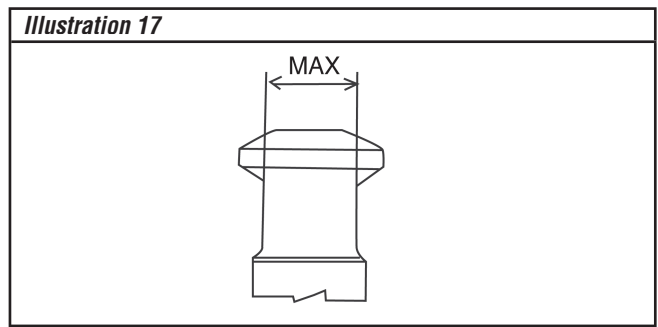
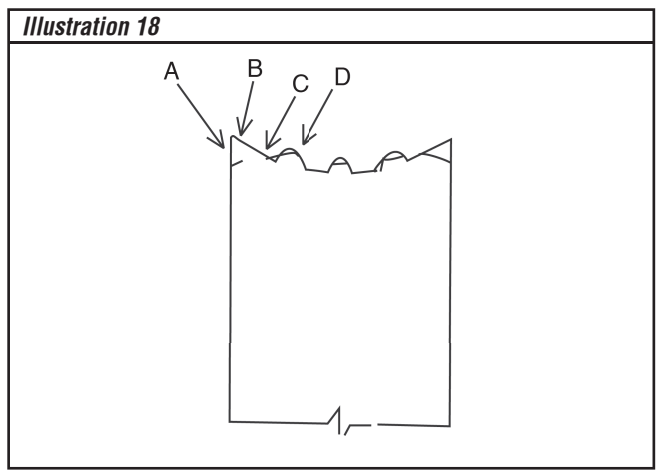


punch tips in seconds. Each punch tip is machined to a very high degree of accuracy and can tolerate only very slight wear before causing excessive “flash” or “collaring” of tablets. This excessive material left on the edges of tablets results from rounding of the tip edge, which creates a space between the tip and the die.



Because all polishing operations abrade the surface, polishing must be kept to a minimum. The four most common errors in polishing punches are:

- Rounding of the outside diameter of the tip (see Illustration 18A)
- Rounding of the edge of the tip face (see Illustration 18B)
- Distortion of the tip face (see Illustration 18C)
- Distortion of embossing (see Illustration 18D)



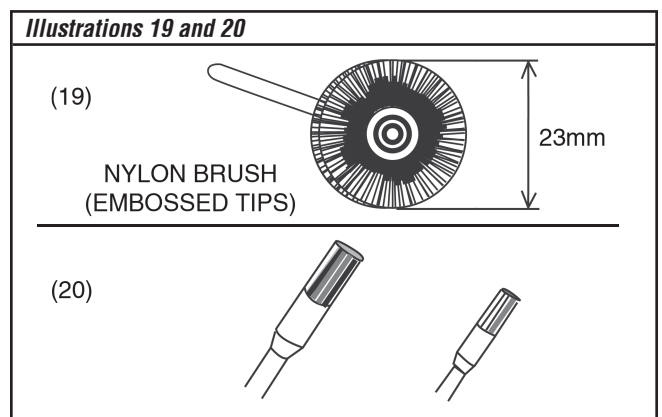
**Polishing Compounds**

Various grades of diamond paste or milder abrasive compounds are used to polish punch tips (see Table 20 on page 107). These compounds are very abrasive, particularly the coarser diamond pastes. Unless used very sparingly, excessive removal of metal will occur with subsequent reduction of punch life.

**Polishing Tools**

One of the most important points of polishing punch tips is ensuring that the polishing tools (brushes or bobs) are of a size and form appropriate to the tip being polished.

**Polishing Brushes** are used for all small F.F.B.E., shaped, and embossed punch tips, including the breakline. A nylon wheel brush, similar to the type used in dental work, is recommended; the brush diameter should not exceed .91 inch [23 millimeters] (see Illustration 19). Alternatively, a pencil brush can be used in a handpiece (see Illustration 20). A pencil brush is recommended when a mirror surface finish is needed to prevent granulation from sticking inside the embossing of a punch face.



**Felt Bobs** are used for plain concave and large F.F.B.E. punch tips. For plain concave tips, the end of the bob should be spherical and have the same radius as the tip concave (see Illustration 21A). The diameter of the bob end should be smaller than the punch tip diameter (see Illustration 21B).

For large F.F.B.E. tips, the bob’s radius should be slightly smaller than that of the punch tip (see Illustration 21C); the bob’s diameter should be approximately two-thirds the diameter of the punch face (see Illustration 21D).

