VEL TECH – DR. BALDEV RAJ
NON DESTRUCTIVE TESTING FACILITIES

MAGNETIC PARTICLE TESTING

Magnetic particle Testing (**MPT**) is a non-destructive testing (NDT) process for detecting surface and shallow subsurface discontinuities in ferromagnetic materials such as iron, nickel, cobalt, and some of their alloys. The process puts a magnetic field into the part. The piece can be magnetized by direct or indirect magnetization.

The facility includes wide range of equipment's like,

1. **Electromagnetic yoke:** An **electromagnetic yoke** is a very common piece of equipment that is used to establish a magnetic field. It is basically made by wrapping an electrical coil around a piece of soft ferromagnetic steel.
2. Reference block for MPI
3. Magnetic powder

Applications of MPI

- MPI can be accomplishing through either using dry particles or particles suspended in a fluid.
- In dry strategy, the particles are gently cleaned on to the exterior.
- And with the wet technique, the part is flooded with a result conveying the particles.
- The more convenient strategy is the dry method. The wet method is by and large more touchy since the liquid bearer gives the magnetic particles extra mobility.

Reference block for MPI ⟹