

miVac Concentrator Range

Rotors and Spare Parts Brochure



JETROTORS

INCREASE YOUR POWERS OF CONCENTRATION

Part Number 04-5524 Issue 1-16 December 2013

Your local miVac representative will be happy to provide advice on special order items that are not listed in this brochure.

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Introduction

miVac concentrators are designed to combine rapid and safe concentration with high capacity and a wide variety of sample formats. In order to optimise the evaporation performance achieved, it is important to select the correct rotor for your particular application.

miVac rotors are manufactured from solid aluminium to very precise specifications and are mass balanced to ensure smooth running of the concentrator and optimum performance.

This guide will help you make the right choice.

The range

This guide covers the new range of **miVac** sample holders. These holders are easily identifiable as they are coloured black and are made from solid aluminium. Earlier designs are constructed of polypropylene. Should you require an old design of rotor, or a rotor for a tube not listed, please contact your local **miVac** distributor.



Tube holders

The term ***tube holder*** indicates that the sample holder is designed to accommodate a tube with a hemispherical end.

Vial / bottle holders

The term ***vial holder*** or ***bottle holder*** indicates that the sample holder is designed to accommodate a vial or bottle with a flat end.

Conical / tapered tube holders

Tubes with conical or tapered ends are individually identified.

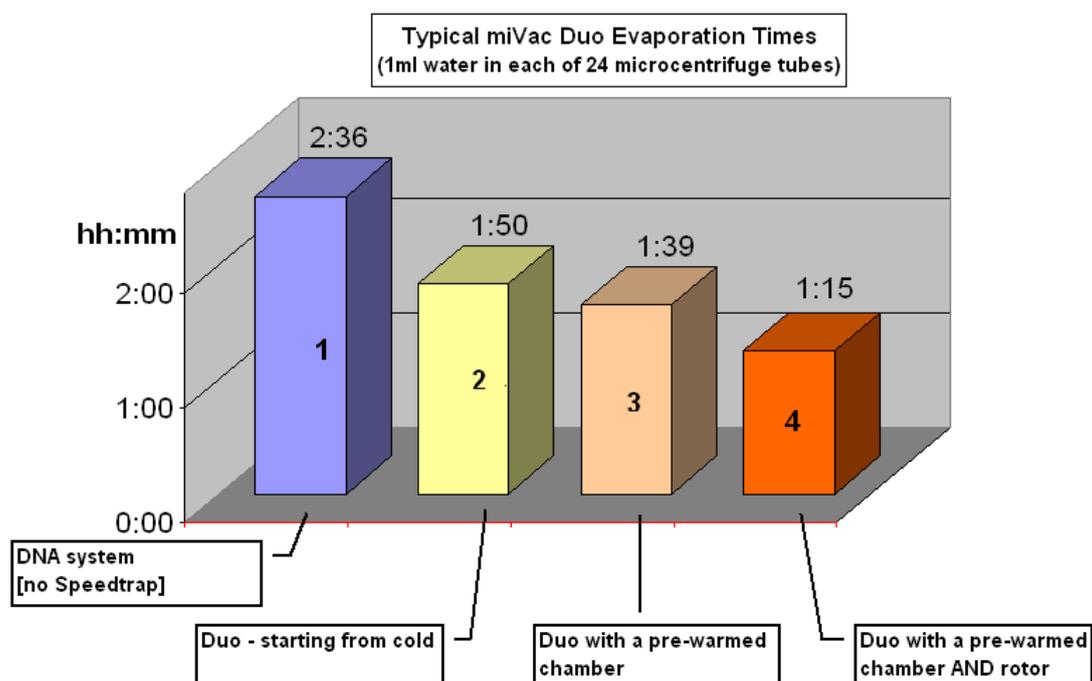
Getting the Best from the System

Heat transfer

A major factor in determining the speed of concentration is the rate at which heat is transferred to the sample. Good heat transfer means faster concentration; here are the ways that the **miVac** range will give you the best heat transfer:

- High quality aluminium rotors. Aluminium is recommended for its properties of high thermal conductivity and low weight. **miVac** systems use aluminium rotors, which have particularly efficient heat transfer properties.
- High quality engineering. **miVac** rotors are manufactured to very precise specifications. This means your tubes fit snugly into the tube holders. Any gaps would slow down the rate of heat transfer; for this reason it is important you send us a sample of your tube when placing orders for sample holders.

