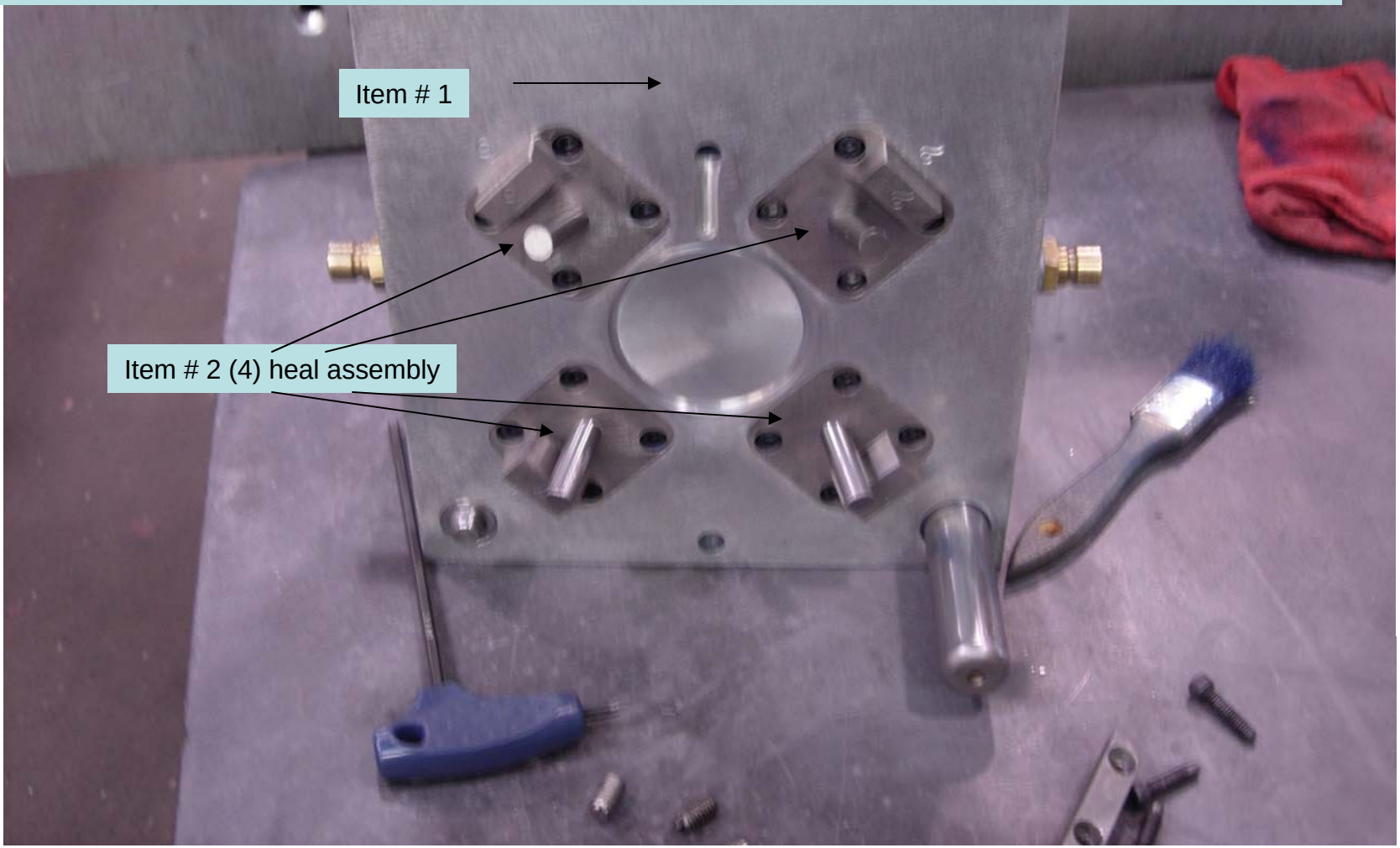
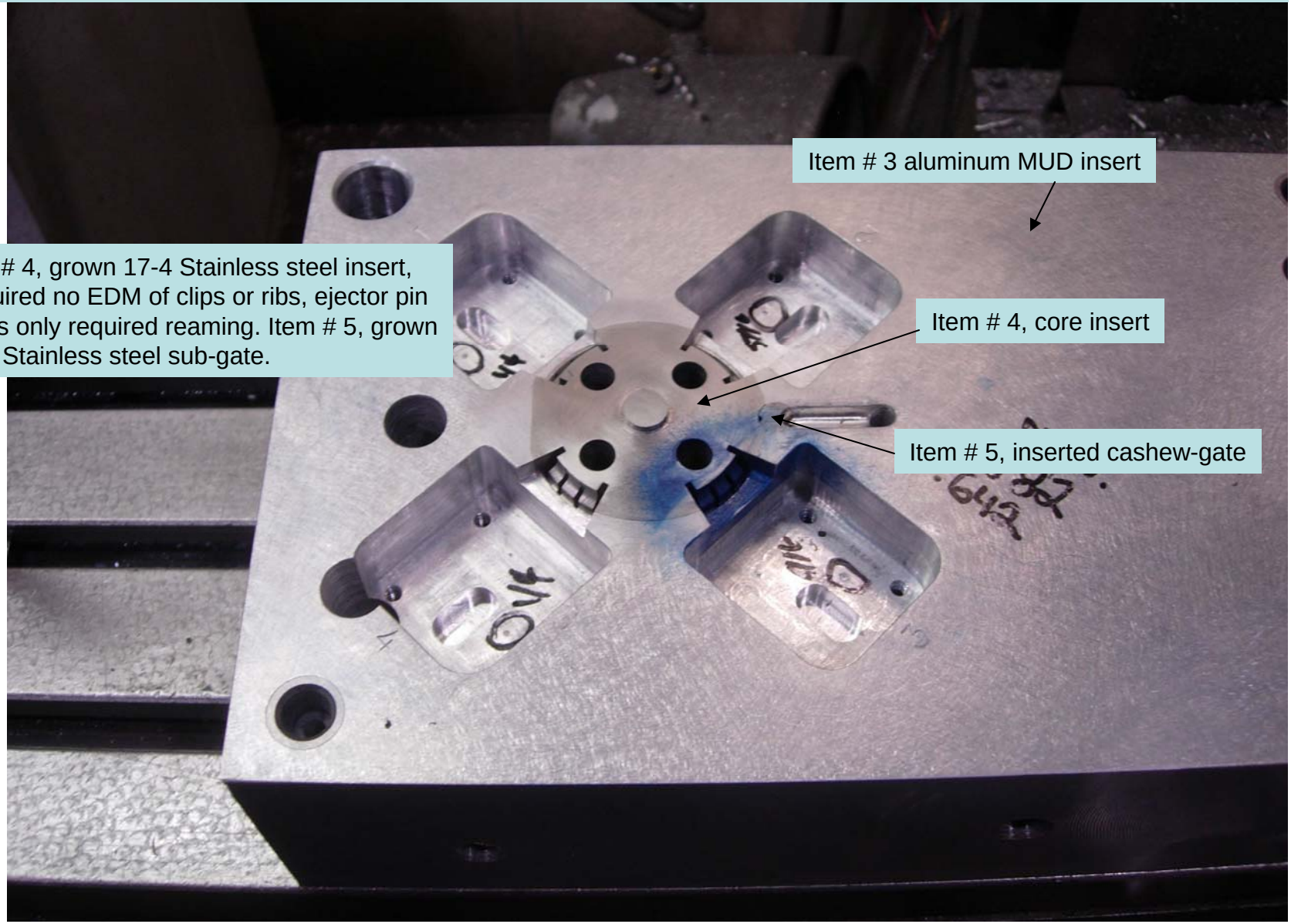
This tool was built complete in 6 days total time. All of the DMLS components were being grown while the aluminum blocks (Items # 1 & # 3) were being CNC cut.

Single Cavity aluminum MUD insert **(Item # 1)** injection mold tool.
Cavity view block requires cutting of “Class A” part surface, along with cutting of 4 pockets to accept grown details (Item # 2)

Utilizing EOS grown inserts from 17-4 Stainless Steel & Direct Metal 20
Cavity view- **Item # 2** 4 grown (stainless steel) heel block inserts, horn pin inserted through grown hole, no boring mill work required



Core MUD Insert (Item #3), requires cutting of pockets in aluminum MUD insert to accept grown core mold components, Pockets are cut into tool core to accept grown slide assembly.



Slide assemblies- All slide assembly components were grown using the DMLS process, included in this are items # 6 (wear plates), item # 7 (slide gibs), item # 8 (slide detail). Items # 6 & 7 were grown from 17-4 stainless, item # 8 was grown from Direct Metal 20. Different materials were used to prevent galling Galling occurs when the same materials are continually slid along each other in a production environment, This tool has run about 20k parts so far without any mold deterioration, the material is PC-ABS.