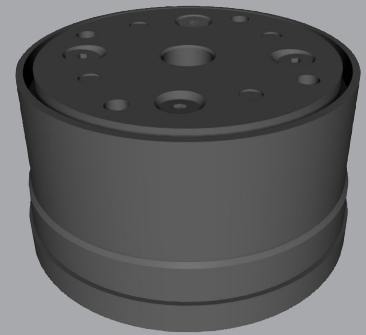


# Compliance Device for torque pressure operation without flange - TS SERIES

Center Master® compensates for errors (position) occurred during an assembly that various precision parts are press or loose fitted into the holes. Thereby, it reduces assembly failure, enhances product quality, and shortens the cycle time in production line.

## Advantages

- Significant reduction of assembly failure due to center position errors
- Uniform press-fitting quality
- Wide range of applications
- Increased binding force between parts
- Saves assembly line construction time, reduces equipment investment cost
- Enhanced operation rate
- Longer life cycle of the assembler
- Simple maintenance



## SPECIFICATIONS

Model (1)	Allowable maximum force KN (Kgf)	Compliance center length P mm (in)	Payload (2) N (kgf)	Compensation range		Elasticity coefficient (3)			Torsional direction Nm/rad (kgf.cm/rad)	Angle Tolerance in Distortion Direction [deg]	Product weight kg (lb)
				Position error mm (in)	Torsional angle [deg]	Axial direction Compressional N/mm (kgf/mm)	Tensile N/mm (kgf/mm)	Horizontal direction N/mm (kgf/mm)			
CCR-TS6-040-048	6.0 (610)	40 (1.57)	14.7 (1.5)	±2 (±0.08)	0	625.2 (63.8)	143.1 (14.6)	9.5 (1.0)	58.8 (6.0)	±0.3	0.5 (1.1)
CCR-TS6-050-054	7.5 (770)	50 (1.97)	19.6 (2.0)	±2 (±0.08)	0	1180.9 (120.5)	143.1 (14.6)	11.8 (1.2)	70.6 (7.2)	±0.3	0.7 (1.54)
CCR-TS6-060-060	8.5 (870)	60 (2.36)	19.6 (2.0)	±2 (±0.08)	0	1180.9 (120.5)	143.1 (14.6)	11.8 (1.2)	78.5 (8.0)	±0.2	0.9 (1.98)
CCR-TS6-070-065	15.0 (1530)	70 (2.76)	26.5 (2.7)	±2 (±0.08)	0	1573.9 (160.6)	191.1 (19.5)	11.8 (1.2)	117.7 (12.0)	±0.2	1.0 (2.2)
CCR-TS6-080-070	25.0 (2550)	80 (3.15)	26.5 (2.7)	±2 (±0.08)	0	1573.9 (160.6)	191.1 (19.5)	11.8 (1.2)	126.5 (12.9)	±0.2	1.1 (2.42)
CCR-TS6-090-078	25.0 (2550)	90 (3.54)	37.3 (3.8)	±2 (±0.08)	0	1217.2 (124.2)	225.4 (23.0)	12.4 (1.3)	201.0 (20.5)	±0.2	1.6 (3.52)
CCR-TS6-100-084	40.0 (4080)	100 (3.94)	37.3 (3.8)	±2 (±0.08)	0	1217.2 (124.2)	225.4 (23.0)	12.4 (1.3)	216.7 (22.1)	±0.15	1.9 (4.18)
CCR-TS6-110-088	40.0 (4080)	110 (4.33)	37.8 (3.9)	±2 (±0.08)	0	1217.2 (124.2)	225.4 (23.0)	12.4 (1.3)	231.4 (23.6)	±0.15	2.0 (4.4)
CCR-TS6-120-095	45.0 (4590)	120 (4.72)	37.8 (3.9)	±2 (±0.08)	0	1217.2 (124.2)	225.4 (23.0)	12.4 (1.3)	247.1 (25.2)	±0.1	2.1 (4.62)
CCR-TS6-130-099	50.0 (5100)	130 (5.12)	37.8 (3.9)	±2 (±0.08)	0	1217.2 (124.2)	225.4 (23.0)	12.4 (1.3)	265.8 (27.1)	±0.1	2.3 (5.06)
CCR-TS6-140-108	55.0 (5610)	140 (5.51)	78.0 (8.0)	±2 (±0.08)	0	1840.4 (187.8)	407.7 (41.6)	15.1 (1.5)	495.2 (50.5)	±0.1	3.3 (7.26)
CCR-TS6-150-130	60.0 (6120)	150 (5.91)	78.0 (8.0)	±2 (±0.08)	0	1840.4 (187.8)	407.7 (41.6)	15.1 (1.5)	962.0 (98.1)	±0.1	4.7 (10.3)

