

# Madoors

Innovative Engineering



# We're **Madoors**

We provide solutions you need

Madoors is an innovative engineering company and professional manufacturer of security equipments and access control systems which located in **Ankara, TURKEY** since **1986**. We believe that continuous success depends upon the ability to provide superior quality products and services at the lowest possible prices. We promote passion to transcend with a Madoors spirit at all levels of organization. Integrity and commitment to customer satisfaction are our core values. We can claim a wealth of experience in the manufacture of high security barricade and barrier systems and have a proven track record that is difficult to surpass. We have developed an impressive range of products, ranging from **X-ray Cargo/Container/Vehicle Scanners** to **PAS 68 / K12 Crash Tested High Security Road Blockers** and **Robotics**, designed to enhance the security of premises and improve the protection of personnel. Since our entry into the security field we have gained an outstanding reputation for quality and reliability. Sites supplied over the years include global corporations, banks, airports, government buildings and palatial sites. We pride ourselves on being one of the leaders in the design and manufacture of high security crash rated products.

## **Countries we sold our products already**

We export our products all over the world. You can find the countries below:

Ukraine, Azerbaijan, Turkmenistan, Montenegro, Mongolia, Syria, Saudi Arabia, Iraq, Libya, Egypt, Algeria, Somalia, Burkina Faso, Qatar, Afghanistan.

## Our References

Due to the sensitivity of our security products and the institutions we install, we place great emphasis on trust and privacy. Because of our sensitive and careful approach, we have been favored by Turkey's most important institutions, including the **Presidency of Turkey** and **Turkish Armed Forces General Staff**. Some of our references are below:



Presidency of Turkey



Prime Ministry of Turkey



Turkish Armed Forces General Staff



Turkish Land Forces Command



Turkish Naval Forces Command



General Command of Gendarmerie

## Our Certificates

We have many certificates for our wide range product and customer profile. For Europe, African and CIS countries generally needed certificates which we have are EN ISO 9001, K12 and PAS68 Crash Test Certificates.

## **MG-50 X-ray Scanner**

### **Gantry Model with Material Discrimination**



**Madoors MG-50 X-ray Cargo Scanner** is cost effective, safe and reliable system for the inspection of trucks, vehicles and cargo containers for weapons of mass destruction (WMDs), concealed contraband, smuggled goods and for manifest verification, reducing the need for manual inspection.

We partner with physicians, scientists, researchers, and others around the world to offer the most advanced and cost-effective x-ray technologies available.



## FEATURES

- ▶ Easy to use
- ▶ Requires only one operator
- ▶ High throughput, can scan up to 30 *trucks per hour*
- ▶ It can scan single or multiple vehicles arranged in a row
- ▶ Includes a camera snapshot of scanned vehicle
- ▶ Allows to scan stationary vehicles, containers, air cargo and pallets  
Optimized source to detector distance enhances penetration performance
- ▶ Complete imaging of vehicles and trucks without corner cut off of containers or cargo
- ▶ Full image of truck or container contents
- ▶ Minimal infrastructure is easily integrated into existing facilities
- ▶ Automated scanning operation, no manual controls needed
- ▶ Designed for operation in all weather conditions
- ▶ Safe, low radiation levels
- ▶ Small-footprint

## **SPECIFICATIONS FOR 6 MEV**

Wire resolution	5mm
Spatial resolution	11mm
Throughput	30 trucks per hour
Scan Speeds	User selectable speeds of 0.2, 0.3, 0.4 m/s
Steel Penetration	up to 400mm

## **ELECTRICAL REQUIREMENTS**

The system operates from a single 15kVa 50/60 Hz power source.

Two voltage ranges are available.

### **Low Voltage Option**

208 V AC , 3 phase , 3 or 4 wire plus ground , 60 Amp minimum surge per leg +10% voltage regulation is required.

### **High Voltage Option**

400 VAC, 3 phase, 4 wire plus ground, 40 Amp minimum surge per leg + 10% voltage regulation is required.

The TCU is connected to a separate 13kVA power source. Models are available that can operate on a line voltage of 220 VAC and 400 VAC at 50 Hz or 220 VAC and 480 VAC at 60 Hz. Separate 10 kVA power source may be required for the inline heater package.

