

Specifications

Model	AX-521	AX-511	AX-501
Maximum Speed	10,000rpm		
Maximum RCF	11,740G		
Maximum Capacity	2ml x 96Deep-well plate x 8	1,000ml (250ml x 4)	
Control System	Microprocessor control (feedback system)		
Drive Motor	Induction motor		
Drive System	Flex-Spin drive system (Direct drive with an automatic alignment function)		
Data Entry	Jog Dial equipped with an <ENTER> button		
Temperature Setting Range	From -9°C to +35°C (1°C increment)		
Speed Setting Range	100 to 10,000rpm (100rpm increments)		
RCF Setting Range	10 to 11,740G (10G increments for the range less than 300G, 100G increments for the range over 300G)		
Time Setting Range	From 10 sec to 50 sec, in 10 sec increments, from 1 min to 99 min, in 1 min increments or <F--> for free		
Safety Devices	• Imbalance detector • Lid interlock • Lid open/close detector • Abnormal speed detector • Over-current circuit breaker • Rotor identification system • Motor over-current detector • Abnormally high or low chamber temperature detector		
Additional Functions	• Three-step acceleration characteristics selection • Three memory function • Three-step deceleration characteristics selection • BART Code selection • FLASH (momentary spin) function • Memory function for last run parameters • Power saving (ECO) mode		
Refrigerant	HFC R404A (270g)	HFC R404A (260g)	HFC R404A (250g)
Rated Current	120V : 12A 220/230/240V : 6A	120V : 10A 220/230/240V : 5A	
Power Requirements	1-Phase 50/60Hz AC120V 15A, 1-Phase 50/60Hz AC220/230/240V 8A		
Power Consumption (Heat output)	970W (834kcal/h)	960W (826kcal/h)	760W (654kcal/h)
Breaker	Rated breaking current 120V : 15A, 220/230/240V : 7.5A		
Protection Against Electric Shock	Class I		
Dimensions (except protruding portion)	540W x 597D x 858H mm (table height; 750mm)	510W x 567D x 858H mm (table height; 750mm)	462W x 540D x 858H mm (table height; 750mm)
Net Weight	111kg (120V) 116kg (220/230/240V)	107kg (120V) 112kg (220/230/240V)	99kg (120V) 104kg (220/230/240V)
Environmental Requirements	Ambient temperature range:10 to 35°C, Relative humidity:30 to 85%, Atmospheric pressure:700 to 1,060hPa, Intended exclusively for use indoors, Overvoltage category: II, Pollution degree: 2		
Accessories Included	• Operator's manual x1 • Warranty Card x1 • BART Cord table x1 • Clear storage case for operator's manual x1 • Attaching screw for clear storage case x1 • Power cord x1 • Spanner x1 • Level gauge x1 • Rotor locking knob x1 • Drain plug x1		

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Manufacturer:  
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Low speed refrigerated centrifuge

AX Series



AX-521



AX-511



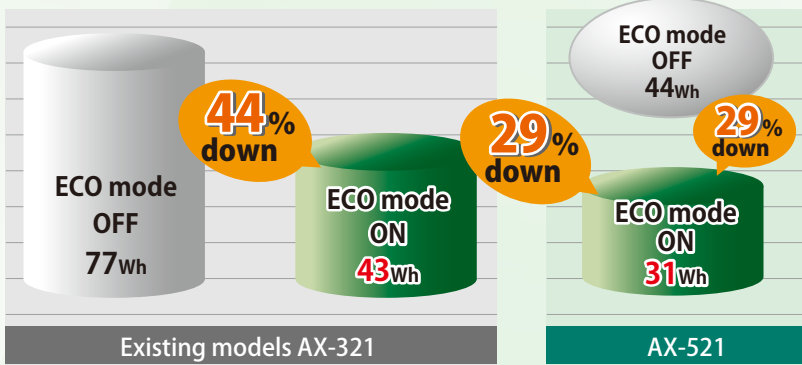
AX-501

ECO mode



TOMY AX-Series new model is equipped with the power-saving [ECO] mode, reducing standby power consumption.

An overall increase in cooling efficiency allows for drastic reduction in energy usage during normal operation.



