

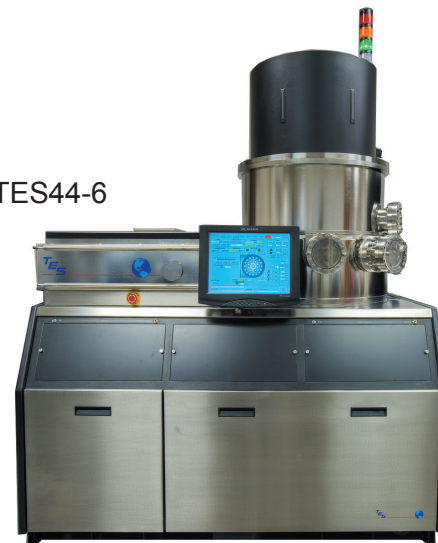


HIGH VACUUM SYSTEM COMPARISON

TES has manufactured new systems and upgraded previously owned systems for over 35 years. Many customers prefer the cost savings of using the core of a previously owned system (basic chamber and frame) and adding all new electronics, design improvements, and the latest technological advancements. For this reason most of the systems we build utilize the proven reliability of evaporation and sputtering systems manufactured by companies such as Temescal/BOC-Edwards, CHA, MRC, Varian and Perkin-Elmer. TES furthers their production life and reliability by upgrading and improving their performance with current cutting edge technology. We continuously improve our design and software to achieve optimal reliability, functionality and product support. In this way, we are able to provide a total solution for all of our customers worldwide.

TES can help you reduce the overall cost of equipment while maintaining the quality of your process and production tools.

TES44-6



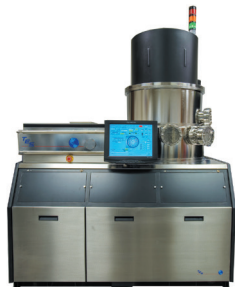
TES reserves the right to change specifications at any time without incurring obligations.

	S P U T T E R												E V A P O R A T I O N												Base price range for a rebuilt upgraded warranty system. *									
	Cathode Quantity	Load Lock	RF-Etch	Substrate Bias	Substrate Heating	Substrate Cooling	Co Deposition	Sputter Up	Sputter Down	Sputter Horizontal	PLC Automation	Reactive Process					Planetary	Lift Off		Rotating Stage	E-beam	Resistive	Co Deposition	Heat		PLC Automation	Load Lock	Substrate Cooling	Reactive Process	Ion, Assist				
TES VCT-1800	4	O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					\$175K—\$375K
Temescal FC-1800	5	S	✓	✓	✓	✓	✓	✓			✓	✓					✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					\$175K—\$375K
Temescal BJD-1800	5	S	✓	✓	✓	✓	✓	✓			✓	✓					✓	✓		✓	✓	✓	✓	✓		✓	✓	✓	✓					\$100K—\$275K
Temescal VES-2550	6	O	✓	✓	✓	✓	✓	✓			✓	✓					✓			✓	✓	✓	✓	✓	✓		✓	✓	✓					\$125K—\$325K
Temescal FCE-4000		S															✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					\$250K—\$400K
Temescal FCE-4800		S															✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					\$200K—\$450K
Perkin-Elmer 2400	4	O	✓	✓	✓	✓	X		✓		✓	✓																						\$125K—\$275K
Perkin-Elmer 4450	6	S	✓	✓	✓	✓	X		✓		✓	✓																						\$175K—\$500K
MRC-900 Series	3		✓				X		✓		✓	✓																						\$175K—\$400K
MRC-600 Series	3		✓				X			✓	✓	✓																						\$200K—\$450K
CVC 601	4	O	✓	✓	✓		✓	✓	✓		✓	✓																						\$125K—\$225K
CHA 600/1000		O															✓	✓		✓	✓	✓	✓	✓			✓	✓	✓					\$100K—\$300K

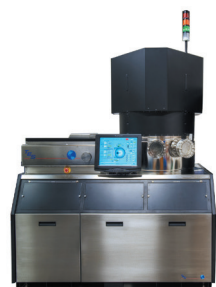
* Check marks represent options available at additional cost to the base price.

www.tescal.com

35 YEARS OF THIN FILM INNOVATION



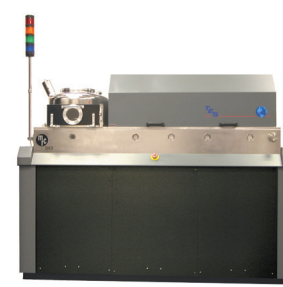
TES44-6 with long throw distance



TES44-4 High dep. rate system



TES24-4 °C 600 heating



MRC 900 SERIES



TES44-4 with Ion gun



TES44-4 Low-cost package



TES44-5, 5 Cathode



MRC 600 In situ stress analysis capability



BJD-1800 sputtering and e-beam capability



TEMESCAL FC-1800



TEMESCAL VES-2550



MRC 600 SERIES



TEMESCAL FC-4000



TES VCT-1800



TEMESCAL FCE-4800



CHA MAG-DRUM