



# FLOW NMR

Racks & Accessories  
Catalog

Version 004



Copyright © by Bruker BioSpin GmbH

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form, or by any means without the prior consent of the publisher. Product names used are trademarks or registered trademarks of their respective holders.

This manual was written by

Stanley J. Niles, Martin Hofmann and Ulrich Braumann

© December 4, 2009: Bruker Biospin GmbH

Rheinstetten, Germany

P/N: H9970

DWG-Nr.: 1453004

For further technical assistance on the FLOW NMR product, please do not hesitate to contact your nearest BRUKER dealer or contact us directly at:

BRUKER BioSpin GMBH  
am Silberstreifen  
D-76287 Rheinstetten  
Germany

Phone: + 49 721 5161 0  
FAX: + 49 721 5171 01  
Email: [service@bruker.de](mailto:service@bruker.de)  
Internet: [www.bruker.com](http://www.bruker.com)

---

<b>1</b>	<b>Gilson Racks</b> .....	<b>5</b>
	GILSON Rack Type 205 (Standard) .....	5
	GILSON Rack Type 209 .....	6
	GILSON Rack Type 209B .....	7
	GILSON Rack Type 216 .....	8
	GILSON Wash Rack Type 211 .....	9
	GILSON Wash Rack Type 304B .....	10
<b>2</b>	<b>MATCH Tube Block Racks</b> .....	<b>11</b>
	MATCH Tube Block Rack for 1.0 mm x 100 mm Tubes .....	11
	MATCH Tube Block Rack for 1.7 mm x 100 mm Tubes .....	12
	MATCH Tube Block Rack for 2.0 mm x 100 mm Tubes .....	13
	MATCH Tube Block Rack for 2.5 mm x 100 mm Tubes .....	14
	MATCH Tube Block Rack for 3.0 mm x 100 mm Tubes .....	15
	MATCH Tube Block Rack for 4.25 mm x 100 mm Tubes .....	16
	MATCH Tube Block Rack for 5.0** mm x 100 mm Tubes .....	17
<b>3</b>	<b>Cooling Racks</b> .....	<b>19</b>
	Cooling Rack Controller Complete .....	19
	Cooling Rack Type 853B .....	20
	Cooling Rack Type 526B .....	21
	Cooling Rack Type 854B .....	22
<b>4</b>	<b>Liquid Handler Accessories</b> .....	<b>23</b>
	Ritter Deep Well Plates 1 ml .....	23
	Ritter Deep Well Plates 2 ml .....	23
	GLASS VIALS WITH SEALED CAPS 2 ml .....	24
	GLASS VIALS WITH SEALED CAPS 4 ml .....	24
	Cryo Vial Set 2 ml .....	24
	GLASS Bottles 125 ml .....	25
	GLASS Bottles 500 ml .....	25
	Cooling Plate for Rack 526B .....	25
	Cooling Plate & Cover for Rack 853B .....	26
	Barcode Reader .....	26
<b>5</b>	<b>MATCH Accessories</b> .....	<b>27</b>
	The MATCH System .....	27
	Order Information .....	28
	MATCH NMR Tubes .....	28
	MATCH PTFE Tube Caps .....	29
	MATCH Tube Aid .....	29
	MATCH Testing and Mounting Tool .....	30

# Summary of Contents

Norell Tube Rack for MATCH .....	30
MATCH 10 mm Spinner POM .....	30
Barcode Socket for MATCH .....	31
Glass Pipettes for 100 mm NMR Tubes .....	31
MATCH Disposable Syringes with Needles.....	31
<b>4 Contact .....</b>	<b>33</b>

# 1 Gilson Racks

## GILSON Rack Type 205 (Standard)

The Gilson rack 205, Standard, is the most common rack for screening body fluids as it allows you to use sealed well plates.

The rack holds two 96 deep well plates, each with a volume of 1 or 2 ml (see accessories). The rack includes a hold down which prevents the liquid handler needle from lifting the cover from the well plate after the sample pickup.

The rack is also equipped with barcode support which allows for automatic identification with an integrated barcode reader.

**Bruker Part Numbers:** [AH0322 VAR 1](#) - rack with 1 ml and 2 ml well plates and lids.

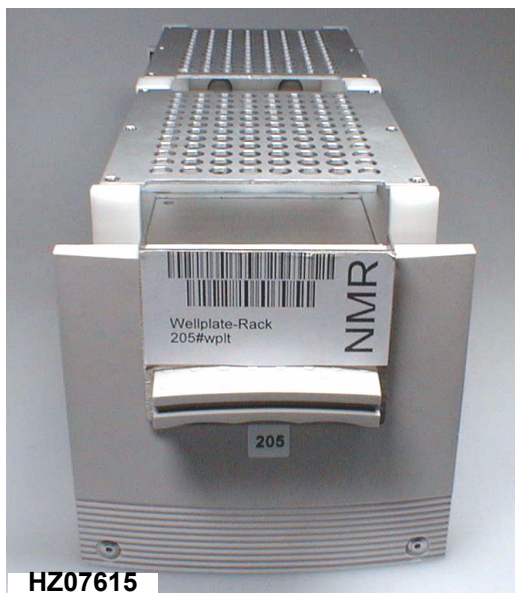


Figure 1.1: Model 205 - Front View (left) and Ritter 2 ml Deep Well Plates (right)

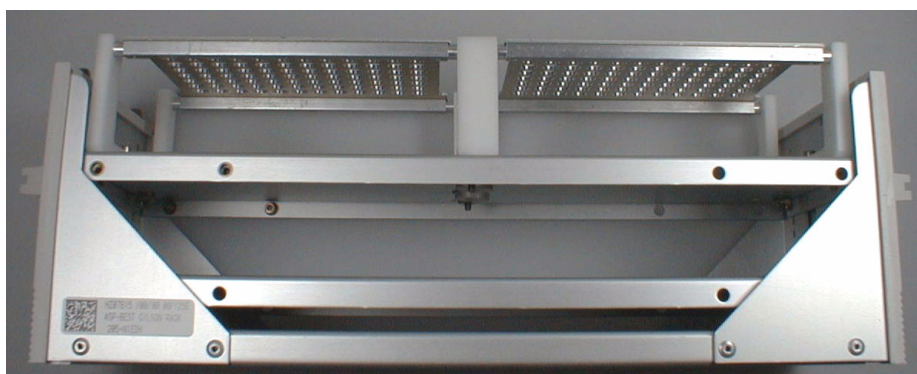


Figure 1.2: Model 205 - Side View

## GILSON Rack Type 209

The Gilson rack 209 allows flexible sample preparation, as the samples are prepared and inserted in individual sample vials (see accessories).

