

The clearance holes' position feature control frame can be read:

- ⊕ = Position
- ∅ = of the axes of these diameters
- 0.3 = must be held to within a diameter of 0.3 (per hole) to each other (100mm)
- Ⓜ = if produced at MMC
- A = and to A for perpendicularity (by orienting the ∅0.3 tolerance zones 90° to A)
- E = and to E for distance (50mm) by locating the ∅0.3 zones 50mm from E
- Ⓜ = if E is produced at its virtual condition to A. But the pattern of tolerance zones may shift (as a group while maintaining their 100mm from each other) off the axis of datum feature E by its growth. Any datum feature shift may be negated by the use of E's growth as perpendicularity tolerance.

The threaded holes' position control is read in a similar way but it must be remembered the MMC modifier used after the 0.4 is not going to provide one-for-one bonus tolerance since it is based on growth of the hole's pitch cylinder. It does, however, allow the inspector to use fixed size threaded gage screws (M10) for inspection. These zones use a projected tolerance. So, the sentence (position feature control frame) would be read with the extra phrase: "...while the zones are projected (above the primary datum) out of the hole 40mm (the maximum thickness of the mating part in this instance)." This 40mm is representative of the maximum height that the body of the screw projects from the hole. Remember also, it is the axis of the pitch cylinder of the threaded hole that is being projected and that must reside in the projected positional tolerance zone.

FIGURE 13-6 [Step 3] Detail Drawing Callout

