

CF CARTRIDGE FILTER UNITS



EFFECTIVE FINE PARTICLE CONTROL USING NEW FILTRATION TECHNOLOGY

FILTER OPERATION

The airborne dust is drawn into the filter by a fan along a distribution chamber. This chamber ensures an even flow of air through the filter cartridge and decelerates the air stream. This reduction of speed coupled with the physical change of direction, ensures that the large particles are separated from the air stream. The air stream containing the remaining dust is drawn equally onto the outer surface of the cartridge pleated polyester filtration elements. The dust is retained on the surface and the air permeates through the filter media to the inside of the cartridge(s). It is then discharged via an (optional) fan set either into the factory or to the atmosphere.

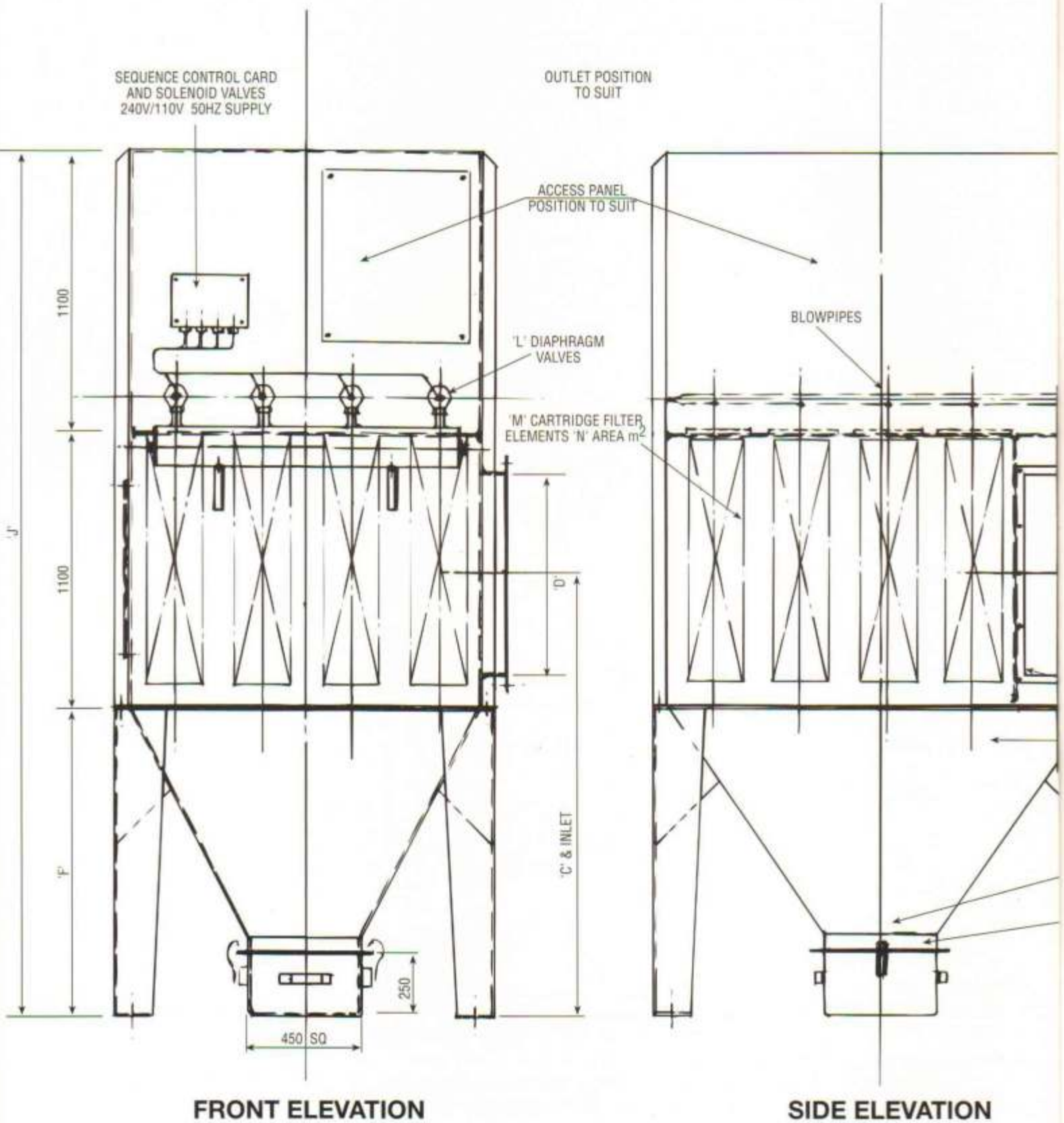
Eventually the dust retained builds up to form a dust cake which effectively improves the collection efficiency of the filter, with a resultant increase in resistance to air flow. To maintain the air flow at the design volume rate, it is necessary to clean this collected dust cake from the surface of the filter media at regular intervals.

