



Micro Instruments

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Mikroschmiede - F-1000 de Fonbrune

The **F-1000 de Fonbrune** microforge provides the versatility to quickly and precisely create the microtools needed for micromanipulative and microsurgical techniques.

Description

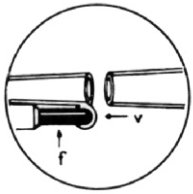
The **F-1000 de Fonbrune** microforge is used to **quickly** and accurately manufacture the various micro-instruments (needles, scalpels, pipettes, handles, hooks, etc.) necessary for optimal use with all types of micro-manipulators. *The variety and complexity of tools that can be fabricated with the F-1000 is limited only by the skill and creativity of the user.* The **F-1000 microforge**, formerly marketed by Alcatel, is comprised of a horizontal microscope combined with fine adjustment filament and tool holder. A blower and electric supply equipment are also included. Improved optics greatly enhance the ability of the **F-1000 microforge** to respond to the most exacting experimental requirements. The new microscope has two objectives, an x4 and an LWD x10 which can be easily switched to arrive at 40x and 100x magnifications with the standard x10 eyepieces. For those operators wishing increased precision, **F-1000 de Fonbrune** offers two accessories: 1LWD x20 lens and



A set of x20 eyepieces that will produce magnifications of 200 and 400 depending on the case. A high resolution color video system is available for those operators wanting the latest advancements in our **F-1000 de Fonbrune** Microforge optics line. This system allows for a more ergonomic approach to Microforge use, ease in pipette viewing, and is an outstanding training aid. The V-shaped, iridium platinum filament's temperature can be adjusted, in

Most cases, by varying the electric current. The air arriving from the blower via two metal tubes ensures the adjustment and homogeneity of work area temperature. To manufacture the microinstruments, glass tubes or rods, mounted on the tool holder, are generally used as a base. The mechanical and temperature adjustments, coupled with the easy observation of the finest details, allow for the precise manufacture of the simple or complex microtools necessary for micromanipulation experiments.

Various micro-instruments made with the MICRO-FORGE



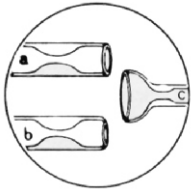
Sectioning of a



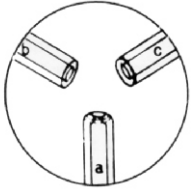
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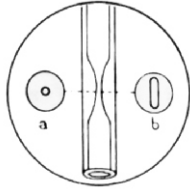
Hemisphere



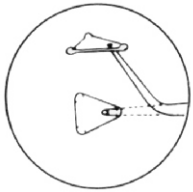
Three types of



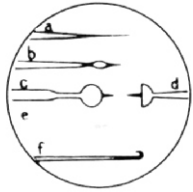
Openings of



Local



Spatula with



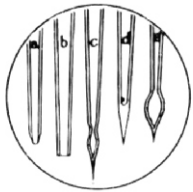
Various types of



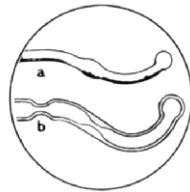
Retention hook



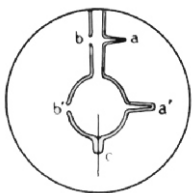
Spatula-loop



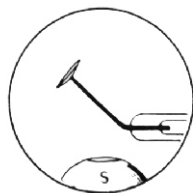
Various types of



Probe (a) and



Opening of a



Other type of



Micro-gauge

Features/Benefits

- 1.) Forges or fabricates metals, alloys, organic crystals, polymers and other fusible materials, as well as soda lime and borosilicate glass tubing and rod stock.
- 2.) Utilizes six separately maneuverable spatial controls for a variety of movements along and around the horizontal and vertical axes.
- 3.) The electrode assembly may be mounted in the forge in either a horizontal or vertical configuration for added versatility of operation.
- 4.) Platinum/iridium wire for the electrode is supplied. It also utilizes other types (and gauges) of forging filaments. The aperture of the electrode gauge pins will accommodate up to 22 gauge (.0253" diameter) filament wires.
- 5.) The built-in light source has variable intensity control.
- 6.) Fabricates a wide range of microtools employing a variety of techniques either separately or in tandem: contact fusion or melting, distant or contact stretching, fracturing, microforging and microglass blowing.
- 7.) Heavy cast frame of rugged construction with all painted parts having a baked-on epoxy finish that is stain and chemical resistant.

Two separately variable temperature controls:

- 1.) The voltage of the electrode filament is infinitely variable for precise temperature control.
- 2.) Air may be precisely directed on the heating filament and the microtool under construction using a variable blower housed in the base of the unit.

Model Number

Description

F-1000	deFonbrune Microforge without optics
F-1100	deFonbrune Microforge with stereomicroscope (x20,x40)
F-1200	deFonbrune Microforge with compound Microscope (x40, x100)
F-1300	deFonbrune Microforge with Color Video System (x70-x525 Continuous Zoom)
F-8	Filament Wire (platinum, 20% IRID, 4" Length, 31 ga. (.009 dia.)
F-9	Filament Wire (platinum, 20% IRID, 4" Length, 30 ga. (.012 dia.)
F-12	Spare Filament Holder Assembly with Center Rod
F-13	Powered Rotating Glass Tool Holder