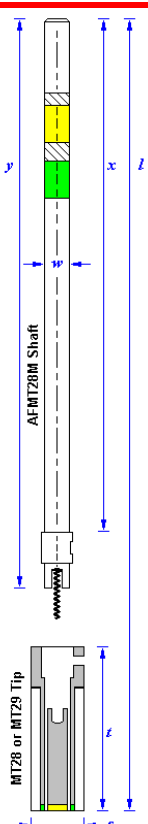
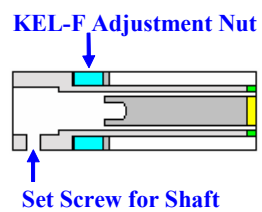


## MT28 or MT29 Series RRDE Tip

Document LMECMT28

<p style="text-align: center;"><b>MT28 Series</b></p> <hr style="border: 1px solid red;"/> <p style="text-align: center; color: red;"><b>MAXIMUM ROTATION RATE 3,000 RPM</b> <b>Use Extreme Caution at Rotation Rates above 2,000 RPM!</b></p> <hr style="border: 1px solid red;"/> <div style="text-align: center;">  </div>	<p>Your rotated ring-disk electrode (RRDE) is a precision research tool that has been carefully machined and tested. It is guaranteed to be leak-free at the time of shipment. (Leak test results are attached.)</p> <ul style="list-style-type: none"> <li>• Your electrode was leak tested at ambient temperature and should not be used at elevated temperatures. The electrode should only be used at temperatures from 10°C (50°F) to 25°C (77°F). Higher temperatures may create a leak around the disk or ring or both.</li> <li>• After using the electrode, clean it and replace the protective cover to prevent the electrode surface from being scratched.</li> <li>• The shaft for these RRDE tips is sold separately (part AFMT28M). The tip mounts on to the shaft by means of a small set screw (6/32 x 1/8", part KSS0632N02HS). The shaft fits MSR model rotators only.</li> <li>• Rotating electrodes must be mounted securely in the rotator. While mounting, do not apply excessive force to the Teflon shroud as this may cause the shroud to slip along the shaft of the electrode.</li> <li>• Rotating electrodes should be submerged at least 5 mm (0.2 in) below the surface of the solution.</li> <li>• Rotating electrodes should be mounted in such a way that they do not rub against surfaces (such as the inner wall of the cell).</li> <li>• MT28 Series tips have a built-in adjustment feature to compensate for the coefficient of expansion of Teflon versus the ring-disk assembly. This adjustment should only be performed when the entire tip is at room temperature. A spanner wrench (part number THW1526, supplied) is used to turn the KEL-F ring (not the ring electrode!) located above the Teflon shroud. Every 1/20<sup>th</sup> of a turn moves the Teflon shroud 0.0528 mm, and the threads are right-handed.</li> <li>• The KEL-F parts are incompatible with tetrahydrofuran and some chlorinated solvents (such as chloroform and carbon tetrachloride); however, the lower part of the shroud is made from Teflon.</li> </ul>																						
<div style="text-align: center;">  </div>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding: 2px;">Standard <b>MT28</b> Dimensions* (when ring is made from a <b>metal</b>)</th> <th style="text-align: left; padding: 2px;">Alternate <b>MT29</b> Dimensions* (when ring is made from <b>glassy carbon</b>)</th> </tr> </thead> <tbody> <tr> <td style="padding: 2px;">Disk OD (D1): 4.57</td> <td style="padding: 2px;">Disk OD (D1): 5.61</td> </tr> <tr> <td style="padding: 2px;">Ring ID (D2): 4.93</td> <td style="padding: 2px;">Ring ID (D2): 6.25</td> </tr> <tr> <td style="padding: 2px;">Ring OD (D3): 5.38</td> <td style="padding: 2px;">Ring OD (D3): 7.92</td> </tr> <tr> <td style="padding: 2px;">Shroud OD (s): 13.5</td> <td style="padding: 2px;">Shroud OD (s): 13.5</td> </tr> <tr> <td style="padding: 2px;">Overall Length (l): 173.8</td> <td style="padding: 2px;">Overall Length (l): 173.8</td> </tr> <tr> <td style="padding: 2px;">Length of Tip (t): 42.0</td> <td style="padding: 2px;">Length of Tip (t): 42.0</td> </tr> <tr> <td style="padding: 2px;">Shaft Length (y): 146.1</td> <td style="padding: 2px;">Shaft Length (y): 146.1</td> </tr> <tr> <td style="padding: 2px;">Upper Shaft Length (x): 131.8</td> <td style="padding: 2px;">Upper Shaft Length (x): 131.8</td> </tr> <tr> <td style="padding: 2px;">Upper Shaft OD (w): 6.35</td> <td style="padding: 2px;">Upper Shaft OD (w): 6.35</td> </tr> <tr> <td style="padding: 2px;">Collection Efficiency: 22%</td> <td style="padding: 2px;">Collection Efficiency: 37%</td> </tr> </tbody> </table>	Standard <b>MT28</b> Dimensions* (when ring is made from a <b>metal</b> )	Alternate <b>MT29</b> Dimensions* (when ring is made from <b>glassy carbon</b> )	Disk OD (D1): 4.57	Disk OD (D1): 5.61	Ring ID (D2): 4.93	Ring ID (D2): 6.25	Ring OD (D3): 5.38	Ring OD (D3): 7.92	Shroud OD (s): 13.5	Shroud OD (s): 13.5	Overall Length (l): 173.8	Overall Length (l): 173.8	Length of Tip (t): 42.0	Length of Tip (t): 42.0	Shaft Length (y): 146.1	Shaft Length (y): 146.1	Upper Shaft Length (x): 131.8	Upper Shaft Length (x): 131.8	Upper Shaft OD (w): 6.35	Upper Shaft OD (w): 6.35	Collection Efficiency: 22%	Collection Efficiency: 37%
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\*Reference dimensions given in millimeters; however, electrodes are actually machined using the nearest English dimensions. Custom electrodes with other dimensions are available upon request.