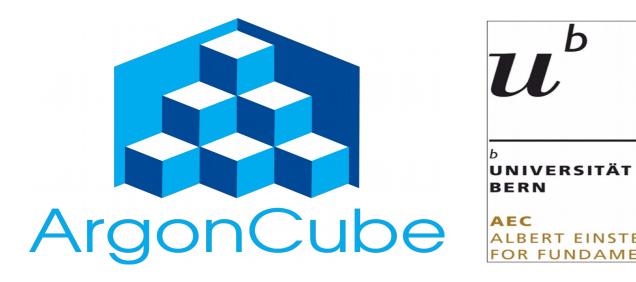


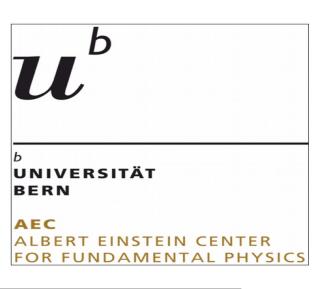
Cubism - Braque's Bottle and Fishes, Paris c.1910-12



#### Updates from Bern

# **DEEP UNDERGROUND NEUTRINO EXPERIMENT**

ArgonCube Fortnightly call Feb 27<sup>th</sup> 2020 James Sinclair, LHEP



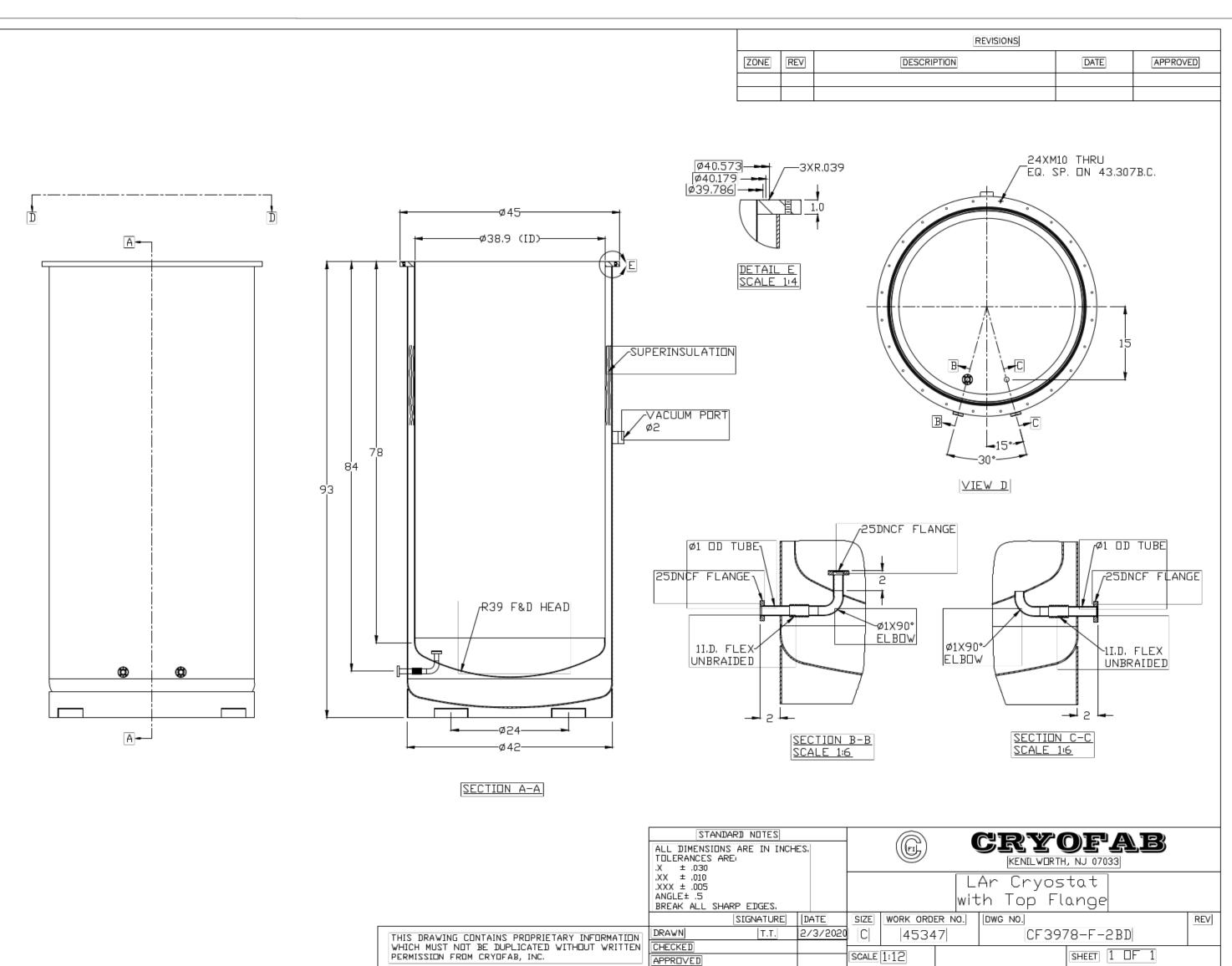




#### Single module cryostat

The final design has been vetted, and the order placed.

This should be with us in April.

