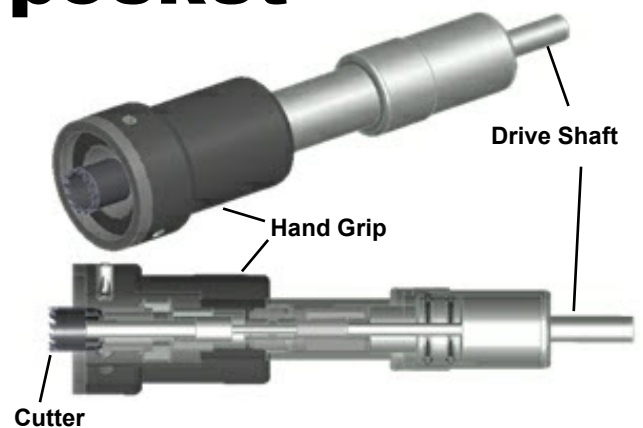




Midas CBRN Manual Sampling System

CBRN detection in a pocket sized package.

Rapid, safe sampling in the palm of your hand



Sealed containers - not a problem!

No non-invasive technique can precisely establish the true chemical composition of the contents of a sealed container. In order to provide sufficient information for appropriate action to be taken a physical sample is required. Although MMIC's Monica sampling & disposal system has many advantages, there are situations where the ability to rapidly take a small sample of the contents of a container is preferable.

For this reason MMIC has developed the Midas disposable sampler, allowing access to the contents of a container in a simple, safe, reliable and completely leak-free approach.

Applications include the sampling of suspected CW (chemical warfare) materials and TICs (toxic industrial chemicals)

Advantages

- **Portable** - The whole system fits in the palm of your hand.
- **Simple** - Designed to be used intuitively in full NBC protective clothing.
- **Fast** - Thickest targets drilled in under 2 minutes.
- **Safe** - System ensures no agent release in the event of a power failure.
- **Cost Effective** - Minimise containment, reduce cordon times.

Function & Capabilities

The equipment consists of a drilling probe assembly comprising of 10mm cutter, capable of penetrating up 8mm case thickness. The drill can cope with metal (including stainless steel), plastic or wood. As it drills the system installs an integral seal which prevents leakage once the target is breached.

Once complete a sample can be drawn using a MMIC Mk3 syringe. The syringe clips onto the drive shaft and is equipped with drip flat couplers to reduce contamination. For simple analysis the barrel of the syringe is compatible with Raman spectroscopy equipment, allowing a result to be obtained in under 3 minutes.

The whole system is powered using a standard electric screwgun or drill (a manual drill can also be used). It is compatible with nearly all chuck configurations.

The sealing mechanism deals effectively with targets of all diameters and case materials. A prototype successfully drilled and sealed a 'soft drinks' bottle containing liquid.



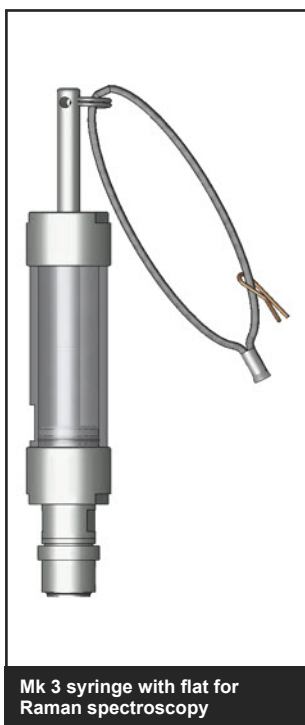
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Easy Installation.

In the above picture the equipment has fully installed, the chemically resistant seal has been drawn up onto the inside wall of the target, forming a gas-tight seal. The probe assembly will seal on wall thicknesses between 1 and 8mm, and with internal pressures of up to 4 Bar (~60 psi). The operator has only to drill into the target, the seal installing automatically. Once installed the probe can be used for as many repeat samples as necessary.

The operator does not come into contact with the sample or internal contents at any time. The entire syringe assembly is designed to be packed in a standard IATA approved container for transport to an analytical laboratory for further tests if required.

Alternatively, a sealed sample downloader can be provided which aliquots the sample depending on the analytical equipment requirements, most equipment generally requiring a sample of only a few microliters for 'onthespot' analysis. All materials used in the Midas system are designed to be resistant to a wide range CW agents and TIC's and are compatible with applicable DefStan's.



Mk 3 syringe with flat for Raman spectroscopy

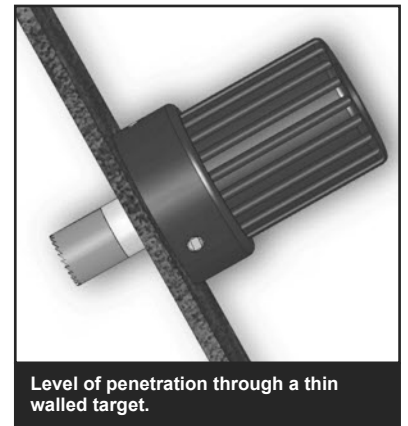
The equipment is produced under 'clean-room' conditions and vacuum-packed in order to prevent cross contamination. An optional diamond core cutter allows glass and ceramic targets to be drilled and sampled.

The all-up weight of the system is under 100 grammes, with a total size of approximately 150 x 40mm when packed in its transport container. The system is supplied in a ruggedized 'PeliCase'.

A range of probe types, other manual sampling equipment and a suitable high-quality cordless drill may be provided if required.



Midas seal installed in target, ready for the Mk3 sampling syringe



Level of penetration through a thin walled target.

Further Information.

More information can be found at www.mmic-eod.co.uk or contact us as mail@mmic-eod.co.uk