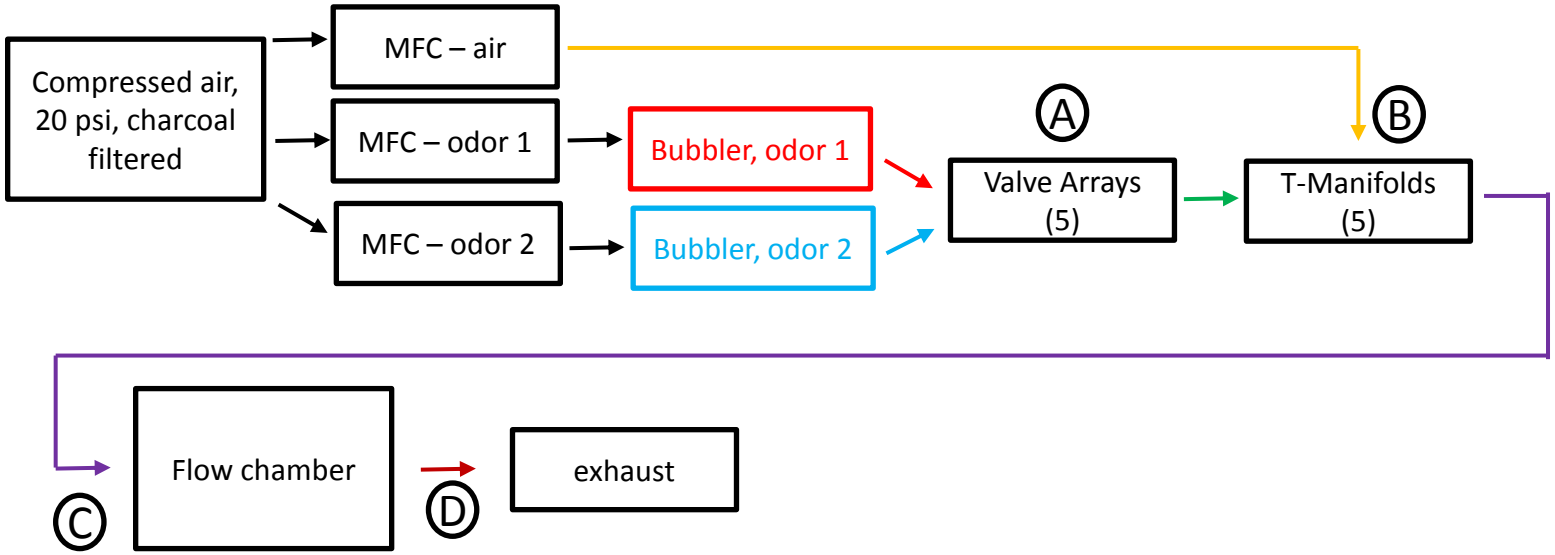
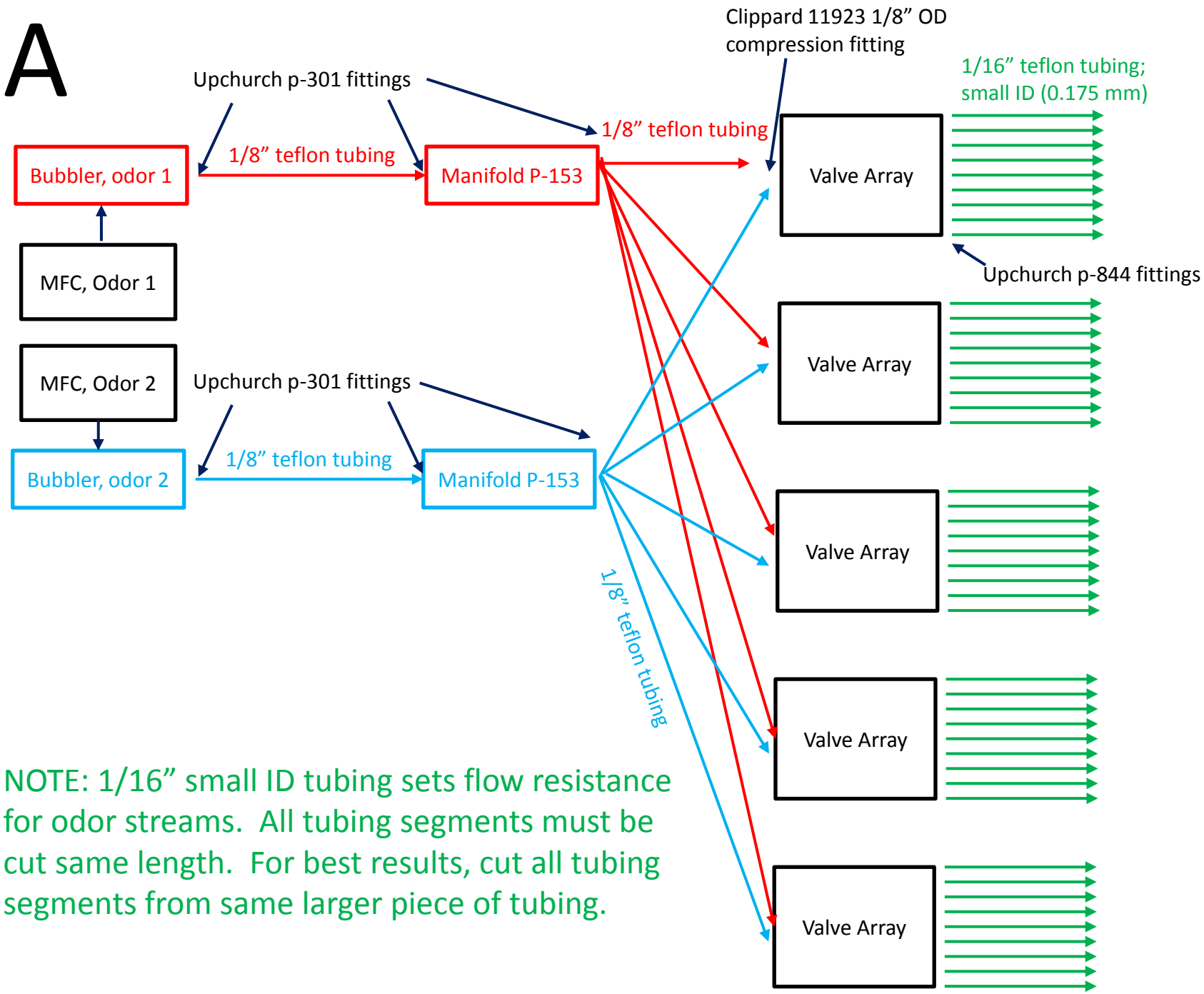
LADY GAGA V2 Basic flow scheme
arrow indicates air flows between components in indicated direction.
Letters indicate details follow on subsequent pages.

