



## **CYTO SYSTEM**

Cytological preparations –  
safe and economic



# HETTICH CYTO SYSTEM

## — Cytological preparations – safe and economic

Rising demands on security or flexibility as well as time and cost pressures represent a large challenge for today's cytology laboratory. Hettich's three cyto systems are available to tackle these challenges. Reliable, flexible and cost-saving solutions – all IvD-compliant according to EU Directive 98/79/EC.

### SYSTEM 1

System 1 is particularly suitable for a high sample throughput thanks to its 12-place rotor. In addition, the autoclavable swing-out rotor with a TÜV certified, bioseal rotor lid provides maximum safety. This system can be used in two proven Hettich benchtop centrifuges, offers comprehensive accessories and is very easy to handle. The end result is an optimal cell presentation.



#### Benefits:

- Closed, autoclavable rotor with Bio-Seal lid
- 12-place swing-out rotor for maximum sample throughput
- Large selection of cytochambers for single and multiple use. Re-usable cytochambers are autoclavable
- Easy handling
- Good cell representation

### SYSTEM 2

This system offers you the highest possible flexibility. On the one hand, volumes between 1 and 8 ml can be prepared while up to 8 cell sediments can fit on a single slide. In addition, this accessory can be used in many Hettich centrifuges, often without rotor replacement. This accessory is inexpensive and is characterized by a high, representative cell yield.



#### Benefits:

- Large variety of accessories
- Flexible sample volumes
- Can be used with and without filter cards, depending on application and requirements.
- Very high cell yield

### SYSTEM 3

System 3 combines the easy handling of System 1 with the flexibility and price advantage of System 2. It can operate in a variety of Hettich centrifuges and, like System 1, requires only a single centrifugation step to arrive at a dry cell pellet. The three different sediment size options give a distinct advantage.



#### Benefits:

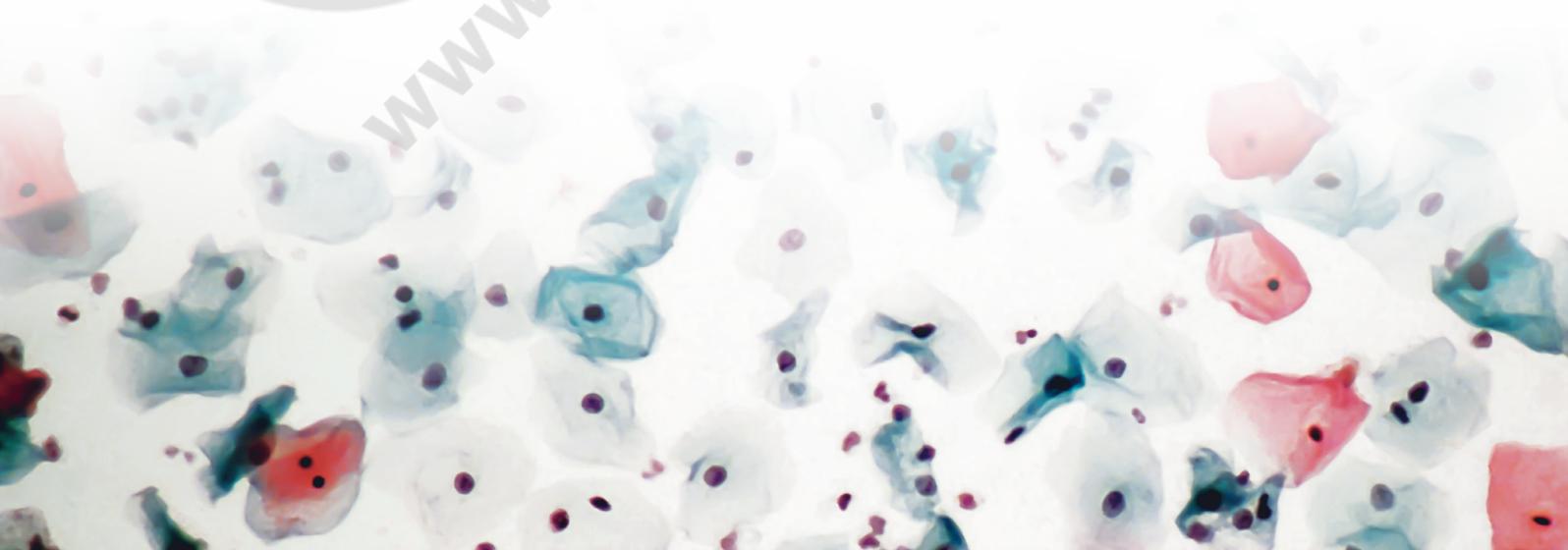
- Easy handling
- Ideal for small sample volumes
- Can be used with and without filter cards, depending on application and requirements. (Dry or moist cell sediment)