(1) Model: customized order is available

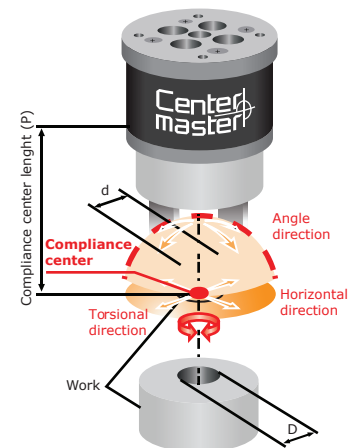
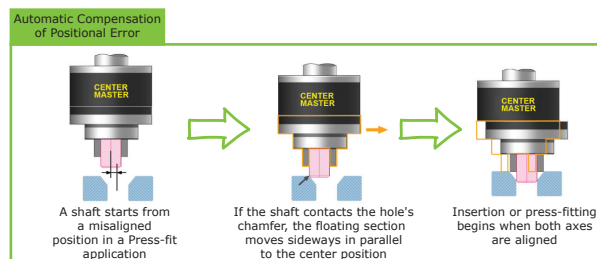
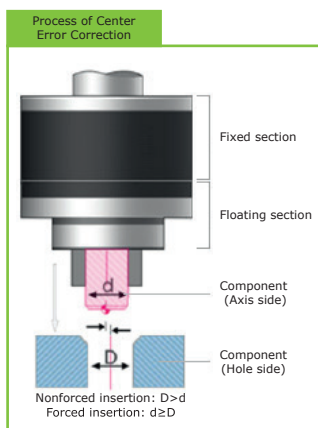
(2) This value can be doubled when Center Master is installed in the vertical direction upside down (reverse vertical).

(3) Elasticity coefficient indicates the elasticity at the compliance center (P) - the average value calculated until the plate runs into the stopper.

\* Center Master® compensates up to +/-2 mm of positional error, but this value can vary depending on the chamfer size.

