

Micro Ultracentrifuges



CE

himac CS-GXII SERIES
Hitachi Micro Ultracentrifuge
CS 150GXII / CS 120GXII

himac CS SERIES

World's highest speed & greatest RCF Unusually compact and quiet model

Even-quieter operation

- Very-low noise design realizes dramatically quieter operation Operation noise is 46dB(model: CS120GXII), 47dB(CS150GXII)
- Disturbing rotor and fan noise is significantly reduced.

State-of-the-Art Technology

The world's greatest RCF: 1,050,000 x g

With the high-efficiency vacuum driving unit, acceleration to the maximum rotation speed of 150,000 rpm can be attained in about 100 seconds.

- No air friction loss operated in a vacuum
- Separation time improved 30% over previous models
- Drive unit warranted for 5 years

Non-contact imbalance protection

- Samples need only be balanced to within 5 mm by eye.
- When an abnormality occurs in the rotor due to substantial imbalance, rotation is stopped automatically using an advanced non-contact imbalance sensor.

Safer, self-locking rotor

- Simply put the rotor on its spindle and it is locked automatically with centrifugal force.
- Dual CPU over-speed prevention mechanism

VIEW



Specifications

Model	CS 150GXII	CS 120GXII
Maximum speed (rpm)	150,000	120,000
Maximum RCF(X g)	1,050,000 (S140AT rotor)	771,000 (S140AT rotor)
Speed control capacity (rpm)	+/- 50 (5,000 to max. speed)	
Nominal capacity (ml x tube)	30 x 6 (S50AT rotor)	
Swing rotor nominal capacity (ml x tube)	7 x 4 (S50ST rotor)	
Timer	1 min. to 99 hrs. and 59 min with HOLD and RTC function (real-time control)	
Vacuum system	Oil rotary vacuum pump and oil diffusion pump	
Rotor temp. control range (°C)	0 to +40	
Rotor cooling method	Thermo-module cooling system (HFC free)	
Screen display	Adjustable LCD display	
Rotor setting method	Quick setting (no special tools required)	
Operational noise (dB(A)*)	47	46
Heat dissipation into room (kW)	0.6	
Drive unit warranty	5 years	
Dimensions (mm)	440 (W) x 490 (D) x 850 (H/panel closed) / 1,000 (H/panel open), height to table 780	
Floor area (m ²)	0.53 (750x700)	
Weight (kg)	110	
Power requirements	AC220, 230, 240V +/-10%, 6A (50/60Hz) single phase	
Standard	IEC61010-2-020, EN61326	

*Measured 1 meter from front

Self-Locking Rotor System

himac original "self-locking rotor system" is the most simple system to place the rotor onto the drive shaft. You just simply place the rotor on the drive shaft and that's all. The rotor is locked by centrifugal force automatically. You do not need to fix the rotor by screw or push the button to lock or unlock the rotor like other models available in the markets.



New Rotors



NEW S110AT
Comparing with S100AT6, Max. RCF is improved, in spite of the same nominal capacity. Separation time is reduced 17% over S100AT6 under the same condition. Screw cap type microtube can be centrifuged at 581,000xg with adaptor (option).



NEW S50A

Maximum nominal capacity is 30ml x 6 tubes, it is one of the largest capacity rotor for micro ultracentrifuge. Also it is easy to open and close the cover by T-shape handle. Newly introduced 30ml tubes series and himac original S-cap can be used for S50A.



NEW S50ST

Top Loading System
Top loading of swing bucket prevents from wrong setting the bucket. Maximum nominal capacity is 7ml x 4 tubes. It is one of the largest capacity rotor for micro ultracentrifuge. New 7ml tubes series are also introduced.

Applicable to : CS-NX / GXII / GXL / GX series

Max. speed (rpm)	110,000
Max. RCF	691,000
K-factor	15
Standard tube capacity (ml x tubes)	4.0 x 8
Max. tube capacity (ml x tubes)	5.0 x 8
Part No.	9024411K

Applicable to : CS-NX / GXII / GXL / GX series

Max. speed (rpm)	50,000
Max. RCF	210,000
K-factor	61
Standard tube capacity (ml x tubes)	25.0 x 6
Max. tube capacity (ml x tubes)	30.0 x 6
Part No.	9024391K

Applicable to : CS-NX / GXII / GXL series

Max. speed (rpm)	50,000
Max. RCF	253,000
K-factor	77
Standard tube capacity (ml x tubes)	7.0 x 4
Max. tube capacity (ml x tubes)	7.0 x 4
Part No.	9024401K

Exclusive 1.5 ml microtube (conical bottom) x 12pcs.
201,000 x g has been realized!



