

UNIVERSAL 32

Hettich
ZENTRIFUGEN



DJB Labcare - The UK's Leading Centrifuge Specialist
info@djblabcare.co.uk 01908 612598
Benchtop Centrifuges,
non-refrigerated and refrigerated

UNIVERSAL 32

The sedimentation of cells, bacteria, yeasts, DNA/RNA and protein precipitates is workaday routine in basic research and R&D laboratories of the pharmaceutical and biotechnical industry. A centrifuge, therefore, simply needs to be "universal".

UNIVERSAL 32 means perfectly smooth running at both high and low speeds, versatile and easily exchangeable accessories and small footprint.

This is why UNIVERSAL 32 centrifuges are requisite in every laboratory.

In the low speed range (max. RCF 4,193) the UNIVERSAL 32/32 R accommodate standard tubes up to a volume of 100 ml, microtitre plates, Falcon® tubes, blood collection tubes and cyto accessories.

Microlitre tubes can be accelerated to a max. RCF of 23,907.

Centrifuge tubes taking higher volumes (up to 85 ml) also profit from the extraordinary motor power of the UNIVERSAL 32/32 R: At an RCF of 9,418 bacteria and yeasts sediment fast and easily.

UNIVERSAL 32 centrifuges in brief

Performance

High RCF

85 ml tubes up to an RCF of 9,418, microlitre tubes up to an RCF of 23,907.

Extremely short run-up and run-down times
also with rotors reaching higher speeds.

Efficient cooling

temperature in the UNIVERSAL 32 R is controllable within a range of -20°C to +40°C.

On option, the UNIVERSAL 32 R is also available in a heating version with temperature control from -20°C to +90°C and a heating/cooling version with temperature control from -20°C to +60°C.

Extensive range of accessories
comprising swing-out rotors, angle rotors, hygienic buckets, and adapters for a large variety of centrifuge tubes.

Technology

Special lid locking device

effortless closing and opening of the lid with one hand.

Ergonomically arranged controls and displays

Viewing port in the lid

3 complete running programmes
can be stored and recalled

Safety

Metal housing and lid

Centrifuging chamber of stainless steel

Lid dropping protection

Lid locking and holding during rotor run

Emergency lid lock release

Motor overheating protection

Chamber overheating protection with UNIVERSAL 32 R

Imbalance switch-off

Easily exchangeable rotors

Automatic rotor recognition



Hettich manufactures high quality centrifuges.

All stages from design to end product are continually subjected to strictest controls.

Evidence of conformity with national and international regulations such as IEC 1010-2.2 and EC standards is provided by corresponding certificates.

Of course, Hettich centrifuges are CE marked.

The ISO 9001 certificate accredited to the entire company proves the extreme care and responsibility Hettich puts into the manufacture of centrifuges and their accessories.

Therefore, Hettich centrifuges are known for safety and reliability all over the world.

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UNIVERSAL 32 R

refrigerated benchtop centrifuge
dimensions (HxWxD): 300 x 420 x 660 mm
Cat.-No. **1610**



UNIVERSAL 32

benchtop centrifuge
dimensions (HxWxD):
300 x 420 x 490 mm
Cat.-No. **1605**

The fully developed up-to-date N control panel meets the requirements of the users and is extremely easy to operate.

Entry of the parameters is fast, precise and convenient with selector keys on the water-protected foil keypad.

The large display is well readable. During centrifugation the actual values of the parameters are indicated.

The parameters remain in the memory even after the centrifuge has been switched off.

Speed RPM: Input in increments of 10.

Relative centrifugal force RCF: Input in increments of 10.

Change-over RPM/RCF: By entering the rotor radius r/mm the centrifuge calculates and indicates speed or RCF.

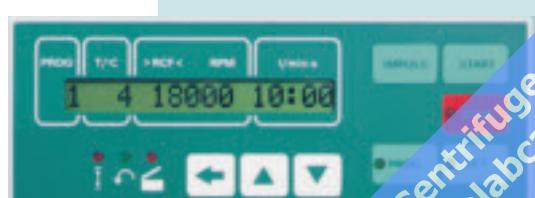
Running time t: Input in minutes and seconds, max. 99 min, 59 sec.

Run-up/run-down times: Input of acceleration and braking ramps in levels 1 - 9 or unbraked run-down.

Temperature T: With refrigerated models input in increments of 1°C within a range of -20 °C to +40 °C.

