The assembly includes the collar (2), vice plates (2), fore and rear endcaps, the dome, dome spacer, camera backing plate, Wetlink penetrators and fittings, various O-rings, allthread rods for the rear endcap handle and vice plate tensioners, and additional fittings for sealing. The endcaps, collars, and vice plates are all machined from 6061 T-6 aluminum.

The endcap assembly has undergone four major design iterations:

1. The original design from someone else, started on March 8th, 2025.
2. A revised internal plug with vice plate.
3. A switch to a double-ended design with identical endcaps.
4. The current design, differentiating fore and rear endcaps.

The current configuration features a rear endcap with a machined aluminum plug fitted into a permanently attached aluminum adapter at the PVC tube end, with holes for outgoing wires and ports. The fore endcap has a similar machined endcap and collar but supports a spacer ring, to which the acrylic dome is permanently bonded. This spacer ring enhances the dome's strength and improves sealing via an O-ring sandwiched between it and the aluminum endcap. It also serves as a mounting point for the camera adapter plate.

Locking the endcaps in place are vice plates, functioning like clamps. Four stainless steel allthread rods run along the pressure hull length, applying pressure via hex nuts to the vice plates at four corners. This tension ensures the O-rings are properly compressed, sealing against water incursion and securing the endcaps in position.