

**Benchtop  
Centrifuge**

# HT1103

## Maximum performance in microlitre centrifugation coupled with reliability in daily laboratory routine

HT1103 - powerful and versatile not only in microlitre centrifugation. Equipped with a variable, maintenance-free frequency drive and the Hettich N control panel the centrifuge generates a max. RCF of 23,907 at a speed of 18,000 min<sup>-1</sup>.

With an extensive range of rotors the HT1103 meets all demands required of a small high-performance centrifuge today.

### HT1103 in Brief

#### Performance

##### High RCF

up to 3,904 with 50 ml tubes,  
up to 23,907 with microlitre tubes.

Extremely short **run-up** and  
**run-down times**.

##### Wide range of accessories

angle and swing-out rotors, adapters  
for many different centrifuge tubes.

#### Technology

##### Twist lock

for effortless opening and closing  
of the lid.

##### Ergonomically arranged controls and displays

Viewing port in the lid

3 complete running programmes  
can be stored and recalled.

#### Safety

Housing and lid of metal

Centrifuge chamber of  
stainless steel

Lid locking and holding during  
rotor run

Lid dropping protection

Emergency lid lock release

Imbalance switch-off

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.

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.



#### HT1103

Dimensions (H x W x D):  
247 x 275 x 330 mm

Cat.-No. **1004**













# Accessories



<math>\le 35^\circ</math>

**Angle rotor, 6-place,  
n = 6,000 min<sup>-1</sup>, RCF 3,904**

Cat.-No. **1116**

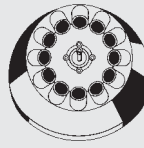







capacity in ml	7	15	25	30	50	50	15	50	10
dimensions Ø x L mm	12 x 100	17 x 100	24 x 100	26 x 95	29 x 107	34 x 100	17 x 120	29 x 115	16 x 92
<b>Cat.-No.</b>	<b>0578</b>	<b>0518</b>	<b>0519</b>	<b>0545</b>	<b>0546</b>	<b>0521</b>	<b>0509</b>	<b>0513</b>	blood collection tube
									
<b>Cat.-No. 1116</b>									
<b>Cat.-No.</b>	<b>1632</b>	<b>1635</b>	<b>1633</b>	<b>1633</b>	<b>1634</b>	–	<b>1631</b>	<b>1641</b>	<b>1635</b>
tubes per rotor	18	6	6	6	6	6	6	3	6
RCF	3,824	3,703	3,622	3,622	3,783	3,904	3,743	3,824	3,703
radius in mm	95	92	90	90	94	97	93	95	92
run-up in sec	23								
run-down in sec	27  624 								





<math>\le 35^\circ</math>

**Angle rotor, 12-place,  
n = 6,000 min<sup>-1</sup>, RCF 4,105**

Cat.-No. **1416**

capacity in ml	5	15	15	1.6 - 5	4 - 7
dimensions Ø x L mm	13 x 75	17 x 100	17 x 120	13 x 75	13 x 100
<b>Cat.-No.</b>	–	<b>0518</b>	<b>0509</b>	blood collection tubes	
					
<b>Cat.-No. 1416</b>					
<b>Cat.-No.</b>	<b>1054</b>	–	–	<b>1054</b>	–
tubes per rotor	12	12	6	12	12
RCF	3,300	4,146	4,146	3,300	4,146
radius in mm	82	103		82	103
run-up in sec	18				
run-down in sec	23  391 				

 braked run-down at level 9  
 unbraked run-down

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 minutes.

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

**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.



<sup>2)</sup> For glass tubes the max. RCF is 4,000.

Please take care not to exceed the tubes' max. permissible RCF.

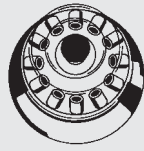


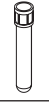

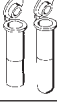



<sup>2)</sup> For glass tubes the max. RCF is 4,000.



