

CT Series Tabletop Centrifuges

This tabletop centrifuges are suitable for routine work of centrifugation in the laboratories and the examination rooms. There are two models depending on your required volume of centrifugation at a time. Their stylish design carries simple operation with various functions and safety features harmonizing global standards as our priority. Wide selection of rotor and adaptor to be used with commercially available test tubes, micro plates and blood collection tubes are also offered.

User-friendly

- Easy-to-use operation panel
- 5 sets of running parameters are programmable.
- Audible alarm of end of running is selectable from 5 melodies, beep and mute.
- Acceleration and deceleration settings are optimally selectable according to samples.

Compact

Low-height body allows rotor to be loaded/unloaded smoothly and speedily!

CT6E/CT6EL tabletop centrifuges are compact for smooth and speedy loading/unloading of samples. The height from the bottom to the opening is 270 mm (60 mm lower than our former models.)



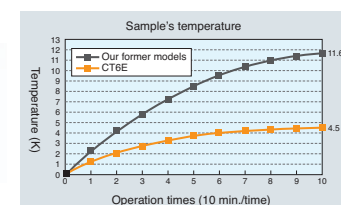
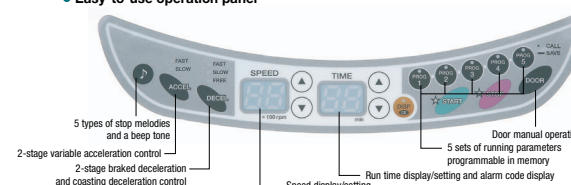
Faster acceleration and deceleration than ever

himac original powerful and inverter controlled brushless motor has realized faster acceleration and deceleration than ever. Reduced acceleration and deceleration time makes process time shorter in single cycle of the routine work. For example, it takes only approx. 30 seconds to reach 3,000rpm by CT6E with T4SS rotor.

Increase of sample's temperature is minimized

When you repeat centrifugation to process large number of sample tube using the same rotor, temperature of rotor is increased as centrifugation is repeated due to air frictions. It causes increase of sample's temperature. Our new design controls air flow in a chamber during centrifugation based on the latest fluid analysis and CAE analysis technology, and minimizes increase of sample's temperature. It is very helpful in routine work, especially when centrifugation is repeated to process large number of sample tube, to avoid any unexpected negative effect to the samples.

• Easy-to-use operation panel



Tabletop Centrifuges



CT6E



CT6EL



himac CT Hitachi Tabletop Centrifuge
SERIES
CT6E/CT6EL

Specifications

Model	CT6E	CT6EL
Maximum speed	6,000 rpm (T6AP fixed angle rotor)	
Maximum RCF	4,770 x g (T6AP fixed angle rotor)	
Maximum capacity	1,000 ml (250 ml x 4 tubes) (T5SS swinging bucket rotor)	2,000 ml (500 ml x 4 tubes) (T3S6 swinging bucket rotor)
Speed control range	300 to 6,000 rpm (in increments of 100 rpm)	
Timer	1 minute to 99 minutes (in increments of 1 minute) with a HOLD function (continuous operation)	
Acceleration/deceleration time variable	2-stage variable acceleration, 2-stage braked deceleration and coasting deceleration	
Memory-based programmed operation	5 programmed operations possible (speed, run time, acceleration/deceleration settings and rotor stop signal)	
Rotor stop signal	Selectable from 5 melodies, a beep tone and mute setting	
Drive motor	Brushless DC motor (inverter control)	
Safety device	Door interlock, dual overspeed detection, imbalance detection, motor temperature abnormality detection, etc.	
Compliance with standards	IEC 61010-2-020, EN61326, complies with CE marking requirements.	
Heat radiation	600W	
Power requirements	Single phase, AC200-240V, 10A, 50/60Hz AC100-120V, 15A, 50/60Hz	
Dimensions (mm)	440W x 595D x 330H	540W x 720D x 330H
Weight (kg)	45	55

