

 <p>DALHOUSIE UNIVERSITY <i>Inspiring Minds</i></p> <p>Department of Facilities Management Occupational Health and Safety</p>	<p align="center">Safe Job Procedure Dan X Inc. Mark 2000 Florescent Bulk Crusher</p>
<p>Department Facilities Management</p>	<p>Responsible Unit Trade Services</p>
<p>Effective Date</p>	<p>Latest Revision Date August 14, 2018</p>
<p>Known Hazards</p>	
<p>Applicable Regulations / Standards / Procedures</p> <ul style="list-style-type: none"> • Equipment specific safe work practices and safe job procedures 	
<p>Personal Protective Equipment Requirements</p> <ul style="list-style-type: none"> • Safety boots • Safety glasses • Safety gloves 	
<p>Job Specific Training Requirements</p> <p>Proper / safe operation of equipment</p>	
<p align="center">Safe Job Procedures</p> <p>Task steps are listed in the order in which they must be completed. Key actions follow each step. Key steps and the associated actions must be followed in the order presented to achieve maximum efficiency in safety, production, quality and overall loss prevention.</p> <p>Prior to using the Mark 2000 employees must be appropriately trained as operators by a competent person and these instructions must be read and understood.</p> <p>The Mark 2000 has been designed to effectively reduce fluorescent tube bulk and to capture the harmful mercury vapours they contain. Analytical tests of the use of the Mark 2000 have demonstrated that any potential exposure to mercury to be well below the Occupational Exposure Limits (OEL) set for mercury.</p>	

1. Transporting your Mark 2000:

- 1) Please observe the Health & Safety Executive guidance on manual handling when manoeuvring the Mark 2000.

- 2) Whenever possible use the wheels to move the Mark 2000 and push the equipment rather than pull.
- 3) The Mark 2000 is designed to be light weight, however we recommend that two persons perform any lifting of the equipment.
- 4) When transferring the Mark 2000 in or out of a vehicle, without the use of a ramp, place the wheels into the locked position and make sure that the equipment is well secured.
- 5) Take extra care when moving or lifting the Mark 2000 when it contains crushed tubes and ensure that the Mark 2000 is upright at all times

2. Locating your Mark 2000:

- 1) Place the Mark 2000 on a flat, hard surface in a well-ventilated area.
- 2) Ensure that you have adequate height clearance to enter tubes into the feeder on the top of the machine safely.
- 3) Once located make sure that the wheels are locked into position.
- 4) Be aware of other personnel in the area when transferring your tubes from their storage location to the Mark 2000.

3. Setting up your Mark 2000:

- 1) The system runs from a 110V mains supply, prior to plugging the Mark 2000 into the main supply check that the top switch is in the 'off' position. (See diagram)
- 2) Connect the removable feed tube to the top of the Mark 2000, secure into place by turning the screws clockwise.
- 3) Open the door and fit the collection bag by fastening the bag to the crushing mechanism making sure that top lip of the bag is above the securing strap before clipping the clasp in place.
- 4) Close the door of the Mark 2000 and secure the latch.

4. Personal Protective Equipment for using your Mark 2000:

- 1) Gloves must be suitable to provide protection from broken tubes.
- 2) Goggles manufactured to EN166 for impact resistance must be worn at all times.
- 3) Appropriate sturdy footwear must be worn at all times, no open toe shoes or sandals.
- 4) Wear clothing that provides cover to the arms and legs. Dust masks for the bag and filter changing operations should be CE marked and have a P1 (filter) or FFP1 (material) protection for particulates in accordance with EN149.

5. Using your Mark 2000:

- 1) Equipment plugged into a wall outlet must be unplugged and properly locked out, as defined in the FM Lock Out Program, before any attempt is made to repair, service, clean or perform any other activity where an employee may be injured by the equipment being energized.

- 2) Turn the machine on to the 'Operational Mode' (see diagram) to initiate the tube crusher and leave running for 5 minutes to allow the filtration system to become fully operational.
- 3) The Mark 2000 is designed for crushing linear fluorescent tubes; do not attempt to feed the machine with anything else.
- 4) The Mark 2000 does not accept cardboard, remove any packaging and sleeves from the tubes before feeding.
- 5) Place whole, unbroken tubes into the Mark 2000 one at a time by sliding the down the top of the telescopic feeding mechanism and lowering the tubes down into the feeder.
- 6) Release the tube and telescopic feeding mechanism in one swift motion and allow your tube to drop into the Mark 2000.
- 7) In the event of a blockage in the feeding tube switch the Mark 2000 to Bag Change mode and leave running for 5 minutes. Carefully remove the telescopic feeder and remove any obstructions.
- 8) If any blockage appears in the bag please refer to the bag changing instructions (See section 6) prior to opening the chamber and removing the blockage.
- 9) When the bag within the Mark 2000 is full the bag change indicator light on the top of the machine will light up red (after approx. 80 tubes based on a standard 4 foot tube).
- 10) Stop feeding the Mark 2000 and refer to the bag changing instructions.

6. Changing the bags on your Mark 2000:

- 1) Turn the Mark 2000 on to 'Bag Change' mode and leave for 5 minutes without feeding in any further tubes.
- 2) Prior to opening the Mark 2000 door put on the specified dust mask (see section 4).
- 3) Carefully seal the bag using the cable ties supplied, making sure that all crushed materials are within the bag and then release the securing strap.
- 4) Remove the collection bag and place into the Mark 2000 drum that should be stored in a dry location.
- 5) Check for any debris prior to fitting a new collection bag and clean up as necessary.
- 6) Fit a new collection bag as outlined in the set up procedure (see section 3)

7. Shutting down your Mark 2000:

- 1) Switch the Mark 2000 to 'Bag Change' mode and leave running for 5 minutes.
- 2) Remove tube feeder and then switch the Mark 2000 off and unplug.
- 3) Clean down of the Mark 2000 should take place with a damp cloth if required.
- 4) Wash your hands after use.

8. Changing filters on your Mark 2000:

There are two sets of filters in the Mark 2000 that should be changed by a trained operator after every 1200 tubes (or approx. 15 collection bags).

- 1) Ensure the Mark 2000 has been switched off and unplugged.
- 2) Ensure that the appropriate dusk mask (see section 4) is worn prior to removing the filter covers.
- 3) Slide out the particulate filter located in the top filter compartment and place into a bag and replace with a new filter.
- 4) There are two mercury/HEPA filters in the lower compartment, both of which should be unscrewed, placed in the filter disposal bags provided and replaced.
- 5) Place the filter disposal bags into the Mark 2000 drum ready for treatment. The filter disposal bags should also be used to dispose of any used dust masks.
- 6) Wash your hands.

If you have any queries relating to the above please do not hesitate to contact DAN-X INC. at 902-446-3950.