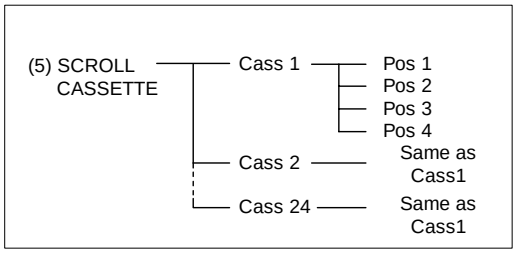
8.6 “SCROLL CASSETTE” and “SCROLL STAGE”

< “SCROLL CASSETTE” >
Simulates the robot arm operation to “GET” / “PUT” the wafer from / to the cassette using the data of “CASSETTE”.

The right figure is the block diagram of “SCROLL CASSETTE”.



The second parameter of “SCROLL CASSETTE”>

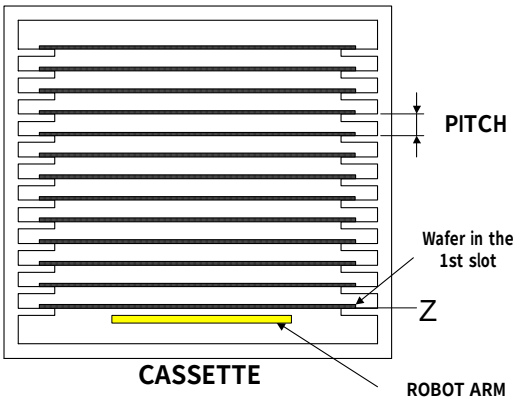
Three types teaching data is stored in Cass 1-24.

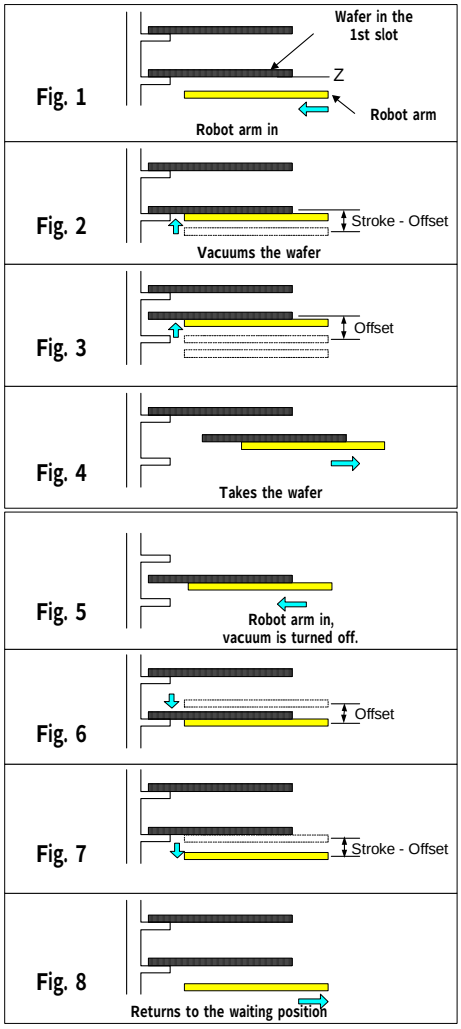
Parameter	Wafer size	Cassette table	Pcs	Mode
CASS 1	4-inch	Right	25	T/1
CASS 2	5-inch			
CASS 3	6-inch			
CASS 4	8-inch			
CASS 5	4-inch	Left		
CASS 6	5-inch			
CASS 7	6-inch			
CASS 8	8-inch			
CASS 9	4-inch	Right	12	T/2
CASS 10	5-inch			
CASS 11	6-inch			
CASS 12	8-inch			
CASS 13	4-inch	Left		
CASS 14	5-inch			
CASS 15	6-inch			
CASS 16	8-inch			
CASS 17	4-inch	Right	12	T/3
CASS 18	5-inch			
CASS 19	6-inch			
CASS 20	8-inch			
CASS 21	4-inch	左		
CASS 22	5-inch			
CASS 23	6-inch			
CASS 24	8-inch			

When CASS 1 data is selected, T/1 data is used for robot arm operation.

