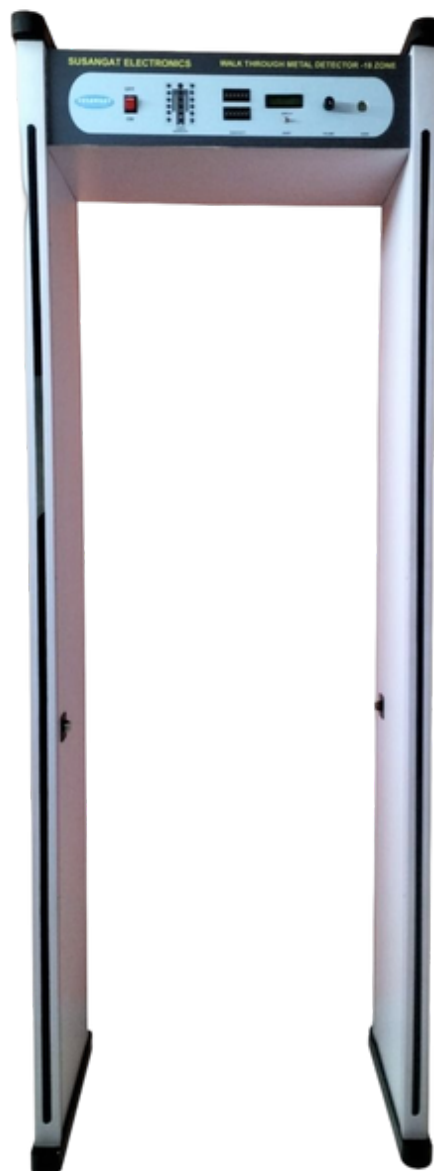


# Name of the Product

- **Door Frame Metal Detector (DFMD)**
- **Walk Through Metal Detector**



## Types of Door Frame Metal Detectors



Single Zone  
Metal Detector



Multi Zone  
Metal Detector

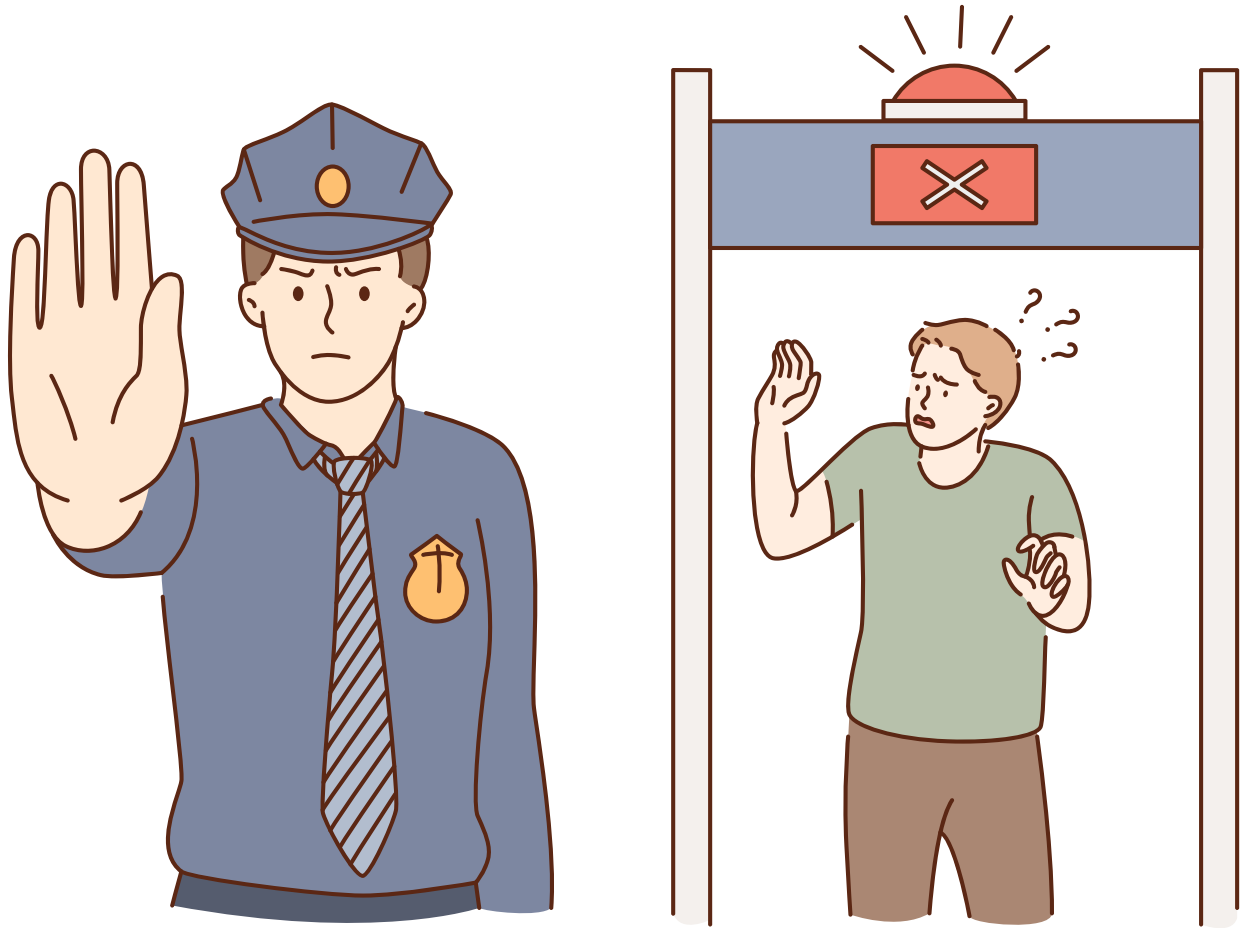


Portable Metal  
Detector



Pole Metal  
Detector

## Benefits of Using DFMD:



- It clearly shows whether the visitor is carrying any metal through sound and LED indicators.
- It gives an idea about the size of the metal through LED Graph.
- If it's a multi-zone DFMD, it pinpoints the exact location of the metal on the visitor.