## OPERATION

Tunnel height	5m
Tunnel width	4.7m
Target scan size	Typical truck size: 4.5m high x 3m wide
Minimum scan height	Lower than 355mm
Scanning modes	Forward or Reverse scanning direction Single or Multiple vehicles or cargo
Scanning Angle	10° oblique scanning angle to enhance false wall detection

## OPTIONS

1. VEDS, Vehicular Explosives Detection System using Thermal Neutron Analysis to automatically detect the characteristic signatures of explosives and narcotics
2. License plate snapshot with every image
3. Remote Supervision Station (Wireless Networking)
4. Image Database and Cold Weather Kit
5. RTIS - Passive detection of nuclear material
6. Cargo Viewer Simulator for operator training

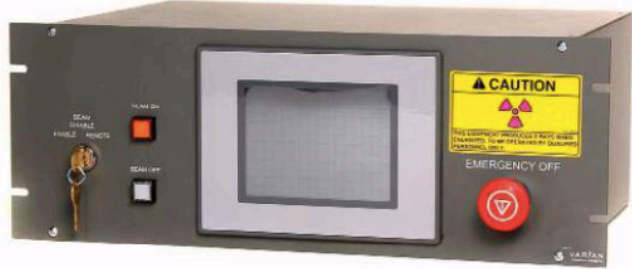
## **GENERAL CAPABILITIES**

1. Remote Operator Viewing Station
2. CrystalClear and Quick Automatic Image Enhancement
3. Zoom (10X), Real-time Spot Zoom, Brightness control, Pseudo - color, Emboss
4. Annotation, Histogram Adjustment, Log function, Square-root, Impenetrable Area
5. Identification and Color Printing of Image
6. Training mode and Online Help
7. Automatic System Calibration and Diagnostics
8. Split window for comparing images and Full screen view, Save Area of Interest
9. Image Archiving on CDRW,CD-R - Save Raw, BMP, JPG, TIFF formats
10. CCTV Surveillance system with image capture function

## **SAFETY**

1. This system has an intrinsically lower radiation field when compared to equivalent X-ray systems, this provides a smaller operational area and exclusion safety zone
2. This system complies with US and international radiation safety standards
3. Red radiation on warning light
4. Audible alarm when radiation is On
5. Mechanical x- ray source indicator warning flag
6. Emergency stop button (ESTOP)
7. Key to turn system On/Off
8. Fail-safe radiation source On/Off mechanism





## **X-RAY SOURCE**

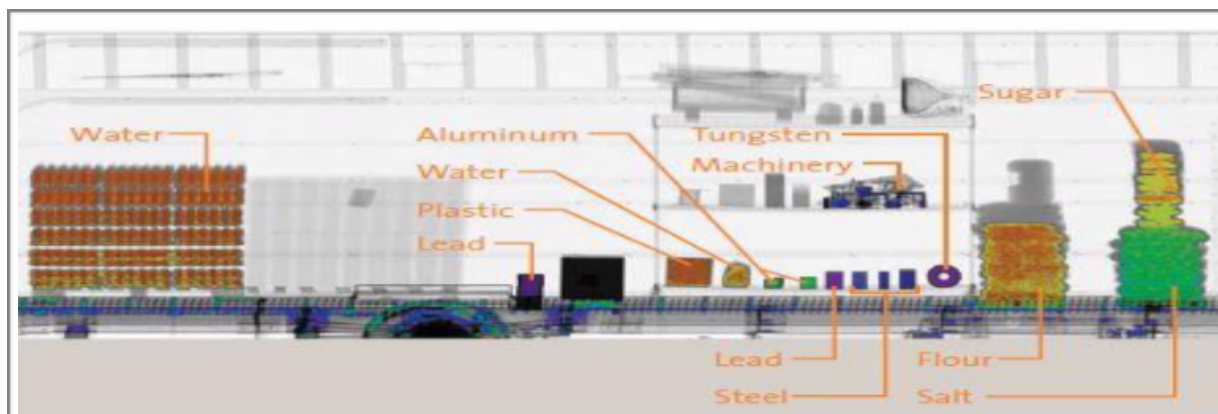
- ▶ X-Ray Head Low Leakage (0,1%)
- ▶ Modular / Power Distribution Cabinet External signal interface
- ▶ Temperature Control Unit (TCU)

The TCU is used to keep the system components at a nominal 30°C (86°F). It is available in high voltage and low voltage configurations for environment ranging from -40/+55 °C (-40/131°F) condensing

- ▶ Standard Spare Part Kit

The standard spare parts kit includes over 40 items such as PC boards and individual components.