8.6 “SCROLL CASSETTE” and “SCROLL STAGE” (Continued)

<Simulation for the cassette>





<Simulation procedure>

(1) Perform “8.2 Preparation for robot teaching”.
Press [PAR+] / [PAR-] key to select “STEPCASS”.
(2) Select a parameter to simulate with [REV] / [FWD] key.
The screen on the teach pendant is shown below when CASS 4 is selected.

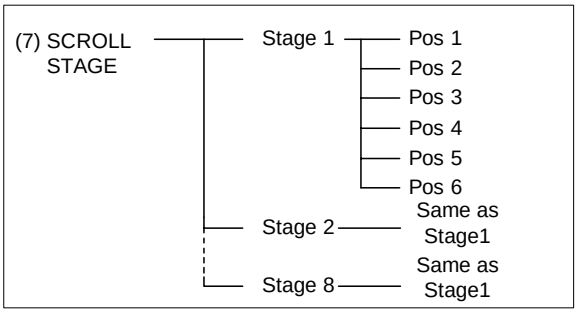
TCHRBT	STEP CASS
CASS 4,1	REV FWD
PUT=PRV	GET=NXT

(3) Place the appropriate cassette corresponding to the second parameter on the cassette table (CASS 1-24).
(4) Place a wafer into the 1st slot.
(5) Press [NXT] key. The robot arm is inserted into beneath the wafer in the 1st slot. (Fig. 1)
(6) Press [NXT] key. The robot arm moves upward according to “STROKE - OFFSET” value. (Fig. 2)
(7) Press [NXT] key. The robot arm moves upward according to “OFFSET” value. (Fig. 3)
(8) Press [NXT] key. The robot arm returns to the waiting position vacuuming the wafer. (Fig. 4)
(9) Press [PRV] key. The robot arm is inserted into the 1st slot of the cassette, and the vacuum is turned off. (Fig. 5)
(10) Press [PRV] key. The robot arm moves downward according to “OFFSET” value. (Fig. 6)
(11) Press [PRV] key. The robot arm moves downward according to “STROKE - OFFSET” value. (Fig. 7)
(12) Press [PRV] key. The robot arm returns to the waiting position. (Fig. 8)

8.6 “SCROLL CASSETTE” and “SCROLL STAGE” (Continued)

<“SCROLL STAGE”>
Simulates the robot arm operation to “GET” / “PUT” the wafer from / to the aligner and “PUT” the wafer to the chuck table using the data of “STAGE”.

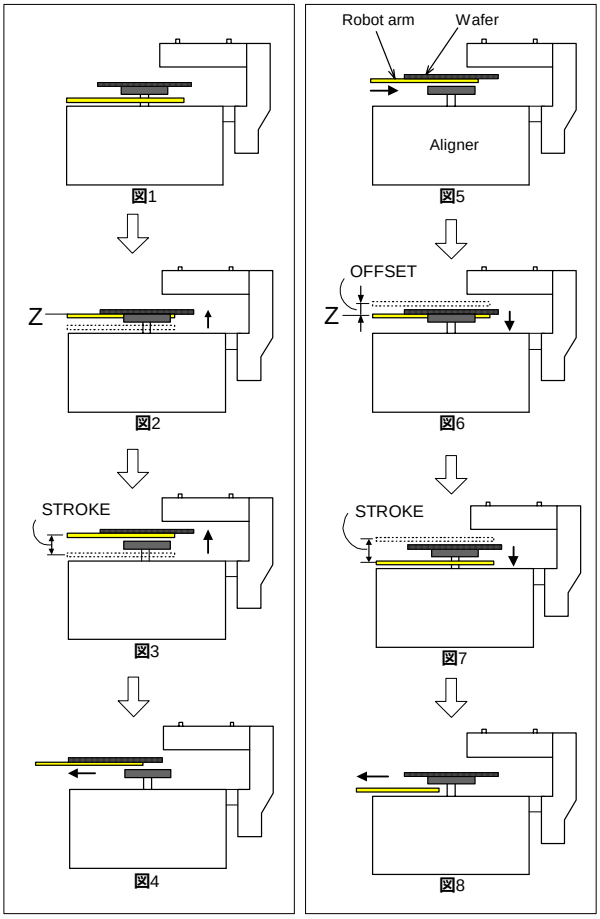
The right figure is the block diagram of “SCROLL STAGE”.



