

Electrode Compatibility and Application Overview

1. Rotating Cylinder Electrode (RCE)

	CPR Rotator (12 mm RCE; also compatible with RDE)	MSR Rotator (12 mm/15 mm RCE)
Compatible Shafts	— <i>(shaft permanently attached to rotator motor)</i>	AFE3M <i>(12 mm RCE System; also compatible with RDE)</i> AFE9MBA/AFE9MDA <i>(15 mm RCE)</i>
12 mm RCE (Classic) <i>(PTFE shroud only; for use up to 25°C)</i>	ACQC01205 <i>(accepts 12mm OD cylinder inserts)</i>	ACQC01205 <i>(requires AFE3M shaft; accepts 12mm OD cylinder inserts)</i>
12 mm RCE Cylinder Inserts <i>(fits ACQC01205 tip)</i>	AFE9C120G080ZZX-10 <i>(where ZZ indicates the material type – see our website or call for availability; sold in packs of ten; all metals are certified)</i>	AFE9C120G080ZZX-10 <i>(12 mm RCE System; requires AFE3M shaft; where ZZ indicates the material type – see our website or call for availability; sold in packs of ten; all metals are certified)</i>
15 mm RCE (Single) <i>(PEEK shroud only; for use up to 80 °C)</i>	—	AFE9MBA
15 mm RCE (Double) <i>(PEEK shroud only; for use up to 80°C)</i>	—	AFE9MBDA
15 mm RCE Cylinder Inserts <i>(fits AFE9MBA RCE System)</i>	—	AFE9C150G064ZZX-10 <i>(15 mm RCE System; requires AFE9MBA shaft; where ZZ indicates the material type – see our website or call for availability; sold in packs of ten; all metals are certified)</i>
Required Additions <i>(these items are required to properly insert, remove, and polish electrodes with the 12mm RCE systems)</i>	ACQC01243 <i>(Toolkit for the ACQC01205 12mm RCE Tip)</i>	ACQC01243 <i>(Toolkit for the ACQC01205 12mm RCE Tip)</i>



	CPR Rotator (12 mm RCE; also compatible with RDE)	MSR Rotator (12 mm/15 mm RCE)
Optional Accessories	—	<p>AC01TPA (PTFE plug with bearing; for use with AFE3M shaft)</p> <p>AC01TPA6M (PEEK gas-purged ceramic bearing assembly; for use with AFE9MBA shaft, 15 mm RCE system)</p>

2. Rotating Disk Electrode (RDE)

	CPR Rotator (RDE, also for 12 mm RCE)	MSR Rotator (RDE)
Compatible Shafts	— (shaft permanently attached to rotator motor)	<p>AFE3M (also compatible with 12mm RCE)</p> <p>AFE6M/AFE6MB</p>
RDE Electrode—Fast Speed, 12 mm (tip permanently mounted to shaft; for use up to 25°C)	— (Note: Shaft permanent attached to rotator motor)	<p>AFE2M050XX (FastSpeed, shaft included)</p>
RDE Tips—Permanent Seal, 12 mm (tip and shaft are separate parts; for use up to 25°C)	<p>AFE3T050XX</p>	<p>AFE3T050XX (requires AFE3M shaft)</p> <p>AFE5T050XX (requires AFE6M or AFE6MB shaft)</p>
RDE Tips—ChangeDisk, 12 mm (removable disk; for use up to 25°C)	<p>AFE4TQ050 (disk sold separately; requires AFE4K050 Toolkit)</p>	<p>AFE4TQ050 (disk sold separately; requires AFE3M shaft; requires AFE4K050 Toolkit)</p> <p>AFE5TQ050 (requires AFE6M or AFE6MB shaft; disk sold separately; requires AFE6K050 Toolkit)</p>