This graph illustrates typical improvements that can be achieved using the techniques described:



Preheating for faster concentration

If fast concentration is important, leave the rotor in the concentrator with the lid shut and **pre-heat** enabled. The pre-heat function heats the chamber (and rotor) to the control temperature (in particular, short runs will benefit from this). Preheat is not recommended if working with very volatile solvents as it may exacerbate bumping.

You can choose to latch on pre-heat by holding down the pre-heat button for five seconds. The system then automatically remains warm between runs, once selected, cancel pre-heat with a short press of the pre-heat button.

The [**H2O**] function, for Duo and Quattro concentrators, has been optimised for aluminium rotors. Always use this function when you have more than a few tubes of water. Full vacuum, [---], may be faster with just a few tubes.

Always use the [**H2O**] function on DNA system when evaporating water or solvents with similar boiling points.

Maximum capacity

Genevac uses the latest in computer aided design technology to ensure internal capacity is maximised whilst the instrument footprint is kept to an absolute minimum. This means high throughput evaporation is possible from an instrument taking up a small amount of bench top space.

Minimising tube breakage

Not only does precision design of Genevac sample holders contribute to excellent heat transfer and superior evaporation performance, it also ensures that tubes have maximum protection from breakage during evaporation.

We recommend that only high quality glassware is used within **miVac** systems. For best results, borosilicate tubes should be used. Old, damaged or scratched glassware should not be used. In laboratories where tubes or vials are reused, regularly inspect each tube or vial for damage and discard scratched or cracked items.

Custom design for special application

A custom design service is available for tubes and holders not listed, please contact your local **miVac** distributor for details.

Maintenance

Inspect and clean the miVac rotor(s) at least monthly. Always dry each rotor thoroughly after cleaning, never use wet rotor in a miVac system.

The following inspection routine is mandatory following tube breakage or solvent spillage.

Inspection

Visually inspect the rotors and clean off any debris, especially in the sample holder wells. High points, caused by debris, lead to stress in the glassware and may result in breakage.

The most common cause of repeat glassware breakage is a fragment from a previously broken tube. Solvent can stick glass fragments to the rotor making it difficult to remove. Any residual solvent or sample material must be cleaned off.

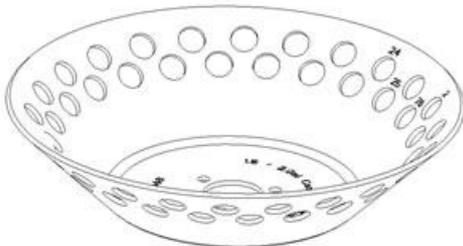
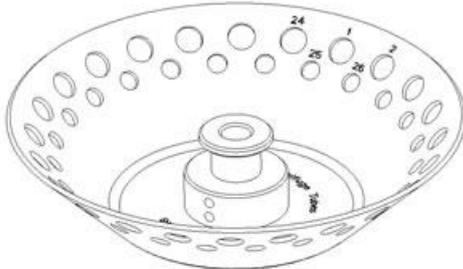
Superficial surface damage (scratches) do not affect the performance of a rotor. However, if there is any structural damage (if any part of the rotor is bent or deformed) do not use it. Contact Genevac for evaluation.

Cleaning

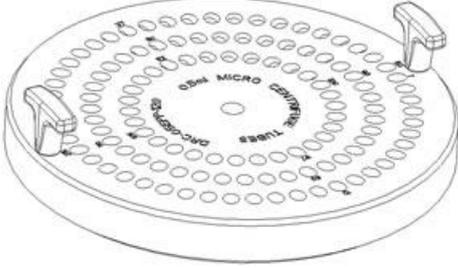
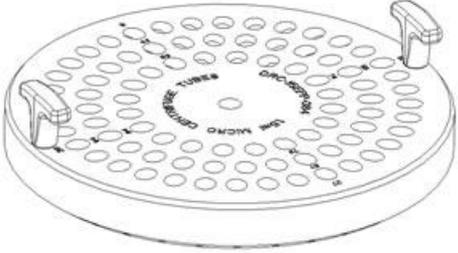
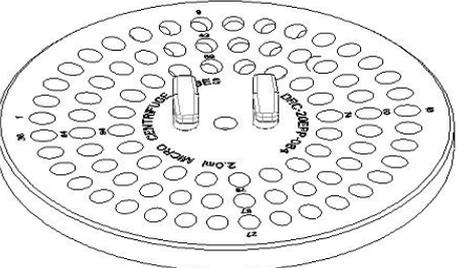
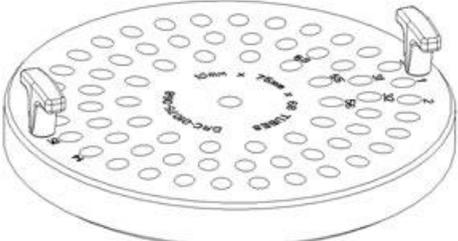
Loose dirt and debris can be removed using a brush, a compressed-air line may also be used if this is available. Adhered dirt, debris or sample / solvent residue should be cleaned off using methanol or acetone, soak the rotor if necessary. The rotor should then be washed in clean water and fully dried before use.