The rack supports up to 96 sample vials, each with a volume of 2 ml, in a numbered holder.

Sealed vials can be used, as the rack includes a hold down which prevents the liquid handler needle from lifting the vial from the rack after the sample pickup.

Vial numbers are displayed on the surface of the hold down.

The rack is also equipped with barcode support which allows for automatic identification with an integrated barcode reader.

**Bruker Part Numbers:** [AH0322 VAR 2](#) - rack with 100 2 ml vials, caps and septum.

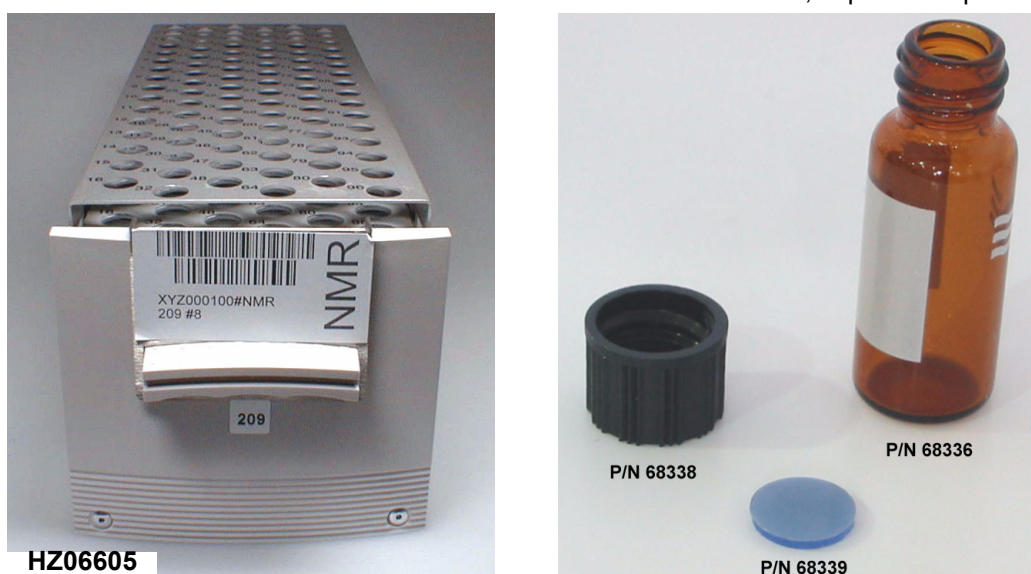


Figure 1.3: Model 209 - Front View (left) and Model 209 Vial Set (right)



Figure 1.4: Model 209 - Side View

## GILSON Rack Type 209B

The Gilson rack 209B is a special rack for 96 cryovials (see accessories), each with a volume of 2 ml. Cryo vials can be stored for a longer time under refrigeration.

The rack includes a hold down which prevents the liquid handler needle from lifting the vial from the rack after the sample pickup.

Vial numbers are displayed on the surface of the hold down.

The rack is equipped with barcode support which allows for automatic identification with an integrated barcode reader. In addition each individual vial can also be equipped with barcodes.

**Bruker Part Number:** [HZ08524](#) - rack only.



Figure 1.5: Model 209B - Front View (left) and Model 209B Cryo Vial Set (right)



Figure 1.6: Model 209B - Side View

## GILSON Rack Type 216

The Gilson rack 216 allows for very flexible sample preparation, as the samples are prepared and inserted in individual sample vials (see accessories).

The rack supports up to 60 sample vials, each with a 4 ml volume, in a numbered holder.

Sealed vials can be used, as the rack includes a hold down which prevents the liquid handler needle from lifting the vial from the rack after the sample pickup.

Vial numbers are displayed on the surface of the hold down.

The rack is also equipped with barcode support which allows for automatic identification with an integrated barcode reader.

**Bruker Part Number: AH0322 VAR 3** - Rack with 4 ml vials, caps and septum.

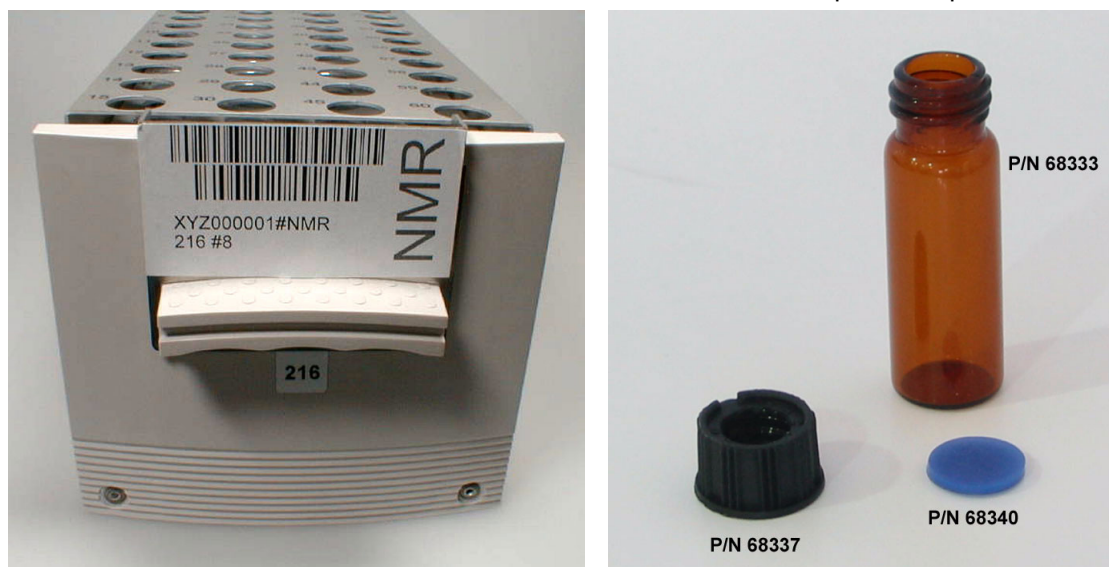


Figure 1.7: Model 216 - Front View (left) and Model 216 4 ml Vial (right)



Figure 1.8: Model 216 - Side View



## GILSON Wash Rack Type 211

The Gilson Wash Rack 211 provides room for nine 125 ml glass bottles (see accessories). The wash rack is used to supply the liquid for the solvent gaps in the leading and trailing gaps and for additional cleaning steps.

