WHAT IS CLAIMED IS:

1. A substrate processing apparatus comprising:

a substrate polishing device; and

a substrate cleaning unit configured to clean a substrate polished by the substrate polishing device, wherein

the substrate cleaning unit includes:

a cleaning module configured to perform a cleaning of the substrate; and

a cleaning unit conveyance mechanism configured to convey the substrate in the substrate cleaning unit,

the cleaning unit conveyance mechanism includes:

a pair of hands configured to hold the substrate;

a hand open/close mechanism configured to open and close the hand,

the substrate processing apparatus further includes a hand cleaning unit configured to clean the pair of hands, and

a hand up-and-down motion mechanism that moves the pair of hands up and down,

the hand cleaning unit includes:

a pair of hand cleaning tanks disposed on a both side portions of the cleaning module in a direction in which the pair of hands opens and closes, each of the hand cleaning tanks being configured to house each of the pair of hands respectively and simultaneously when the pair of hands are opened and moved down; and

a cleaning liquid injection mechanism configured to inject a cleaning liquid toward a predetermined position when the pair of hands is housed in the pair of hand cleaning tanks,

wherein the pair of hand cleaning tanks has a bottom portion, the bottom portion has an opening for draining the used cleaning liquid.

2. The substrate processing apparatus according to claim 1, wherein

the predetermined position includes a position where the pair of hands is to be housed.

3. The substrate processing apparatus according to claim 1, wherein

the pair of hands is configured to hold the substrate with a claw, and

the predetermined position includes a position where the claw is to be housed.

4. The substrate processing apparatus according to claim 1, wherein

each of the pair of hand cleaning tanks has a bottom portion where an opening is formed, and

the bottom portion of each of the pair of hand cleaning tanks has a shape lowered toward the opening.

5. The substrate processing apparatus according to claim 1, wherein

each of the pair of hand cleaning tanks has an open upper portion.

6. The substrate processing apparatus according to claim 1, wherein

the substrate processing apparatus further includes a control unit, and

the control unit controls the substrate processing apparatus such that the cleaning liquid is injected toward the predetermined position in at least any case of:

after the substrate is conveyed to the cleaning module;

before the substrate is conveyed from the cleaning module; and

in a standby time of the substrate cleaning unit.

7. A method for cleaning the hands in the substrate processing apparatus according to claim 1, the hand cleaning method comprising:

housing the hands in the hand cleaning tanks; and

injecting the cleaning liquid toward the predetermined position using the cleaning liquid injection mechanism.