

Refrigerated | High speed | Benchtop

TGL-23



Order No.:0104140000

TGL-23 is a intelligent, versatile high speed refrigerated centrifuge runs up to 23000rpm. The centrifuge is a large capacity model which can accommodate 0.2ml to 750ml tube/bottle. Fixed angle rotors are compatible with tubes 0.2ml to 100ml. Swing out rotors are compatible with 1.5ml to 750ml tube or bottle, blood tube and microplate. With its leading technologies and many user-friendly functions,it can perfectly meet your centrifugal needs.

We solve two core safety risks

Risk one:Overspeed operation
Solution: Automatic rotor identification to prevent over speed operation

Automatic rotor identification by RFID

- 1. Static identification. Just put in the rotor, recognize rotor without running.
- 2. Prevent overspeed. User cannot set RPM/RCF over the rotor’s limit.
- 3. More information. Besides rotor’s max speed,centrifuge can identify information such as rotor capacity,production time and remaining life time.
- 4. Can recognize much more rotors

Risk two:Unbalanced operation
Solution: Imbalance detection in the whole operation process & automatically stop

Imbalance sensor:Three axis gyroscope

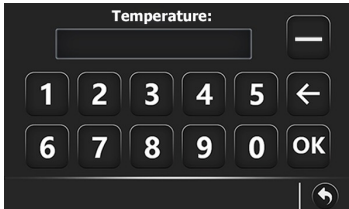
- 1. Detect imbalance in the whole operation process.
- 2. Adjust imbalance point automatically.
- 3. Automatic stop when reach imbalance point.
- 4. Imbalance detection is more accurate



LCD touch screen

- >Simple and clear to show all parameters
- >Touch screen,easy to set parameters
- >RCF can be set directly
- >Intelligent status display,real-time and real values
- >User can set parameters even with gloves
- >User can reset parameters when rotor is spinning

PROGRAM	ROTOR	SPEED	TIME	TEMP	ACC/DEC
001	cx	12X1.5mL	1000rpm	00:05:00	4
002		24X2mL	1001rpm	00:05:00	4
003		12X1.5mL	104Xg	00:05:00	4
004		12X1.5mL	70Xg	00:05:00	4
005		12X1.5mL	70Xg	00:05:00	4



Speed	1	2	3	4	5	6	7
	12000	15000	11000	8000	9000	10000	15000
Time	00:01:00	00:01:00	00:01:00	00:01:00	00:01:00	00:01:00	00:01:00
Temp	4	4	4	4	4	4	4
Rotor	12X1.5mL	Acc 02	Dec 04	Add	Del		

Sys Prompt	ON	OFF	TEMP CTRL System	OFF	ECO	PERF
Key Prompt	ON	OFF	ScreenBlank Time	10s		
Password Lock	ON	OFF	Unbalanced Sensitivity	0		
Timekeeping	When reach speed	When start running	Screen Lock Time	0s		

FEATURES

User-friendly functions

- >up to 1000 user-defined programs
- >up to 1000 run histories, 100000 operation logs, can be exported via USB
- >up to 40 rates acceleration and deceleration,speed downs curvly slowly from 600rpm to 0rpm to prevent samples shake
- >up to 7 stages multi-stage centrifugation mode available
- >up to 99h59m59s timer range, 1s increment
- >Support short spin and continuous centrifugation
- >Reservation:can reserve cooling,turn on and turn off time
- >Curve display---Speed curve,RCF curve and Temperature curve are displayed together,clear to see their changing and relations.

Ensure safety

- >Automatic rotor identification by RFID
- >Imbalance detection by three axis gyroscope
- >Motorized electronic door lock
- >Door cannot be opened when rotor is spinning
- >Gas hinges to prevent door falling
- >Port in the door for calibration and operation checking
- >Emergency door lock release
- >Password to lock the device
- >User management with permission allocation
- >Various protections to ensure safe centrifugation
- >With never be lost electronic instruction manual

Refrigeration

- >High quality compressor unit
- >-20°C to +40°C ,1°C increment
- >±1°C high temperature accuracy
- >CFC-free refrigerant
- >PID dynamic temperature control
- >Temperature sensor inside the chamber
- >Starts refrigeration when power on
- >Maintains refrigeration after spin
- >With ECO energy-saving module

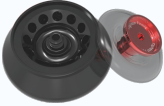
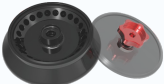
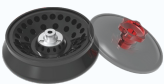
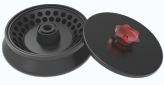
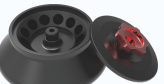
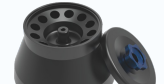
Good components