This rack is equipped with barcode support which allows for automatic identification with an integrated barcode reader.

**Bruker Part Number: HZ13020.** Rack including bottles, caps and septa.



Figure 1.9: Model 211 - Front View (left) and Model 211 Bottle Set (right)



Figure 1.10: Model 211 - Side View

## GILSON Wash Rack Type 304B

The Gilson Wash Rack 304B provides room for four 500 ml glass bottles (see accessories). The wash rack is used to supply the liquid for the solvent gaps in the leading and trailing gaps and for additional cleaning steps.

This rack is equipped with barcode support which allows for automatic identification with an integrated barcode reader.

The rack is delivered with five 500 ml glass bottles.

**Bruker Part Number:** [H9697](#)

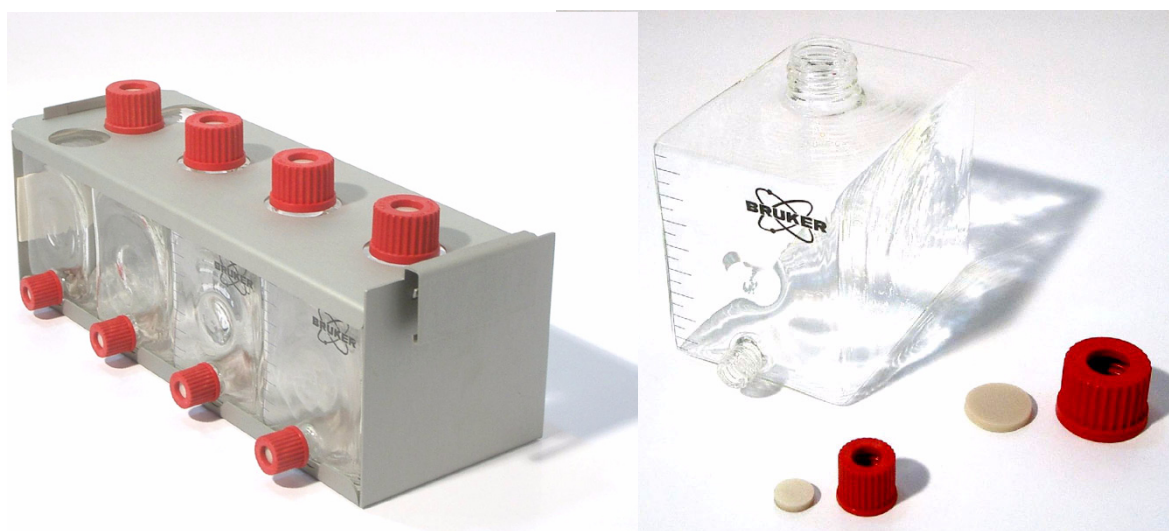


Figure 1.11: Gilson Wash Rack Model 304B (left) and Glass Bottles 500 ml (right)

## 2 MATCH Tube Block Racks

### MATCH Tube Block Rack for 1.0 mm x 100 mm Tubes

The NMR Tube Block Rack MATCH, which is housed in the Gilson 348B rack, provides room for up to 48 1.0 mm (outer diameter) x 100 mm NMR MATCH tubes. The MATCH Tube Block Rack is built to enable the filling of 100 mm MATCH NMR tubes using a Gilson 215 Liquid Handler. The rack is also equipped with barcode support which allows for automatic identification of the rack with an integrated barcode reader. The tubes are not compatible with the dedicated 1.0 mm probes.

Can be used in a liquid handler configured for usage with MATCH tubes (AH0360/AH0361) or with SampleJet tubes (AH0340/AH0341), which contain a special needle which can access the inner diameter of 1.0 mm tubes.

**Bruker Part Number:** [AH0362](#) VAR 10. Rack with MATCH tubes and one insertion tool/order.



Figure 2.1: MATCH Tube Block with 1.0 mm Rack Front View (left), Top View (right)

## MATCH Tube Block Rack for 1.7 mm x 100 mm Tubes

The NMR Tube Block Rack MATCH, which is housed in the Gilson 348B rack, provides room for up to 48 1.7 mm (outer diameter) x 100 mm NMR MATCH tubes. The MATCH Tube Block Rack is built to enable the filling of 100 mm MATCH NMR tubes using a Gilson 215 Liquid Handler. The rack is also equipped with barcode support which allows for automatic identification of the rack with an integrated barcode reader. The tubes are not compatible with the dedicated 1.7 mm probes.

Can be used in a liquid handler configured for usage with MATCH tubes (AH0360/AH0361) or with SampleJet tubes (AH0340/AH0341), which contain a special needle which can access the inner diameter of 1.7 mm tubes.

**Bruker Part Number:** [AH0362](#) VAR 17. Rack with MATCH tubes and one insertion tool/order.

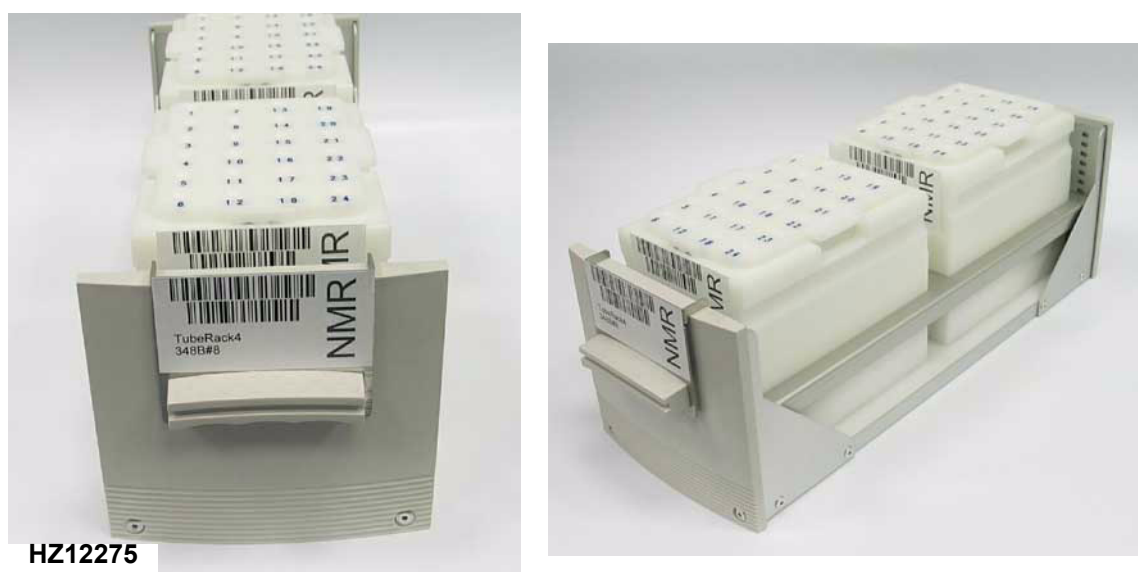


Figure 2.2: MATCH Tube Block with 1.7 mm Rack Front View (left), Top View (right)