Global standard

Safer tabletop centrifuges! Compliance with CE marking requirements

- **Mechanical safety (Compliance with IEC 61010-2-020 requirements)**
 - CT6E/CT6EL tabletop centrifuges have passed the MCA (maximum credible accident) test. This test confirms that no fragments are expelled from the centrifuge in the event of an accident.
- **Electrical safety (Compliance with IEC 61010-2-020 requirements)**
 - Operator safety is ensured even under a single fault condition.
 - Double electric insulation construction for prevention of electric shock and all units have passed a general inspection under high-voltage conditions.
- **Electromagnetic compatibility (EMC directive: Compliance with EN61326 and other requirements)**
 - Strong immunity to erroneous operation or other malfunction from external electromagnetic emissions. (Protection from nearby lightning strikes and static electricity in dry winter air.)
 - Negligible electromagnetic emissions that would make peripheral equipment operate erroneously.

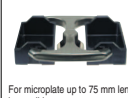
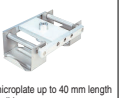
Environment-friendly design

Meeting Hitachi's environmental standards!

- Hitachi hlmac CT6E/CT6EL tabletop centrifuges are environment-friendly products.
 - More recyclable, energy-saving and resource-saving than the conventional models in the market.
 - Reduced the use of hazardous substances

ROTOR

Rotor list of CT6E

T5SS 90585900  Shield cap (option) S410252A (4pcs/box)	T4SS 90584100  Round bucket(option) S410523A (4pcs/box) Shield cap (option) S410252A (4pcs/box) The shield cap can be used with round bucket, but cannot be used with 15TCx4S adapter and 250 PPCO/PC (Nalgene) bottle.	T5SS3 90591000  For microplate up to 75 mm length is possible	RT2S2 90583000  For microplate up to 40 mm length is possible	T6AP 90591100  For culture tube and ultrafiltration *Please refer to p. 23 for details
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Adapters

Adapters for T4SS						Adapters for T5SS					
											
5x8S adapter	10x8S adapter	15x8S adapter	15TCx6S adapter	50TCx2S adapter	10x10SB adapter	50x1S adapter	50TCx1S adapter	15x7S adapter	15TCx4S adapter	15TCx5S adapter	10x7S adapter

Rotor list of CT6EL

T3S6 90585200  Bucket S304312B (4pcs/box) M2 bucket S300711A (4pcs/box) Bucket S304311B (4pcs/box) MP2 bucket S305173A (4pcs/box) *Please select a bucket for each optional use	T3S7 90583400  For Hitachi automatic analyzing devices	T3S8 90590900  For microplate up to 90 mm length is possible Square bucket (option) S308070A (4pcs/box)	T6AP2 90591200  For culture tube and ultrafiltration *Please refer to p. 24 for details
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Adapters

For T3S6 square rack/adapter						For T3S8 adapter					
											
Square rack GR	Square rack BL	Square rack OR	Square rack YE	Square rack 13.2x20	Square rack 15.5x20	250x1S adapter	15x16S adapter	250x1S adapter	15x16S adapter	250x1S adapter	15x16S adapter