- ▶ Interconnecting Cables and Hoses Included
- ▶ Manuals and Data Books
- ▶ Two sets of operator and maintenance manuals and data books are included
- ▶ Installation Supervision and Start -up Assistance
- ▶ Standard Leakage Radiation
- ▶ The leakage radiation is specified along the horizontal axis 1 meter from the beam centerline at angles 60° and greater, outside the primary beam. The values in table 3 are a fraction of the primary beam central axis dose rate measured with a 10cm x 10cm collimator. Leakage is taken with a primary beam completely blocked.



Trust-Rated Material Discrimination example

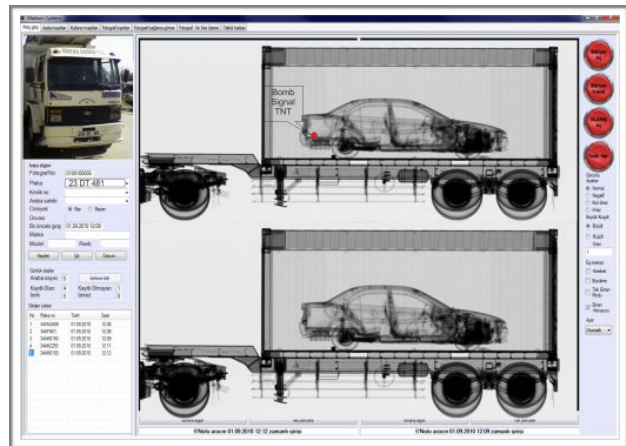
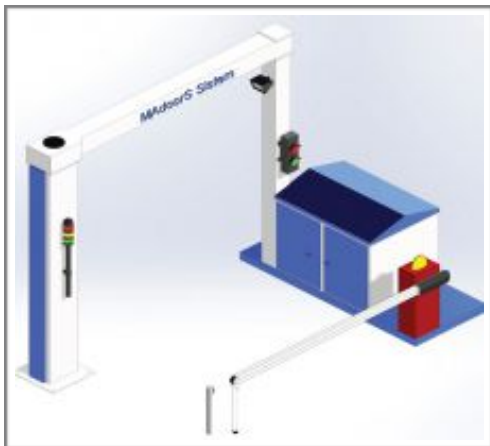
## MATERIAL DISCRIMINATION SOFTWARE AND PHYSICS PACKAGE

In contrast to conventional algorithms, this system intended for lower energy. Material discrimination algorithms were developed from the ground up to deal with unique physics of megavolt particle interactions. In particular, software feature gauges the confidence level of every material discrimination assessment and only colors those areas that have been discriminated to high confidence. Material discrimination solution offers remarkably repeatable and trustworthy results by automatically distinguishing reliable from ambiguous assessments.

Viewer feature allows operators to use multiple custom color maps , even on the same image.

If a user wants to concentrate on the difference between organic and inorganic objects or between metals and high-Z materials, a number of color maps can be applied to quickly identify these characteristics. Users can select from an infinite color palette to assign desired colors to specific materials or cargo types.

## Our Other X-ray Scanners



## Our Certificate for X-ray



In Turkey, you have to be authorized by **Turkish Atomic Energy Authority** to manufacture X-ray systems and Madoors is the only company who has this certificate



