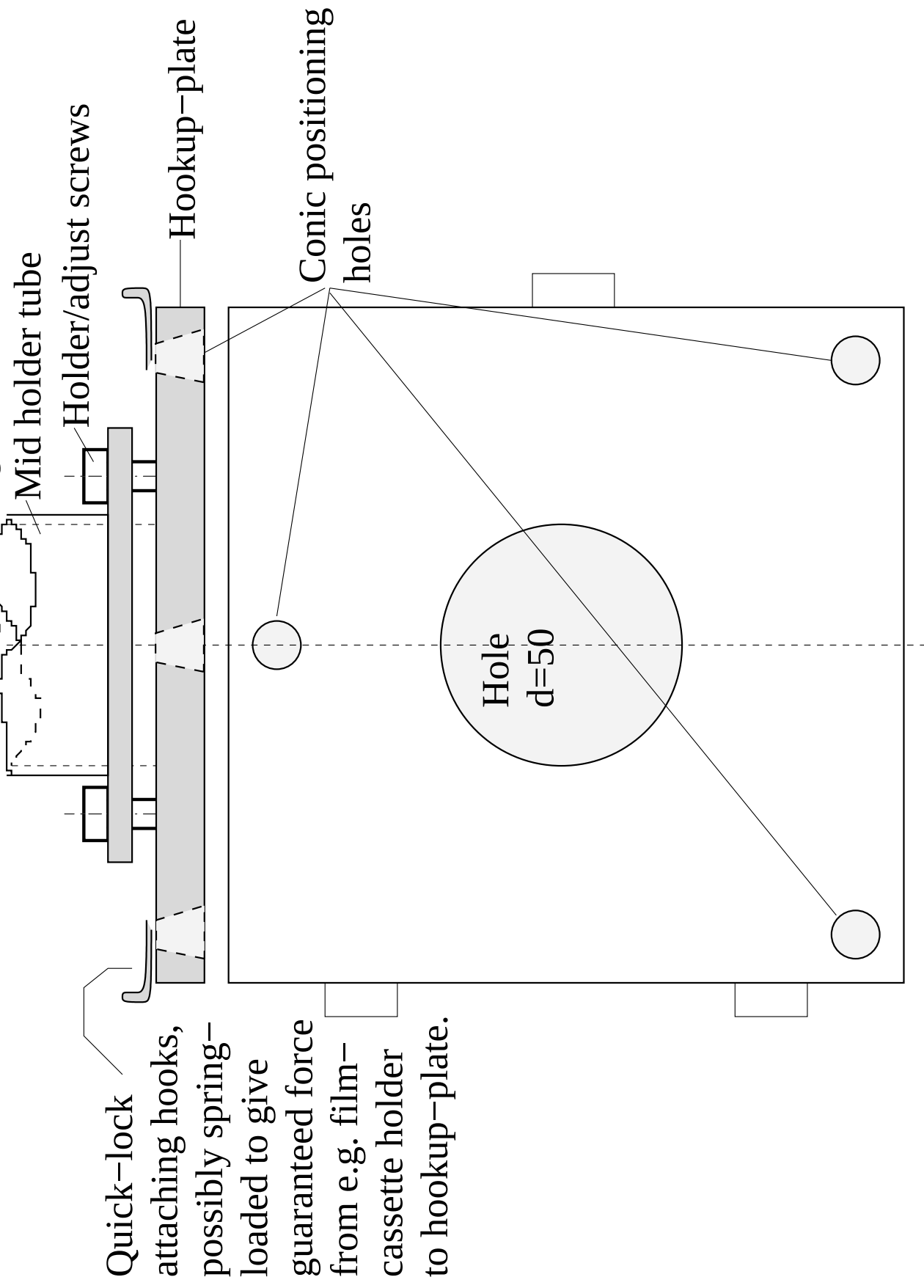
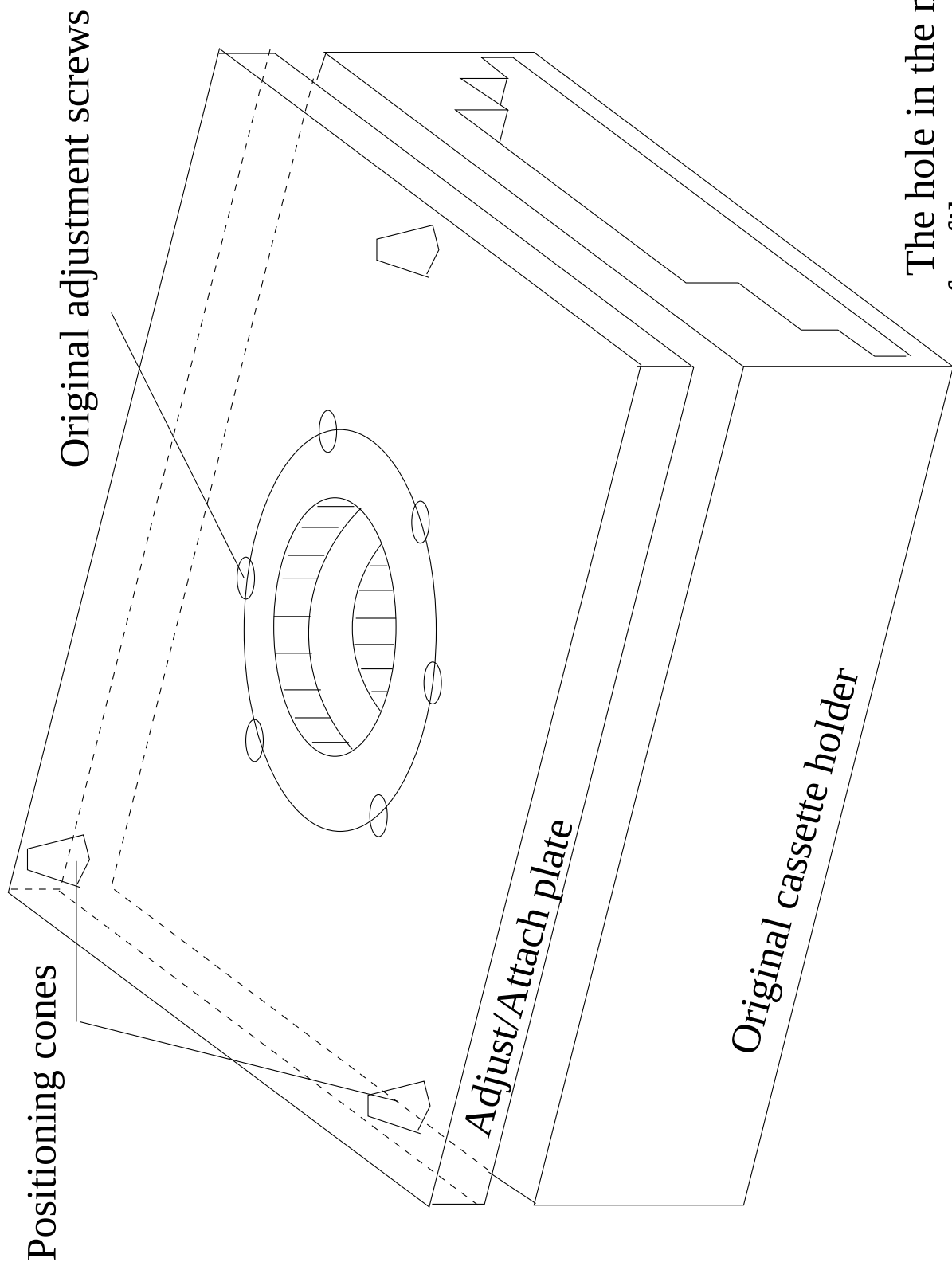