Rotors for DNA & Duo concentrators

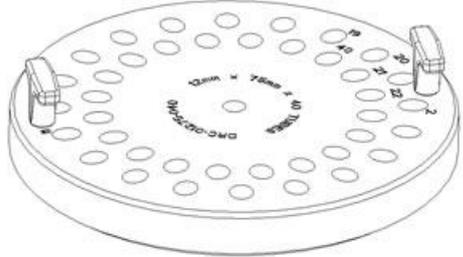
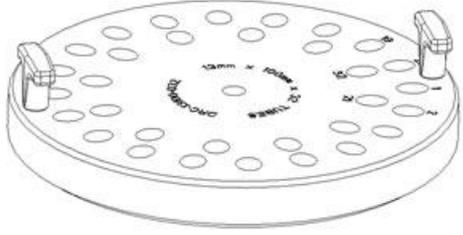
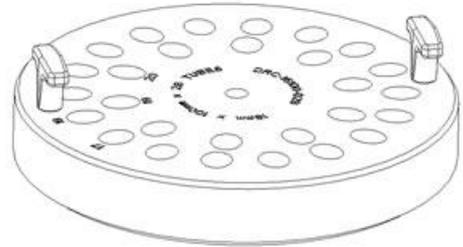
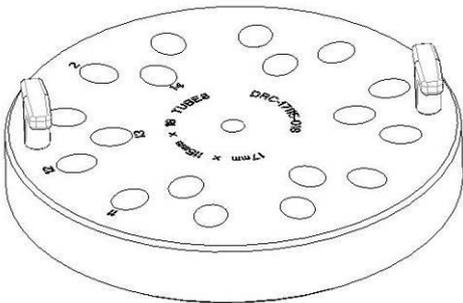
Open sample holders

<i>Description</i>	<i>For use with</i>	<i>Part number</i>
	Microcentrifuge tubes 1.5 ml flip cap Capacity 48 (Supplied with miVac DNA)	DRC-15EPP-048
	Microcentrifuge tubes 1.5 ml and 0.5 ml flip cap Capacity 24 of each type	DRC-MIXEP-048

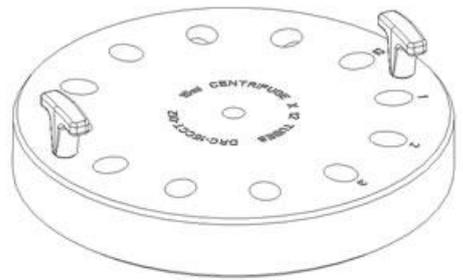
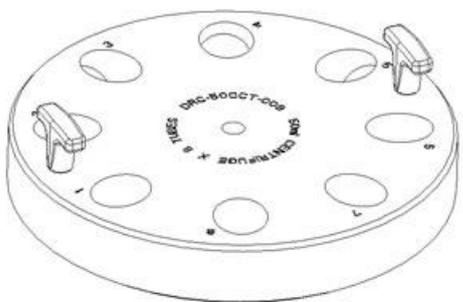
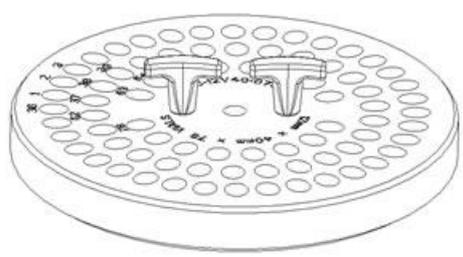
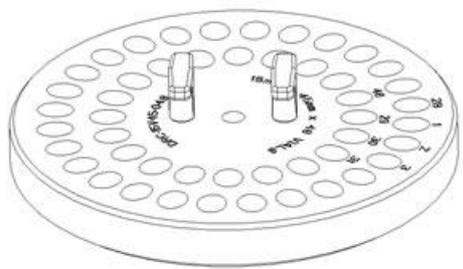
Solid aluminium JetRotors

