

Atmos. Meas. Tech. Discuss., referee comment RC1  
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## Comment on amt-2021-254

Julien Moyé (Referee)

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Referee comment on "Fill dynamics and sample mixing in the AirCore" by Pieter Tans,  
Atmos. Meas. Tech. Discuss., <https://doi.org/10.5194/amt-2021-254-RC1>, 2021

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General comments : This article is very clear and I learned a lot about the history of AirCores as well as the dynamics of flows and mixing inside the tubes.

Specific comments :

- Have you tried to calculate the inflow and outflow without the dryer ? Is it very different ? What about the mixing ?  
A first guess on my side : I think the flow would be less turbulent without dryer wo it can generates less mixing.

Technical suggestions :

- Figures 3 and 6 : in order to make it a little bit easier to read, maybe add a vertical line of the "half-filtrate point" ?
- Still to make it easier to read and compare, maybe add a table to compare the AirCores AC1 and GMD008 (dimensions : lenght, diameters) + plot figures 1-4 and 5-8 together ?