# Concept Engineering Limited

## **Concept** Smoke Generators

Concept Engineering Limited
7 Woodlands Business Park,
Woodlands Park Avenue,
Maidenhead Serkshire, England SL6 3UA

Tel: 062 882 5555 Fax: 062 882 6261



- •Fully portable and easy to operate.
- ●Low running costs, robust and reliable.
- Choice of models.
- •Suitable for use in a variety of applications.

The Concept range of smoke generators are used successfully by numerous Local Authorities, Fire Brigades, Area Health Authorities and Industry worldwide. For entertainments purposes they are widely used by leading Television companies, Theatres, Film Studios, Discotheques etc.

There is a choice of four generators all of which are fully portable and easy to operate. The smoke produced by all the Concept generators is:-

- Non-toxic, non-irritant and noncontaminating.
- Non flammable.
- It is ductable and can be passed through long lengths of hose without losing its density (with catchpot fitted).
- The smoke is dense and white in appearance.

The electrical supply for all models is 220/240v AC 50/60 Hz. 110/120v AC can also be supplied on request, and all machines are thermostatically controlled. If required a REMOTE CONTROL SYSTEM is available which allows machine to be operated from a different location. It gives a full indication of the state of the machine and is a complete duplication of the electrical controls on the machine, i.e. Mains ON-OFF, Smoke ON-OFF, Temperature Indicator.

### General information and specifications on the various models.

THE COMET - This model uses disposable aerosol cannisters which contain the liquid and the propellant for producing the water based smoke. The cannisters re-seal after use so that one cannister may be used to make smoke several times.

The Comets are fitted with a flow control valve allowing the smoke output to be varied across the range from zero to maximum.

There are two types of Comet available to suit your particular requirements.

**COMET 3** produces a smoke that disperses quite quickly, making it ideal for applications where the smoke is not required to be very dense, where there is no method of extraction or in situations where tests need to be repeated frequently. Maximum output rate 10 m³/minute at 11/2 m visibility.

#### Some typical Applications:-

- Evacuation training in hospitals, schools etc. where quickly dispersing smoke may be needed.
- All types of air flow visualisation.
- Leak testing of small containers.
- Visual effects.

**COMET 4** produces a smoke that is very persistent in nature, lingering for a considerable time even after the machine has been switched off. This means that dense concentrations of smoke can be achieved quickly and maintained for long periods, making it ideal for fire training exercises or leak testing. Maximum output rate 22 m³/minute at 1½ m visibility.

#### Some typical Applications:-

- 1. Breathing Apparatus training.
- Evacuation training where persistent smoke is required.
- Leak testing of asbestos enclosures, buildings, containers, pipework etc.
- Wind tunnel testing.
- Visual effects.

#### Specification COMET 3 and 4

Size:- 480mm x 250mm x 250mm Weight (including 2 Aerosols):-10 kg approximately. Duration at maximum output:approximately 25 minutes/Aerosol Power consumption: - 850 watts

A COMET SMOKE MACHINE is supplied complete with:-

2 Aerosols.

3 metres of mains lead.

Operating instructions.

Service kit.

#### THE CONCEPT GENIE Mk V and

Mk X. These models use Co2 and a special mineral oil, the Co2 being the propellant which forces the mineral oil through a heat exchanger to produce a persistent long lasting smoke. They are heavy duty machines which utilise 1.1kg Co<sub>2</sub> cylinders. However larger cylinders may be used and we can supply the necessary flexible hose and adaptors for use with these.

These machines are suitable for any application requiring persistent smoke especially for permanent installations.

#### **SPECIFICATION Mk V**

Size: - 235mm diameter x 390mm high. Weight (including Co<sub>2</sub> cylinder):- 17.5 kg (approx).

Usable oil capacity:- 1.65 litres (approx). Tank capacity (from empty):- 2.00 litres

Maximum working pressure: - 8.3 bar (120 p.s.i.).

Optimum working pressure: - 6.9 bar (100 p.s.i.).

Co<sub>2</sub> cylinder capacity:- 1.1 kg. Co2 cylinder weight full:- 4.4 kg.

Duration at maximum working pressure (using 1.1 kg Co2 cylinder):- 45 minutes (approx).

Duration at maximum working pressure (using 3.2 kg Co<sub>2</sub> cylinder):- 140 minutes (approx).

Power consumption: - 600 watts. Smoke output control:- variable from zero

to maximum. Maximum output rate: - 15m3/minute at

11/2m visibility (approx).

A GENIE Mk V is supplied complete with:-1.1 kg Co<sub>2</sub> cylinder.

3 metres mains lead.

Oil funnel.

0 - 8.3 bar regulator.

Spanner (Regulator to Co<sub>2</sub> Cylinder). 1 litre of special oil.

Operating instructions.

#### **SPECIFICATION Mk X**

Size:- 610mm x 280mm x 380mm. Weight (including Co2 cylinders):- 33kg (approx).

Usable oil capacity per outlet:- 0.75 litres (approx).

Tank capacity (from empty) per outlet:-0.85 litres (approx).

Maximum working pressure: - 8.3 bar (120 p.s.i.).

Optimum working pressure: - 6.9 bar (100 p.s.i.).

Co<sub>2</sub> cylinder capacity:- 1.1 kg.

Co<sub>2</sub> cylinder weight (full):- 4.4 kg (approx). Duration (per outlet) at maximum working pressure (using 1.1 kg Co<sub>2</sub> cylinder):-45 minutes (approx).

Duration (per outlet) at maximum working pressure (using 3.2 kg Co<sub>2</sub> cylinder):-65 minutes (approx).

Power consumption (per outlet):- 600

Smoke output control:- Variable from zero

Maximum output rate: - 30m3/minute at 11/2 m visibility (approx).

A GENIE Mk X is supplied with:-

2 x 1.1 kg Co<sub>2</sub> cylinders.

2 x 0-8.3 bar regulators.

3 metres of mains lead.

Operating instructions.

Oil funnel.

2 x 1 litre special oil.

Spanner (regulator to Co<sub>2</sub> cylinder).

