



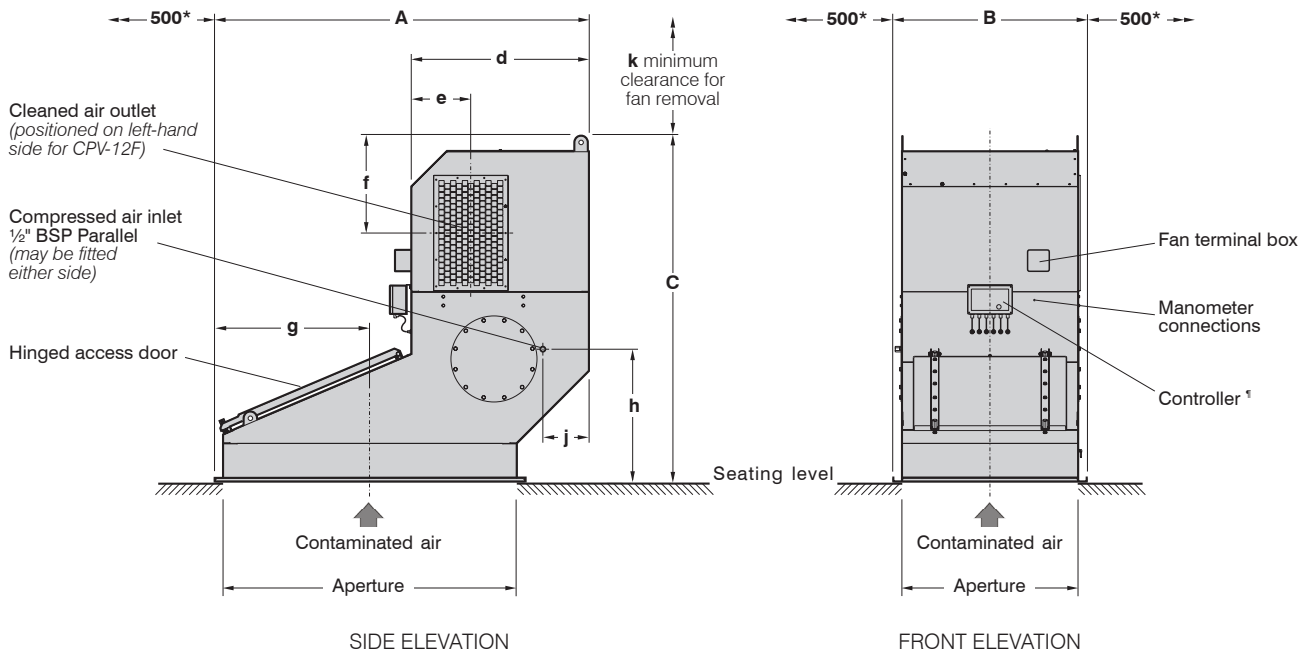
Donaldson  
FILTRATION SOLUTIONS

## DATA SHEET

### PowerCore® Dust Collectors Series CPV

## POWERCORE DUST COLLECTOR WITH DUST CONTAINER

Suitable for inside and outside locations  
(CPV-6F illustrated)