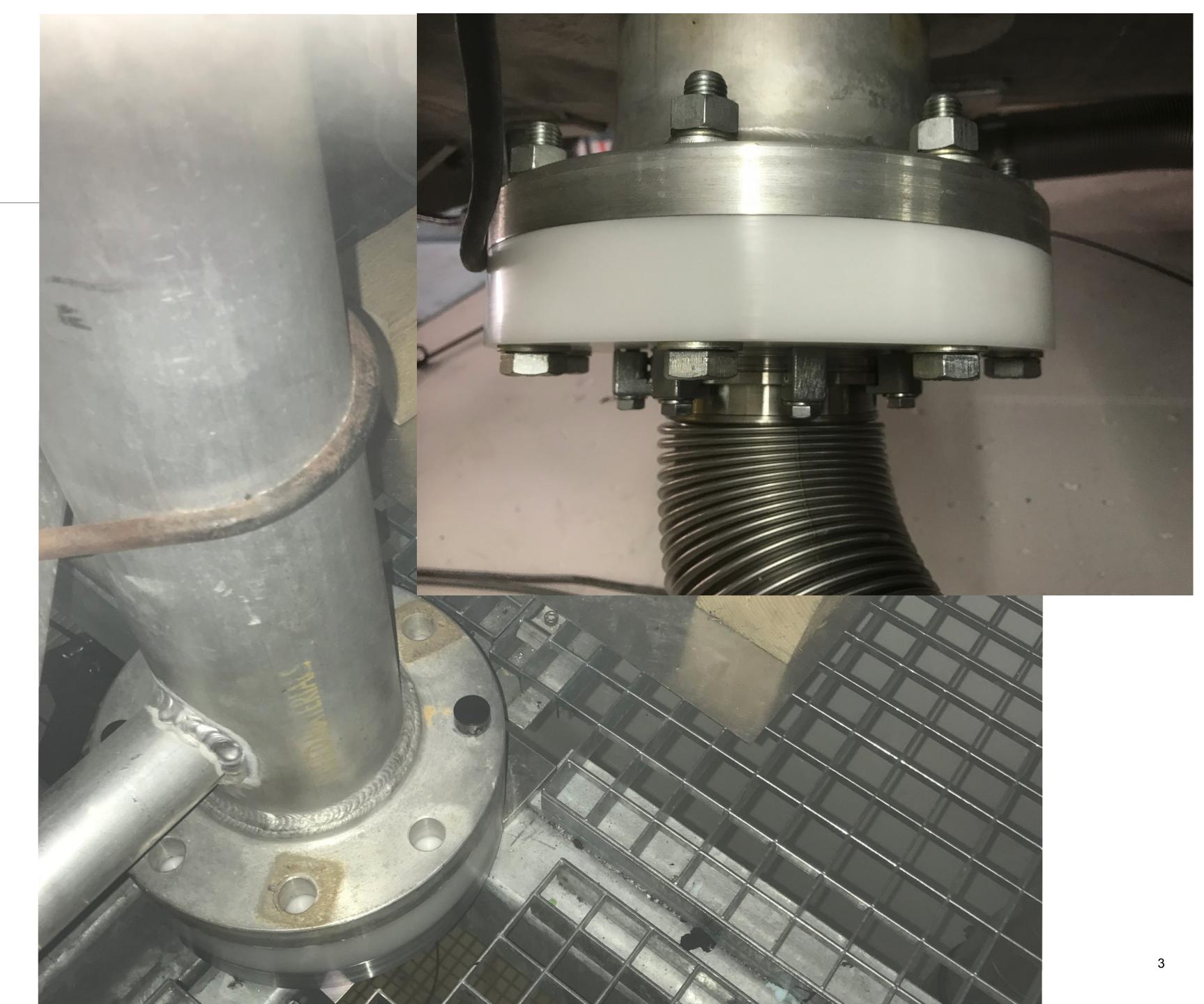


2

#### Electrical isolation

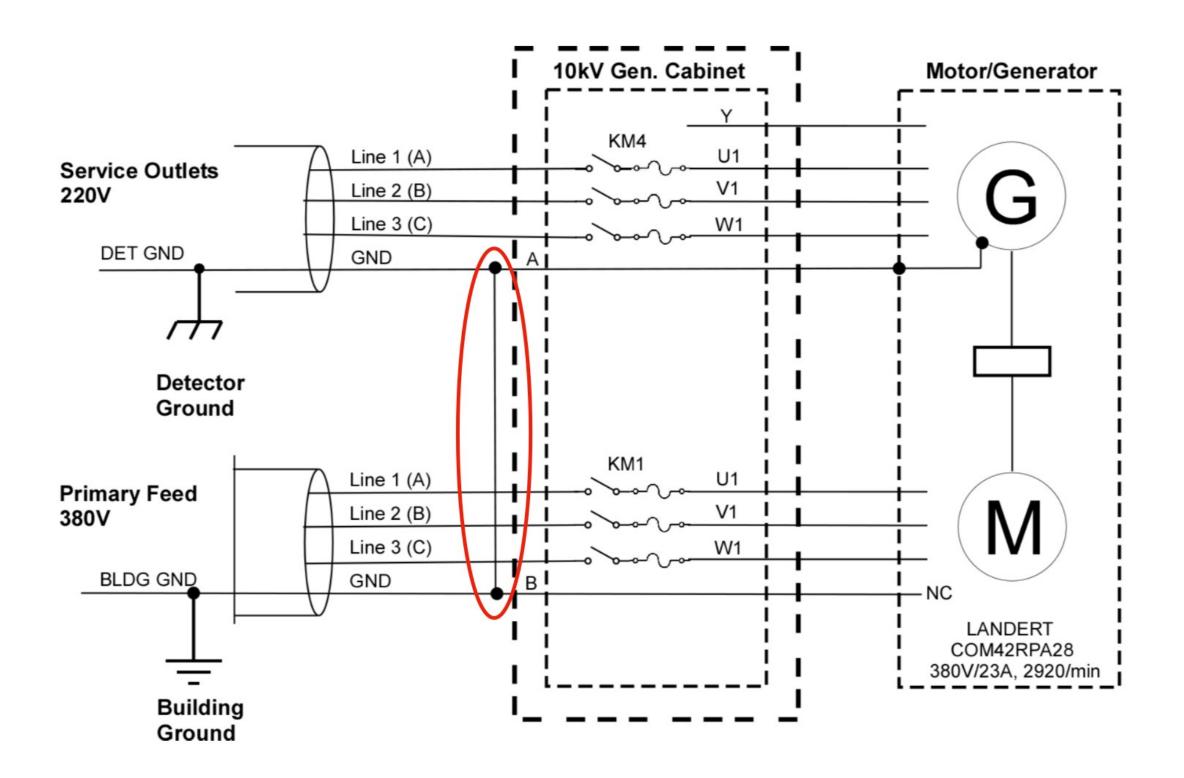
We Have been working with Linda to develop the isolation scheme for the 2x2.

The cryostat isolation is now installed, and a open circuit is measured between cryostat and building ground.

