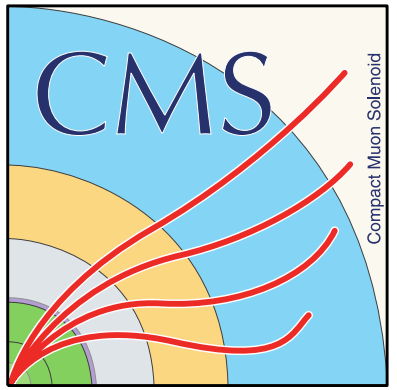


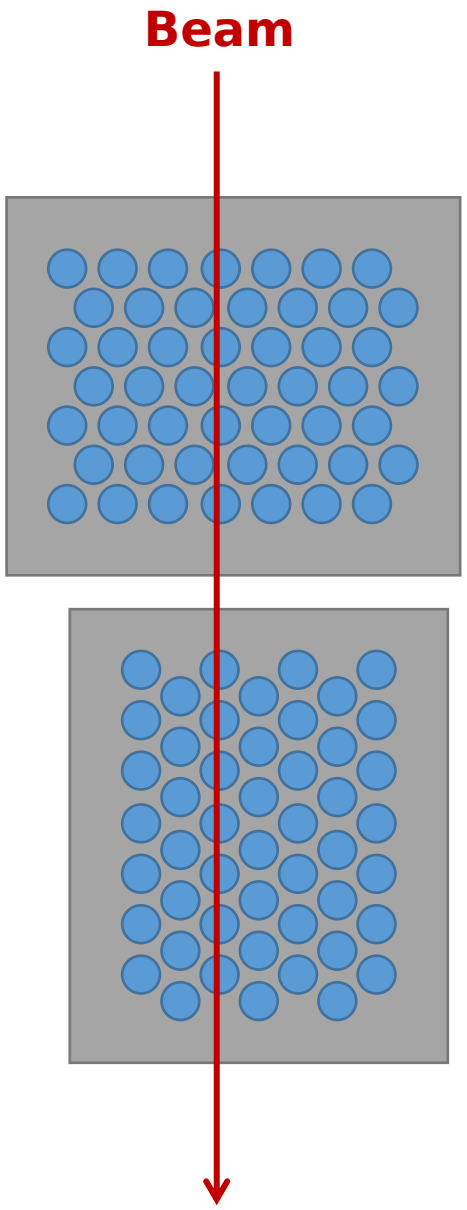
QFib Test Beam 24

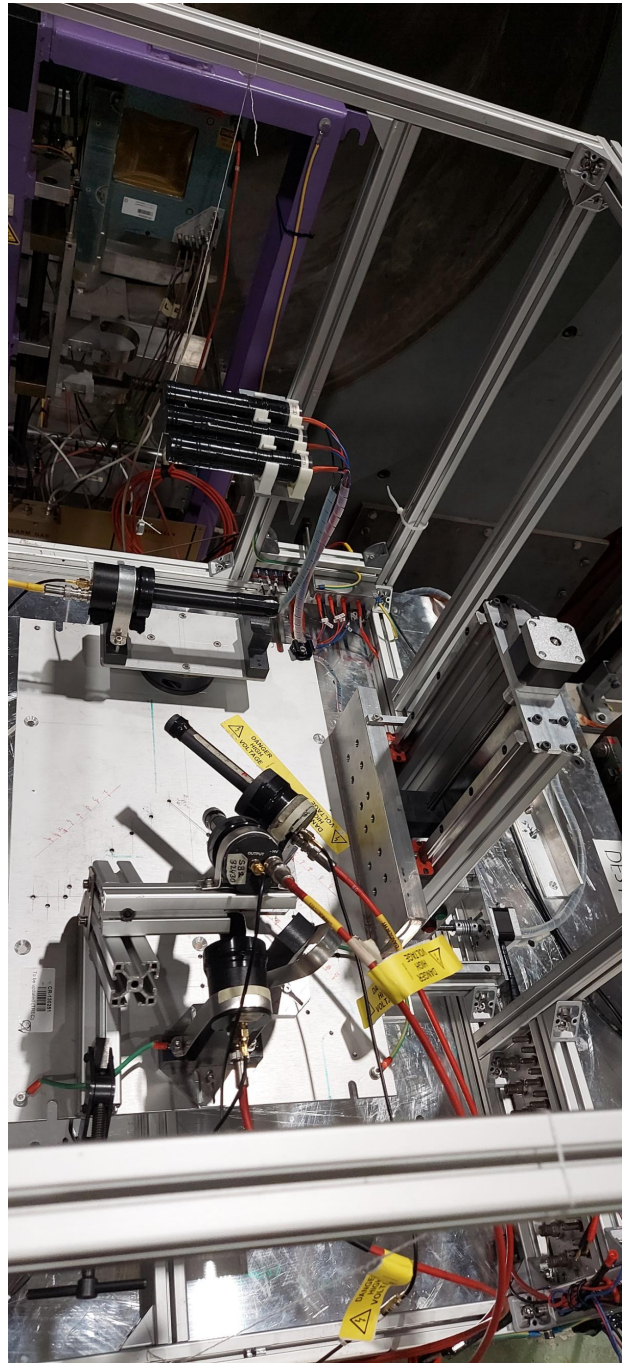
O. POTOK

12 April 2024

We prepare directional fiber array according to the