

## PHT Inc.

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# Wafer Transfer Device PWT2020



# Wafer Transfer Device

#### **Summary**

This is a system that applies a clean robot. It transports a 300mm wafer in single units from cassette (container) A to B. The compatible cassettes (containers) are FOUP, FOSB, OPEN, and PFA.

The standard conveyance is in single units, but conveyance in units of 5 and 25 is also possible.

It safely transports wafers in bulk between cassettes and allows for slot-specified transport (within the same carrier).

To load/unload the wafer from the cassette, it is lifted, minimizing contact with the cassette and preventing wear, dust generation, and damage to the edge of the wafer. Wafer mapping is used to detect loading errors such as wafer misalignment and double-stacking. It comes with a misoperation prevention sensor and an emergency stop button.

#### **Device Specifications**

Work Semiconductor substrate

**Device Weight** Approximately 500 kg

Work Thickness 600 to 850 micrometers

Work Size 300 mm

Cassette (Container) FOUP, FOSB, OPEN, PFA

#### Safety Mechanism

Presence or absence of cassette, presence or absence of wafer, overload detection, abnormal alarm, emergency stop. **Drive Method** Motor drive (Servo)

**Transport Unit** Units of 1, 5, or 25 sheets

**Device Size** W1000 × D1400 × H1800 (mm)

Power Supply AC200V, 15A

**Throughput** 25 sheets per cassette transfer time, less than 300 seconds.

#### Option

Electrostatic removal device (Ionizer), full cover, area sensor ID reader, alignment, wafer reversal, etc.

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#### **Features**

- Space-saving
- Anti-static type
- Monitors errors with light and mechanical sensors
- Equipped with mapping sensor
- Compatible with FOUP, FOSB, H-Square metal cassettes
- Class 10 clean room compatible

## **Case Study**

I want to simply transport the wafer and reduce friction inside the cassette where the work is done.

### **Possible to consider**

Number of cassette stages, automation, work size, etc.

#### Usage

#### 1. Cases used by device manufacturers

- Evaluation wafers are supplied by the device manufacturer in FOSB (shipping cases).
- ② Transfer is made to the carrier (for example, FOUP) used in the equipment manufacturer's system.
- ③ After evaluation, the wafers are transferred to FOSB (returned to the device manufacturer).

#### **Examples of device manufacturers**

Etching equipment, ashing equipment, cleaning equipment, coater developers, exposure machines, etc.

#### 2. Cases used by wafer manufacturers

- Transfer the finished wafers (after final cleaning and inspection) to FOSB (shipping case).
- ② Between processes (such as the cleaning process), transfer to a PFA carrier (cleaning carrier).