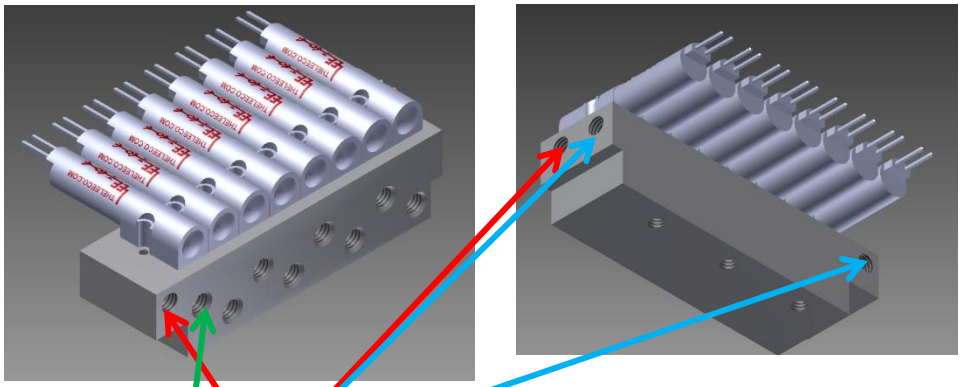



Note: all clippard fittings require that the buna-n gasket (default) be replaced by epdm


