

The 3 Most Common Styles of Respirable Samplers



MSA/Zefon Style



Sensidyne Style

1. Dorr-Oliver Cyclones-

- Operates at 1.7 liters per minute
- Uses a 2-piece 37 mm pre-weighed PVC filter mounted upside-down and closed face in the cyclone
- This is what OSHA uses
- Lower flow rate = higher detection limits
- Pain to calibrate
- Can be a challenge to keep oriented properly
- If cyclone is turned upside down during/following collection, non-respirable particles can deposit on the filter
- Heavy



PPI- Parallel Particle Impactor

2. SKC Disposable PPI Samplers-

- Comes in various flow rates- 2 liters per minute, the best for TWA sampling
- Requires a 37 mm pre-weighed PVC filter to be mounted inside the sampler
- Higher flow rate = lower detection limits
- Easy to calibrate; requires a SKC with adaptor that fits over the top of the sampler
- Easy to keep properly oriented
- Non-respirable particles can land in sampler under certain conditions
- Lightweight



3. Aluminum Cyclones-

- Operates at 2.5 liters per minute
- Requires a 3-piece 37 mm pre-weighed PVC filter mounted up-side-down and open faced in the cyclone and held in a cassette holder
- Higher flow rate = lower detection limits
- Easy to calibrate; requires an adaptor that fits over the stem of the cyclone
- Can be a challenge to keep oriented properly
- Moderate weight
- If cyclone is turned upside down during/following collection, non-respirable particles can deposit on the filter
- BE aware of filter compatibility issues between different brands of cyclones and cassettes (e.g. Zefon and SKC)