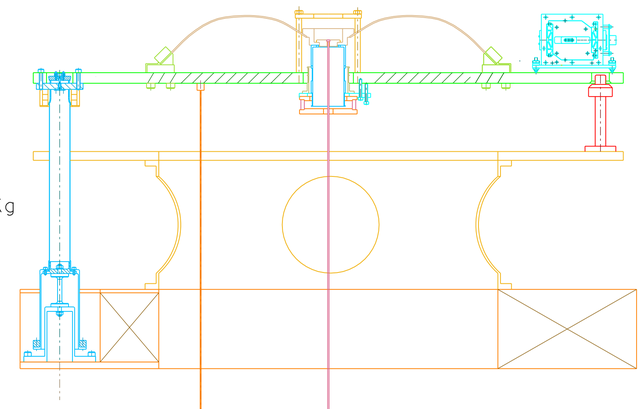
Filter's chain type A



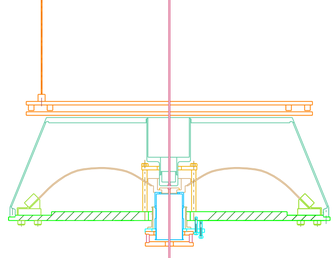
IP total load 1188.6 Kg

Top filter: total mass (filter+ballast+accelerometers) 558.6 Kg

Total load on the blades 630 Kg

N°9 blades; load/blades 70 Kg

Suspension first wire dia 3.2 mm
σ = 783.34 N/mm2

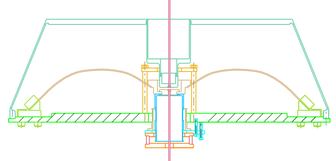


Filter 1: Total mass 106.24 Kg

Total load 523.76 Kg

N° 12 blades; load/blade 43.65 Kg

Suspension second wire dia 3 mm
σ = 740.97 N/mm2

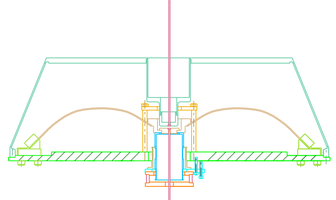


Filter 2: Total mass 89.37 Kg

Total load 434.39 Kg

N°12 blades; load/blade 36.2 Kg

Suspension third wire dia 2.8 mm
σ = 705.46 N/mm2



Filter 3: Total mass 86.51 Kg

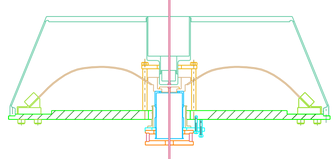
Total load 347.88 Kg

N°10 blades; load/blade 34.79 Kg

Suspension fourth wire dia 2.5 mm
σ = 708.69 N/mm2

our budget is 300 kg below this point

I propose that we keep this value fixed for now
the massesthat form these 300 kg can change

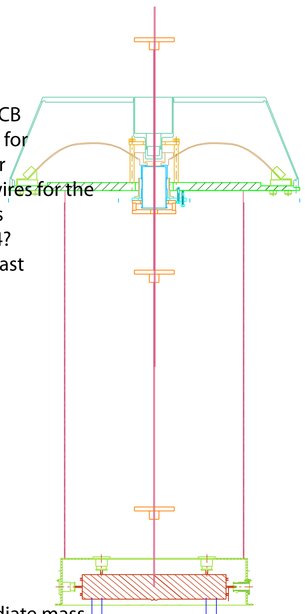


Filter 4: Total mass 83.65 Kg

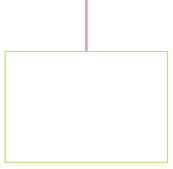
Total load 264.23 Kg

N°8 blades; load/blade 33.03 Kg

Filter 4: Ryutaro also called it CB
I do not know what CB stands for
it will look like a standard filter
only supporting three more wires for the
intermediate mass recoil mass
should we call it simply filter 4?
mass about 85 kg + 15 kg ballast

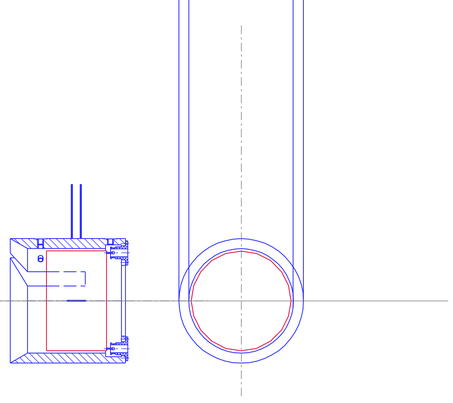


Suspension fifth wire dia 2.1 mm
σ = 762.87 N/mm2



Payload Kg 264.23

The red one is the intermediate mass
the green one is its recoil mass
should we call them simply
IM and IRM?
Themass of IRM + IM should be ~
100 kg



these are the test mass (red) and its recoil mass (blue).
their names are already well accepted TM and RM
we assigned a sum mass TM + RM =~ 100 kg,
initially 10 kg for the TM and 90 kg for the RM
so that later, if we get heavier mirrors we can change easily
Note that we can shift mass between TM, RM, IM and IRM
without changing the load on the springs of the chain