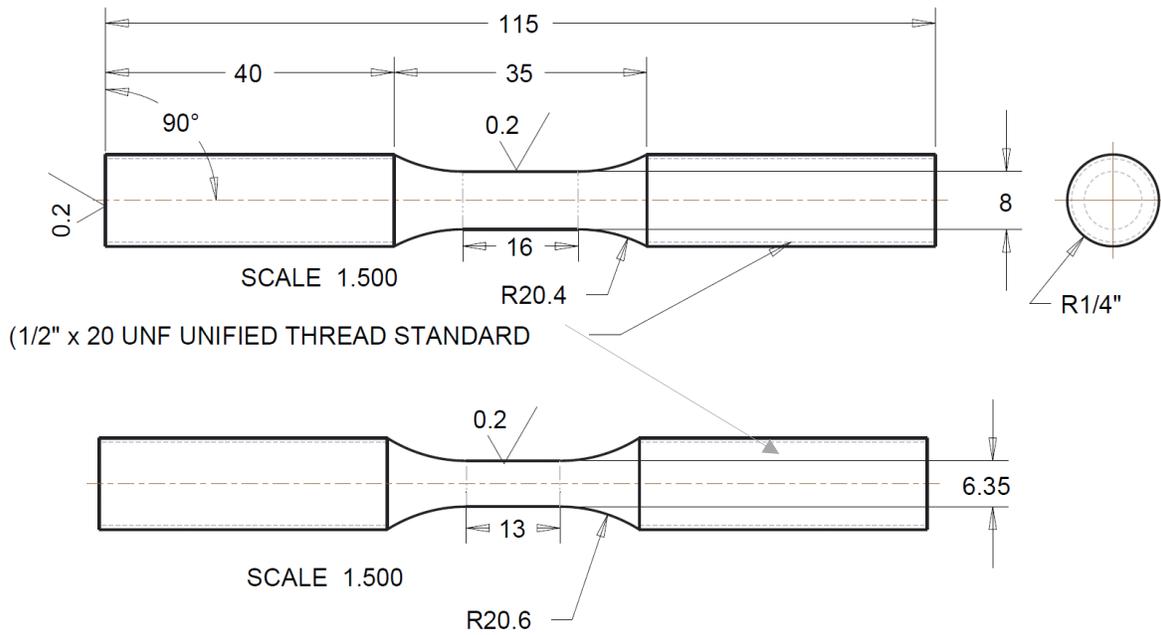


**Room Temperature Fatigue Sample:**

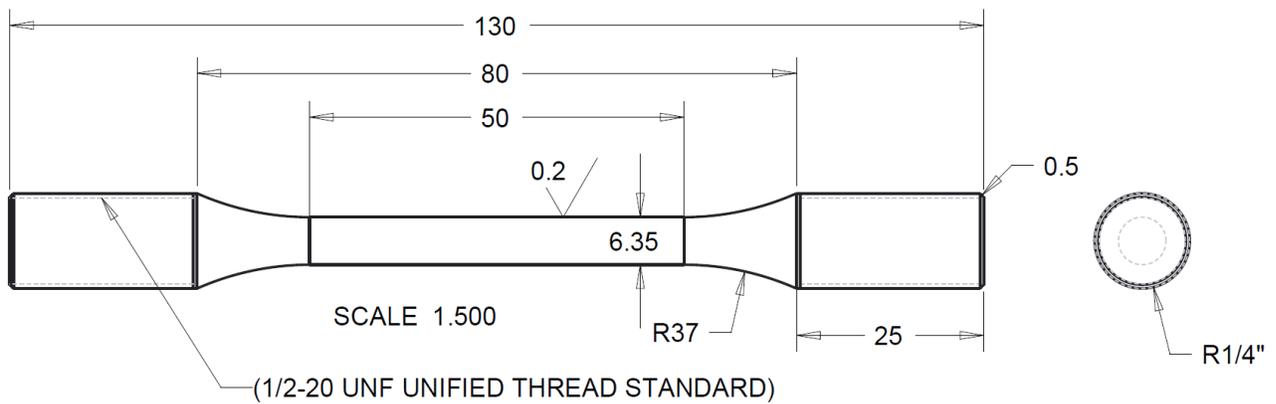
1/2-20 threading, 1/2" Rod Diameter, all other dimensions in millimeters.

Ends must be polished and normal to loading axis.



