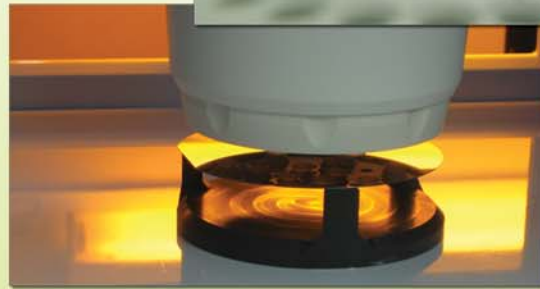
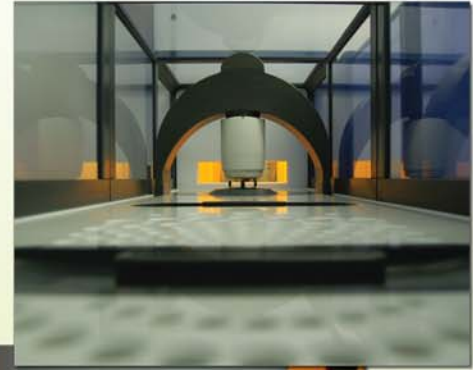


THE WAVEETCH™ 112G

Ultra uniform single-sided wafer
thinning and stress relief systems



MATECH's exclusive technologies, like its patented Linear Scan™ and Dynamic Confinement™, are embodied in its **WAVEETCH™** family of wet processing systems. These innovative technologies are responsible for their outstanding uniformity and true single sided processing capabilities.

The **WAVEETCH™** systems are capable of running virtually any wet process, single-sided, with better uniformity, and with tighter process control.

WAVEETCH™ systems consume only a fraction of the chemicals compared to standard spin and spray technologies.

WAVEETCH™ systems incorporate MATECH's own WaveSoft™ suite of process and system control software. All hardware features, system devices, and accessories are controlled from an integrated user friendly interface. WaveSoft™ controls all chemical handling functions as integral parts of the process as well.

COMMON APPLICATIONS

WAFER STRESS RELIEF

WAFER THINNING

PATTERN ETCH

STRIPPING

OXIDE REMOVAL

NITRIDE REMOVAL

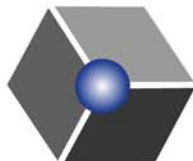
OTHER FILM REMOVAL

WAFER CLEANING

MATECH

641 Sheafe Rd., Suite A
Poughkeepsie, NY 12601

Contact us at: **845.463.2799** or
visit our website at www.matech.com.



MATECH™

innovation through materials research

UNIFORMITY

Our patented Linear Scan™ and Dynamic Confinement™ Technologies allows for better than 1% material removal uniformity (TTV).

FLEXIBILITY

WAVEETCH™ is a fully automated, *true* single-sided thinning and stress relieving process tool for wafers up to 300 mm in diameter.

CAPABILITY

WAVEETCH™ systems are capable of achieving a final thickness of 10 μm. This is done without disturbing or contaminating the non-process side of the substrates. **WAVEETCH™** is the only *true* single sided wet processing and thinning process tool in the industry.

APPLICATIONS

Our technology is perfectly suited for such applications such as RFID tags, optoelectronics, focal plane arrays, CCD's, lasers, smart cards, flash devices, memory, MEMS, and hybrid/3 D — integration, among others.

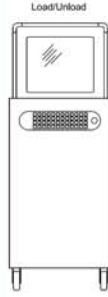
PERFORMANCE

The **WAVEETCH™** systems have an equal or higher throughput than competing technologies, but with superior uniformity, larger process windows and tighter processes.

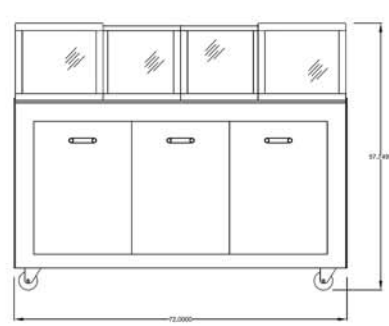
COST OF OWNERSHIP AND RETURN ON INVESTMENT

Lower capital cost along with our minimal chemical consumption (as compared to traditional spray in spin tools) provides the **WAVEETCH™** with distinct advantages when calculating cost of ownership (COO) and return on investment (ROI). Typical ROI versus traditional technology is typically less than 12-18 months. Extremely low chemical requirements contributes to best-in-class COO and environmental friendliness

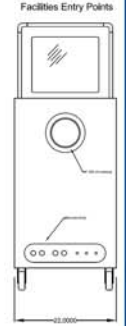
FRONT VIEW



SIDE VIEW



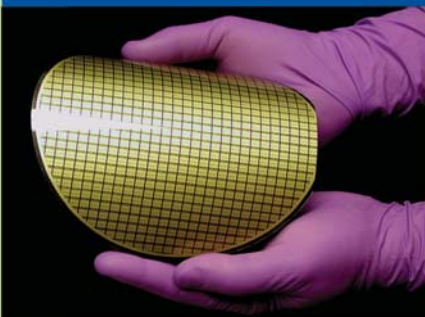
BACK VIEW



WAVE ETCH™ 1 1 2 G

SPECIFICATIONS

MAIN APPLICATIONS	THINNING, STRESS RELIEF
MINIMUM FINAL THICKNESS	10 μm
THICKNESS ACCURACY (1σ)	± 1% TYPICAL
PRECISION (1σ, WAFER TO WAFER)	± 1.2% TYPICAL
WET PROCESSING TECHNOLOGY	LINEAR SCAN™
BACKSIDE PROTECTION	DYNAMIC CONFINEMENT™ TRUE SINGLE SIDED
WAFER SIZES	1" TO 12" NON-ROUND IRREGULARLY SHAPED FRAGMENTS
WAFER HANDLING	HIGH PERFORMANCE VACUUM OR NON-CONTACT CHUCK
CHEMICAL HANDLING SYSTEM	BASIC INTEGRATED CHEMICAL HANDLING SYSTEM
CHEMICAL FEED	MANUAL, PREMIXED (OTHER OPTIONS AVAILABLE)
AUTOMATION	DRY-IN DRY-OUT, MANUAL LOAD * (OTHER OPTIONS AVAILABLE)
SOFTWARE	WAVESOFT™ PROCESS AUTOMATION SUITE STANDARD
ELECTRICAL	120VAC, 15A SINGLE PHASE
DIMENSIONS	WIDTH 72" HEIGHT 58" DEPTH 22"



WAVE ETCH™

MATERIALS AND TECHNOLOGIES