



# Water-Sludge Separator DWS1820

**For the separation and recovery of high purity silicon sludge from grinding water.**

## Low cost recovery of silicon sludge

DISCO has developed the DWS1820, which uses a unique filter-less technology to separate and recover silicon sludge (water containing silicon content) from the wastewater created in the wafer backside grinding process for semiconductor manufacturing.

The filter-less technology means that the DWS1820 is comparatively low cost when compared with existing systems that use a large number of filters.

## Realizes a significant footprint reduction

The DWS1820 features a 0.79 m<sup>2</sup> space saving design, which is approximately 1/8\* the footprint of existing systems.

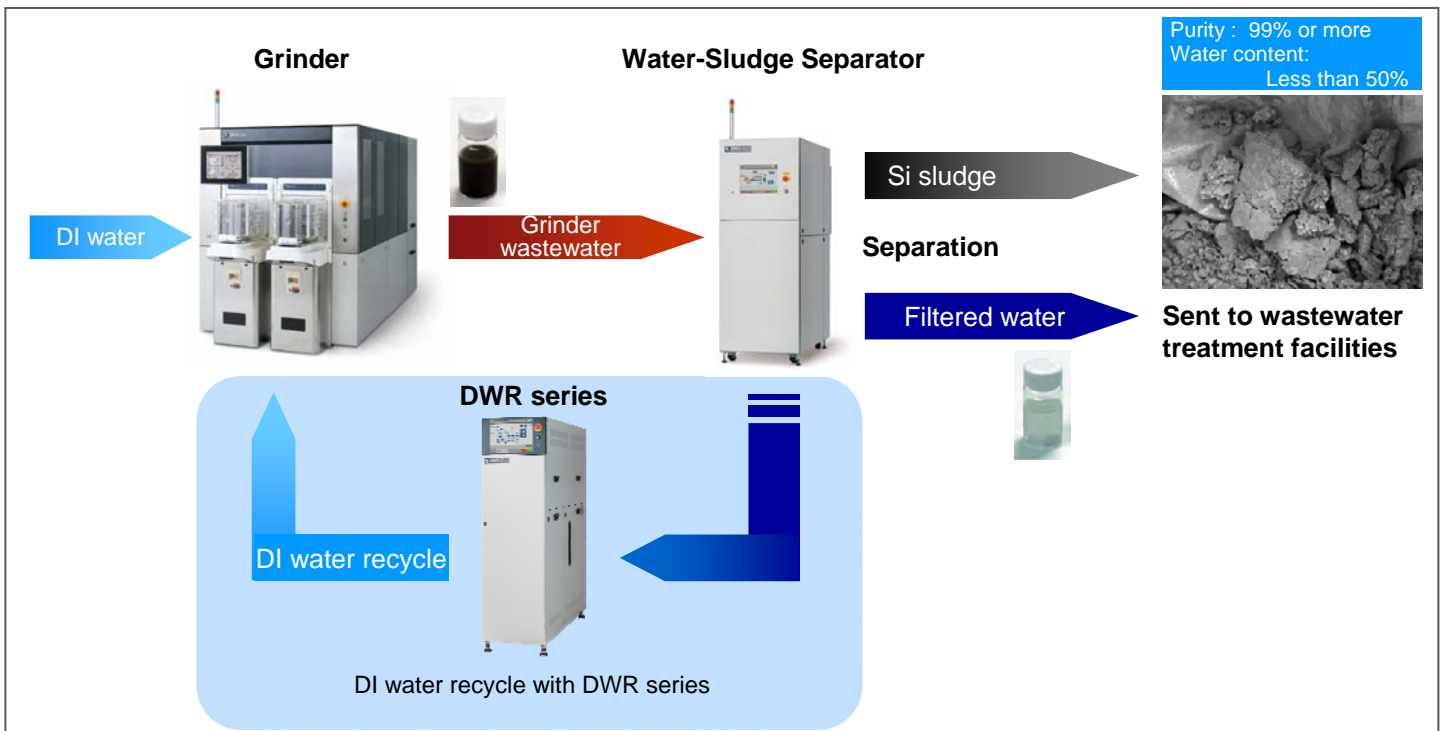
\*When comparing an existing system (Flow rate: 10 m<sup>3</sup>/h) with 6 DWS1820 units (equivalent capacity).

## Can be combined with our DWR series, DI water recycling equipment, to recycle the DI water in grinding wastewater.

Recycling the DI water in grinding wastewater using DWR series equipment alone is currently difficult due to high silicon sludge content. However, the DWR series can now be used in combination with the DWS1820 to make this application possible.



DWS1820



### Specification

Specification		Unit	
Waste water treatment ability	Flow rate	L/min	30
	Silicon separation ability	%	99
Utilities	Machine dimensions (W x D x H)	mm	600 x 1,165 x 1,800
	Machine weight	kg	620 (when it is dry)

### Environmental conditions

- Use clean, oil-free air at a dew point of -15 °C or less. (Use a residual oil: 0.1ppm. 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 cutting water and cooling water at the same (within ±1 °C fluctuations) temperature as the room.
- Use water that has a specific electric conductivity greater than 1μS for cutting.
- 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