

# QCTH / QCTHL / QCTHH QUARTER-TURN CLAMPS

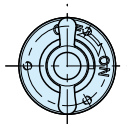
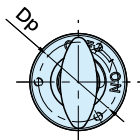
**RHS** Stainless Steel

**IMAO**

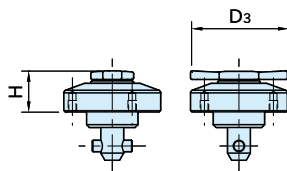
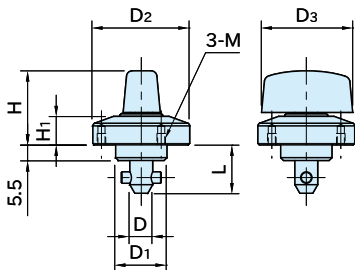
★ **Key Point**  
Easy-to-read ON/OFF position



**QCTH**  
(Plastic Knob)



**QCTH-S**  
(Metal Knob)



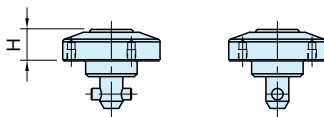
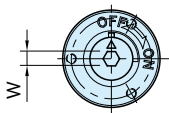
**QCTH** (Plastic Knob) **QCTH-S** (Metal Knob) **QCTH-SUS** (Stainless Steel)

**QCTHL-S**  
(Low-height Knob)



**QCTH-SUS**  
(Stainless Steel)

Stainless Steel



**QCTHH**  
(Hex. Socket Head)



**QCTHL-S**  
(Low-height Knob)



**QCTHH**  
(Hex. Socket Head)

## Supplied With

- **QCTH** **QCTH-S** **QCTHL-S** **QCTH-SUS** **QCTHH** 0525-10:  
3 of socket-head cap screws (stainless steel), M2×0.4-5L
- **QCTH** **QCTH-S** **QCTHL-S** **QCTH-SUS** **QCTHH** 0834-14, 0834-20:  
3 of socket-head cap screws (stainless steel), M3×0.5-6L

Type	Body	Shank	Pin	Knob	Spring
<b>QCTH</b>	SUS303 stainless steel	S45C steel Electroless nickel plated	SUS304 stainless steel	Polyamide (glass-fiber reinforced)	Equivalent to SWOSC-V steel
<b>QCTH-S</b>				Black	
<b>QCTHL-S</b>				SCS13 stainless steel (Equivalent to SUS304)	
<b>QCTHH</b>				—	
<b>QCTH-SUS</b>	SUS303 stainless steel	SUS303 stainless steel		SCS13 stainless steel (Equivalent to SUS304)	SUS304 stainless steel

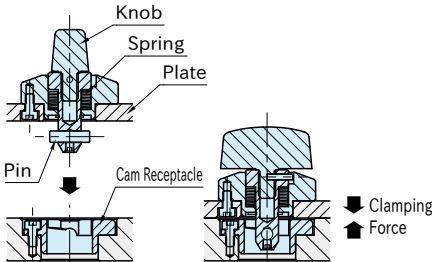
Size		Proper Plate Thickness	D (-0.04)	D <sub>1</sub> (hg)	D <sub>2</sub>	L	H <sub>1</sub>	M	D <sub>p</sub>	Clamping Force (N)	Proper Cam Receptacles
<b>QCTH</b>	<b>0525-10</b>	3~10 )	5	14	25	15.5	6.5	M2×0.4 Depth 3	21	60	QCTH0525-N,QCTH0525-B QCTH0525-N-SUS,QCTH0525-B-SUS
<b>QCTH-S</b>											
<b>QCTHL-S</b>	<b>0834-14</b>	3~14 )	8	18	34	17	10	M3×0.5 Depth 4	28	90	QCTH0834-N,QCTH0834-B QCTH0834-N-SUS,QCTH0834-B-SUS
<b>QCTH-SUS</b>											
<b>QCTHH</b>	<b>0834-20</b>	12~20				23					

\*) Spacer **QCASP** is required for thinner plate than 6mm.