## MATCH Tube Block Rack for 2.0 mm x 100 mm Tubes

The NMR Tube Block Rack MATCH, which is housed in the Gilson 348B rack, provides room for up to 48 2.0 mm (outer diameter) x 100 mm NMR MATCH tubes. The MATCH Tube Block Rack is built to enable the filling of 100 mm MATCH NMR tubes using a Gilson 215 Liquid Handler. The rack is also equipped with barcode support which allows for automatic identification of the rack with an integrated barcode reader.

Can be used in a liquid handler configured for usage with MATCH tubes (AH0360/AH0361) or with SampleJet tubes (AH0340/AH0341), which contain a special needle which can access the inner diameter of 2.0 mm tubes.

**Bruker Part Number:** [AH0362](#) VAR 20. Rack with MATCH tubes and one insertion tool/order.



Figure 2.3: MATCH Tube Block with 2.0 mm Rack Front View (left), Top View (right)

## MATCH Tube Block Rack for 2.5 mm x 100 mm Tubes

The NMR Tube Block MATCH, which is housed in the Gilson 348B rack, provides room for up to 48 2.5 mm (outer diameter) x 100 mm NMR MATCH tubes. The MATCH Tube Block Rack is built to enable the filling of 100 mm MATCH NMR tubes using a Gilson 215 Liquid Handler. The rack is also equipped with barcode support which allows for automatic identification of the rack with an integrated barcode reader.

Can be used in a liquid handler of MATCH tubes (AH0360/AH0361) or SampleJet tubes (AH0340/AH0341), which contains a special needle which can access the inner diameter of 2.5 mm tubes and parts which minimize the volume in the flow path.

**Bruker Part Number:** [AH0362](#) VAR 25. Rack with MATCH tubes and one insertion tool/order.

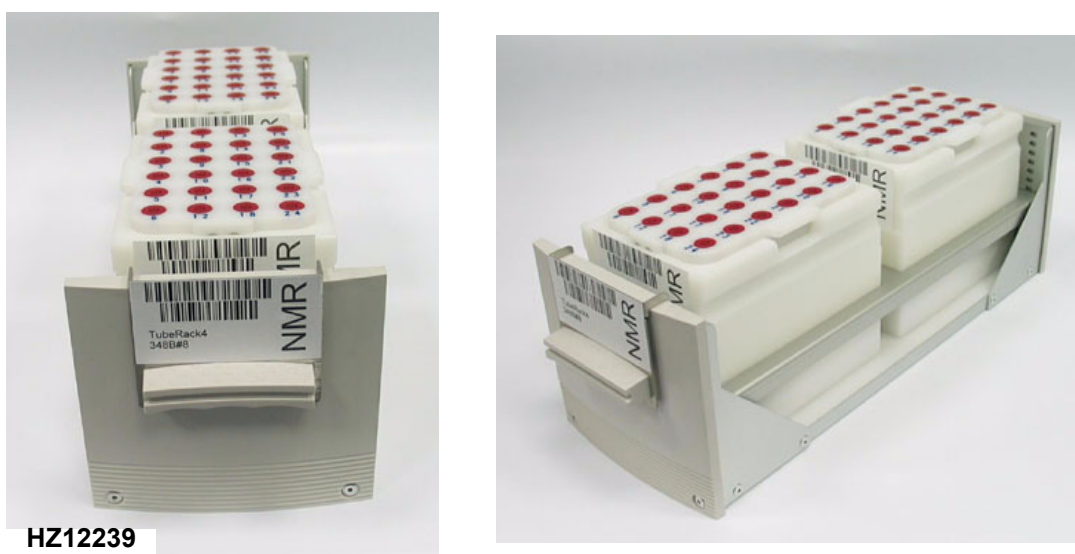


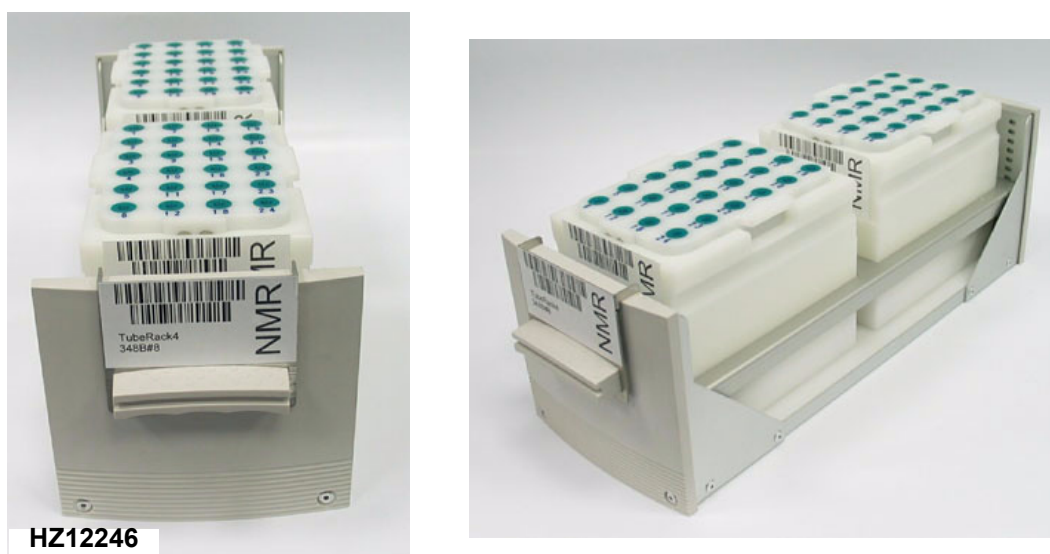
Figure 2.4: MATCH Tube Block with 2.5 mm Rack Front View (left), Top View (right)

## MATCH Tube Block Rack for 3.0 mm x 100 mm Tubes

The NMR Tube Block Rack MATCH, which is housed in the Gilson 348B rack, provides room for up to 48 3.0 mm (outer diameter) x 100 mm NMR MATCH tubes. The MATCH Tube Block Rack is built to enable the filling of 100 mm MATCH NMR tubes using a Gilson 215 Liquid Handler. The rack is also equipped with barcode support which allows for automatic identification of the rack with an integrated barcode reader.