A
Upchurch p-301 fittings
1/8” teflon tubing
Bubbler, odor 1
Manifold P-153
1/8” teflon tubing
Clippard 11923 1/8” OD compression fitting
1/16” teflon tubing; small ID (0.175 mm)
Valve Array
Upchurch p-844 fittings
MFC, Odor 1
MFC, Odor 2
Upchurch p-301 fittings
1/8” teflon tubing
Bubbler, odor 2
Manifold P-153
Valve Array
Valve Array
1/8” teflon tubing
Valve Array
Valve Array
NOTE: 1/16” small ID tubing sets flow resistance for odor streams. All tubing segments must be cut same length. For best results, cut all tubing segments from same larger piece of tubing.

# A

Manifold with valves

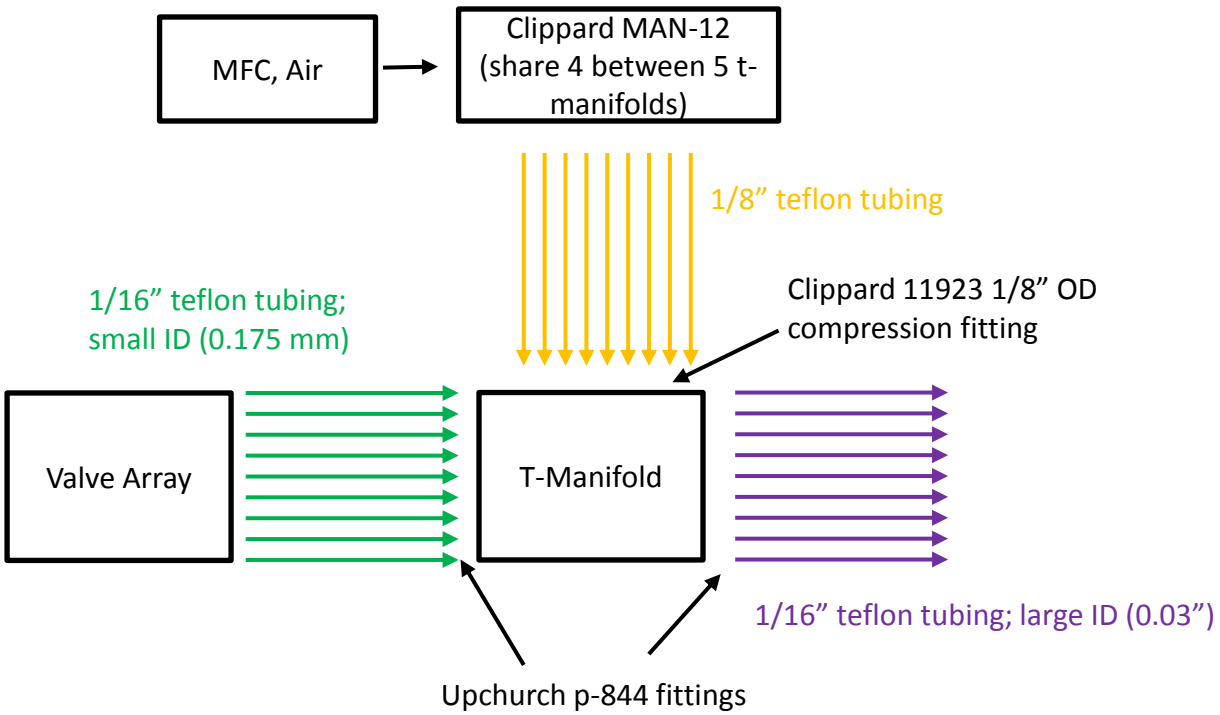


Odor 1 (NO) inlet, Odor 2 (NC) inlet: connect with clippard 10-32 to 1/8” compression fitting and 1/8” OD teflon tubing or seal with clippard 10-32 plug

Valve common (outlet), 8X: connect with upchurch 10-32 flat bottom vacutight fitting to 1/16” OD, 175 um ID

