



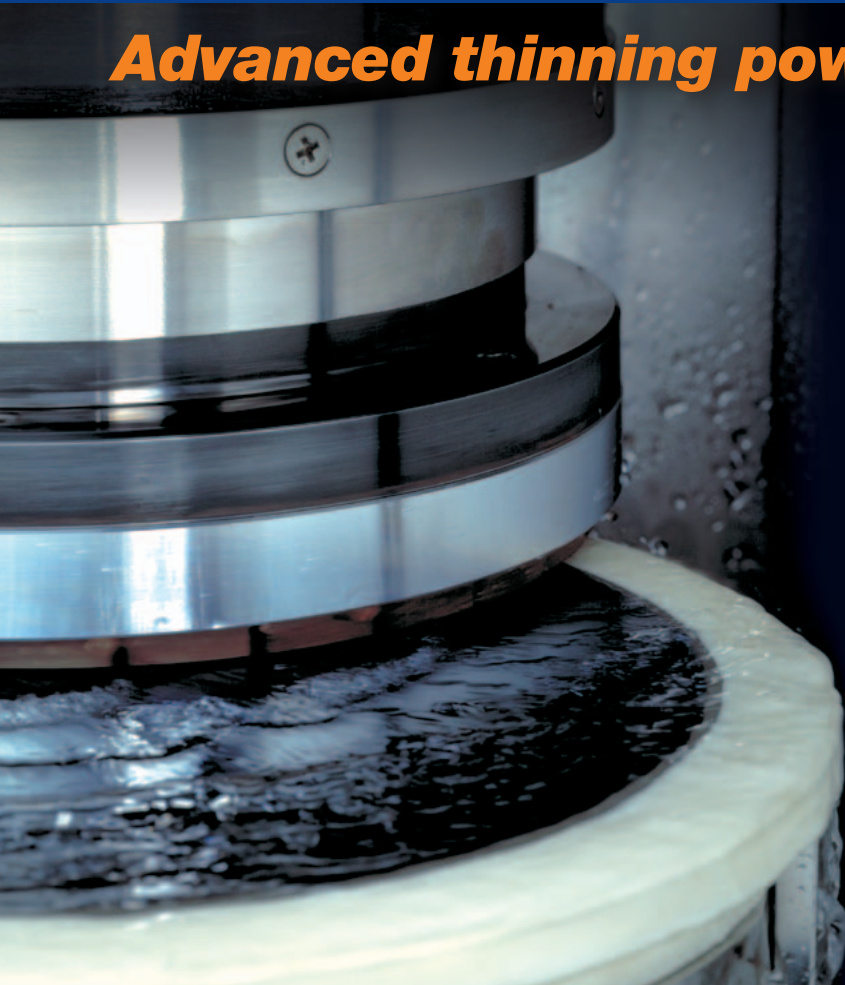
DISCO

Kiru · Kezuru · Migaku Technologies

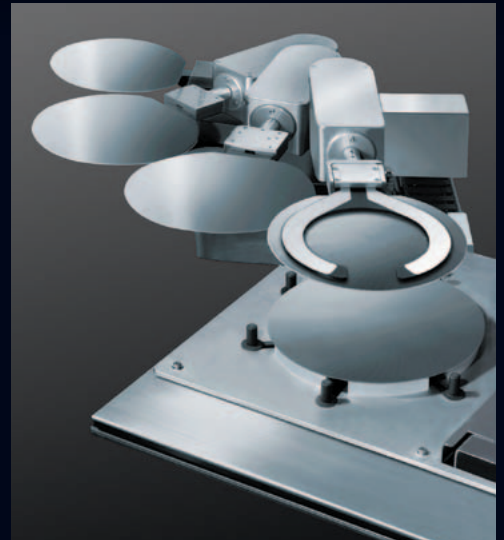


Fully Automatic In-Feed Surface Grinder DFG8540/8560

Advanced thinning power for large wafers



Thin wafer robot pick for safe handling



The grinder of choice

The DFG8540/8560 improved upon the functionality and performance that made the DISCO 800 series the grinder of choice at installations around the world.

Thin grinding (<100 μm)

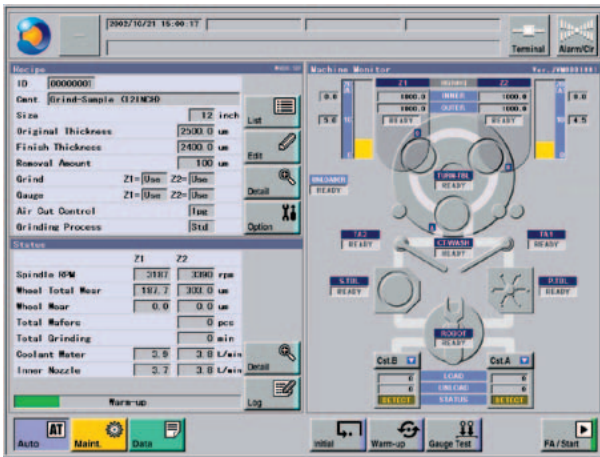
Advanced handling systems and design features facilitate high yield for thin wafer grinding.

Design flexibility

The DFG8540/8560 can be integrated with DISCO's Dicing Before Grinding (DBG) system as well as polishers (DFP8140/8160) for in-line processing solutions.