beam path with the same optical contact and same condition just rotating the array we can get 4 or 7 fiber in line.

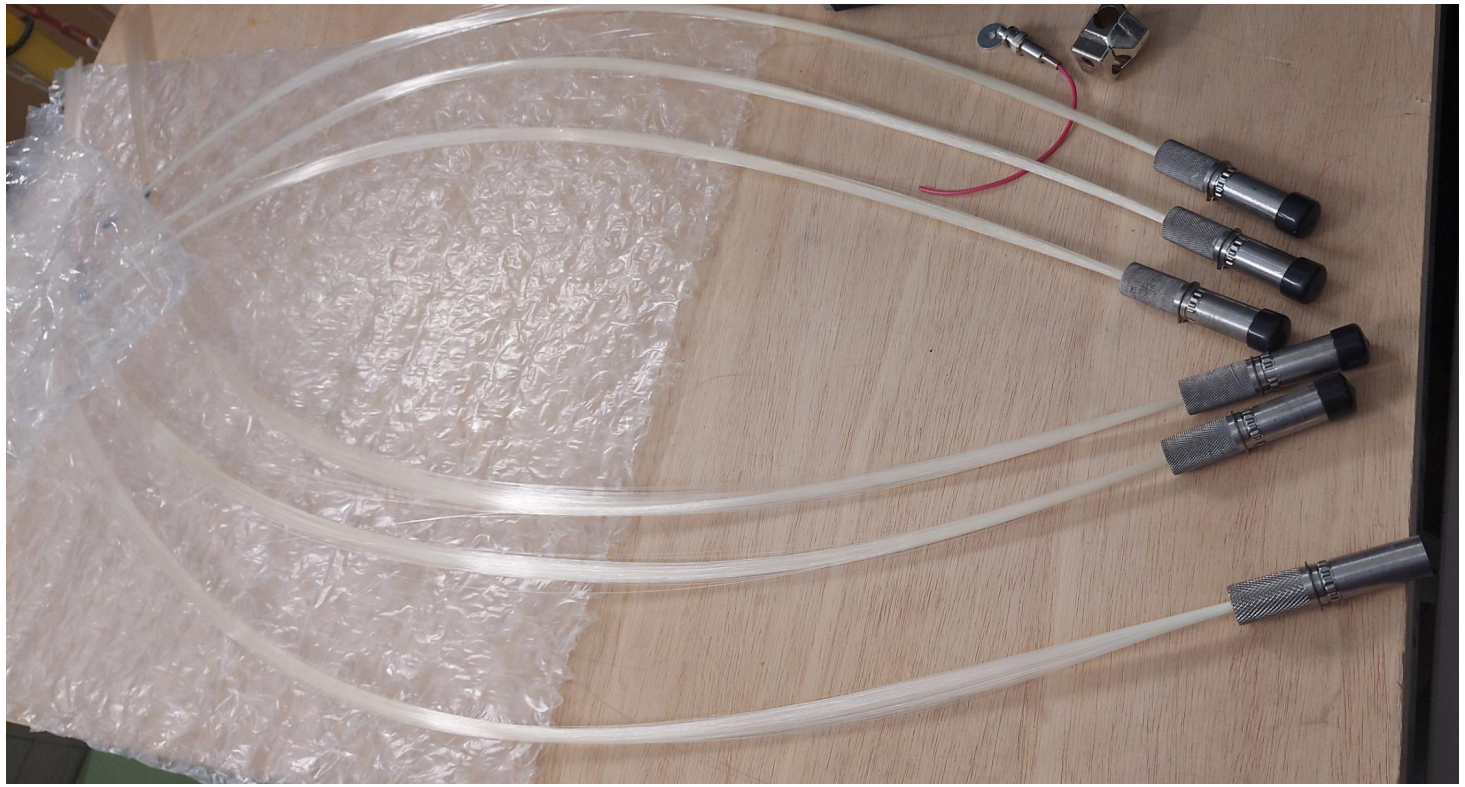
Main purpose of this study is to obtain one fiber response.

