

# ***Felton's Ferrule and Flow-Through Brushes...***

*Description*

*Ferrule Brush Applications*

*Fill Materials*

*Shapes*

*Handles*

*Tolerances*

...with their many possible shapes and densities, are ideal for applications that require the transfer or application of materials or liquids onto a surface. They are also well suited for use as special dust- and static-control tools.

Most of Felton's special ferrule brushes are made without handles and are designed as original equipment components for accessories for machinery or systems—all with little or no special tooling costs. Whether your application demands low volume or mass production, ferrule brushes offer economical solutions for difficult and unusual product requirements.

*Description*

One of the oldest brush constructions, ferrule brushes are manufactured by inserting fill material into some type of ferrule or holder and securing it with a bonding agent or mechanical lock. The addition of a plug allows for varying densities required in different applications. Ferrules can be of almost any material and shape, although the most common styles are rectangular and round. Metal ferrules are typically formed from seamless brass or stainless tubing, but they can be cut from almost any type of synthetic or metal tube stock. Lapped, soldered, and locked seam ferrules are also used. Higher volume applications often use injection molded plastic ferrules, specialized plastic or metal extrusions, or screw machine parts.



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The bottom line? Virtually any material that can be machined, stamped, rolled, molded, drawn, cast, or extruded can be used in ferrule design.

Most ferrule brush designs use an air-cured epoxy resin bonding agent to hold the bristles together and secure them in the ferrule. This special epoxy, designed specifically for brushes, has a moisture absorption rate of less than 2% and is highly solvent resistant.



#### **MULTIPLE FUNCTION PLUGS**

Metal plugs can be used to serve varied functions. In the photo above, an air-hose connector functions as a plug, flow-through device and "quick change" attaching device.



#### **THROUGH HOLES IN PLUG**

One or more holes may be drilled in plug to permit pressure or gravity feed of glue, lubricating oil, ink, cleaning solvents, air or fine particles through the brush.

### *Ferrule Brush Applications:*

Moistening, Oiling, Spreading, Shaving, Pasting,  
Glazing, Bronzing, Applying, Cleaning,  
Dusting, Wiping, Stenciling, Touch Up,  
Blending, Positioning, Painting, Static Control, and much more...

### *Fill Materials*

Common ferrule brush fill materials include: hog bristle, horsehair, goat hair, squirrel (camel) hair, nylons and polyester (level, hollow, or tapered), polypropylene, polystyrene, tampico fiber, fine-diameter wire, carbon fiber, stainless steel yarn, and various combinations of the above.



### *Shapes*

Trim shapes can be varied for each application. Most ferrule brushes will fall into one of four styles.

### *Handles*

Handles can be supplied to fit most styles of ferrule brushes, although hardwoods are typically the most cost-effective. Metal handles can be used as electrical conductors, to allow mechanical attaching and to incorporate pneumatic or gravity-flow devices. Molded plastic handles offer the greatest design flexibility and are ideal for consumer product applications where higher volumes make it easier to justify the initial mold tooling costs.