A liquid handler for sample preparation is required (AH0360, AH0361, AH0340, AH0341) or the software „PrepGilsonST“ is required (CD-ROM P/N [H9468](#), License P/N H9772).

**Bruker Part Number:** [AH0362](#) VAR 30. Rack with MATCH tubes and one insertion tool/order.



**HZ12246**

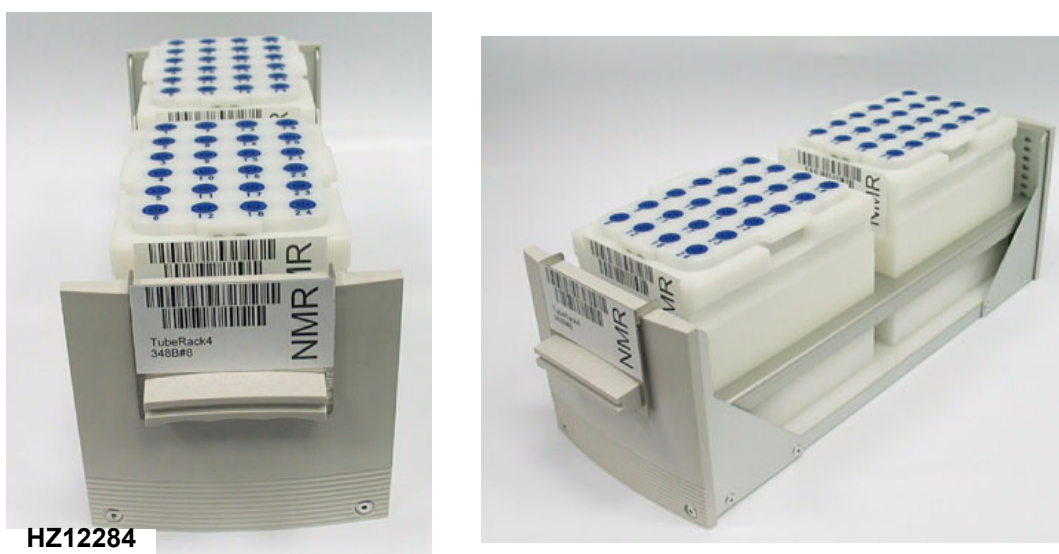
Figure 2.5: MATCH Tube Block with 3.0 mm Rack Front View (left), Top View (right)

## MATCH Tube Block Rack for 4.25 mm x 100 mm Tubes

The NMR Tube Block Rack MATCH, which is housed in the Gilson 348B rack, provides room for up to 48 4.25 mm (outer diameter) x 100 mm NMR MATCH tubes. The MATCH Tube Block Rack is built to enable the filling of 100 mm MATCH NMR tubes using a Gilson 215 Liquid Handler. The rack is also equipped with barcode support which allows for automatic identification of the rack with an integrated barcode reader.

A liquid handler for sample preparation is required (AH0360, AH0361, AH0340, AH0341) or the software „PrepGilsonST“ is required (CD-ROM P/N [H9468](#), License P/N H9772).

**Bruker Part Number:** [AH0362](#) VAR 40. Rack with MATCH tubes and one insertion tool/order.



HZ12284

Figure 2.6: MATCH Tube Block with 4.25 mm Rack Front View (left), Top View (right)



## MATCH Tube Block Rack for 5.0\*\* mm x 100 mm Tubes

The NMR Tube Block Rack MATCH, which is housed in the Gilson 348B rack, provides room for up to 48 5.0 mm (outer diameter) x 100 mm NMR MATCH tubes. The MATCH Tube Block Rack is built to enable the filling of 100 mm MATCH NMR tubes using a Gilson 215 Liquid Handler. The rack is also equipped with barcode support which allows for automatic identification of the rack with an integrated barcode reader.

The 5.0 mm tube block rack can also be used for 4.25 mm MATCH tubes.

A liquid handler for sample preparation is required (AH0360, AH0361, AH0340, AH0341) or the software „PrepGilsonST“ is required (CD-ROM P/N [H9468](#), License P/N H9772).

**Bruker Part Number:** [AH0362](#) VAR 50. Rack with MATCH tubes and one insertion tool/order.

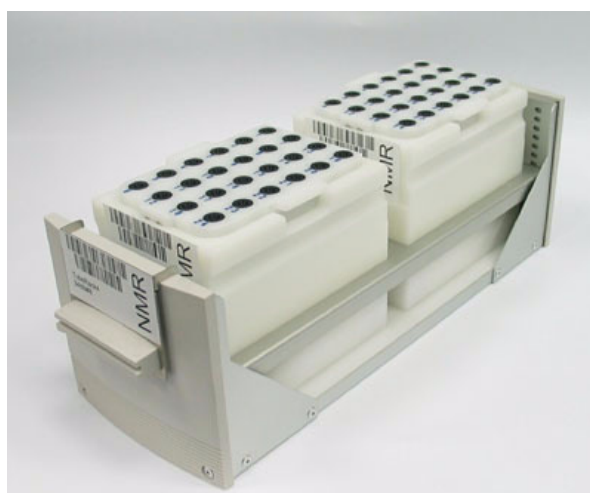


Figure 2.7: MATCH Tube Block with 5.0 mm Rack Front View (left), Top View (right)

\*\* The 5.0 mm MATCH Tube Block Rack can also be used with 4.25 mm MATCH tubes. No special tube block rack is required for the 4.25 mm MATCH tubes.



# 3 Cooling Racks

## Cooling Rack Controller Complete

The cooling rack controller is required when using cooling racks. It allows control of up to five cooling racks at different temperatures.

Rack heighteners are required for the combined usage of cooling racks and racks out of the 200 series, as these racks are 50mm lower as the cooling racks.

**Bruker Part Number:** [AH0325](#) (including five rack heightener and a Calibration Tubing 175 for the correct adjustment of the liquid handler arm).