- Some DFMDs with advanced features also count the number of visitors separately for "in" and "out".

## Common Questions about DFMD:

**Q1: Everyone carries metal. So whom should we check and whom should we let go?**



DFMD detects the presence of metal, but its type and size must be physically checked. For example, both a spoon and a knife are metal objects, so a decision must be made by looking.

**Q2: If Hand Held Metal Detector is available, is DFMD still necessary?**



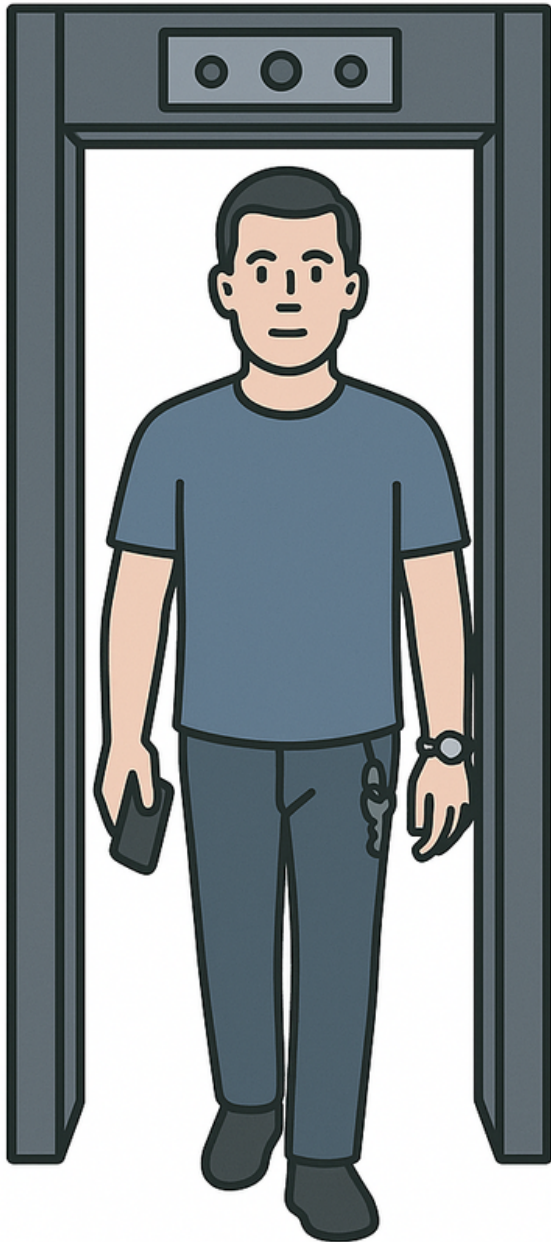
HHMD detects small metals like stapler pins. If a visitor has hidden some metal and hasn't shown it after passing through DFMD, HHMD helps in finding it.