Ambient temperature: **0-55 °C (32-131 °F)**

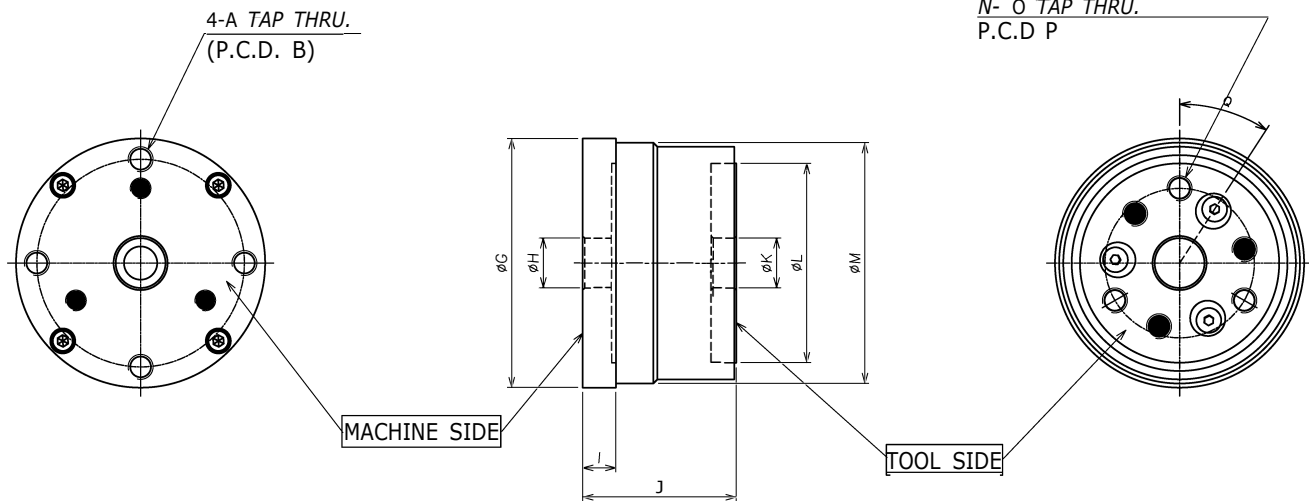
## AUTOMATIC CORRECTION OF A POSITION ERROR



- **Compliance center length (P)**  
The allowable tolerance of the P value is within ±5mm. If the P value exceeds the tolerable limit, the compensation function to correct misalignment may not work properly.
- **Payload**  
Payload means the total weight of an assembly tool and a work piece. Improper payload may affect to the device's performance or life time.

# PRODUCT INFORMATION

# without flange - TS SERIES



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q		
<b>CCR-TS6-040-048</b>	M6	50	-	-	-	-	60	12	+0.02 -0	8	37	12	+0.02 -0	48	58	3	M6	36	0°
<b>CCR-TS6-050-054</b>	M6	58	-	-	-	-	66	12	+0.02 -0	8	46	12	+0.02 -0	54	64	3	M6	43	22.5°
<b>CCR-TS6-060-060</b>	M6	62	-	-	-	-	72	12	+0.02 -0	8	46	12	+0.02 -0	60	70	4	M6	48	22.5°
<b>CCR-TS6-070-065</b>	M6	67	-	-	-	-	77	12	+0.02 -0	8	46	12	+0.02 -0	65	75	4	M6	54	22.5°
<b>CCR-TS6-080-070</b>	M6	72	-	-	-	-	82	12	+0.02 -0	8	46	12	+0.02 -0	70	80	4	M6	58	22.5°
<b>CCR-TS6-090-078</b>	M8	78	-	-	-	-	90	16	+0.02 -0	10	52	16	+0.02 -0	78	88	4	M8	65	22.5°
<b>CCR-TS6-100-084</b>	M8	84	-	-	-	-	96	16	+0.02 -0	10	52	16	+0.02 -0	84	94	4	M8	70	22.5°
<b>CCR-TS6-110-088</b>	M8	88	-	-	-	-	100	16	+0.02 -0	10	52	16	+0.02 -0	88	98	4	M8	75	22.5°
<b>CCR-TS6-120-095</b>	M8	95	-	-	-	-	107	16	+0.02 -0	10	52	16	+0.02 -0	95	105	4	M8	80	22.5°
<b>CCR-TS6-130-099</b>	M8	99	-	-	-	-	111	16	+0.02 -0	10	52	16	+0.02 -0	99	109	4	M8	86	22.5°
<b>CCR-TS6-140-108</b>	M8	108	-	-	-	-	120	16	+0.02 -0	10	56	16	+0.02 -0	108	118	4	M10	88	22.5°
<b>CCR-TS6-150-130</b>	M8	130	-	-	-	-	143	16	+0.02 -0	10	56	16	+0.02 -0	130	141	6	M10	114	-7.5°

\* Dimensions are in millimeters.

\*\* All dimensions are descriptive and subject to variation for technical upgrading. We reserve the right to make variations without prior notification



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