

**Equipment Training Sheet - Carver isostatic press, heated platens and die set**

Name: \_\_\_\_\_

Position: \_\_\_\_\_

Department: \_\_\_\_\_

Phone: \_\_\_\_\_

e-mail: \_\_\_\_\_

Director: \_\_\_\_\_

Staff Initials	Trainee Initials	
		<p><b><u>Anyone needing access to MSE equipment needs to contact MSE tech staff:</u></b></p> <ul style="list-style-type: none"> <li>• For initial training</li> <li>• For subsequent usage (will receive equipment card)</li> <li>• No secondary training of the equipment</li> <li>•</li> </ul>
		<p><b><u>Review of hazards, controls, personal protective equipment:</u></b></p> <ul style="list-style-type: none"> <li>• <b><u>Wear safety glasses</u></b> when adjusting sample and during indentations</li> </ul>
		<p><b><u>Review of standard operating procedure:</u></b></p> <ul style="list-style-type: none"> <li>• <a href="http://www.mse.engin.umich.edu/internal/procedures/microhardness-tester">http://www.mse.engin.umich.edu/internal/procedures/microhardness-tester</a></li> <li>• Set appropriate load for indent               <ul style="list-style-type: none"> <li>○ Range from 10 grams to 1 kilogram</li> <li>○ Also used for calculation of hardness</li> </ul> </li> <li>• Scale is in either HV (hardness Vickers) or HK (hardness Knoop)</li> <li>• Machine is kept on, only press "Resume" button on back.</li> <li>• Make sure to not touch micrometers or any part of stage while load is being applied</li> <li>• To adjust dwell time on indentation, press and hold "Dwell/Enter", option 1, set usually to 15 seconds.</li> </ul>
		<p><b><u>Available supplies to help in the procedure:</u></b></p> <ul style="list-style-type: none"> <li>• Safety glasses</li> <li>• Indentors: Vickers and Knoop</li> </ul>

Staff Signature/date: \_\_\_\_\_

Trainee Signature/date: \_\_\_\_\_