



# Fully Automatic Grinder DFG8830

## Pioneering a new stage for processing hard and brittle materials

### Support for the grinding of hard and brittle materials

The DFG8830 is equipped with a highly durable and high power spindle for large diameter grinding wheels for the fully automatic processing of high-load hard and brittle workpieces.

### 4-axis, 5-chuck table configuration

The 4-axis, 5-chuck table, and 1 turntable configuration offers solutions for a variety of applications.

By selecting the optimal wheel for each of the 4 axes, this unit offers for low-damage, high-quality or high-productivity processing for a wide range of applications.



### Grinding of wafers with supporting substrates

The DFG8830 supports the grinding of workpieces with ø5 - 8-inch glass or ceramic support substrates up to a total thickness of 3.5 mm.

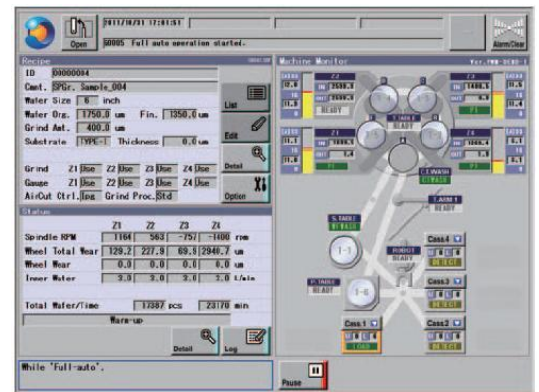
### Small footprint

Optimal arrangement of the spindles and handling systems has resulted in a compact footprint of 3.5 m<sup>2</sup>, despite boasting an all-in-one, 4-axis, 5-chuck table configuration.

### User friendly operation

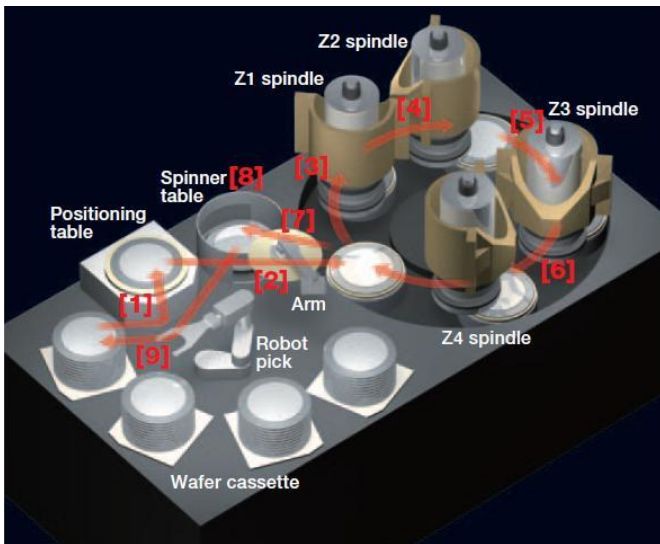
The intuitive icon-based GUI touch panel allows simple operation and on-screen step-by-step visualization of the processing stages.

Also, with support for up to four cassettes, the cassette replacement frequency and equipment operation workload can be reduced.



Control screen

# Fully Automatic Grinder DFG8830



## DFG8830 Operation flow

- [1] The robot pick removes the wafer from the cassette and places it on the positioning table, where centering takes place.
- [2] The transfer arm places the wafer on the chuck table.
- [3] - [6] Grinding
- [7] The transfer arm removes the wafer from the chuck table and places it on the spinner.
- [8] Cleaning and drying
- [9] The robot pick returns the workpiece to the cassette.

| Specification             |                                      |                   |                                      |
|---------------------------|--------------------------------------|-------------------|--------------------------------------|
| Specification             |                                      | Unit              |                                      |
| Wafer Diameter            |                                      | -                 | φ 4" - φ 6"                          |
| Substrate Diameter        |                                      | -                 | φ 5" - φ 8"                          |
| Grinding Method           |                                      |                   | In-feed grinding with wafer Rotation |
| Grinding Wheels           |                                      | mm                | φ 300 Diamond Wheel                  |
| Spindle                   | Rated Output                         | kW                | 6.3                                  |
|                           | Rated torque range                   | min <sup>-1</sup> | 1,000 - 4,000                        |
| Grinding Accuracy         | Thickness variation within one wafer | μm                | 3 or less                            |
|                           | Thickness variation between wafers   |                   | ±3 or less                           |
| Machine dimensions(WxDxH) |                                      | mm                | 1,400 × 2,500 × 2,000                |
| Machine weight            |                                      | kg                | Approx.6,000                         |

### 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 + 0 - 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 gauge pressures.
- \* The above specifications may change due to technical modifications. Please confirm when placing your order.
- \* For further information please contact your local sales representatives.