Standard Operating Procedures

Carver Laboratory Press

Introduction

This press is potentially dangerous. You must have training before use. It is possible to pinch and crush your fingers, to be struck in the eyes or elsewhere by flying particles if a mold or specimen breaks, and to jam a die with excessive pressure so that it can never be cured again.

The Carver press is used for low force applications.

Procedure

1. Calculate the maximum load pressure the die assembly can tolerate without failure. Does your result make sense? Double check your calculation. Do not exceed that pressure at any time in the following procedure.

2. Open the relief valve to allow the lower platen to descend far enough to accept the die assembly to be used.

3. Close the relief valve and put the die assembly in place at the center of the lower platen.

4. Close the guard.

5. Pump the lever to raise the bottom platen while watching the pressure gauge. You must not exceed the maximum pressure on the gauge. You must not exceed the maximum load calculated in step #1 above. Increase the pressure until the desired pressure is reached.

6. Open the relief valve to allow the pressure to be released and the platen to descend.

7. Once all pressure is released and the platen is fully descended, close the relief valve.

8. Open the guard and remove the top die (top punch).

9. Invert the die and place it on the specimen-removal fixture. Close the guard.

10. Pump to raise the platen to eject the pressed specimen.

11. Open the guard and remove the specimen, fixtures, and dies.

12. Close the guard and clean the platens.