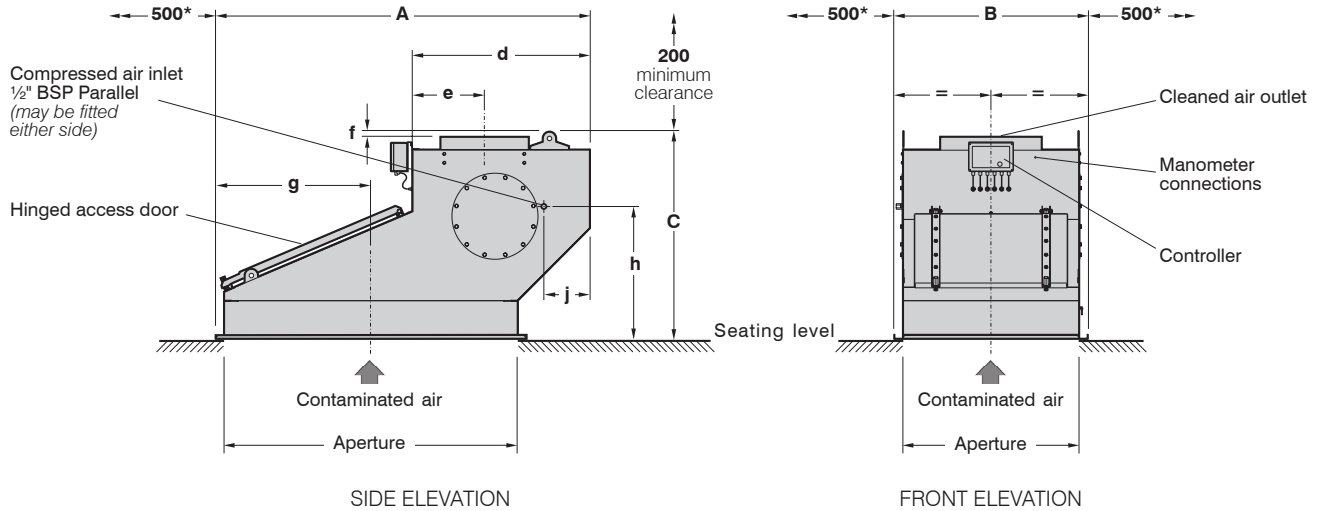
\* Nominal clearances for maintenance. Where space is restricted please consult with Donaldson.  
1 The collector may be supplied with an optional Power box which is fitted on either side of the collector.

Type	Filtration area (Ultra-Web®)	Number of filter packs	DIMENSIONS in mm										Fan	Motor rating	Net weight (approx.)
			A	B	C	d	e	f	g	h	j	k			
CPV-2F	12.4 m <sup>2</sup>	2	1297	756	1609	850	268	471	494	746	200	515	F1	0.75 kW	276 kg
CPV-3F	18.6 m <sup>2</sup>	3	1297	1010	1739	850	312	508	494	746	200	650	K3	1.50 kW	362 kg
													VCM 401	1.50 kW	378 kg
CPV-4F	24.8 m <sup>2</sup>	4	1297	1264	1794	850	312	563	494	746	200	700	K5	2.20 kW	444 kg
													K7	3.00 kW	469 kg
CPV-6F	37.2 m <sup>2</sup>	6	2110	1090	1947	1000	335	548	875	746	260	700	K7	3.00 kW	533 kg
													G8	5.50 kW	568 kg
CPV-8F	49.6 m <sup>2</sup>	8	2110	1264	1947	1000	335	548	875	746	260	700	K7	3.00 kW	595 kg
													K10	5.50 kW	625 kg
CPV-12F	74.4 m <sup>2</sup>	12	2110	1823	2169	1000	500	720	875	746	260	1100	K11	7.50 kW	979 kg
													ART 502	7.50 kW	953 kg

All weights shown indicate heaviest configuration.

## POWERCORE DUST COLLECTOR WITHOUT FAN

Suitable for inside locations and outside when fitted with optional weather cowl.  
(CPV-6 illustrated).



\* Nominal clearances for maintenance. Where space is restricted please consult with Donaldson.

DIMENSIONS in mm												
Type	Filtration area (Ultra-Web®)	Number of filter packs	A	B	C	d	e	f	g	h	j	Net weight (approx.)
CPV-2	12.4 m <sup>2</sup>	2	1297	756	1016	850	345	25	494	746	200	170 kg
CPV-3	18.6 m <sup>2</sup>	3	1297	1010	1016	850	345	25	494	746	200	216 kg
CPV-4	24.8 m <sup>2</sup>	4	1297	1264	1016	850	345	25	494	746	200	261 kg
CPV-6	37.2 m <sup>2</sup>	6	2110	1090	1169	1000	405	25	875	746	260	352 kg
CPV-8	49.6 m <sup>2</sup>	8	2110	1264	1169	1000	405	25	875	746	260	407 kg
CPV-12	74.4 m <sup>2</sup>	12	2110	1823	1169	1000	405	25	875	746	260	590 kg

All weights shown indicate heaviest configuration.

