

DUAL BAND J-POLE 144/440Mhz

Original Plans By: Allen Lowe (NØIMW)

Simple to create yet effective 144/440 Mhz Antenna.

Materials Needed (Refer to parts list below)

- 8ft (96in) of 3/8" Aluminum Rod
- 1 5-1/2" of Alumium Angle (1-1/2"X1-1/2"X3/16" THICK)
- 1 SO-239 Female to 3/8"-24 Thread (Available At Radio Shack)
- 4 3/8"-24 Stainless Steel Nuts
- 3 Pliable Vinyl Caps (Optional)

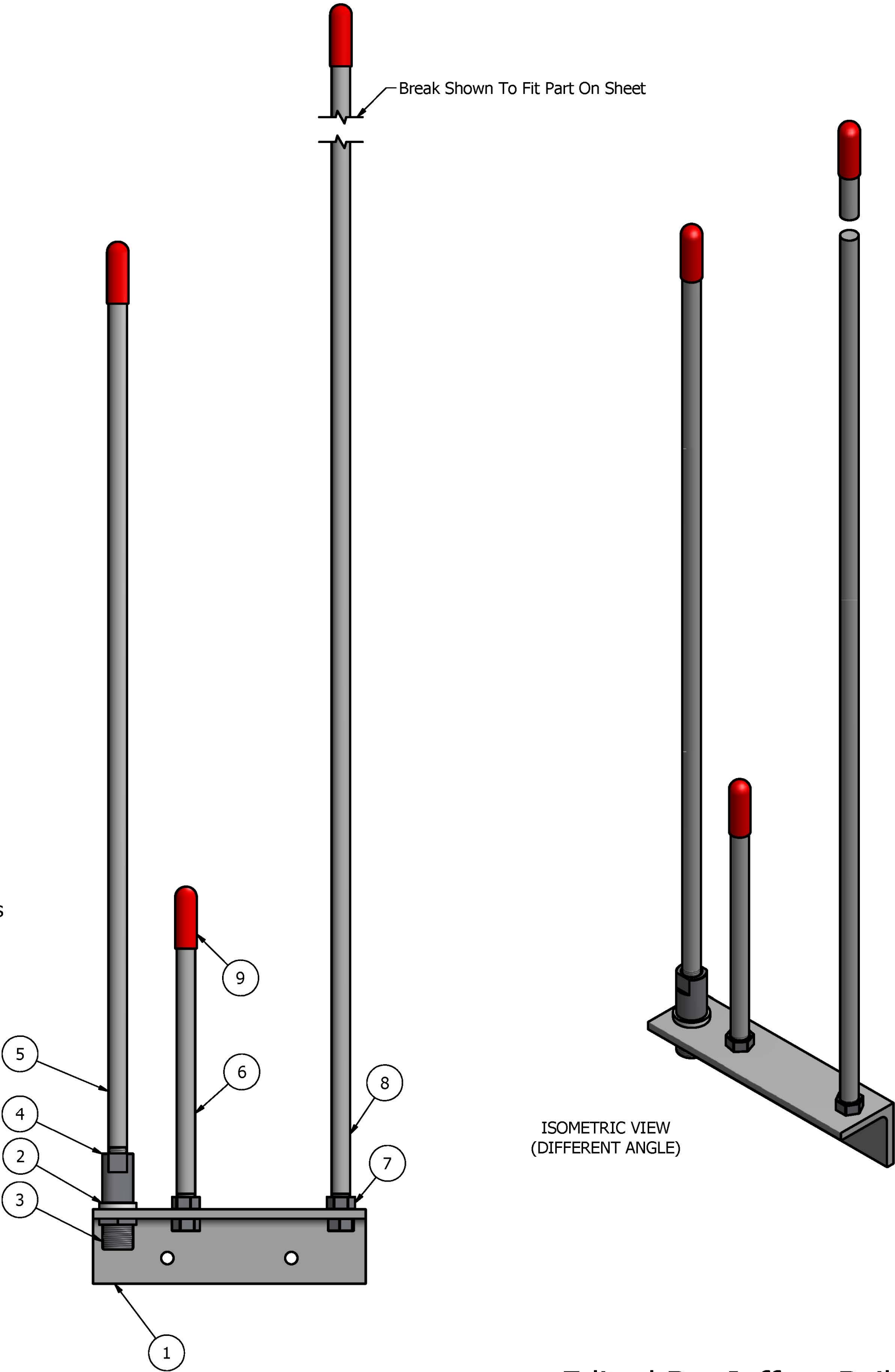
Tools Needed (Basic Version)