— Assembly of a complete cyto insert

System 1	System 2	System 3
 cyto chamber with filter card  Clips  swing-out rotor, 12-place <b>BESTSELLER</b>	 lid  clamping ring  cyto chamber, 1 ml  Slide carrier with filter card  bucket	 lid  cyto chamber  Slide carrier with filter card and clamping ring  bucket

— Your combination possibilities

	System 1	System 2	System 3
ROTOFIX 32 A	•	•	•
UNIVERSAL 320   320 R	•	•	•
ROTINA 380   380 R		•	•
ROTINA 420   420 R		•	
ROTANTA 460   460 R		•	
ROTIKA 500 RS		•	



# SYSTEM 1 – ROTOR AND ACCESSORIES

## — Swing-out rotor

**Swing-out rotor, 12-place**  
For ROTOFIX 32A |  
UNIVERSAL 320 / 320 R



max. RPM   max. RCF	2.000 min <sup>-1</sup>   438
max. capacity	12 cyto chambers
run-up   run-down, braked in sec	19   18
Angle	90°
<b>Cat. No.</b>	<b>1515-A</b>

**Lid bioseal<sup>5)</sup>**



<b>Cat. No.</b>	<b>INCLUSIVE</b>
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**Stand**



<b>Cat. No.</b>	<b>1528</b>
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## — Cyto chambers

**Cyto chambers (disposable)**




capacity in ml	0.5	0.2
area in mm <sup>2</sup>	28.3	28.3
Ø in mm	6	6
<b>Cat. No.</b>	<b>1531 (50 pcs.) 1534 (500 pcs.)</b>	<b>1532 (50 pcs.)</b>

**Cyto chambers (re-usable, autoclavable)**




capacity in ml	0.5	6 <sup>18)</sup>
area in mm <sup>2</sup> / (L x W) in mm	28.3	13.4 x 22
Ø in mm	6	-
<b>Cat. No.</b>	<b>1538 (12 pcs.)</b>	<b>1536 (12 pcs.)</b>

**Clips (autoclavable)**




<b>Cat. No.</b>	<b>1524 (4 pcs.)</b>	<b>1524 (4 pcs.)</b>
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**Clips (autoclavable)**




<b>Cat. No.</b>	<b>1524 (4 pcs.)</b>	<b>1524 (4 pcs.)</b>
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**Filter cards**




<b>Cat. No.</b>	<b>filter card white (inclusive)</b>	<b>filter card brown (inclusive)</b>
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**Filter cards / seals**




<b>Cat. No.</b>	<b>1539 (200 pcs.)</b>	<b>1537 (100 pcs.)</b>
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5 Tested by the TÜV in conformity with DIN EN 61010, section 2 - 020.

18 This is the maximum capacity. The recommended quantity to be used per chamber is 4 ml.



# SYSTEM 2 – ROTOR AND ACCESSORIES

## — Swing-out rotors

### Swing-out rotor, 4-place For ROTOFIX 32A | UNIVERSAL 320 / 320R



max. RPM   max. RCF	4,000 min <sup>1</sup>   2,451
max. capacity	8 cyto chambers
run-up   run-down, braked in sec	22   25
angle	90°
<b>Cat. No.</b>	<b>1624</b>



<b>Bucket</b>	
lid	1661
<b>Cat. No.</b>	<b>1660</b>



### Swing-out rotor, 4-place For UNIVERSAL 320 / 320R



max. RPM   max. RCF	5,000 min <sup>1</sup>   2,879
max. capacity	8 cyto chambers
run-up   run-down, braked in sec	30   32
angle   temperature in °C <sup>1)</sup>	90°   -10
<b>Cat. No.</b>	<b>1494</b>



