Bowl Demolding Techniques

Over the years, the molds, release agents, gelcoats and cultured marble matrix used in our industry have changed. My experience in the industry started with working after school and during the summer in the 70’s and 80’s at my father’s cultured marble shop. In those days, our molds were a combination of fiberglass, Formica, tempered glass, and stainless steel. Our primary release agents were paste wax and hat wax. The molds were in fixed positions and the whole building was used as a spray booth (overspray was everywhere). We continually fought styrene buildup on the molds and at times struggled to get the bowls to demold. At that time, the solution to demolding a bowl was a high-density polyethylene plug that fit into the drain, a 4 lb shop hammer and a little gentle persuasion. This method led to damage to some of the molds and at least 1 broken finger on my dad’s hand. Those were the “good old days”. As a result of these memories, I thought it might be good to go over some other ways of demolding bowl molds.

Note: The best results will always depend upon the proper use of release agents. Always read and follow the application instructions included with your release agent. Failure to do so can result in extensive damage to both the mold and cast part.

If the release agent has been properly applied, there should be very few issues in demolding the bowl mold form the part.

1. Wooden or Plastic Wedges

   Tool: Wooden wedges or plastic wedges
   Application: All bowl styles
   Technique: Insert the wedge at the clay/wax line between the deck and bowl mold. Tap the wedge with a hammer to create a gap between mold and cast parts. This may require more than one wedge.
   Pros: An easy to use method
   Cons: Can cause damage to gelcoat on the mold edges and fracturing of laminate or gelcoat if used on a mold with a recessed rim (example: N/Laguna Recessed Oval Bowl or RL/Royale Recessed Rectangle Bowl). Requires periodic purchases of wedges.
2. Compressed Air Gun

Tool: Compressed air gun

Application: All bowl styles

Technique: Use a compressed air gun with a rubber tip to blow compressed air into the clay/wax line between the deck and bowl mold. This may require you do this to several spots around the perimeter of the bowl mold.

Pros: Usually does not damage mold or cast part.

Cons: Not always effective

3. Air Thing With “Innie Bladder”

Tool: Air Thing with “Innie Bladder”

Application: Standard drain boss with untrimmed Polycollar

Technique: When casting part, fill until the marble comes up to the top of the polycollar. Once the matrix is hard, cut or grind the top of the polycollar off. Insert the air thing with “innie bladder” into the drain. A 2-3 second pulse of air will expand the bladder to seal the drain area and force the air between the bowl mold and the cast part to demold the bowl from the cast part.

Pros: An easy, effective method that does not damage the mold.

Cons: Bladders will have to be replaced periodically. Requires compressed air.
4. Air Thing With “Outie” Bladder

Tool: Air Thing with “Outie” Bladder

Application: Used with Polydome and trimmed Polycollar

Technique: When casting part, fill until the marble comes up to the top of the polycollar. Once the matrix is hard, remove the polydome from the polycollar. Insert the air thing with “outie bladder” into the drain. A 2-3 second pulse of air will expand the bladder to seal the drain area and force the air between the bowl mold and the cast part to demold the bowl from the cast part.

Pros: An easy, effective method that does not damage the mold.

Cons: Bladders will have to be replaced periodically. Requires compressed air.
5. **Compressed Air Gun**

**Tool:** Compressed Air Gun

**Application:** Drain Boss/Captive Nut Assembly used with untrimmed Polycollar

**Technique:** When casting part, fill until a thin layer covers the top of the untrimmed polycollar. A 2-3 second pulse of air will fill the polycollar and force the air between the mold and the cast part to demold the bowl from the cast part.

**Pros:** An easy, effective method that should not damage mold.

**Cons:** Requires compressed air gun with rubber tip