

INSPECTION AND MAINTENANCE

INSPECTIONS

Readiness of the AfroxPac is confirmed visually, at any time, by checking the tampering seals, the moisture indicator in the protective casing, and the general condition of the outer casing. The tampering seals must be intact, the moisture indicator must be blue and the outer casing must be in a good condition.

The moisture indicator will be blue as long as moisture has not entered the protective casing. (See Figure 4 for diagrammatic presentation). If moisture enters the protective casing, the blue colour changes, over time, to light pink or white, and the unit should be removed from service.

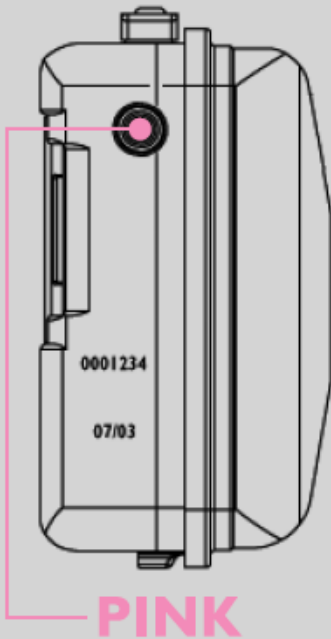
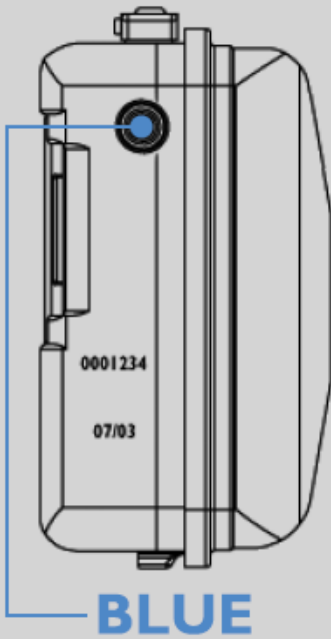
The AfroxPac should be removed from service when the functional performance tests conducted by the CSIR Miningtek on an annual basis indicate an untoward deterioration in performance. The AfroxPac 35 should also be removed from service should any of the following conditions exist:

- The secondary tampering seal is broken/removed.
- The units show signs of physical abuse (crushed, burnt, visible holes, cracks, dents, the closing strap becomes slack, unattached or unfastened).
- The unit fails the three monthly leak test.
- Chemical is leaking out of the unit.
- It is expected that the unit could have been tampered with.

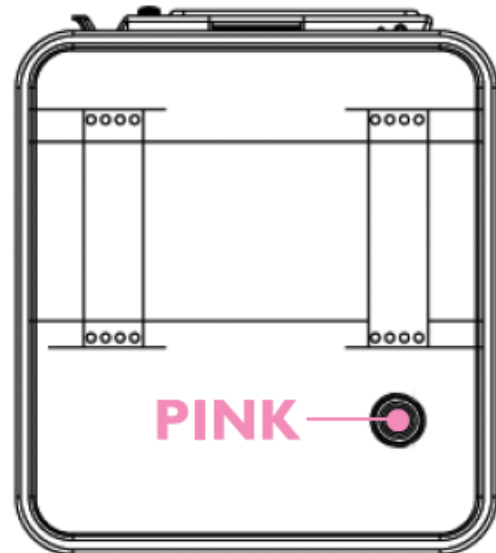
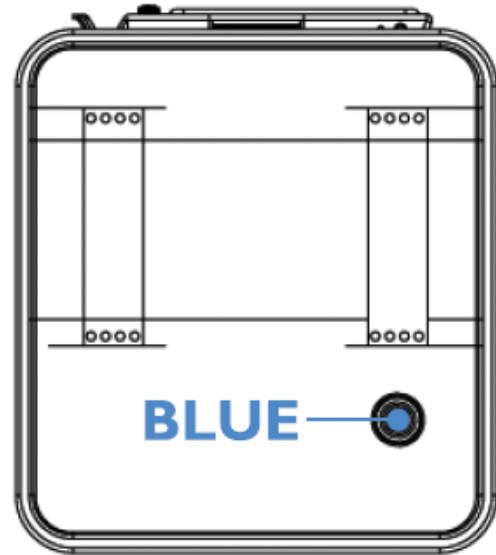
If the AfroxPac is removed from service for any of the above reasons, it cannot be redeployed unless the unit was examined or repaired by Afrox.

(Figure 4) DIAGRAMMATIC REPRESENTATION OF MOISTURE INDICATOR

AfroxPac 35



AfroxPac 30



INSPECTION ROUTINE

1. Daily Inspection

The AfroxPac should be visually inspected daily by employees and lamproom staff to be sure that it has not been tampered with, opened or otherwise damaged. Make sure that the anti-tampering seals are intact, that the moisture indicator is blue, and the outer casing is not damaged.

2. Quarterly Inspection

All units should be subjected to a three-monthly leak test to ensure that the unit remains leak tight.

3. Yearly Inspection

Where required by law or regulation, a given number of units must be subjected to a functional performance test by an approved inspection authority (e.g. CSIR, Miningtek).

MAINTENANCE (By mining staff)

The AfroxPac should be kept clean, especially the closing/opening mechanism and around the moisture indicator. If necessary wipe with a damp cloth. Harsh chemicals, cleaning solvents or strong detergents should not be used for this purpose. Suspect units should be removed from service immediately for checking/repair.

Although the AfroxPac is extremely rugged, it should not be thrown about or subjected to unnecessary abuse. The units should not be stored or exposed to temperatures in excess of 55°C.

REPAIRS

Repairs and/or refurbishments to AfroxPacs can only be done by Afrox. All damaged units should be returned to Afrox. The liability for the proper function of the apparatus is irrevocably transferred to the owner or the operator when the apparatus is serviced or repaired by personnel not employed or authorised by Afrox, or if the apparatus is used in a manner not conforming to its intended use (used as a body-worn escape device or not carried on the body continuously).

Damaged or opened AfroxPacs should be sealed in plastic bags specially marked for this purpose, and as supplied by Afrox. This will prevent chemical leakage and the possibility of exposure of personnel to hazardous chemicals. The units in the sealed plastic bags must be returned to Afrox.

DISPOSAL OF USED UNITS

To dispose of used units, disconnect the breathing bag and the breathing hose and remove the heat insulating material from the chemical canister. Gently place in a bucket containing a minimum of 15 litres of clean water. Make sure that the water is deep enough to cover the canister by 10cm. When bubbling stops, the chemical is expended. Dilute each litre of water used per canister with a minimum of 30 litres of clean water and pour directly into a suitable drain. Always use protective gloves and goggles.

If large quantities are to be disposed of, it is recommended that Afrox be contacted to remove and dispose of the units.

GENERAL HANDLING

- The unit should be opened for use **only** in an emergency. Water vapour from the atmosphere can enter the opened device, thus impairing its function.
- Make sure that no combustible substances (petrol, grease, solvents, etc.) can enter the device before or during use.
- There is a risk of ignition when the device is damaged and the oxygen-generating chemical comes into contact with combustible substances such as coal.

Further details regarding the inspection and maintenance of the AfroxPac are available from Afrox. Further details are also given in the AfroxPac Risk Assessment Document that is available to all mines.