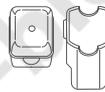
<b>Bucket</b>	
<b>Cat. No.</b>	<b>1452</b>



### Swing-out rotor, 4-place For ROTINA 380 / 380R



max. RPM   max. RCF	4,000 min <sup>1</sup>   2,898
max. capacity	16 cyto chambers
run-up   run-down, braked in sec	24   17
angle   temperature in °C <sup>1)</sup>	90°   -8
<b>Cat. No.</b>	<b>1798</b>



<b>Bucket</b>	
lid	5053
<b>Cat. No.</b>	<b>5051</b>

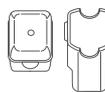
<b>Adapter</b>	
<b>Cat. No.</b>	<b>5280</b>



### Swing-out rotor, 4-place For ROTINA 420 / 420R



max. RPM   max. RCF	4,000 min <sup>1</sup>   2,898
max. capacity	16 cyto chambers
run-up   run-down, braked in sec	18   16
angle   temperature in °C <sup>1)</sup>	90°   -1
<b>Cat. No.</b>	<b>4753</b>



<b>Bucket</b>	
lid	5053
<b>Cat. No.</b>	<b>5051</b>

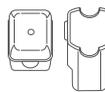
<b>Adapter</b>	
<b>Cat. No.</b>	<b>5280</b>



### Swing-out rotor, 4-place For ROTANTA 460 / 460R / 460 RC / 460 RF



max. RPM   max. RCF	4,000 min <sup>1</sup>   3,095
max. capacity	16 cyto chambers
run-up   run-down, braked in sec	40   45
angle	90°
<b>Cat. No.</b>	<b>5694</b>



<b>Bucket</b>	
lid	5053
<b>Cat. No.</b>	<b>5051</b>

<b>Adapter</b>	
<b>Cat. No.</b>	<b>5280</b>



1 For cooled versions: Lowest temperature achievable with precooling and max. speed.

## Swing-out rotors

### Swing-out rotor, 4-place

For ROTANTA 460 / 460 R / 460 RC / 460 RF



max. RPM   max. RCF	4,600 min <sup>1</sup>   4,069
max. capacity	16 cyto chambers
run-up   run-down, braked in sec	75   88
angle   temperature in °C <sup>1)</sup>	90°   +10
<b>Cat. No.</b>	<b>5699-R</b>



#### Bucket



Cat. No.	5628
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#### Bucket



Cat. No.	5220-A
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#### Adapter



Cat. No.	5280
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### Swing-out rotor, 6-place

For ROTOFIX 32A | UNIVERSAL 320 / 320R



max. RPM   max. RCF	4,000 min <sup>1</sup>   2,039
max. capacity	12 cyto chambers
run-up   run-down, braked in sec	22   25
angle	90°
<b>Cat. No.</b>	<b>1626</b>



#### Bucket



lid	1661
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<b>Cat. No.</b>	<b>1660</b>
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### Swing-out rotor, 6-place

Passend für ROTINA 380 / 380R



max. RPM   max. RCF	4,000 min <sup>1</sup>   2,003
max. capacity	12 cyto chambers
run-up   run-down, braked in sec	19   18
angle   temperature in °C <sup>1)</sup>	90°   -6
<b>Cat. No.</b>	<b>1726</b>



#### Bucket



lid	1661
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<b>Cat. No.</b>	<b>1660</b>
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### Swing-out rotor, 6-place

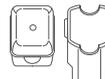
For ROTANTA 460 | 460 R | 460 RC | 460 RF



max. RPM   max. RCF	4,000 min <sup>1</sup>   3,291
max. capacity	24 cyto chambers
run-up   run-down, braked in sec	38   46
angle   temperature in °C <sup>1)</sup>	90°   0
<b>Cat. No.</b>	<b>4446</b>



#### Bucket



lid	5053
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<b>Cat. No.</b>	<b>5051</b>
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#### Adapter



Cat. No.	5280
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### Swing-out rotor, 6-place

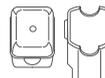
For ROTIXA 500 RS



max. RPM   max. RCF	4,000 min <sup>1</sup>   3,274
max. capacity	24 cyto chambers
run-up   run-down, braked in sec	33   50
angle   temperature in °C <sup>1)</sup>	90°   0
<b>Cat. No.</b>	<b>4296</b>



#### Bucket



lid	5053
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<b>Cat. No.</b>	<b>5051</b>
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#### Adapter



Cat. No.	5280
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<sup>1</sup> For cooled versions: Lowest temperature achievable with precooling and max. speed.