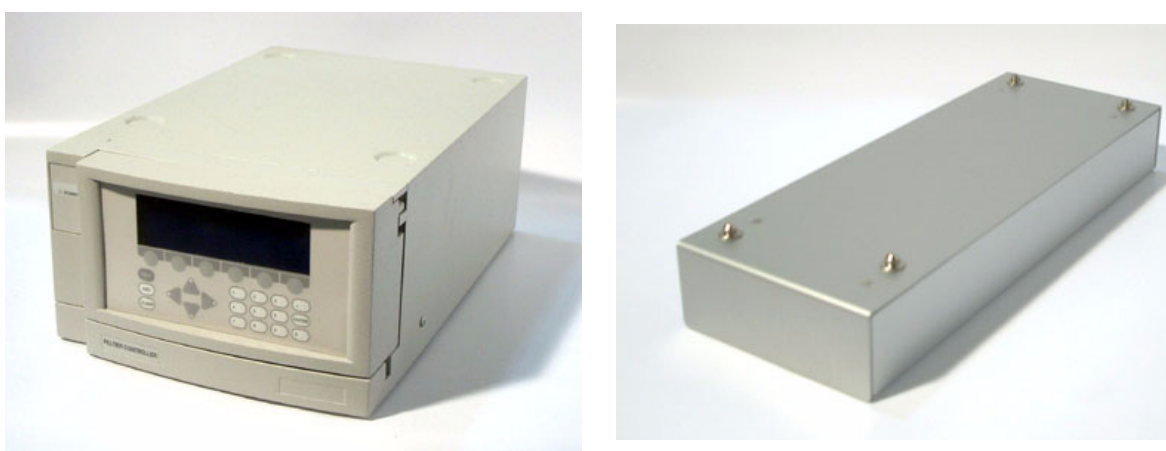


Figure 3.1: Cooling Rack Controller (left) and Rack Heightener for 200 Series Rack (right)



Figure 3.2: Barcode Reader Calibration Tubing 127 & 175

## Cooling Rack Type 853B

The cooling rack type 853B provides the same flexible preparation as with the Gilson rack 209, and in addition provides the possibility of cooling the samples.

The rack supports up to 96 2ml vials, which can be cooled down to approximately 18°C below the surrounding air temperature.

The rack is equipped with barcode support which allows for automatic identification with an integrated barcode reader.

**Bruker Part Number:** [AH0322 VAR 12](#) (including 100 vials, caps and septum)



Figure 3.3: Best Cooling Rack 853B

## Cooling Rack Type 526B

The cooling rack type 526B is a special rack, similar to the Gilson rack 209B, for Cryovials.

The rack supports up to 96 cryovials, which can be cooled down to approximately 18°C below the surround air temperature.

The rack is equipped with barcode support which allows for automatic identification with an integrated barcode reader.

The cryovials can be stored for a longer period of time under refrigeration.

**Bruker Part Number:** [AH0322 VAR 11](#) (including 100 vials, caps and septum)



Figure 3.4: Best Cooling Rack 526B

## Cooling Rack Type 854B

The cooling rack type 854B is especially made to cool down well plates.

The rack hold two 96 deep well plates, which can be cooled down to approximately 18°C below the surrounding air temperature.

A special cover prevents the liquid handler needle from lifting the flexible sealed lids from the well plate after the sample pickup.

The rack is equipped with barcode support which allows for automatic identification with an integrated barcode reader.

**Bruker Part Number:** [AH0322 VAR 10](#) (including well plates with flexible sealed lids).



Figure 3.5: Cooling Rack 854B

## 4 Liquid Handler Accessories

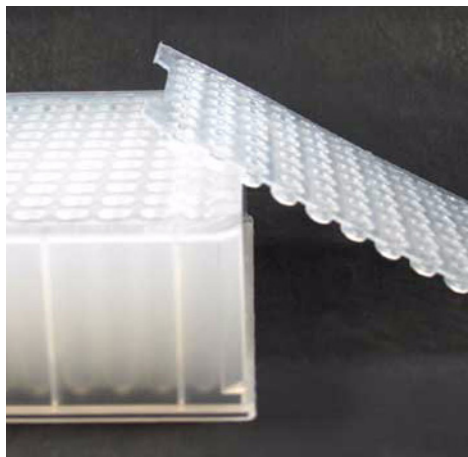


Figure 4.1: Ritter Deep Well Plates 1ml with sealed lids

### Ritter Deep Well Plates 1 ml

**Description:** Ritter 1 ml deep well plates for 96 samples with flexible sealed lids.

**Usage:** Rack type 205, 854B (AH0322 VAR10)

**Bruker Part Number:** [68964](#) - Well plate - 1 Piece  
[85675](#) - Sealed lids - 10 Pieces



Figure 4.2: Ritter Deep Well Plates 2ml with sealed lids

### Ritter Deep Well Plates 2 ml

**Description:** Ritter 2 ml deep well plates for 96 samples with sealed flexible lids.

**Usage:** Rack type 205, not suitable for cooling racks 854B/AH0322 VAR10!

**Bruker Part Number:** [68966](#) - Well plate - 1 Piece  
[68965](#) - Sealed lids - 10 Pieces



Figure 4.3: Glass Vial Set 2 ml

## GLASS VIALS WITH SEALED CAPS 2 ml

**Description:** Glass vials (2 ml) with sealed caps.

**Usage:** Rack type 209

**Bruker Part Number:** [68336 - Vial - 100 Pieces](#)  
[68338 - Cap - 100 Pieces](#)  
[68339 - Septum - 100 Pieces](#)



Figure 4.4: Glass Vial Set 4 ml

## GLASS VIALS WITH SEALED CAPS 4 ml

**Description:** Glass vials (4 ml) with sealed caps.

**Usage:** Rack type 216

**Bruker Part Number:** [68333 - Vial - 125 Pieces](#)  
[68337 - Cap - 125 Pieces](#)  
[68340 - Septum - 125 Pieces](#)



Figure 4.5: Cryo Vial Set

## Cryo Vial Set 2 ml

**Description:** Cryo val (1.8 ml) with sealed cap. Barcode label is optional.

**Usage:** Rack type 209B

**Bruker Part Number:** [88703 - Without barcode label - 250 Pieces](#)

[H14230 - With barcode label - 250 Pieces](#)

[H10080 - Barcode label only - 200 Pieces](#)