**Q3: Mobiles, Watches and keys are common; is there a separate setting in DFMD to ignore them?**



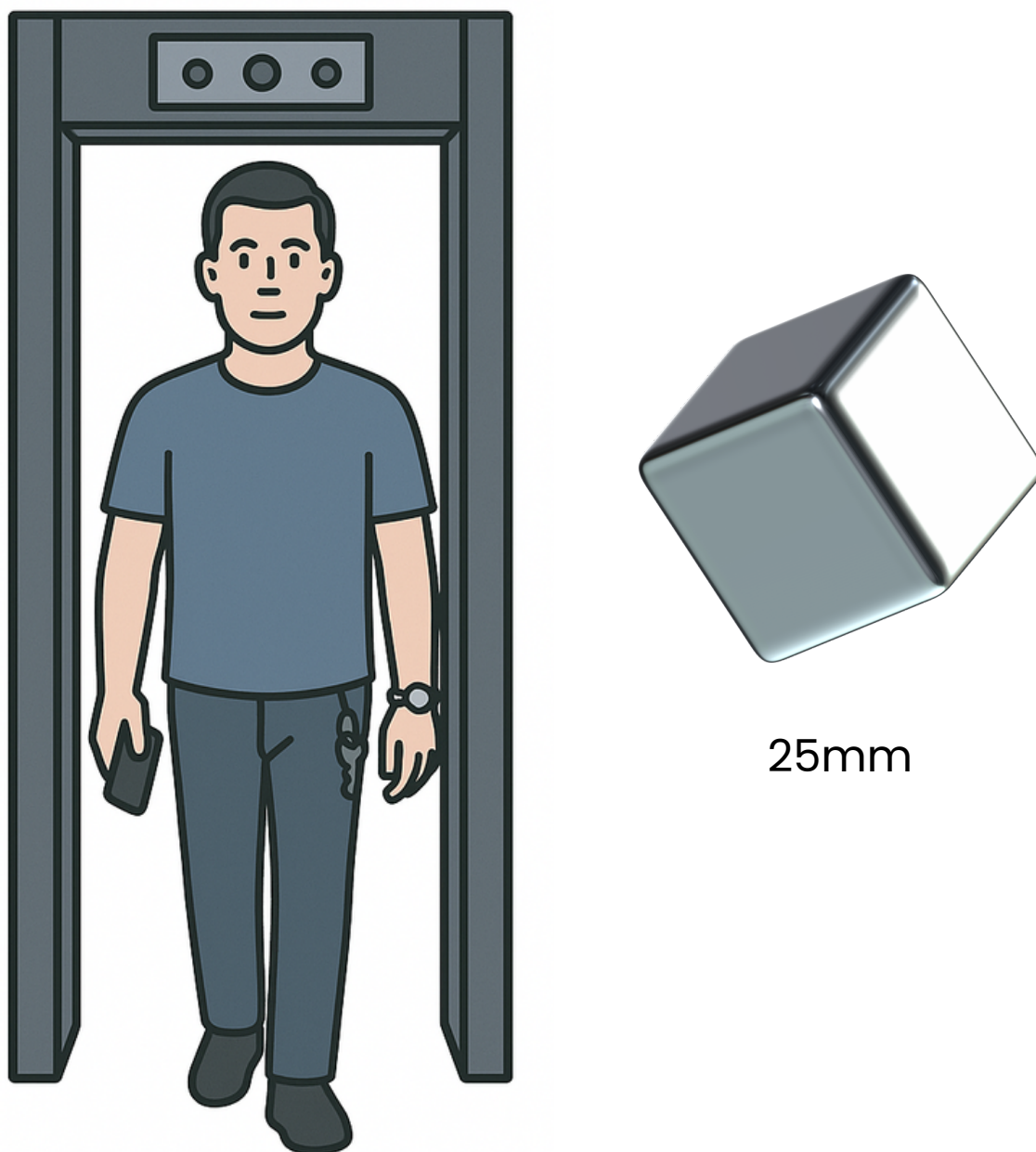
No, DFMD does not differentiate between types or shapes of metals—it produces the same sound for all.

