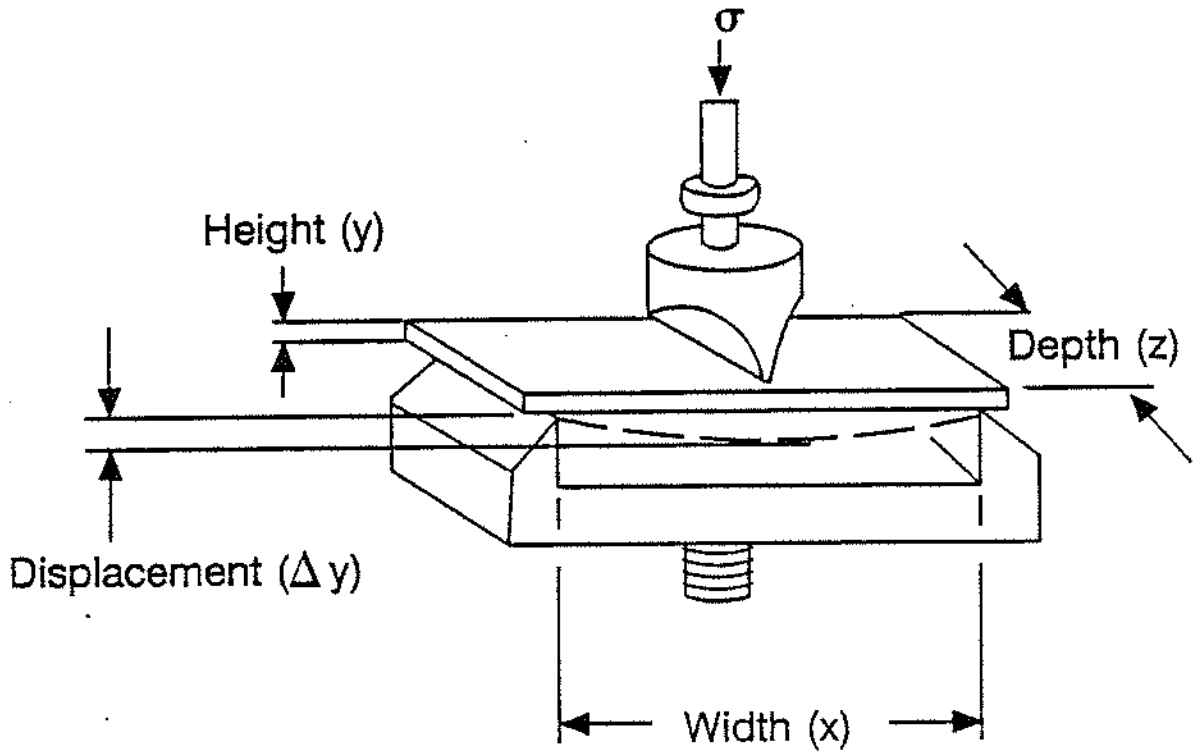
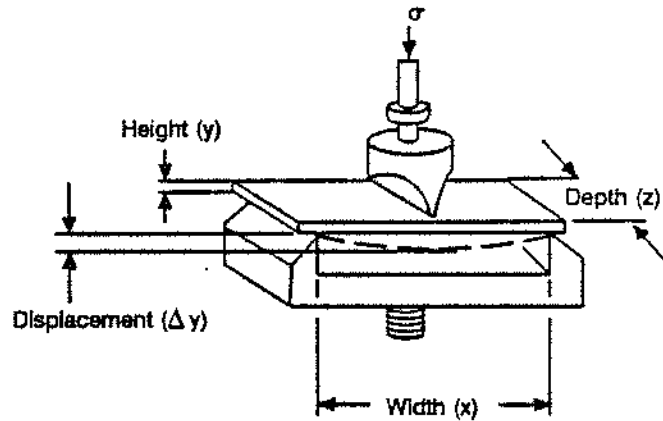