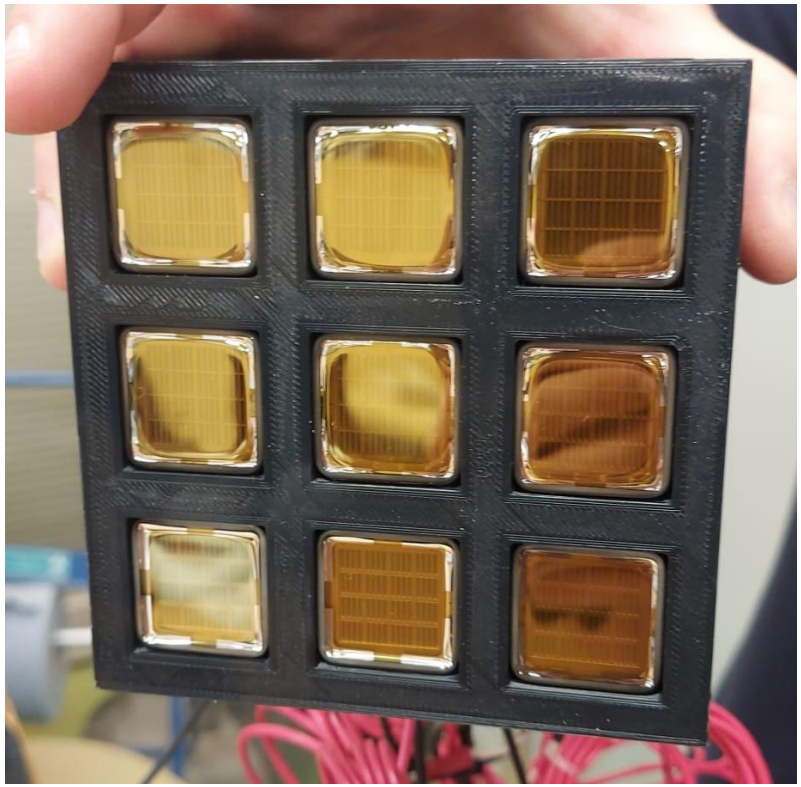


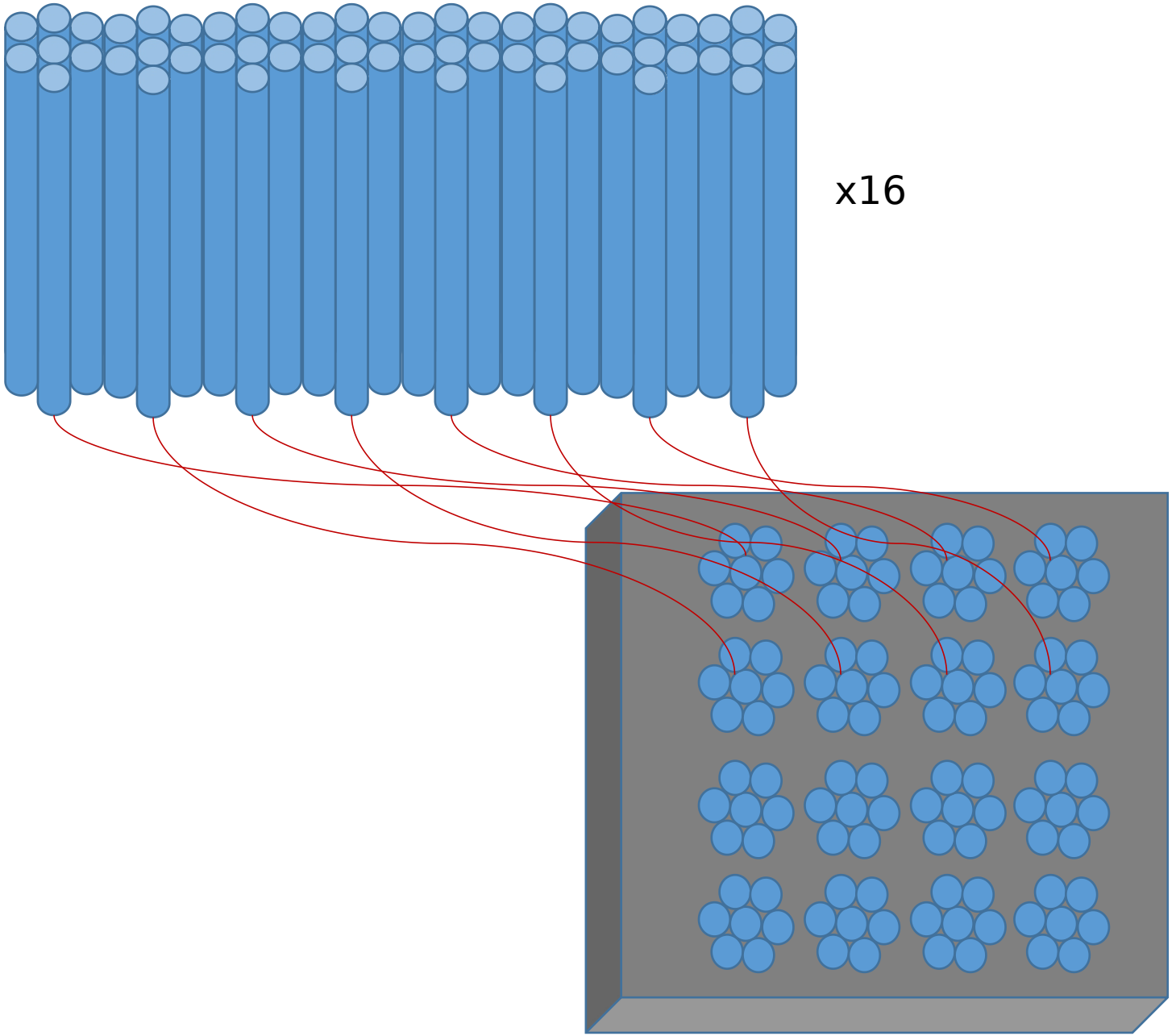


Main Goal -> Preshower test with absorber and quartz fibers.