Measurement conditions: Set to 4°C at an ambient temperature of 25°C while centrifugation is stopped. (Rotors in use: AX-521/AX-321: TS-37C+3750-TC06P) The values shown above are average values obtained by measuring the units.

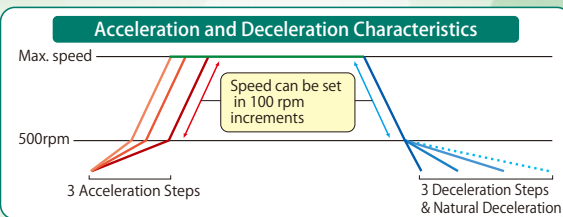
# AX-Series

## Flexible & high performance

- High Speed Fixed Angle Rotor Available (MAX. 10,000 rpm)
- Various Tubes & Micro/Deep-well Plates Available (From Microtubes to 250ml Bottles, Blood Collection Tubes, etc.)
- Easy Rotor Mount with One-push Rotor Locking Knob
- Eye Balance Sample Load Available by Flex-spin-drive System
- Each Three (3) Acceleration and Deceleration Steps with Natural Deceleration
- Easy to See and Operate Control Panel with Jog Dial and Dual Color LED Display
- Compatible Rotor Line-up with TOMY CAX/NIX/LCX-Series Centrifuges



Popular user-friendly Jog Dial with an <ENTER> button enable setting to changed more quickly and surely.



Dual color LED display allows users to monitor the operation status just by looking the display; red indicates that the rotor is spinning, green indicates that the rotor is not spinning.

10000: rpm 20: min

<Red: Rotor is spinning>

10000: rpm 20: min

<Green: Rotor is not spinning>

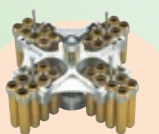
## Centrifuges accept a wide variety of rotors

**CA-5**  
2ml×24  
10,000rpm : 9,390G

**CA-14HS**  
50ml×4  
10,000rpm : 9,390G  
or 5ml×4  
10,000rpm : 7,490G

**CA-15**  
Outer line 2ml×18  
10,000rpm : 8,500G  
Inner line 0.5ml×12  
10,000rpm : 6,600G  
Middle line 0.2ml×12  
10,000rpm : 5,810G

**CA-16**  
50ml×8  
10,000rpm : 11,740G



**TS-7C**  
15ml×32  
5,000rpm: 4,670G



**TS-33C**  
250ml×4  
4,800rpm: 4,350G \*1



**TS-37C**  
Deep-well plate×8  
3,200rpm: 2,100G



**TS-38C**  
250ml×4  
4,200rpm: 3,650G



**TS-41C**  
Deep-well plate×4  
4,400rpm: 3,010G \*1

## Fixed Angle Rotors

Rotor Type & Model		Max. Speed (rpm)	Max. RCF (G)	Rotor Capacity ml (bottom shape) × number (R) : Round, (C) : Conical	Note
Fixed Angle Rotors	CA-1	10,000	7,940	2×18	Microtube
	CA-4HS <b>HS</b> *2	10,000	8,500 7,720	50 (R)×4 14 (R)×4	NAL FLC
	CA-5	10,000	9,390	2×24	Microtube
	CA-6	10,000	9,390 8,270	2×18 (Outer line) 2×18 (Inner line)	
	CA-8 *2	10,000	9,390 9,060	50 (C)×4 15 (C)×4	Conical tube
	CA-10	10,000	9,730	2×24	Microtube
	CA-12	10,000	9,170	5 (C)×12	TOM *3
	CA-14HS <b>HS</b> *2	10,000	9,390 7,490	50 (C)×4 5 (R)×4	Conical tube FLC *4
	CA-15	10,000	8,500 6,600 5,810	2×18 (Outer line) 0.5×12 (Inner line) 0.2×12 (Middle line)	Microtube
	CA-16	10,000	11,740 11,180	50 (C)×8 15 (C)×8	Conical tube *5

● The above specifications show the maximum value of speed, RCF(G) and sample capacity. These values may change according to the combination of rotor, bucket, adapter and tubes.