**Q4: Does passing through DFMD have any side effects on the body?**



**No, there are no effects.**

### **Q5: How small can a sensitive DFMD detect?**



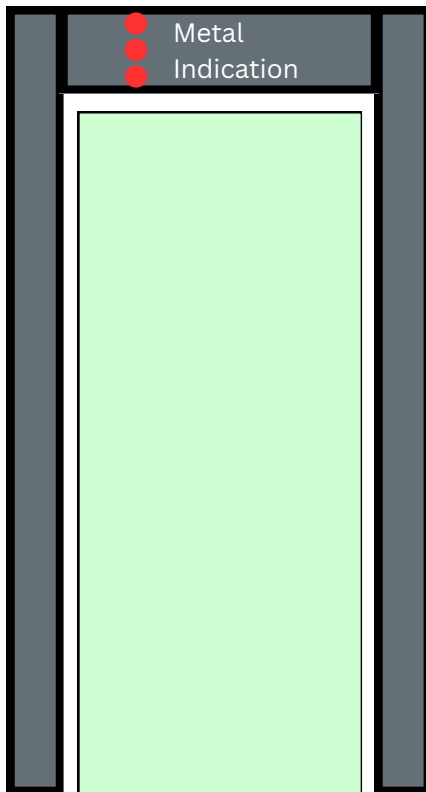
DFMD can detect metal as small as 25 mm by 25 mm square; HHMD can detect something as small as a stapler pin.

**Q6:What is the correct way to use DFMD?**

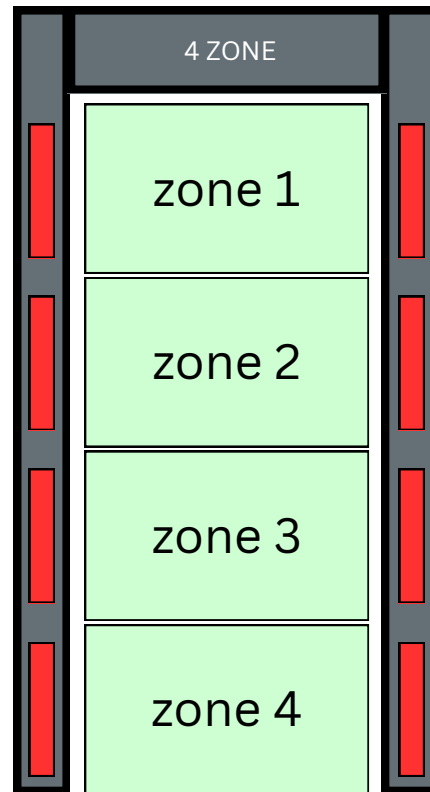


Visitors should show any metal items before entering the DFMD, and only then proceed.

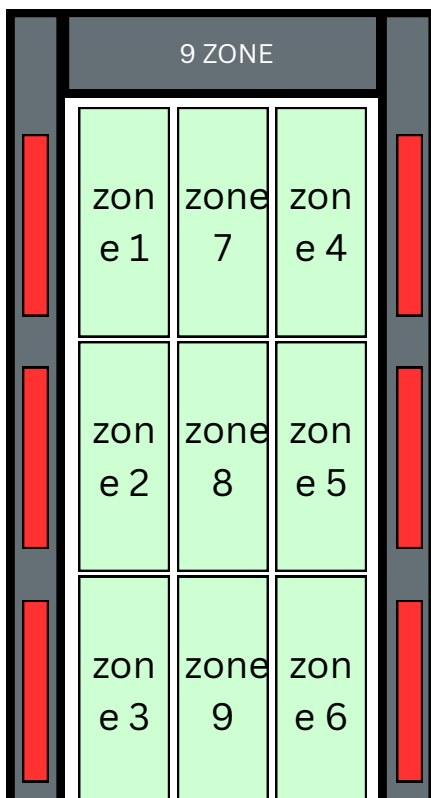
## Q7: What is the difference between single-zone and multi-zone DFMDs?



