



Designing *BUG SOURCE MISTING SYSTEMS*  
**For Mosquito & Fly Control**  
**Residential (outdoor)**



1. Decide what areas of your yard require insect control, i.e. around deck, fence line, and perimeter of house.
2. Figure one nozzle every 8 - 12 feet.
3. Sketch layout of yard including house location with approximate dimensions. Show deck fence line, pool, etc.
4. Locate nozzles in areas requiring insect control (remember 8 - 12 foot nozzle spacing). Do not locate nozzles near flowers, vegetation (gardens), pools, etc.
5. Decide on best spot to locate reservoir/pump unit. Preferably near GFCI electrical outlet. Draw location on your sketch.
6. Layout tubing lines. Rule of thumbs:
  - a. If longest tubing line is 300 feet or less, ¼ inch tubing is required.
  - b. Longer than 300 feet than 3/8 inch tubing required for the first 200 feet followed by ¼ inch tubing for the remaining 200 feet. Longer tubing runs are possible with proper layout and zoning (call for design assistance).
7. Determine the type of Nozzles needed:
  - a. Nozzles located along tubing lines: TEE Nozzle or Straight Nozzle
  - b. Nozzles located at the end of tubing lines: Elbow Nozzle
  - c. If Nozzle is located on side of house: 45 degree Nozzle required (TEE or Elbow)
  - d. Nozzles located at eaves/gutters pointing towards ground: standard TEE, Elbow or Straight Nozzle
8. Determine Fittings required:
  - a. Elbows – at corners or 90-degree bends
  - b. TEES – branch lines, ¼ x ¼ x ¼ or 3/8 x 3/8 x 3/8
  - c. Reducers – 3/8 x ¼, locations where 3/8 inch main changes to ¼” tubing
9. Determine size of pumping unit:
  - a. 20 gal. System - 1/3 HP: 10 nozzles max.
  - b. 55 gal. System – 1/3 HP (standard pump): 90 nozzles max.
  - c. 55 gal. System – 1/2 HP, (Heavy Duty Pump): 125 nozzles plus (please call for design assistance)

# **For Mosquito & Fly Control**

## **Livestock (Horse Stable, Dairy/Beef/Swine Facilities)**

1. Decide what areas of your barn or facility require insect control, i.e. stalls, paddocks, aisle way.
2. Figure one nozzle per:
  - a. 10ft. x 10ft. or 12ft. x 12ft. stall
  - b. Above each door
  - c. Every 12ft. down aisle way
3. Sketch layout of barn including stalls, paddocks, aisle way locations with approximate dimensions.
4. Locate nozzles in areas requiring insect control. Do not locate nozzles over/near feed locations, hay/straw storage locations and birthing stalls.
5. Decide on best spot to locate reservoir/pump unit. Preferably near GFCI electrical outlet. Draw location on your sketch.
6. Layout tubing lines. Rule of thumbs:
  - a. If longest tubing line is 300 feet or less, ¼ inch tubing is required.
  - b. Longer than 300 feet than 3/8 inch tubing required for the first 200 feet followed by ¼ inch tubing for the remaining 200 feet. Longer tubing runs are possible with proper layout and zoning (call for design assistance).
7. Determine the type of Nozzles needed:
  - a. Nozzles located along tubing lines: TEE Nozzle or Straight Nozzle
  - b. Nozzles located at the end of tubing lines: Elbow Nozzle
  - c. If Nozzle is located on side of house: 45 degree Nozzle required (TEE or Elbow)
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  - a. 20 gal. System - 1/3 HP: 10 nozzles max.
  - b. 55 gal. System – 1/3 HP (standard pump): 90 nozzles max.
  - c. 55 gal. System – 1/2 HP, (Heavy Duty Pump): 125 nozzles plus (please call for design assistance)