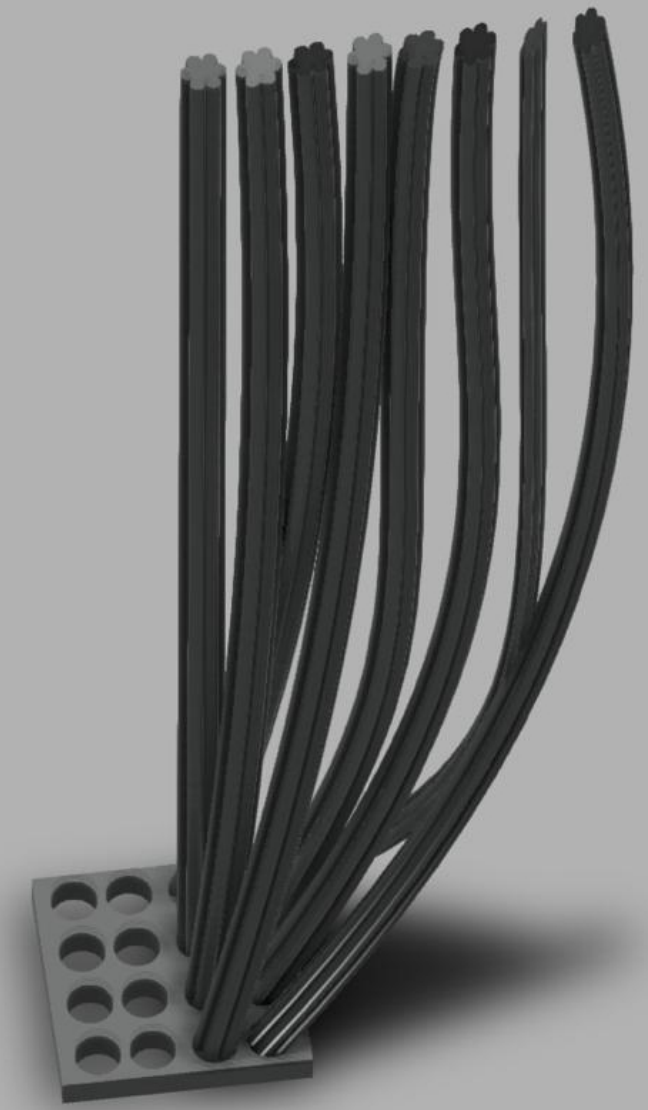
PPP fiber bunldes coupling with Hamamatsu R5900 PMT array for this purpose.