S55A2

Protein and nucleic acid etc. are quickly separated and the pretreatment of proteomic analysis is accelerated.

1.5 ml microtube (applicable to high x g)

You can use this exclusive microtube up to 201,000 x g without any adaptor in S55A2 rotor, (P/N S308420B) (300pcs/box)

For further detail, please refer to himac application No.127 available on our web site.
(http://www.hitachi-koki.com/himac)



S150AT



S120AT2



S140AT



S140NT



S120NT



S80AT3



S58A



S80AT2



S70AT



S55S



S52ST

Type	Model	Part No.	Max. speed (rpm)	Max. RCF (x g)	K-factor	Standard tube capacity (ml x tubes)*1	Max. tube capacity (ml x tubes)
Fixed angle	S150AT	9024211K	150,000	901,000	6	1.0 x 8	*2 2.0 x 8
	S140AT	9024351K	140,000	1,050,000	5	1.0 x 10	*2 2.0 x 10
	S120AT2	9024181K	120,000	650,000	8	1.0 x 10	*2 2.0 x 10
	S110AT	9024411K	110,000	691,000	15	4.0 x 8	*2 5.0 x 8
	S100AT3	9024231K	100,000	436,000	7	0.23 x 20	0.23 x 20
	S100AT4	9024241K	100,000	541,000	16	3.0 x 6	*2 4.0 x 6
	S80AT3	9024331K	80,000	415,000	23	6.0 x 8	*2 8.0 x 8
	S58A	9024381K	58,000	289,000	50	10.0 x 8	*2 13.5 x 8
	S55A2	9024371K	55,000	201,000	40	1.5 x 12	*4 1.5 x 12
	S50A	9024391K	50,000	210,000	61	25.0 x 6	*1 30.0 x 6
Neo angle	S140NT	9024223K	140,000	752,000	6	2.0 x 8	*3 2.0 x 8
	S55S	9024281K	55,000	259,000	44	2.2 x 4	2.2 x 4
Swinging bucket	S52ST	9024341K	52,000	276,000	79	5.0 x 4	5.0 x 4
	S50ST	9024401K	50,000	253,000	77	7.0 x 4	*1 7.0 x 4



MADE TO ORDER ROTORS

Type	Model	Part No.	Max. speed (rpm)	Max. RCF (x g)	K-factor	Standard tube capacity (ml x tubes)*1	Max. tube capacity (ml x tubes)
Fixed angle	S120AT3	9024191K	120,000	650,000	8	0.5 x 14	0.5 x 14
	S80AT2	9024251K	80,000	358,000	14	0.5 x 20	0.5 x 30
	S70AT	9024261K	70,000	307,000	31	0.5 x 20	0.5 x 20
	S120NT	9024303K	120,000	586,000	9	2.0 x 8	*3 2.0 x 8
Neo angle	S100NT	9024313K	100,000	479,000	12	4.0 x 8	*3 4.0 x 8
	S120VT	9024291K	120,000	501,000	8	2.0 x 8	*3 2.0 x 8

Notes

- Nominal capacity of standard tube supplied with the rotor
- Capacity indicated is when using a seal tube. Please place a separate rotor for STF-2 tube sealer, tube rack and space cap.
- Space cap is standard accessory.
- Third-party 1.5 ml microtubes cannot be used.

