



# VIDISCO News:

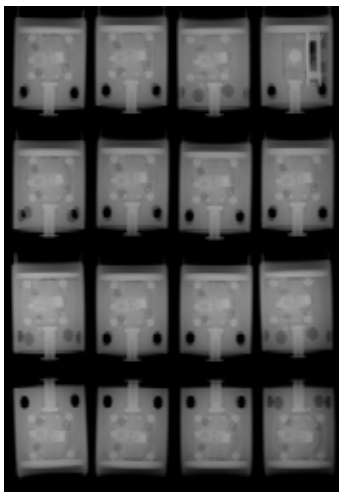
March 2009

## X-ray Inspection of Munition with Vidisco Systems

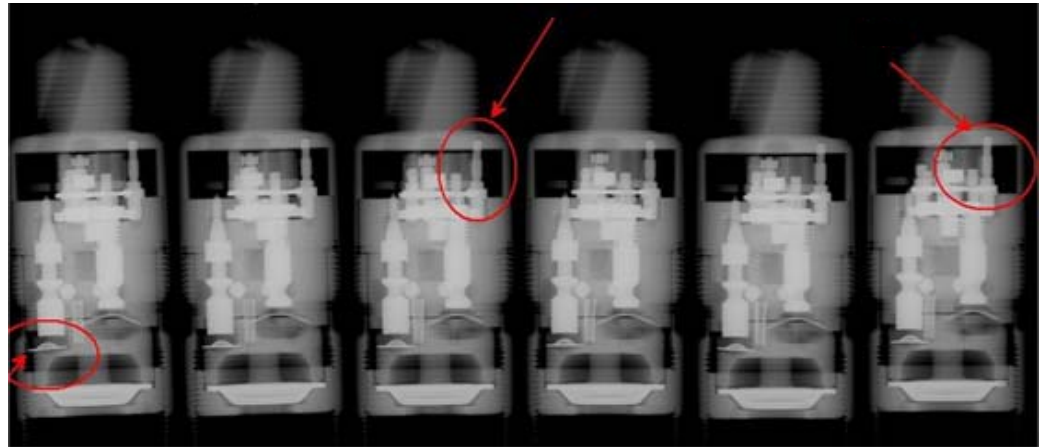
Munition X-ray inspection is conducted in **4 main applications**:

- |                                              |                                       |
|----------------------------------------------|---------------------------------------|
| 1. Quality Control (QC) in Production        | - Munition Manufacturers              |
| 2. Maintenance (Product Life)                | - Military Arsenal                    |
| 3. Inspection of Unexploded Ordinances (UXO) | - Military/ Police EOD/IED Units      |
| 4. Reverse Engineering for Dismantling       | - Military EOD and Fire Testing Units |

### 1. QC in Production



Detonator Tray X-ray



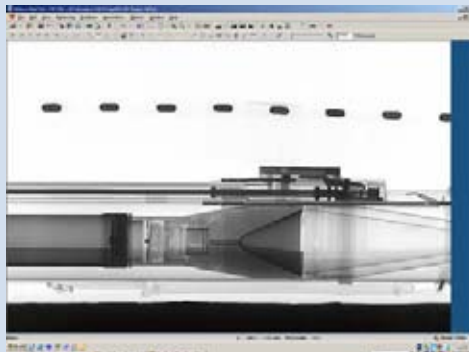
100% Mandatory Inspection Rate of Fuses at Production Stage (Circles show Defects)

With Vidisco's Systems one can conduct quick inspection right on the production line.

### 2. Maintenance (Product Life)

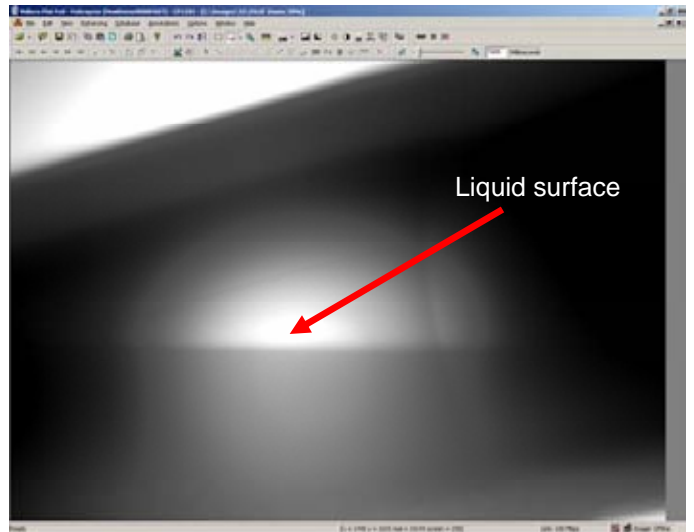
Munitions are produced in advance and stored for long periods until required in emergency times. Therefore they must be regularly checked for damages. A crack in the explosive material can cause premature blow ups and unwanted accidents when shooting the projectiles.