<i>Description</i>	<i>For use with</i>	<i>Part number</i>
	<p>Microcentrifuge tubes 0.5 ml flip cap</p> <p>Capacity 120</p>	<p>DRC-05EPP-120</p>
	<p>Microcentrifuge tubes 1.5 ml flip cap</p> <p>Capacity 84</p>	<p>DRC-15EPP-084</p>
	<p>Microcentrifuge tubes 2.0 ml flip cap</p> <p>Capacity 84</p>	<p>DRC-20EPP-84</p>
	<p>Tubes Ø 10 mm length 75 mm</p> <p>Capacity 68</p>	<p>DRC-01075-068</p>

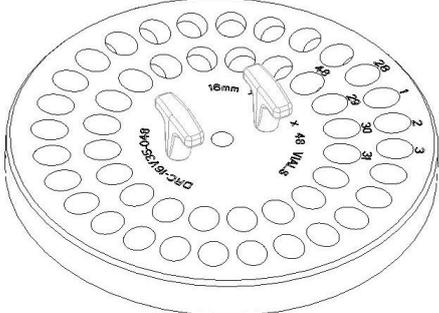
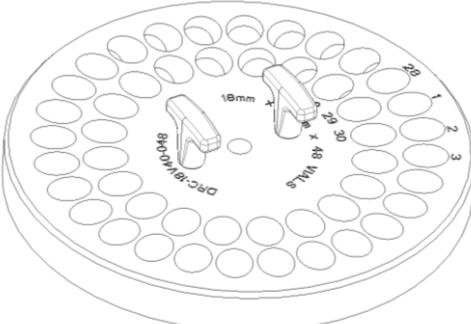
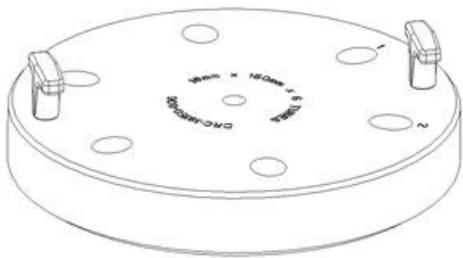
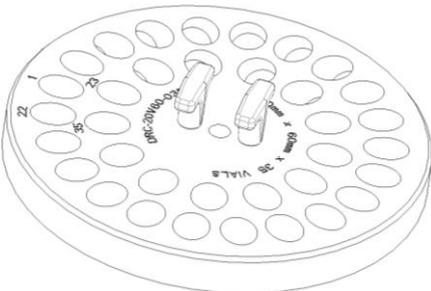
Solid aluminium JetRotors (continued)

Description	For use with	Part number
	<p>Tubes \varnothing 12 mm length 75 mm</p> <p>Capacity 40</p>	DRC-01275-040
	<p>Tubes \varnothing 13 mm length 100 mm</p> <p>Capacity 32</p>	DRC-13100-032
	<p>Tubes \varnothing 16 mm length 100 mm</p> <p>Capacity 28</p>	DRC-16100-028
	<p>Tubes \varnothing 17 mm length 115 mm</p> <p>Capacity 18</p>	DRC- 17115-018

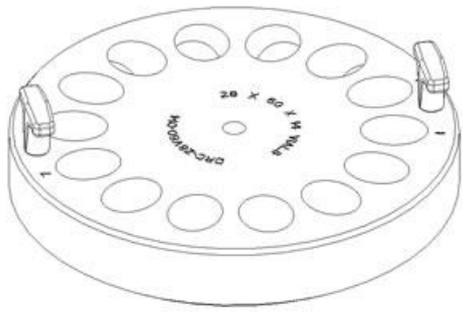
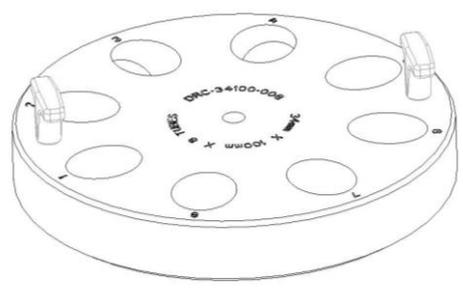
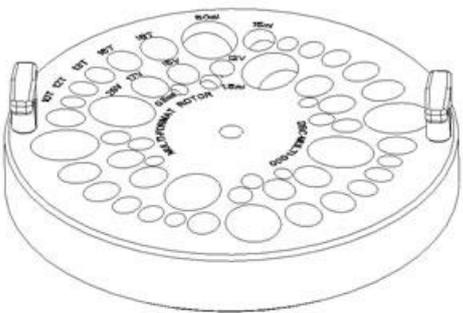
Solid aluminium JetRotors (continued)

