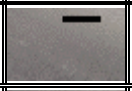
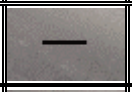
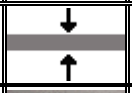
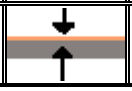
NDT Methode Selection

Each NDT method has its own set of advantages and disadvantages and, therefore, some are better suited than others for a particular application. The NDT technician must select the method that will detect the defect or make the measurement with the highest sensitivity and reliability.

The cost effectiveness of the technique must also be taken into consideration. The following table provides some guidance in the selection of NDT methods for common flaw detection and measurement applications.

Flaw Type		Visual	Liquid Penetrant	Magnetic Particle (A)	UT Straight Beam	UT Angle Beam	Eddy Current (B)	X-Ray
Surface Breaking Linear		1	**3**	**3**	1	2	**3**	1
Surface Breaking Volumetric Defect		**3**	**3**	**3**	**3**	**3**	**3**	**3**
Near Surface Linear & Normal to Surface		0	0	2	1	2	**3**	1
Near Surface Linear & Parallel to Surface		0	0	0	**3**	**3**	0	0
Near Surface Volumetric		0	0	2	**3**	**3**	**3**	**3**
Sub Surface, Linear & Normal to Surface		0	0	0	1	2	0	1
Sub Surface, Linear & Parallel to Surface		0	0	0	**3**	**3**	0	1
Subsurface Volumetric		0	0	0	**3**	**3**	0	**3**
Thickness measurement of Thin Material		0	0	0	**3**	**3**	**3**	**3**
Thickness measurement of Thick Material		0	0	0	**3**	**3**	0	**3**
Non-Conductive Coating Thickness Measurements		0	0	0	2	2	**3**	1

(A) Ferromagnetic materials only **(B) Conductive materials only**

(0) Will not detect **(1) Not well suited** **(2) Fairly well suited** **(3) Ideal application**