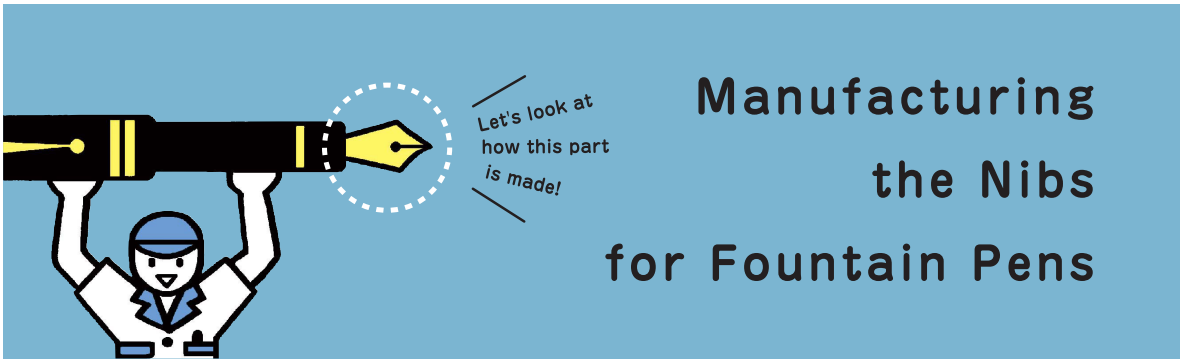


Manufacturing the Nibs for Fountain Pens

Pure gold is prepared

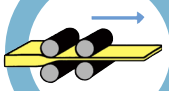
Start!

01 Alloy Casting

An alloy is manufactured for nibs by melting down gold, silver, and copper at high temperatures.

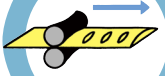
02 Rolling

The alloy block is passed through rollers around 100 times to produce thin sheets.



03 Mountain Shaped Rolling

This rolling process makes the nib sheet thicker towards the pen-point side.



This thickness graduation gives durability to the nib.

04 Die Punching

The alloy sheets are punched out into the nib shape!

The leftover alloy is then reused!

05 Making the Pen Points

The iridosmine powder is heated to produce a perfect sphere.

PILOT is the only fountain pen manufacturer that also manufactures pen points!

06 Pen Point Welding

The iridosmine spheres are electrically welded to the pen nibs!

07 Pen Point Polishing

Nibs are adjusted using machinery.

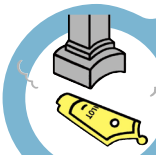
This is where the size of the pen poin is determined.

It continues on!

Next

08 Logo engraving

A heart-shaped hole and the PILOT logo are engraved.

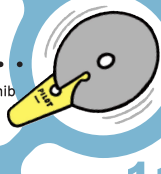


09 Molding

The nib is further press-molded to produce a 3D shape.

10 Cutting process

A hole is cut in the center of the nib using a special round cutter!



The ink travels along the slitting to the nib.

11 Adjustment and inspection

The edges of the pen point are rounded, and the gap between the slit is manually adjusted with the fingertips while inspecting through a magnifying glass.

The pen nib is finally finished!

Plus!

Nib assembly

The nib, ink feed, and neck are precisely assembled

Assembly is verified by the sound and tactile vibrations when writing.

Nib roughness inspection

Pen performance is checked one by one using special test paper!

Once the body is assembled, the fountain pen is complete!

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