Memory: 3 complete running programmes can be stored and recalled.

Impulse key: For short centrifuging operations. The rotor spins at the preselected speed or RCF as long as the key remains pressed.



Accessories

**High performance and large capacity
on very little space**

... regarding tubes

28 x 15 ml or 4 x 100 ml standard tubes,
24 hematocrit capillaries,
8 x 15/50 ml Falcon^{® 2)} tubes,
4 microtitre plates or 2 culture plates,
8 slide carriers for cyto preparations,
28 Monovettes^{® 3)} or 20 Vacutainers^{® 2)},
6 x 85 ml Nalgene^{® 4)} tubes,
30 x 1.5/2.0 ml microlitre tubes.

... regarding rotors

rotor for hygienic suspensions, max. RCF 2,655,
rotor for Falcon^{® 2)} tubes, max. RCF 3,857,
rotor for microtitre or culture plates, max. RCF 2,093,
rotor for 8 cyto suspensions, max. RCF 2,218,
angle rotor for 6 x 85 ml Nalgene^{® 4)} tubes, max. RCF 9,418,
angle rotors for 12 or 30 microlitre tubes of 0.4 - 2.0 ml,
max. RCF 23,907.



**Swing-out rotor, 4-place,
 $n = 4,000 \text{ min}^{-1}$, RCF 2,665**

Cat.-No. **1624** without buckets

illustrated with suspensions No.1369

capacity in ml	1.5	2.0	1	3	4
dimensions Ø x L mm	11 x 38	11 x 38	6x45 rhesus	10 x 60	12 x 60
Cat.-No.	2078	0536	-	-	-
Cat.-No. 1366	5277	5277	1357	1327	1326
Cat.-No.	5277	5277	1357	1327	1326
tubes per rotor	36	36	120	48	
RCF	1,968	1,968	1,950	1,932	
radius in mm	110	110	109	108	
run-up in sec			30		
run-down in sec		36		380	
temperature °C ¹⁾				- 15	

capacity in ml	5	5	7	9	15	20	45	50	9	15	25	50	
dimensions Ø x L mm	12 x 75	12 x 75	12 x 100	14 x 100	17 x 100	21 x 100	31 x 100	34 x 100	14 x 100	17 x 100	24 x 100	34 x 100	
Cat.-No.	-	-	0578	0500	0507	-	-	0521	0500	0507	0519	0521	
Cat.-No. 1624													
Cat.-No.	1369-91	1372	1369-92	1370	1369	1346	1345	1308	1741	1742	1745	1746	
tubes per rotor	16	68	16	20	16	8	4	4	40	28	8	4	
RCF	2,236	2,164	2,361	2,361	2,361	2,361	2,451	2,325	2,415	2,451	2,451	2,451	
radius in mm	125	121	132	132	132	132	137	130	135	137	137	137	
run-up in sec						30				32			
run-down in sec							36		380		37		450
temperature °C ¹⁾						- 15				- 5			

braked run-down at level 9
 unbraked run-down

¹⁾ Lowest attainable temperature in the UNIVERSAL 32 R at max. speed.

Adapters for additional tubes on request

Please take care not to exceed the tubes' max. permissible RCF. For g-tube the max. RCF is 4,000

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2) Registered trademark of Becton Dickinson
3) Registered trademark of Sarstedt
4) Registered trademark of Nalge Nunc International



**Swing-out rotor, 4-place,
n = 4,000 min⁻¹, RCF 2,665**

Cat.-No. 1624 without buckets

illustrated with buckets No.1381 and hygienic lids No.1382

Hettich rotors are designed for continuous duty and long service life.

Customers' requirements and demands on safety as well as easy handling have been considered.

The automatic rotor recognition system defines the max. speed of each rotor so that it cannot be stressed beyond its design limits.

A rubber stopper for closing the tube is available with Cat.-No. 0535

 braked run-down at level 9

1) Lowest attainable temperature in the UNIVERSAL 32 R at max. speed.