Tube										
Rotor	Tube ● indicates standard tube for rotor		Nominal volume (ml)	Tube specifications			Supply unit (pcs/box)	Special accessories needed when using these tubes (order separately)		
	Part No.	Name		Size (mm)	Material	Max. speed (rpm)		STF2 Tube rack	Adaptor	Cap
S150AT	S300535A	1PC tube ●	1.0	φ 11 x 34	PC	150,000	100			
	S300539A	1.5PA seal tube*	1.5	φ 11 x 25	PA	150,000	50	Tube rack (G2) x 1		Space cap (A4) x 8
	S300540A	2PA seal tube*	2.0	φ 11 x 32	PA	150,000	50	Tube rack (G) x 1		Space cap (A4) x 8
S140AT	S300535A	1PC tube □□ ●	1.0	φ 11 x 34	PC	140,000	100			
	S300539A	1.5PA seal tube*	1.5	φ 11 x 25	PA	140,000	50	Tube rack (G2) x 1		Space cap (A4) x 10
	S300540A	2PA seal tube*	2.0	φ 11 x 32	PA	140,000	50	Tube rack (G) x 1		Space cap (A4) x 10
S120AT2	S300535A	1PC tube ●	1.0	φ 11 x 34	PC	120,000	100			
	S300539A	1.5PA seal tube*	1.5	φ 11 x 25	PA	120,000	50	Tube rack (G2) x 1		Space cap (A4) x 10
	S300540A	2PA seal tube*	2.0	φ 11 x 32	PA	120,000	50	Tube rack (G) x 1		Space cap (A4) x 10
S120AT3	S300533A	0.5 PC tube ●	0.5	φ 8 x 34	PC	120,000	100			
	S300534A	0.5 PA tube	0.5	φ 8 x 34	PA	80,000	100			
S110AT	S404332A	4PC tube ●	4.0	φ 1.3 x 6.0	PC	110,000	50			
	S303351A	4PA thick-walled tube			PA	80,000	50			
	S45319A	5PA seal tube	5.0	φ 1.3 x 5.3	PA	110,000	50	Tube rack (B) x 1		B4 space cap x 8
S100AT3	S308892A	1.5ml micro tube**	1.5	φ 1.09 x 4.0	PP	48,000	300		1.5A5 adapter x 4	
	S39133A	0.23 PC tube ●	0.23	φ 7 x 21	PC	100,000	100			
	S39675A	0.23 PA tube	0.23	φ 7 x 21	PA	80,000	100			
S100AT4	S308892A	1.5 micro tube**	1.5	φ 11 x 42	PP	50,000	300		1.5A3 adapter x 6	
	S301599A	3PC tube ●	3.0	φ 13 x 51	PC	100,000	50			
	S303694A	4PA seal tube*	4.0	φ 13 x 38	PA	100,000	50	Tube rack (B3) x 1		B4 space cap x 6
S100AT6 (Sales discontinued)	S30350A	3PA thick-walled tube	3.0	φ 13 x 51	PA	85,000	50			
	S308892A	1.5 micro tube**	1.5	φ 11 x 42	PP	47,000	300		1.5A5 adapter x 4	
	S404332A	4PC tube ●	4.0	φ 13 x 60	PC	100,000	50			
S80AT2	S45319A	5PA seal tube*	5.0	φ 13 x 53	PA	100,000	50	Tube rack (B) x 1		B4 space cap x 8
	S303351A	4PA thick-walled tube	4.0	φ 13 x 60	PA	80,000	50			
	S300533A	0.5 PC tube ●	0.5	φ 8 x 34	PC	80,000	100			
S80AT3	S300534A	0.5 PA tube	0.5	φ 8 x 34	PA	80,000	100			
	S308892A	1.5 micro tube**	1.5	φ 11 x 42	PP	45,000	300		1.5A8 adapter x 8	
	S408829A	6PC thick-walled tube ●	6.0	φ 16 x 59	PC	80,000	50			
S70AT	S408833A	6PA thick-walled tube	6.0	φ 16 x 59	PA	60,000	50			
	S408831A	8PA seal tube*	8.0	φ 16 x 53	PA	80,000	50	Tube rack (C2) x 1		Space cap (C5) x 8
	S302371A	0.5 PC tube (B) ●	0.5	φ 7 x 56	PC	70,000	100			