## Varian Official Business Partner

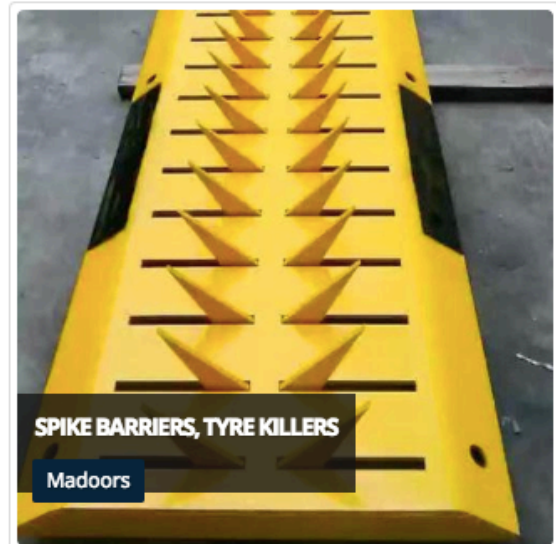
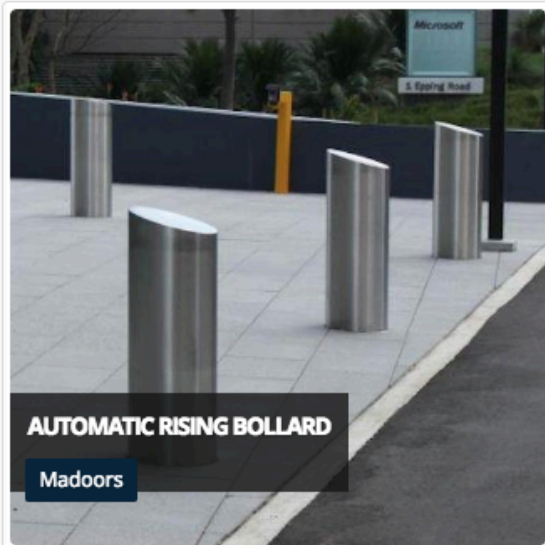
Varian's Oncology Systems business - located in Palo Alto, USA - is the world's leading medical devices and software for treating cancer and other medical conditions with radiotherapy, radiosurgery, proton therapy, and brachytherapy and manufacturer of radioactive sources.

Their products include linear accelerators, simulators, afterloaders, and a broad range of accessories and interconnected software tools for planning, verifying, and delivering leading edge treatments in the fight against cancer and other diseases.

**As Madoors** we obtain our linear accelerators, X-ray generators, photo-diode array and physics from our partner Varian.

## Madoors's Other Products

We are an innovative engineering company. So our customers need is the key value for our products. We can manufacture anything you want in our factory. Along with that our products can be classified as below:





