8 Mechanical Features

8.2 A ball screw with a 10 mm pitch is turning at 1000rpm. Find:

a.) The traverse rate.
b.) The pulse frequency for a 2500 pulse feedback resolution.
c.) The traverse distance for one motor revolution.
d.) The traverse distance for one feedback pulse.
e.) The scaling factor for a one micron (0.001 mm) "friendly pulse".

8.3 What are the advantages and disadvantages of linear induction motors as they apply to machine tools?

8.4.1 Sketch a circle cut on a machine that has zero backlash on one axis and 0.0004 inches on the other.

8.4.2 Mark 16 points around the circumference of a machined circle that best describes its overall condition.