

WHAT IS CLAIMED IS:

1. A CMP wafer cleaning equipment comprising:

a cleaning input unit,

a megasonic cleaning unit,

5 a number of scrubbing units,

a spin-drying unit arranged in sequence, and

a transfer robot located above the cleaning equipment,

wherein the transfer robot comprises a horizontal movement axis, a vertical movement axis
and a number of wafer grabbing devices configured to transport wafers between the units, one of
10 the wafer grabbing devices near the side of the spin-drying unit is configured to grab and flip the
wafers with own wafer flipping function,

wherein the CMP wafer cleaning equipment further comprises a buffer unit, which is located
in front of the cleaning input unit and is configured to temporarily store a number of wafers,

wherein a water injector is installed in the buffer unit to prevent the wafers from being dried
15 without being cleaned.

2. The CMP wafer cleaning equipment of claim 1, further comprising a polishing wafer
channel located between the cleaning input unit and the megasonic cleaning unit, so that the wafer
to be subjected to chemical-mechanical polishing is arranged to pass through the cleaning
equipment when entering a polishing area.

20 3. The CMP wafer cleaning equipment of claim 2, wherein

the cleaning input unit comprises a wafer bracket; and

both the polished wafer channel and the wafer bracket are configured to be moved out
simultaneously or separately to facilitate wafer loading.

4. The CMP wafer cleaning equipment of claim 1, suitable for flipping the wafers in the
25 vertical direction during cleaning and brushing, and flipping the wafers in the horizontal direction
during spin-drying.

5. The CMP wafer cleaning equipment of claim 1, suitable for flipping the wafers in the vertical direction during cleaning, brushing, and spin-drying.

6. The CMP wafer cleaning equipment of claim 1, wherein the transfer robot includes a first wafer grabbing device and a second wafer grabbing device.

5 7. A CMP wafer cleaning equipment comprising:

 a cleaning input unit,

 a megasonic cleaning unit,

 a number of scrubbing units,

 a spin-drying unit arranged in sequence,

10 a transfer robot located above the cleaning equipment, wherein the transfer robot comprises a horizontal movement axis, a vertical movement axis and a number of wafer grabbing devices configured to transport wafers between the units, one of the wafer grabbing devices is configured to grab and flip the wafers with own wafer flipping function, and

 an independent flipping robot that is designed to eliminate the need for the one of the wafer
15 grabbing devices close to the spin-drying unit to turn the wafers,

 wherein the CMP wafer cleaning equipment further comprises a buffer unit, which is located in front of the cleaning input unit and is configured to temporarily store a number of wafers,

 wherein a water injector is installed in the buffer unit to prevent the wafers from being dried without being cleaned.

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