When replacing a tool, please refer to the following guidelines to configure the tool plate. Each respective item is shifted independently.

# Allowable eccentricity (A)



Model		RHA / RHB								
		005	010	020	040	080	160	230		
Allowable eccentricity A	mm	±0.8		±1	±1.5		±2			

When the master plate approaches, the positioning pin is used for final alignment. The tool plate should not be completely fixed to the tool stand, but should have some margin.

## Allowable clearance (B)



Model		RHA / RHB								
		005	010	020	040	080	160	230		
Lift stroke	mm	0.8			1					
Allowable gap B	mm	Lift stroke + 0.5								

If the clearance is less than the above, pull up the tool plate to lock it. It is not necessary to teach the robot so that both plates are in close contact with each other, but set it as close to the lift amount as possible.

## During separation gap



# Model RHA / RHB 005 010 020 040 080 160 230 Lift stroke mm 0.8 1 1 1

Perform the separation operation with a clearance between the tool stand and the lift amount or more.

# Allowable turning angle



Model	RHA / RHB								
Model	005	010	020	040	080	160	230		
Allowable turning angle $\theta$	±3°								

## Allowable slant angle



Model		RHA / RHB							
		005	010	020	040	080	160	230	
Allowable slant angle $\theta$		1.5°		1°	0.9°	0.7°	0.5°	0.4°	
Allowable gap B	mm	Lift stroke + 0.5							

Teach the robot until the allowable tilt is less than the above and less than the allowable clearance (B).