- Tape Measure (Vernier/Caliper preferred)
- Marker (Automatic center punch preferred)
- Drill W/ Drills bits (up to 1/2")
- Saw (Hacksaw or Bandsaw with metal blade)
- File And/Or Sandpaper
- 3/8"-24 Tapping Die (With holder)
- 3/8"-24 Tapered Tap (With holder)
- Vise Grips with protective caps (Can use a rag instead of caps)

Instructions (Instructions are not exact, please use good judgement and saftey)

- 1.) Using your measuring device and marking device layout the holes on the angle as shown on page 2.
- 2.) Drill the holes to 1/8" as pilot holes. Then drill to hole sizes listed on page 2.
If your using a different SO-239 Than what is listed here. please check the dimension of the plastic washer that fits into the angle and check it's size (it might differ from each manufacture)
If different please change the 1/2" hole to the proper size for the plastic washer to fit snug.
- 3.) Use the 3/8"-24 Tap and thread the two smaller holes in the angle
- 4.) Using the saw cut the aluminum rod to the dimensions of 58", 18-5/8" and 6-3/4" These Dimensions Might vary a little bit depending on the Jam nuts that are being used.
- 5.) Using the threading DIE, Thread the ends of the aluminum rod to around the dimensions listed on page 2. Try not to over make the threads.
- 6.) Using a file/sander to take off any sharp edges or metal burrs.
- 7.) (Optional) Place protective caps over the 3/8" Rods
- 8.) Assemble the antenna to the pictures shown. Maintain lengths of rod to the dimensions shown

