

Coal Mine Dust Sampling System

Escort® ELF Pump

The Escort ELF pump is designed for use in coal mine dust sampling as specified in 30 CFR Part 74. The state of the art electronic laminar flow sensor provides a constant flow control with $\pm 2.5\%$ regulation of flow rate (from 1-3 lpm) with automatic compensation for changes in battery voltage, temperature, altitude, and sample load. An internal secondary standard calibrates the pump continuously and needs to be checked against a primary standard only once per month (or every 200 hours for coal mine dust sampling).

Escort Elf Sampling Pumps are NIOSH certified for coal mine dust sampling (TC-74-030) and MSHA certified as intrinsically safe for underground use (Approval # 2G-3924-1). UL approved as intrinsically safe for use in hazardous locations, Class I, Groups A, B, C, D; Class II, Groups E, F and G; Class III, Division I locations.

- ▶ Patented Electronic laminar flow control.
- ▶ Internal secondary standard calibrates the pump continuously.
- ▶ Inlet filter traps moisture and particulate matter
- ▶ Stainless steel filled plastic case provides EMI/RFI protection
- ▶ Rated IP66 for resistance to water and dust ingress.
- ▶ Flow fault indicator shows any sample inlet blockage
- ▶ Check against primary standard once per month or every 200 hours for coal mine dust sampling.



10mm Nylon Cyclone

Zefon's 10mm Nylon Cyclone (model 456243) is designed specifically for use with preweighed filter cassette assemblies when sampling for coal mine dust. The cyclone is used to separate respirable dust particles from non-respirable particles and is specified for use in coal mine dust sampling per 30 CFR, part 74.



Filter Cassette Assembly

Zefon's Preweighed Coal Dust Sampling Cassettes consist of a sealed outer plastic capsule and an inner pre-weighed filter capsule. The inner capsule contains a 5 micron PVC filter, and stainless steel supports. Each filter cassette is supplied with a mine data card, which has the weight of the filter capsule recorded to the nearest 0.1mg, and a mailing carton addressed to MSHA (Mine Safety and Health Administration). Specified for use in coal mine dust sampling per 30 CFR part 74.



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