Kevola Schmidt-Väisälä telescope exchangeable filmholder/camera



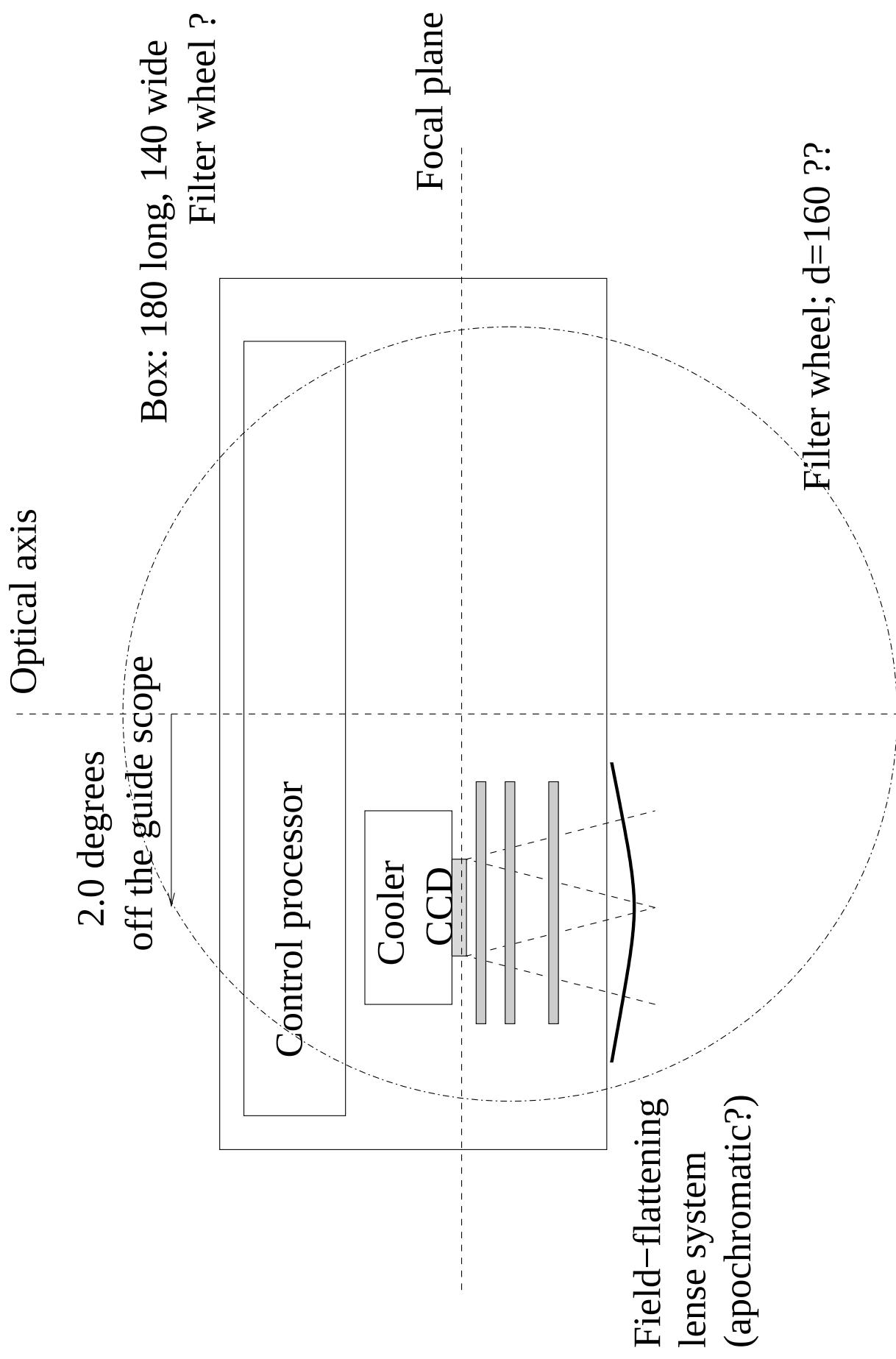
Kevola Schmidt–Väisälä telescope exchangeable filmholder/camera



Adding 2–3 cm of intermediate orientation adjustment space to enable base plate to be adjusted per the CCD, and have separate adjust for the film-holder independent of it.

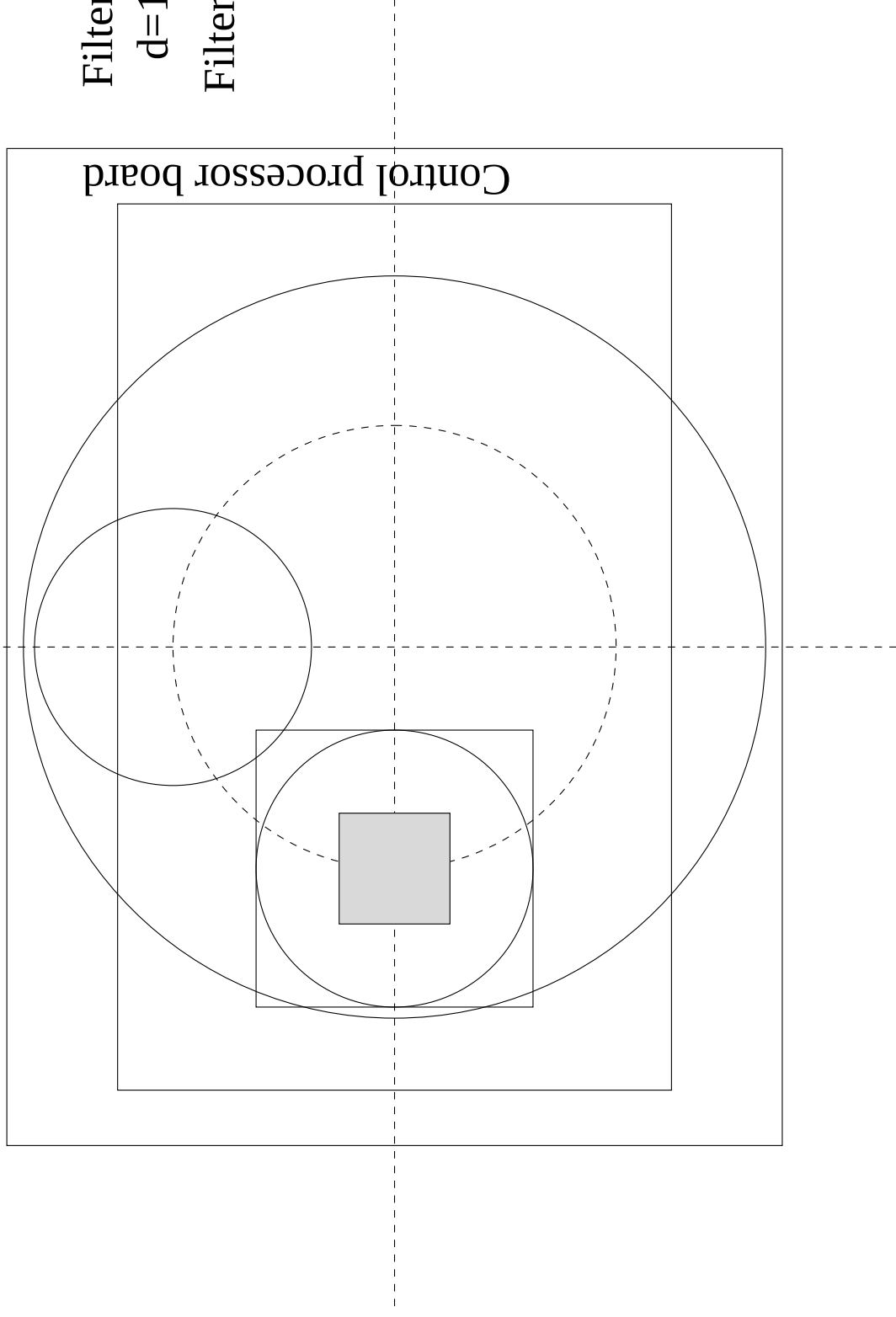
The hole in the middle is for film-cassette collimation