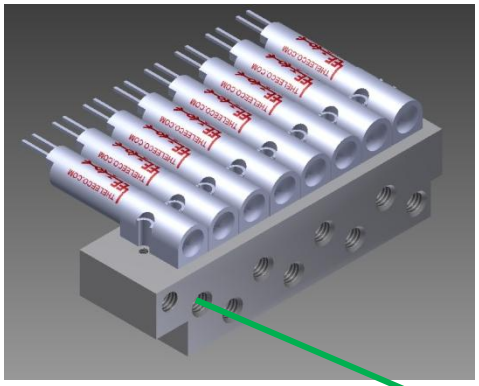
To distribute odor to 5 valve manifolds, use upchurch p-153, 6-port manifold for 1/8" OD tubing

# B



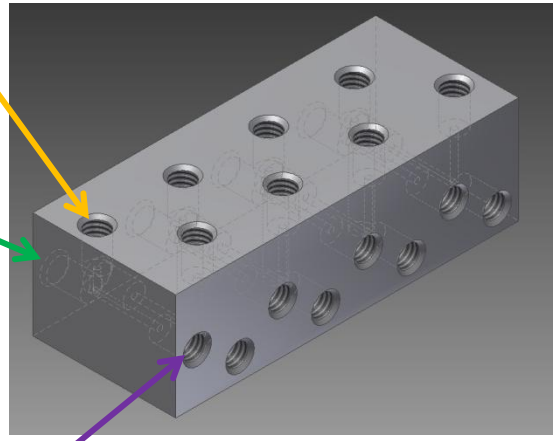

5X

NOTE: 1/16” large ID tubing sets flow resistance for air streams. All tubing segments must be cut same length. For best results, cut all tubing segments from same larger piece of tubing.



Air inlet 8x. Connect with 10-32 clippard compression fittings to 1/8” OD teflon tubing.