# Three-Point Bending Dimensions

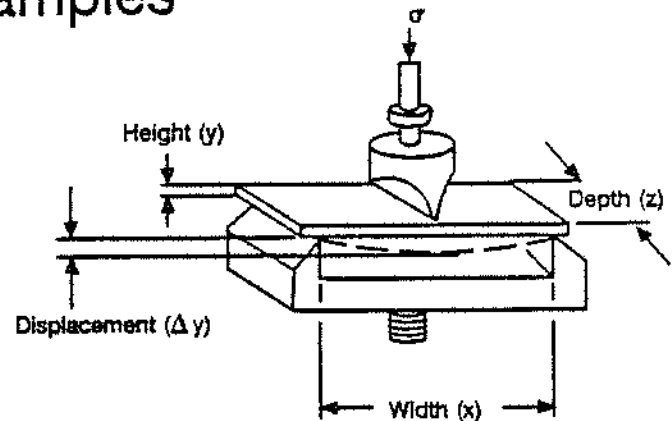


## Three-Point Bending Samples



- Sample loading/aligning
  - Knife edges parallel to probe
  - Sample perpendicular to platform
- Bending platform size
  - 15 to 20 mm for high modulus ( $> 10^8$  Pa)
  - 5 to 10 mm for low modulus ( $10^6$  to  $10^8$  Pa)

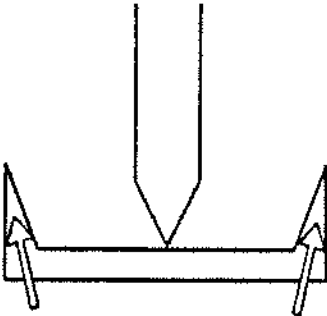
## Three-Point Bending Samples



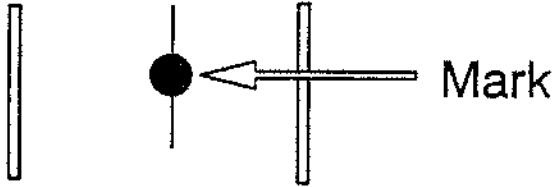
- Sample size
  - Typically 2 X 2.5 X 22 mm
  - Larger for soft materials
- Static and dynamic stress
  - Static stress should be 10 to 25% greater than the dynamic stress (i.e., Autotension value of 110 to 125)
  - Dynamic stress should typically give a strain of 0.005 to 1.5%

# Three-Point Bending Sample Mounting

Adjust position of knife edges to center probe at mark



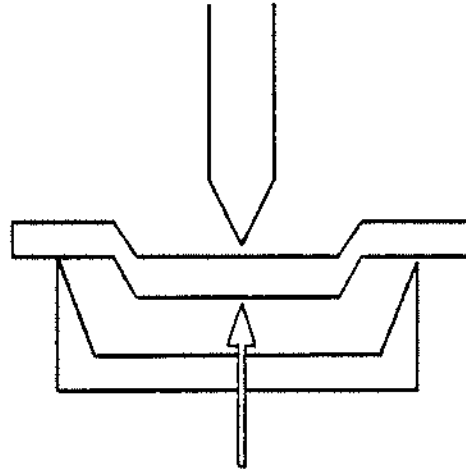
Knife Edges



Knife edge parallel with probe edge

## Three-Point Bending Sample Mounting

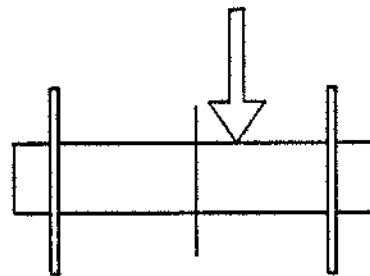
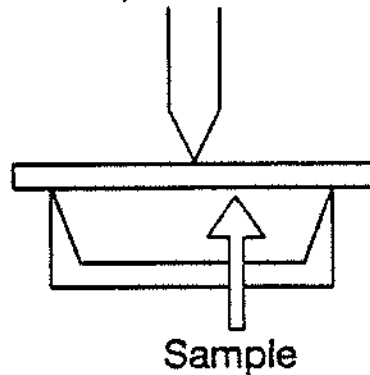
Place zero block between knife edges press read zero key



Zero block

## Three-Point Bending Sample Mounting

Replace zero block with sample as below read sample height



Sample perpendicular with knife edges

# Three-Point Bending