With Vidisco's high resolution and excellent dynamic range (16,384 gray levels), even the smallest of cracks/ or bubbles in the explosive material, or porosity can be detected. Vidisco Systems are easy to use in the field and in the laboratory. Vidisco offers interchangeable panels and accessories that enable use in various conditions.



RPG 22 Munition Inspected with Flat foX-17 and Seifert Industrial Continuous Source

### 3. UXO - Unexploded Ordinances



Liquid Surface is visible in X-ray of 155mm Shell Head. This is especially important for WWI UXO which may contain chemical liquid substances.

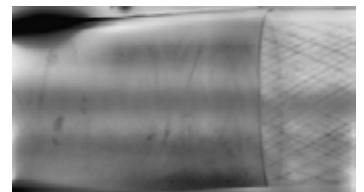
War zones are always a fertile field for unexploded projectiles. In the current conflicts raging in Iraq and Afghanistan peace keeping troops are challenged with new UXO's every day. There are post war remains from the entire 20<sup>th</sup> century (in Europe one can still find WWI and WWII UXO's but also more recent projectiles from the Balkan conflicts). These remains may explode and wound innocent people. An X-ray inspection is crucial when clearing and disposing of such remains.

### Case Study

A test was conducted at Israeli Military Industries' (IMF) laboratory with continuous 300V X-ray sources (Balteau and Seifert) on a 122 mm "Grad" Rocket proved the capability to penetrate this thick case missile. This missile was frequently used during the last Israeli Lebanon war and shot by Hezbollah to the north of Israel. Some of those projectiles landed within civilian sites and remained UXO (Unexploded Ordinance) that required careful evaluation and removal.



(Information and Images are courtesy of Lt. Col. (res) Eli Ben Bassat)



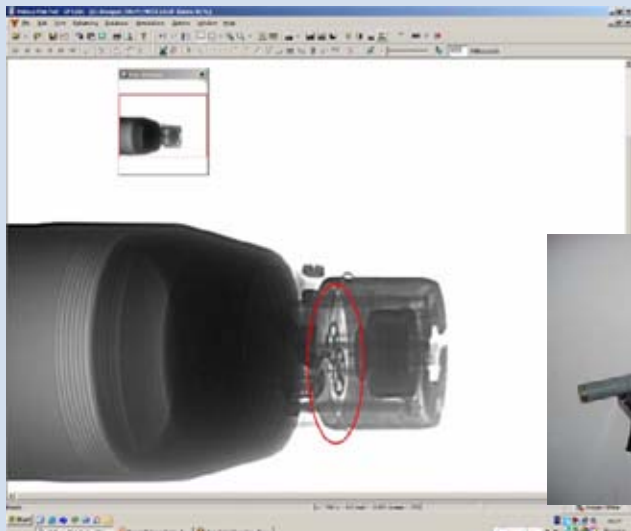


Lieutenant Colonel Eli Ben Bassat (res.) served with the Israeli Defense force (IDF) EOD and Israeli Police for 30 years, reaching the position of Commander of the IDF EOD unit. He has experience in EOD/IED and anti terror field operations, bomb scene investigation, training programs and development of the Israeli Police and IDF basic IED SOPs. He is now a co-manager of Red Wings Ltd.

For more information about the missile threat to Israel click <http://www.icpa.org/brief/brief006-10.htm>

## 4. Reverse Engineering for Dismanteling

With X-ray a bomb tech can inspect the detonating system of an EOD or IED. Thus learning more about it's construction and how it can be dismantled safely.



EW Electronic Warfare Rocket Head X-ray, Taken with foX-Rayzor and XRS-3, 65 Pulses



Model for Weapon dismanteling



339 Cluster Munition Fuse Mechanism  
(X-ray with Seifert Eresco MF2 Continuous Industrial Source – Exposure 4 seconds, with foX-Rayzor)



### Unique Technology:

foX-Rayzor & Flat foX-17 X-ray imagers: 10-100 times more sensitive then film provides high penetration. Excellent resolution & high dynamic range (14Bit - 16,384 grey levels). Operates with pulsed X-ray and industrial constant potential X-ray sources.



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