∠45°

**Angle rotor, 12-place,**  
**n = 18,000 min<sup>-1</sup>, RCF 23,907**

Cat.-No. **1112**




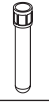

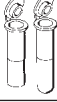



capacity in ml	0.2 / 0.4	0.5	0.8	1.5	2.0
dimensions Ø x L mm	6 x 18/45	8 x 30	8 x 45	11 x 38	11 x 38
<b>Cat.-No.</b>	-	-	-	<b>2078</b>	<b>0536</b>
 Cat.-No. <b>1112</b>					
				when centrifuging at high speeds we recommend to use adapter No. 2031	
<b>Cat.-No.</b>	<b>2024</b>	<b>2023</b>	<b>2023</b>	-	-
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"/> 172				



∠45°

**Angle rotor, 24-place,**  
**n = 15,000 min<sup>-1</sup>, RCF 21,885**

Cat.-No. **1095** aerosol-tight <sup>1)</sup>

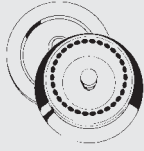


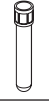

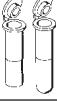



capacity in ml	0.2 / 0.4	0.5	0.8	1.5	2.0
dimensions Ø x L mm	6 x 18/45	8 x 30	8 x 45	11 x 38	11 x 38
<b>Cat.-No.</b>	-	-	-	<b>2078</b>	<b>0536</b>
 Cat.-No. <b>1095</b>					
				when centrifuging at high speeds we recommend to use adapter No. 2031	
<b>Cat.-No.</b>	<b>2024</b>	<b>2023</b>	<b>2023</b>	-	-
tubes per rotor	24				
RCF	21,885				
radius in mm	87				
run-up in sec	32				
run-down in sec	<input checked="" type="checkbox"/> 32 <input type="checkbox"/> 690				



∠45°

**Angle rotor, 30-place,**  
**n = 14,000 min<sup>-1</sup>, RCF 21,255**

Cat.-No. **1089** aerosol-tight <sup>1)</sup>

capacity in ml	0.2 / 0.4	0.5	0.8	1.5	2.0
dimensions Ø x L mm	6 x 18/45	8 x 30	8 x 45	11 x 38	11 x 38
<b>Cat.-No.</b>	-	-	-	<b>2078</b>	<b>0536</b>
 Cat.-No. <b>1089</b>					
				when centrifuging at high speeds we recommend to use adapter No. 2031	
<b>Cat.-No.</b>	<b>2024</b>	<b>2023</b>	<b>2023</b>	-	-
tubes per rotor	30				
RCF	21,255				
radius in mm	97				
run-up in sec	40				
run-down in sec	<input checked="" type="checkbox"/> 40 <input type="checkbox"/> 800				

braked run-down at level 9

unbraked run-down

<sup>1)</sup> In compliance with DIN EN 61010, part 2-020

Please take care not to exceed the tubes' max. permissible RCF. <sup>2)</sup> For glass tubes the max. RCF is 4,000.

Please take care not to exceed the tubes' max. permissible RCF.

# Accessories



<math>\leq 55^\circ</math>

**Swing-out rotor, 8-place,  
n = 5,000 min<sup>-1</sup>, RCF 2,879**
















Cat.-No. **1114**














<math>\leq 50^\circ</math>

**Swing-out rotor, 6-place,  
n = 5,000 min<sup>-1</sup>, RCF 2,879**

Cat.-No. **1115**

capacity in ml	5	10	1.6 - 5	2.6 - 2.9	2.7 - 3	4 - 5.5
dimensions Ø x L mm	12 x 75	17 x 70	13 x 75	13 x 65	11 x 66	15 x 75
<b>Cat.-No.</b>	-	<b>2079</b>	blood collection tubes			
 Cat.-No. <b>1114</b>						
						
<b>Cat.-No.</b>	<b>1127</b>	<b>1122</b>	<b>1127</b>	<b>1127</b>	<b>1127</b>	<b>1122</b>
tubes per rotor	8					
RCF	2,879					
radius in mm	103					
run-up in sec	9					
run-down in sec	 14  122					

capacity in ml	5	10	15
dimensions Ø x L mm	12 x 75	17 x 70	17 x 100
<b>Cat.-No.</b>	-	<b>2079</b>	<b>0518</b>
 Cat.-No. <b>1115</b>			 <sup>2)</sup>
			
<b>Cat.-No.</b>	<b>1123/1054</b>	<b>1123/2 x 0716</b>	<b>1123</b>
tubes per rotor	6		
RCF	2,292	2,739	2,879
radius in mm	82	98	103
run-up in sec	8		
run-down in sec	 12  72		

 braked run-down at level 9  
 unbraked run-down

<sup>2)</sup> For glass tubes the max. RCF is 4,000.

Please take care not to exceed the tubes' max. permissible RCF. <sup>2)</sup> For glass tubes the max. RCF is 4,000.