B

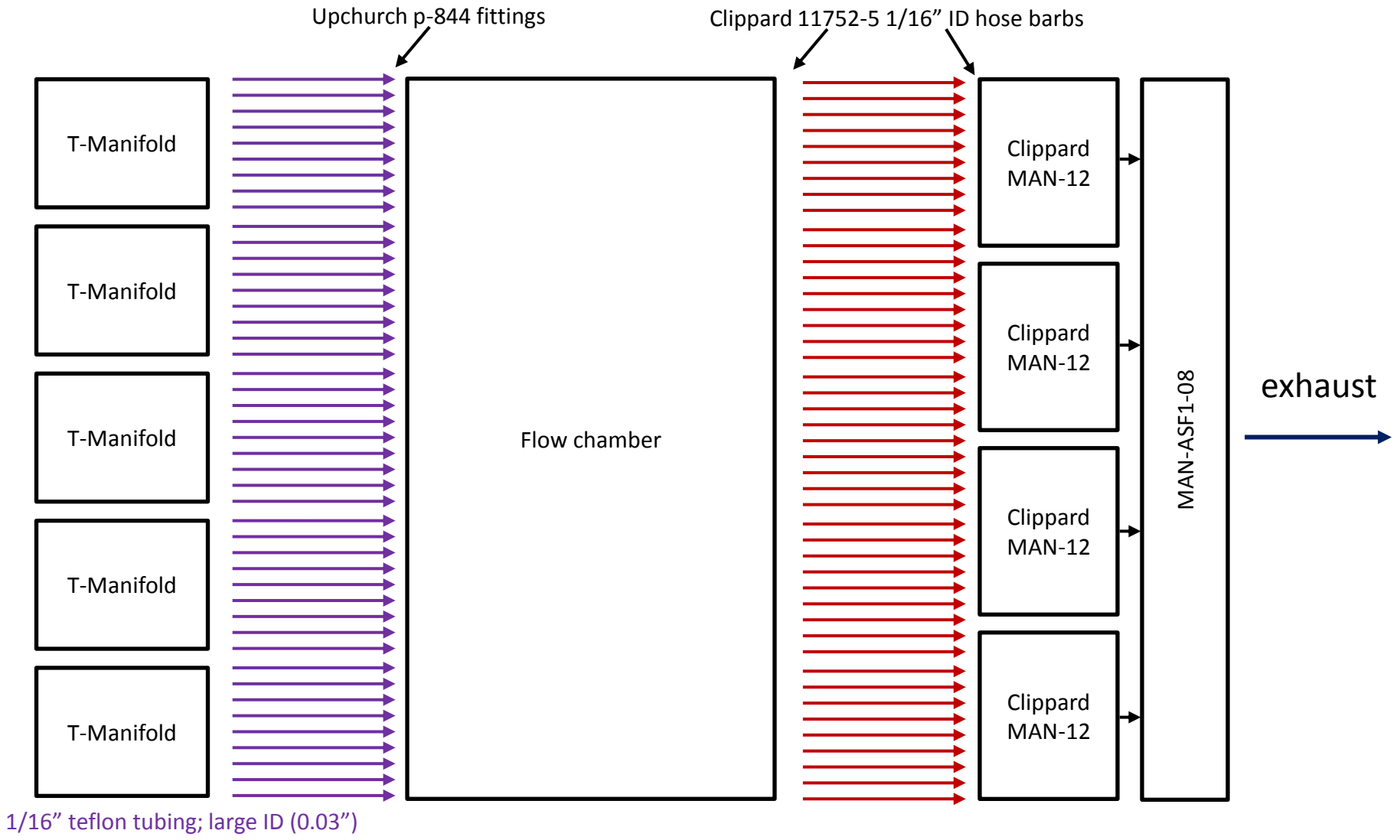


T-manifold

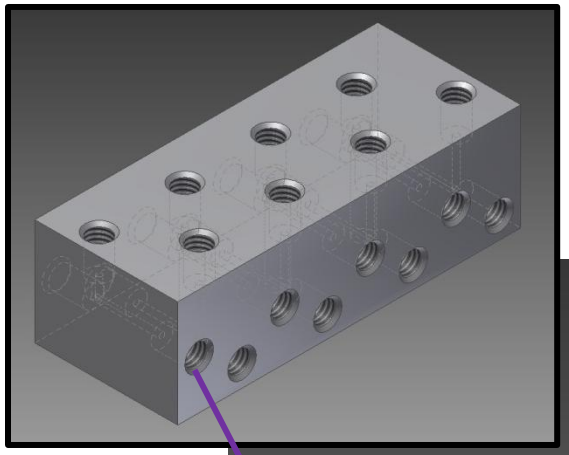
Odor flows from valve manifold to t-manifold through 1/16” OD 175 um ID teflon tubing (connect at both ends with 10-32 vacutight fittings) (8x)

Combined air and odor outlet, 8x. Connect with 10-32 vacutight fittings and 1/16” OD, 0.03” ID teflon tubing.

Notes: to combine multiple valve arrays, use t-manifolds in series, connected with 1/16” OD 0.03” ID tubing. Air inlet should be last connection.
To distribute air to each inlet, use clippard MAN-12 and NPT tees.