Kevola Schmidt–Väisälä telescope exchangeable filmholder/camera



Kevola Schmidt–Väisälä telescope exchangeable filmholder/camera

Box: 180 long, 140 wide

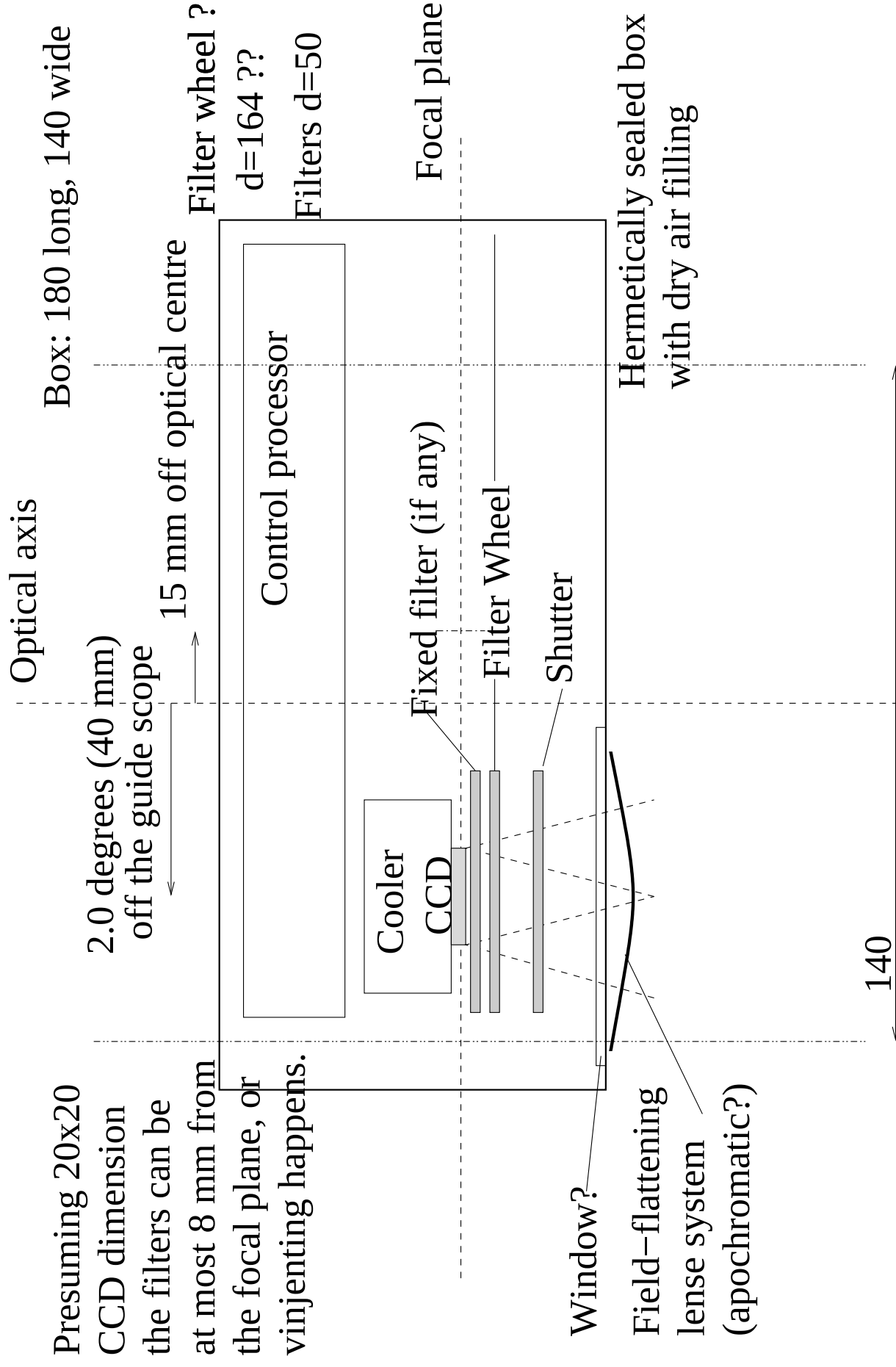


Filter wheel ?

d=134 ??

Filters d=50

Kevola Schmidt–Väisälä telescope exchangeable filmholder/camera



Kevola Schmidt–Väisälä telescope exchangeable filmholder/camera

15 mm off the optical centre

Box: 180 long, 140 wide

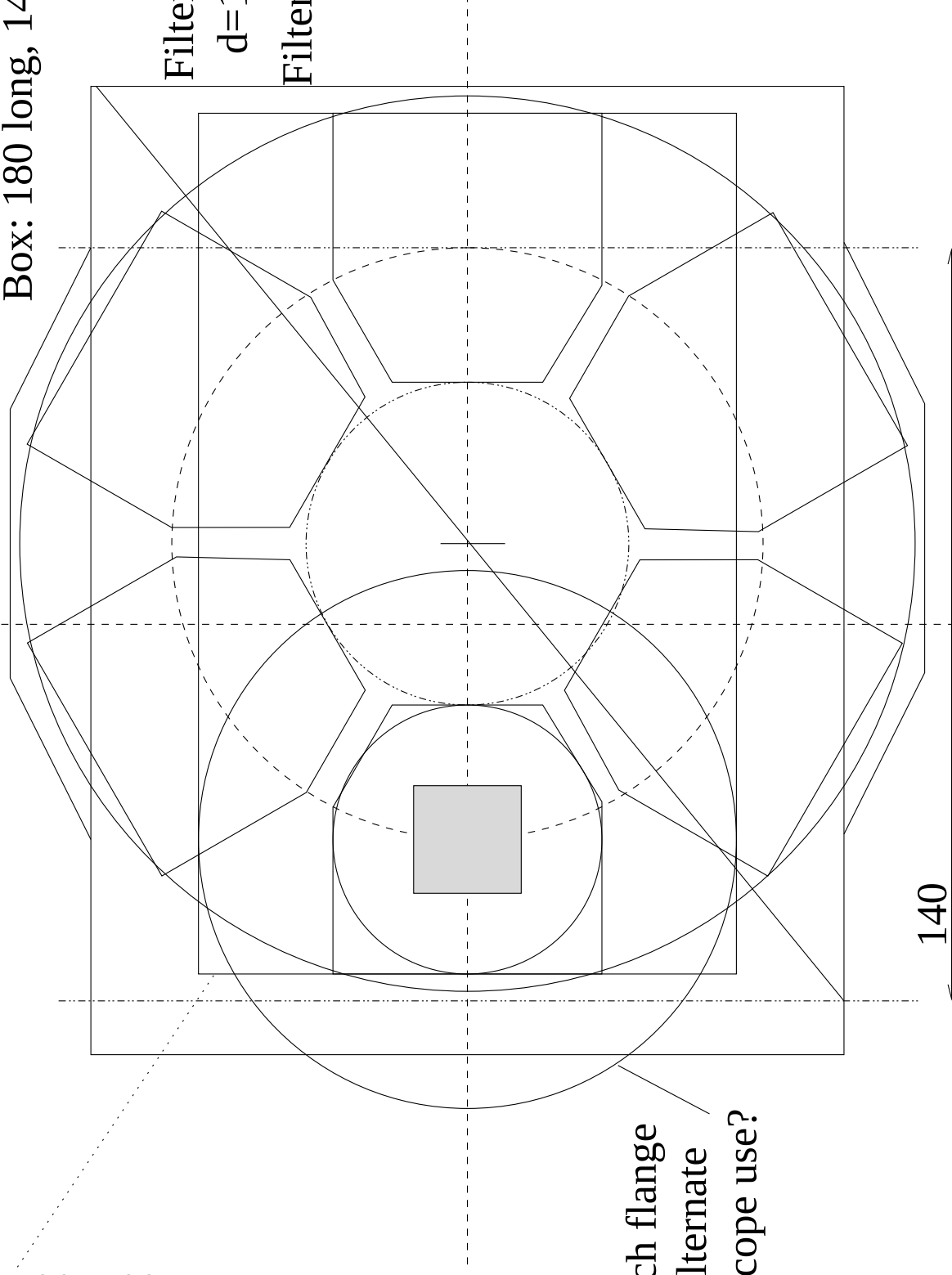
Filter wheel ?

d=164 ??

Filters d=50

Control processor board
160x100x20

Attach flange
for alternate
telescope use?

