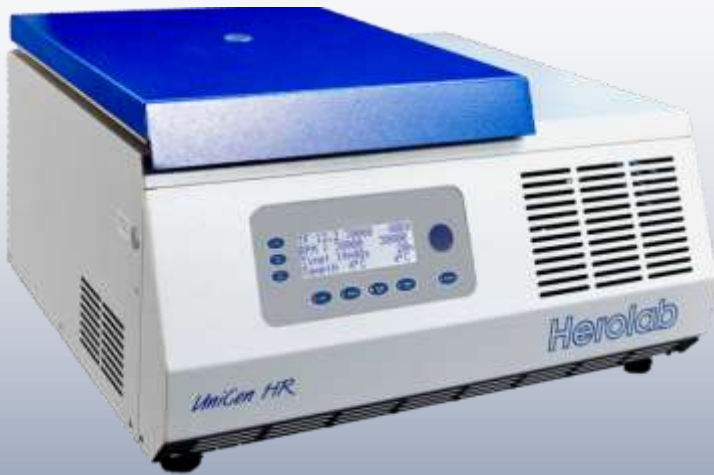


Herolab

*Manufacturer
of Life Science.....*



**30.000 rpm
70.434 xg
quiet**



UniCen[®] HR

Table-Top Super High-Speed Centrifuge
with Refrigeration

UniCen[®] HR Super High-Speed

Catalog No.	Description	Voltage	Phases	Hz
21 14 070	UniCen HR refrigerated	230 V	1	50/60 Hz
21 14 074	UniCen HR refrigerated	115 V	1	60 Hz
21 14 080	Touchscreen for UniCen models			

- microprocessor controlled
- for centrifuge tubes and bottles, Microtiter plates, Tissue-culture tubes, Microliter tubes, etc.
- maximum capacity: 4 x 200 ml
- 13 angle rotors, 3 swing-out rotors, 1 microhematocrit rotor
- speed: 500 –30,000 rpm, in steps of 100 rpm
- g-force (RCF): 70,434 x g, in steps equivalent to 100 rpm
- timer: up to 60 min, in 1 min increments, on request up to 999 min.
- “HOLD” for longer runs / “SHORT” for short runs
- 9 acceleration and deceleration ramps
- maintenance free, brushless induction drive
- stainless steel chamber with additional inner guard ring
- overspeed detection, imbalance detection and cut-off
- motorized lid lock system, automatic lid opening
- emergency lid lock release
- display for both current and preset values of speed/g-force, time and temperature, fast One-Knob data entry
- Cooling at a standstill and fast cooling program
- Optional touchpad-panel with advanced options



Swing-out Rotors

UniCen HR

Cat. No.	Type	Max. Capacity		Max. Speed	Max. g-Force
21 14 550	TS 2.6	2 – 6 microtiter plates (max. height 56 mm)	incl. 2 carriers for microtiter plates	3,000 rpm	1,036 x g
21 14 700	TS 24.2	24 x 2.2 ml	incl. windshield, hermetically sealing lid and 6 carriers for 4 tubes 2.2 ml	14,000 rpm	16,215 x g
21 14 600	TS 4.200	4 x 200 ml	incl. 4 buckets 200 ml with screw cap	5,000 rpm	4,081 x g
21 14 600-01	TS 4.200	4 x 200 ml	Rotor without buckets	5,000 rpm	4,081 x g
21 14 607	Trunnion rings	4 x (2 x 50 ml)	4 trunnion rings with stainless steel tubes	5,000 rpm	4,081 x g
21 14 605	Trunnion rings	4 x (7 x 15 ml)	4 trunnion rings with stainless steel tubes	5,000 rpm	4,081 x g



Cat.-No. 21 14 600-01 with 21 14 605 and 21 14 607



Microhematocrit Rotor (without photo)

UniCen HR

Cat.-No.	Type	Max. Capacity		Max. Speed	Max. g-Force
21 14 750	TF 24 MH	24 Capillaries 50 µl ø 1.5 x 70 mm	complete with rotor lid and capillary reader card	12,000 rpm	14,489 x g

Angle Rotors (with hermetically sealing lid)