S58A	S45320A	12PA seal tube*	12.0	φ 16 x 78	PA	58,000	50	Multi rack x 1		C2 space cap x 8
	S329606A	12PA tube		φ 16 x 76	PA		50			C-TI cap ass'y x 8
	S325470A	12PE tube		φ 16 x 76	PE		50			C-TI cap ass'y x 8
	S325751A	12PC tube		φ 16 x 76	PC		50			C-TI cap ass'y x 8
	S326010A	12SS tube	φ 16 x 76	SS	30,000	2	C-TI cap ass'y x 8			
				35,000						
	S38455A	10PC thick-walled tube ●	10.0	φ 16 x 76	PC	58,000	10			
	S38456A	10PA thick-walled tube		φ 16 x 76	PA	50,000	10			
	S303922A	10PC bottle (B) ass'y.		φ 16 x 82	PC	58,000	6			
	S325952A	10PC bottle ass'y.		φ 16 x 82	PC	55,000	10			
S34105A	10PA bottle ass'y.	φ 16 x 82	PA	50,000	10					
S329445A	6.5PA tube	6.5	φ 13 x 64	PA	38,000	50		6.5A12 adapter	B-AL cap ass'y x 8	
S26415A	6.5PC tube		φ 13 x 64	PC	38,000	50			6.5A12 adapter	B-AL cap ass'y x 8
S32245A	5PA tube	5.0	φ 13 x 52	PA	38,000	50		5A12 adapter	B-AL cap ass'y x 8	
S303141A	4.7PC thick-walled tube	4.7	φ 13 x 64	PC	38,000	50		6.5A12 adapter		
S329561A	4PA tube	4.0	φ 11 x 60	PA	38,000	50		4A12 adapter	A3-AL cap ass'y	
S36708A	3PA tube		φ 11 x 47	PA	38,000	50			3A12 adapter	A3-AL cap ass'y
S303271A	3PET tube	3.0	φ 11 x 47	PET	38,000	50		3A12 adapter	A3-AL cap ass'y	
S301599A	3PC tube		φ 13 x 51	PC	38,000	50			5A12 adapter	
S304296A	0.9PC thick-walled tube	0.9	φ 8 x 50	PC	42,000	50		2A12 adapter		
S55A2	S308892A	1.5 micro tube	1.5	φ 11 x 42	PP	55,000	300			
S50A	S309154A	30PA tube ass'y	30.0	φ 2.6 x 7.2	PA	50,000	50			E3-AL cap ass'y x 6
	S309140A	25PC tick-walled tube ass'y	25.0	φ 2.6 x 9.6	PC	50,000	10			S-40AL cap ass'y x 6
	S309155A	25PA tick-walled tube ass'y			PA	30,000	10			
	S309156A	20PC bottle(C) ass'y	20.0	φ 2.6 x 8.0	PC	50,000	6			
S140NT	S300540A	2PA seal tube* ●	2.0	φ 11 x 32	PA	140,000	50	Tube rack (G) x 1		Comes with rotor
S120NT	S300540A	2PA seal tube* ●	2.0	φ 11 x 32	PA	120,000	50	Tube rack (G) x 1		Comes with rotor
S100NT	S303694A	4PA seal tube* ●	4.0	φ 13 x 38	PA	100,000	50	Tube rack (B3) x 1		Comes with rotor
S120VT	S300540A	2PA seal tube* ●	2.0	φ 11 x 32	PA	120,000	50	Tube rack (G) x 1		Comes with rotor
S55S	S300535A	1PC tube	1.0	φ 11 x 34	PC	55,000	100			
	S300536A	2.2PA tube ●	2.2	φ 11 x 34	PA	55,000	50			
	S300538A	2.2PET tube	2.2	φ 11 x 34	PET	55,000	50			
S52ST	S32245A	5PA tube ●	4.9	φ 13 x 52	PA	52,000	50			
	S303273A	5PET tube	5.3	φ 13 x 52	PET	52,000	50			
	S301599A	3PC tube	3.4	φ 13 x 51	PC	52,000	50			
	S304296A	0.9PC thick-walled tube	0.9	φ 8 x 50	PC	43,000	50		2S5 adapter x 4	
S50ST	S309146A	7PA tube(B)	7.0	φ 1.6 x 5.2	PA	50,000	50			
	S309167A	7PC tube(B)			PC	50,000	50			
	S309168A	7PET tube			PET	50,000	50			