Description	For use with	Part number
	Centrifuge tubes Ø 17 mm length 120 mm 15 ml conical based Capacity 12	DRC-15CCT-012
	Centrifuge tubes Ø 28 mm length 115 mm 50 ml conical based Capacity 8	DRC-50CCT-008
	Vials Ø 12 mm length 33 to 40 mm Capacity 78	DRC-12V40-078
	Vials Ø 15 mm length 45 mm 1 dram Capacity 48	DRC-15V45-048

Solid aluminium JetRotors (continued)

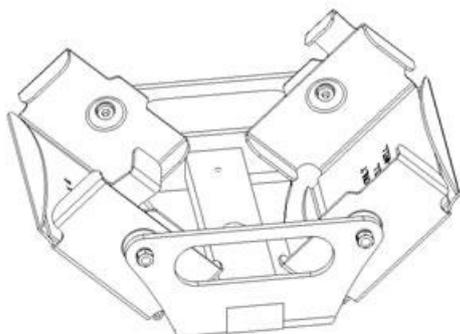
<i>Description</i>	<i>For use with</i>	<i>Part number</i>
	<p>Vials Ø 16 mm Length 35 mm</p> <p>Capacity 48</p>	<p>DRC-16V35-048</p>
	<p>Vials Ø 18 mm length 40 mm</p> <p>Capacity 48</p>	<p>DRC-18V40-048</p>
	<p>Tubes Ø 18 mm length 150 mm</p> <p>Capacity 6</p>	<p>DRC-18150-006</p>
	<p>Vials Ø 20 mm Length 60 mm</p> <p>Capacity 35</p>	<p>DRC-20V60-035</p>

Solid aluminium JetRotors (continued)

Description	For use with	Part number
	<p>Vials Ø 28 mm Length 60 mm</p> <p>20 ml scintillation</p> <p>Capacity 14</p>	DRC-28V60-014
	<p>Tubes Ø 34 mm length 100 mm</p> <p>Capacity 8</p>	DRC-34100-008
	<p>This rotor is designed for demonstration purposes, it accepts four each, of a range of tube sizes.</p>	DRC-MULTI-000

Swing rotors for microtitre plates

<i>Description</i>	<i>For use with</i>	<i>Part number</i>
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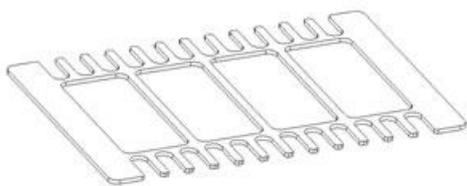


Swing rotor for microtitre plates

Capacity - two deep well or two shallow well plates

DRS-00000-200

Maximum weight 0.6 kg per swing



Set of four stackers for swing rotor

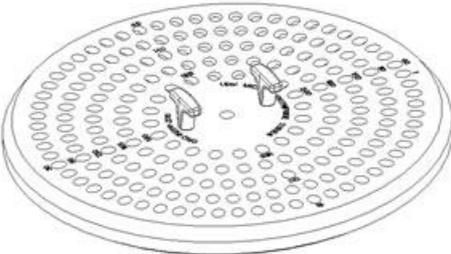
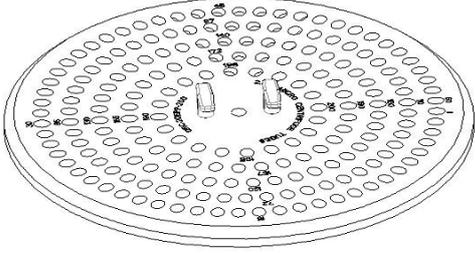
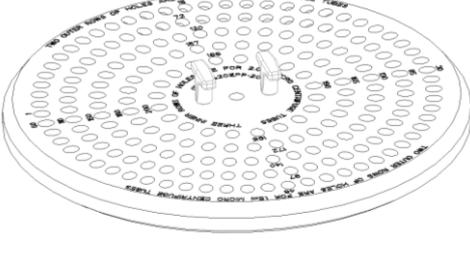
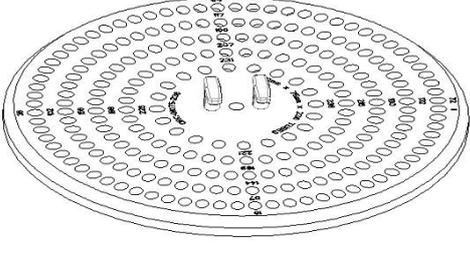
Increases capacity to six shallow well plates