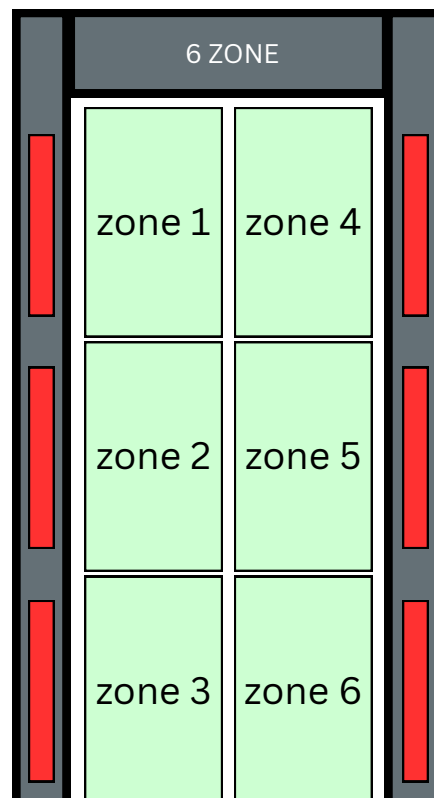
Single Zone DFMD



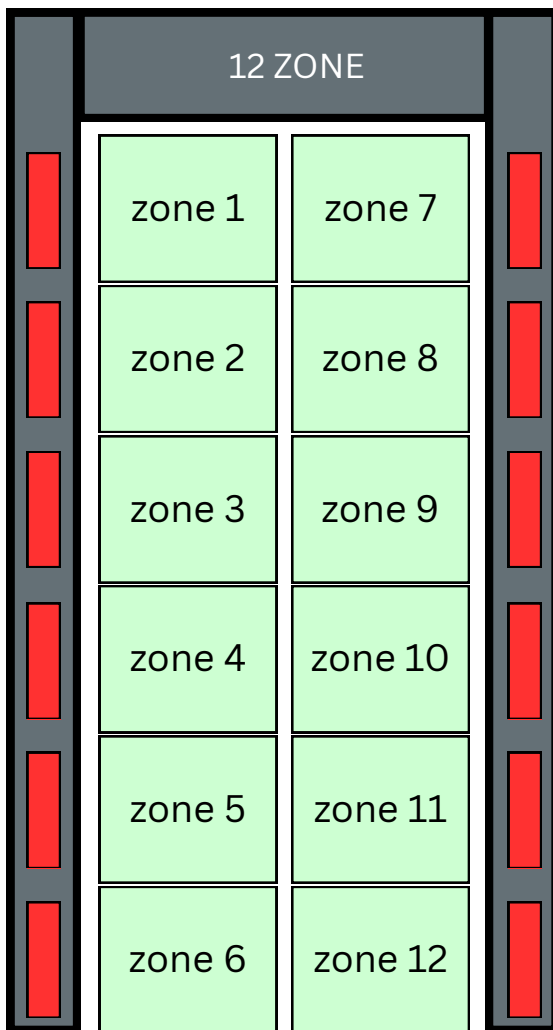
Multi Zone DFMD



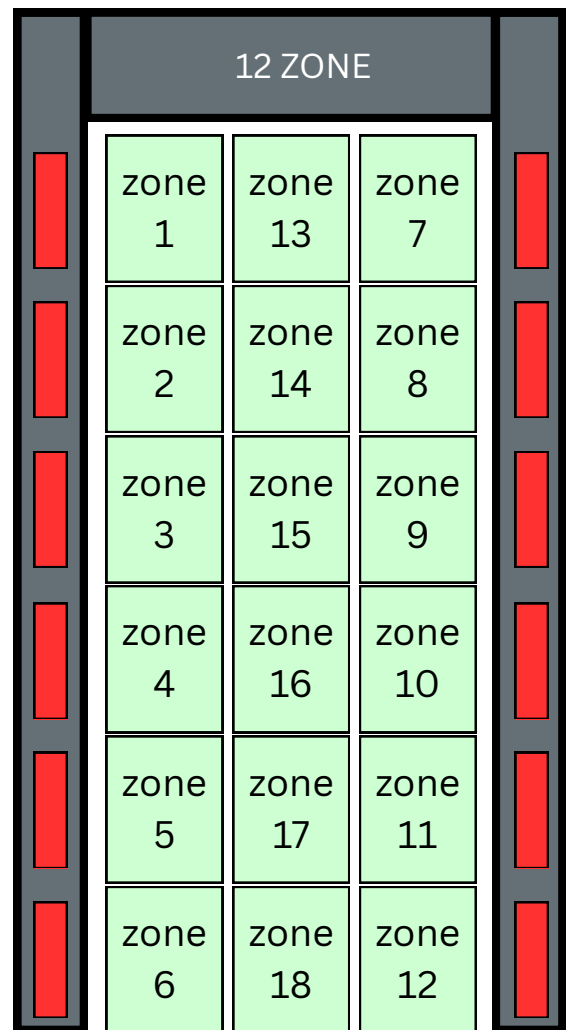
Multi Zone DFMD



Multi Zone DFMD



Multi Zone DFMD



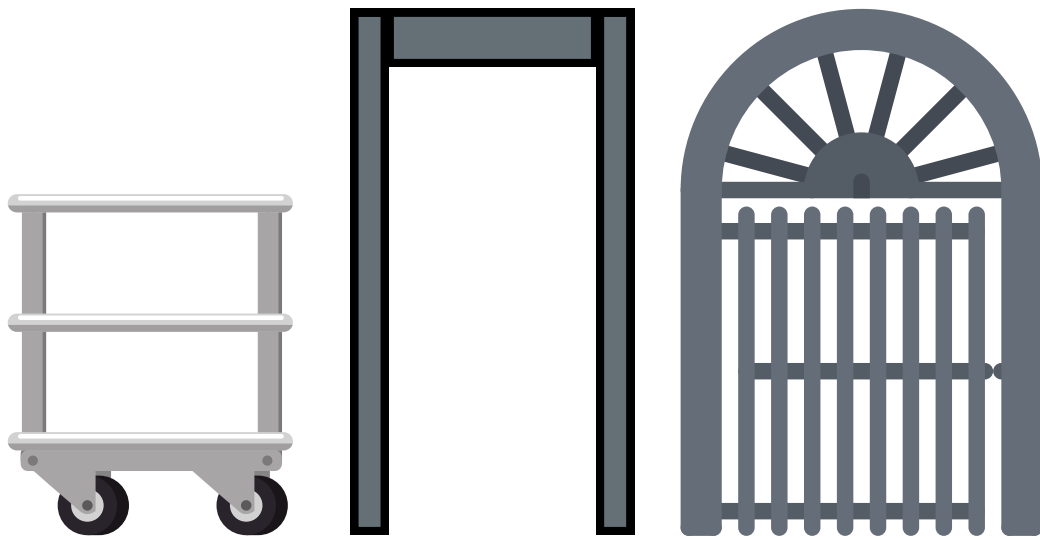
Multi Zone DFMD

The inner space of a DFMD is called a zone. These can be divided into 3, 4, 6, 8, 10, 12, 18, or 33 parts with corresponding indicators. Only the zone with metal lights up, helping locate the metal on the visitor. Single-zone DFMD only indicates whether there is any metal, not the location.

Summary:

