



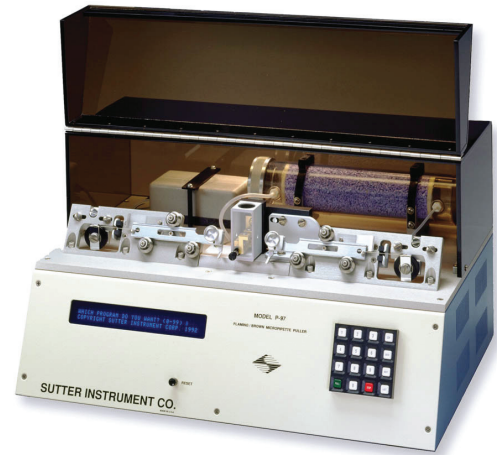
# HOW TO CHOOSE A PULLER

## WPI MICROPIPETTE PULLERS COMPARISON CHART



### SU-P1000 Next Generation Puller

The [SU-P1000 micropipette puller](#) was developed through years of experience with the Flaming/Brown style micropipette pullers and infused with leading edge technology. The most obvious new feature is the color touchscreen display that provides an intuitive and full-featured interface.



### SU-P97 Flaming/Brown Puller

The [SU-P97 Flaming/Brown type micropipette puller](#) is ideal for fabricating micropipettes, patch pipettes and microinjection needles. While retaining many of the features of earlier models, the SU-P97 offers improvements in mechanical, electronic and software design. The result is better control of the pulling process and a higher degree of reproducibility. The SU-P97 combines a proven mechanical system with a sophisticated, programmable microprocessor controller. This programmable control of the pulling parameters allows the investigator to design application-specific pipettes from a wide range of glass compositions and sizes.



### SU-P2000 Micropipette Puller

The [SU-P2000 micropipette puller](#) represents a significant advance in the technology of fabrication of micropipettes, optical fiber probes, and nanospray tips. The SU-P2000 integrates a CO<sub>2</sub> laser-based heat source with the technology derived from our extensive experience with conventional pullers. This system offers capabilities unmatched by other pullers.



### SU-P30 Vertical Puller

The model [SU-P30 vertical micropipette puller](#) is designed for the fabrication of basic micropipettes and patch-type pipettes. It will pull micropipettes with tip diameters as small as 0.3 µm and moderate taper lengths (6 to 10 mm). By using an included patching attachment, the puller will pull the standard double pull patch-type pipette. Used with thin wall glass capillaries, it will generate pipettes or needles suitable for microinjection studies. The puller is ideal for student laboratories and other situations which call for an economical, reliable pipette pulling device.



### PUL-1000 Microelectrode Puller

[PUL-1000](#) is a microprocessor controlled horizontal puller for making glass micropipettes or microelectrodes used in intracellular recording, patch clamp studies, microperfusion or microinjection. The puller was designed with tight mechanical specifications and precision electronics for complete control of the pulling process and accurate reproducibility. It offers programmable sequences of up to four steps with heating, force, movement and cooling time. This allows graduated cycles for applications like patch clamp recording.

Features	SU-P1000	SU-P97	SU-P2000 (G/F)	SU-P30N/SU-P30P)	PUL-1000
Heat Source	Platinum Filament with Safe Heat Mode	Platinum Filament	CO <sub>2</sub> Laser	Platinum or Nichrome Filament	Platinum/Iridium Filament
Glass Type	Borosilicate and Aluminosilicate	Borosilicate and Aluminosilicate	Quartz Glass or Fiber* Borosilicate and Aluminosilicate	Borosilicate and Aluminosilicate	Borosilicate
Max. Glass Size (OD)	4 mm	4 mm	1.65 mm Quartz, 1.8 mm Borosilicate	2 mm	1.0–2.0 mm**
Tip Size	0.06 µ–3 µ	0.06 µ–3 µ	0.03 µ–5 µ (glass), 0.01 µ–5 µ (fiber)	0.3 µ–2 µ	< 0.1 mm or greater than 10 µm
Max. Taper Length	2 cm	2 cm	1.8 cm	1 cm	1–10 mm
Number of Programs	100	100	100	NA	95 (includes 15 factory-installed programs)
Program Lines	4 and Line Repeat Mode	8	8	1 Stage or 2 Stages with manual adjustment	4 Steps
Type of Cooling	Compressed Dry Air with Humidity Control Chamber	Compressed Dry Air with Humidity Control Chamber	NA (Laser On/Off)	None	None
Usable Pipettes/Pull	2	2	2	1	2
Manufacturer	Sutter	Sutter	Sutter	Sutter	WPI

\* Outer diameters < 600 µm requires P-2000/F

\*\* Use the white pad (default) with 1–1.2 mm glass, the black pad with 1.5 mm glass, and the red pad with 2 mm glass.