	CPR Rotator (RDE, also for 12 mm RCE)	MSR Rotator (RDE)
RDE Tips—High Temperature, 12 mm (PEEK shroud; for use up to 80°C)	AFE3T050YYPK (where YY = GC, PT, AG, PD or AU)	AFE3T050YYPK (requires AFE3M shaft) AFE5T050XXPK (4 mm OD disk; requires AFE6M/AFE6MB shaft)
RDE Tips—ChangeDisk High Temperature, 15 mm (removable disk; PEEK shroud; for use up to 80°C)	—	AFE6TQ050 (disk sold separately; requires AFE6K050 toolkit; requires AFE6M/AFE6MB shaft)
Disk Inserts, 5 mm OD (for ChangeDisk electrode tips)	AFED050P040XX (5 mm OD x 4 mm thick disk electrode insert; when B = P disk is finished to a mirror polish; when P = G disk is a rough 600-grit finish)	AFED050P040XX (5 mm OD x 4 mm thick disk electrode insert; when B = P disk is finished to a mirror polish; when P = G disk is a rough 600-grit finish)
HandsOff Disk Insert, 5 mm OD (internal RDE/RRDE hardware permanently attached to disk insert electrode)	—	ACE6DC050XX (compatible with E5TQ and E6TQ RDEs; also compatible RRDE)
Required Additions (these items are required to properly insert, remove, and polish electrodes with the ChangeDisk)	AFE4K050 (Toolkit for the AFE4TQ050 RDE Tip)	AFE4K050 (Toolkit for the AFE4TQ050 RDE Tip) AFE6K050 (Toolkit for the E5TQ and E6TQ Series RDE Tips)
Consumable Parts (these items can be purchased at any time and are often overlooked)		AKUCUP (PTFE consumable part of E5TQ series ChangeDisk RDE tips; sold in packs of three; 5mm OD)

3. Rotating Ring-Disk Electrodes, 15 mm

	MSR Rotator (RRDE)
Compatible Shafts	AFE6M/AFE6MB <i>(also compatible with RDE)</i>
RRDE Tips – ThinGap <i>(PTFE shroud; permanently sealed tip; for use up to 25°C)</i>	AFE7R8XXXX <i>(180 μm gap, 22% efficiency; XX cannot be GC for this tip)</i> AFE7R9GCXX <i>(320 μm gap, 37% efficiency)</i>
RRDE Tips—ChangeDisk <i>(PTFE shroud; permanent ring; removable disk; for use up to 25°C)</i>	AFE6R1XX <i>(Typical XX for Ring are GC, PT, and AU; disk sold separately; requires AFE6K050 toolkit)</i>
RRDE Tips—Fixed-Disk High Temperature <i>(PEEK shroud; for use up to 80°C; permanent disk, permanent ring)</i>	AFE6R2XXYY <i>(Typical XX for Ring are GC, PT, and AU; YY = PT or AU)</i>
RRDE Tips—ChangeDisk High Temperature <i>(PEEK shroud; for use up to 80°C; removable disk, permanent ring)</i>	AFE6R1XXPK <i>(Typical XX for Ring are GC, PT, and AU; disk sold separately, requires AFE6K050 Toolkit; Ucup is consumable)</i>
Disk Inserts <i>(for ChangeDisk electrode tips)</i>	AFED050P040XX <i>(5 mm OD x 4 mm thick disk electrode insert; when B = P disk is finished to a mirror polish; when P = G disk is a rough 600-grit finish)</i>
HandsOff Disk Insert <i>(internal RRDE hardware permanently attached to disk insert electrode)</i>	ACE6DC050XX <i>(compatible with E6R1 and E6R2 RRDE electrodes)</i>
Required Additions <i>(these items are required to properly insert, remove, and polish electrodes with the ChangeDisk RRDE systems)</i>	AFE6K050 <i>(Toolkit for the E6 Series RRDE Tips)</i>
Consumable Parts <i>(these items can be purchased at any time and are often overlooked)</i>	AKUCUP <i>(PTFE consumable; E6 series ChangeDisk RRDE tips; sold in packs of 3; 5mm OD)</i>



<p>Optional Accessories</p>	<p>AKPOLISH <i>(electrode polishing kit)</i></p> <p>AC01TPA6M <i>(PEEK gas-purged ceramic bearing assembly for use with AFE6MB shaft)</i></p>
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4. Stationary Electrodes

<p>E1B Series <i>(low profile; PCTFE shroud; for use up to 25°C)</i></p>	<p>AFE1B030GC <i>(3.0 mm OD fixed-disk)</i></p> <p>AFE1B016XX <i>(1.6 mm OD fixed-disk; XX = PT, AU)</i></p>
<p>E1E Series <i>(Pyrolytic Graphite; for use up to 25°C)</i></p>	<p>AFE1E050XX <i>(5 mm OD fixed-disk; XX = GE, GB)</i></p>
<p>E1X Series <i>(Narrow; PCTFE shroud; for use up to 25°C)</i></p>	<p>AFE1XFQ030XXR <i>(where Q = P for epoxy connection or Q = G for solder connection; XX = GC, PT, AU)</i></p>