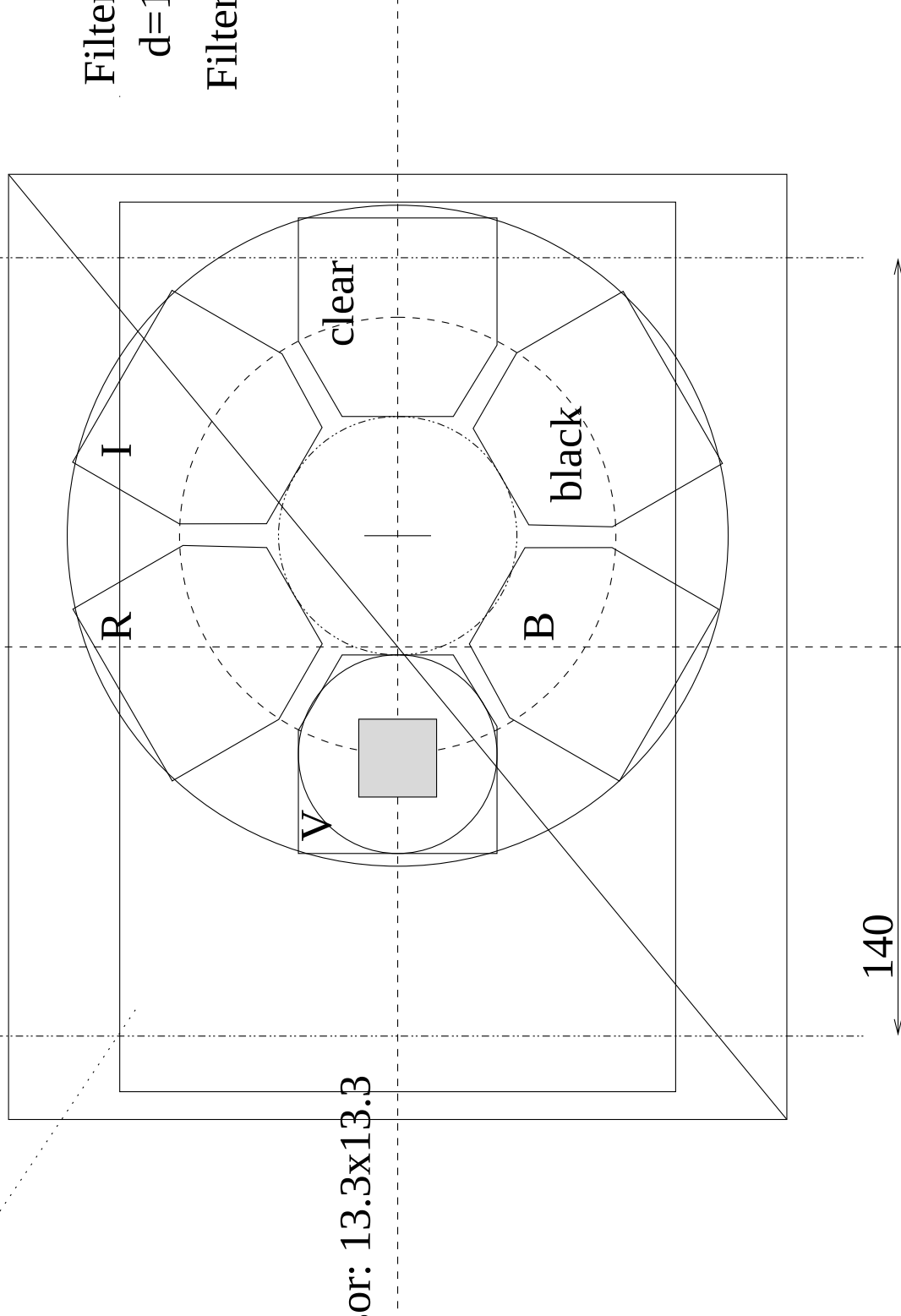


Kevola Schmidt–Väisälä telescope exchangeable filmholder/camera

Control processor board
160x100x20

20mm offsets

Box: 170 long, 140 wide



Filter wheel ?
d=120 ??

Filters d=38

Sensor: 13.3x13.3

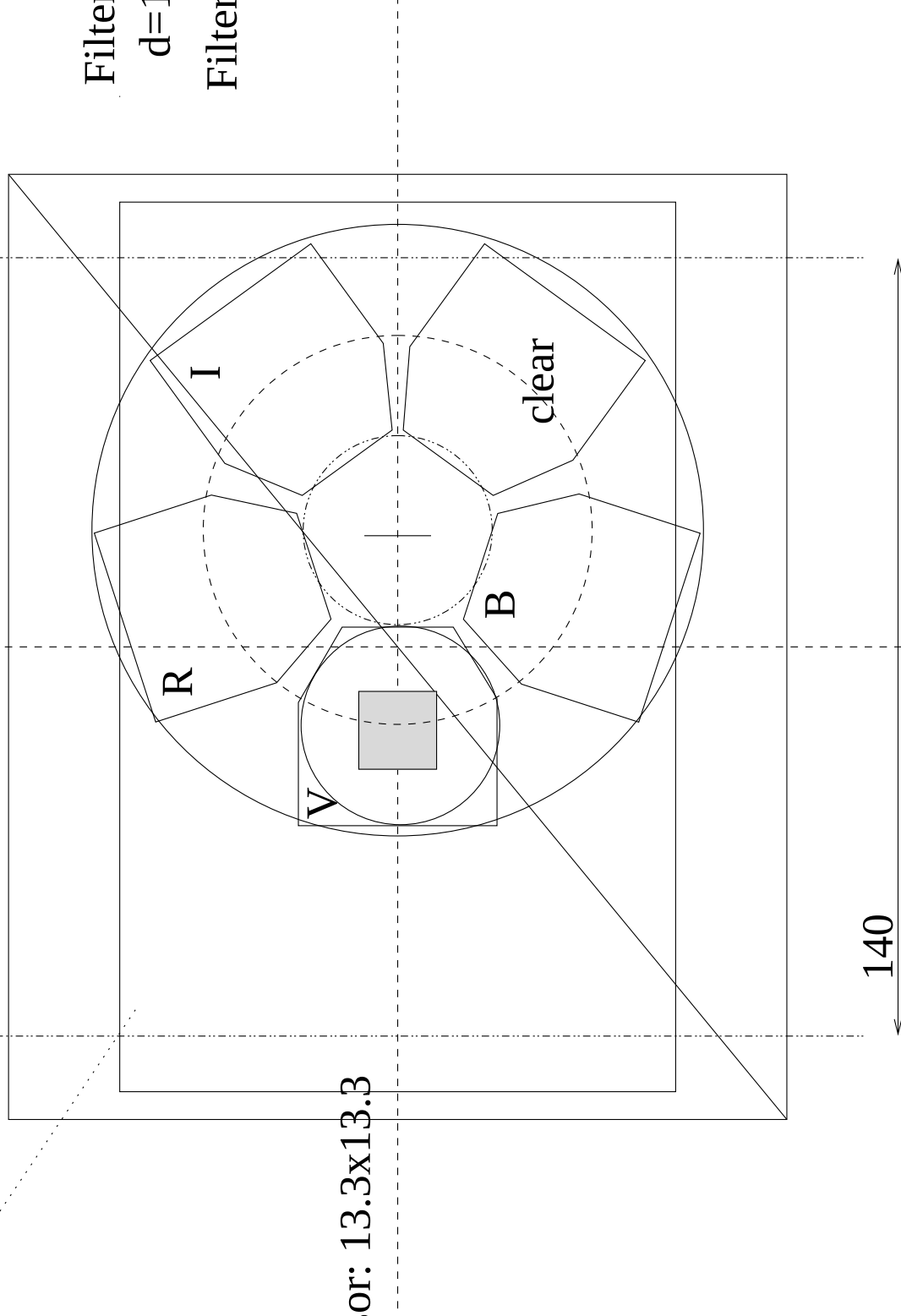
140

Kevola Schmidt–Väisälä telescope exchangeable filmholder/camera

Control processor board
160x100x20

20mm offsets

Box: 170 long, 140 wide



Filter wheel ?
d=110 ??

