Outlook

RE: Albanian Gas Mixture confirmation.

From Roberto Guida <Roberto.Guida@cern.ch>
Date Mon 2025-12-01 17:06
To Enkelejd Caca <enkelejd.caca@cern.ch>; Ian Crotty <ian.crotty@cern.ch>
Cc Mehar Ali Shah <mehar.ali.shah@cern.ch>; bdemaj@upt.al <bdemaj@upt.al>; Ian Crotty <ian.crotty@cern.ch>

2 attachments (104 KB)
PriceOffer_GasDistribution_2025_3_1.docx; MIxer Albania 2025.xlsx;

Hello Enkelejdi, all,

In attachment a first quote for mixer and humidifier (in principle needed for RPC).
I also added the excel table with more details on the cost. Some prices are old, but they give a rough idea.

Let me know if you would like to proceed with something more detailed.

Best regards,
Roberto

From: Enkelejd Caca <enkelejd.caca@cern.ch>
Sent: mercredi 19 novembre 2025 11:44
To: Ian Crotty <ian.crotty@cern.ch>; Roberto Guida <Roberto.Guida@cern.ch>
Cc: Mehar Ali Shah <mehar.ali.shah@cern.ch>; bdemaj@upt.al; Ian Crotty <ian.crotty@cern.ch>
Subject: Re: Albanian Gas Mixture confirmation.

I agree with Ian, so I think Roberto you have everything to send us an estimate for the cost of the gas chamber.
Best
Enkelejdi

Sent from Outlook for Android

From: Ian Crotty <ian.crotty@cern.ch>
Sent: Monday, November 17, 2025 7:36:25 PM
To: Enkelejd Caca <enkelejd.caca@cern.ch>; Roberto Guida <Roberto.Guida@cern.ch>
Cc: Mehar Ali Shah <mehar.ali.shah@cern.ch>; bdemaj@upt.al <bdemaj@upt.al>; Ian Crotty <ian.crotty@cern.ch>
Subject: Re: Albanian Gas Mixture confirmation.

Colleagues

Fine "all" gases at 10l/h BUT the SF6 I very much doubt that >5% would ever be used and > 10% Iso-butane is unlikely as it will make flammable mixtures in non Freon environment above 7-8% if I recall correctly.

So for SF6 with max 5% gives a flow of 0.5 [l/h]
Isobutane with max 10% gives a flow of 1.0 [l/h]

The rest max 10 [l/h]

Incidentally having a low flow value of flammable gas, although not a safety system, will inherently reduce the risk somewhat of making a flammable mixture.

Best

Ian

PS we have not discussed the safety aspects and actions for a detecting and cutting the flow of gas.

From: Enkelejd Caca <enkelejd.caca@cern.ch>
Sent: 17 November 2025 13:56
To: Ian Crotty <ian.crotty@cern.ch>; Roberto Guida <Roberto.Guida@cern.ch>
Cc: Mehar Ali Shah <mehar.ali.shah@cern.ch>; bdemaj@upt.al <bdemaj@upt.al>; Ian Crotty <ian.crotty@cern.ch>
Subject: Re: Albanian Gas Mixture confirmation.

Hello to all.
The email send by Ian was very helpful, o agree with the points made by Ian for the second set of gasses.
So, as Ian pointed out, the maximum flow rate will be 10l per hour for all the gasses.
I hope we will hear from you soon Roberto.
Best regards
Enkelejd

Sent from Outlook for Android

From: Ian Crotty <ian.crotty@cern.ch>
Sent: Friday, November 14, 2025 4:20:01 PM
To: Enkelejd Caca <enkelejd.caca@cern.ch>; Roberto Guida <Roberto.Guida@cern.ch>
Cc: Mehar Ali Shah <mehar.ali.shah@cern.ch>; bdemaj@upt.al <bdemaj@upt.al>; Ian Crotty <ian.crotty@cern.ch>
Subject: Re: Albanian Gas Mixture confirmation.

Hello Enkelejd

These are good guesses for what will be coming in the future. I would extend the CO2, HFO and Argon to 100% as this covers scans of mixtures. I would also put the SF6 up to 3-5%

What I had understood that Roberto requires the values of flow in units of litres/hour. So if you want to calculate these values then Roberto can choose what are the MFCs that are required. The value of total flow was suggested during our meeting as 10litres/hour. As an example Argon, CO2 etc should be 10litres/hour.

I suspect that Roberto would prefer to keep the small percent gases at a value of flow as high as possible to maintain accuracy. Working at the bottom of the range is never a good idea. So this is an argument to keep the "main" gases at 10litres/hour.

I understand this will allow Roberto to make a quote.

Cheers

Ian

From: Enkelejd Caca <enkelejd.caca@cern.ch>
Sent: 14 November 2025 12:02
To: Roberto Guida <Roberto.Guida@cern.ch>
Cc: Mehar Ali Shah <mehar.ali.shah@cern.ch>; Ian Crotty <ian.crotty@cern.ch>; bdemaj@upt.al <bdemaj@upt.al>
Subject: Albanian Gas Mixture confirmation.

Hello to all.
Dear Roberto as we discussed Tuesday the gas mixture ratio will be for the standard mixture;
94.7-95.2% $C_2H_2F_4$ (R-134a), 4.5-5.0% i-C_4H_{10} and 0.3%SF_6.
For the other gases;
35-45% HFO, 50-60% CO_2, 4.0% i-C_4H_{10} and 1.0% SF_6.

However for the second gas mixture we don't have a specific mixture, and the range for the CO_2 might be from 40-60%, we will experiment with new mixtures.
Best regards
Enkelejd