- Single Zone detectors tell you "something is there."
- Multi Zone detectors tell you "something is there, and it's near the left ankle."

## Q8: What is a false alarm in DFMD?



It happens due to nearby moving metal, sparking lights, or another DFMD nearby. These can be managed to avoid false alarms.

## Q9: Is detection based on the weight or size of the metal?



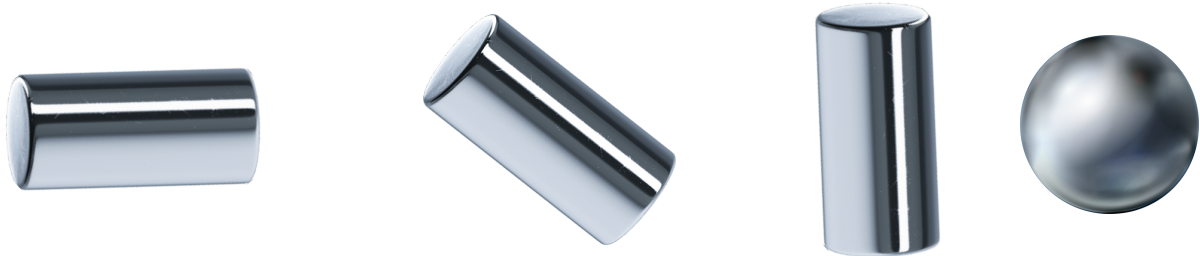
**50g**  
**Detects** ✓



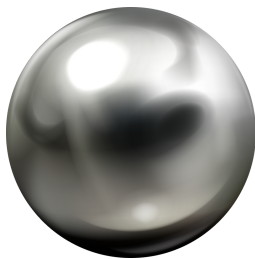
**50g but big in size**  
**Detects well** ✓

Detection is based on the size of the metal.