Rotors for CT6E

Rotor (Part No.)	Bucket/Assembly/Rack/Adapter		Max speed (rpm)	Max RCF (x g)	Nominal capacity *1	Tube size (φ x L)mm	Applicable tube (● tubes available on the market)
	Part No.	Model					
T4SS (90584100) (Square bucket as standard) 	S307332A	5 x 8S adapter (4pcs/box)	4,000	2,380	5 x 32	12~13 x 75~78	● 4/5ml blood tube (Venoject, Insepack, Vacutainer, Hemoguard)
	S307333A	10 x 8S adapter (4pcs/box)	4,000	2,860	7 x 32	12~13 x 100	● 7ml blood tube (Venoject, Insepack, Vacutainer, Hemoguard)
	S308695A	10 x 10SB adapter (4pcs/box)	3,000	1,610	10 x 32	12.0 x 105	10 glass tube (50pcs/box) 464977A
	S307334A	15 x 8S adapter (4pcs/box)	4,000	2,860	10 x 40	Multi type	● 10/75/45ml for blood tube (Standard 15ml glass tube is not available)
	S308546A	15 x 10S adapter (4pcs/box)	4,000	2,860	10 x 40	15~16 x 32	● 10ml blood tube (Venoject, Insepack, Vacutainer, Hemoguard)
	S307335A	15 x 10S adapter (4pcs/box)	3,000	1,610	15 x 32	16.5 x 100	15 glass tube (50pcs/box) 464976A
T5SS (90585900) (Round bucket as standard) 	S308546A	15 x 10S adapter (4pcs/box)	4,000	2,860	10 x 40	15.4 x 100	● 10ml blood tube (Venoject, Insepack, Vacutainer, Hemoguard)
	S307336A	15TC x 2S adapter (4pcs/box)	3,000	1,610	15 x 40	16.5 x 100	15 glass tube (50pcs/box) 464976A
	S307336A	50TC x 2S adapter (4pcs/box)	4,000	2,860	15 x 24	17 x 120	● 15ml culture tube (V bottom)
	S409810A	15 x 7S adapter (4pcs/box)	4,000	2,860	50 x 8	30 x 115	● 50ml culture tube (V bottom) *3
	S409811A	10 x 7S adapter (4pcs/box)	4,800	4,170	10 x 28	15.4 x 110	● 10ml blood tube (Termo Venoject)
	S409812A	5 x 7S adapter (4pcs/box)	3,000	1,630	15 x 28	15.6 x 110	● 10ml blood tube (Termo Venoject II 10ml Sekisui Greiner, Insepack 10ml)
T5SS3 (90591000) 	S409811A	10 x 7S adapter (4pcs/box)	4,800	4,170	7 x 28	12.4 x 100	● 7ml blood tube (Termo Venoject)
	S409812A	5 x 7S adapter (4pcs/box)	3,000	1,630	10 x 28	13.2 x 100	● 7ml blood tube (Termo Venoject II)
	S409813A	50 x 1S adapter (4pcs/box)	4,800	4,170	5 x 28	12.7 x 105	● 7ml blood tube (Sekisui Greiner, Insepack)
	S409814A	15TC x 4S adapter (4pcs/box)	4,800	4,170	12.0 x 105	12.4 x 75	● 5ml blood tube (Termo Venoject)
	S409815A	50TC x 1S adapter (4pcs/box)	4,800	4,170	13.2 x 78	12.7 x 75	● 5ml blood tube (Termo Venoject II)
	S409976A	15TC x 3S adapter (4pcs/box)	4,800	4,170	13.1 x 75	12.7 x 75	● 4/5ml blood tube (Sekisui Insepack 4ml, Sekisui Greiner Insepack 5ml)
	S410251A	160 x 1S adapter (4pcs/box)	4,800	4,170	50 x 4	35.0 x 100	● 5ml blood tube (Sekisui Insepack)
	—	—	4,800	4,170	50 x 4	35.0 x 100	50 glass tube (10pcs/box) 473866A
	—	—	4,800	4,170	15(TC) x 16	17.0 x 120	● 15ml culture tube (V bottom)
	—	—	4,800	4,170	50(TC) x 4	30.0 x 115	● 50ml culture tube (V bottom) *3
	—	—	4,800	4,170	15(TC) x 12	17.0 x 120	● 15ml culture tube (V bottom)
	—	—	4,800	4,170	160 x 4	52.0 x 120	160PP bottle (10pcs/box) S306847A (Cap optional) 160PC bottle (10pcs/box) S306848A (Cap optional) 160cap (2pcs/box) S410008A
RT2S2 (90583000) 	—	—	4,800	4,170	250 x 4	61.6 x 135	● 250PP bottle (Nalgene) 3141-0250 ● 250PC bottle (Nalgene) 3140-0250
	—	—	4,800	3,170	96MPx6pcs	—	● 96 well microplate
	—	—	4,800	3,170	96DWx2pcs	—	● 96 well microplate
	S408786A	0.2 x 96MP adapter (2pcs/box)	4,800	3,170	PCRx2pcs	—	● PCR 96 well plate
T6AP (90591100) 	S408787A	2 x 48S adapter (4pcs/box)	4,800	3,170	1.5/2.0 x 96	—	● 1.5ml/2.0ml microtube
	—	—	2,000	700	96MPx4pcs	—	● 96 well microplate *4
	—	—	4,750	2,990	50 x 8	—	● Centrifuge (Nihon Millipore)
	—	—	6,000	4,770	50 x 8	—	● Amicon Ultra-15 (Nihon Millipore)
T6AP2 (90591200) 	—	—	6,000	4,770	50 x 8	—	● Vivaspin 2, Vivaspin 6 (Sartorius)
	—	—	6,000	4,770	50 x 8	—	● 50ml culture tube (V bottom) *3
	S409424A	15TA50T adapter (B) (2pcs/box)	6,000	4,630	15 x 8	—	● 15ml culture tube (V bottom)
	S411361A	Centrifuge adapter (2pcs/box)	6,000	4,770	15 x 8	—	● Amicon Ultra-4 (Nihon Millipore)
	S411363A	Centrifuge adapter (2pcs/box)	4,800	3,000	15 x 8	—	● Vivaspin 2, Vivaspin 6 (Sartorius)
	S411365A	Ultrafree-CL adapter (2pcs/box)	6,000	3,950	15 x 8	—	● Centrifuge (Nihon Millipore)
	—	—	4,800	3,000	15 x 8	—	● Centrifuge (Nihon Millipore)
	—	—	6,000	3,950	15 x 8	—	● Ultrafree-CL (Nihon Millipore)