UniCen HR

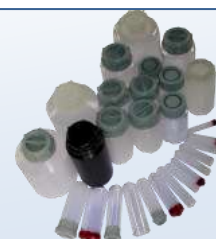
Cat.-No.	Type	Max. Capacity	Angle	Max. Speed	Max. g-Force
21 14 200	TF 12.8	12 PCR strips of 8 x 0.2 ml	45°	14,000 rpm	21,475 x g
21 14 170	TF 12.2	12 x 1.5/2.2 ml	45°	30,000 rpm	70,434 x g
21 14 180	TF 18.2	18 x 1.5/2.2 ml	45°	24,000 rpm	47,010 x g
21 14 151	TF 24.2	24 x 1.5/2.2 ml	45°	20,000 rpm	36,670 x g
21 14 100	TF 30.2	30 x 1.5/2.2 ml	45°	17,000 rpm	32,310 x g
21 14 251	TF 12.10	12 x 10 ml	35°	20,000 rpm	37,118 x g
21 14 451	TF 10.15 F	10 x 15 ml Falcon	25°	14,000 rpm	19,831 x g
21 14 300	TF 20.15	20 x 15 ml	33°	4,000 rpm	2,463 x g
21 14 351	TF 30.15	30 x 15 ml	33°	4,000 rpm	2,463 x g
21 14 330	TF 12.30	12 x 30 ml	28°	12,800 rpm	19,233 x g
21 14 401	TF 6.50 F	6 x 50 ml Falcon	25°	14,000 rpm	20,708 x g
21 14 501	TF 8.50	8 x 50 ml	25°	14,000 rpm	21,036 x g
21 14 650	TF 6.94	6 x 94 ml	30°	12,000 rpm	16,840 x g



Suitable **Tubes and Adapters** for these rotors you will find on the following pages.

For detailed Information about the comprehensive range of **centrifuge tubes and bottles** from our production and their possible use in centrifuges of other manufacturers please refer to our catalog "Centrifuge Labware".

We also manufacture the most popular tubes and bottles for Ultra Centrifuges.



Specification

UniCen® HR

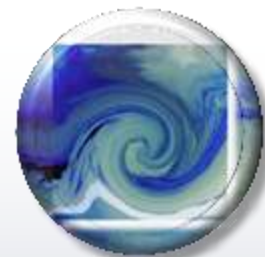
Catalog No. (230V, 50/60 Hz, 1 Phase)	21 14 070	All Herolab centrifuges have a flexible axis. The separation of the own centering of the motor and the centering of the installed rotor protects the bearing of the entire drive. This provides the best smooth running and a long maintenance-free use.
Maximum Capacity	4 x 200 ml	
Maximum Speed	30,000 rpm	
Max. g-Force/RCF (depending on rotor)	70,434 x g	
Minimum Speed	> 500 rpm	
Rotor Detection	APRI™ System = Automatic positive rotor identification for Herolab rotors	
Program Memory	10 programs	
Display	Display for current and preset values, Optional touchpad-panel with advanced options	
User Interface	Operating panel with buttons and one rotary knob	
Preset Time	Up to 60 minutes in increments of 1 min., on request up to 999 mins. With the optional touchscreen, the display is five digits. The first three digits are the minutes (999) and the last two digits the seconds. The simple input of a zero produces the continuous run with the "HOLD" provision for longer runs / "SHORT" key for short runs	
Preset Speed	From 500 rpm to max. speed in steps of 100 rpm	
Preset g-Force/RCF	With increments equivalent to 100 rpm	
Drive System	Direct self-centering drive system with brushless induction motor	
Speed Accuracy	± 2 rpm at 1,000 rpm / ± 20 rpm at max. speed	
Acceleration Time (depending on rotor)	30 sec. – 1.5 min.	
Deceleration Time (depending on rotor)	40 sec. – 2.5 min.	
Acceleration/Deceleration Rates	9 Ramps in steps of 15 sec. from 0 to 120 sec. in the range of 0 – 1.000 rpm	
Braking System	Dynamic electric brake system – Acoustic Signal at the end of run	
Temperature Set Range	n.a.	-20°C to +40°C in steps of 1°C
Cooling at Standstill	n.a.	YES
Temperature Control Accuracy	n.a.	±2°C on calibrated rotor
Temperature Control System	n.a.	Bypass System
Sample Protection	n.a.	n. a.
Overtemperature Protection	n.a.	YES
Refrigeration System	n.a.	CFC-free refrigerant



Safety Features

Overspeed detection, Imbalance detection and cut-off, Four point lid fixing
Automatic motor driven lid lock with emergency lid lock release
Stainless steel chamber with additional inner guard ring

Dimensions (W x D x H): in cm (in inches)	64.0 x 55.0 x 36.0 (25.2 x 21.7 x 14.2)
Shipping Dimensions in cm (in inches)	80.0 x 65.0 x 74.0 (31.5 x 25.6 x 29.1)
Net Weight	82.0 kg (180.8 lbs.)
Gross Weight	96.0 kg (211.6 lbs.)