Figure 4.6: Glass Bottle 125 ml

## GLASS Bottles 125 ml

**Description:** Glass bottles (125 ml) with sealed caps.

**Usage:** Wash rack type 211

**Bruker Part Number:** [84599](#) - Glass bottle - 12 Pieces  
[84600](#) - Cap - 12 Pieces  
[84601](#) - Septum - 12 Pieces



Figure 4.7: Glass Bottle 500 ml

## GLASS Bottles 500 ml

**Description:** Glass bottles (500 ml) with sealed caps.

**Usage:** Wash rack type 306B

**Bruker Part Number:** [84755](#) - Glass bottle - 1 Piece  
[84758](#) - Cap (top) - 1 Piece  
[84760](#) - Cap (side) - 1 Piece  
[84757](#) - Septum (top) - 1 Piece  
[84759](#) - Septum (side) - 1 Piece

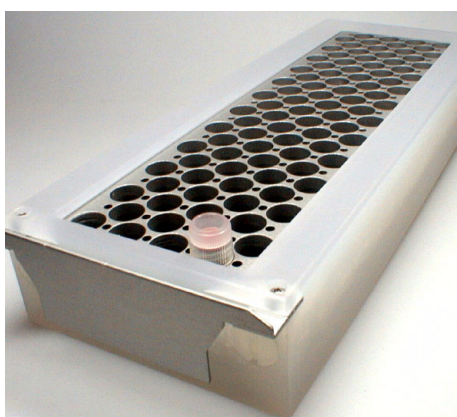


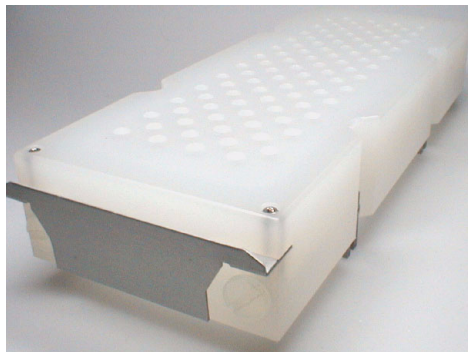
Figure 4.8: Cooling Plate for Rack HZ08847 (cover not shown)

## Cooling Plate for Rack 526B

**Description:** Cooling plate for cryovials (2 ml). The cooling plate for 96 cryovials and the barcode label can be taken off the rack 526B and stored as a complete unit in the refrigerator. Thus it is possible to work with one rack 526B and several cooling plates with individual barcodes. The plate comes with a removable cover that holds the cryovials in the rack during transport and storage.

**Usage:** Cooling rack type 526B

**Bruker Part Number:** [HZ08847](#) - 1 Piece



## Cooling Plate & Cover for Rack 853B

**Description:** Cooling plate and cover for 96 vials (2 ml)  
With this cooling plate and cover it is possible to store the 96 barcode labeled vials as a complete unit in the refrigerator.

**Usage:** Cooling rack type 853B

**Bruker Part Number:** [86183](#) Plate - 1 Piece  
[86184](#) Cover - 1 Piece



Figure 4.9: Cooling Plate & Cover for Rack 853B



## Barcode Reader

**Description:** The barcode reader enables safe handling of the liquid handler. The position and type of racks can be identified automatically, as well as the position and identity of 96 deep well plates..

**Usage:** Usage of the liquid handler under control of Sample-Track software requires a barcode reader.

**Bruker Part Number:** [H9545](#) Barcode reader with holder and 10 m data cable.

Figure 4.10: Barcode Reader Complete

# 5 MATCH Accessories

## The MATCH System

The Bruker BioSpin MATCH™ system provides an easy and cost efficient means of optimizing the signal-to-noise ratio of each sample. By MATCHing the NMR tube diameter to the size of the sample, most of the sample can be placed in the active column of the NMR coil. This leads to an enhanced signal detection compared to diluting the same sample quantity in a larger tube.

### The MATCH™ system consists of:

- MATCH Tube Insert Assembly
- Spare Grippers
- NMR Tubes

### Characteristics:

- The MATCH device is a holder for 100 mm long NMR sample tubes with outer diameter range from 1.0 to 5.0 mm.
- The MATCH device fits into a standard 10 mm Bruker spinner.
- The MATCH insert assembly is suited for all non-spinning applications.
- One spinner and holder can be used for a variety of NMR tube sizes using the exchangeable grippers.
- The grippers are color coded based on the NMR tube diameter.
- NMR tubes can be easily exchanged while the MATCH device is still mounted in the spinner.
- The length of the NMR sample tube can be adjusted and smaller tube sizes can be used.
- The MATCH grippers have a chemically inert seal to minimize the evaporation of solvent.



### Accessories:

- 10 mm spinner POM (P/N Z5293).
- 100x disposable syringe and 100x needles (P/N AH1150).
- Glass syringe and 10x glass needles including reservoir (P/N H9872).
- Barcode socket for MATCH (P/N H1381).

## Order Information

Tube ID	Clamp Color Code	Sample Volume for Filling Height		Bruker Order Number		
		35 mm	40 mm	MATCH Insert	Spare Clamps	NMR Tubes 100 mm
(mm)		(μl)		<i>1 piece/pack</i>	<i>1 piece/pack</i>	<i>10 pieces/pack</i>
1.0**	black	12	14	AH1130 Var. 10	AH1140 Var. 10	AH1160 Var. 10
1.7**	white	45	50	AH1130 Var. 17	AH1140 Var. 17	AH1160 Var. 17
2.0	yellow	70	80	AH1130 Var. 20	AH1140 Var. 20	AH1160 Var. 20
2.5	red	120	140	AH1130 Var. 25	AH1140 Var. 25	AH1160 Var. 25
3.0	green	160	190	AH1130 Var. 30	AH1140 Var. 30	AH1160 Var. 30
4.0	blue	310	360	AH1130 Var. 40	AH1140 Var. 40	AH1160 Var. 40
4.25	white	370	430	AH1130 Var. 42	AH1140 Var. 42	AH1160 Var. 42
5.0	black	490	560	AH1130 Var. 50	AH1140 Var. 50	AH1160 Var. 50

\*\* Not suited for dedicated "Shuttle NMR" probes!

Table 5.1: Ordering Information



Figure 5.1: MATCH NMR Tubes

### MATCH NMR Tubes

**Description:** The MATCH NMR tubes meet the specifications for use with the MATCH NMR Tube Insert Assembly. NMR tubes can be easily exchanged while the MATCH device is still mounted in the spinner.