*1. Capacity is indicated by nominal capacity of tube-bottle. Real capacity in actual use may be smaller than the nominal capacity depending upon rotor structure, tube shape, etc.

*2. Adapter and shield cap for T5SS can be used. The max. speed is 4,000rpm.

*3. The independent type 50ml culture tube cannot be used.

*4. When a centrifuge is to be loaded with two or more plates, please test preliminarily because of the possibility of a lower plate collapsing.

*5. It is not available to use shield cap for 15TC x 4S adapter and 250ml bottle.

Rotors for CT6EL

Rotor (Part No.)	Bucket/Assembly/Rack/Adapter		Max speed (rpm)	Max RCF (x g)	Nominal capacity *1	Tube size (φ x L)mm	Applicable tube (● tubes available on the market)
	Part No.	Model					
T3S6 (90585200) Bucket is option  Bucket (4pcs/box) (S304312B)  Shield bucket (4pcs/box) (S304311B)  M2 bucket (4pcs/box) (S300711A)  MP2 bucket (4pcs/box) (S305173A) 	S303779A	Square rack 13.2 x 20 (4pcs/box)	3,000	2,000	4/5 x 80	—	● 4/5ml blood tube (Venocjet, Insepack, Vacutainer, Hemoguard)
	S303781A	Square rack 15.5 x 20 (4pcs/box)	3,000	2,000	7 x 80	13.2 x 100	● 7ml blood tube (Venocjet, Insepack, Vacutainer, Hemoguard)
	S303781A	Square rack 15.5 x 20 (4pcs/box)	3,000	2,000	6 x 80	15.2 x 75	● 6ml blood tube (Venocjet, Insepack, Vacutainer, Hemoguard)
	S303781A	Square rack 15.5 x 20 (4pcs/box)	3,000	2,000	10 x 80	15.4 x 100	● 10ml blood tube (Venocjet, Insepack, Vacutainer, Hemoguard)
	S301438A	Square rack GR (4pcs/box) *4	3,000	2,090	5/7 x 120	14 x 120	● 5/7ml glass tube
	S301710A	Square rack GR(B) (4pcs/box) *4	3,000	2,090	5/7 x 120	14 x 120	● 5/7ml glass tube
	S301437A	Square rack BL (4pcs/box) *4	3,000	2,090	10 x 144	12 x 105	10 glass tube (50pcs/box) 464977A
	S30169A	Square rack BL(B) (4pcs/box) *4	3,000	2,090	10 x 144	12 x 105	10 glass tube (50pcs/box) 464977A
	S301439A	Square rack YE (4pcs/box) *4	3,000	2,070	15 x 80	16.5 x 120	15 glass tube (50pcs/box) 464976A
	S301711A	Square rack YE(B) (4pcs/box) *4	3,000	2,070	15 x 80	16.5 x 120	15 glass tube (50pcs/box) 464976A
	S301440A	Square rack OR (4pcs/box) *4	3,000	2,070	50 x 16	36.5 x 120	50 glass tube (10pcs/box) 473866A
	S301712A	Square rack OR(B) (4pcs/box) *4	3,000	2,070	50 x 16	36.5 x 120	50 glass tube (10pcs/box) 473866A
	S303676A	Square rack 46 x 2 (4pcs/box)	3,000	2,010	100 x 8	45 x 120	● 100ml glass tube (Nichiden Rika Glass)
	S306504A	Square rack 15TC x12 (4pcs/box)	3,000	2,050	15 x 48	17 x 120	● 15ml culture tube (V bottom)