Herolab

Herolab GmbH Laborgeräte
Ludwig-Wagner-Str. 12
69168 Wiesloch
GERMANY


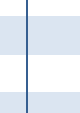

Tel.: +49 (0) 6222 – 5802-0
Fax: +49 (0) 6222 – 5802-34
E-Mail: info@herolab.de
Internet: www.herolab.de

All products built by Herolab carry the CE sign.
Herolab is certified according to DIN EN ISO
9001:2008 and DIN EN ISO 13485.



WEEE-Reg.-No.
DE66734561

for Rotors TF 12.2, TF 18.2, TF 24.2, TF 30.2 + TS 24.2

Tubes	2.0-2.2 ml	1.5 ml	0.5-0.7 ml	0.25-0.4 ml	0.2 ml
Tubes Ø x Length (mm)	11/13 x 40	11/13 x 40	8/10 x 28-31	Ø 6 mm	PCR® Tubes
Material of Tubes + Herolab Cat. No.	Tubes not available from Herolab	conical with lid PP: 25 20 50	Tubes not available from Herolab	Tubes not available from Herolab	Tubes not available from Herolab
Necessary Adapter	---	---			
Herolab Cat. No.	---	---	25 50 06	25 50 05	25 50 07
Tubes per Adapter	-	-	1	1	1

Cat. No. 25 20 50 Cat. No. 25 50 07



Cat. No. 25 50 06 Cat. No. 25 50 05

Cat. No. 25 24 01 / 11 / 41 / 51



for Rotor TF 12.10

Tubes	10 ml AOR	13.5 ml
Tubes Ø x Length (mm)	16 x 80	16 x 76
Material of Tubes + Herolab Cat. No.	PC: 25 24 01 PPCO: 25 24 11 PE: 25 24 41 PF: 25 24 51	PP: 25 24 70
Necessary Adapter	---	---
Herolab Cat. No.	---	---
Tubes per Adapter / Rotor	- / 12	- / 12

Prices of tubes see last page.

TF 20.15 + TF 30.15

15 ml Glass	15 ml Falcon
17 x 98	17 x 122
D: 25 12 80	Tubes not available from Herolab
---	---
---	---
- / 20 resp. 30	- / 20 resp. 30



Cat. No. 25 29 51 / 61 / 65 / 71



for Rotor TF 12.30

Tubes	30 ml AOR
Tubes Ø x Length (mm)	25 x 92
Material of Tubes + Herolab Cat. No.	PC: 25 29 51 PPCO: 25 29 61 PE: 25 29 65 PF: 25 29 71
Necessary Adapter	---
Herolab Cat. No.	---
Tubes per Adapter / Rotor	- / 12

TF 10.15 F






15 ml Falcon
17 x 122
Tubes not available from Herolab







- / 10

TF 6.50 F

50 ml Falcon	30 ml AOR	15 ml Falcon
29 x 118	25 x 92	17 x 122
Tubes not available from Herolab	PC: 25 29 51 PPCO: 25 29 61 PE: 25 29 65 PF: 25 29 71	Tubes not available from Herolab
---	---	---
---	25 50 62	25 53 80
- / 6	1 / 6	1 / 6

for Rotor **TF 8.50**

Tubes	50ml AOR	50 ml with rim	50 ml with cap	45 ml Glass	30 ml AOR	30 ml Glass	16 ml with rim	12/15 ml Glass
Tubes Ø x Length (mm)	29 x 103	29 x 103	29 x 103	28 x 102	25 x 92	24 x 105	18 x 100	18 x 102
Material of Tubes + Herolab Cat. No.	PC: 25 32 01 PPCO: 25 32 11 PE: 25 32 15 PF: 25 32 21	PC: 25 31 00 PPCO: 25 31 60 PE: 25 31 30 PF: 25 31 51	PC: 25 31 05 PPCO: 25 31 45	B: 25 12 60	PC: 25 29 51 PPCO: 25 29 61 PE: 25 29 65 PF: 25 29 71	B: 25 11 10 HS: 25 11 41	PC: 25 27 00 PPCO: 25 27 20 PE: 25 27 40 PF: 25 27 51	12 ml: B: 25 11 00 15 ml HS: 25 10 91
Necessary Adapter	---	---	---					
Herolab Cat. No.	---	---	---	25 58 00	25 50 61	25 55 60	25 50 50	25 55 50
Tubes per Adapter / Rotor	- / 8	- / 8	- / 8	1 / 8	1 / 8	1 / 8	1 / 8	1 / 8