<b>QCTH</b> (Plastic Knob)			<b>QCTH-S</b> (Metal Knob)			<b>QCTHL-S</b> (Low-height Knob)					
Part Number	D <sub>3</sub>	H	Weight (g)	Part Number	D <sub>3</sub>	H	Weight (g)	Part Number	D <sub>3</sub>	H	Weight (g)
<b>QCTH0525-10</b>	20	19	35	<b>QCTH0525-10S</b>	20	19	40	<b>QCTHL0525-10S</b>	25	11.5	35
<b>QCTH0834-14</b>	32	26	105	<b>QCTH0834-14S</b>	32	25.5	130	<b>QCTHL0834-14S</b>	34	15.5	80
<b>QCTH0834-20</b>			110	<b>QCTH0834-20S</b>			135	<b>QCTHL0834-20S</b>			85

<b>QCTH-SUS</b> (Stainless Steel)				<b>QCTHH</b> (Hex. Socket Head)			
Part Number	D <sub>3</sub>	H	Weight (g)	Part Number	H	W	Weight (g)
<b>QCTH0525-10-SUS</b>	20	19	40	<b>QCTHH0525-10</b>	8	4	30
<b>QCTH0834-14-SUS</b>	32	25.5	130	<b>QCTHH0834-14</b>	11	5	105
<b>QCTH0834-20-SUS</b>			135	<b>QCTHH0834-20</b>			110

### Feature

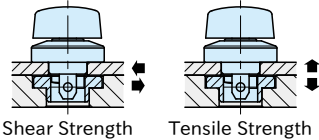


When the pin contacts the cam in the Cam Receptacle, the spring gets compressed to press down the plate.

### How To Use

1. Ensure that the knob is positioned at the "OFF" mark.
2. Insert the Quarter-Turn Clamp.
3. Turn the knob to the "ON" mark for clamping. The knob clicks when it is clamped/unclamped. Note: For unclamping, follow back these steps.

### Technical information



Part Number		Heatresistant Temperature(°C)	Shear Strength (N)	Tensile Strength (N)
<b>QCTH</b>	<b>0525-10</b>	130	1800	1200
	<b>0834-14</b>		3200	2600
	<b>0834-20</b>			
<b>QCTH-S</b>	<b>0525-10</b>	180	1800	1200
	<b>QCTHL-S</b>		3200	2600
	<b>QCTH-SUS</b>			
<b>QCTHH</b>	<b>0834-20</b>			

Shear and tensile strength is allowable load and the fastener could break when it receives bigger load.

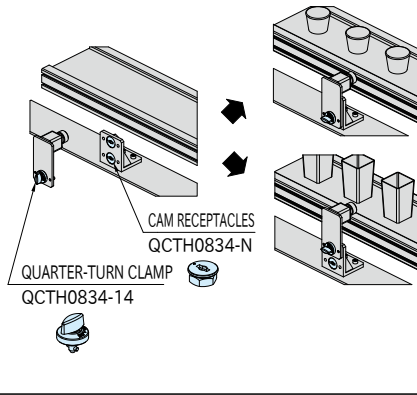
When the fastener receives tensile load that is bigger than its clamping force, there is a gap between the plates and the fastener could break if this happens frequently.