Cleaning is achieved by injecting a short pulse of compressed air into the central internal column of each of the filter elements in turn, against the normal direction of flow of filtered air. This pulse of compressed air momentarily raises the pressure internally to a level greater than the external pressure surrounding the filter element. The higher internal pressure causes a flow through the cartridge in a direction opposite to the normal air flow. This dislodges the accumulated dust cake from the filter media surface.

The effect upon the filtered air flow is virtually negligible, since this method of cleaning a cartridge is achieved instantaneously. Thus the Sangre filter provides for a continuously rated service.

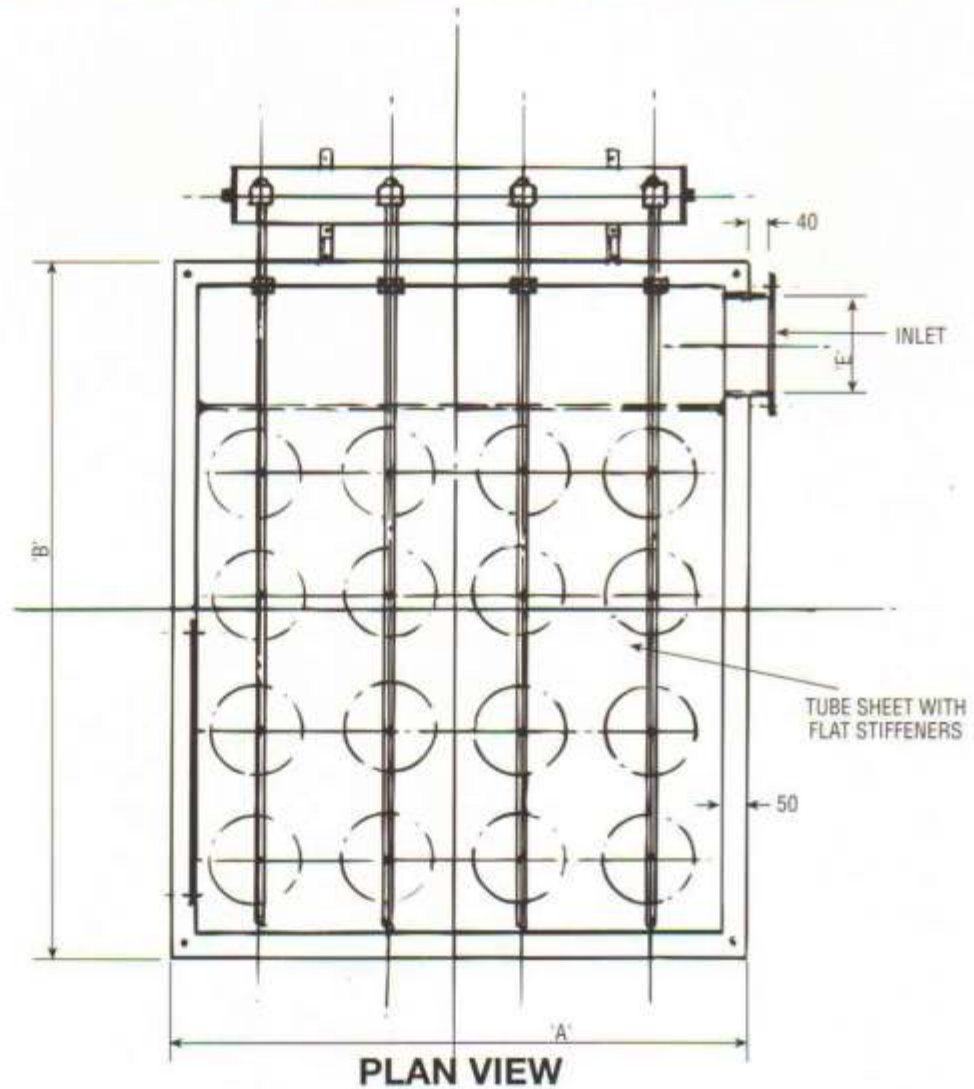
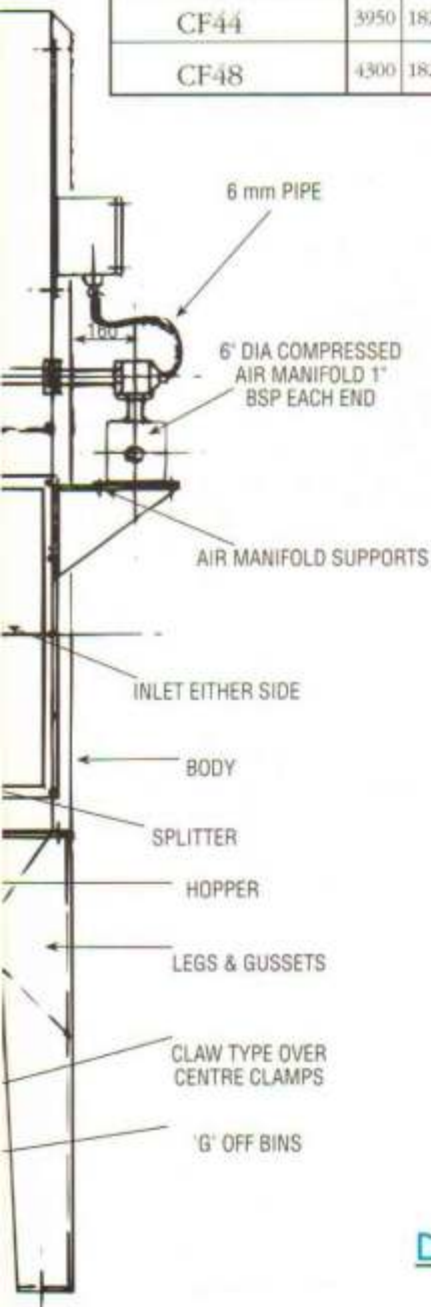
OPTIONAL EQUIPMENT

