TPE’s Hydrofluoric Fume Cupboard and Scrubber uses a constant air volume (CAV) Labrocare® model fume cupboard combined with a wet scrubber mounted immediately above it to remove acidic vapours from the exhausting airstream.

Many of the main features of fume cupboard construction required for perchloric acid also apply for hydrofluoric acid, except that for hydrofluoric acid, the hazard arises more from skin contamination than from explosion. In particular, the interior shall be crevice-free with smooth surfaces for easy decontamination. A handheld shower on a flexible hose is very useful for washing down the interior surfaces of the fume cupboard. Hydrofluoric acid etches glass and ceramics.

Cleaning is accomplished as the contaminated air passes through the scrubber chamber which is filled with wet, high-surface-area, polypropylene packing material called Pall Rings. When the airstream encounters the sprayed-in water flowing across the Pall rings, acids and other soluble particles are absorbed into the water. The scrubbing liquid drains down across the back of the fume cupboard baffles and into a sump beneath the work surface. From the sump, the spent water is either drained away as waste or recirculated by an optional recirculation system.

**Standard Operation**

When the fume cupboard is turned ON by touching the Fan button, a solenoid automatically initiates the water spray heads, which continuously wet the pall rings.
After passing through the Pall Ring bed, the exhaust airstream passes through a mist eliminator pad which removes the remaining moisture from the airflow, so the air exhausted up through the fan and out the stack is essentially moisture-free.

**Options**

- Re-circulation tank systems are available for scrubber water where drainage to sewer is not practical or water consumption is prohibitive.
- Hand Shower, (recommended for hydrofluoric fume cupboards).
- Steel powder-coated under-bench frame—locates fume cupboard work surface at standard 900mm bench height.
- Scaffold System, adjustable stainless steel rods with polypropylene connectors.
- Electrical, plumbing, and gas services can be added as specified.
- Double Polycarbonate Sash.