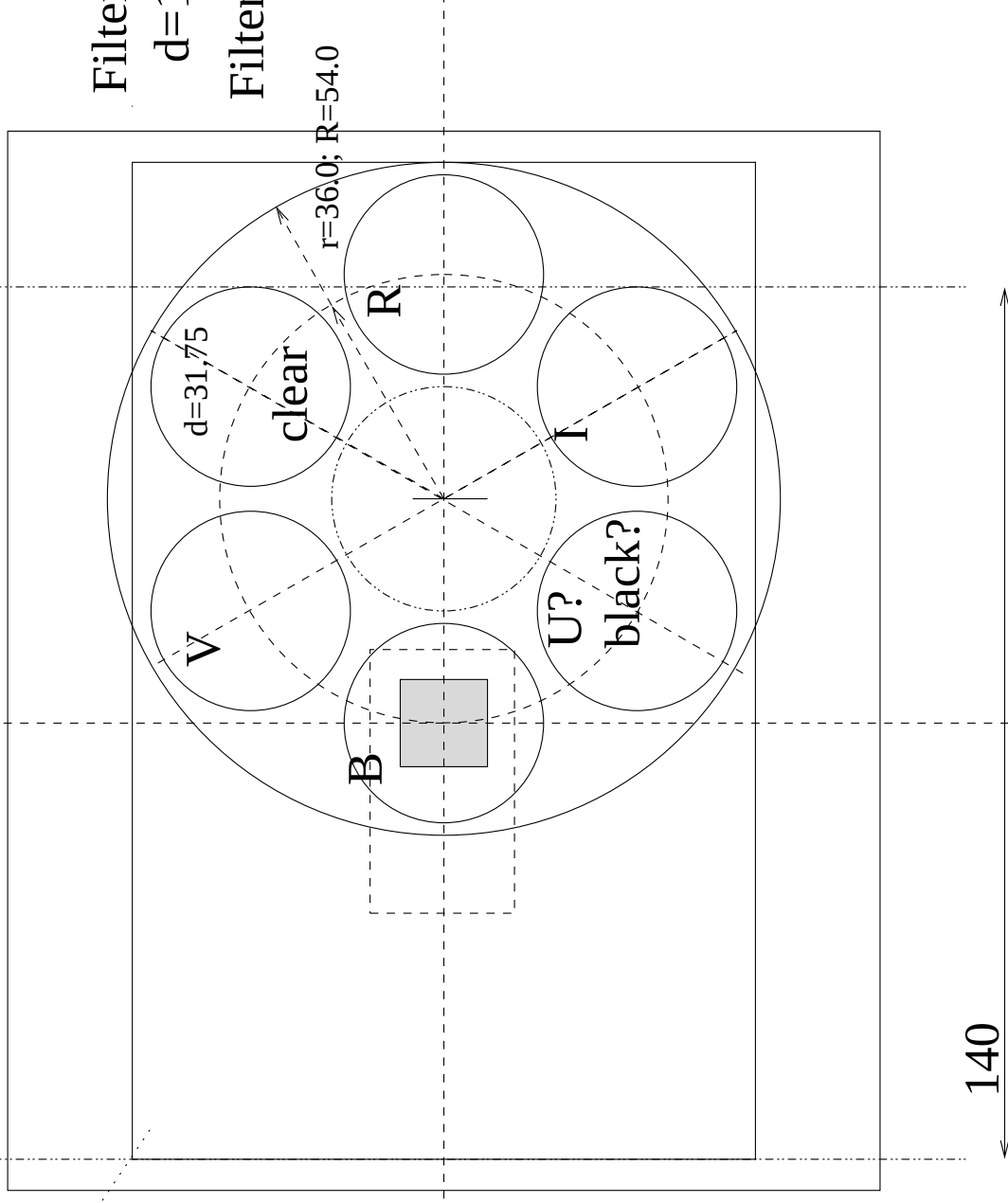
Filters d=38

Control processor board
160x100x20

Box: 170 long, 140 wide

Filter wheel ?
d=108

Filters $d=1.25''$



Kevola Schmidt-Väisälä telescope exchangeable filmholder/camera

Control processor board
160x100x20

Box: 180 long, 140 wide

Telescope mount plate

Fluid-cooled
heat-sink

Wheel-
motor

Sensor electronics

Peltier

Filter wheel
d=108
Filters d=1.25"

Shutter?

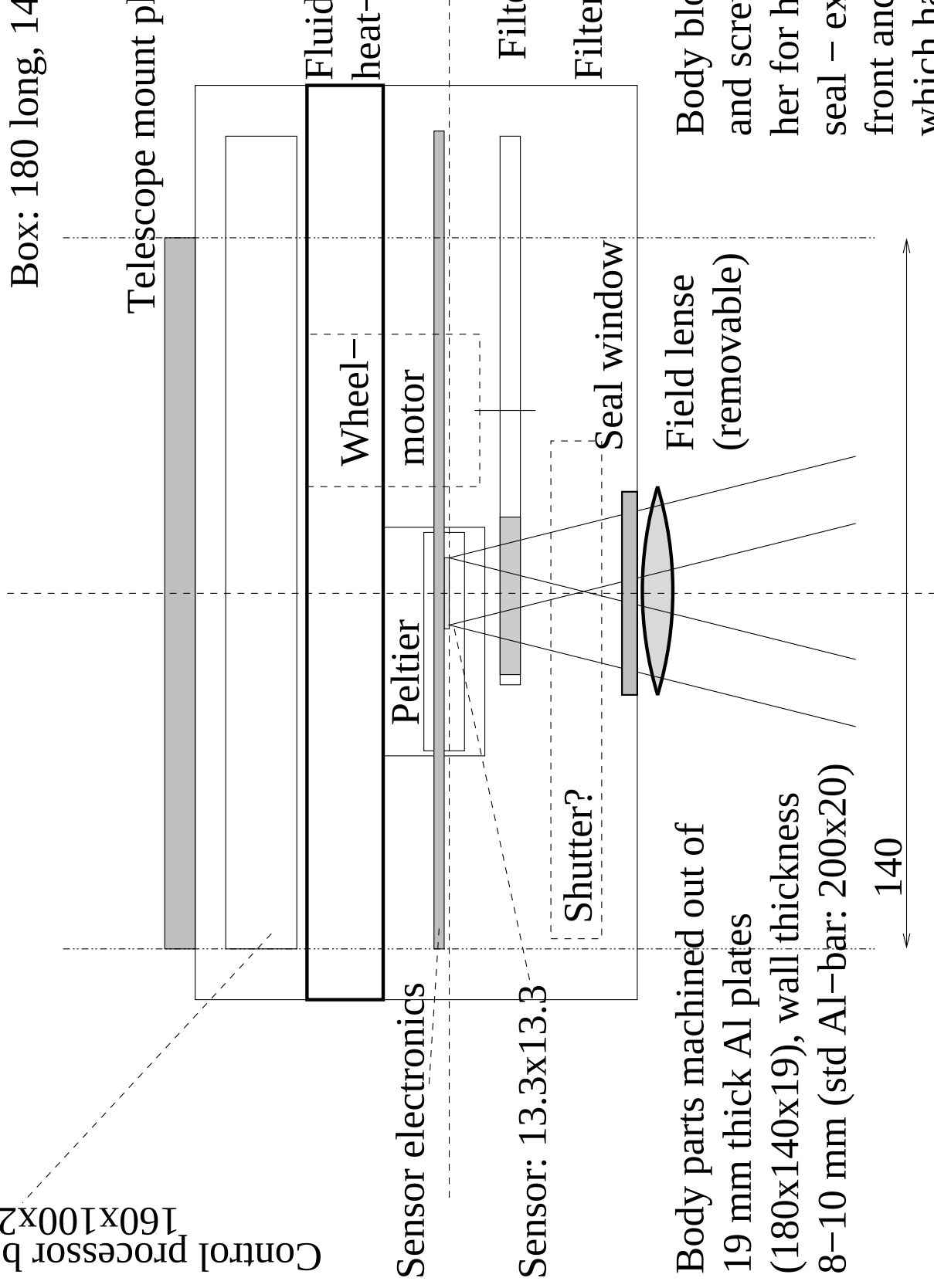
Seal window

Body parts machined out of
19 mm thick Al plates
(180x140x19), wall thickness
8-10 mm (std Al-bar: 200x20)

Field lens
(removable)

Body blocks glued
and screwed toget-
her for hermetic
seal - except for
front and rear lids,
which have O-ring