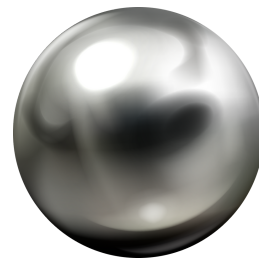
## **Q10: Why is metal sometimes detected and sometimes not?**



**The detection depend upon how the metal is being placed**



**50g  
Detects** 

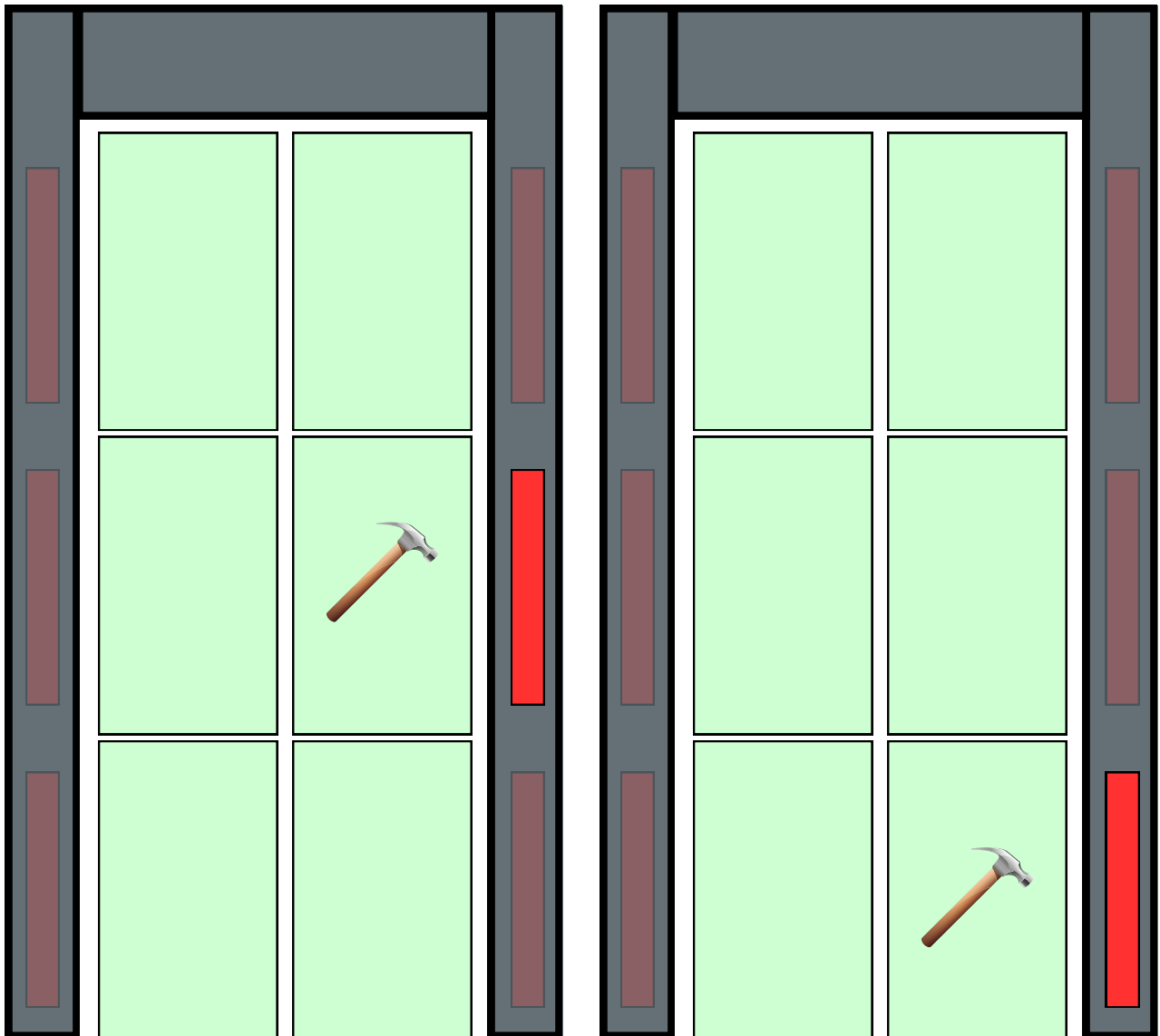


**100g but same size  
Detects same** 

Detection depends on:

- Size, type, and shape of the metal
- Distance between the panel and the metal
- Walking speed
- Hence, small metals might sometimes be detected and sometimes not. Specific sizes are reliably detected.

## Q11: Do more zones mean higher sensitivity?



More zones help locate metal more accurately, but it doesn't mean higher sensitivity.

