

Refrigerated | High speed | Benchtop



Order No.:0104050000

# TGL-18

TGL-18 is a high speed refrigerated centrifuge runs up to 18000rpm. 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**

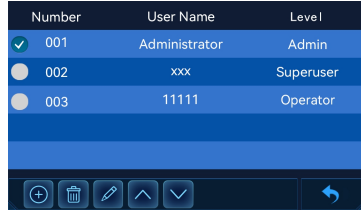
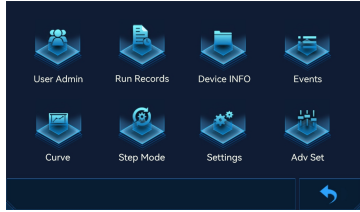
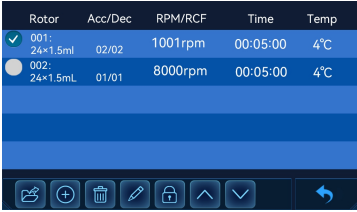
### Imbalance sensor:Three axis gyroscope

- 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



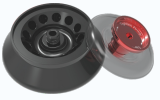
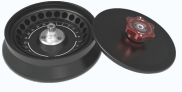

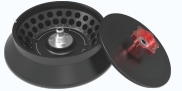


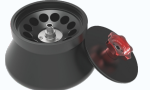
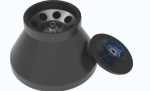
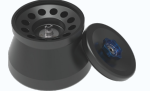

## FEATURES

<h3>— User-friendly functions</h3> <ul style="list-style-type: none"> <li>&gt;up to 1000 user-defined programs</li> <li>&gt;up to 100000 run histories,can be exported via USB</li> <li>&gt;up to 40 rates acceleration and deceleration,speed downs curvelly slowly from 600rpm to 0rpm to prevent samples shake</li> <li>&gt;up to 7 stages multi-stage centrifugation mode available</li> <li>&gt;up to 99h59m59s timer range, 1s increment</li> <li>&gt;Support short spin and continuous centrifugation</li> <li>&gt;Curve display---Speed curve,RCF curve and Temperature curve are displayed together,clear to see their changing and relations.</li> </ul>	<h3>— Refrigeration</h3> <ul style="list-style-type: none"> <li>&gt;High quality compressor unit</li> <li>&gt;-20°C to +40°C ,1°C increment</li> <li>&gt;±1°C high temperature accuracy</li> <li>&gt;CFC-free refrigerant</li> <li>&gt;PID dynamic temperature control</li> <li>&gt;Temperature sensor inside the chamber</li> <li>&gt;Starts refrigeration when power on</li> <li>&gt;Maintains refrigeration after spin</li> <li>&gt;With ECO energy-saving module</li> <li>&gt;Can set cooling stop time on door/standby</li> </ul>
<h3>— Ensure safety</h3> <ul style="list-style-type: none"> <li>&gt;Automatic rotor identification by RFID</li> <li>&gt;Imbalance detection by three axis gyroscope</li> <li>&gt;Motorized electronic door lock</li> <li>&gt;Door cannot be opened when rotor is spinning</li> <li>&gt;Gas hinge to prevent door falling</li> <li>&gt;Port in the door for calibration and operation checking</li> <li>&gt;Emergency door lock release</li> <li>&gt;Password to lock the device</li> <li>&gt;User management with permission allocation</li> <li>&gt;Various protections to ensure safe centrifugation</li> <li>&gt;With never be lost electronic instruction manual</li> </ul>	<h3>— Good components</h3> <ul style="list-style-type: none"> <li>&gt;Motor: Brushless variable frequency motor. stable running,maintenance free,long life</li> <li>&gt;Housing: Thick and strong steel</li> <li>&gt;Chamber: 316 stainless steel with teflon coating. anticorrosion and easy to clean</li> <li>&gt;Rotor: Aluminum alloy fixed angle rotor;</li> <li>&gt;Rotors are autoclavable</li> </ul>

## TECHNICAL DATA

Max Speed	18000rpm
Max RCF	29684xg
Max Capacity	6x100ml
Temperature Range	-20°C ~ +40°C
Temperature Accuracy	±1°C
Speed Accuracy	±10rpm
Time Setting	1s ~ 99h59m59s
Noise	≤56dB(A)
Voltage	220v/110v
Power Consumption	1200w
Dimension	420x520x360mm
Weight	56kg





# AVAILABLE ROTORS

Fixed angle rotor					
Rotor	Capacity	Order No.	Max speed/RCF	Adaptor	
				Capacity	Order No.
	12×1.5/2ml	0494020300	18000rpm/22675×g	12×1×0.2ml	1101010001
				12×1×0.5ml	1101010002
	24×1.5/2ml aerosol tight	0494021200	17500rpm/29684×g	24×1×0.2ml	1101010001
				24×1×0.5ml	1101010002
	36×1.5/2ml aerosol tight	0494021400	14500rpm/20356×g	36×1×0.2ml	1101010001
				36×1×0.5ml	1101010002
	48×1.5/2ml aerosol tight	0494021300	12000rpm/15793×g	48×1×0.2ml	1101010001
				48×1×0.5ml	1101010002
	16×5ml aerosol tight	0494030600	15000rpm/21420×g	16×1×1.8ml frozen storage tube	1101020002
				16×1×2ml frozen storage tube	1101020004
				16×1×2ml	1101020001
	6×10ml aerosol tight	0494040500	16000rpm/19004×g	6×1×2ml	1101030001
				6×1×5ml	1101030002
	12×10ml aerosol tight	0494040600	14500rpm/19439×g	12×1×2ml	1101030001
				12×1×5ml	1101030002
	8×15ml conical tube (aerosol tight)	0494050400	14000rpm/17333×g	8×1×5ml	1101040001
				8×1×10ml	1101040002
	12×15ml conical tube (aerosol tight)	0494050500	11000rpm/13365×g	12×1×5ml	1101040001
				12×1×10ml	1101040002
	6×30ml (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	12000rpm/15712×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	12000rpm/15712×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	/	/