	S305213A	50TTS adapter (4pcs/box)	3,000	2,060	50 x 28	30 x 115	● 50ml culture tube (V bottom) *2
T3S7 (90583400) 	S304921A	13.3 x 18 adapter (4pcs/box)	2,800	1,860	4/5 x 72	12.4 x 75	● 4/5ml blood tube (Venocjet, Insepack, Vacutainer, Hemoguard)
	S304922A	15.7 x 18 adapter (4pcs/box)	2,800	1,860	7 x 72	12.4 x 100	● 7ml blood tube (Venocjet, Insepack, Vacutainer, Hemoguard)
	—	—	2,800	1,790	6 x 72	15.2 x 75	● 6ml blood tube (Venocjet, Insepack, Vacutainer, Hemoguard)
	—	—	2,800	1,790	10 x 72	15.4 x 100	● 10ml blood tube (Venocjet, Insepack, Vacutainer, Hemoguard)
	—	—	2,800	1,790	10 x 60	15 x 105	For Hitachi Auto-analyzer 736/7250/7450
T3S8 (90590900)  Square bucket is option (4pcs/box) (S308070A) 	—	—	3,000	1,940	96MPx16pcs	128 x 86 x 15	● 96 well microplate
	—	—	3,000	1,940	96DWx8pcs	128 x 86 x 45	● 96 deep well plate
	—	—	3,000	1,940	PCR96x4pcs	—	● For PCR 96 well plate
	S308063A	15 x 16S adapter (4pcs/box)	3,000	2,150	15.6 x 100	15.6 x 100	● 6ml blood tube (Venocjet, Insepack, Vacutainer, Hemoguard)
	S308063A	15 x 16S adapter (4pcs/box)	3,000	2,150	15.6 x 100	15.6 x 100	● 10ml blood tube (Venocjet, Insepack, Vacutainer, Hemoguard)
	S308063A	15 x 16S adapter (4pcs/box)	3,000	2,150	15.6 x 100	15.6 x 100	15 glass tube (50pcs/box) 464976A
	S308073A	10 x 16S adapter (4pcs/box)	3,000	2,150	4/5 x 64	12~13 x 75~78	● 4/5ml blood tube (Venocjet, Insepack, Vacutainer, Hemoguard)
	S308073A	10 x 16S adapter (4pcs/box)	3,000	2,150	7 x 64	12~13 x 100	● 7ml blood tube (Venocjet, Insepack, Vacutainer, Hemoguard)
	S308065A	15TC x 9S adapter (4pcs/box)	3,000	2,150	10 x 64	12.0 x 105	10 glass tube (50pcs/box) 464977A
	S308064A	50TC x 4S adapter (4pcs/box)	3,000	2,150	15 x 36	17 x 120	● 15ml culture tube (V bottom)
T6AP2 (90591200) 	S308066A	250 x 1S adapter (4pcs/box)	3,000	2,120	50 x 16	30 x 115	● 50ml culture tube (V bottom) *2
	—	—	4,750	2,990	50 x 8	—	● 50ml culture tube (V bottom) *2
	—	—	6,000	4,770	50 x 8	—	● 15ml culture tube (V bottom)
	—	—	6,000	4,770	50 x 8	—	● 15ml culture tube (V bottom)
	—	—	6,000	4,770	50 x 8	—	● 15ml culture tube (V bottom)
	S409424A	15TA50T adapter(B) (2pcs/box) Accessory (8pcs)	6,000	4,630	15 x 8	—	● 15ml culture tube (V bottom)
	S411361A	Centricon adapter (2pcs/box)	6,000	4,770	15 x 8	—	● 15ml culture tube (V bottom)
	S411363A	Centriplus adapter (2pcs/box)	4,800	3,000	15 x 8	—	● 15ml culture tube (V bottom)
	S411365A	Ultrafree-CL adapter (2pcs/box)	6,000	3,950	15 x 8	—	● 15ml culture tube (V bottom)
	—	—	6,000	4,770	50 x 8	—	● 15ml culture tube (V bottom)