- >Motor: Brushless variable frequency motor. stable running,maintenance free,long life
- >Housing: Thick and strong steel
- >Chamber: 316 stainless steel with teflon coating. anticorrosion and easy to clean
- >Rotor: Aluminum alloy fixed angle rotor; Steel/Stainless steel swing out rotor.
- >Rotors are autoclavable

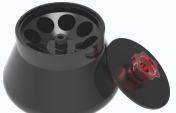
TECHNICAL DATA

Max Speed	23000rpm
Max RCF	35367xg
Max Capacity	4x750ml
Temperature Range	-20°C ~ +40°C
Temperature Accuracy	±1°C
Speed Accuracy	±10rpm
Time Setting	1s ~ 99h59m59s
Noise	≤56dB(A)
Voltage	220v
Power Consumption	1500w
Dimension(WxDxH)	680x600x420mm
Weight	108kg

AVAILABLE ROTORS

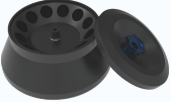
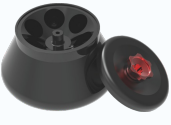
Fixed angle rotor					
Rotor	Capacity	Order No.	Max speed/RCF	Adaptor	
				Capacity	Order No.
	12×1.5/2ml	0494020200	23000rpm/35367×g	12×1×0.2ml	1101010001
				12×1×0.5ml	1101010002
	24×1.5/2ml	0494020600	16500rpm/26024×g	24×1×0.2ml	1101010001
				24×1×0.5ml	1101010002
	24×1.5/2ml aerosol tight	0494020500	18000rpm/30246×g	24×1×0.2ml	1101010001
				24×1×0.5ml	1101010002
	36×1.5/2ml	0494020800	15000rpm/20979×g	36×1×0.2ml	1101010001
				36×1×0.5ml	1101010002
	48×1.5/2ml	0494020900	13000rpm/17741×g	48×1×0.2ml	1101010001
				48×1×0.5ml	1101010002
	12×5ml round bottom	0494030200	18000rpm/27167×g	12×1×1.8ml frozen storage tube	1101020002
				12×1×2ml frozen storage tube	1101020004
				12×1×2ml	1101020001
	12×10ml round bottom	0494040200	15500rpm/20923×g	12×1×2ml	1101030001
				12×1×5ml	1101030002
	8×15ml conical bottom	0494050100	14500rpm/19063×g	8×1×5ml	1101040001
				8×1×10ml	1101040002
	12×15ml conical bottom	0494050200	13000rpm/17288×g	12×1×5ml	1101040001
				12×1×10ml	1101040002

AVAILABLE ROTORS

Fixed angle rotor					
Rotor	Capacity	Order No.	Max speed/RCF	Adaptor	
				Capacity	Order No.
	6×50ml round bottom	0494070100	13500rpm/19010×g	6×1×2ml	1101060003
				6×1×5ml	1101060004
				6×1×10ml	1101060001
				6×1×15ml conical tube	1101060005
				6×1×30ml	1101060002
	6×50ml conical bottom	0494070200	13000rpm/18232×g	6×1×2ml	1101070003
				6×1×5ml	1101070004/conical tube 1101070005/round tube
				6×1×7ml	1101070012
				6×1×10ml	1101070006/glass tube 1101070007/conical tube 1101070008/round tube
				6×1×15ml conical tube	1101070001
				6×1×25ml	1101070010
				6×1×50ml round tube	1101070002
	8×50ml round bottom	0494070400	12000rpm/14891×g	8×1×2ml	1101060003
				8×1×5ml	1101060004
				8×1×10ml	1101060001
				8×1×15ml conical tube	1101060005
				8×1×30ml	1101060002
	8×50ml conical bottom	0494070500	12000rpm/15906×g	8×1×2ml	1101070003
				8×1×5ml	1101070004/conical tube 1101070005/round tube
				8×1×7ml	1101070012
				8×1×10ml	1101070006/glass tube 1101070007/conical tube 1101070008/round tube
				8×1×15ml conical tube	1101070001
				8×1×25ml	1101070010
				8×1×50ml round tube	1101070002

AVAILABLE ROTORS

Fixed angle rotor

Rotor	Capacity	Order No.	Max speed/RCF	Adaptor	
				Capacity	Order No.
	12×50ml conical tube	0494070700	10000rpm/13650×g	12×1×2ml	1101070003
				12×1×5ml	1101070004/conical tube 1101070005/round tube
				12×1×7ml	1101070012
				12×1×10ml	1101070006/glass tube 1101070007/conical tube 1101070008/round tube
				12×1×15ml conical tube	1101070001
				12×1×25ml	1101070010
				12×1×50ml round tube	1101070002
	4×100ml round bottom	0494080100	12000rpm/15165×g	4×1×5ml	1101080007
				4×1×10ml	1101080001
				4×1×15ml conical tube	1101080002
				4×1×30ml	1101080003
				4×1×50ml	1101080005/conical tube 1101080004/round tube
	6×100ml round bottom	0494080200	10000rpm/11604×g	6×1×5ml	1101080007
				6×1×10ml	1101080001
				6×1×15ml conical tube	1101080002
				6×1×30ml	1101080003
				6×1×50ml	1101080005/conical tube 1101080004/round tube

