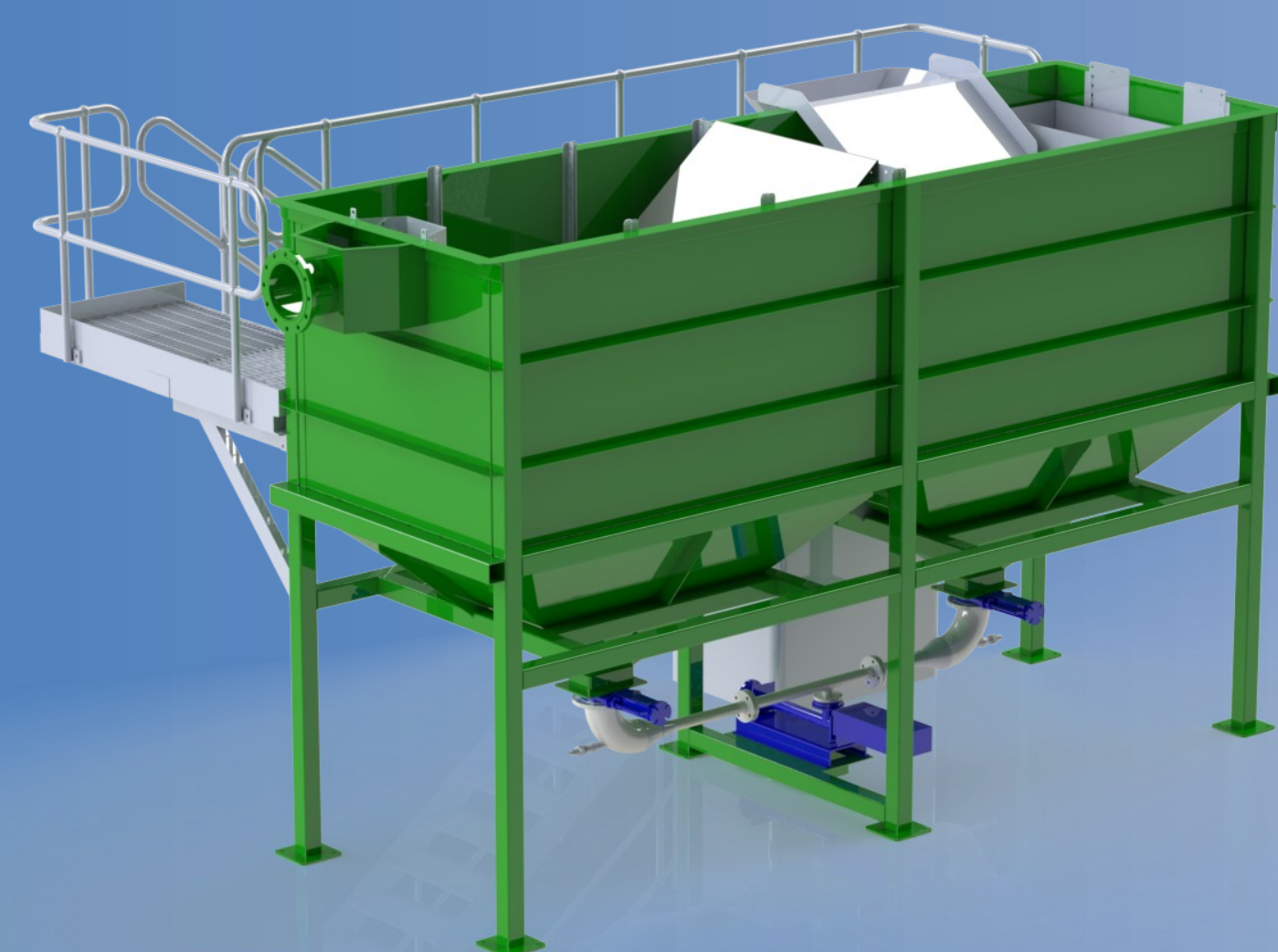
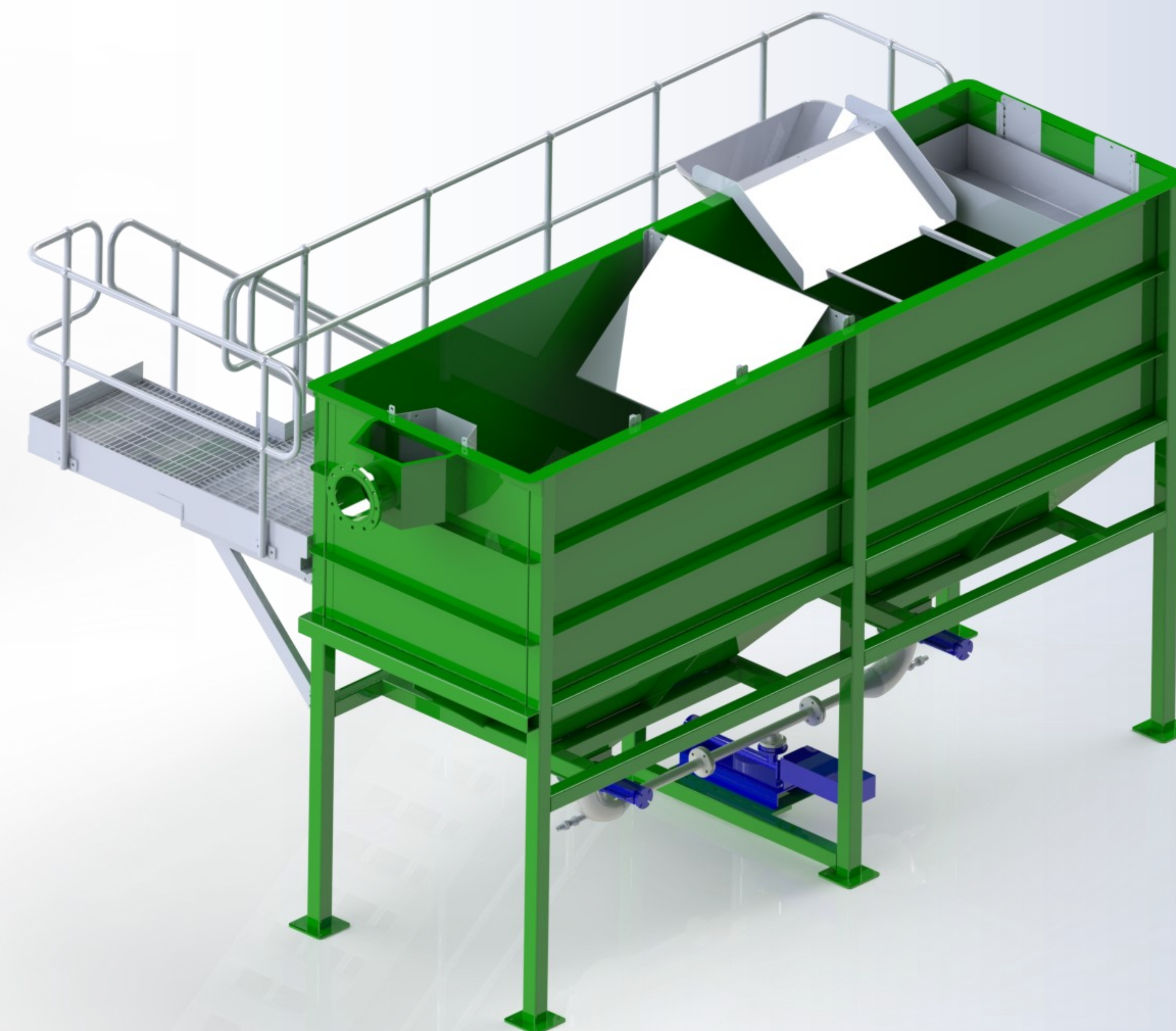
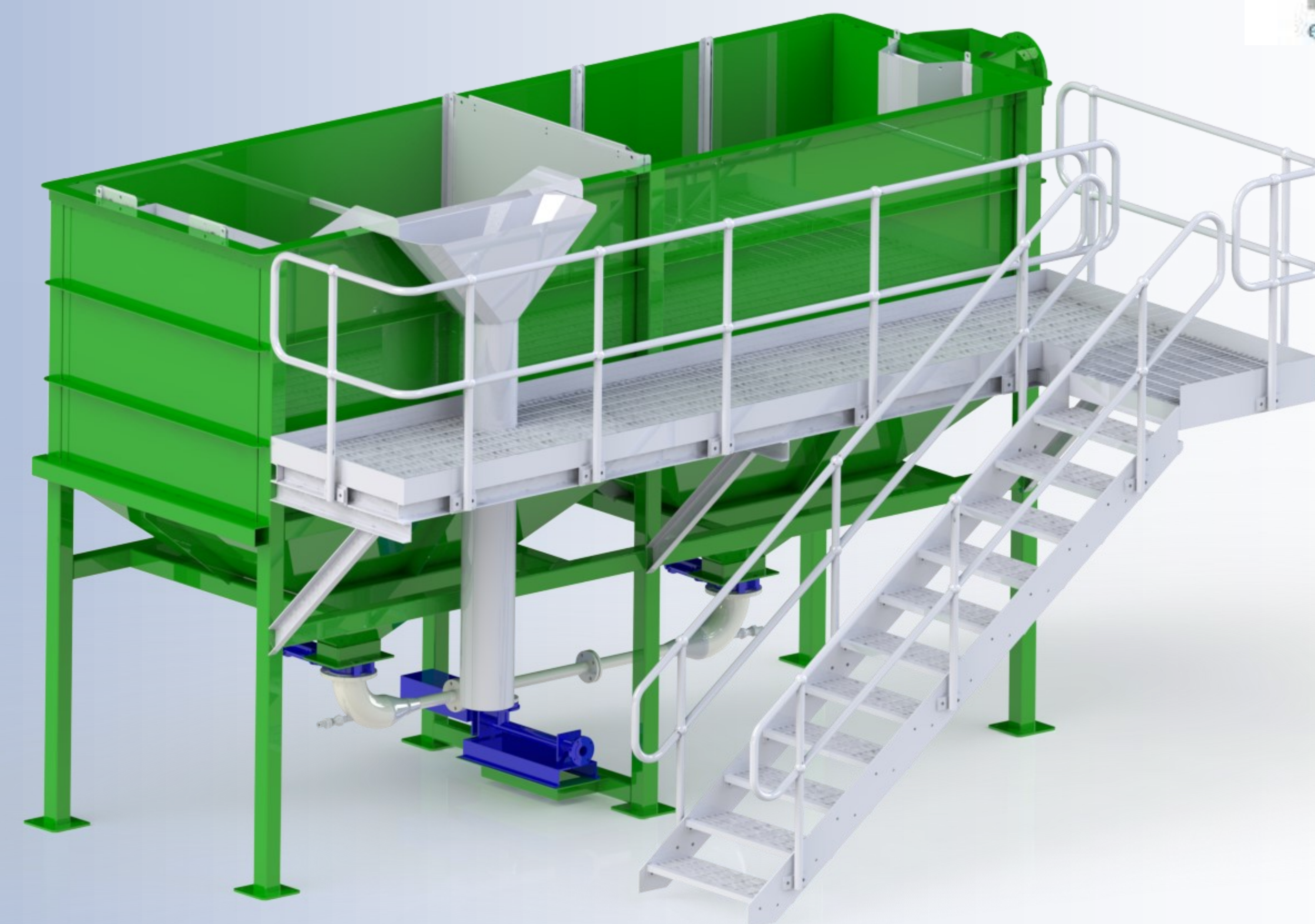
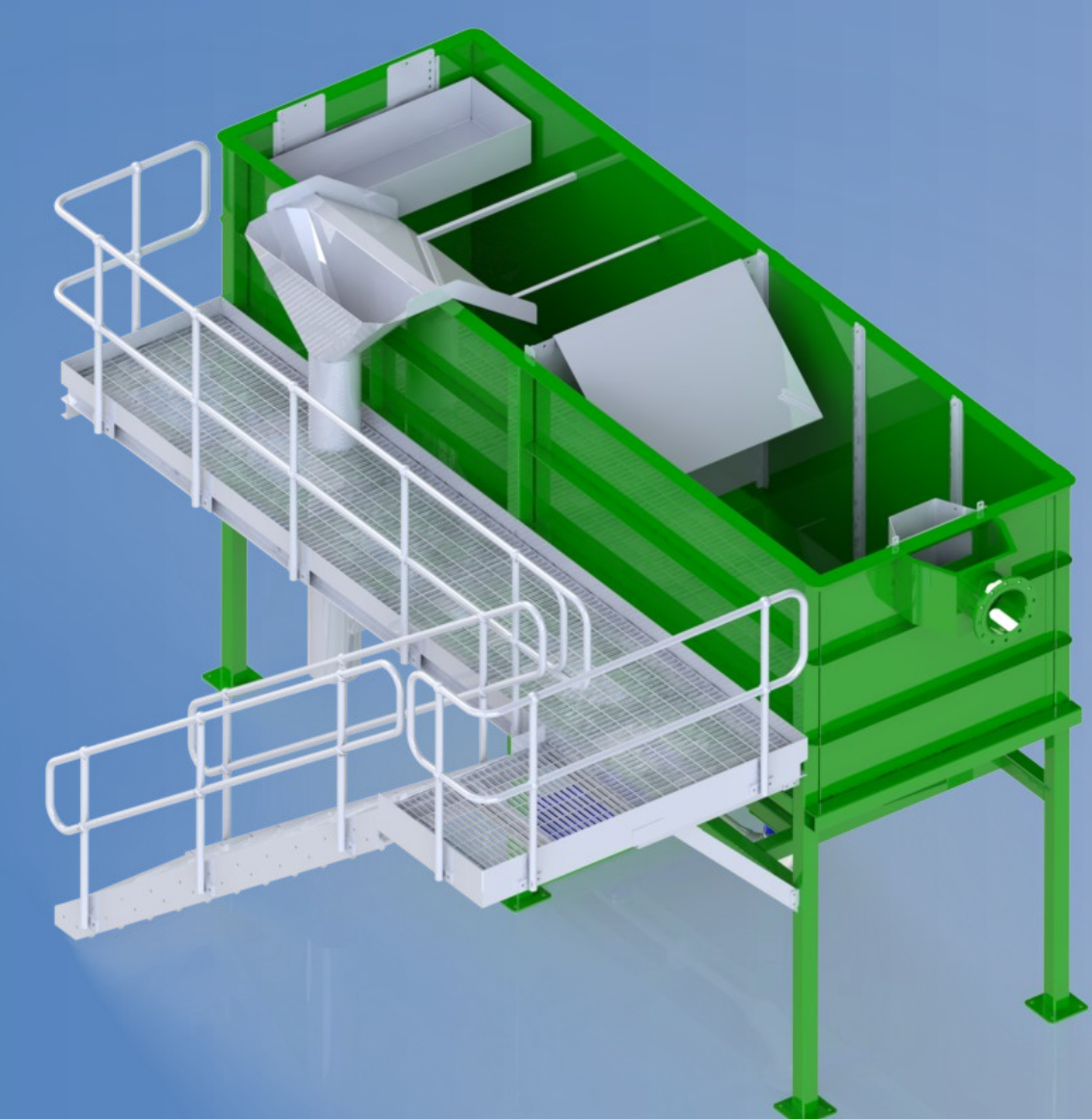
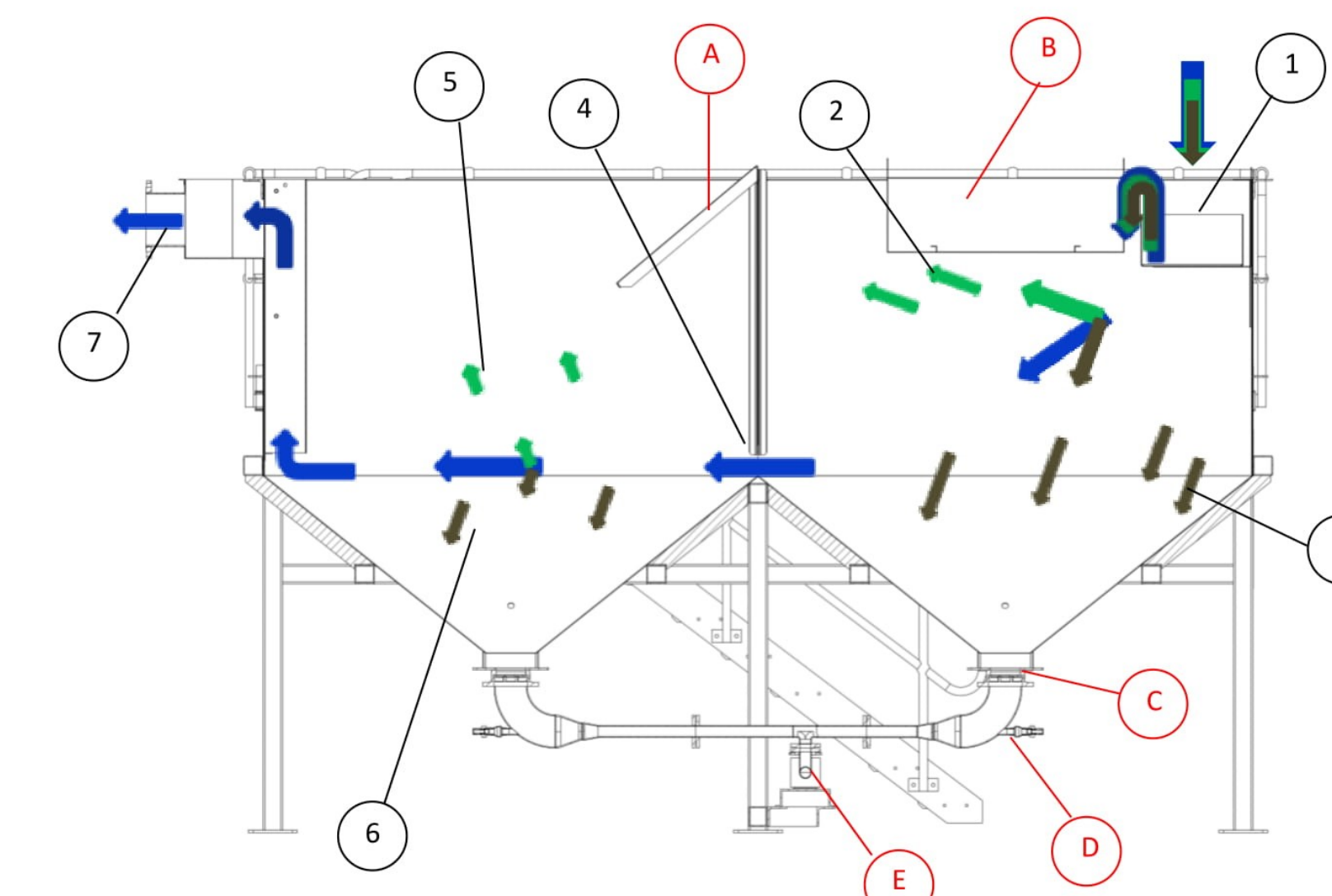


HYDRO SEPARATION SYSTEM

Patent No. 1908156.1



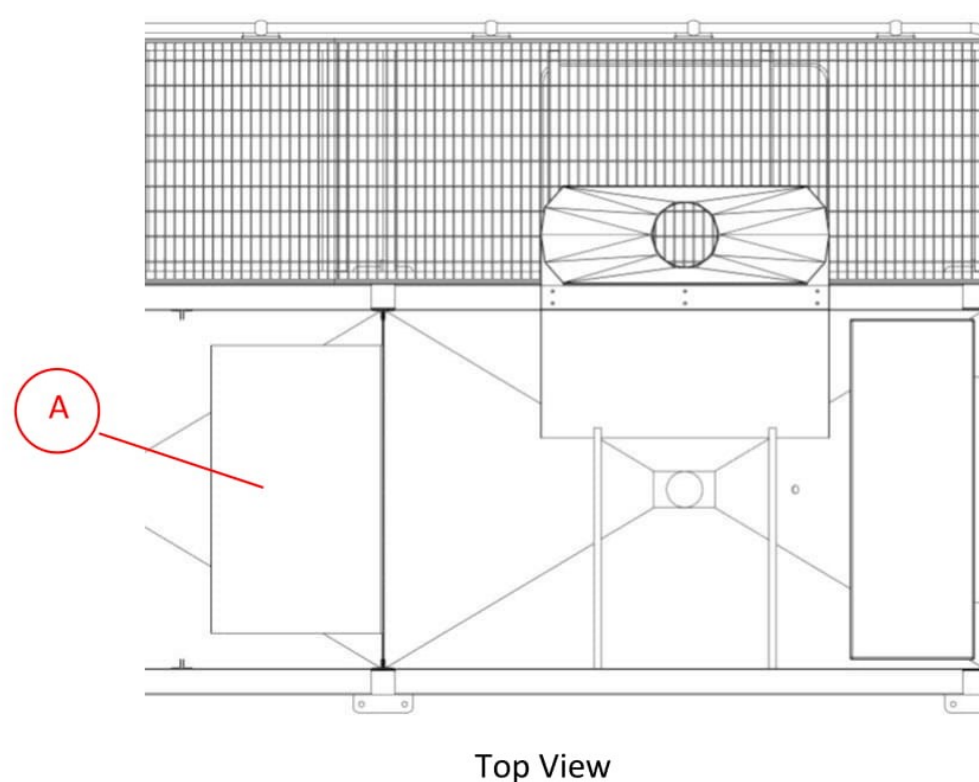