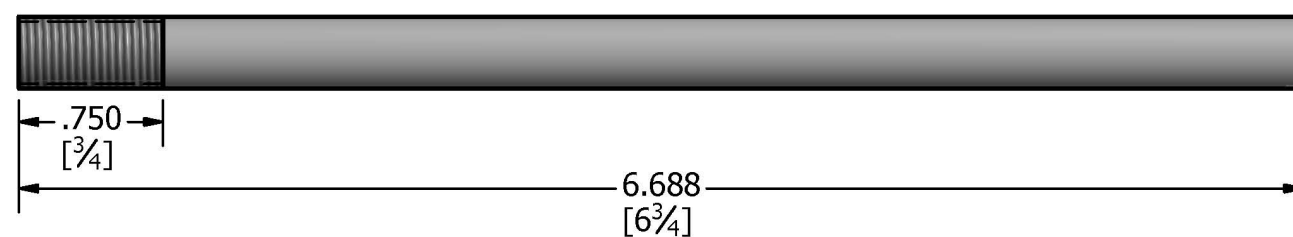
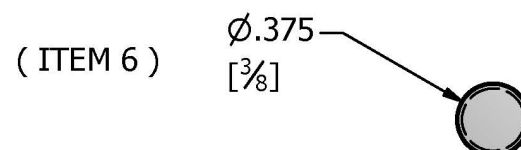
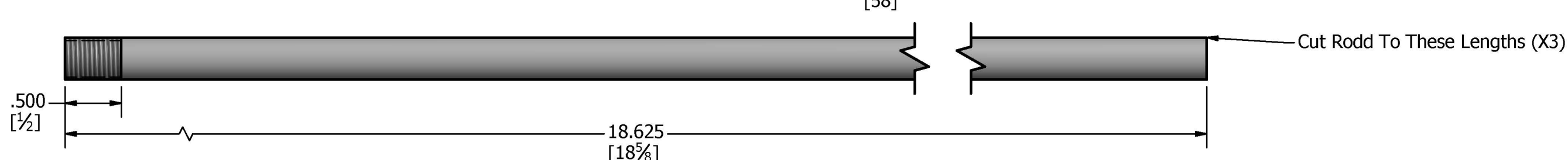
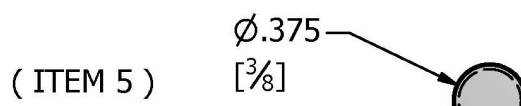
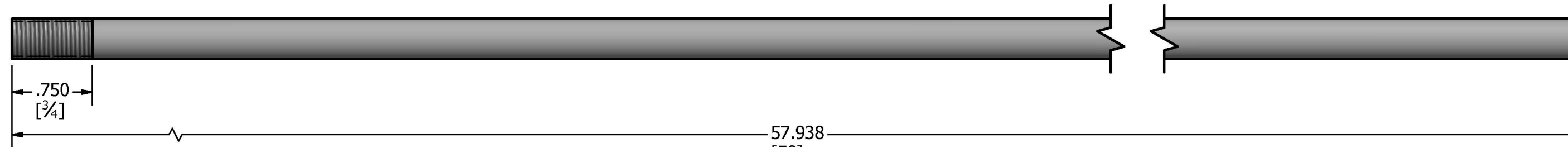
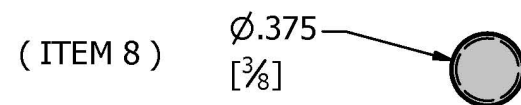
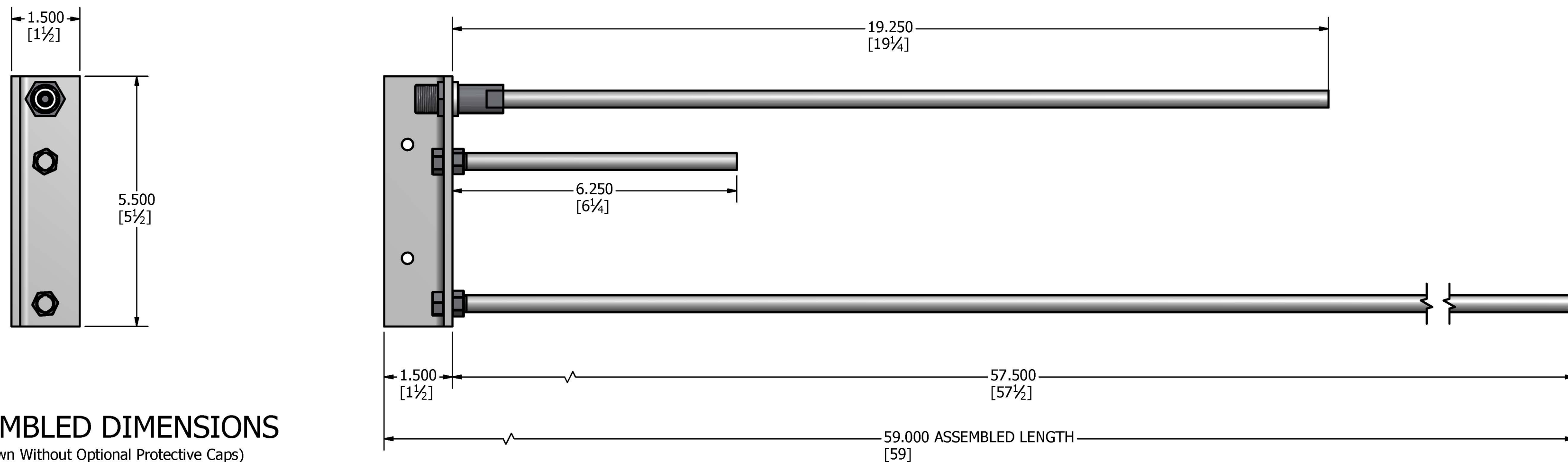
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	5-1/2" ALUM ANGLE	1.5X1.5X.188 ALUM ANGLE
2	1	SO-239 SPACER	Plastic Spacer
3	1	SO-239-STUD	UHF W/ 3/8"-24 STUD
4	1	SO-239-COLLAR	3/8"-24 Threaded Coupling
5	1	19-1/4" Alum Rod	3/8" Rd. 19-1/4" Long Alum Rod
6	1	6-1/4" Alum Rod	3/8" Rd. 6-1/4" Long Alum Rod
7	4	3/8" SS NUT	3/8"-24 Stainless Nut
8	1	57in Alum Rod	3/8" Rd. 57-1/2" Long Alum Rod
9	3	Optional Protective Cap	Red Protective CAP



