

Sample Preparation Room

ZB108a, Block Z,

Department of Civil and Environmental Engineering,

The Hong Kong Polytechnic University



THE HONG KONG
POLYTECHNIC UNIVERSITY
香港理工大學



DEPARTMENT OF
CIVIL AND ENVIRONMENTAL ENGINEERING
土木及環境工程學系

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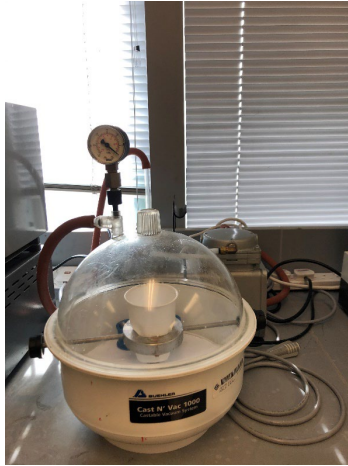
Introduction

This laboratory focuses on functional construction materials' sample preparation for advanced analysis in other CEE laboratories.

For Sample Preparation

- > Buehler CAST N' VAC 1000 Vacuum System
- > Buehler High Speed Pro Precision Cutter
- > Trojan TableCUT-200 Automatic Precision Cut-Off Machine
- > Trojan Alpha-600 Automatic Grinder & Polisher
- > Buehler MetaServ 250 Grinder-Polisher
- > Buehler AutoMet 300 Grinder-Polisher
- > Labconco FreeZone Plus 4.5 Liter Benchtop Freeze Dryer with 12-Port Drying Chamber
- > Labconco FreeZone 2.5 Liter Benchtop Freeze Dryer
- > Shellab Vacuum Oven

Main Equipment



Buehler CAST N' VAC 1000 Vacuum System

This castable mounting vacuum system for epoxy offers pore impregnation in a compact format. It removes trapped air from mounting material and fills voids in the specimen.

This enhances edge retention and supports delicate and friable samples.



Buehler High Speed Pro Precision Cutter

A table top precision saw that provides efficient and precise cuts with intuitive control. It aligns cuts quickly by using the precision laser. It has a blade motor power of 2kW, which ensures the blade will minimize the deformation of the sample surface.



Trojan TableCUT-200 Automatic Precision Cut-Off Machine

TableCUT-200 is a manual-auto precision cut-off machine which is equipped with a variety of fixtures that can cut irregular-shaped workpieces, suitable for various metal materials, crystals, ceramics, quartz glass and petrographic samples, etc.

Main Equipment



Trojan Alpha-600 Automatic Grinder & Polisher

Alpha-600 is an automatic grinding and polishing machine. The maximum diameter of the grinding disc is 300mm. There are two types of pressurization, central pressure and individual pressure.

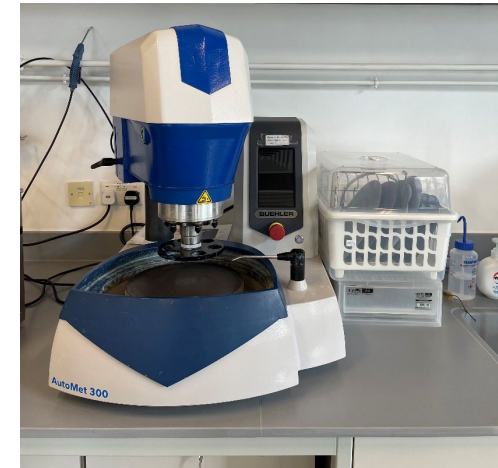
Dosing system for 4 types of diamond suspension are available for obtaining high-quality mirror polishing results with high repeatability.



Buehler MetaServ 250 Grinder-Polisher

AutoMet 250 is designed for manual or automated sample grinding and polishing for most microstructural analysis application.

A built-in bowl washes and drains flush out particles and minimizes build-up of grinding-polishing debris.



Buehler AutoMet 300 Grinder-Polisher

AutoMet 300 is designed for manual or automated sample grinding and polishing for most microstructural analysis application.

A built-in bowl washes and drains flush out particles and minimizes build-up of grinding-polishing debris.

It is upgraded to a color touch-screen control panel for Z-axis material removal by depth.

Main Equipment



Labconco FreeZone Plus 4.5 Liter Benchtop Freeze Dryer with 12-Port Drying Chamber

FreeZone Freeze Dryers are designed to handle the lyophilization needs of research laboratories. The freeze-drying technique is a dehydration operation in which water in frozen substances is removed by sublimation from ice to vapor.



Labconco FreeZone 2.5 Liter Benchtop Freeze Dryer

FreeZone Freeze Dryers are designed to handle the lyophilization needs of research laboratories. The freeze-drying technique is a dehydration operation in which water in frozen substances is removed by sublimation from ice to vapor.



Shellab Vacuum Oven

The vacuum oven enables samples to be dried and stored under vacuum condition. In the oven-drying process, the phase change of water by usual drying occurs.

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Opening Hours

Monday 8:45am – 12:30pm, 1:30pm – 5:45pm

Tuesday to Friday 8:45am – 12:30pm, 1:30pm – 5:30pm
(excluding Saturday, Sunday & public holidays)