**DROP ARM BARRIERS**

Madoors



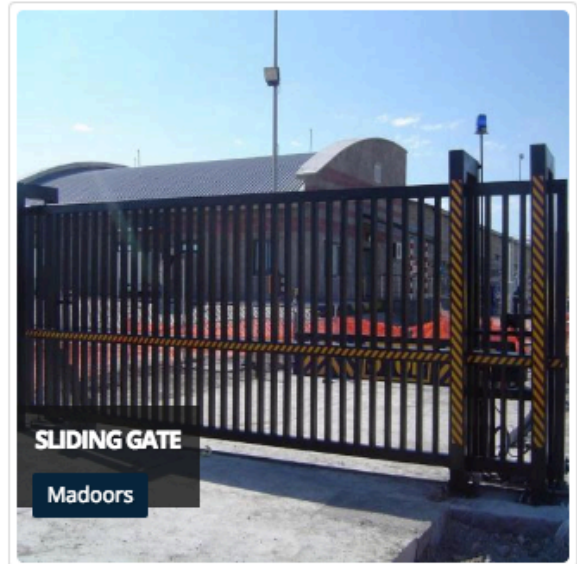
**CHAIN BARRIERS**

Madoors



**HESCO BARRIER**

Madoors



**SLIDING GATE**

Madoors



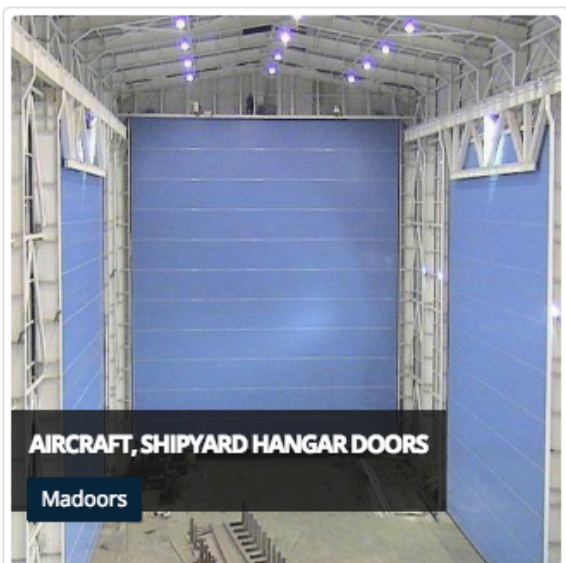
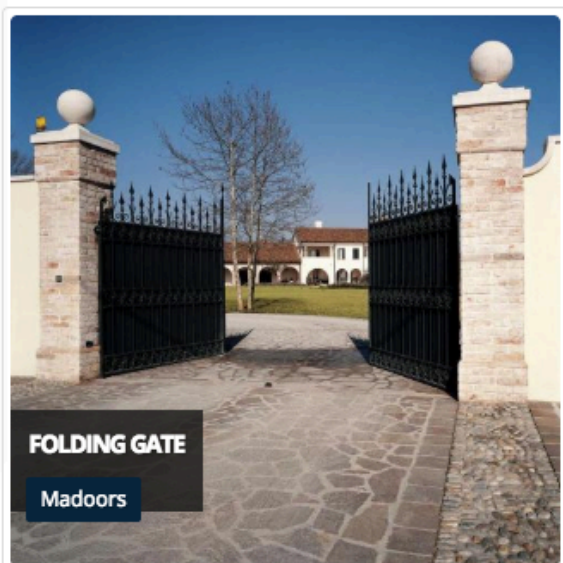
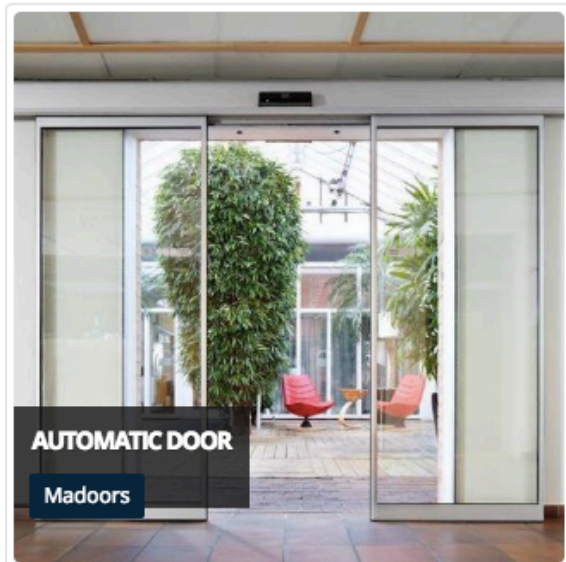
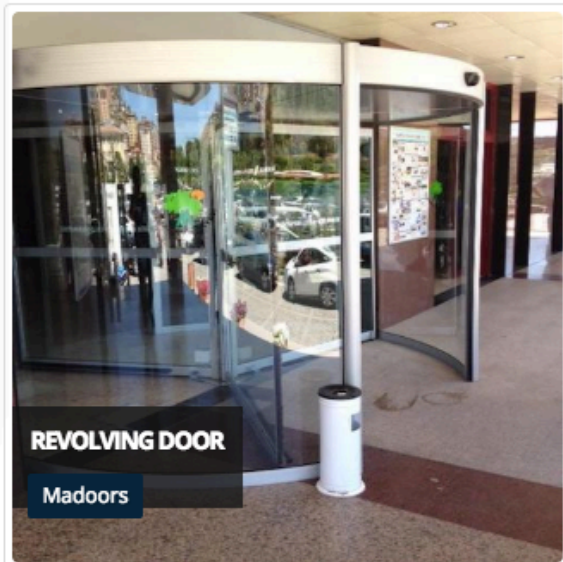
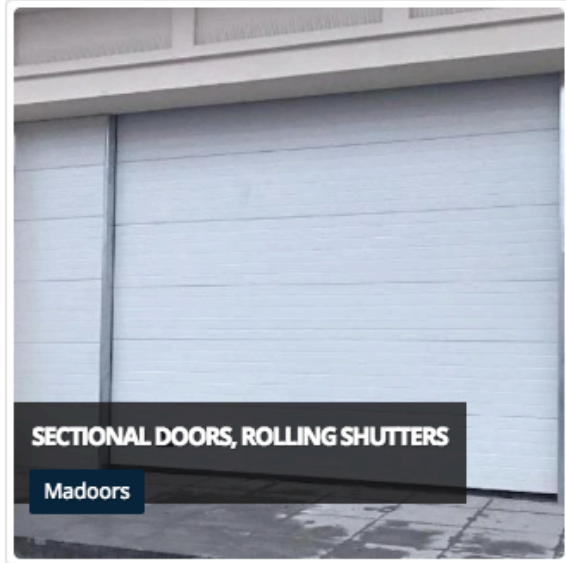
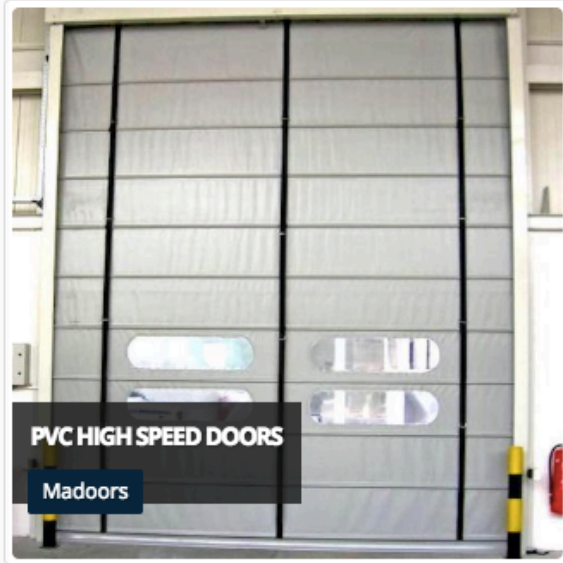
**WEAPONS STORAGE, ARMORY CABINETS**

