



## TOOL BOX 064-CALIBRATION

It is a requirement for SABS approved companies and SAQCC registered staff to calibrate certain tools of trade. In a fire company's case the following will be calibrated and records kept:

- a. All scale minimum period weekly.
- b. All nitrogen regulators period weekly.
- c. All pressure test pumps weekly.
- d. All test pieces (test weights) yearly by an independent accredited approved body
- e. All test gauges yearly by an independent accredited approved body

Scales do not have to be calibrated by an independent body as we in this industry do not sell our good by weight such a meats, cake flour, cement, etc.

It should become a habit to calibrate before use especially when it comes to nitrogen regulators; after all it's your life at stake. You should never rely on others in this case.

To increase safety some companies has fitted the regulator test gauge permanently to the regulator, allowing you to check every time you use the equipment that two gauges match in pressure.

a. Hanging scale (one used in the field)

*Attach test piece (2kg) to scale and check reading on the scale matches by indicating 2kg on the scale.*

*Yes: Sign calibration check list*

*No: Sign calibration check list, and indicate the actual reading. Make allowance for this variation when weighing the extinguisher.*

*Report findings to your supervisor.*

b. Platform scale (mainly in the workshops)

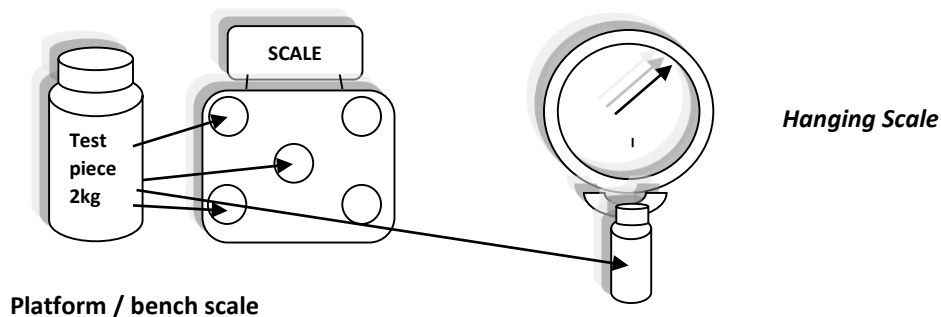
*Place test piece in all four corners and the centre of the scale, and take a reading at each point.*

*Yes: Sign calibration check list.*

*No: If the reading is out when testing the corners, the usual fault is the scales not on level ground. Adjust and retest.*

*If after the test the reading is still incorrect. Sign calibration check list, and indicate the actual reading. Make allowance for this variation when weighing the extinguisher.*

*Report findings to your supervisor.*



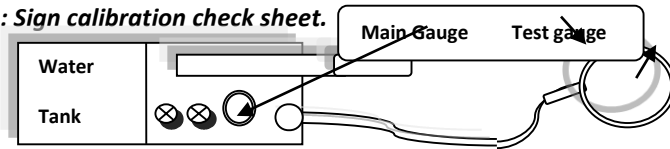
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### Pressure test Pump

Before pressure testing a low pressure cylinder the pump is to be calibrated with the check gauge. In this case if the readings do not match the pump will not be used. Report immediately to the supervisor.

Connect gauge to pressure hose, pump up to 3000kpa and check both gauges match

Yes: Sign calibration check sheet.



Pressure Pump 6000kpa

### Nitrogen Regulator N2

The calibrated gauge is fitted permanently to the regulator

- a. Ensure cylinder valve is in the off position
- b. Open on/off switch valve to release any pressure and then close. All gauges will be reading zero and if they are not stop and report to the supervisor. (cause will be a malfunction gauge)
- c. If gauges read zero turn on main cylinder valve and check readings.
  1. Gauges reading the same set pressure to 1400kpa
  2. If one gauge out 1 – 10kpa set the lower of the two to 1400kpa. Report findings to the supervisor
  3. If one gauge out more than 10kpa. Stop work immediately and report to the supervisor.

In all cases fill in the Calibration check sheet.

There is a further safety feature that can be fitted to your system. You can fit an additional safety relief valve in the system which blows off a 2000kpa. (Advisable to use a fix one, not adjustable)

The regulator has been pre-set to 1400kpa, and there should only be fine adjustment to be done.

Do not if the cylinder is low try to force extra pressure. You will fail in your endeavours and damage the diaphragm of the regulator – costly affair

Presented By:  Name: _____	Date  _____	Signature  _____
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