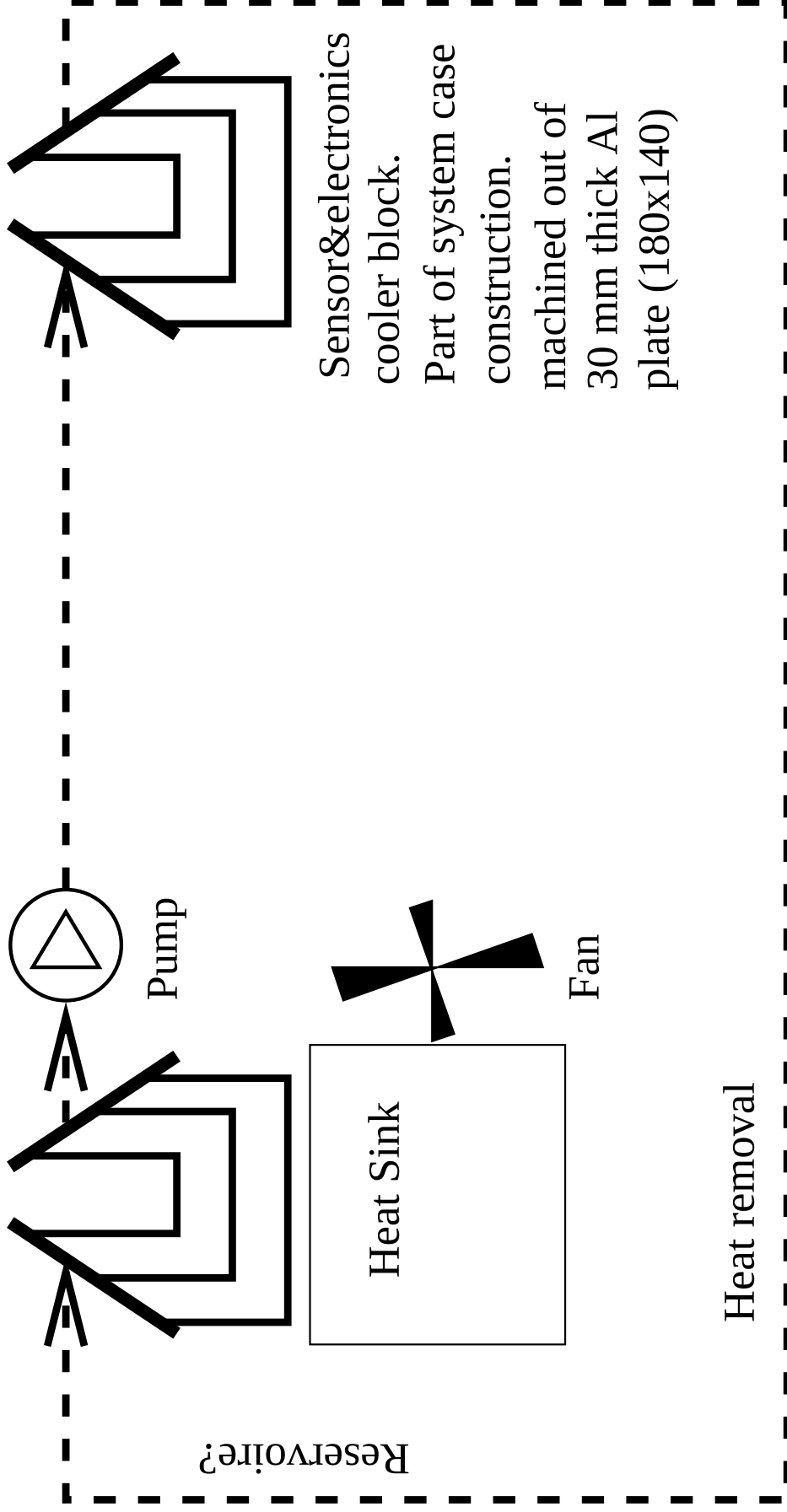
140



Some geometry studies for Kevola Schmidh–Väisälä telescope CCD camera

Cooling notes: Fluid heat transfer (glycol, for example)

Circulation: Cooled fluid circulates via the hermetic sealed compartment wall, then to electronics, and finally to the sensor cooler hot side, and back out to forced–air cooler/fluid–pump.

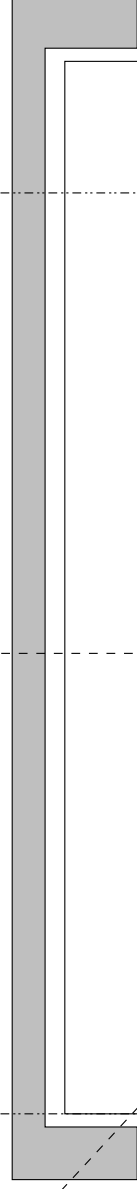


Kevola Schmidt-Väisälä telescope exchangeable filmholder/camera

Control processor board
160x100x20

Box: 180 long, 140 wide

Telescope mount plate



1

2

Sensor electronics

3

Sensor: 13.3x13.3

4

Shutter?

Seal window

Body parts machined out of
19 mm thick Al plates
(180x140x19), wall thickness
8-10 mm (Al-bar 200x20)

140

Fluid-cooled
heat-sink

Wheel-
motor

Peltier

Filter wheel
d=108

Filters d=1.25"

Field lens
(removable)

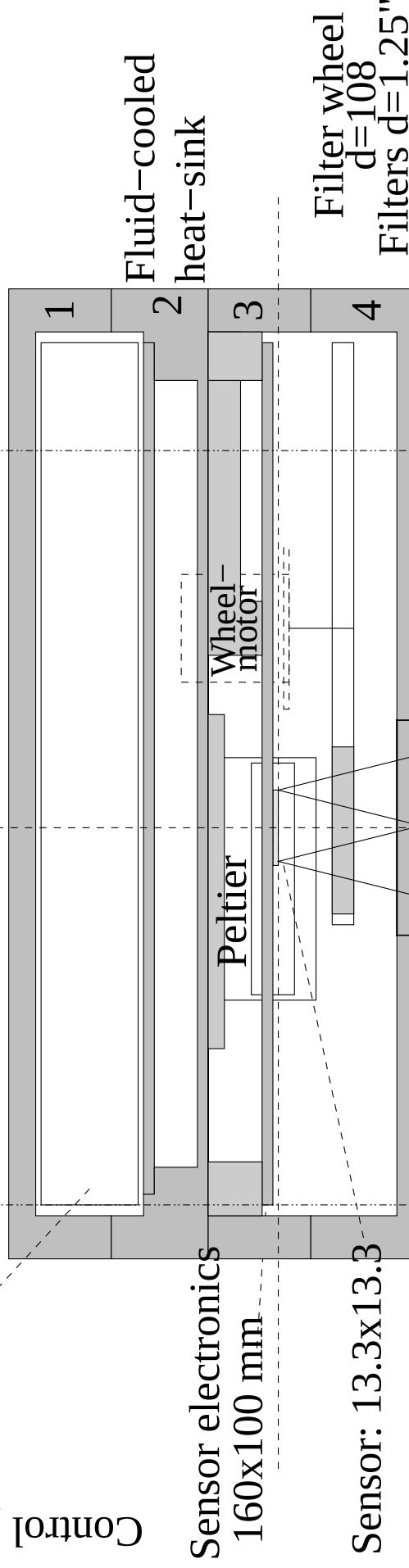
Body blocks glued
and screwed toget-
her for hermetic
seal - except for
front and rear lids,
which have O-ring

Kevola Schmidt-Väisälä telescope exchangeable filmholder/camera

Control processor board
160x100x20

Box: 180 long, 140 wide

Telescope mount plate



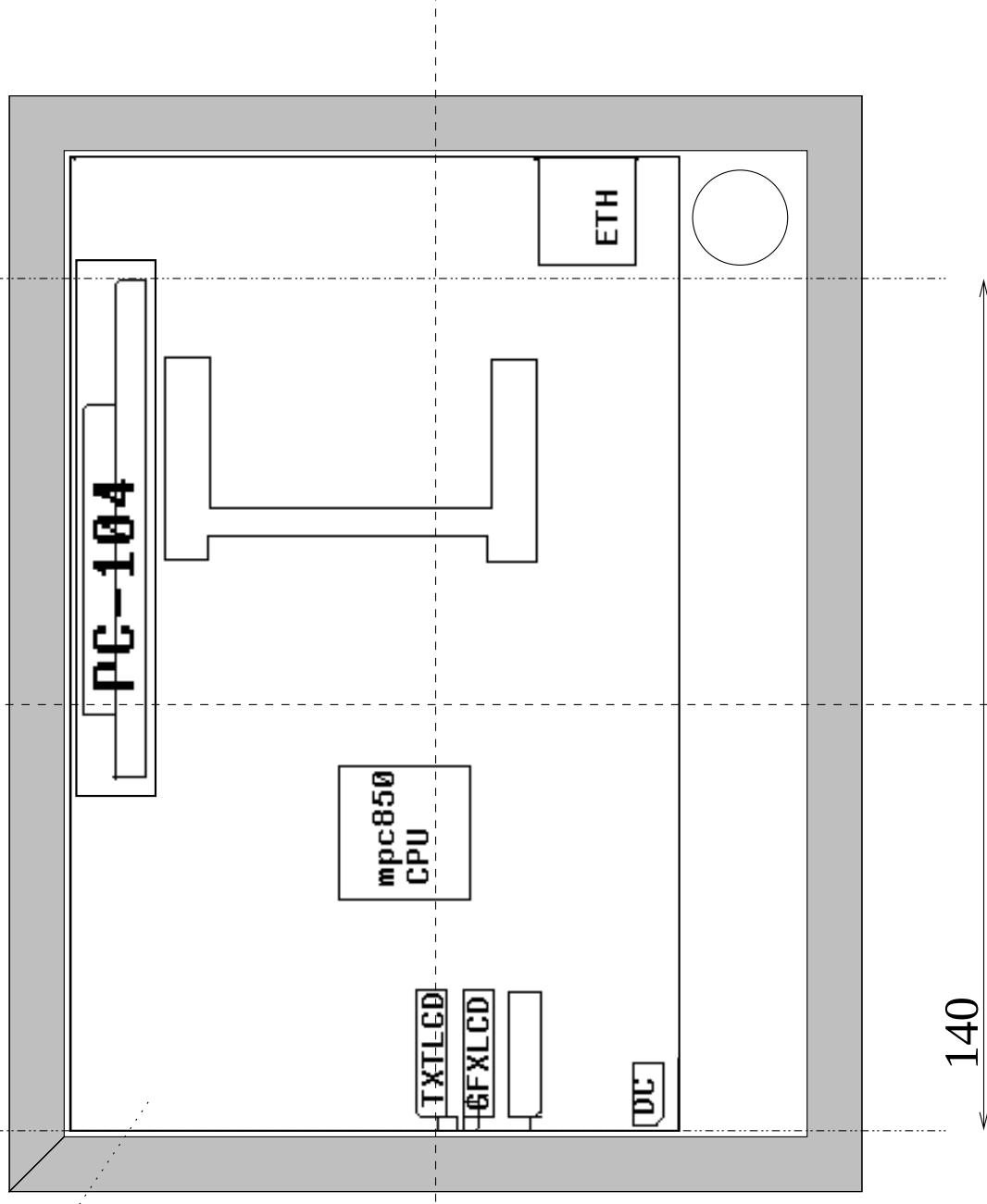
Body blocks glued and screwed together for hermetic seal - except for front and rear lids, which have O-ring