BRS-STK00-004

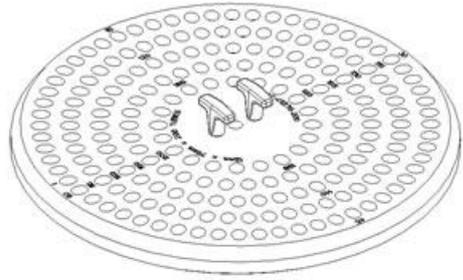
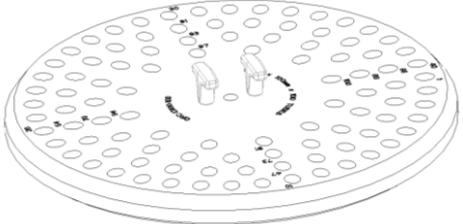
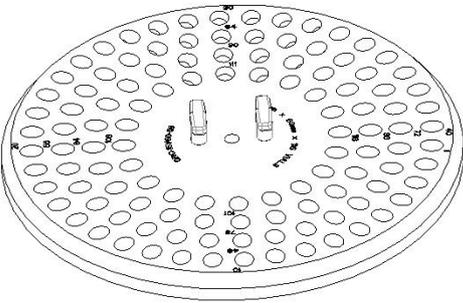
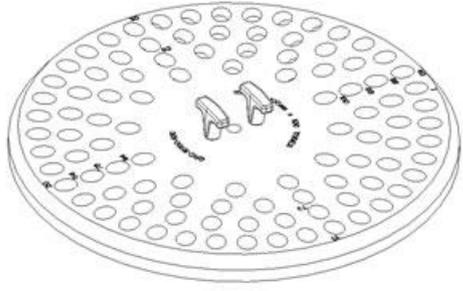
Note: For compatibility with stackers, shallow well plates must have a full skirt.

Rotors for miVac Quattro concentrator

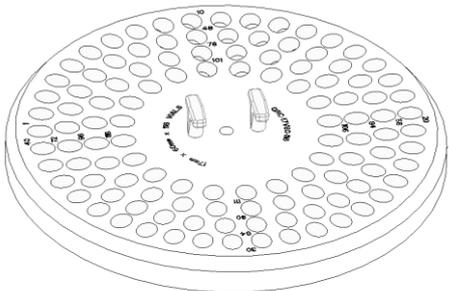
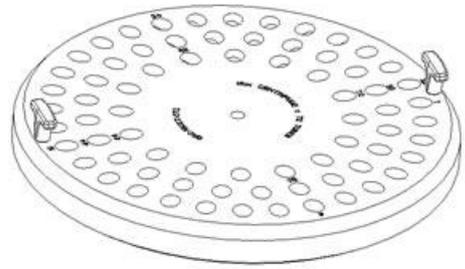
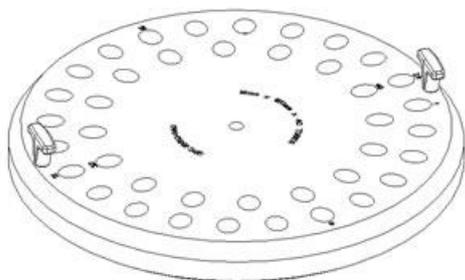
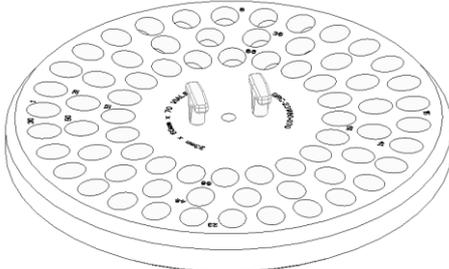
Solid aluminium JetRotors

<i>Description</i>	<i>For use with</i>	<i>Part number</i>
	Microcentrifuge tubes 1.5 ml flip cap Capacity 200	QRC-15EPP-200
	Microcentrifuge tubes 2.0 ml flip cap Capacity 200	QRC-20EPP-200
	Combination of: microcentrifuge tubes 1.5 ml Capacity 110 and: microcentrifuge tubes 2.0 ml Capacity 90	QRC-15&20 EPP-200
	Tubes Ø 10 mm length 75 mm Capacity 236	QRC-01075-236