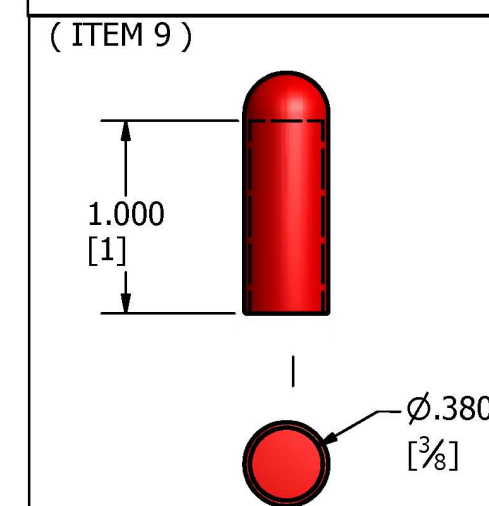
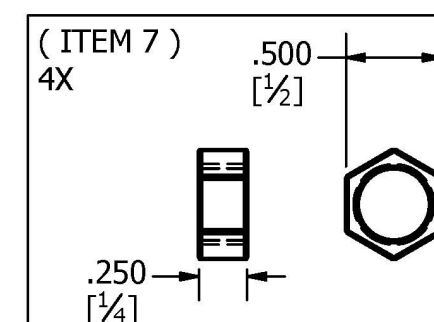
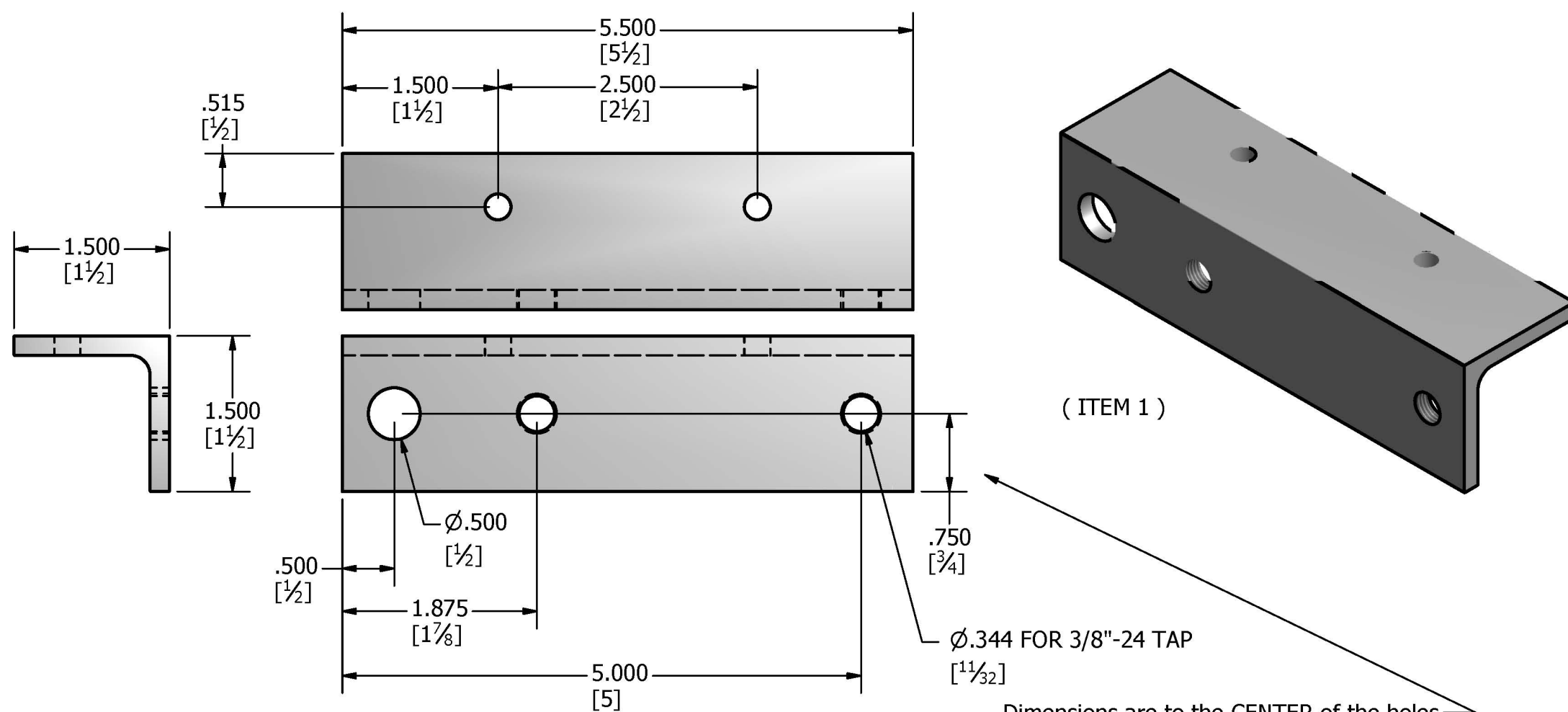
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ASSEMBLED DIMENSIONS

(Shown Without Optional Protective Caps)



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Pliable Vinyl Cap
McMaster Carr # 9753K42

