

# Fractional Collector Top Assembly

## Instructions and BOM

STL Link:

[https://drive.google.com/file/d/1\\_8GxYKEukr-SobEUdoyhmjx0G93fVQS1/view?usp=sharing](https://drive.google.com/file/d/1_8GxYKEukr-SobEUdoyhmjx0G93fVQS1/view?usp=sharing)

## BOM

- 3D printed top in polycarbonate or other material able to be autoclaved.
- 22 gauge syringe needle 1½" (only for 2 port tops)
- ⅛" 304 Stainless Steel Tubing Precision (0.125" OD, 0.015" Wall Thickness)
  - <https://www.mcmaster.com/6100K491/>
- #117 Hi-temp Silicone o-ring (red)

## Assembly Instructions

1. Cut 1/8" stainless tube to 1.5" long sections (dremel)
  - a. Deburr and polish (3/16" drill bit fits the ID)
2. Remove the needles point if hypodermic (dremel)
  - a. Cut needle tip from luer lock (dremel)
  - b. Very carefully deburr and polish (0.4mm drill bit fits the ID)
3. Drill top to size. (1/8" drill bit) (press fit)
4. Drill top to size. (0.8mm drill bit) (loose fit) (if required)
  - a. Press fit stainless tube into top till flush with thread bottom
  - b. Fit needle into top till flush with bottom (if required)
5. Prep 2 part epoxy (1 hr set is recommended)
  - a. Line epoxy around the needle and stainless tube
  - b. Ensure that it covers at least ⅛" up side of needle and stainless tube and ⅛" surrounding top to ensure good bond and proper seal
6. After allowing 24 hrs to cure place o-ring and it is ready for use