Electrical / mechanical specifications and sketch of Midi

- **Electrical specifications**
- Continous frequency Range: 3.500 – 14.500 MHz
- S.W.R: 1.2:1 Typical
- Front to Back Ratio: 6 dB
- Front to Side Ratio: 25 dB
- 50 Ohm input impedence with gamma match short circuited (electrostatic discharge protection)
- Negligible noise and harmonics
- L = 4.5 µH Q = 1.500 at 3.5 MHz
- C = 560 pF at 14 KV r.m.s.
- Power Rating: 300W 3.5 – 7.0 MHz **
  800W 8.0 – 14.5 MHz **
- Bandwidth: 4 KHz @ 3.5 MHz
  6 KHz @ 7.0 MHz
  10 KHz @ 14.0 MHz
- Gain compared to ½λ dipole(1 "S" point = 6 dB):
  -4 dBd @ 3.5 MHz
  -0.3 dBd @ 14.0 MHz

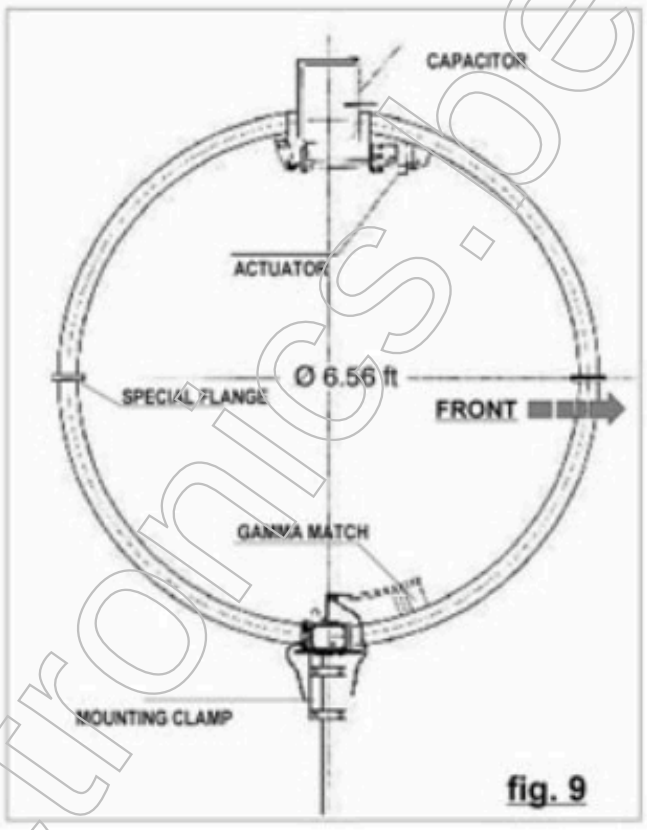

fig. 9

****NOTE: With this LOOP ANTENNA the peak power is equal to the continuous power.**

Mechanical specifications

- Antenna Diameter: 2 m (78.7 in.)
- Aluminum alloy 60/60 welded with Tungsten and injection of Gas
- Tubular Element ∅ 75 mm x 2 mm thickness (∅2.9 in x .08 in)
- All stainless steel hardware and support pin
- Galvanized Mounting clamp for a mast of ∅ 60 mm – 76 mm (2.4 in – 3.0 in)
- Net / Gross Weight 20 Kg / 32 Kg (44.1 lbs – 70.5 lbs)
- Windload 0.5 m^2 (5.38 ft^2)
- Maximum supported wind velocity 161 km/h (100 mph)
- Force exerted on antenna by wind of 129 km/h (80. 15 mph) = 480 N
- Maximum flexibility moment on the antenna base anchoring point to a metal mast ∅ 6 cm, height 3.5m (∅2.36in, height 11.48 ft) = 1.680 N/m

*Note: C.E.I. regulations require the installation of a wind-guys for areas of high wind with possible ice formation (in this case **NON** metallic guys).*

fig. 10 S.W.R. TEST Continous coverage from 3,5 to 14,5 MHz