Kevola Schmidt–Väisälä telescope exchangeable filmholder/camera

Control processor board
160x100x20

Block number 1

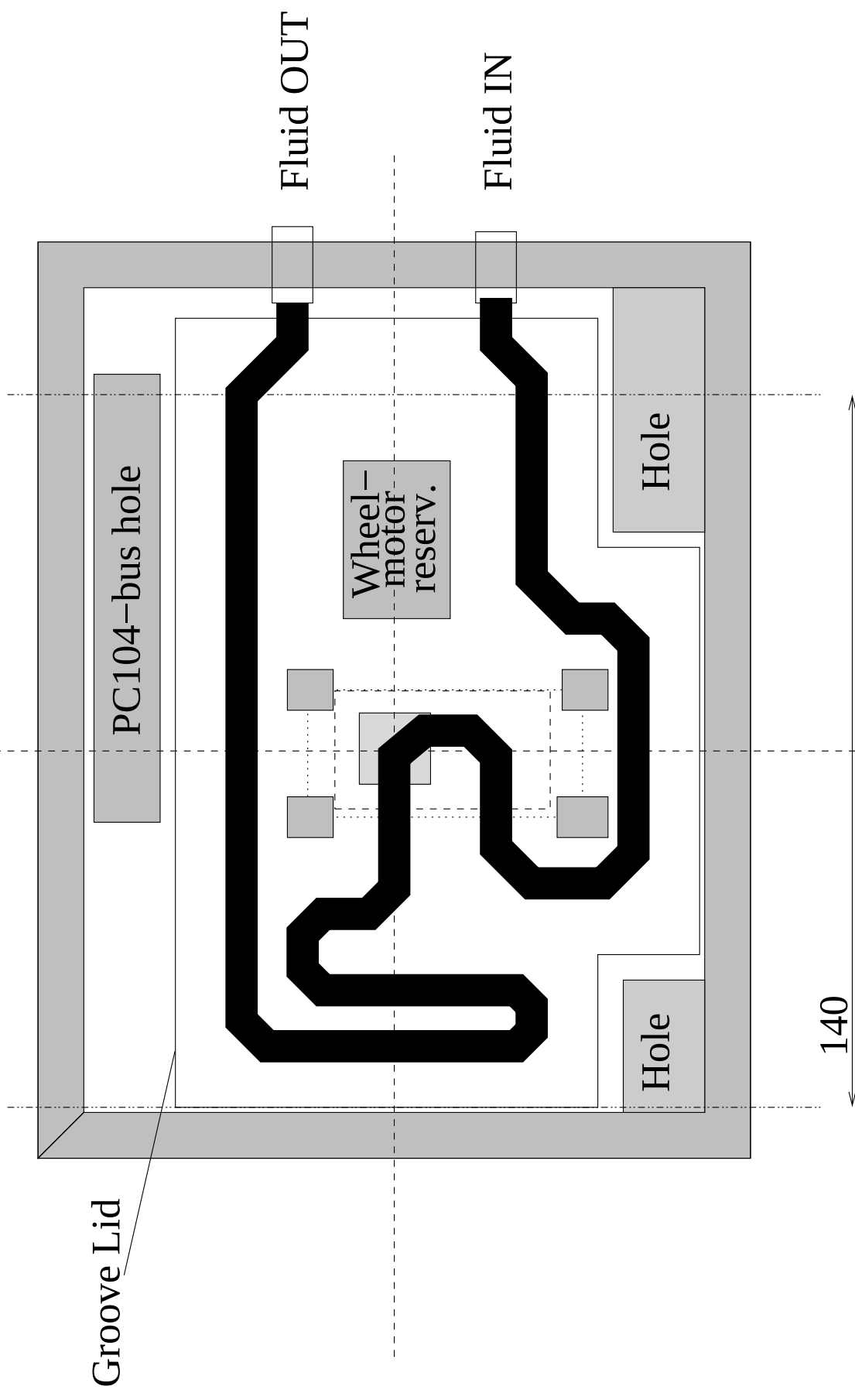
Box: 180 long, 140 wide



Kevola Schmidt–Väisälä telescope exchangeable filmholder/camera

Block number 2 – cooling channels

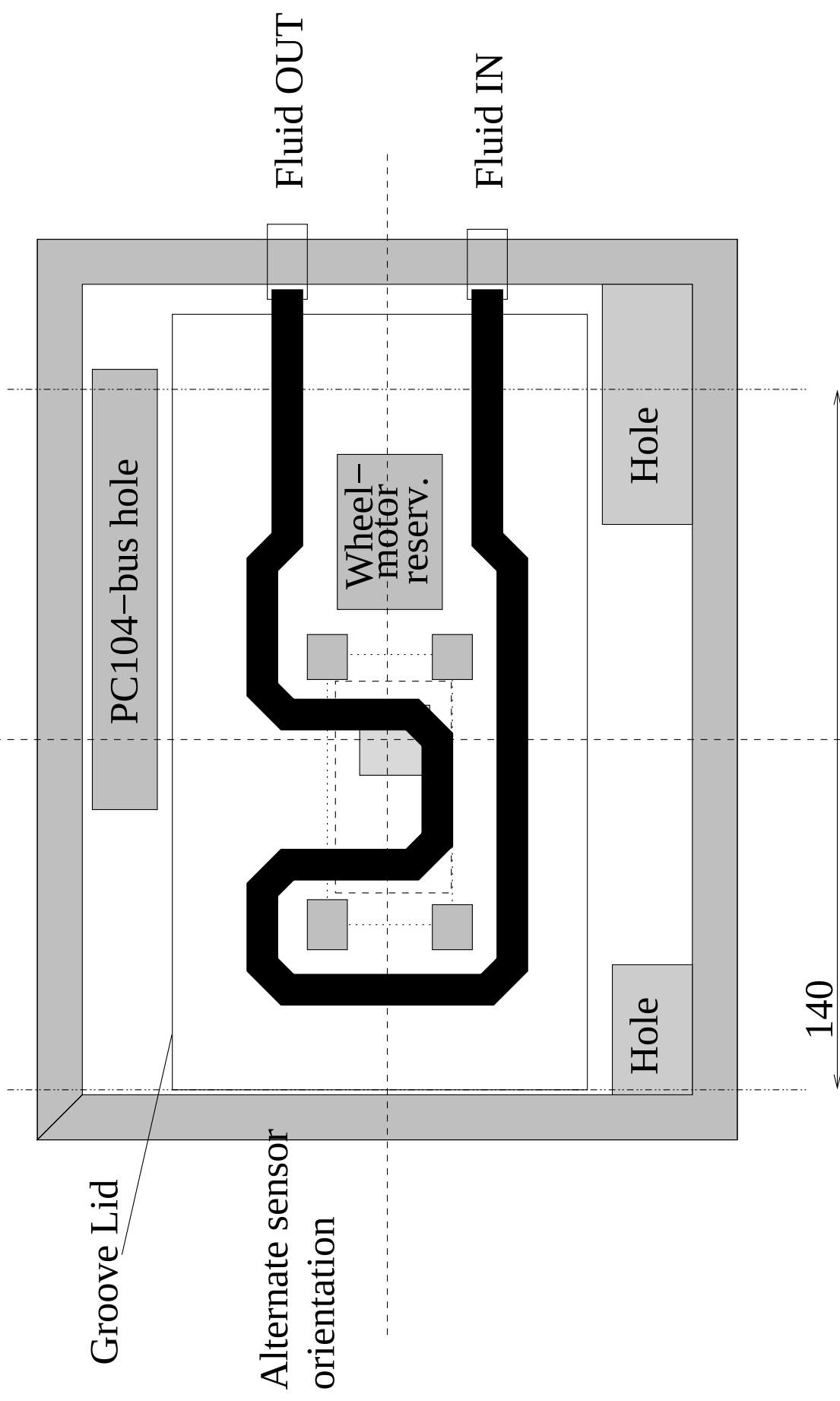
Box: 180 long, 140 wide



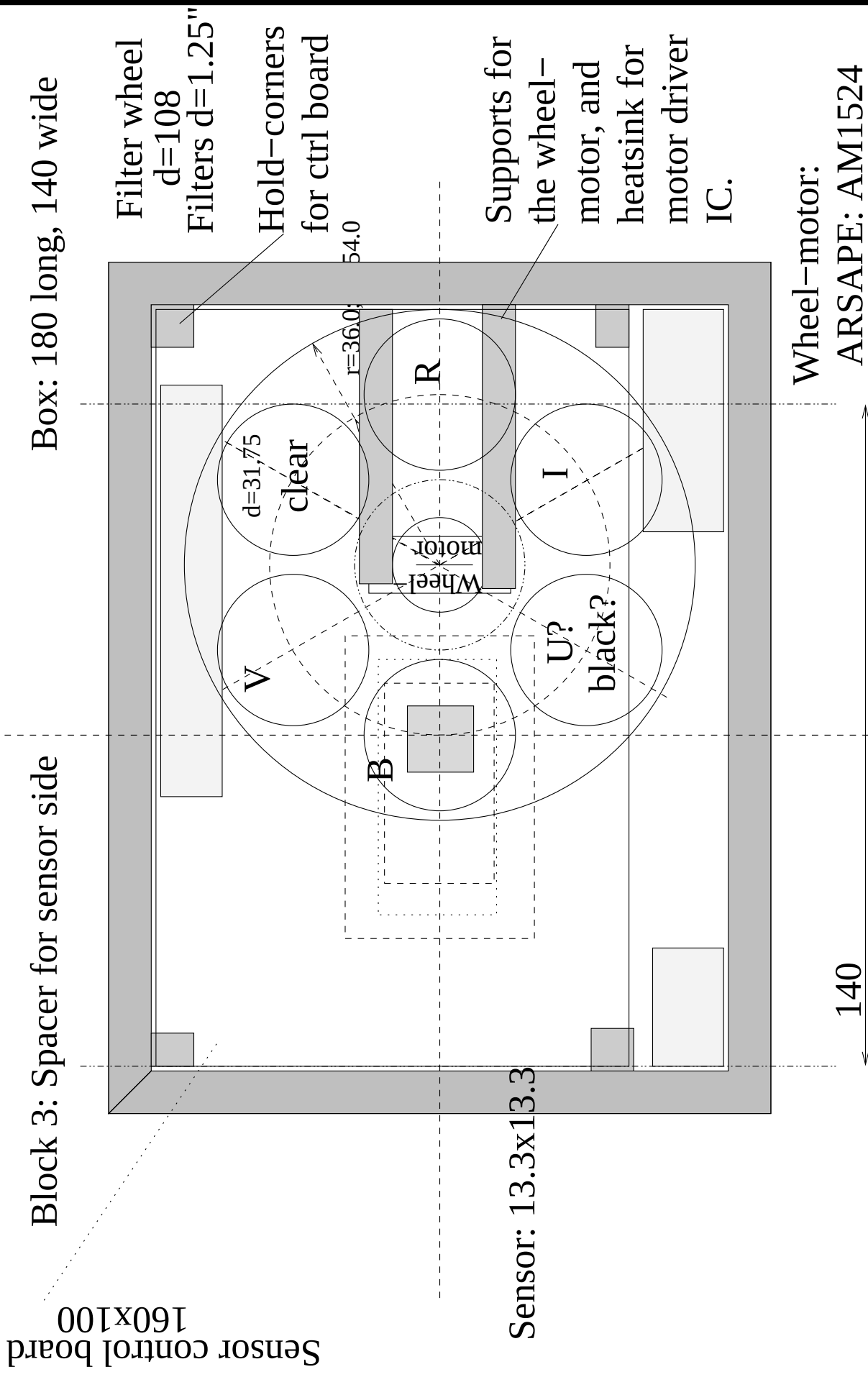
Kevola Schmidt–Väisälä telescope exchangeable filmholder/camera

Block number 2 – cooling channels