## Swing Out Rotors

Rotor Type & Model		Bucket	Tube Rack	Max. Speed (rpm)		Max. RCF (G)		Rotor Capacity ml (bottom shape) × number (F) : Flat, (R) : Round, (C) : Conical	Note
				AX-521/511	AX-501	AX-521/511	AX-501		
Swing - Out Rotors	TS-4C	S4096-02	—	1,800		510		Microplate×4 *6	Plate size up to 128.5L×86D×32Hmm
		7015-06	—	3,600		2,320		15 (R)×24, 15 (C)×16 *9	Glass, Conical tube
		7215-06	—	3,600		2,430		15 (R)(C)×24	
		7015-08	—	3,500		2,190		15 (R)×32, 15 (C)×16 *9	
		7115-08	—	3,500		2,380		15 (R)(C)×32	
	TS-7C	7M5015-1 *10	—	3,500		2,150		50 (R)×4	Glass
						2,160		50 (C)×4	Conical tube
						2,340		15 (R)×16	Glass
						2,370		15 (C)×16	Conical tube
		7050-01	—	4,000		2,810		50 (R)(C)×4, 15 (R)×4 *7 *8	Glass, Conical tube
		7150-01	—	5,000		4,670		50 (R)(C)×4, 15 (R)×4 *7 *8	
		7050-02	—	3,500		2,150		50 (R)(C)×8, 15 (R)×8 *7 *8	
		B407	0705-10P 0705-FA10P	3,100		1,670		5 (R)×40	Veno-Ject II tube 5ml (TER) FLC *4
		SC-2	—	1,600		420		8×4	Floating cell collection bucket
	TS-33C	B433 *11	3305-07P	4,200	4,100	2,900	2,760	5 (R)×28	Veno-Ject II tube 5ml (TER)
			3307-07P	4,100		2,990		7 (R)×28	Veno-Ject II tube 7ml (TER)
			3314-04P	4,000		2,990		14 (R)×16	FLC
			3315-G07P	4,800	4,100	4,150	3,030	15 (R)×28	Glass, PAX gene blood collection tube
			3315-TC04P	4,800	4,100	4,300	3,140	15 (C)×16	Conical tube
			3350-TC01P	4,800	4,100	4,300	3,140	50 (C)×4	
			3350-G01P	4,800	4,100	4,150	3,030	50 (R)×4	Glass
			—	4,800	4,100	4,350	3,180	250 (F)×4	NAL
			—	4,800	4,100	4,350	3,180	225 (C)×4	FLC *12 *13
			—	4,800	4,100	4,350	3,180	175 (C)×4	FLC *12
			Bucket cap kit B433 <b>HS</b> *11	—		—		—	Sealed cap for Bucket B433 CAP433-1 with gasket
	CS-1	M0415-04	—	10,000		8,160 7,940		2×16 1.5×16	Microtube
		M0406-05	—	10,000		7,160		0.5×20	
		M0404-09	—	10,000		8,830 7,380		0.4×36 0.25×36	
	TS-37C (for AX-521)	B437	3625C-01P	3,200	—	2,070	—	250 (F)×4 250 (R)×4 225 (C)×4 175 (C)×4	NAL FLC *12
			3610C-G02P	3,200	—	2,050	—	100 (R)×8	Glass
			3650-G05P	3,200	—	2,030	—	50 (R)×20	Glass
			3650-TC05P	3,200	—	2,100	—	50 (C)×20, 15 (C)×8 *14	Conical tube
			3615-G16P	3,200	—	2,080	—	15 (R)×64	Glass
			3615-TC14P	3,200	—	2,100	—	15 (C)×56	Conical tube
			3614C-18P	3,200	—	2,020	—	14 (R)×72	FLC
			3606C-35P	3,200	—	2,100	—	6 (R)×140	EIK
			3605C-48P	3,200	—	2,100	—	5 (R)×192, 4 (R)×192	FLC or SIO
			3602C-36P	3,200	—	1,920	—	2 (C)×144, 1.5 (C)×144	Microtube
			AS36C-96D	3,200	—	1,920	—	Deep-well plate×8 *6 Microplate×16 *6	Plate size up to 128.5L×86D×90Hmm Plate size up to 128.5L×86D×58Hmm
			3750-G06P	3,200	—	2,030	—	50 (R)×24	Glass
			3750-TC06P *2	3,200	—	2,100	—	50 (R)×24, 15 (C)×8	Conical tube
			3715-G24P	3,200	—	2,080	—	15 (R)×96	Glass
			3715-TC16P	3,200	—	2,100	—	15 (C)×64	Conical tube
	TS-38C (for AX-521/511)	B438	3850-04P	3,500	—	2,380	—	50 (C)×16	Conical tube
			3850-N04P	3,500	—	2,380	—	50 (R)×16	NAL
			38M-TC0204P *15	3,500	—	2,380	—	50 (C)×8 or 15 (C)×16	Conical tube
			3850-02P	3,500	—	2,380	—	50 (R)×8	Glass
			3815-10P	3,500	—	2,380	—	15 (C)×40	Conical tube
			3815-16P	3,500	—	2,370	—	15 (R)×64	Glass
			3810M-14P	3,500	—	2,380	—	5~10 (R)×56	Blood collection tube
			3806-EK20P	3,500	—	2,330	—	6 (R)×80	EIK
			3810-N20P	3,500	—	2,270	—	10 (R)×80	NAL
			3805-FA16P	3,500	—	2,080	—	5 (R)×64, 4 (R)×64	FLC or SIO
			3802-EP24P	3,500	—	1,780	—	2 (C)×96, 1.5 (C)×96	Microtube
		B438-29	—	4,200	—	3,650	—	250 (F)×4 250 (R)×4 225 (C)×4 175 (C)×4	NAL FLC *12
			—	—	—	3,590	—	—	—
			—	—	—	3,650	—	—	—
		B438-96	—	4,200	—	3,100	—	Microplate×4 *6	Plate size up to 128.5L×86D×33Hmm
		B438-1507BH <b>HS</b> *16	—	4,000	—	3,310	—	15 (C)×28	Conical tube
		B438-5002BH <b>HS</b> *2 *16	—	4,000	—	3,310	—	50 (C)×8 15 (C)×8	
	TS-41C	Bucket, Adapter and Bucket Cover are included.		4,400	3,600	3,010	2,010	Deep-well plate×4 *6 *17 Microplate×8 *6	Plate size up to 128.5L×86D×90Hmm *17 Plate size up to 128.5L×86D×58Hmm