**Quantity:** 10 pieces/pack

**Bruker Part Number:** [See Order Information Table](#) - Quantity for each part number - 10 Tubes/Pack



Figure 5.2: MATCH PTFE Tube Caps

## MATCH PTFE Tube Caps

**Description:** The MATCH PTFE Tube Caps are used with the corresponding 1-5 mm MATCH NMR Tubes (see Order Information Table). The caps are made out of PTFE, which means they are completely inert to all solvents used in NMR. The caps use the same color code as the MATCH grippers.

### **Bruker Part Numbers:**

86745 - Sample Tube Cap PTFE MATCH 1.0 mm Black  
86746 - Sample Tube Cap PTFE MATCH 1.7 mm White  
86747 - Sample Tube Cap PTFE MATCH 2.0 mm Yellow  
86740 - Sample Tube Cap PTFE MATCH 2.5 mm Red  
86741 - Sample Tube Cap PTFE MATCH 3.0 mm Green  
86742 - Sample Tube Cap PTFE MATCH 4.0 mm Blue  
86743 - Sample Tube Cap PTFE MATCH 4.25 mm Black  
86744 - Sample Tube Cap PTFE MATCH 5.0 mm White  
Quantity for each part number - 10 Caps



Figure 5.3: MATCH Tube Aid

## MATCH Tube Aid

**Description:** This aid will help you to remove MATCH tubes from the MATCH tube rack without touching it. Due to its design it will minimize the danger of breaking glass.

**Bruker Part Number:** [HZ12345](#) - 1 Tube Aid

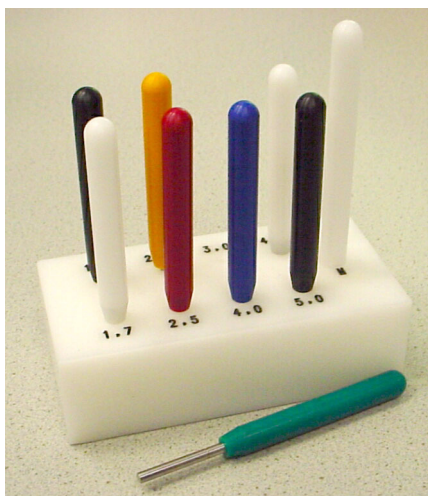


Figure 5.4: MATCH Testing and Mounting Tool

## MATCH Testing and Mounting Tool

**Description/Purpose:** Exchanging MATCH grippers with those of another size sometimes requires the placement of the seal in the correct position. This tool is an aid which allows you to easily mount the MATCH grippers. With the additional gauges you can also check if the seal is in the correct position and that the gripper is working properly for each MATCH tube size.

**Bruker Part Number:** [AH1165](#) - 1 Tool



Figure 5.5: Norell Tube Rack for MATCH

## Norell Tube Rack for MATCH

The Norell Tube Rack has been developed to easily handle MATCH tubes.

This rack provides you with 10 positions for MATCH tubes of any size. In addition you can store the MATCH insert assemblies with/without the tubes and the complete mounted MATCH set, including the NMR spinner.

**Bruker Part Number:** [86870](#) - 1 Rack



Figure 5.6: 10 mm Spinner POM

## MATCH 10 mm Spinner POM

**Purpose/Description:** The 10 mm spinner POM for MATCH is used together with the MATCH tube insert assembly (see Order Information table).

**Bruker Part Number:** [Z5293](#) - 1 Spinner



Figure 5.7: Barcode Socket for MATCH

## Barcode Socket for MATCH

**Purpose/Description:** The optional barcode socket can be screwed onto the MATCH insert assembly (used with 10 mm spinner) and helps to easily identify your sample.

**Bruker Part Number:** [H1381](#) - 1 Barcode Socket



Figure 5.8: Special Glass Capillaries with Reservoir

## Glass Pipettes for 100 mm NMR Tubes

### Description:

Outer diameter: less than / equal to 0.5 mm

Length: greater than 110 mm

Reservoir: 350  $\mu$ l

Purpose: For 100 mm NMR tubes of 1-3 mm diameter.

**Bruker Part Number:** [AH1152](#) pack with 10 pipettes with piston.

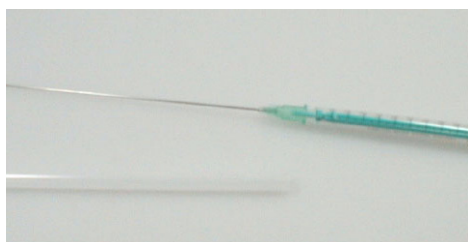


Figure 5.9: Disposable Syringe and Needle

## MATCH Disposable Syringes with Needles

**Purpose/Description:** The 1ml disposable plastic syringe in combination with a disposable 120 mm long needle are used to fill 3.0 to 5.0 mm MATCH tubes

**Bruker Part Number:** [AH1150](#) - 100 disposable syringes with 100 disposable needles.





# 4 Contact

**Manufacturer:**

Bruker BioSpin NMR  
am Silberstreifen  
D-76287 Rheinstetten  
Germany  
Phone: +49 721-5161-0  
<http://www.bruker-biospin.com>

**NMR Hotlines**

Contact our NMR service centers.

Bruker BioSpin NMR provide dedicated hotlines and service centers, so that our specialists can respond as quickly as possible to all your service requests, applications questions, software or technical needs.

Please select the NMR service center or hotline you wish to contact from our list available at:

[http://www.bruker-biospin.com/hotlines\\_nmr.html](http://www.bruker-biospin.com/hotlines_nmr.html)





# Bruker BioSpin, your solution partner

Bruker BioSpin provides a world class, market-leading range of analysis solutions for your life and materials science needs.

Our solution-oriented approach enables us to work closely with you to further establish your specific needs and determine the relevant solution package from our comprehensive range, or even collaborate with you on new developments.

Our ongoing efforts and considerable investment in research and development illustrates our long-term commitment to technological innovation on behalf of our customers. With more than 40 years of experience meeting the professional scientific sector's needs across a range of disciplines, Bruker BioSpin has built an enviable rapport with the scientific community and various specialist fields through understanding specific demand, and providing attentive and responsive service.

---

● **Bruker BioSpin Group**

[info@bruker-biospin.com](mailto:info@bruker-biospin.com)  
[www.bruker-biospin.com](http://www.bruker-biospin.com)