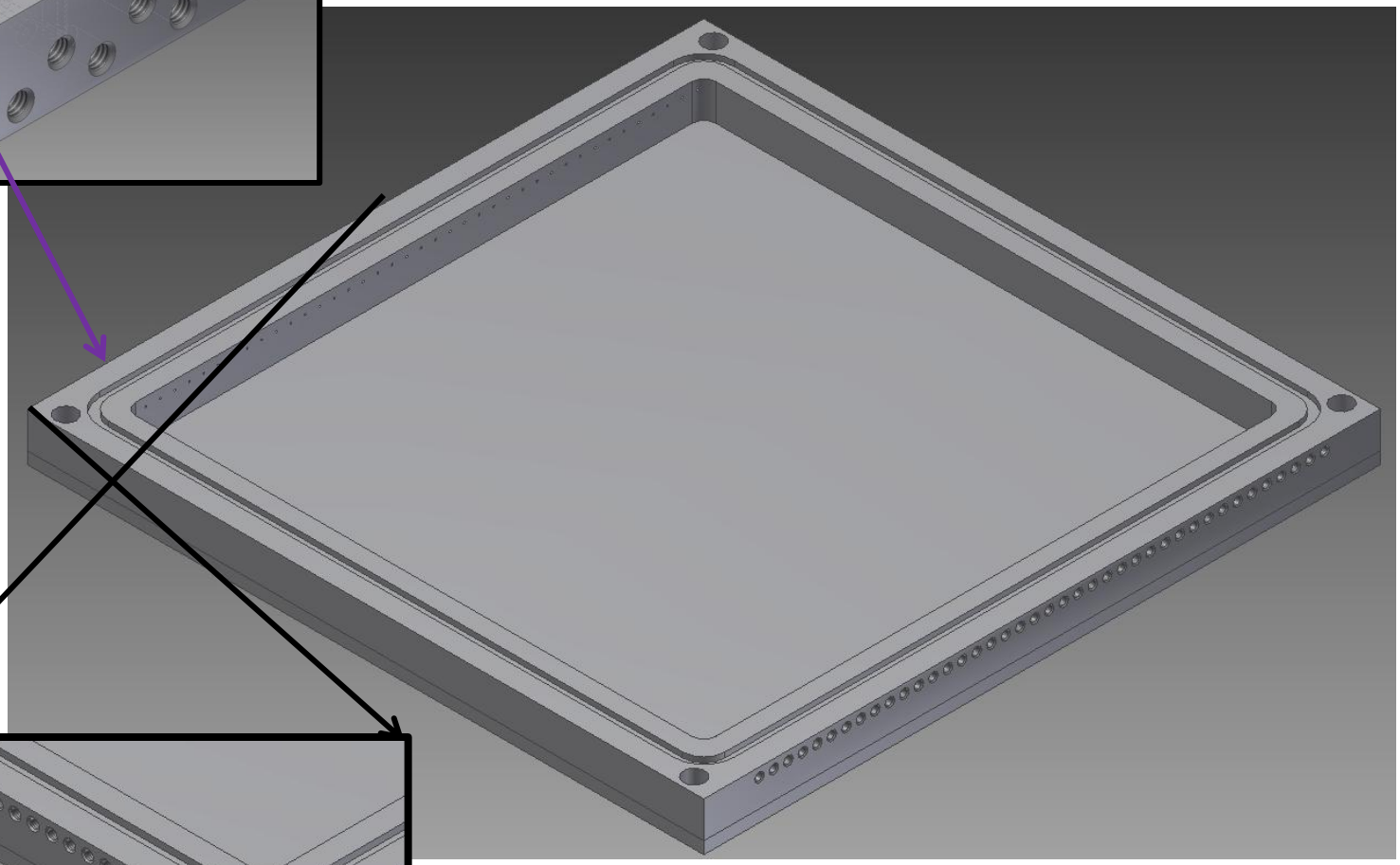

Upchurch p-844 fittings
Clippard 11752-5 1/16” ID hose barbs
T-Manifold
T-Manifold
T-Manifold
T-Manifold
T-Manifold
Flow chamber
Clippard MAN-12
Clippard MAN-12
Clippard MAN-12
Clippard MAN-12
MAN-ASF1-08
exhaust
1/16” teflon tubing; large ID (0.03”)