*1. Capacity is indicated by nominal capacity of tube-bottle. Real capacity in actual use may be smaller than the nominal capacity depending on rotor structure, tube shape, etc.

*2. The independent type 50ml culture tube cannot be used.

*3. Please order Falcon-brand cushions separately: for 225ml (352075) and 175ml (352076), order cushions (352090) made by Becton Dickinson

*4. Please choose depending on the tube length (except for cap). Without(B): 55~75mm, with(B): 76~120mm

Blood Cell Washing Centrifuge

Automatic centrifuges for Coomb's test and blood cell washing. Automatic microcomputer control substantially shortens blood cell washing time—as many as 24 samples in three minutes (washing three times). Sized for convenient counter-top placement.

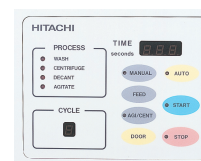


MC450



Washing cycles are under full-automatic operation!

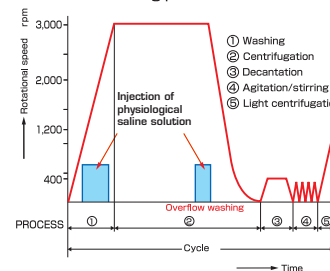
Physiological saline solution injection ▶ Centrifugation
▶ Decantation ▶ Agitation/stirring



The process for post-sample injection/agitation
▶ centrifugation is also automatically operated.

New operation process

Corpuscle washing is automatically carried out based on the following processes:



Attachment and separation of test tubes are easy due to a new-type distributor.



Specifications

Model	MC450
Samples	Test-tube size 24 (φ 10, φ 12 x 75 mm)
Speed (rpm)	1,200 rpm (190 x g)/3,000 rpm (1,180 x g)
Process display	4-stage display: WASH → CENTRIFUGE → DECANT → AGITATE
Manual operation speed	3,000 rpm or 1,200 rpm
Timer	Automatic/manual: 1 - 99 sec./1 - 999 sec.
Termination signal	Selection can be made from among 5 kinds of melodies and electronic buzzers.
Power requirements	AC 115V±10%, 10A, 50/60Hz, AC 220V±10%, 5A, 50/60Hz
Dimensions (mm)	370 (W) x 450 (D) x 410 (H)
Weight (kg)	29
Standard	EN61010-1, EN61010-2-020, EN61326 comply with CE mark.

Note: MC450 meets current European Community guidelines and is CE labeled.

Standard accessories

Rotor	1
Distributor	1
Tank for physiological saline solution (with liquid level detector)	1 (capacity : 5L)
Test-tube (φ 12 x 75 mm)	50
Drain hose (m)	2.0
Instruction manual	1

● The overflow method is used for the washing process to improve corpuscle washing potential. (This is the washing method in which physiological saline solution is injected into the test tube again after centrifugation so that some physiological saline solution will overflow.)

● Due to the use of a new-type distributor, attachment and separation of test tubes have become easier.

● The drain cover and chamber can be dismantled easily, so cleaning has become simple.

● Because decanting rotational speed can be set precisely (7 stages), it is possible to increase the degree of corpuscle dryness through adjustment of physiological saline solution remaining after washing.

● The new door interlocking mechanism further enhances safety.

● Audible alarm of the end of washing can be chosen from among five kinds of melodies and buzzers.

● This model complies with current EU requirements for mechanical and electrical safety and electromagnetic compatibility.