**High Temperature 1/4" (6mm) Gauge Threaded Tension Sample:**

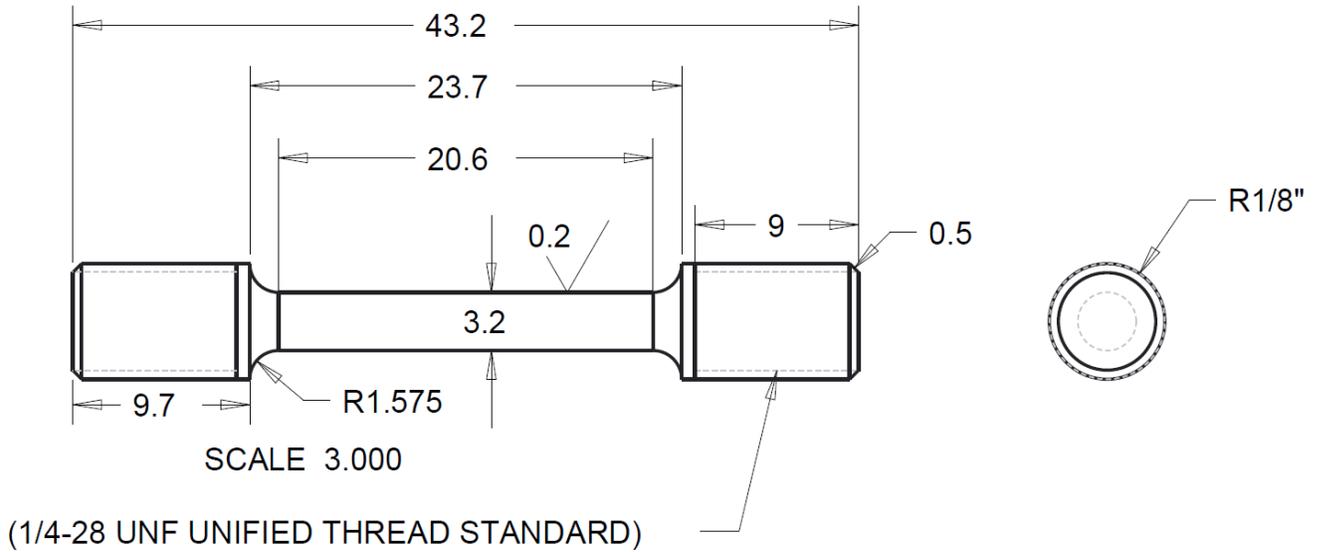
1/2-20 threading, 1/2" Rod Diameter, all other Dimensions in millimeters.



MILLIMETERS  
1/4" TENSION SPECIMEN  
AMBIENT/HIGH TEMPERATURE

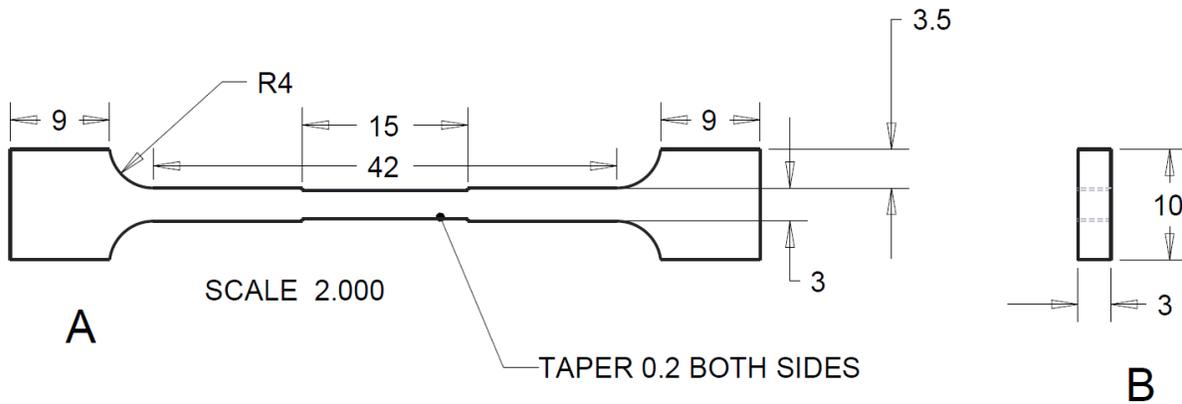
**1/8" (3mm) Gauge Threaded Tension Sample:**

1/4-28 threading, 1/4" Rod Diameter, all other Dimensions in millimeters.



MILLIMETERS  
1/8" TENSION SPECIMEN  
AMBIENT/HIGH TEMPERATURE

**3mm Gauge Flat Tension Sample:**



MILLIMETERS  
POLISH ALL SURFACES

**Compression Samples:** Ends must be polished and normal to loading axis. Diameter/Diagonal must be no less than 3mm and no greater than 10mm, depending on the load requirements. Aspect ratio no greater than 2:1 and no less than 1:1 is allowed. Reference the table below to be sure that the sample is feasible. Any deviation from these requirements must be approved by instrument staff prior to experiment. **Note:** Shaded compression dimensions require the use of finer collimating optics, significantly reducing the scattering signal.

| Diameter/Diagonal (mm) | Length Range (mm) | Max Temperature (°C) | Max Stress (MPa) |
|------------------------|-------------------|----------------------|------------------|
| 10                     | 10-20             | 250                  | 1200             |
| 10                     | 10-20             | 1000                 | 1000             |
| 8                      | 9-16              | 250                  | 1900             |
| 8                      | 9-16              | 1000                 | 1400             |
| 6                      | 8-12              | 250                  | 2600             |
| 6                      | 8-12              | 1000                 | 1400             |
| 5                      | 8-10              | 250                  | 2600             |
| 5                      | 8-10              | 1000                 | 1400             |
| 4                      | 8                 | 250                  | 2600             |
| 4                      | 8                 | 1000                 | 1400             |