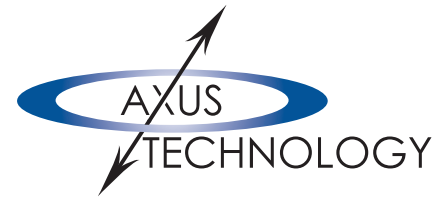


Disco DAG810 Wafer Backgrinder



Your source for leading-edge surface processing solutions



Disco DAG810 is a single axis automatic wafer grinder that can grind wafers up to 300mm diameter. With one air bearing grind spindle and one vacuum chuck mounted on a high precision mechanical lower spindle this grinder has a relatively small footprint of only 11 square feet. This grinder can perform either standard in-feed (plunge) grinding or optional creep feed grinding.

With optimized grinding of 200mm SEMI grade silicon wafers, the DAG810 is capable of:

Thickness control of ± 1.5 micron (WTW)
TTV across the wafer of ≤ 1.5 micron

FEATURES

- Small Footprint - Perfect for research laboratories and smaller production operations.
- Ultra-stiff air bearing grind spindle - The high rigidity air bearing generates virtually no harmonic vibrations during grind processing for improved surface quality and minimal sub-surface damage.
- Single-axis automatic grinder - capable of grinding substrates and wafers up to 300mm.
- High-precision applications - Applicable for standard wafer backgrinding and thinning of silicon wafers, plus compound semiconductors, TSV expose, fragile materials such as Lithium Niobate and extra hard materials such as Silicon Carbide and Sapphire.

OPTIONS AVAILABLE

Either one or two height gauges
In-feed grinding for work pieces up to 300mm diameter
Creep-feed grinding for work pieces up to 200mm diameter
200mm ring frame grinding
Vacuum system with fluid separation unit

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Disco DAG810 Rev 02 06 20

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MACHINE SPECIFICATIONS	
Wafer Diameter	50mm to 200mm; up to 300mm with special upgrade package
Operator Interface	LCD touchscreen
Wafer Alignment	Manual alignment. Frame grinding option is available.
Wafer Transport	Manual load/unload, automatic infeed
Thickness Gauge	Optional - one or two contact type gauges
Grinding Coolant System	D.I. or municipal water compatible coolant system (single pass).
Grinding Wheels	One, 200mm cup-style diamond grinding wheel
Work Holding Chucks	One, porous vacuum chuck, 3" to 200mm diameter. D.I. water and air backflush.
Infeed System	Maximum Travel: 120 mm Minimum Movement: 0.1 μ m Maximum Speed: 50mm/sec Minimum vertical resolution: 0.1 μ m
Traversing Spindles	Maximum Travel: N/A Maximum Speed: N/A
Lubrication	Automatic lubricating system

TECHNICAL FEATURES	
Grind Spindles	One 5.6 HP (4.2 kW) controlled variable speed 1000-4700 rpm direct drive air bearing
Course/Fine Grind Feed Rate	Programmable 0.1-50 μ m/sec, (0.0001-0.05 mm per second); programmable dwell 0-999 revolutions
Min. Z-axis movement	0.1 μ m; (0.0001 mm)
Min. Y-axis movement	1.0 μ m; (0.001 mm)
Work Spindles	One brushless DC servo controlled variable speed 1-300 rpm, mechanical bearing spindle.
Rinse/Spin Station	N/A

FACILITIES	
Electrical	200V (\pm , 10%), 3 ph., 50/60 Hz
Compressed Air	25 SCFM at 75-116 psi. (5.3 liters/minute at 0.5-0.8 MPa)
Exhaust Capacity	142 cfm at 1/2" water static pressure (4 m3/minute)
Grinding Coolant	D.I. water, 5 liters/minute (1.3 gpm)
Spindle Coolant	Municipal or chilled water, 2 liters/minute (0.52 gpm)
Drain	For waste water (Filtering system to remove swarf & sludge is recommended)
Vacuum	Vacuum system is required to maintain control of wafer on the work holding chuck.

DIMENSIONS		
Metric	600W x 1700D x 1780H	
Inches	23.6W x 66.9D x 70.1H	
Weight	1300 kg	7500 lbs