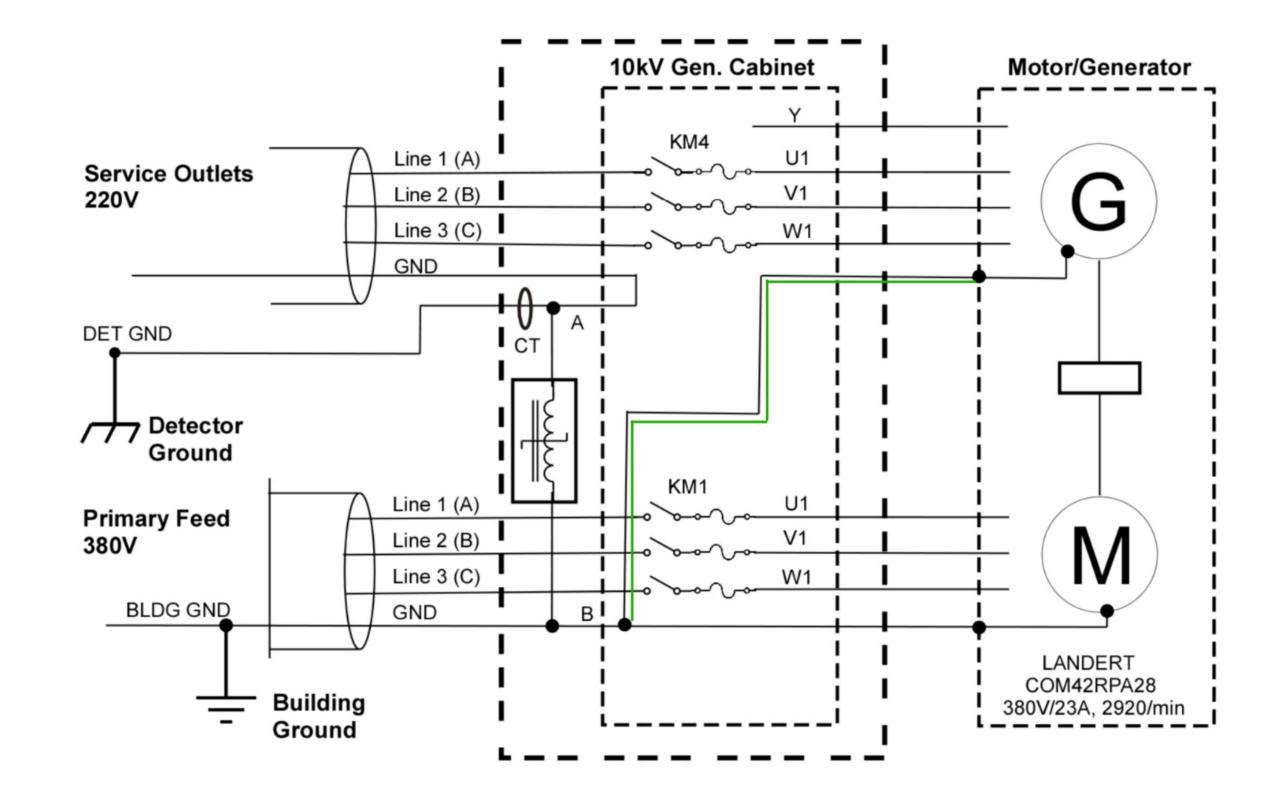


#### Electrical isolation

generator, improving safety in a phase failure state



## Francesco and Linda are now implementing a new grounding scheme for the racks and



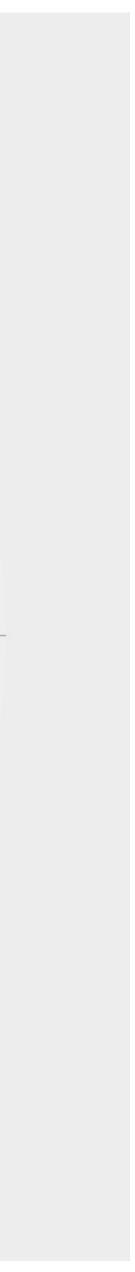
4

#### Inclusive drawings

To ease the integration, we are starting to include all additional components (isolation, valves, connectors...) in the combined drawing.