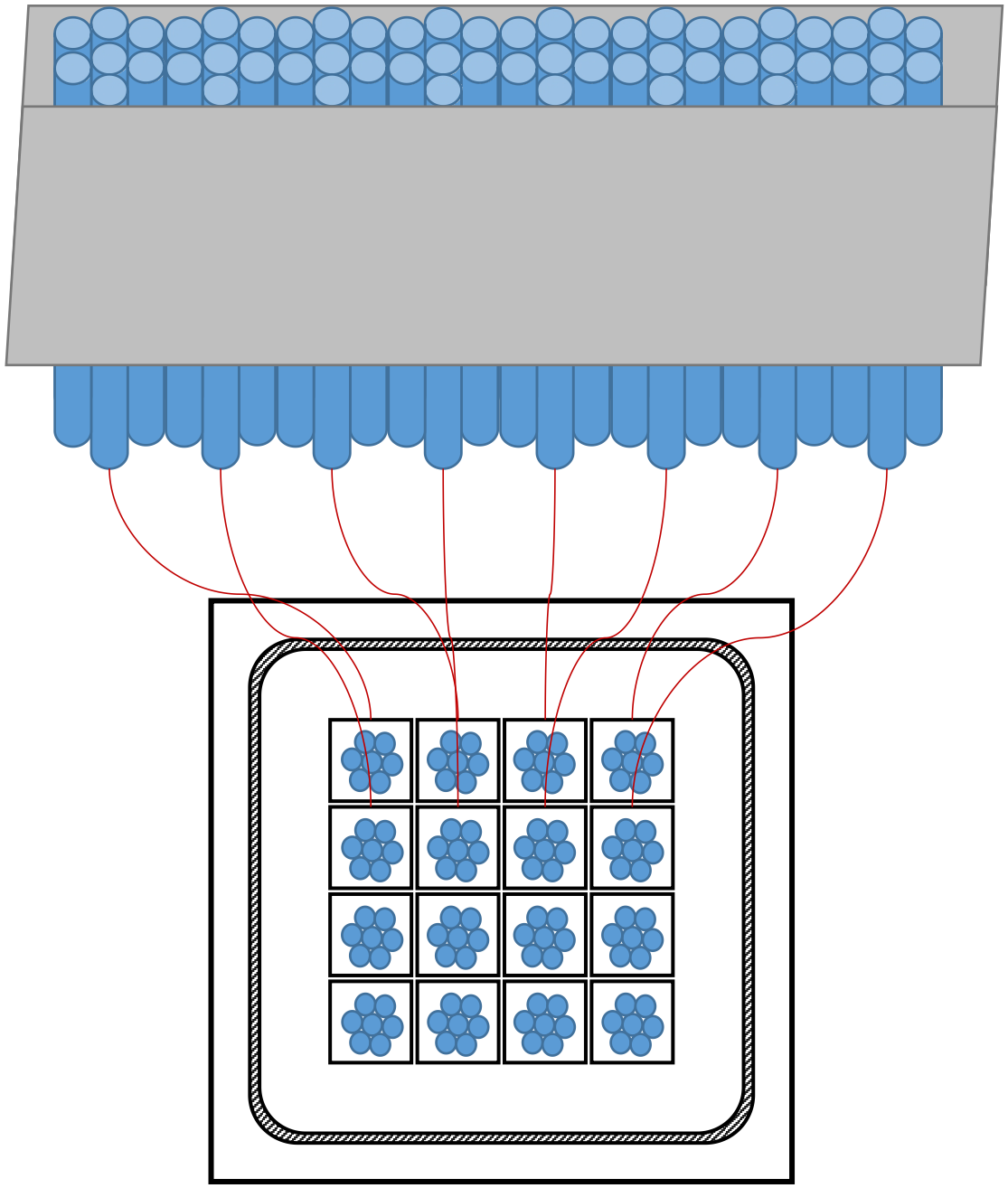


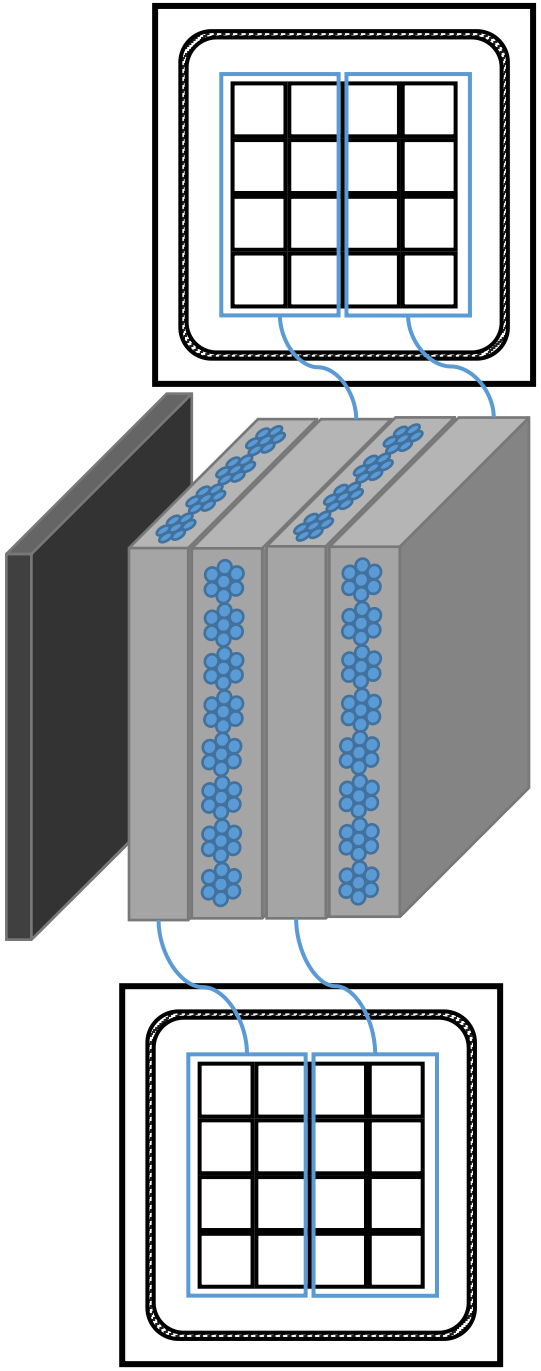




Thanks to Selbi and Yasin







Fibers

If fiber has 1000u diameter with buffer we should choose 7 fiber
Otherwise, we can use 19 fiber bundle according to the size of the fiber
We would like to also try fibers without buffer

- FSHA600630800 - HF

800*3=2400	630*3=1890
800*5=4000	**630*5=3150**
800*7=5600	630*7=4410

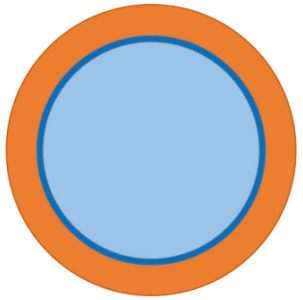
- JTFLH600630950

950*3=2850	630*3=1890
950*5=4750	**630*5=3150**
950*7=6650	630*7=4410

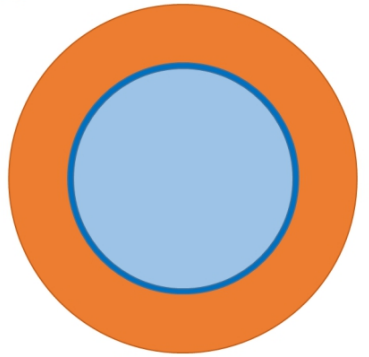
- FSU330350400

400*3=1200
400*5=2000
400*7=2800

Polymicro (MOLEX) Fibers tested

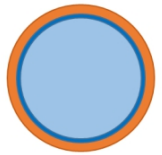


HF : FSHA600630800 (OH- 500ppm)

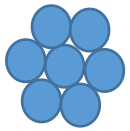


JTFLH600630950 (OH- ??? ppm)
(≈ 200m spool)

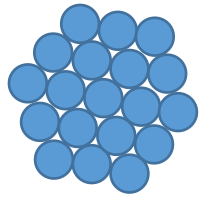
PPP-HF : FSHA300320345 (OH- 700ppm)



