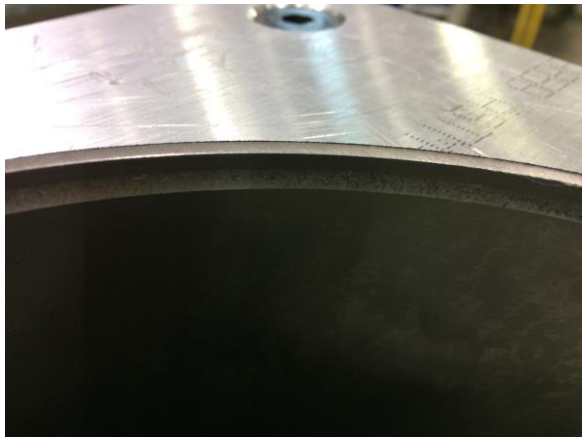
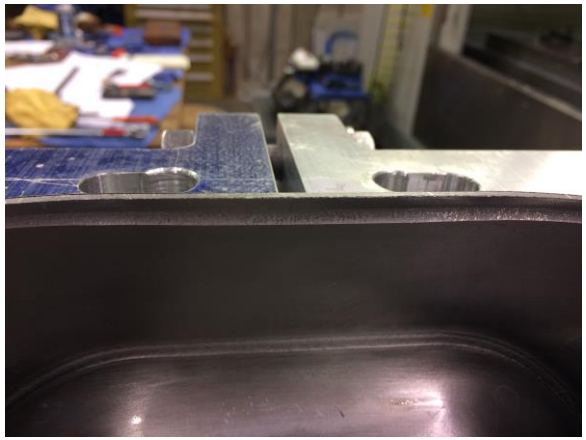
RFD Update Oct.21, 2016

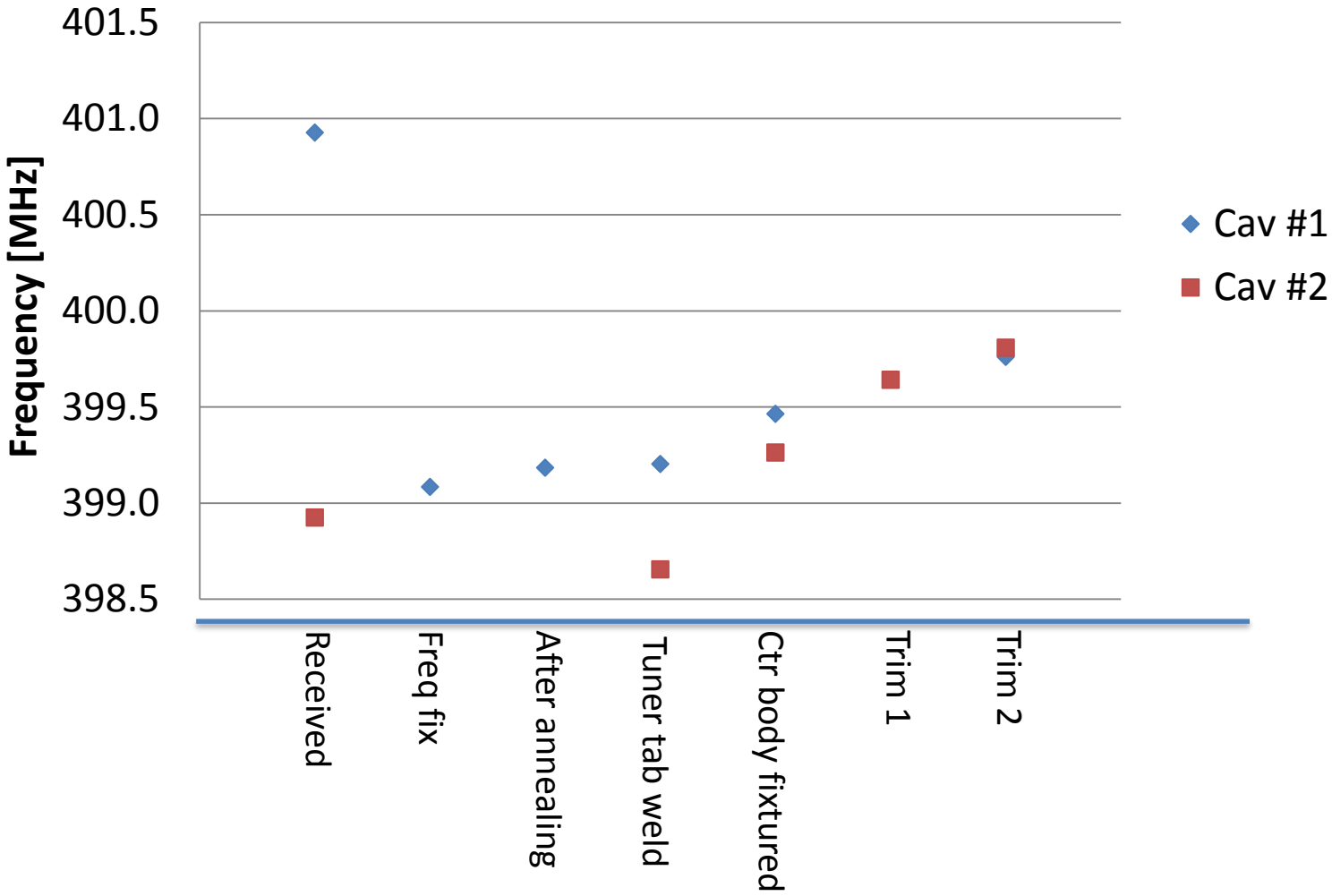
- Cavity #1
  - Both end caps thinning complete.
  - Center body thinning complete with extra length to trim.





