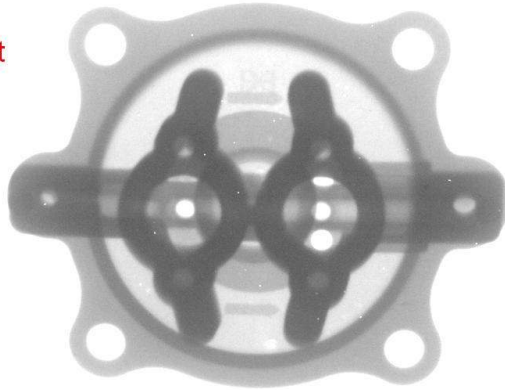


Digital X-Ray Inspection Systems are used for checking for defects such as pores, blow holes and shrinkage in components made of different materials [aluminium, plastics, rubber and steel in automobile industry]. The system can also be used for detecting foreign bodies in industries such as food processing and cosmetics.

Pneumatic  
Regulator  
Component



### Principle of Working:

This inspection method utilizes the penetration capability of x-rays to sense for internal defects in any component.

Most of the aluminium automobile components require a maximum material thickness of about 50mm only. Such thickness can easily be penetrated by X-Ray generators that generate X-Rays as and when

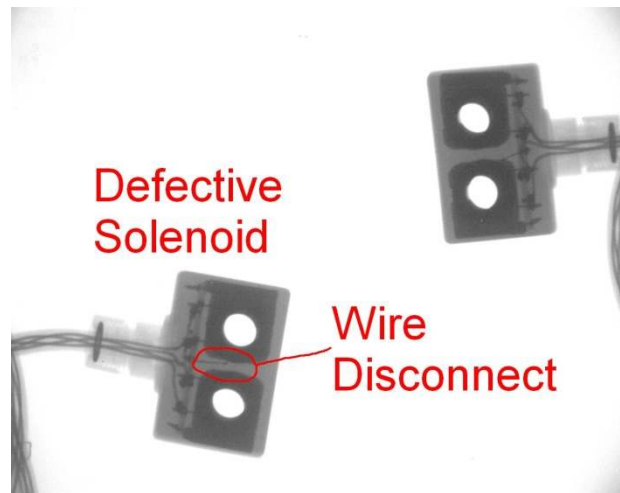
required.

### Digital X-Ray Today

The x-rays passing through the object are then collected and displayed in a computer using advanced digital x-ray sensors. This is a great advancement when compared with the film based x-ray systems that were in vogue for over 100 years.

**The Advantages with a Digital X-Ray System are that:**

1. The image can be seen on the computer immediately (generally 0.5 seconds is length of one exposure). Compare this with film based x-rays where the cycle time is generally in 10s of minutes.
2. Being digital, the image can be analyzed for identifying defects. Zooming, measuring length of defects, writing comment and analyzing number of defects in a given region can all be done by any operator with minimal training.
3. Special software are available for advanced image processing to enhance the defects to ensure only the best quality components reach the customer
4. No Consumables. Does not require films, chemicals, dark rooms, etc.



These advantages lead to the most important benefit to our customers → ***Improved Quality of Manufactured Products.***

### **Karma Innovations & Solutions Pvt Ltd's Specialization**

Karma specializes in offering custom made Digital X-Ray Inspection Systems. We have capability to customize the following as per the customer's needs:

1. X-Ray Source
2. X-Ray Sensor
3. Radiation Protection Safety System
4. Software for easy decision making
5. Automation to different levels based on customer needs

In case there is a need related to Digital X-Ray Inspection Systems, please do feel free to mail/call us.

Best regards,

**Karthikeyan J**

Director

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