Adapters for additional tubes on request

Accessories



↗ 45°



↗ 90°



↗ 75°

**Swing-out rotor, 8-place,
n = 5,000 min⁻¹, RCF 3,857**

Cat.-No. **1617** with suspensions

**Swing-out rotor, 6-place,
n = 4,000 min⁻¹, RCF 2,701**

Cat.-No. **1619** with suspensions

**Swing-out rotor, 12-place,
n = 4,500 min⁻¹, RCF 3,396**

Cat.-No. **1628** without suspensions
illustrated with suspensions No. 1621

capacity in ml	15	50
dimensions Ø x L mm	17 x 120	29 x 115
Cat.-No.	0509	0513
Cat.-No. 1617		
Cat.-No.	1462	-
tubes per rotor	8	
RCF	3,857	
radius in mm	138	
run-up in sec	32	
run-down in sec	34 350	
temperature °C ¹⁾	- 8	

capacity in ml	15	50
dimensions Ø x L mm	17 x 120	29 x 115
Cat.-No.	0509	0513
Cat.-No. 1619		
Cat.-No.	1462	-
tubes per rotor	6	
RCF	2,701	
radius in mm	151	
run-up in sec	30	
run-down in sec	34 250	
temperature °C ¹⁾	- 12	

capacity in ml	5	10	15	1.6-5
dimensions Ø x L mm	12 x 75	17 x 70	17 x 100	13 x 75
Cat.-No.	-	2079	0507	blood collection tube
Cat.-No. 1628				
Cat.-No.	1127	1122	1621	1127
tubes per rotor	12	12	12	12
RCF	2,807	2,853	3,396	2,807
radius in mm	124	126	150	124
run-up in sec	32			
run-down in sec	34 250			
temperature °C ¹⁾	- 20	- 15	- 20	- 20



↗ 90°

**Swing-out rotor, 8-place,
n = 4,000 min⁻¹, RCF 2,415**

Cat.-No. **1611** without suspensions

illustrated with suspensions No. 1644

capacity in ml	5	10	10	15	2.6-2.9	4-5.5	1.6-5	4-7
dimensions Ø x L mm	12 x 75	17 x 70	13 x 100	17 x 100	13 x 65	15 x 75	13 x 75	13 x 100
Cat.-No.	-	2079	-	0507	blood collection tubes			
Cat.-No. 1611								
Cat.-No.	1131	1132	1643	1644	1131	1132	1643	
tubes per rotor	8		8					
RCF	1,914		2,415					
radius in mm	107		135					
run-up in sec	23		25					
run-down in sec	31 100		32 120		31 100	32 120	32 / 120	
temperature °C ¹⁾	- 20		- 18		- 20		- 18	

braked run-down at level 9
 unbraked run-down

¹⁾ Lowest attainable temperature in the
UNIVERSAL 32 R at max. speed.

Adapters for additional tubes on request

Please take care not to exceed the tubes' max. permissible RCF. For 8/10 tubes the max. RCF is 4,000

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∠45°

**Angle rotor, 12-place,
n = 18,000 min⁻¹, RCF 23,907**

Cat.-No. **1612**



∠35°

**Angle rotor, 12-place,
n = 6,000 min⁻¹, RCF 4,105**

Cat.-No. **1613**



∠35°

**Angle rotor, 6-place,
n = 9,000 min⁻¹, RCF 9,418**

Cat.-No. **1620 A**

capacity in ml	0.4	0.5	0.8	1.5	2.0
dimensions Ø x L mm	6 x 45	8 x 30	8 x 45	11 x 38	11 x 38
Cat.-No.	-	-	-	2078	0536
Cat.-No. 1612					
Cat.-No.	2024	2023	2023	-	-
tubes per rotor	12				
RCF	23,907				
radius in mm	66				
run-up in sec	14				
run-down in sec	<input checked="" type="checkbox"/> 18	<input type="checkbox"/> 280			
temperature °C ¹⁾	- 8				

capacity in ml	5	15	15
dimensions Ø x L mm	12 x 75	17 x 100	17 x 120
Cat.-No.	-	0507	0509
Cat.-No. 1613			
Cat.-No.	1056	-	-
tubes per rotor	12	12	6
RCF	3,461	4,105	
radius in mm	86	102	
run-up in sec	19		
run-down in sec	<input checked="" type="checkbox"/> 26	<input type="checkbox"/> 580	
temperature °C ¹⁾	- 18		

