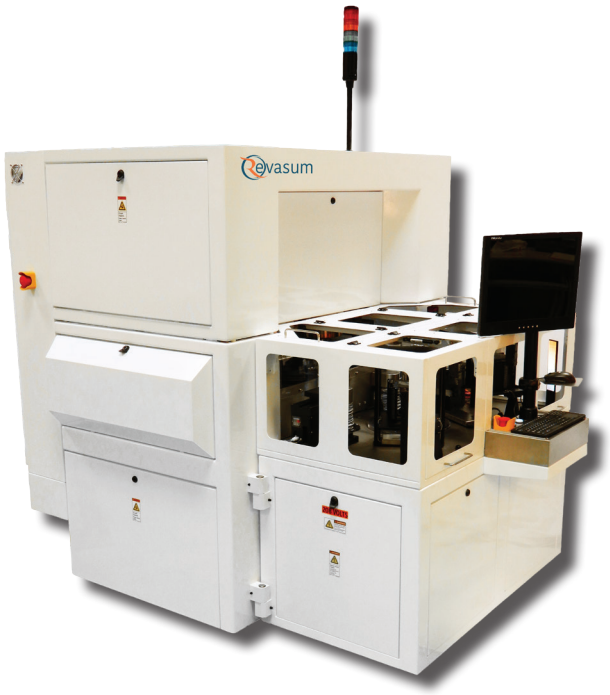
7AF-HMG Wafer Grinder

Designed for Advanced Grinding of Hard Materials

SYSTEM OVERVIEW

Revasum's 7AF-HMG grinding solution extends wheel life by nine times, increases uptime by 10%, boosts wafer output by 15 percent, and reduces the cost of ownership by seven times. With a return on investment of less than one year, the choice for SiC grinding is clear: choose the 7AF-HMG.



WHEEL LIFE IS NINE TIMES BETTER*

A SELF-DRESSING GRIND PROCESS*

THE RETURN ON INVESTMENT IS LESS THAN 12 MONTHS*

88 PERCENT FEWER WHEEL CHANGES*

*When back grinding SiC Wafers with 550µm target removal, and annual production of 25,000 wafers

FEATURES

- Real-time grind performance monitoring
- A self-dressing grind process
- Grind spindles can be fitted with coarse or fine wheels
- Supports dual fine grind, dual coarse grind, and standard coarse/fine grind processing
- Wafer flipping available for double-side grinding applications
- In-situ, real-time thickness control
- Air bearing spindles equipped with 8Hp motors
- Robust, contemporary Windows 7 based operating system

BENEFITS

- Achieves <1µm TTV for most applications
- Astounding performance on wire sawn SiC wafers
- Designed to reduce consumables and operations costs
- Accommodates incoming wafers with varied thicknesses without presorting
- A wide process window, reduces setup time and increases process repeatability
- Surface finish can be optimized for subsequent processing
- Easy to maintain and to switch between wafer sizes
- Flexible process flows

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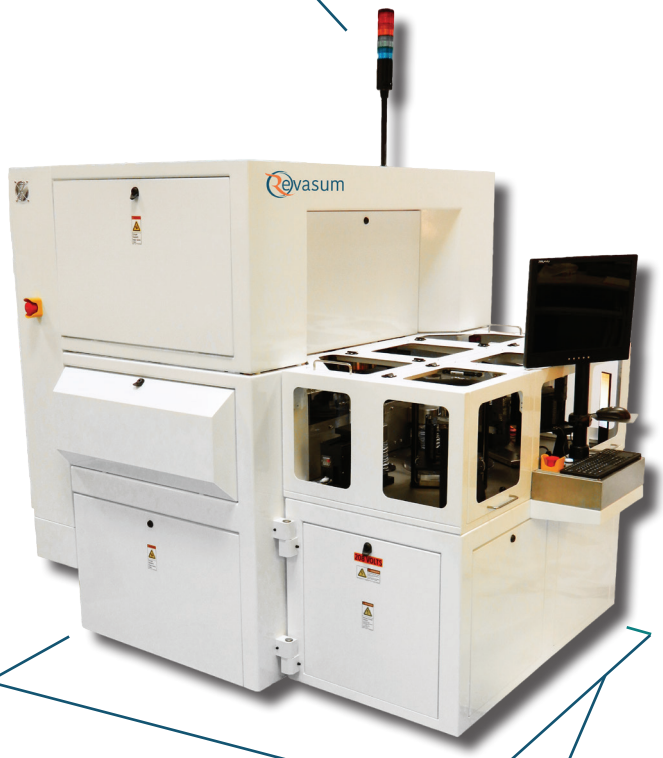
GRINDING ACCURACY

TTV Within Wafer -	< 1µm
Thickness Variation -	± 1µm
Surface Roughness -	200 Å to 30 Å (wheel dependent)

Based on Si grinding



GRINDING

Grind Spindle Type -	Air Bearing
Grind Spindle Speed -	500-4300 RPM
Grind Spindle Motor Output -	8Hp
Work Chuck Speed -	20-700 RPM
Work Chuck Type -	Ceramic, porous vacuum
Spin / Rinse / Dry -	Vacuum Chuck

TECHNICAL SPECS

Dimensions -	(SAE) 73"W x 85" D x 76" H (Metric) 1.86M x 2.15M x 2.46M
Footprint -	~42.6 Ft² [3.98 M²]
Weight -	~8500 lbs [~3865 K]
Wafer Capacity -	50mm to 200mm
Wafer Measurement -	In-situ, contact probe
Wafer Handling -	Fully Automated
Load/Unload -	1 send, 1 receive
Configuration -	2 chucks, 2 spindles

APPLICATIONS

7AF-HMG is used for backside thinning and for bulk thinning of wire-sawn substrates for a hard materials, including:

- SiC
- GaAs
- Sapphire
- InP
- GaN
- LiNbO3
- Ge
- and more...

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