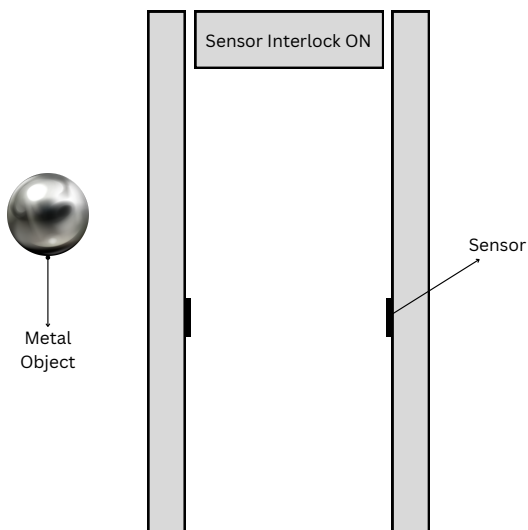
## Q12: What is the purpose of the sensors on the DFMD panel?

These sensors are used for:

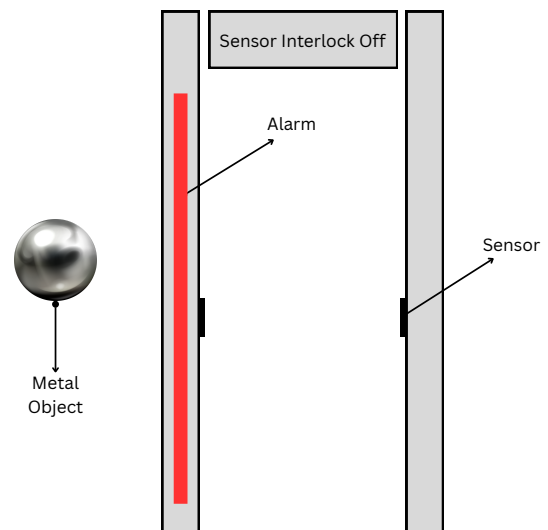
- People counting
- Interlocking
- They do not detect metal themselves.

## Q13: What is the purpose of the sensors on the DFMD panel?

Sensors help avoid detection from external metal.



**In Enabled mode:** If metal moves outside but no visitor is inside, it won't trigger an alert.



**In Disabled mode:** External metal movement can trigger alerts, even if no one is inside.

## **What is DFMD calibration and when is it done?**

Calibration is done by the manufacturer. Users don't need to recalibrate. However, regular performance testing with test pieces is necessary.

## **Do all DFMD brands perform the same?**

No, each brand has different performance levels.

## **How to distinguish between Chinese and Indian DFMD suppliers?**

Chinese suppliers often cannot provide spare parts or customization options

---

## **Common Problems and Their Solutions:**

- DFMD dead – Check main power switch, power supply board.
- No detection – Could be control head, panel connection, or sensor issue.
- No people counting – Sensor connection or sensor issue.
- Sound not working (everything else is fine) – Speaker/buzzer may be faulty, or volume control issue.
- False alarms – May be due to large metal nearby or sparking from LED lights.

# How Does a Door Frame Metal Detector Work?

## Basic Principle:

- DFMDs create an electromagnetic field across the frame.
- When a metallic object enters this field, it disturbs the field.
- The machine senses the disturbance and triggers an alert.



## What Type of Objects Can a Metal Detector Detect?

Metal detectors are specifically designed to detect metallic objects, whether visible or hidden inside clothing, bags, or on the body. However, they cannot detect non-metallic objects like wood, plastic, or pure tobacco.

|                                                                                                                              |                                                                                                                      |                                                                                                                    |                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <br><b>Gold</b>                             | <br><b>Silver</b>                   | <br><b>Metal</b>                  |    |
| <br><b>Tobacco<br/>Aluminum<br/>Packet</b> | <br><b>Metal inside<br/>Cloths</b> | <br><b>Metal inside<br/>Body</b> |                                                                                       |
| <br><b>Diamond</b>                        | <br><b>Dust Metal</b>             | <br><b>Plastic</b>              |                                                                                       |
| <br><b>Wood</b>                           | <br><b>Rubber<br/>Material</b>    | <br><b>Tobacco</b>             |  |

### Important Note:

- Metal detectors respond to conductive materials like iron, steel, aluminum, copper, brass, and alloys.
- Objects made purely from non-conductive materials like wood, plastic, rubber, or organic substances (tobacco, cloth) will not trigger an alarm unless they are packed with metal wrappers or contain metallic traces.