capacity in ml	1.5	2.0	10	15	30	50	50	85	9 - 10	15	50	50
dimensions Ø x L mm	11 x 38	11 x 38	16 x 80	17 x 100	26 x 95	29 x 107	35 x 105	38 x 106	16 x 92	17 x 120	29 x 115	29 x 115
Cat.-No.	2078	0536	-	0507	0545	0546	0548	0547	blood collection tube	0509	0513	0513
Cat.-No. 1620 A												
Cat.-No.	1449	1449	1448	1451	1447	1446	1463	-	1451	1466	1454	1646
tubes per rotor	24	24	12	6	6	6	6	6	6	6	6	6
RCF	9,146	9,146	8,784	8,784	8,603	9,056	9,327	9,418	8,784	8,965	8,965	
radius in mm	101	101	97	97	95	100	103	104	97	99	99	
run-up in sec	50											
run-down in sec	<input checked="" type="checkbox"/> 56 <input type="checkbox"/> 1260											
temperature °C ¹⁾	- 6											

braked run-down at level 9
 unbraked run-down

¹⁾ Lowest attainable temperature in the UNIVERSAL 32 R at max. speed.

²⁾ Adapter set, 6-place, for conical 50 ml tubes with screw cap

Adapters for additional tubes on request

Please take care not to exceed the tubes' max. permissible RCF. For glass tubes the max. RCF is 4,000

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↗35°

**Angle rotor, 12-place,
n = 12,000 min⁻¹, RCF 16,421,
UNIVERSAL 32 R
n = 9,000 min⁻¹, RCF 9,237,
UNIVERSAL 32**

Cat.-No. **1615**

capacity in ml	5	15
dimensions Ø x L mm	12 x 75	17 x 100
Cat.-No.	-	0507
UNIVERSAL 32 R	3)	3)
Cat.-No. 1615		
Cat.-No.	1056	-
tubes per rotor	12	12
RCF	13,845	16,421
radius in mm	86	102
run-up in sec	41	
run-down in sec	□ 46 □ 780	□ 43 □ 625
temperature °C ¹⁾	+ 4	



**Hematocrit rotor, 24-place,
n = 15,000 min⁻¹, RCF 21,382,
UNIVERSAL 32 R
n = 9,000 min⁻¹, RCF 7,697,
UNIVERSAL 32**

Cat.-No. **1650**

5	15	
12 x 75	17 x 100	
Cat.-No.	-	0507
UNIVERSAL 32	3)	
Cat.-No. 1056	-	
Cat.-No.	1056	
tubes per rotor	12	
RCF	7,788	
radius in mm	86	
run-up in sec	41	
run-down in sec	□ 43 □ 625	
temperature °C ¹⁾	-	

	capillaries	capillaries, mylar-coated	capillaries, self-sealing
Cat.-No.	2074	1072	1071
Cat.-No. 1650	UNIVERSAL 32 R	sealing putty	
Cat.-No.	2077	-	
capillaries per rotor	24		
RCF	21,382		
radius in mm	85		
run-up in sec	15		
run-down in sec	□ 19 □ 185		
temperature °C ¹⁾	-5		

	capillaries	capillaries, mylar-coated	capillaries, self-sealing
Cat.-No.	2074	1072	1071
UNIVERSAL 32	sealing putty		
Cat.-No. 2077	-		
24			
7,697			
85			
14			
□ 18 □ 160			
-			



**Swing-out rotor, 2-place,
n=4,000 min⁻¹, RCF 2,093**

Cat.-No. **1622** with suspensions

□ braked run-down at level 9
□ unbraked run-down

¹⁾ Lowest attainable temperature in the
UNIVERSAL 32 R at max. speed.

	Microtitre Plate	Culture Plate
Cat.-No.	1622	
plates per rotor	4	2
RCF	2,093	
radius in mm	117	
run-up in sec	30	
run-down in sec	□ 36 □ 450	
temperature °C ¹⁾	-12	



Cyto rotor, 6-place

Cat.-No. **1626** without suspensions
illustrated with suspensions
No. 1660 and lids No. 1651

More information is available
in a detailed cyto brochure.
Please ask for it!

Adapters for additional tubes on request

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Accessories for UNIVERSAL 32 R only



↗ 90°

**Swing-out rotor, 4-place,
n = 4,000 min⁻¹, RCF 1,896**

Cat.-No. **1645** without suspensions
illustrated with suspensions No. 4345



↗ 45°

**Angle rotor, 30-place,
n = 14,000 min⁻¹, RCF 21,255**

Cat.-No. **1689**
aerosol-tight²⁾

	Microtitre Plate	Culture Plate
Cat.-No. 1645		

Cat.-No.	4345
plates per rotor	4
RCF	1,896
radius in mm	106
run-up in sec	44
run-down in sec	█ 54 █ 815
temperature °C ¹⁾	- 18

█ braked run-down at level 99

█ unbraked run-down

1) Lowest attainable temperature at max. speed in the refrigerated UNIVERSAL 32 R.