Madoors

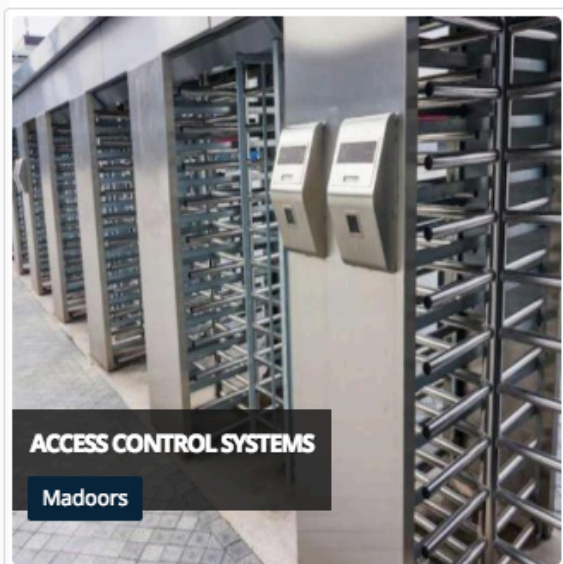
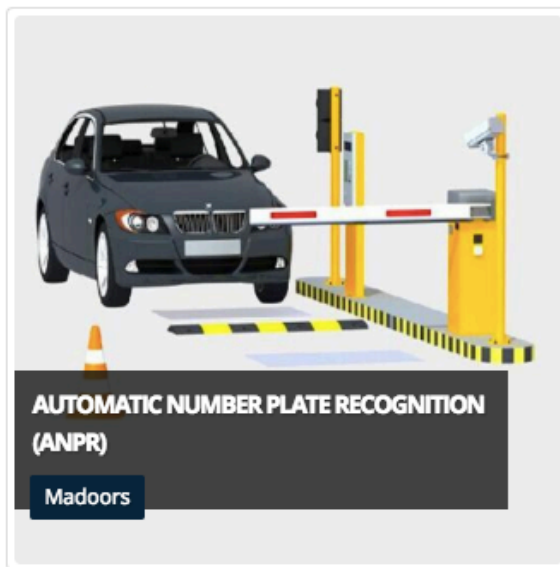


**SAFETY DEPOSIT BOX**

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**FLAG POLE, FLAG HANGING SYSTEM**

Madoors



**DOCUMENT, PAPER SHREDDER**

Madoors



**GUARD FOOT HEATING SYSTEM**

Madoors



**ROCKET BLOCKER WIRE**

Madoors

For more: <https://www.madoors.com.tr>