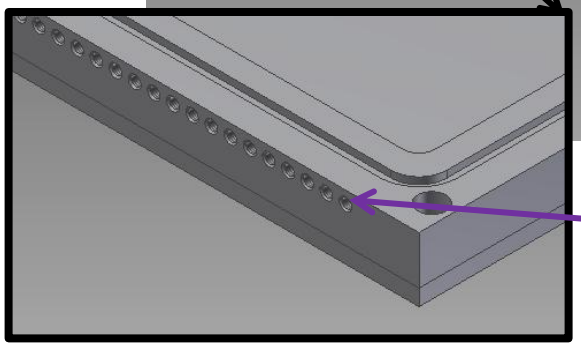
C,D



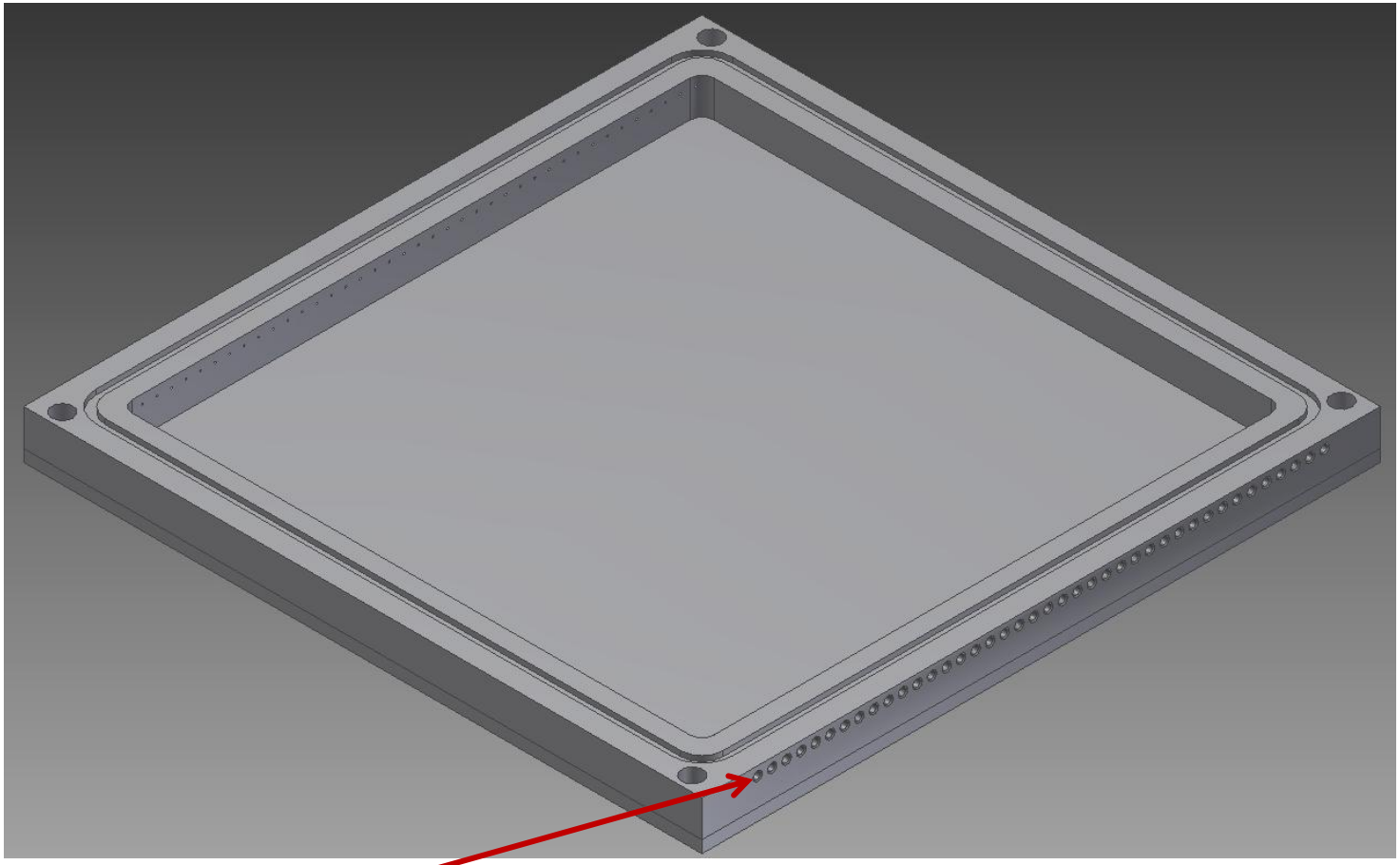
Odorized air flows from t-manifold to flow chamber through 1/16” OD 0.03” ID teflon tubing (connect with 10-32 vacutight fittings, both ends)

C





Connect with 10-32 vacutight fittings (40 places)



D

Flow chamber outlet: connect with clippard 10-32 to 1/16” ID hose barbs to 1/8” OD, 1/16” ID fep lined tygon tubing (40 x). Connect other end to clippard MAN-12 using clippard barbs. Connect all MAN-12s to MAN-ASF1-08 (use NPT plugs to fill empty connections). connect MAN-ASF1-08 to tubing (this is the outlet, which should run through a flow meter and then into whatever venting system you decide to use)

# Alternate connection scheme for multiple independent valve arrays