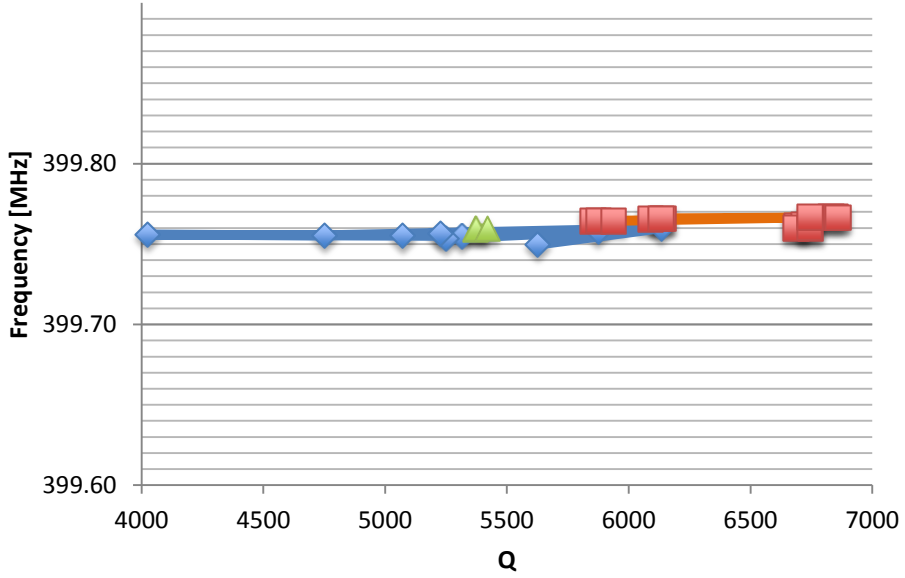
- Cavity #2
  - Thinning in progress

Frequency Changes



Cav#1 Trimming

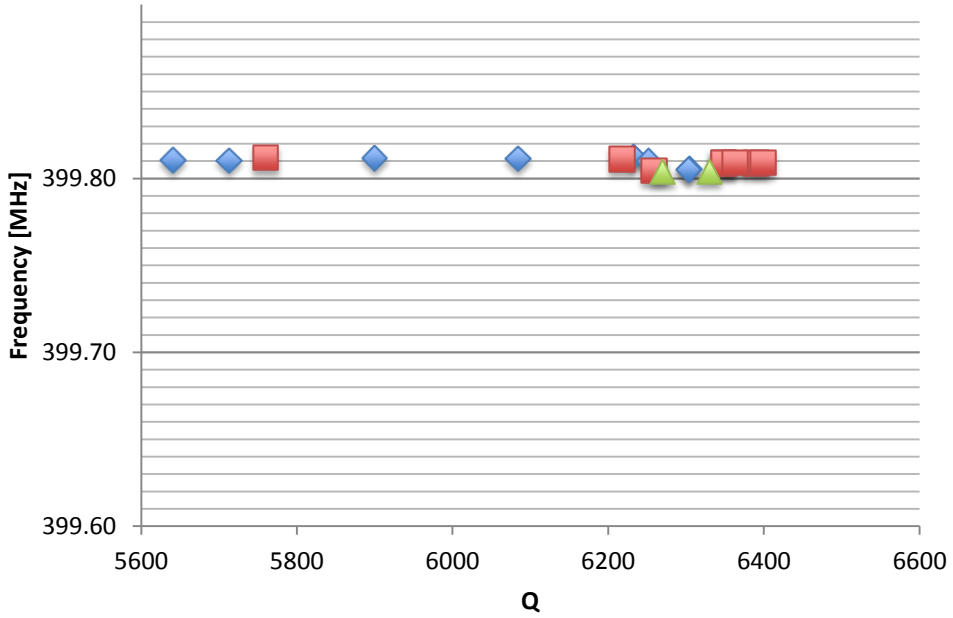
- Trimming only on center body
- Frequency before trimming 399.465 MHz
- VHOM side 0.7 mm HHOM side 1.4 mm (was 0.7 mm longer HHOM side)
- After trim 399.761 MHz
- Actual trim sensitivity 140 kHz/mm (calculated 120 kHz/mm)
- Frequency relatively stable over Q
- Maybe axial tension does not deform cavity due to its rigid geometry, also the cavity capacitance is not affected by the axial tension.



Avg: 399.761 MHz
Max: 399.766 MHz
Min: 399.753 MHz
Stdev: 5 kHz

Cav#2 Trimming

- Frequency before trimming 399.263 MHz
- 1st trim VHOM side 1.56 mm HHOM side 1 mm (was 0.56 mm longer VHOM side)
- After trim 399.642 MHz (sensitivity 147 kHz/mm)
- 2nd trim 0.75 mm each side
- After trim 399.808 MHz (sensitivity 111 kHz/mm)
- Average sensitivity 134 kHz/mm



Avg: 399.808 MHz
Max: 399.812 MHz
Min: 399.804 MHz
Stdev: 3 kHz

Next Week

- Cav 1
  - Measure frequency after weld prep thinning
  - Final trimming
- Cav 2
  - Hopefully thinning done