Tubes	10ml AOR	10 ml Glass	10 ml Glass	4.5/5 ml	3 ml Glass	1.5 ml	1 ml
Tubes Ø x Length (mm)	16 x 80	18 x 102	13 x 100	12 x 75	10 x 75	11 x 40	7 x 50
Material of Tubes + Herolab Cat. No.	PC: 25 24 01 PPCO: 25 24 11 PE: 25 24 41 PF: 25 24 51	conical D: 25 10 60	D: 25 10 40	PP: 25 22 30 PS: 25 22 00	D: 25 10 10	conical with lid PP: 25 20 50	PS: 25 20 00
Necessary Adapter			Rubber adapter				
Herolab Cat. No.	25 50 30	25 55 40	25 55 30	25 50 11	25 55 10	25 50 10	25 50 00
Tubes per Adapter / Rotor	1 / 8	1 / 8	1 / 8	2 / 16	2 / 16	2 / 16	4 / 32



Cat. No. 25 32 41 / 45 / 47 / 49




for Rotor **TF 6.94**

Tubes	94 ml	94 ml	80 ml AOR
Tubes Ø x Length (mm)	38 x 102	38 x 106	38 x 105
Material of Tubes + Herolab Cat. No.	thick-walled PC: 25 32 80 PA: 25 32 60 thick-w. w. thread PC: 25 32 90	PP: 25 32 50	PC: 25 32 41 PPCO: 25 32 45 PE: 25 32 47 PF: 25 32 49
Necessary Adapter	---	---	---
Herolab Cat. No.	---	---	---
Tubes per Adapter / Rotor	- / 6	- / 6	- / 6














for Rotor TS 4.200

Tubes	200 ml	200 ml	100 ml	50ml
Tubes Ø x Length (mm)			45 x 100	34 x 100
Material of Tubes + Herolab Cat. No.	PC: 25 33 71 PPCO: 25 33 73	conical PC: 25 33 75 PPCO: 25 33 77	PC: 25 33 20 PP: 25 33 30	Tubes not available from Herolab
Necessary Adapter	---			
Herolab Cat. No.	---	21 14 610	21 14 643	21 14 640
Tubes per Adapter / Rotor	- / 4	1 / 4	1 / 4	1 / 4

Additional accessories for the rotor TS 4.200 on request resp. see pricelist.

More tubes for all rotors see last page.

Tubes	50ml AOR	50 ml with rim	50 ml with cap	50 ml Falcon	30 ml AOR	30 ml Glass	17 ml	13/15 ml
Tubes Ø x Length (mm)	29 x 103	29 x 103	29 x 103	29 x 118	25 x 92	24 x 105	16 x 102	17 x 98
Material of Tubes + Herolab Cat. No.	PC: 25 32 01 PPCO: 25 32 11 PE: 25 32 15 PF: 25 32 21	PC: 25 31 00 PPCO: 25 31 60 PE: 25 31 30 PF: 25 31 51	PC: 25 31 05 PPCO: 25 31 45	Tubes not available from Herolab	PC: 25 29 51 PPCO: 25 29 61 PE: 25 29 65 PF: 25 29 71	B: 25 11 10 HS: 25 11 41	thin-walled: PA: 25 26 20 thick-walled PC: 25 26 40	13 ml: PP: 25 26 10 15 ml D: 25 12 80
Necessary Adapter								
Herolab Cat. No.		21 14 638		21 14 637	21 14 631	21 14 622		
Tubes per Adapter / Rotor		1 / 4		1 / 4	2 / 8	7 / 28		

Tubes	15 ml Falcon	9-10 ml /15 ml	10 ml AOR	13.5 ml	7 ml	5-7 ml	5 ml	1.5/2.2 ml
Tubes Ø x Length (mm)	17 x 122	17/20 x 90-110	16 x 80	16 x 76	12 x 100	13.5/17.5 x 65-90	12 x 75	11 x 40
Material of Tubes + Herolab Cat. No.	Tubes not available from Herolab	Monovettes Tubes not available from Herolab	PC: 25 24 01 PPCO: 25 24 11 PE: 25 24 41 PF: 25 24 51	PP: 25 24 70	Tubes not available from Herolab	Tubes not available from Herolab	B: 25 10 20 PS: 25 22 00 PP: 25 22 30	conical with lid PP: 25 20 50
Necessary Adapter	 Use rotor buckets without lid!							
Herolab Cat. No.	21 14 628	21 14 625	21 14 616		21 14 613	21 14 634	21 14 619	21 14 611
Tubes per Adapter / Rotor	3 / 12	4 / 16	6 / 24		12 / 48	7 / 28	12 / 48	12 / 48