## DESIGN LIMITS (STANDARD EQUIPMENT)

**Temperature range:** -10° to +60°C

**Pressure limits:** Collectors without fan: -500 mm W.G. (For positive pressures please refer to Donaldson)  
Collectors with fan: as fan performance curves from shut-off to operating pressure

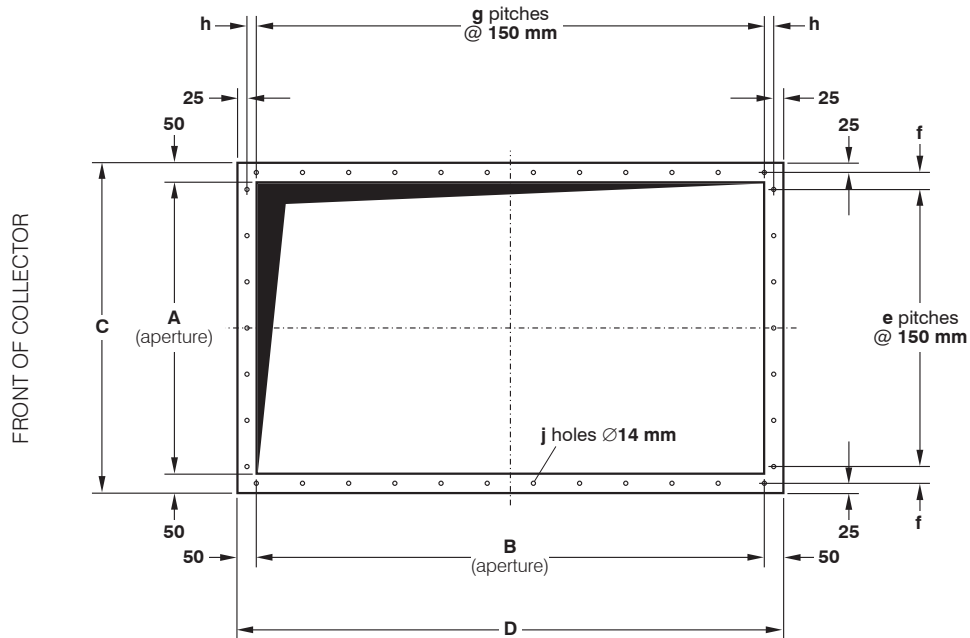
**Dimension tolerances:** ±5 mm on main dimensions; ±2 mm on detail dimensions

**Paint finish:** Quick air drying RAL 5019 (blue), spatter finish, semi-gloss

Equipment is available suitable for use in a potentially explosive atmosphere (Directive 94/9/EC) satisfying the requirements for group II category 2G or 2D and 3G or 3D T135°C

## APERTURE AND MOUNTING FLANGE DETAILS

(CPV-6 and CPV-6F illustrated)