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LCD touch screen

Improved grinding quality

Through design innovation, both spindles now grind wafers at the same relative position. This improves single wafer thickness variation as well as wafer to wafer thickness variation.

Backward-compatibility

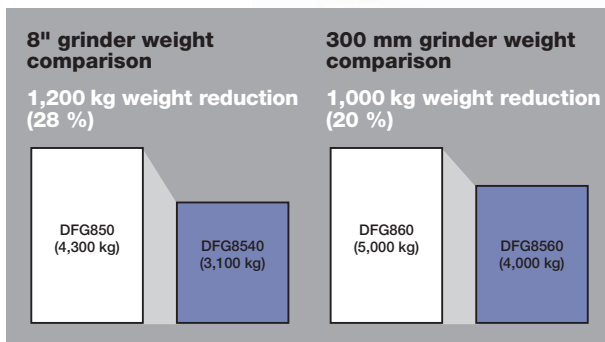
Can employ the same proven technology of the DISCO 800-series grinding wheels, spindles, chuck tables and dresser boards.

Easy operation

The DFG8540/8560 utilizes an LCD touch screen graphical user interface, making operation and maintenance intuitive and easy.



Handy panel



Environmental conditions

- Use clean, oil-free air at a dew point of -15 °C or less. (Use a residual oil: 0.1 ppm. Filtration rating: 0.01 μm/99.5 % or more).
- Keep room temperature fluctuations within ±1 °C of the set value. (Set value should be between 20 - 25 °C).
- Keep grinding water and cleaning water 2 °C above room temperature (fluctuations within 1 °C over one hour).
- Keep spindle cooling water temperature between 20 - 25 °C (fluctuations within 2 °C over an hour).
- The machines should be used in an environment, free from external vibration. Do not install machine near a ventilation opening, heat generation equipment or oil mist generating parts.
- This machine uses water. In case of water leakage, please install the machine on the floor with sufficient waterproofing and drainage treatments.
- * All the pressures are described using a gauge pressure.
- * The above specifications may change due to technical modifications. Please confirm when placing your order.
- * For further information please contact your local sales representatives.

DFG8540/8560 Specifications

		DFG8540	DFG8560
Wafer diameter	mm	Max.ø200 (ø4" - ø8")	Max.ø300 (ø8" - ø12")
Grinding method	-	In-feed grinding with wafer rotation	
Spindle	Type	Air bearing with high frequency motor	
	Number of axes	2	
	Output	4.2	4.8
	Revolution speed	1,000 - 7,000	1,000 - 4,000
	Z-axis vertical stroke	120 (with zero point)	
	Z-axis vertical grinding feed speed	0.0001 - 0.08	
	Z-axis vertical fast feed speed	50	
	Min. Z-axis vertical movement	0.1	
	Min. Z-axis vertical movement resolution	0.1	
Height gauge	Measurement range	0 - 1,800	
	Resolution	0.1	
	Repeatability	±0.5	
Wafer chuck table	Chuck table type	Porous chuck table	
	Chuck method	Vacuum	
	Number of revolutions	0 - 300	
	Number of chuck tables	3	
	Chuck table cleaning	Backflushing of water and compressed air is combined with Leveling stone cleaning and brush cleaning	
	Spark Out (chuck table revolutions setting)	0 - 999	
Grinding wheel	Diamond wheel	ø200	ø300
Wafer handling section / Wafer cleaning section	Cassette storage quantity	2	
	Cassette flow	Same flow and open flow	
	Spinner unit	Water washing and drying	
Vacuum unit	Discharge speed	29/36 (50/60 Hz)	
	Achievable pressure	-90 (water supply temperature 15 °C, water supply flow rate 1 L/min)	
	Electric motor	1.5	
	Water flow rate		
	When supplied water temperature is greater than 22 °C	3	
	When supplied water temperature is less than 22 °C	1	
Grinding accuracy	Thickness variation within one wafer	less than 1.5 (when grinding ø8" wafers with included chuck tables)	
	Thickness variation between wafers	less than ±3	
	Finish surface roughness	Ry 0.13 (with #2000 finish) Ry 0.15 (with #1400 finish)	
Utilities	Power supply	200 V AC±10 %, 3-phase (50/60 Hz) For other than the above voltages, a transformer is necessary	
	Power consumption		
	During processing	5.8 (for reference)	9.0 (for reference)
	During warm-up	3.3 (for reference)	5.0 (for reference)
	Max. power	19	21
	Air pressure	0.5 - 0.8	
	Air flow rate	400	
	Water pressure		
	Grinding and cleaning	0.3 - 0.4	
	Cooling	0.2 - 0.3	
	Vacuum pump	0.052 - 0.49	
	Water flow rate		
	Grinding and cleaning	25 or higher	
	Cooling	4 or higher	
	Vacuum pump		
	When supplied water temperature is greater than 22 °C	3	
	When supplied water temperature is less than 22 °C	1	
	Exhaust duct capacity	4	
	Machine dimensions (W x D x H)	1,200 x 2,670 x 1,800	1,400 x 3,322 x 1,800
	Machine weight	3,100	4,000

A vacuum unit is installed as standard.



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