

Ritvik Chaturvedi

From: Ritvik Chaturvedi
Sent: Mon 24 Mar 2025 23:38
To: de Castro, Maria
Cc: Oasis Lab
Subject: RE: [Assistance Needed] Spare Parts for ThermoFisher Gas Bench II

Dear Maria,

Thanks for the response. I shall get back to you in case we have any further questions.

Regards,

Ritvik

From: de Castro, Maria <maria.castro@thermofisher.com>
Sent: Sun 23 Mar 2025 19:37
To: Ritvik Chaturvedi <ritvik@iisc.ac.in>
Cc: Oasis Lab <oasislab@iisc.ac.in>
Subject: RE: [Assistance Needed] Spare Parts for ThermoFisher Gas Bench II

External Email

Dear Ritvik,

My pleasure, I´m glad to know that it was useful.

Best regards,
María.

From: Ritvik Chaturvedi <ritvik@iisc.ac.in>
Sent: Friday, March 21, 2025 6:55 PM
To: de Castro, Maria <maria.castro@thermofisher.com>
Cc: Oasis Lab <oasislab@iisc.ac.in>
Subject: RE: [Assistance Needed] Spare Parts for ThermoFisher Gas Bench II

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Dear María,

Thank you for your prompt and helpful response, and for clarifying the ferrule specifications for the Gas Bench needles. I truly appreciate your assistance throughout this process.

I must apologize for the oversight on my part. After revisiting our previous correspondence, I realized I had already shared the same video and asked a similar question in my earlier email. I'm sorry for any inconvenience or confusion this may have caused.

Your patience and expertise have been invaluable, and I'm grateful for your continued support.

Thank you once again for your understanding and help.

Best regards,
Ritvik

From: de Castro, Maria <maria.castro@thermofisher.com>
Sent: Fri 21 Mar 2025 18:42
To: Ritvik Chaturvedi <ritvikc@iisc.ac.in>
Cc: Oasis Lab <oasislab@iisc.ac.in>
Subject: RE: [Assistance Needed] Spare Parts for ThermoFisher Gas Bench II

External Email

Dear Ritvik,

Yes, I already saw the video before I answered your first email, and the GVF-1/16"-008 is the ferrule that we supply with the Gas Bench needles.

Best regards,
María.

From: Ritvik Chaturvedi <ritvikc@iisc.ac.in>
Sent: Thursday, March 20, 2025 10:18 PM
To: de Castro, Maria <maria.castro@thermofisher.com>
Cc: Oasis Lab <oasislab@iisc.ac.in>
Subject: RE: [Assistance Needed] Spare Parts for ThermoFisher Gas Bench II

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Dear Maria,

Thank you for your detailed responses. They have been immensely helpful in guiding our decisions regarding the purchase of consumables.

I must admit, the part numbers for the 0.103 mm and 0.110 mm capillaries are a bit confusing, especially when two ThermoFisher representatives provide different part numbers for what seems to be the same item (but are actually only slightly different). To avoid further ambiguity, I have decided to stick to ThermoFisher P/N 0674910 or SGE P/N 062446.

Additionally, I really appreciate your clarification regarding the ferrule. That is precisely the one I was searching for. I have created a short video to provide more context – <https://youtu.be/nqfaqeskBA4>. Could

you kindly confirm if the ferrule shown in the video is the GVF-1/16"-008? Will be grateful if you could please review the video.

Best regards,

Ritvik

From: de Castro, Maria <maria.castro@thermofisher.com>
Sent: Thu 20 Mar 2025 19:34
To: Ritvik Chaturvedi <ritvikc@iisc.ac.in>
Cc: Oasis Lab <oasislab@iisc.ac.in>
Subject: RE: [Assistance Needed] Spare Parts for ThermoFisher Gas Bench II

External Email

Dear Ritvik,

See my answers in blue below.

Best regards,
María.

From: Ritvik Chaturvedi <ritvikc@iisc.ac.in>
Sent: Sunday, March 16, 2025 9:42 PM
To: de Castro, Maria <maria.castro@thermofisher.com>
Cc: Oasis Lab <oasislab@iisc.ac.in>
Subject: RE: [Assistance Needed] Spare Parts for ThermoFisher Gas Bench II

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Dear Maria,

Thank you for your response and for specifying the part number. I am sharing pictures of the two capillaries, along with their labels indicating the part numbers (IMG_7893.jpeg). If I am not mistaken, it appears that we have the correct part.

That said, I wanted to mention that it would have been helpful if Page 8 of the consumables list had specified the internal diameter of the capillary for P/N 0674910, as it does for the other capillaries. Perhaps this could be considered for inclusion in future revisions of the manual or consumables list. [I agree, I'll transmit your suggestion to the factory.](#)

I do have a few additional questions:

1. In IMG_7893.jpeg, you can see a capillary with P/N 0543380 (diameter 0.05 mm). However, the outer diameter is unclear. Additionally, the 'QTY' is listed as '2'. Does this indicate two individual capillary units in the bag, or does it refer to a total length of 2 meters? [This capillary data sheet shows this information:](#)

0.2mm OD* (* the OD may vary). But I guess the expected variation is small. Qty "2" means one capillary 2m long.