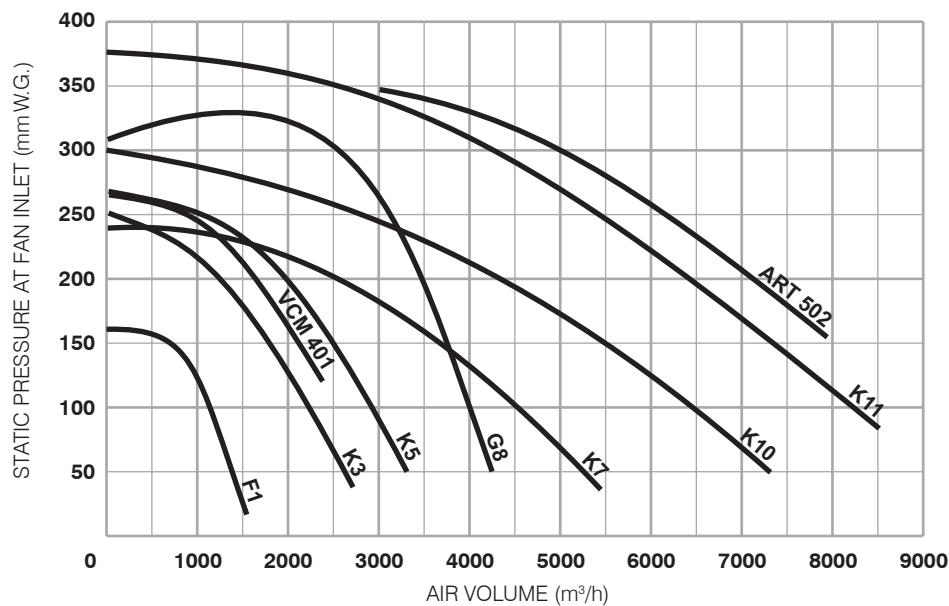


Type	A	B	C	D	e	f	g	h	j
CPV-2 and CPV-2F	656 mm	888 mm	756 mm	988 mm	4	53 mm	6	19 mm	24
CPV-3 and CPV-3F	910 mm	888 mm	1010 mm	988 mm	5	105 mm	6	19 mm	26
CPV-4 and CPV-4F	1164 mm	888 mm	1264 mm	988 mm	7	82 mm	6	19 mm	30
CPV-6 and CPV-6F	990 mm	1650 mm	1090 mm	1750 mm	6	70 mm	11	25 mm	38
CPV-8 and CPV-8F	1164 mm	1650 mm	1264 mm	1750 mm	7	82 mm	11	25 mm	40
CPV-12 and CPV-12F	1723 mm	1650 mm	1823 mm	1750 mm	11	61.5 mm	11	25 mm	48

## ELECTRICAL REQUIREMENTS

See Controller datasheet.

## FAN SELECTION



Fan performance curves

To select the most suitable fan for a given application:

- 1 Determine the air volume (m³/h) needed to give effective venting and dust control.
- 2 Estimate pressure or suction (mmW.G.) in the housing on which the dust collector is installed.
- 3 Assess pressure drop over dust collector, prior to cleaning, usually 100 mm W.G.
- 4 The sum of 2 and 3 gives the pressure (mm W.G.) required for fan selection purposes.
- 5 Consult graph for fan performances available.

## NOISE LEVELS

Machinery noise levels are an important consideration in the design and selection of new equipment. Several EC Directives and National Laws/Regulations adopting these directives make reference to airborne noise emissions. Actions that employers are required to comply with if employees are subjected to a daily personal noise exposure level of 80 dB(A) or more are also specified.

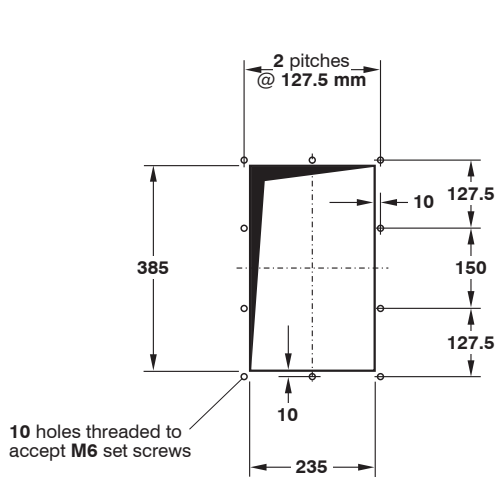
All readings were taken in normal industrial areas, i.e. semi-reverberant surroundings, with local equipment silent. Measurements were taken at maximum air flow conditions at 1.0 metre radius from the equipment housing and 1.6 metres above base level, using a precision sound level meter and octave filter.

