

## Technical Refresh on Installation Best Practices

### 9 April 2020 – Firestop Systems and Scott MacRitchie



Scott MacRitchie Americas Sales Manager





Jim Garvens



Joe Garvens





# Installation Walkthrough

Tips and Best Practices



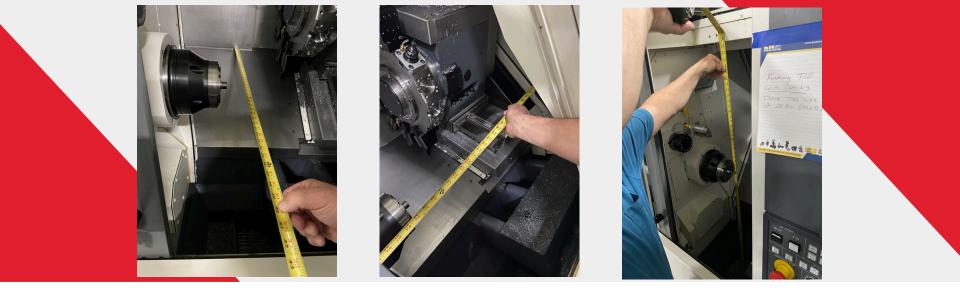




#### **Step 1: Machine Tool Assessment**

Determine if machine tool is enclosed or partially open (local application) we recommend use of CO2 in unoccupied spaces.





#### **Step 2: Sizing**

- Calculate Machining area adding machine mounted mist collector as part of total volume (Depth, Height & Width).
- Determine best agent for application (tank size-cost).

Note: When there is a machine mounted mist collector it must be shutdown at same time as machine tool.

• If machine tool is connected to centralized collector a fire damper is recommended (refer to Firetrace agent calculator for proper tank sizing).

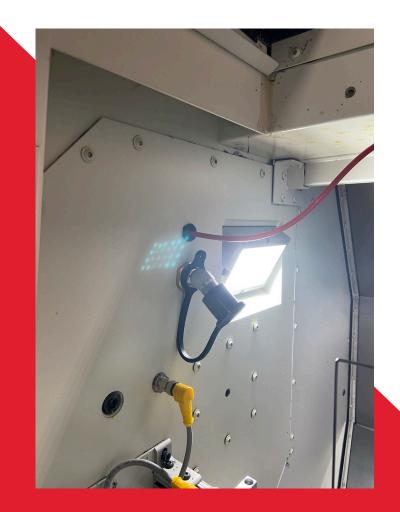


## Step 3: Tank Location and Mounting

- Make sure that location is acceptable by customer.
- The tank assembly is mounted in vertical upright position with valve at the top.
- Make sure there are no obstructions on back side of mounting area.







### Step 4: Bulkhead with Discharge Nozzle

- Locate best area close to cutting/grinding or heat source on outer enclosure of machining area. Make sure that it will not interfere with operation of machine function.
- Direct nozzles toward cutting/grinding area.

Insert: Drill hole in cabinet for bulkhead, Connect bulkhead to discharge hose on outside of cabinet and to nozzle on inside of cabinet. Connect discharge hose to tank with 45 degree street swivel.

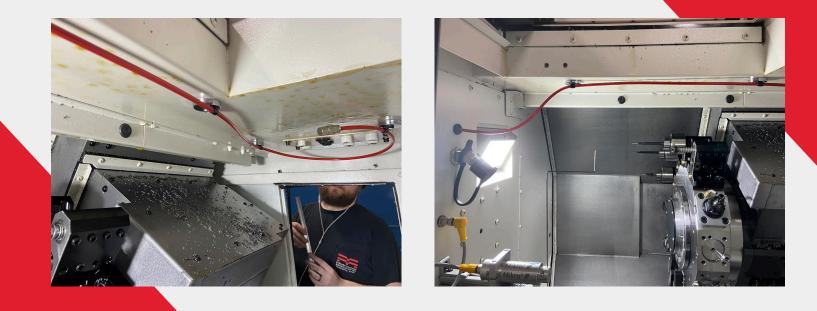


### Step 5: Manual Release

Locate good area near operator in plain sight







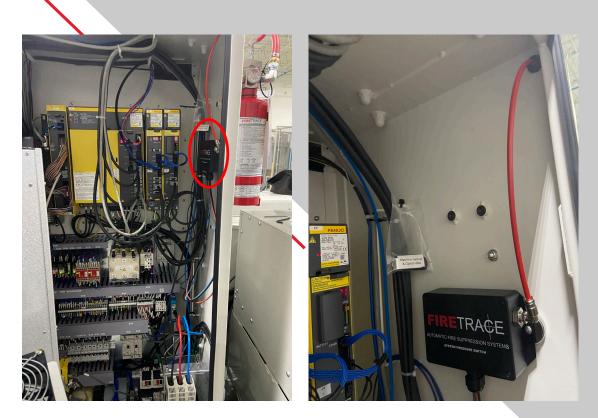
#### **Step 6: Routing the Tubing**

- Route tubing near top of enclosed area, routing tubing past venting outlet to collector is critical.
- Make sure tubing is routed to prevent cuts or abrasions.
- Use hose/tubing guard protection if necessary. Use guard as little as possible to maximize surface for detection.



#### **Step 7: Pressure Switch**

- This is critical to shutdown machine tool and collection system at the same time.
- Additional pressure switches can be added for purposes of alarms/ADT or inhouse notification.







### **Step 8: Pressurize detection tubing**

• Pressurize tubing and let it sit for 2 hours to make sure system holds pressure before activating system.

Insert: turn on tank to activate system and install tank lock.

**Finally**: Review system function and maintenance with customer.



#### Spare Parts and Tools to Keep on Hand

- Nitrogen charging kit 600213
- Extra Tubing
- Spare Cylinder
- 12mm wrench
- Adjustable wrench
- Drill
- 7/8" hole saw (manual release)
- 1-1/8" hole saw bulkhead nozzle
- ¼" / 5/16"drill for tank bracket mounting

- <sup>1</sup>/<sub>2</sub>" drill (grommet for detection tubing)
- Volt/OHM meter (pressure switch)
- Tubing cutter
- Phillips/screw driver
- Needle nose pliers
- Wire strippers
- Allen wrenches metric (open machine doors)
- Tool bag/box



#### **Final Thoughts**

- Mist Collector Damper Assessment.
- Installations during COVID-19.





### Questions ?