Tubes other than stated above are also available. As for details, please contact your local dealer.

■ Manufacturer Abbreviation TOM: TOMY SEIKO CO., LTD. FLC: Falcon/CORNING INTERNATIONAL CORP. COR: CORNING INTERNATIONAL CORP. EIK: EIKEN CHEMICAL CO., LTD.  
NAL: NALGENE/Thermo Fisher Scientific K.K. SIO: SHIONOGI & CO., LTD. TER: TERUMO CORPORATION

\*1 : Values indicate those of the rotor being mounted in the AX-511/521. \*2 : Do not load different type of tubes at the same time. \*3 : TOMY 5ml conical tube, PT0050-11. Please contact us for Eppendorf 5ml tube.

\*4 : Falcon 5ml FACS tubes. \*5 : For use with 15ml conical tubes, an optional Adapter CA1500-01 is required. \*6 : Confirm that the plate can withstand centrifugal force before use.

\*7 : For 15ml tubes, an adapter A1500-04 is required. \*8 : For conical tubes, an adapter IW9330-050 is required. \*9 : Use only four holes in the center of the bucket (15ml×4) for use with conical tubes.

\*10 : Can be loaded 50ml tube and 15ml tube mixed together. \*11 : An optional bucket cap kit B433 is available for use as a sealed bucket.

\*12 : An optional conical Tube Adapter (Falcon Tube Cushion, Cat. No.352090) is required. \*13 : Falcon 225ml tube can not be used Bucket cap kit B433. \*14 : Can be loaded 50ml × 4 and 15ml × 2 mixed together.

\*15 : Can be loaded up to 50ml × 4 and 15ml × 8 tubes mixed together. \*16 : Sealed bucket \*17 : 2 deep-well plates (up to 128.5L×86D×80Hmm) are available with bucket cover.

**HS** This bucket, which has been tested and certified by the Health Protection Agency (HPA, UK) to be compliant with the International Standard (Annex AA of the IEC 61010-2-020), meets requirements for biohazard safety.

**HS** It adopted a hermetically sealed structure equivalent to **HS** bucket or rotor designed and tested in accordance with the International Standard (Annex AA of the IEC 61010-2-020) to offer excellent sealing performance.