<The second parameter of “STEP STAGE”>

STAGE #	STAGE POISITION
STAGE 1	Aligner GET / PUT
STAGE 2	Chuck table PUT
STAGE 3	CASSETTE WAITING POINT
STAGE 4	UV irradiation (option)
STAGE 5	ALIGNER WAITING POINT
STAGE 6	CHUCK TABLE GET
STAGE 7	CHUCK TABLE WAITING POSITION (DOWN)
STAGE 8	CHUCK TABLE WAITING POSITION (UP)
STAGE 9	PRESS DOWN PLATE
STAGE 10	ROTATING POINT (LEFT)
STAGE 11	UV TABLE GET DOWN POSITION (after rotating)

<Simulation for the aligner>



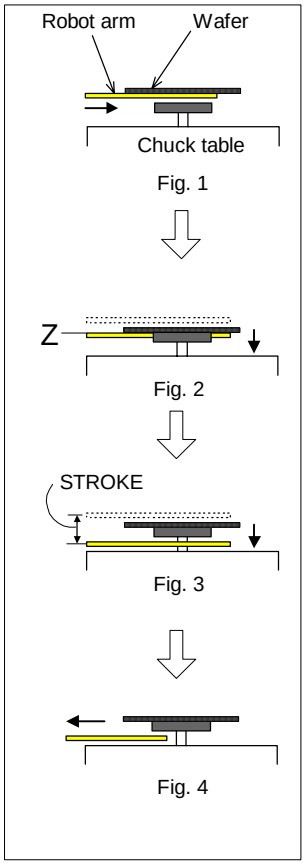
<Simulation procedure>

(1) Perform “8.2 Preparation for robot teaching”.
(2) Press [PAR+] / [PAR-] key to select “STEP STAGE”.
(3) Select “STAGE1” to simulate with [REV] / [FWD] key. The screen on the teach pendant is shown below.

TCHRBT	STEP STAGE
STAGE 1,1	REV FWD
PUT=PRV	GET=NXT

(4) Place a wafer on the aligner pad.
(5) Align the wafer according to “5.2 Manual operation for aligner”.
(6) Press [SET] key on MAIN SCREEN. ”INDIVIDUAL OPERATION PANEL” is displayed.
(7) Enter “748“ and turn off the aligner vacuum.
(8) Press [NXT] key. The robot arm is extended beneath the aligner pad. (Fig. 1)
(9) Press [NXT] key. The robot arm moves upward according to “STROKE - OFFSET” value. (Fig. 2)
(10) Press [NXT] key. The robot arm moves upward according to “OFFSET” value. (Fig. 3)
(11) Press [NXT] key. The robot arm returns to the waiting position vacuuming the wafer. (Fig. 4)
(12) Press [PRV] key. The robot arm is extended onto the aligner pad. (Fig. 5)
(13) Press [PRV] key. The robot arm moves downward according to “STROKE - OFFSET” value , and the vacuum is turned off. (Fig. 6)
(14) Press [PRV] key. The robot arm moves downward according to “OFFSET” value. (Fig. 7)
(15) Press [PRV] key. The robot arm returns to the waiting position. (Fig. 8)

<Simulation for chuck table>



<Simulation procedure >

(1) Perform (1)-(11) shown on the previous page.

(2) Press [REV] / [FWD] key to select “STAGE 2”. The screen on the teach pendant is shown below.

```
TCHRBT          STEP STAGE
STAGE 2, T1      REV  FWD
PUT=PRV           GET=NXT
```

(3) Press [REV] key. The robot turns to the chuck table direction.

(4) Press [REV] key. The robot arm is inserted onto the chuck table. (Fig. 1)

(5) Press [REV] key. The robot arm moves downward according to “OFFSET” value. (Fig. 2)

(6) Press [REV] key. The robot arm moves downward according to “Stroke -OFFSET” value. (Fig. 3)

(7) Press [REV] key. The robot arm returns to the waiting position. (Fig. 4)