

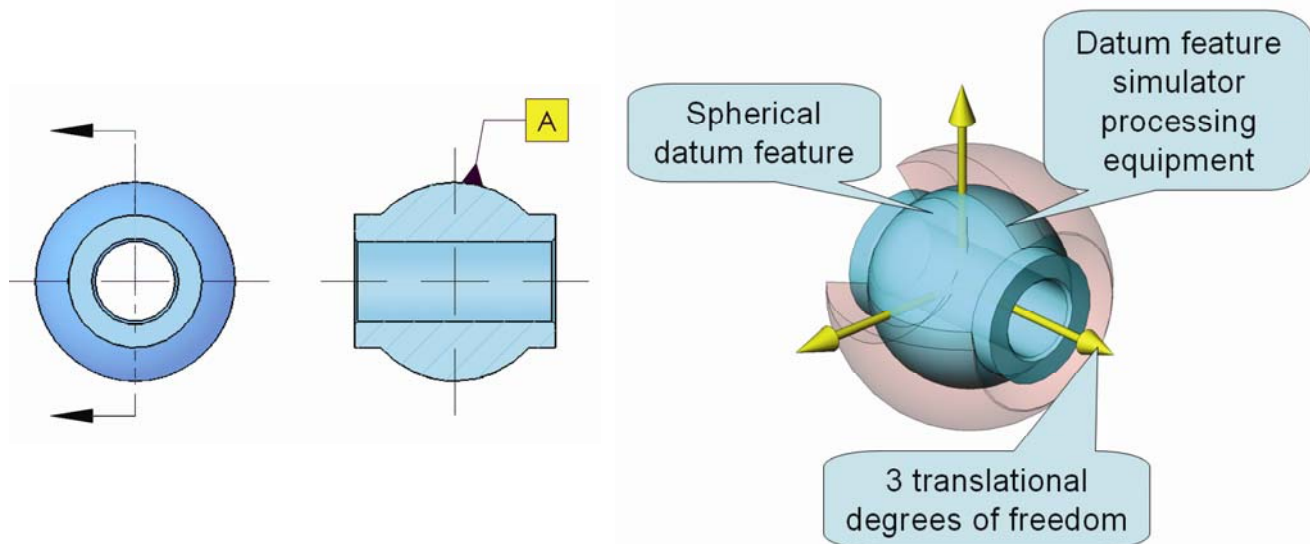
January 2010 Tip-of-the-Month Spheres as Datum Features Constrain 3 Translations

(In accordance with the ASME Y14.5-2009)

There is a new chart in the ASME Y14.5-2009 standard that shows the degrees of freedom that are constrained when ***the feature is a primary datum feature and, where appropriate, applies RMB.*** The chart also shows the relationship between the feature type, simulator and theoretical datum(s) that are established. The next several monthly Tips illustrate the features shown in the chart. Although some of the simulators are illustrated as physical inspection equipment, these simulators may also be simulated by "soft gaging" optical or probing methods.

Sphere as a Datum Feature

A spherical feature (internal or external) will establish a datum center point. The simulator is an inverse sphere that contacts the high points of the spherical feature. A datum point constrains the 3 translational degrees of freedom.



The video for this Tip is from Don's new computer based training course on GD&T Fundamentals available on DVD and the internet in March 2010.

<http://www.tec-ease.com/tips/Jan-10.htm> to view a video clip of Don Day explaining this Tip.

Please email us any suggestions or topics that you would like to see covered in our Tip-of-the-Month series.

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