Swing out rotor

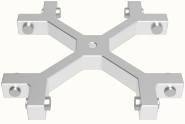
Rotor body	Holder	Order No. (Rotor body+holder)	Max speed/RCF	Adaptor	
				Capacity	Order No.
	 Capacity: 4×300ml Order No.:0495050220 Note: No suitable bottle,must choose adaptor	0495050200	4500rpm/3826×g	4×15×1.5/2ml	0497012600
				4×12×5ml	1102060011
				4×16×7ml blood tube	0497011700
				4×10×10ml	1102060012
				4×9×10ml blood tube	1102060013
				4×9×15ml conical tube	0497011200
				4×4×50ml conical tube	0497011300
				4×1×100ml	0497012500
				4×1×250ml	1102060005
Order No.: 0495180510	 Capacity: 4x250ml conical bottle Order No.:1004010017	0495050200	4500rpm/4369×g	/	/

AVAILABLE ROTORS

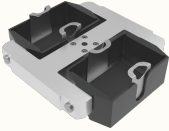
Swing out rotor					
Rotor body	Holder	Order No. (Rotor body+holder)	Max speed/RCF	Adaptor	
				Capacity	Order No.
 Order No.: 0495180710	 Capacity: 4×500ml Order No.: 1006010009 (without lid) Aerosol tight lid Order No.: 0495061110 Note: Aerosol tight lid cannot be used when use 500ml bottle	0495060400 (without lid) 0495061300 (with lid)	4200rpm/3551×g	4×18×2ml	0497012700
				4×18×2ml frozen storage tube	0497012900
				4×19×7ml blood tube	0497010200
				4×12×10ml	0497012800
				4×14×10ml blood tube	1102070007
				4×9×15ml conical tube	0497010300
				4×4×50ml conical tube	0497010400
				4×2×100ml	0497013000
				4×1×100ml	1102070005
	 Capacity: 4×500ml (square bucket) Order No.: 0495060510 Note: No suitable bottle, must choose adaptor	0495060500	4200rpm/3551×g	4×1×250ml	1102070006
				4×25×2ml	0497013200
				4×25×2ml frozen storage tube	0497013500
				4×22×5ml	0497013300
				4×28×7ml blood tube	0497010100
				4×20×10ml blood tube	1102080003
				4×10×15ml conical tube	0497010500
				4×6×30ml	0497013400
				4×5×50ml conical tube	0497010600
	 Capacity: 4×2×96 well (micro plate) Order No.: 0495060610	0495060600	4200rpm/3551×g	4×2×100ml	1102080006
				4×1×250ml	1102080007
				4×24×1.5/2ml	1102040001
	 Capacity: 96×2~7ml (blood tube) Order No.: 0495180720	0495180700	4200rpm/3551×g	/	/
	 Capacity: 148×5ml (RIA tube) Order No.: 0496061010	0495061000	4200rpm/3551×g	/	/

AVAILABLE ROTORS

Swing out rotor

Rotor body	Holder	Order No. (Rotor body+holder)	Max speed/RCF	Adaptor	
				Capacity	Order No.
 Order No.: 0495190210	 Capacity: 4×700ml Order No.: 0495190120 Note: No suitable bottle, must choose adaptor	0495190200	4000rpm/3425×g	4×24×2ml	0497014900
				4×3×100ml	1102100015
				4×14×15ml conical tube	1102100010
				4×5×50ml conical tube	0497014800
				4×1×250ml conical bottle	1102100008
				4×1×500ml conical bottle	1102100007
	 Capacity: 4×750ml Order No.: 0495190220	0495080300	4000rpm/3327×g	4×24×2ml	0497013900
				4×24×2ml frozen storage tube	0497014000
				4×37×5ml RIA tube	1102100021
				4×24×7ml blood tube	0497014100
				4×18×10ml	0497014200
				4×15×15ml conical tube	0497014400
				4×14×15ml round tube	0497014500
				4×8×30ml	0497014600
				4×7×50ml conical tube	1102100003
				4×3×100ml	1102100004
				4×1×250ml	1102100005
				4×1×500ml	1102100006

Swing out rotor

Rotor	Capacity	Order No.	Max speed/RCF	Adaptor	
				Capacity	Order No.
	Capacity: 2×3×96 well (micro plate)	0495011000	4000rpm/2146×g	2×24×1.5/2ml	1102040001