Available on the ArgonCube Google drive.





#### External filter

We have a cryostat and filter material. We are assembling internal components and top flange.

Thermowells are due this week (S. Pordes advised monitoring of regeraration temp, <200C).

The filter will need pressure testing at 26 bar before filling.

The purity test stand should be ready to integrate the filter in late March.





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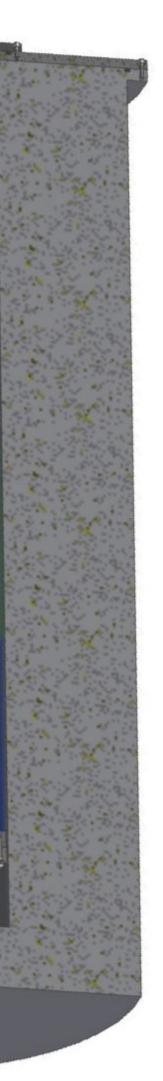
MUST BE ACTIVATED VIA REDUCT ORE USING FOR OXYGEN REMOVA CATALYSTS FOR REDUCTION PROCED GENERATION). CAUTION! IN REDUCE RIC!!! ONCE ACTIVATED, DO NO

**Research Catal** Serving Science & Ind

#### **Q-5** Copper Catalyst 14 x 28 Mesh

MUST BE ACTIVATED VIA IYDROGEN BEFORE USING FOR OXYGE ESEARCH CATALYSTS FOR REDUCTION LE FOR REGENERATION). CAUTION! IN ORIC!!! ONCE ACTIVATED. D

Catalysts, Inc. • 16791 Carrol Lane, Will



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**REQUEST INF** 

#### Module bucket

Most bucket G10 components have arrived.

The L-profiles have been ordered, and will need machine finishing.

The composites group at LBNL have identified an adhesive and advised bonding procedure. Thanks to Andrew.

Components ready late March





T<mark>hickness (</mark>i

Rod Length

Horizontal

Vertical Leg

Thickness (n

Acculam®

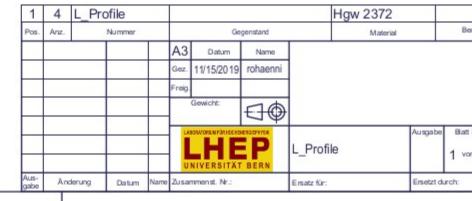
Military Grad



rs inches) 0.250 inches 2 40 36 in 4 2 000 inches 2 000 inches 2 000 inches 3 000 m 6 350 mm 6 350 mm 6 NEMA Grade G10 / FR4 ade(s) & Type(s) Mi-1/24768/27 A	Epoxy Fiberglass	G10 / FR4 Laminated Molded Angle		
inches)       0.250 inches         Leg       2000 inches         g       2.000 inches         mm)       6.350 mm         K NEMA Grade       G10 / FR4         ade(s) & Type(s)       Mil-124768/27         A - +       1714.5				
$\frac{24 \text{ to } 36 \text{ in}}{2000 \text{ inches}}$ $\frac{2000 \text{ inches}}{6 \text{ so } 350 \text{ mm}}$ $\frac{6.350 \text{ mm}}{6.350 \text{ mm}}$ $\frac{6.07 \text{ FA}}{6.07 \text{ com}}$ $\frac{6.07 \text{ FA}}{1716}$ $\frac{6.07 \text{ fm}}{1716}$		0.250 Inches		
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1 4 L_Profile Hgw 2372		$A \rightarrow 1$ 1714.5 B (1.5 : 1)	0.2 x 45° gebrochen Allgemeintoleranzen nach ISO 2768-m	Hgw 2372

4.5

50.8





#### Filter test stand

Purity measurements with the 2x2 cryostat are not feasible (cost and time) so we are constructing a purity test stand in our 500 I cryostat.

A gas chromatograph will also be installed.

