

**Wall Thickness:**

Design nominal wall thicknesses to be less than .150" unless the plan is to foam mold. Then .275: wall thickness, or even more, is possible. Gradual changes in wall thickness are better than abrupt changes.

Wall thickness should vary as little as possible.

Gate away from areas with large wall thickness variations to avoid stress concentration in the part and reduction in impact strength.

Design walls & other features to allow plastic flow from thicker areas to thinner areas

Draft walls at 1 degree or more, and avoid excessive wall thickness. Textured walls will require added draft. See [www.henryplastic.com](http://www.henryplastic.com) for draft requirement for texture surfaces.

**Ribs:**

Rib thickness should be maintained at .5 to .75 of the nominal or adjoining walls

Ribs should be no higher than 3 times the nominal or adjoining wall thickness

Spacing between ribs should be at least 3 times the nominal or adjoining wall thickness.

Minimum draft angles on ribs should be ½ degree per side

Design ribs to aid in plastic flow rather than obstruct flow.

**Bosses:**

Boss designs should follow the design points for ribs whenever possible.

Avoid designing bosses as part of a wall or rib.

Use connecting ribs if needed, which are approximately .6 times the nominal or adjoining wall thickness.

Use of supporting gussets is acceptable when gusset wall is approximately .6 times the nominal or adjoining wall thickness.

Bosses should be cored slightly past the bottom of the boss.

Minimum draft on bosses, gussets and connecting walls should be ½ to 1 degree.

Boss outside diameters should be approximately 3 times the diameter of the boss internal diameter.

Radius bosses, gussets and connecting walls from .25 - .75 times the outside radius.

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