

# CATHODE REBUILDS

## OVERVIEW:

Certain cathode types are very expensive to purchase. Some e-beam lithography systems use a full Vogel mount cathode with a very complicated structure. Some Auger systems require the cathode and grid cap be assembled with very high precision using specialized equipment. As a service to our customers, Applied Physics Technologies refurbishes used cathodes of these types as a lower cost option to purchasing a brand-new cathode.

## STANDARD REBUILDS\*:

Please contact us for a return merchandise authorization (RMA) number before returning the core to APTech for our rebuilding services. Depending on the type of rebuild the lead time can range from 7-15 business days once the core arrives at our facility. This does not include shipping time.

Manufacturer	System	LaB <sub>6</sub> P/N	CeBix P/N
ElectroScan/Philips	2020 Environmental SEM	95939	95940
	XL Environmental SEM	95941	80101
ETEC	Lithography	97224	80102
	Lithography	97225	80103
JEOL	JBX-5D Lithography	15615	15853
	JBX-5DII Lithography	14017	15852
	JAMP10, JVM Auger Microprobe	11802	15851
LEO/Zeiss	SEM	16141	16494
	TEM	18722	18723
General Rebuild Upgrade	SEM, TEM, Lithography, Microprobe, etc.	47800	47800
PHI	590 Auger Microprobe	11817	15854
	595, 600, 650 & 660 Auger Microprobe	11826	15856
	610 Auger Microprobe	12854	15857
	4300 Auger Microprobe	15059	15065
	PHI Upgrade for ridge removal	11827	11827

**\*We offer rebuilding services on many more systems and custom rebuilding. Please call us at 503.434.5550 for more information.**

## UPGRADES:

**APTech currently offers an upgrade for all rebuilds.** The majority of our customers choose to add the rebuild upgrade to their order. With the upgrade, at least 1-2 hours are spent cleaning each of the parts. We also polish the inside of the grid cap using a very fine stone followed by a polishing compound. The most common problem with grid caps is the arcing that can occur between the sides and crystal, leading to premature failure of the cathode. This upgrade will remove ridges, reducing the chances arcing will occur, and giving all of the cathode components a very comprehensive cleaning. Again, this is only an upgrade and is not required, but all of our OEMs and about 95% of our end users choose to purchase the upgrade.

[WWW.A-P-TECH.COM](http://WWW.A-P-TECH.COM)

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