UNC CHARLOTTE
Department of Engineering Technology

LABORATORY SAFETY ANALYSIS

OPERATING THE SATEC IMPACT TESTER

Location: Smith 125C

Required Training: The Satec Impact Tester is designed and intended for use by properly trained and experienced operators. If you are not familiar with the proper and safe operation of this device, do not use until proper training and knowledge have been obtained.

Required Personal Protective Equipment (PPE): Safety glasses, closed toed shoes, tongs.

Reference Materials: Manufacturer's safety rules and operating instructions

PHOTOS	TASK	HAZARDS	CONTROLS
	Wear clear safety glasses with side shields.	Flying debris	• Students are required to provide their own safety glasses. • See laboratory instructor or laboratory manager if you do not have safety glasses before proceeding to use equipment.
	Inspect safety glasses for cracks, scratches or other damage. Ensure the ANSI standard Z87.1 is stamped into the side of glasses. If necessary inspect dust mask or face mask.	Flying debris	• If defects are found report this to your lab instructor before using.
	Put on PPE	Flying debris	• Always wear safety glasses.
	Inspect work area, walk around apparatus looking for debris and ensure proper lighting.	Slips, trips & falls, struck by	• Keep the work area around the Satec free from scraps, dust, oil and grease. • Check the full range of motion of the pendulum to ensure adequate work envelop for testing
	Check manual controls	Injury, pinch points	• Check for proper functioning of manual controls used to position and lock pendulum in testing position. • Check for proper functioning of the pendulum brake lever and brake mechanism.
	Insert sample specimen	Injury, pinch points, burns	• Use tongs to place sample against anvil.

			• Specimens may be extremely hot or cold depending on test. Always use tongs to place specimen regardless of specimen temperature • Keep **ALL body** parts out of the path of the pendulum and in particular between the anvil and pendulum.
	Run test	Struck by, flying debris	• Always wear safety glasses throughout the test. • Always check that the swing envelop of the pendulum is clear of objects or other people before releasing pendulum. • Activate pendulum brake as soon as possible once test results have been registered to minimize continued pendulum swinging. • Do not attempt to stop the pendulum by any means other than the braking mechanism. • Be aware that impact specimens may be thrown from the anvil at the time of impact.
	Remove/collect specimen	Cuts, burns	• Broken specimens can have sharp edges or sharp points, handle with caution when removing or retrieving them. • Use tongs to remove/retrieve hot or extremely cold specimens.
	End of test procedure	Injury	• When all testing is completed, leave the pendulum in the down "unlocked" position. • Place a wooden chock between the anvil and pendulum.
	Clean work area and return all PPE to a clean, dry storage area.	Injury	• Ensure adequate housekeeping measures to prevent accidents. • Remove broken/used specimens to a safe storage area.
For more information about this LSA, contact the *Department of Engineering Technology* at UNC Charlotte (704) 687-2305 Please visit our website at: http://www.et.uncc.edu\			
The development of Laboratory Safety Analyses is a very effective means of helping reduce incidents, accidents, and injuries in the workplace. It is an excellent tool to use for training purposes and can also be used to investigate "near misses" and accidents.			