Refrigerated | High speed | Benchtop

TGL-20

Order No.:0104080000

TGL-20 is a high speed refrigerated centrifuge runs up to 20000rpm. Although the centrifuge is compact ,it can runs up to 6x100ml. The centrifuge has good refrigeration system---imported compressor unit,PID dynamical temperature control. The centrifuge equipped with SHUKE RFID automatic rotor identification technology and imbalance detection by three axis gyroscope.

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

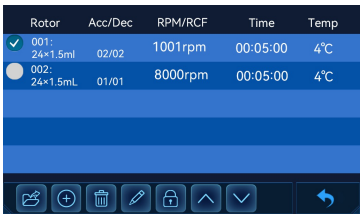
Risk two:Unbalanced operation
Solution: Imbalance detection in the whole operation process & automatically stop

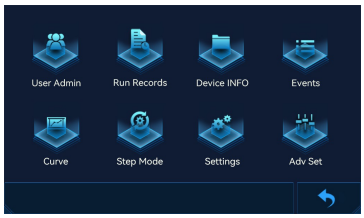
Imbalance sensor:Three axis gyroscope

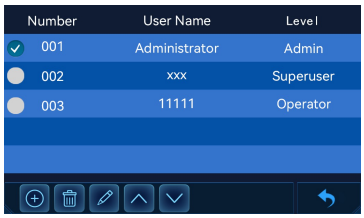
1. Detect imbalance in the whole operation process.
2. Adjust imbalance point automatically.
3. Automatic stop when reach imbalance point.
4. Imbalance detection is more accurate

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







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 curvely 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.

Refrigeration

>High quality compressor unit
>-20℃ to +40℃ ,1℃ increment
>±1℃ 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
>Can set cooling stop time on door/standby

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 hinge 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

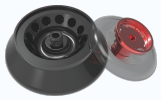
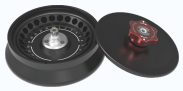
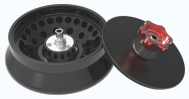
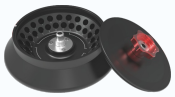
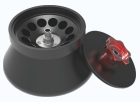
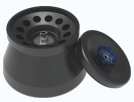
Good components

>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;
>Rotors are autoclavable

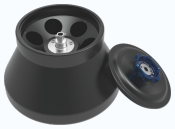
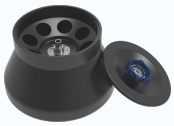
TECHNICAL DATA

Max Speed	20000rpm
Max RCF	31405xg
Max Capacity	6x100ml
Temperature Range	-20℃ ～ +40℃
Temperature Accuracy	±1℃
Speed Accuracy	±10rpm
Time Setting	1s ～ 99h59m59s
Noise	≤56dB(A)
Voltage	220v
Power Consumption	1200w
Dimension(WxDxH)	520x420x360mm
Weight	56kg

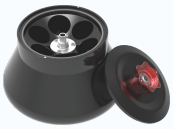
AVAILABLE ROTORS

Fixed angle rotor					
Rotor	Capacity	Order No.	Max speed/RCF	Adaptor	
				Capacity	Order No.
	12×1.5/2ml	0494020300	20000rpm/27994×g	12×1×0.2ml	1101010001
				12×1×0.5ml	1101010002
	24×1.5/2ml aerosol tight	0494021200	18000rpm/31405×g	24×1×0.2ml	1101010001
				24×1×0.5ml	1101010002
	36×1.5/2ml aerosol tight	0494021400	15000rpm/21784×g	36×1×0.2ml	1101010001
				36×1×0.5ml	1101010002
	48×1.5/2ml aerosol tight	0494021300	12500rpm/17136×g	48×1×0.2ml	1101010001
				48×1×0.5ml	1101010002
	16×5ml round bottom (aerosol tight)	0494030600	15000rpm/21381×g	16×1×1.8ml frozen storage tube	1101020002
				16×1×2ml frozen storage tube	1101020004
				16×1×2ml	1101020001
	6×10ml round bottom (aerosol tight)	0494040500	16000rpm/19004×g	6×1×2ml	1101030001
				6×1×5ml	1101030002
	12×10ml round bottom (aerosol tight)	0494040600	15000rpm/20803×g	12×1×2ml	1101030001
				12×1×5ml	1101030002
	8×15ml conical bottom (aerosol tight)	0494050400	14000rpm/17333×g	8×1×5ml	1101040001
				8×1×10ml	1101040002
	12×15ml conical bottom (aerosol tight)	0494050500	11000rpm/13365×g	12×1×5ml	1101040001
				12×1×10ml	1101040002
	6×30ml round bottom (aerosol tight)	0494060300	14000rpm/18472×g	6×1×5ml	1101050002
				6×1×10ml	1101050001

AVAILABLE ROTORS

Fixed angle rotor					
Rotor	Capacity	Order No.	Max speed/RCF	Adaptor	
				Capacity	Order No.
	6×50ml round tube (aerosol tight)	0494071100	12500rpm/17049×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 tube (aerosol tight)	0494071200	12500rpm/17049×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	1101070001/conical tube
				6×1×25ml	1101070010
				6×1×50ml round tube	1101070002
	8×50ml round tube (aerosol tight)	0494071300	11000rpm/13365×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 tube (aerosol tight)	0494071400	11000rpm/14041×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	1101070001/conical tube
				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.
	4×100ml (aerosol tight)	0494080700	11000rpm/13365×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 (aerosol tight)	0494080600	9000rpm/9771×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
	8×8×0.2ml PCR strip	0494010700	13000rpm/14643×g	/	/
	24×2ml frozen storage tube	0494021500	15000rpm/23419×g	/	/