Cat No.	Description	Pieces/Pack
25 10 10	Tubes 3 ml Duran Glass, round bottom	10
25 10 20	Tubes 5 ml Borex Glass, round bottom	10
25 10 40	Tubes 10 ml Duran Glass, round bottom	10
25 10 60	Tubes 10 ml Duran-Glass, conical bottom / graduated	10
25 10 91	Tubes 15 ml High-Speed Glass, round bottom	6
25 11 00	Tubes 12 ml Borex Glass, round bottom	10
25 11 10	Tubes 30 ml Borex Glass, round bottom	10
25 11 41	Tubes 30 ml High-Speed Glass, round bottom	6
25 12 60	Tubes 45 ml Borex Glass, round bottom	10
25 12 80	Tubes 15 ml Duran-Glass, round bottom	10
25 20 00	Tubes 1,0 ml PS, round bottom	1.000
25 20 50	Tubes 1,5 ml PP, conical bottom, with lid (Eppendorf)	1.000
25 22 00	Tubes 5,0 ml PS, round bottom	1.000
25 22 30	Tubes 4,5 ml PP, round bottom	1.000
25 24 01	Tubes 10 ml PC-AOR with lid	10
25 24 11	Tubes 10 ml PPCO-AOR with lid	10
25 24 41	Tubes 10 ml PE-AOR with lid	10
25 24 51	Tubes 10 ml PF-AOR with lid	2
25 24 70	Tubes 13,5 ml PP, round bottom	10
25 26 10	Tubes 13,0 ml PP, round bottom	10
25 26 20	Tubes 17,0 ml PA thin-walled, Ultra Centrifuge Tubes	50
25 26 40	Tubes 17,0 ml PC thick-walled, Ultra Centrifuge Tubes	50
25 27 00	Tubes 16 ml PC, round bottom / with rim	10
25 27 20	Tubes 16 ml PPCO, Round bottom / with rim	10
25 27 40	Tubes 16 ml PE, round bottom / with rim	10
25 27 51	Tubes 16 ml PF, round bottom / with rim	2
25 29 51	Tubes 30 ml PC-AOR with lid	10
25 29 61	Tubes 30 ml PPCO-AOR with lid	10
25 29 65	Tubes 30 ml PE-AOR with lid	10
25 29 71	Tubes 30 ml PF-AOR with lid	2
25 31 00	Tubes 50 ml PC, round bottom / with rim	10
25 31 05	Tubes 50 ml PC, round bottom / with rim and Loop Cap	10
25 31 30	Tubes 50 ml PE, round bottom / with rim	10
25 31 45	Tubes 50 ml PPCO, round bottom / with rim and Loop Cap	10
25 31 51	Tubes 50 ml PF, round bottom / with rim	2
25 31 60	Tubes 50 ml PPCO, round bottom / with rim	10
25 32 01	Tubes 50 ml PC-AOR with lid	10
25 32 11	Tubes 50 ml PPCO-AOR with lid	10
25 32 15	Tubes 50 ml PE-AOR with lid	10
25 32 21	Tubes 50 ml PF-AOR with lid	2
25 32 41	Tubes 80 ml PC-AOR with lid	10
25 32 45	Tubes 80 ml PPCO-AOR with lid	10
25 32 47	Tubes 80 ml PE-AOR with lid	10
25 32 49	Tubes 80 ml PF-AOR with lid	2
25 32 50	Tubes 94 ml PP, Round bottom	10
25 32 60	Tubes 94,0 ml PA thick-walled, Ultra Centrifuge Tubes	25
25 32 80	Tubes 94,0 ml PC thick-walled, Ultra Centrifuge Tubes	25
25 32 90	Tubes 94,0 ml PC thick-walled with thread, Ultra Centrifuge Tubes	25
25 33 20	Tubes 100 ml PC, round bottom / graduated	10
25 33 30	Tubes 100 ml PP, round bottom	10
25 33 71	Bottles 200 ml PC, flat bottom, with lid	6
25 33 73	Bottles 200 ml PPCO, flat bottom, with lid	6
25 33 75	Bottles 200 ml PC, conical bottom, with lid	6
25 33 77	Bottles 200 ml PPCO, conical bottom, with lid	6

B	Borex Glass	AOR	Advanced Oak Ridge	PE	Polyethylene	PPCO	Polypropylene Copolymer
D	Duran Glass	PA	Polyallomer	PF	Polyflor®	PS	Polystyrene
HS	High-Speed Glass	PC	Polycarbonate	PP	Polypropylene		