



Technical Support  
Sutter Instrument Company  
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Technical Tips on  
Changing Tip Morphology  
Or  
"How To Make My Tips Look Right"

The following table should aid you in regulating the micropipette tip diameter and taper. This table is a summary of the effects of different parameters on micropipette morphology and is based on the manipulation of one parameter at a time. For example, if all parameters are held constant and you decrease the velocity, you will increase the tip diameter. I recommend that you make gradual changes (five units at a time) to reach the most appropriate setting. This is a loose guideline to go by. The two other ingredients for creating the desired pipette are time and trial!

<b>PARAMETER</b>	<b>INCREASE</b>	<b>DECREASE</b>
<b>Heat</b>	Smaller Tips Longer Taper Higher Resistance	Larger Tips Shorter Taper Lower Resistance
<b>Pull</b>	Smaller Tips Longer Taper	Larger Tips Shorter Taper
<b>Velocity</b>	Smaller Tips	Larger Tips
<b>Time</b>	Shorter Taper	Longer Tip
<b>Pressure (Air flow)</b>	Shorter Taper Lower Resistance	Longer Taper Higher Resistance

Good Luck and Happy Pulling!

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