2) In compliance with
DIN EN 61010, part 2-020

capacity in ml	0.4	0.5	0.8	1.5	2.0
dimensions Ø x L mm	6 x 45	8 x 30	8 x 45	11 x 38	11 x 38
Cat.-No.	-	-	-	2078	0536
Cat.-No. 1689					
				with high speeds we recommend to use adapter No. 2031	
Cat.-No.	2024	2023	2023	-	-
tubes per rotor			30		
RCF				21,255	
radius in mm				97	
run-up in sec				27	
run-down in sec				█ 34 █ 1700	
temperature °C ¹⁾				+ 2	

Adapters for additional tubes on request

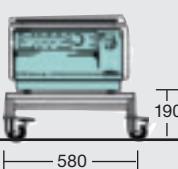
Save space on the laboratory bench and gain more flexibility
...with trolleys and rolling cabinets for Hettich centrifuges.

All models are of sturdy design and feature large castors and two locks.

Any vibrations of the centrifuge are safely compensated.

low and narrow
depth 580 mm

Cat.-No. **4308**



low and narrow,
with one drawer
depth 650 mm

Cat.-No. **4612**



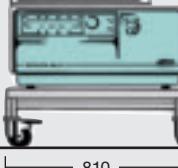
high and narrow,
with two drawers
depth 650 mm

Cat.-No. **4613**



low and wide
depth 580 mm

Cat.-No. **4318**



low and wide,
with one drawer
depth 650 mm

Cat.-No. **4614**



high and wide,
with two drawers
depth 650 mm

Cat.-No. **4615**



Please take care not to exceed the tubes' max. permissible RCF or glass tubes the max. RCF is 4,000

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Technical Details



UNIVERSAL 32

Benchtop centrifuge, without rotor

Cat.-No. 1605

Cat.-No. 1605-01

UNIVERSAL 32 R

Benchtop centrifuge, refrig., without rotor

Cat.-No. 1610

Cat.-No. 1610-01

Power supply*:	220 - 240 V 1~	110 - 127 V 1~	230 - 240 V 1~	110 - 127 V 1~
----------------	----------------	----------------	----------------	----------------

 Frequency: | 50 - 60 Hz | 50 - 60 Hz | 50 - 60 Hz | 60 Hz | Consumption: | 400 VA | 450 VA | 950 VA | 1000 VA | Radio interference: | EN 55011 ISM cl.B | FCC class B | EN 55011 ISM cl.B | FCC class B | Immunity: | EN 61000-6-2 | - | EN 61000-6-2 | - |

Capacity:	4 x 100 ml, swing-out rotor
-----------	-----------------------------

 Speed/RCF: | $n = 18,000 \text{ min}^{-1} / \text{RCF } 23,907$ | Centrifuging chamber temperature: | controllable from -20°C to +40°C | Running time: | 1-99 min, ∞ (continuous run), impulse key (short cycle mode) |

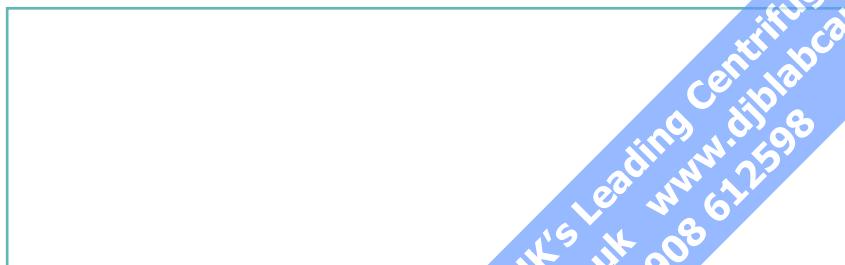
Dimensions (HxWxD):	300 x 420 x 490 mm	300 x 420 x 660 mm
---------------------	--------------------	--------------------

 Weight: | approx . 24 kg | approx . 46 kg |

* other voltages on request

Design

Housing and lid of metal for safety. Panelling finished in a scratch and impact resistant coating. Centrifuging chamber and inner lid of stainless steel. Lid locking, lid holding, and imbalance switch-off are standard.



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