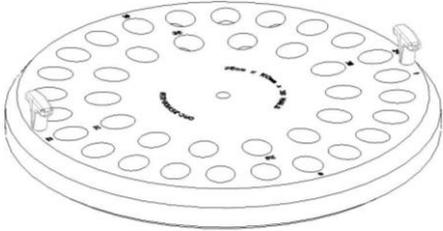
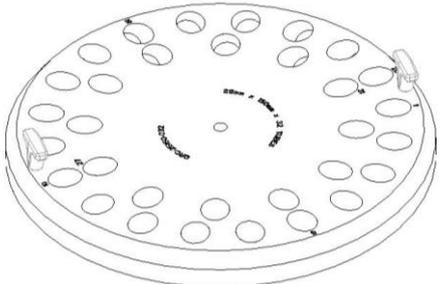
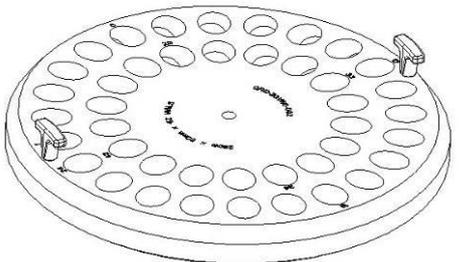
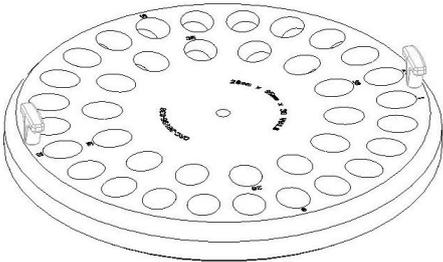
Solid aluminium JetRotors (continued)

<i>Description</i>	<i>For use with</i>	<i>Part number</i>
	<p>Tubes Ø 12 mm length 75 mm</p> <p>Capacity 200</p>	QRC-01275-200
	<p>Tubes Ø 13 mm length 100 mm</p> <p>Capacity 100</p>	QRC-13100-100
	<p>Vials Ø 15 mm length 60 mm</p> <p>Capacity 116</p>	QRC-15V60-116
	<p>Tubes Ø 16 mm length 100 mm</p> <p>Capacity 100</p>	QRC-16100-100

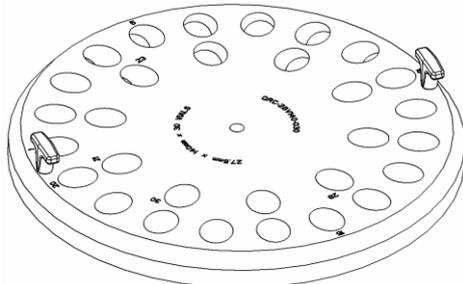
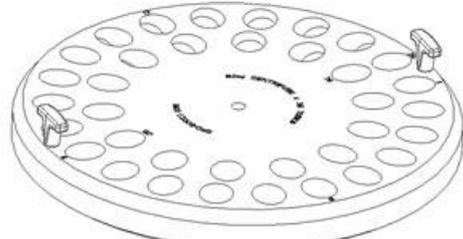
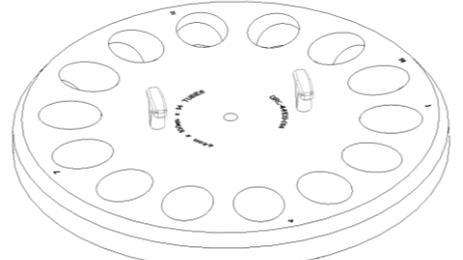
Solid aluminium JetRotors (continued)

Description	For use with	Part number
	Vials Ø 17 mm Length 60 mm Capacity 116	QRC-17V60-116
	Centrifuge tubes with conical base Ø 17 mm length 120 mm 15 ml Capacity 72	QRC-15CCT-072
	Tubes Ø 18 mm length 150 mm Capacity 40	QRC-18150-040
	Vials Ø 23 mm Length 60 mm Capacity 70	QRC-23V60-070

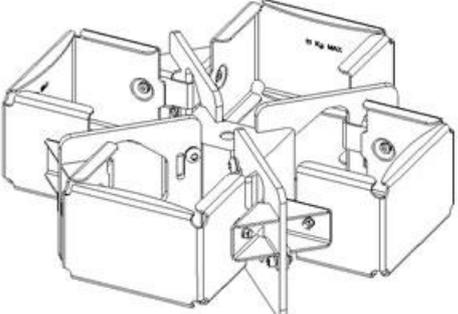
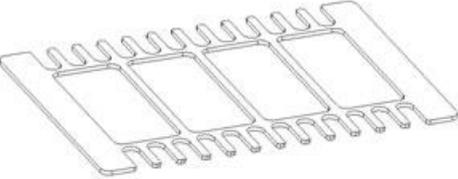
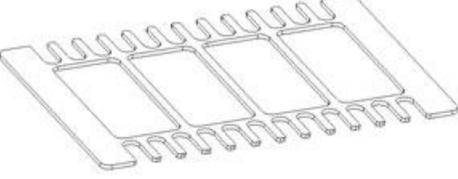
Solid aluminium JetRotors (continued)