Box: 180 long, 140 wide



Kevola Schmidt-Väisälä telescope exchangeable filmholder/camera

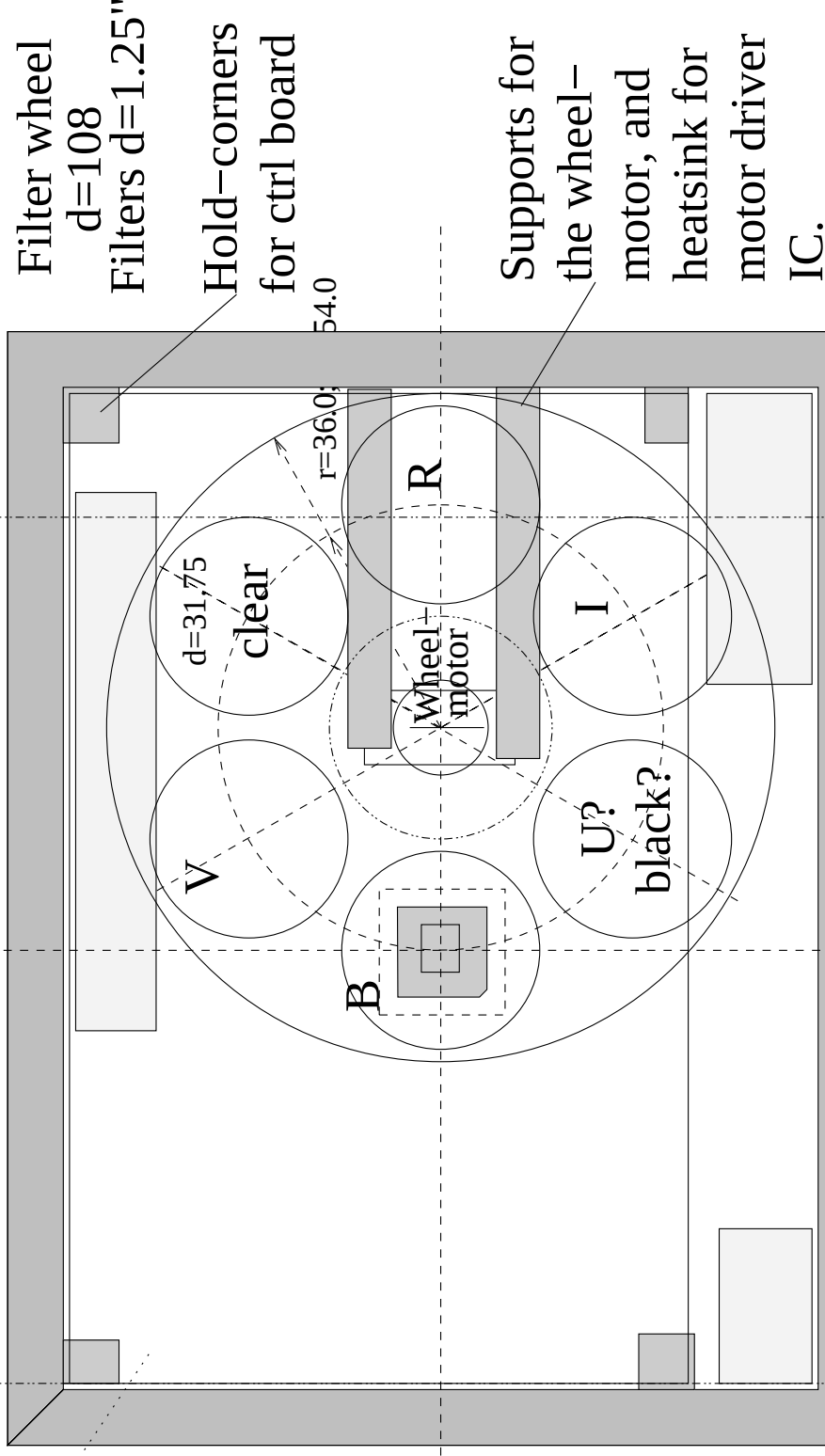


Kevola Schmidt–Väisälä telescope exchangeable filmholder/camera

Sensor control board
160x100

Block 3: Spacer for sensor side

Box: 180 long, 140 wide



Sensor: 7.68x6.14

CMOS KAC-1310

Wheel-motor:

ARSAPE: AM1524

Kevola Schmidt–Väisälä telescope exchangeable filmholder/camera

Box: 180 long, 140 wide

Sealed window; $d=50$

Gas vent ?

140