ROOF OR FLOOR MOUNTED FAN SETS
ACCESS LADDER & PLATFORM
SOUND ATTENUATOR EQUIPMENT
EXPLOSION RELIEF VENTS & DEFLECTORS
ROTARY VALVES & SCREW CONVEYORS
SECONDARY FILTERS



ALL DIMENSIONS IN mm

MODEL	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'	'I'	'J'	'K'	'L'	'M'	'N'	'O'	'P'	'R'	'S'	'T'
CF4	800	980	1750	300	150	1200	1	2	350	3400		2	4	20					
CF6	800	1330	1600	600	150	1200	1	2	525	3400		3	6	30					
CF8	1500	980	1600	600	150	1200	1	4	350	3400		4	8	40					
CF12	1150	1820	1750	800	150	1200	1	3	700	3400		3	12	60					
CF16	1500	1820	1850	700	280	1200	1	4	700	3400		4	16	80					
CF20	1850	1820	1850	700	280	1400	1	5	700	3600		5	20	100					
CF24	2200	1820	1750	800	280	1200	2	6	700	3400		6	24	120					
CF28	2550	1820	1750	800	280	1200	2	7	700	3400		7	28	140					
CF32	2900	1820	1750	800	280	1200	2	8	700	3400		8	32	160					
CF36	3250	1820	1850	800	280	1400	2	9	700	3600		9	36	180					
CF40	3600	1820	1850	800	280	1400	2	10	700	3600		10	40	200					
CF44	3950	1820	1850	800	280	1400	3	11	700	3600		11	44	220					
CF48	4300	1820	1850	800	280	1400	3	12	700	3600		12	48	240					



