INSPECT

Before putting the respirator back together, make sure all parts are dry and in good operating condition. Test the respirator to ensure proper assembly so it is ready to be used next time.

FIT TESTING

A fit test is required annually to ensure proper fit. The EH&S Department will contact you when it is time for your Fit Test. Be safe and make sure your respirator is operating properly at all times. Proper maintenance and care for your respirator will keep you from any adverse health risks. If you have any questions, please contact the Environmental Health & Safety Department.

STORE

When storing a respirator, flex the rubber parts to ensure they are not twisted or bent and seal the entire respirator in a bag. Avoid sunlight, dust, extreme temperatures, moisture and damaging chemicals.

Full and half face-piece respirators are essential to a safe work environment. Properly cleaning, inspecting and storing are important in maintaining the integrity of it’s function.

This damage will reduce the ability to adjust your strap, thus decreasing the level of comfort and seal of your respirator.
Occupational Safety at EWU

The EWU Environmental Health & Safety (EHS) Department wants to ensure that everyone goes home safe and healthy at the end of a long day. Around campus, there are areas that require some caution with the materials you are working with. Respirators are a very important part of working with these materials to avoid inhalation of any airborne contaminants.

All respirators differ in the level of protection they provide. The level of protection is called the, “protection factor” (PF), which is determined by the National Institute for Occupational Safety and Health depending on the mask in use. Furthermore, there is also a permissible exposure level (PEL) set forth by OSHA which varies among the materials/chemicals an individual is working with. All face pieces have an acceptable level of concentration use called the, “maximum use concentration” (MUC).

Using the specific PF and PEL, you can now determine the MUC for safe use and work conditions.

Multiplying the (PF)(PEL) and your answer is the MUC.

For example, you’re working with asbestos and using a half-face respirator:

» PF = 10 and PEL = .1 F/cc (fibers per cubic centimeter)
» Now, 10 * 0.1 = 1.0 F/cc
» Therefore, your MUC = 1.0 F/cc

The Man Behind the Mask: Understanding your respirator

The purifying element of your respirator removes solid or liquid aerosols from the air and the filter, sorbent or catalyst removes specific contaminants passed through the container. For example, a High Efficiency Particulate Air Filter (HEPA) is 99.97% efficient of removing small particles from the air. Efficiency is a major component of classifying each respirator, in addition to it’s ability to stop oil-based aerosols and how long the filter will last. For a filter that is NOT oil-resistant, it is classified as “N;” Oil –Resistant is given an “R;” and Oil-proof is given a “P.”

» N series filters must be changed each shift if the environment is dirty.
» R series filters must be changed each shift if oil is present.
» P series filters can be used until they are dirty, damaged, lose their shape, or are difficult to breathe through.

All filters and canisters used in the workplace must be labeled and color coded. Each contaminant has their own unique color label.

The service life of your respirator’s chemical cartridge, filter or sorbent is the amount of time the equipment provides adequate protection to the wearer and is usually measured or estimated. Other factors which play a role in the service life and routine maintenance of your respirator are workplace conditions such as:

» Contaminant concentration
» Relative humidity
» Temperature
» Usage patterns
» Presence of other materials

Don’t Forget to Fit-Check

In an effort to increase your own safety, pay attention to WHAT you’re being exposed to and that will determine when a new cartridge is needed. It would be useful to consult the Occupational Health & Safety Administration (OSHA) “Advisor Genius” on their website to estimate the chemical cartridge service life.

Respirator fit-checks must be conducted prior to each use and the mask must seal tightly to the face. To do this, you can apply negative pressure to the two inhalation cartridges and breathe in until the mask collapses and seals on the face; OR you can apply positive pressure by covering the exhalation valve with your palm and exhale gently until there are no leaks in the seal of the mask. Once there is no leakage of air into the mask, the tightness of the respirator is considered satisfactory.

CIS: Clean, Inspect and Store

Clean: Generally, a mild detergent and soft bristle brush are suitable to use. Your respirator should be cleaned/disinfected as often as necessary when used for exclusive use; after each use for emergency or after fit-testing and training. Remove and clean filters, cartridges, valve assemblies and any other detachable parts. Rinse in warm water and dry before reassembly.

RINSE THOROUGHLY TO AVOID SKIN IRRITATION!