2. A local ThermoFisher representative mentioned P/N 1048990 for the 0.10 mm fused silica capillary. This part number differs from both the one you provided and the one listed on Page 8 of the manual. Could you clarify if this is an updated part number for P/N 0674910? [PN 1048990 corresponds to a deactivated 0.1mm id capillary \(Fused Silica Tubing deactivate ID=0.103mm +-3um OD=0.193+-7um. So the difference with PN0674910 is that the id is a bit smaller and it is deactivated.](#)

3. Lastly, we also have a 0.11 mm fused silica capillary (outer diameter = 0.17 mm), though it is not manufactured by ThermoFisher. The part number is SGE P/N 062446 (see attached picture, [IMG_7891.jpeg](#)). Would this have been a suitable alternative in case P/N 0674910 was unavailable? [Yes.](#)

4. Regarding the ferrule that is used to connect the stainless steel capillary of the needle to the bulkhead union – does it have a bore diameter of 1.0 mm (i.e. GVF 1/16" 0010) or 0.8 mm (i.e. GVF 1/16" 008)? The stainless-steel capillary itself appears to be 0.8 mm diameter, so the 1.0 mm ferrule seems more appropriate. I have made a short video regarding the same - <https://youtu.be/nqfaqeskBA4>. I hope it will be helpful in explaining my problem better. [This is the ferrule you are looking for:](#)

[PN 1068700 GVF /008 ferrule \(Vespel®-Graphite Ferrules 15 % Graphite - 85 % Vespel® for 1/16"\).](#)

[That PN is from the IRMS product line, and one unit corresponds to one ferrule. A more convenient and cheaper option is PN1R76458-2020, which is the same part but it corresponds to a package of 10 ferrules. Or you can buy directly from Trajan \(former SGE\).](#)

I greatly appreciate your expertise on this matter and look forward to your clarification.

Best regards,

Ritvik

From: Stable Isotope Geochemistry <ISOGEOCHEM@list.uvm.edu> **On Behalf Of** de Castro, Maria

Sent: Sun 16 Mar 2025 23:37

To: ISOGEOCHEM@LIST.UVM.EDU

Subject: Re: [ISOGEOCHEM] [Assistance Needed] Spare Parts for ThermoFisher Gas Bench II

External Email

Dear Ritvik,

With regards to the 0.1mm id fused silica capillary, in the pg. 8 of that manual (table 2) you'll find PN0674910, which is a 0.1mm id capillary (more specifically 0.11mm id).

And in pg. 9 there is an scheme where you can see where the 0.1mm id capillary is used. Additionally, in pg.11 you have a description of some of this capillary usage:

- Two capillaries (0.1/500) that support the open splits with 2 mL/min of helium each.
- Two capillaries (0.1/250) for 4 mL/min of helium to the water trap
- Sample MS capillary

Best regards,
María.

From: Stable Isotope Geochemistry <ISOGEOCHEM@list.uvm.edu> **On Behalf Of** Ritvik Chaturvedi

Sent: Friday, March 14, 2025 8:03 PM

To: ISOGEOCHEM@LIST.UVM.EDU

Subject: [ISOGEOCHEM] [Assistance Needed] Spare Parts for ThermoFisher Gas Bench II

CAUTION: This email originated from outside of Thermo Fisher Scientific. If you believe it to be suspicious, report using the Report Phish button in Outlook or send to SOC@thermofisher.com.

To: Members of IsoGeoChem channel

Dear Team,

I am currently working on reviving a Thermo Fisher Finnigan Gas Bench II, coupled with the MAT253 Isotope Ratio Mass Spectrometer (IRMS) at our facility. I am reaching out to the IsoGeoChem community for guidance on a few points:

1. According to the attached Gas Bench Consumables/Spare Parts manual (see page 8 of the PDF), the required fused silica capillaries are: 0.05 mm, 0.075 mm, and 0.32 mm. We have all these in stock. However, a ThermoFisher representative recently suggested purchasing a 0.1 mm fused silica capillary, which is not mentioned in the manual (see Page 8). Do we truly need a capillary of this dimension? If so, could someone clarify its intended use in the Gas Bench?
2. We are running low on the ferrules that connect the stainless-steel capillary of the needle to the Valco bulkhead union (ThermoFisher P/N 1121170; see attached picture). I am uncertain about the dimensions of this ferrule. It likely has a fitting size of 1/16", but please correct me if I am wrong. The stainless-steel capillary diameter is 0.8 mm. Given that the 0.32 mm capillary fits through a ferrule with a 0.5 mm hole diameter but not through one with a 0.4 mm hole diameter, I am inclined to think that we need a ferrule with a 1.0 mm hole diameter (SGE P/N 072656) rather than 0.8 mm (SGE P/N 072655). I would like to point out that there are no ferrules with a 0.9 mm diameter – it's either 0.8 mm or 1.0 mm. My only concern is whether this will be too loose.

Your insights on these matters would be greatly appreciated.

Best regards,
Ritvik Chaturvedi
Centre for Earth Sciences, Indian Institute of Science, Bengaluru