### QCTH-N / QCTH-B CAM RECEPTACLES

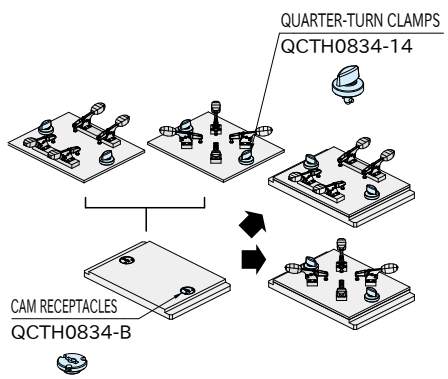


## Application Example

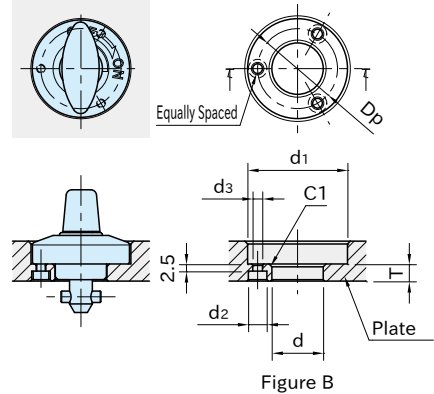
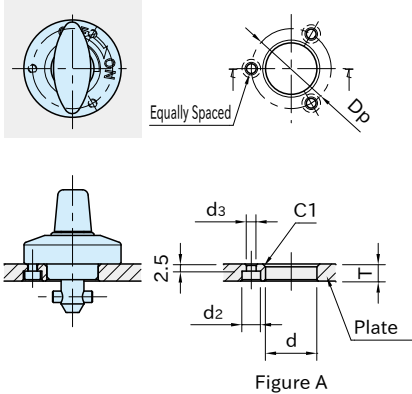
### Changes of camera positions



### Changes of fixture plates



## How To Install



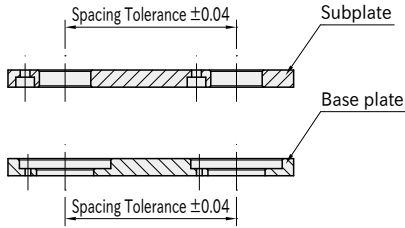
Part Number	Proper Plate Thickness	Figure	$d$ (+0.10) (+0.05)	$d_1$	$T$ ( $\pm 0.2$ )	$d_2$	$d_3$	$D_p$
<b>QCTH</b> <b>QCTH-S</b> <b>QCTHL-S</b> <b>QCTH-SUS</b> <b>QCTHH</b>	3 or more, under 6		Spacer <b>QCASP</b> is required.					
	6	A	14	—	6	4.4	2.4	21
	Over 6, 10 or less	B		26				
<b>QCTH</b> <b>QCTH-S</b> <b>QCTHL-S</b> <b>QCTH-SUS</b> <b>QCTHH</b>	3 or more, under 6		Spacer <b>QCASP</b> is required.					
	6	A	18	—	6	6.5	3.4	28
	Over 6, 14 or less	B		35				
<b>QCTH</b> <b>QCTH-S</b> <b>QCTHL-S</b> <b>QCTH-SUS</b> <b>QCTHH</b>	12	A	18	—	12	6.5	3.4	28
	Over 12, 20 or less	B		35				

### QCASP SPACERS



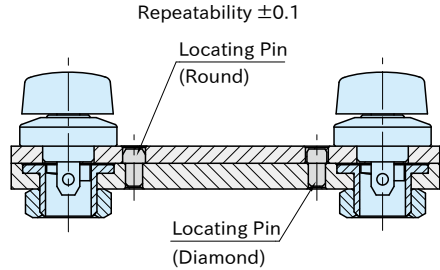
## Accuracy

### ■ Machining Accuracy



Spacing tolerance on both the subplate and the base plate should be  $\pm 0.04$ .

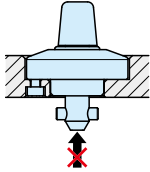
### ■ Repeatability



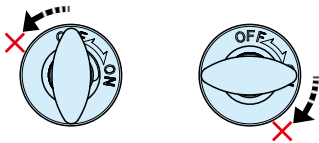
For higher accurate locating, use locating pins.

### ⚠ Caution

- Note the following cautions using [QCTH](#)  
[QCTH-S](#) [QCTHL-S](#) [QCTH-SUS](#) [QCTHH](#)0525-10
- Any force over 600N or more on the tip of the shaft from any direction can damage the pin.



- The knob operating torque is 0.4 N·m. Note that the excessive operating torque over 2 N·m can damage the pin.



### Reference

- "How To Install" of [QCTH-N](#)/[QCTH-B](#)  
[QCTH-N-SUS](#) [QCTH-B-SUS](#) Cam Receptacles
- Spacer [QCASP](#) is required for 3mm or more, under 6mm plate thickness.