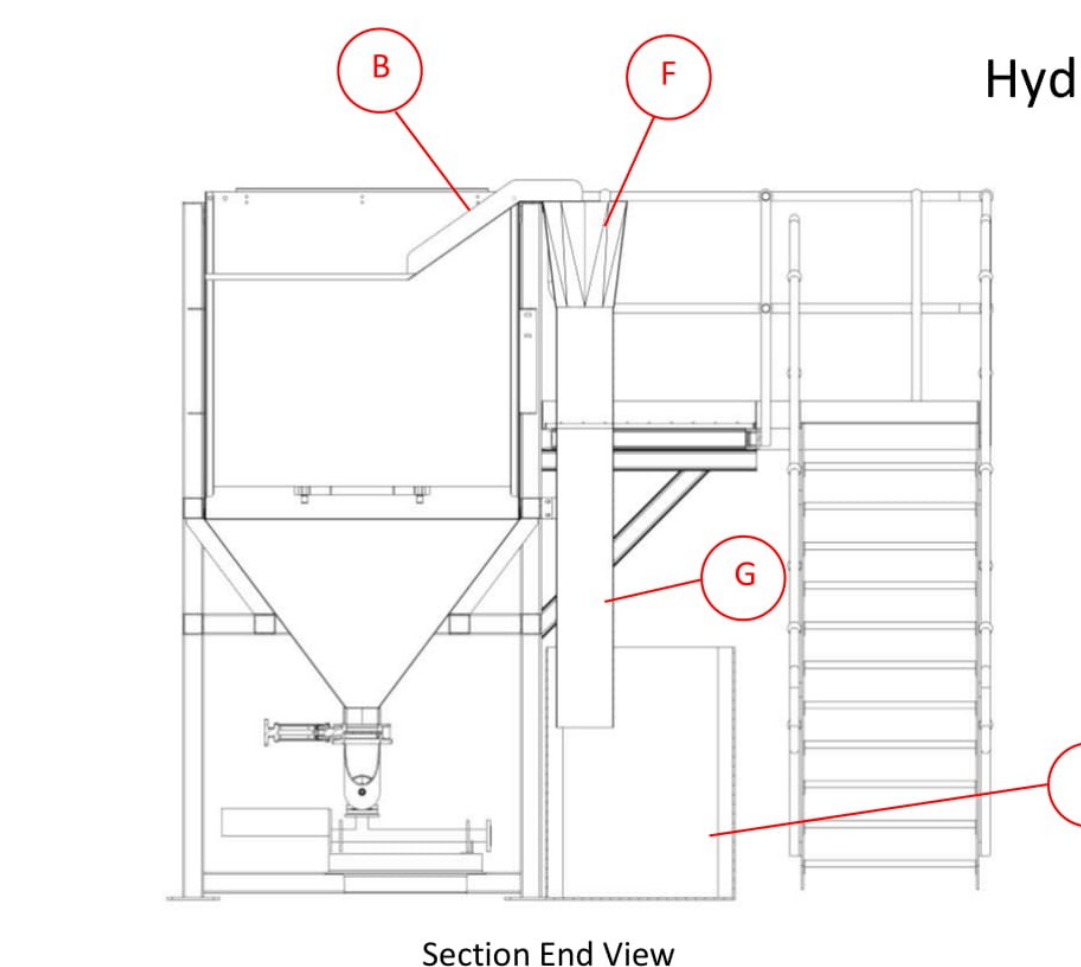
Hydro Separation Process



- WATER
- FLOATABLES
- SEDIMENT

1. Process water enters flotation tank into inlet basin and overflows into primary tank, flow is spread across the width of the tank and the flow velocity is reduced.
2. Floatable material: Plastics, organics, glass fibre, oil, aerated particulates etc. float to the surface and are retained in the primary tank.
3. Sediment settles and collects in primary tank sediment cone.
4. An adjustable baffle directs process water from clean central strata of the primary tank into secondary tank.
5. Remaining floatables rise to the surface of the secondary tank and are retained.
6. Remaining sediment settles and is retained in the secondary tank sediment cone.
7. Clean water from the central strata of the secondary tank returns to the washing process via a height adjustable exit chute.

Hydro Separation Process



Sediment Removal.

An automated pneumatic valve on the primary sediment cone (C) opens at set intervals to allow for sediment removal. The sludge pump (E) engages and conveys the sediment to a holding tank for later processing via centrifuge/filter press. The sediment cone valve closes and the flush valve (D) opens providing high pressure water to clean out the sludge pipe works and pump. Flush valve closes and the sludge pump shuts down. This sediment removal process is repeated for the secondary tank.

Floatables Removal.

Floatables are retained in the primary tank at and just below the surface of the water. A scraper is used to manually push the floatables up the primary scum ramp (B) and into the scum funnel (F). Gravity acts to convey the removed material down the scum Chute (G) and into the holding tank (H) for later disposal. Floatables retained in the secondary tank are transferred to the primary tank via the secondary scum ramp (A) and disposed of as above.