The this setup will operate March 9<sup>th</sup>, also testing ArCLight, LCM and SLAC HV feedthrough



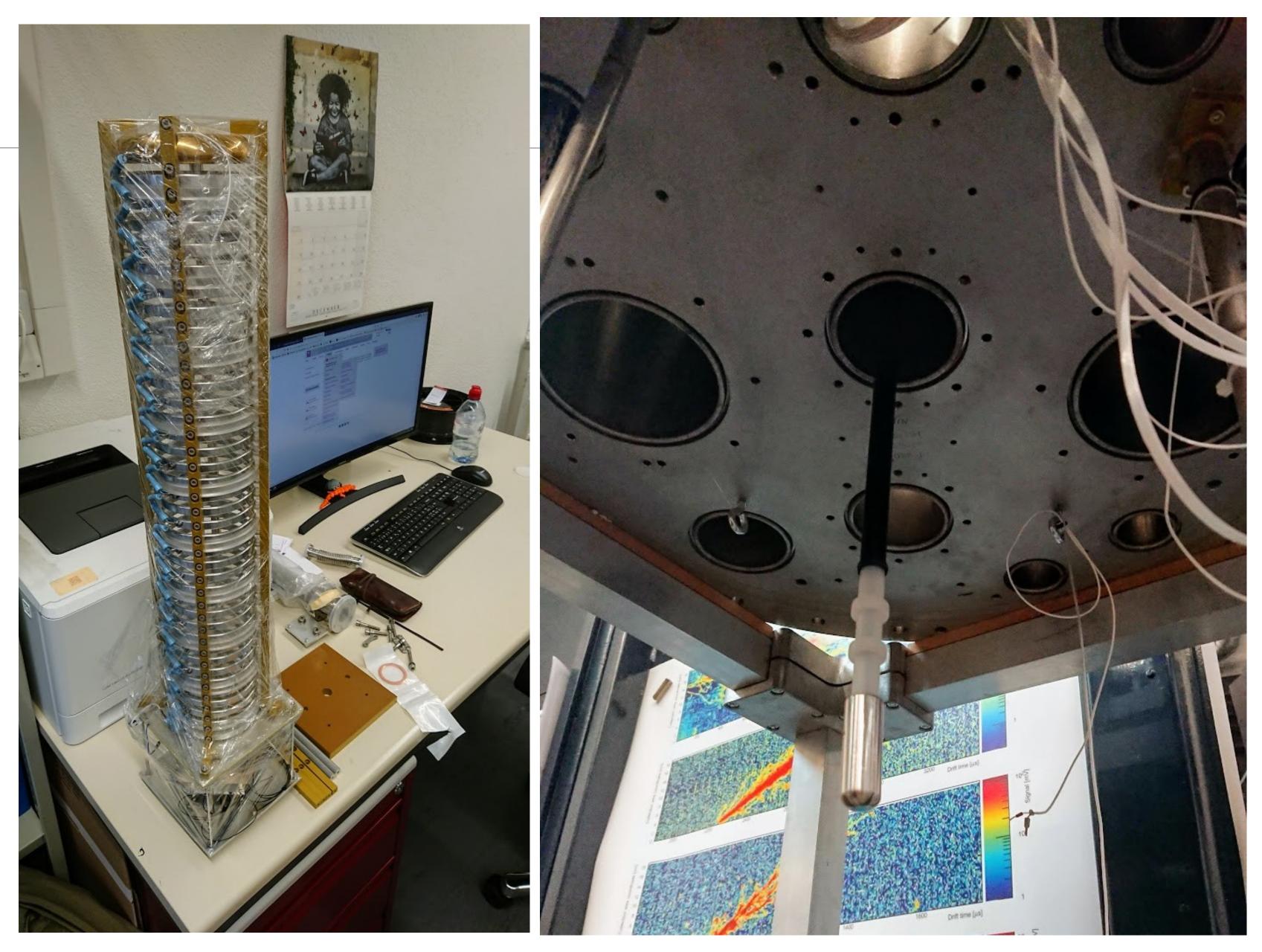




#### Filter test stand

The original pixel demonstration TPC is being repurposed as a purity monitor.

It will be shortened and hung below the HV feedthrough





### Light R/O

Material is in hand for ArCLight, but the tiles must still be assembled.

Construction is underway of full size tiles. Cold tests happening this week.

The feedthrough PCB should arrive this week.