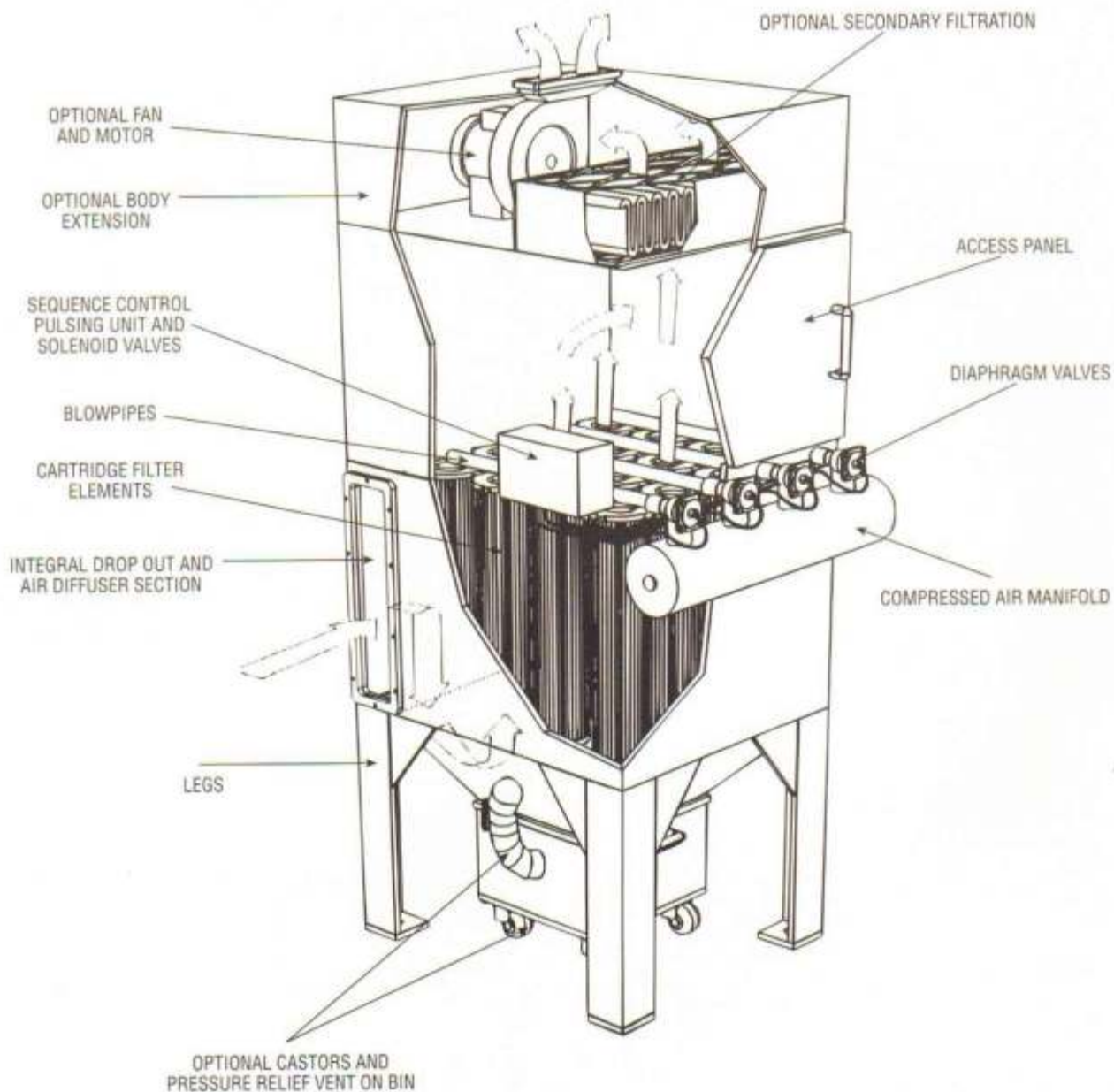
DRAWING SHOWS STANDARD UNIT (CF16)
OTHER OPTIONS ARE AVAILABLE

The Sangre range of cartridge filters produced, are of a modular design, the exact requirements for each application being selected, with either integral roof mounted or floor mounted fans, secondary HEPA filtration acoustic enclosures and explosion protection.

The delivery of compressed air is maintained by a solid state sequence timer activating two way diaphragm valves via solenoids.

A minimal volume of compressed air is required which should be filtered, dry and free from oil, to clean the unit. Air pressure delivered to the unit should be between 5.5 and 6.9 Bar (G).

The dust is collected in a removable bin(s) below the hopper section(s) of the filter. Alternative collecting methods are available for dust discharge, including the use of rotary air seal valve; or indeed a screw conveyor system.



 **SANGRE**
Environmental Services Ltd.