**Problem 2-8:** A coordinate measuring machine has sampled the surface of a shaft feature and has calculated the pattern of points representing the feature axis (spine) as shown below. How exactly the spine is derived is an inspection detail a designer need not be concerned with. The specification is for the shaft to have a straightness tolerance of 0.5 mm which when used without the m modifier is called Regardless of Feature Size or RFS specification. The gage is a 0.5 mm cylindrical zone. Grab and move and rotate the gage to determine if the entire set of points can fit inside the gage. If it does, the feature straightness specification is acceptable.

0.5 mm Gage

Surface

Spine