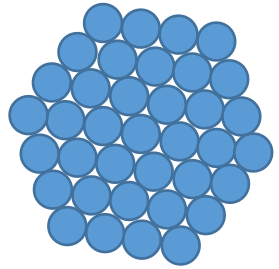
High N-A : FSU330350400 (OH- ???ppm)
(≈3m)



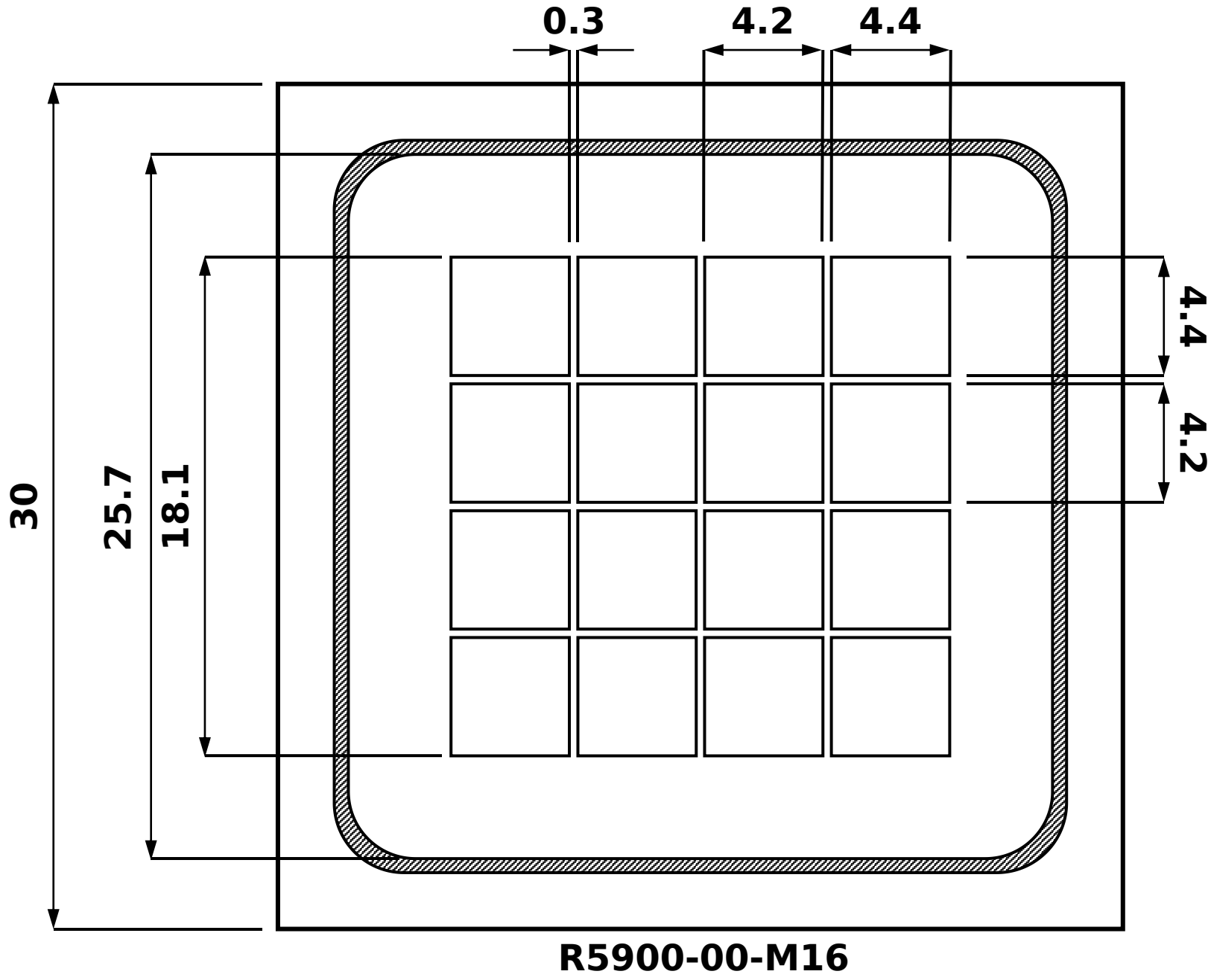
7 fiber bundle



19 fiber bundle



37 fiber bundle


0.3
4.2
4.4
30
25.7
18.1
4.4
4.2
R5900-00-M16