F1	K3	VCM 401	K5	K7	G8	K10	K11	ART 502
(0.75 kW)	(1.5 kW)	(1.5 kW)	(2.2 kW)	(3.0 kW)	(5.5 kW)	(5.5 kW)	(7.5 kW)	(7.5 kW)
75 dB(A)*	72 dB(A)*	72 dB(A)*	73 dB(A)*	78 dB(A)	78 dB(A)	76 dB(A)	80 dB(A)	79 dB(A)*

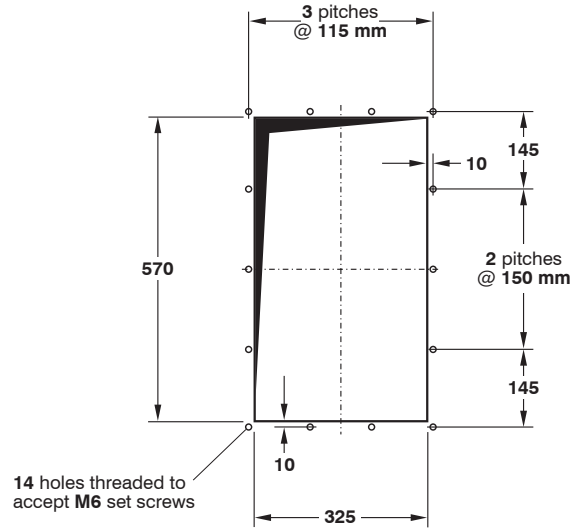
Noise levels of installed equipment may vary due to site conditions. \*Estimated data.

## CLEANED AIR OUTLET DETAILS FOR COLLECTORS WITH FAN

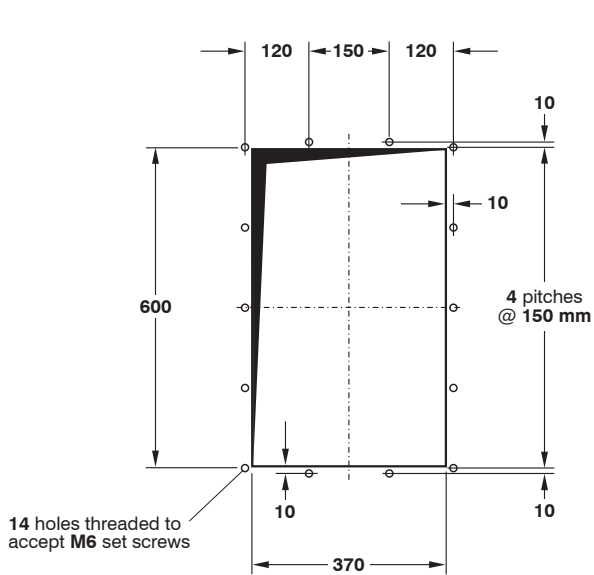
(outlet grille removed)



