	±1°30′	± 1°	±30′	±15′	±10′
v	Very coarse class	±3°	± 2°	± 1°	±30′	±20′

4. Regular perpendicularity tolerance JIS B 0419 —1991—

Units: mm

Tolerance class	Nominal length on shorter side			
	100 or less	Over 100 to 300 incl.	Over 300 to 1000 incl.	Over 1000 to 3000 incl.
	Perpendicularity tolerance			
H	0.2	0.3	0.4	0.5
K	0.4	0.6	0.8	1
L	0.6	1	1.5	2

5. Regular straightness and flatness tolerance JIS B 0419 —1991—

Units: mm

Tolerance class	Nominal length					
	10 or less	Over 10 to 30 incl.	Over 30 to 100 incl.	Over 100 to 300 incl.	Over 300 to 1000 incl.	Over 1000 to 3000 incl.
	Straightness and flatness tolerance					
H	0.02	0.05	0.1	0.2	0.3	0.4
K	0.05	0.1	0.2	0.4	0.6	0.8
L	0.1	0.2	0.4	0.8	1.2	1.6

6. Regular symmetry tolerance

Units: mm

Tolerance class	Nominal length			
	100 or less	Over 100 to 300 incl.	Over 300 to 1000 incl.	Over 1000 to 3000 incl.
	Symmetry tolerance			
H	0.5			
K	0.6		0.8	1
L	0.6	1	1.5	2