



# TLS-5S

Low speed centrifuge



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## Low speed Centrifuge



### Application

The TLS-5S low-speed centrifuge combines powerful functions, high versatility, easy operability and other advantages. It adopts innovative control technology, has reliable quality and superior performance, and is widely used in medical clinical biochemistry, hematology, immunology and clinical medicine. Scientific research and molecular biology research as well as routine analysis in industrial laboratories are more significant in experimental research on genetic genes, proteins, nucleic acids, and PCR products.

### Highlights



### Product features

- Adopting advanced and reliable FOC vector sine wave drive control system, it can accurately control the speed, time
- The 5-inch LCD high-brightness black background with white characters is preferred
- Maintenance-free brushless DC variable frequency motor, speed range 100 ~ 6000rpm, accuracy  $\pm 20$ rpm;
- Single knob control allows for quick parameter changes;
- Equipped with door cover protection, overspeed, overvoltage and current and imbalance detection systems. LCD screen displays the result code.
- Flash centrifugation: press and hold to achieve fast and convenient centrifugation, and automatically memorize the last experimental value;
- The centrifugal speed and g force were adjusted in increments of 10 rpm/10  $\times$  g;
- High-strength host and rotor materials can resist various chemical corrosion, have sealing performance and unlimited high-temperature sterilization function. Teflon-coated stainless steel cavity
- Forced ventilation cooling and excellent air heat exchange technology can significantly and effectively reduce the increase in rotor temperature and ensure that the sample is not damaged.
- An isolation layer is installed outside the centrifugal chamber to fully absorb noise, reduce vibration
- The new innovative electronically controlled automatic suction double lock enables easy and quick opening and closing of the lid
- 10 built-in storage programs/5 panel shortcut program calls/equipped with NORAML button;

# Rotor specification



M500S-5  
5000rpm/4980×g



5001  
50ml×4  
5000rpm/4980×g



5002  
100ml×4  
5000rpm/4600×g



5003  
50ml×8  
4000rpm/3040×g



5004  
10/15ml×24  
4000rpm/3040×g



5005  
10/15ml×32  
4000rpm/3040×g



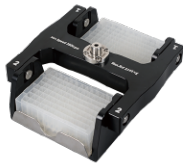
5006  
5ml×48  
4000rpm/3040×g



5007  
5ml×64  
4000rpm/3040×g



5008  
3/5/7ml×72  
4000rpm/3040×g



5010  
Micro 4×2×96  
Deep 2×2×96  
4000rpm/2860×g



5011  
15ml×12  
6000rpm/5150×g



5012  
50ml×8  
6000rpm/5150×g



5013  
15ml×30  
5000rpm/4100×g



5006.1  
3ml



5011.1  
5ml



5011.2  
8ml



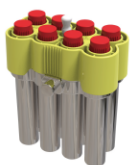
5012.1  
15ml



5004.1  
15ml



5001.1  
50ml



5R-5.1  
5ml

## Technical Specification

Model	TLS-5S
Power supply	AC220V/50 ~ 60Hz/AC120V
Input power	450W
Maximum capacity	480ml(15ml×32)
Speed range	100~6000rpm/10rpm
Accuracy	±20rpm
Max. RPM	5150×g/10×g
Motor	Maintenance-free brushless DC
Time	1-99hour/1-59min/1-59sec; three models; Accuracy ±1s
Drive control system	FOC vector sine wave drive
Display mode	5-inch LCD high-brightness black background with white letter
Control method	Physical buttons + knobs
Program	10 built-in storage programs/5 panel shortcut program calls
Door cover locking method	Electronically controlled automatic suction double lock
Fastest acceleration time	30s/9 shifts
Fastest deceleration time	25s/10 shifts, 0 gear free stop
Dimension(W×D×H)	418mm×516mm×338mm
Weight (w/o rotor)	36Kg
Noise level at max speed (≈)	≤65dB(A)
Protection level	IP20
Environment temp. and humidity	+5~40°C/80%
Interference suppression standards	EN 61010-1, EN 61010-2-020, EN 61326-1, EN 61010-3-2/A2

Note: Room temp @ 23°C

## Rotor information

L.05.004	-	Main unit	Standard	
L.03.001	5001	PP round/conical with cap	M500S-S	Optional
L.03.003	5002	PP round with cap	M500S-S	Optional
L.03.002	5003	PP round/conical with cap	M500S-S	Optional
L.03.004	5004	PP round/conical with cap	M500S-S	Optional
L.03.005	5005	PP round/conical with cap	M500S-S	Optional
L.03.006	5006	Vacuum tubes 13×100mm	M500S-S	Optional
L.03.007	5007	Vacuum tubes 13×100mm	M500S-S	Optional
L.03.008	5008	G	M500S-S	Optional
L.06.008	5010	Microplate 4×2×96/deep 2×2×96	Main	Optional
L.06.009	5011	PP round/conical with cap	Main	Optional
L.03.017	5012	PP round/conical with cap	Main	Optional
L.06.020	5013	PP round/conical with cap	Main	Optional
L.02.001	5006.1	Vacuum tubes 13×75mm	5006/5007	Standard
L.02.002	5011.1	Vacuum tubes 13×100mm	5004/5005/5011	Optional
L.06.017	5011.2	Vacuum tubes 16×100mm	5004/5005/5011	Optional
L.06.018	5012.1	PP conical with cap	5012	Optional
B.01.042	5004.1	PP conical with cap	5004/5005/5011	Optional
B.04.024	5001.1	PP conical with cap	5001/5003/5012	Optional
B.07.021	5005.1	Vacuum tubes 13×100mm	5005	Optional