## Cyto chambers

<b>Cyto chambers</b>						
capacity in ml	1	2	4	8	3 x 2	4 x 1
area in mm <sup>2</sup>	30	60	120	240	3 x 60	4 x 30
Ø in mm	6.2	8.7	12.4	17.5	3x8.7	4x6.2
<b>Cat. No.</b>	<b>1663-100</b>	<b>1664-100</b>	<b>1665-100</b>	<b>1666-100</b>	<b>1667-100</b>	<b>1668-100</b>
<b>+</b>						
	Slide carrier with ring	Slide carrier for two chambers	Slide carrier with ring	Slide carrier for two chambers	Slide carrier with ring	Slide carrier for two chambers
<b>Slide carrier (autoclavable)</b>						
<b>Cat. No.</b>	<b>1662</b>	<b>1670</b>	<b>1662</b>	<b>1670</b>	<b>1662</b>	<b>1670</b>
<b>+</b>						
<b>Filter cards for 1662</b>						
<b>Cat. No.</b>	<b>1675 (200 pcs.)</b>	<b>1675 (200 pcs.)</b>	<b>1675 (200 pcs.)</b>	<b>1676 (100 pcs.)</b>	<b>1677 (100 pcs.)</b>	<b>1678 (100 pcs.)</b>
<b>+</b>						
<b>Filter cards for 1670</b>						
<b>Cat. No.</b>	<b>1692 (200 pcs.)</b>	<b>1692 (200 pcs.)</b>	<b>1692 (200 pcs.)</b>	<b>1691 (100 pcs.)</b>	<b>1694 (100 pcs.)</b>	<b>1693 (100 pcs.)</b>



# SYSTEM 3 – ROTOR AND ACCESSORIES

## — Swing-out rotors

### Swing-out rotor, 4-place For ROTOFIX 32 A | UNIVERSAL 320 / 320R



max. RPM   max. RCF	4,000 min <sup>-1</sup>   1,467
max. capacity	4 cyto chambers
run-up   run-down, braked in sec	20   25
angle	90°
<b>Cat. No.</b>	<b>1624</b>



### Bucket



lid	inclusive
<b>Cat. No.</b>	<b>1680</b>



### Swing-out rotor, 6-place For ROTOFIX 32 A | UNIVERSAL 320 / 320R



max. RPM   max. RCF	5,000 min <sup>-1</sup>   1,842
max. capacity	6 cyto chambers
run-up   run-down, braked in sec	20   22
angle	90°
<b>Cat. No.</b>	<b>1626</b>



### Bucket



lid	inclusive
<b>Cat. No.</b>	<b>1680</b>



## — Cyto chambers

### Cyto chambers



area in mm <sup>2</sup>	30	60	120
Ø in mm	6.2	8.7	12.4
<b>Cat. No.</b>	<b>1671-100</b>	<b>1672-100</b>	<b>1673-100</b>



Slide carrier with ring

Slide carrier with ring

Slide carrier with ring

### Slide carrier (autoclavable)



<b>Cat. No.</b>	<b>1662</b>	<b>1662</b>	<b>1662</b>
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### Filter cards



<b>Cat. No.</b>	<b>1696 (100 pcs.)</b>	<b>1697 (100 pcs.)</b>	<b>1698 (100 pcs.)</b>
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Hettich centrifuges, incubators and accessories fulfill all applicable EC directives that apply to you. Every work step is subject to strict controls and documentation. The company is ISO 9001, ISO 13485 and ISO 14001 certified. Hettich products are manufactured with care and responsibility, giving them a worldwide reputation for safety and reliability.



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