

Linear Dimensional Tolerance

±0.004" for the first inch, or ±0.10 mm for the first 25.4 mm
 ±0.0015" for each additional inch, or ±0.04 mm for each additional 25.4 mm

Draft Requirements - Inside & Outside Walls

Wall Length		Draft for	Draft for
Inches	mm	Inside Walls	Outside Walls
0.13	3.2	6°	3°
0.25	6.4	4°	2°
0.50	12.7	2.5°	1.25°
0.75	19.1	2°	1°
1.00	25.4	1°	.5°

Flatness Requirement

0.002" per inch, or 0.05 mm per 25.4 mm

Cored Hole Requirements

Hole Diameter		Max. Hole Depth		Total Draft Requirement
Inches	mm	Inches	mm	
0.13	3.2	0.31	7.9	5°
0.25	6.4	1.00	25.4	3°
0.50	12.7	2.00	50.8	2°
1.00	25.4	6.00	152.4	1.5°
2.00	50.8	—	—	1°

Other Requirements

	Inches	mm	
Commercial trim is within	0.015	0.38	from the edge of the casting
Machining stock is	0.010	0.25	normal per side
Sharp corners minimum	0.020	0.51	corner radii & fillet radii
Wall thickness normal	0.090	2.29	standard minimum
Wall thickness minimum	0.030	0.76	produced in specific areas only

DISTANCE mm	1/2°	1°	2°	3°	4°	5°	6°
1.00	0.009	0.017	0.035	0.052	0.070	0.087	0.105
1.50	0.013	0.026	0.052	0.079	0.105	0.131	0.158
2.00	0.017	0.035	0.070	0.105	0.140	0.175	0.210
2.50	0.022	0.044	0.087	0.131	0.175	0.219	0.263
3.00	0.026	0.052	0.105	0.157	0.210	0.262	0.315
3.50	0.031	0.061	0.122	0.183	0.245	0.306	0.368
4.00	0.035	0.070	0.140	0.210	0.280	0.350	0.420
4.50	0.039	0.079	0.157	0.236	0.315	0.394	0.473
5.00	0.044	0.087	0.175	0.262	0.350	0.437	0.526
5.50	0.048	0.096	0.192	0.288	0.385	0.481	0.578
6.00	0.052	0.105	0.210	0.314	0.420	0.525	0.631
6.50	0.057	0.113	0.227	0.341	0.455	0.569	0.683
7.00	0.061	0.122	0.244	0.367	0.489	0.612	0.736
7.50	0.065	0.131	0.262	0.393	0.524	0.656	0.788
8.00	0.070	0.140	0.279	0.419	0.559	0.700	0.841
9.00	0.079	0.157	0.314	0.472	0.629	0.787	0.946
10.00	0.087	0.175	0.349	0.524	0.699	0.875	1.051
11.00	0.096	0.192	0.384	0.576	0.769	0.962	1.156
12.00	0.105	0.209	0.419	0.629	0.839	1.050	1.261
13.00	0.113	0.227	0.454	0.681	0.909	1.137	1.366
14.00	0.122	0.244	0.489	0.734	0.979	1.225	1.471
15.00	0.131	0.262	0.524	0.786	1.049	1.312	1.577
16.00	0.140	0.279	0.559	0.839	1.119	1.400	1.682
17.00	0.148	0.297	0.594	0.891	1.189	1.487	1.787
18.00	0.157	0.314	0.629	0.943	1.259	1.575	1.892
19.00	0.166	0.332	0.663	0.996	1.329	1.662	1.997
20.00	0.175	0.349	0.698	1.048	1.399	1.750	2.102
21.00	0.183	0.367	0.733	1.101	1.468	1.837	2.207
22.00	0.192	0.384	0.768	1.153	1.538	1.925	2.312
23.00	0.201	0.401	0.803	1.205	1.608	2.012	2.417
24.00	0.209	0.419	0.838	1.258	1.678	2.100	2.523
25.40	0.222	0.443	0.887	1.331	1.776	2.222	2.670

EXAMPLE: To determine the amount of taper per side for a die cast part having a draft angle of 2° per side for a distance of 8 mm:

In the "Distance" column, go down to 8 mm, then across to the column showing the 2° taper. The amount of taper shown here is .279 mm per side.

To determine distances greater than 25.40 mm, i.e. for 37.4 mm distance, take the figure for 25.4 mm distance plus the figure for the 12.0 mm distance.

$$\begin{array}{r}
 \text{Example: } 25.4 @ 2^\circ = .887 \text{ mm} \\
 + 12.0 @ 2^\circ = .419 \text{ mm} \\
 \hline
 37.4 @ 2^\circ = 1.306 \text{ mm}
 \end{array}$$



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Automated and manual assembly capabilities for a wide range of products