# Accessories



<35°

**Angle rotor, 12-place,  
n = 5,000 min<sup>-1</sup>, RCF 2,879**

Cat.-No. **1118**

capacity in ml	5	7
dimensions Ø x L mm	12 x 75	12 x 100
<b>Cat.-No.</b>	-	<b>0578</b>
<b>Cat.-No.</b>	-	-
tubes per rotor	12	
RCF	2,879	
radius in mm	103	
run-up in sec	10	
run-down in sec	13          133	



<90°

**Swing-out rotor, 8-place,  
n = 5,000 min<sup>-1</sup>, RCF 2,879**

Cat.-No. **1120**

capacity in ml	5	6	10	1.6 - 5	4 - 7	2.6 - 2.9	2.7 - 3	4 - 5.5
dimensions Ø x L mm	12 x 75	12 x 82	17 x 70	13 x 75	16 x 75	13 x 65	11 x 66	15 x 75
<b>Cat.-No.</b>	-	<b>0501</b>	<b>2079</b>	<b>blood collection tubes</b>				
		<sup>2)</sup>						
<b>Cat.-No.</b>	<b>1131</b>	<b>1131</b>	<b>1132</b>	<b>1131</b>	<b>1132</b>	<b>1131</b>	<b>1131</b>	<b>1132</b>
tubes per rotor	8							
RCF	2,879							
radius in mm	103							
run-up in sec	8							
run-down in sec	12          86							

braked run-down at level 9  
 unbraked run-down

Please take care not to exceed the tubes' max. permissible RCF. <sup>2)</sup> For glass tubes the max. RCF is 4,000.

Please take care not to exceed the tubes' max. permissible RCF.

# Accessories



<math>\angle 70^\circ</math>



**Swing-out rotor, 12 - place,  
n = 5,000 min<sup>-1</sup>, RCF 2,879**









Cat.-No. **1126**

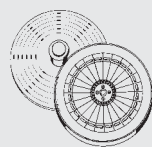







**Hematocrit rotor, 24 - place,  
n = 15,000 min<sup>-1</sup>, RCF 21,382**

Cat.-No. **1450**

 braked run-down at level 9  
 unbraked run-down

capacity in ml	5	1.6 - 5	2.6 - 2.9	2.7 - 3
dimensions Ø x L mm	12 x 75	13 x 75	13 x 65	11 x 66
<b>Cat.-No.</b>	-	<b>blood collection tubes</b>		
 Cat.-No <b>1126</b>				
				
<b>Cat.-No.</b>	<b>1127</b>			
tubes per rotor	12			
RCF	2,879			
radius in mm	103			
run-up in sec	10			
run-down in sec	 15  165			

	capillaries, heparinized	capillaries, heparinized mylar-coated	capillaries, heparinized self- sealing, mylar-coated
<b>Cat.-No.</b>	<b>2074</b>	<b>1072</b>	<b>1071</b>
 Cat.-No <b>1450</b>			
	sealing putty	sealing putty	
<b>Cat.-No.</b>	<b>2077</b>	<b>2077</b>	-
capillaries per rotor	24		
RCF	21,382		
radius in mm	85		
run-up in sec	8		
run-down in sec	 12  117		

<sup>2)</sup> For glass tubes the max. RCF is 4,000.

Please take care not to exceed the tubes' max. permissible RCF.

<sup>2)</sup> For glass tubes the max. RCF is 4,000.

# Technical Details



**HT1103**  
Benchtop centrifuge, without rotor  
Cat. No.: 1004

**HT1103**  
Benchtop centrifuge, without rotor  
Cat. No.: 1004 - 01

** Power supply:	220 - 240 V 1~	110 - 127 V 1~
Frequency:	50 - 60 Hz	50 - 60 Hz
Consumption:	500 VA	550 VA
Radio interference:	EN 55011 ISM class B	FCC class B
Immunity:	EN 50082	
*Capacity:	6 x 50 ml	
* Speed / * RCF:	n = 18.000 min <sup>-1</sup> / RCF 23.907	
Running time:	1-99 min, ∞ (continuous run), short cycle mode (in sec.)	
Dimensions (HxWxD):	247 x 275 x 330 mm	
Weight:	approx. 11 kg	

\*maximum    \*\*other voltages on request

## Design:

Housing and lid of metal for safety. Coating finished in scratch and impact resistant plastic. Centrifuging chamber of stainless steel. Lid locking, lid holding, twist lock, and imbalance switch-off are standard.



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**Hettich**  
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