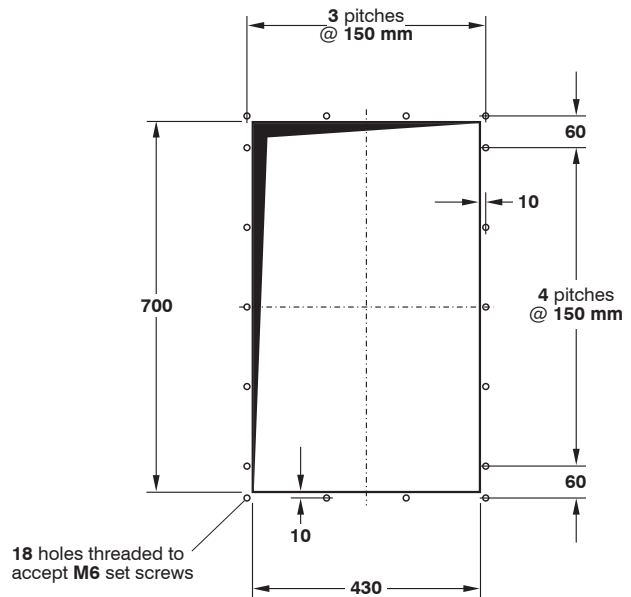
**CPV-2F**



**CPV-3F and CPV-4F**



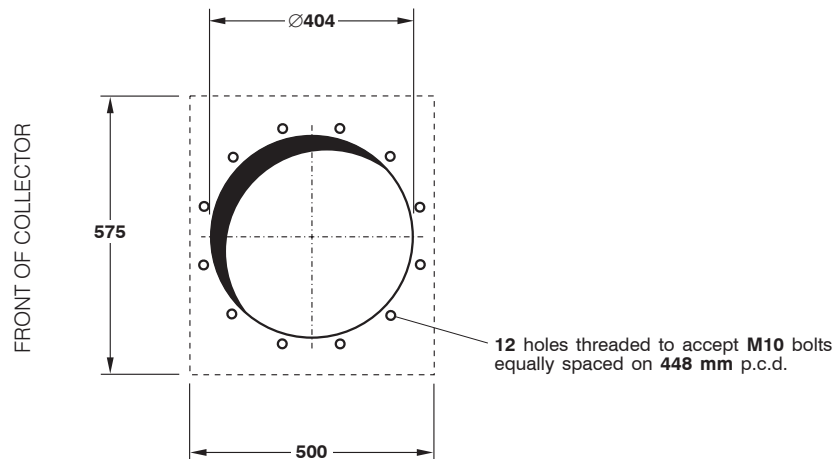
**CPV-6F and CPV-8F**



**CPV-12F**

## CLEANED AIR OUTLET DETAILS FOR COLLECTORS WITHOUT FAN

DIN 24154/2



## COMPRESSED AIR REQUIREMENTS

Type	Working compressed air pressure <sup>a</sup>		Atmospheric air volume – F.A.D. <sup>b</sup> at 12 s intervals <sup>c</sup>		Pulse duration
CPV-2 and CPV-2F	6.2 bar	90 psig	10 m <sup>3</sup> /h*	5.9 cfm*	100 ms
CPV-3 and CPV-3F	6.2 bar	90 psig	16 m <sup>3</sup> /h	9.4 cfm	100 ms
CPV-4 and CPV-4F	6.2 bar	90 psig	20 m <sup>3</sup> /h*	11.8 cfm*	100 ms
CPV-6 and CPV-6F	6.2 bar	90 psig	16 m <sup>3</sup> /h	9.4 cfm	100 ms
CPV-8 and CPV-8F	6.2 bar	90 psig	20 m <sup>3</sup> /h*	11.8 cfm*	100 ms
CPV-12 and CPV-12F	6.2 bar	90 psig	25 m <sup>3</sup> /h	14.7 cfm	100 ms

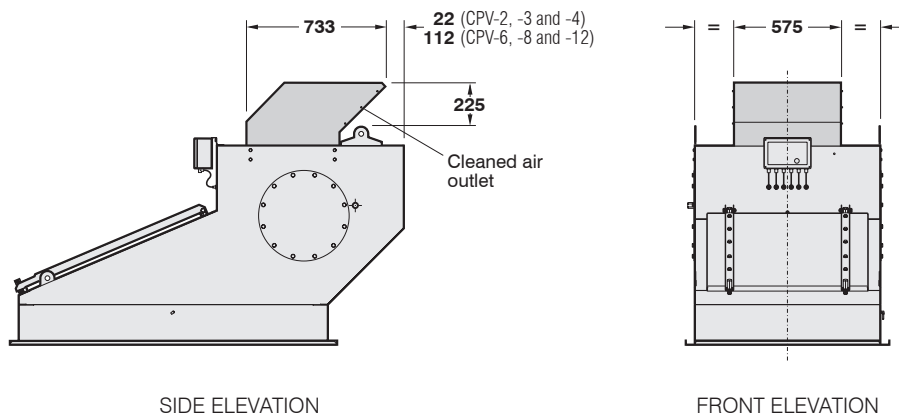
<sup>a</sup>Normal operating pressure.    <sup>b</sup>Recommended atmospheric air volume of clean, dry compressed air.

<sup>c</sup>Recommended initial settings; these may be varied with experience.

\*Estimated data.

## OPTIONAL WEATHER COWL

(CPV-6 illustrated)



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