Description	For use with	Part number
	Vials Ø 25 mm Length 100 mm Capacity 38	QRC-25V100-038
	Tubes Ø 25 mm length 150 mm Capacity 32	QRC-25150-032
	Vials Ø 28 mm length 60 mm 20 ml scintillation Capacity 42	QRC-28V60-042
	Vials Ø 28 mm length 95 mm Capacity 38	QRC-28V95-038

Solid aluminium JetRotors (continued)

Description	For use with	Part number
	<p>Dionex ASE 60 ml vials</p> <p>Capacity 30</p>	QRC-28V140-030
	<p>Centrifuge tubes with conical base Ø 28 mm length 115 mm</p> <p>50 ml</p> <p>Capacity 36</p>	QRC-50CCT-036
	<p>Tubes Ø 44 mm length 100 mm</p> <p>Capacity 14</p>	QRC-44100-014

Swing rotors for microtitre plates

<i>Description</i>	<i>For use with</i>	<i>Part number</i>
	<p>Swing rotor for microtitre plates</p> <p>Capacity - four deep-well or four shallow-well plates</p> <p>Maximum weight per swing 1.1 kg</p>	<p>QRS-00000-400</p>
	<p>Set of four stackers for swing rotor</p> <p>Increases capacity to eight deep well or eight shallow well plates</p>	<p>BRS-STK00-004</p>
	<p>Set of 16 stackers for swing rotor</p> <p>Increases capacity to eight deep well or 20 shallow well plates</p>	<p>BRS-STK00-016</p>

Note: For compatibility with stackers, shallow well plates must have a full skirt.

Spare Parts

Concentrator spares

	<i>Description</i>	<i>Part number</i>
	Spindle friction washer	RTR-FRCTN-001
	Lid seal for Duo and DNA	04-4722
	Lid seal for Quattro	04-4793

SpeedTrap spares

	<i>Description</i>	<i>Part number</i>
	Seal kit for SpeedTrap jar. Includes: PTFE flat ring, O-ring, thread inserts, screws and washers.	MST-SEALS-000

Amendment Control

<i>Issue</i>	<i>Reason for change</i>	<i>Date issued</i>
1	QRC-16100-100 description corrected	16-Oct-06
2	QRC-28V60-042 introduced	18- Oc-06
3	DRC-20EPP-120, QRC-20EPP-200, QRC-01075-236, QRC-15V60-116 and QRC-28V60-042 introduced	09-Apr-08
4	Genevac USA address updated	29-Oct-08
5	DRC 17115-018 introduced	19-Feb-09
6	DRC-20EPP-84 part number correction	11-Aug-09
7	DRS-00000-20 and QRS-00000-400 max weight specification added. DRC18V40-048, DRC34100-008, QRC-15EPP-200, QRC-20EPP-200, QRC-13100-100, QRC-44100-014 introduced	22-Mar-10
8	QCR-25V100-038 introduced	06-Jan-11
9	QRC-25V100-038 amend details: for vials, not tubes	25-Mar-11
10	DRC-16V35-048, QRC25150-032, QRC-28V95-038 added. DNA-15EPP-048 changed to to DRC-15EPP-048	07-Jun-11
11	QRC-28V140-030 added	25-Jan-12
12	DRC-20V60-035 added. Introduction restructured	15-Feb-12
13	Open swings and IR lamps references removed. Wording clarified "For use with", "Preheating for faster concentration"	19-Apr-12
14	Compatibility with swing rotor stackers, shallow well plates must have a full skirt: notes added. Microplate heat transfer plates removed. RTR-FRCTN-000, 04-4722, 04-4793, MST-SEALS-000 added. Spare parts section added.	14-Mar-12
15	US contact address updated. miVac web site updated.	22-Oct-13
16	QRC-17V60-116 and QRC-12V60-070 new rotors added.	19-Dec-13

Genevac technology is protected by patents and patent applications in the UK and worldwide. Genevac Ltd has a continuous development programme aimed at further improving their products and all specifications are, therefore, subject to change.



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