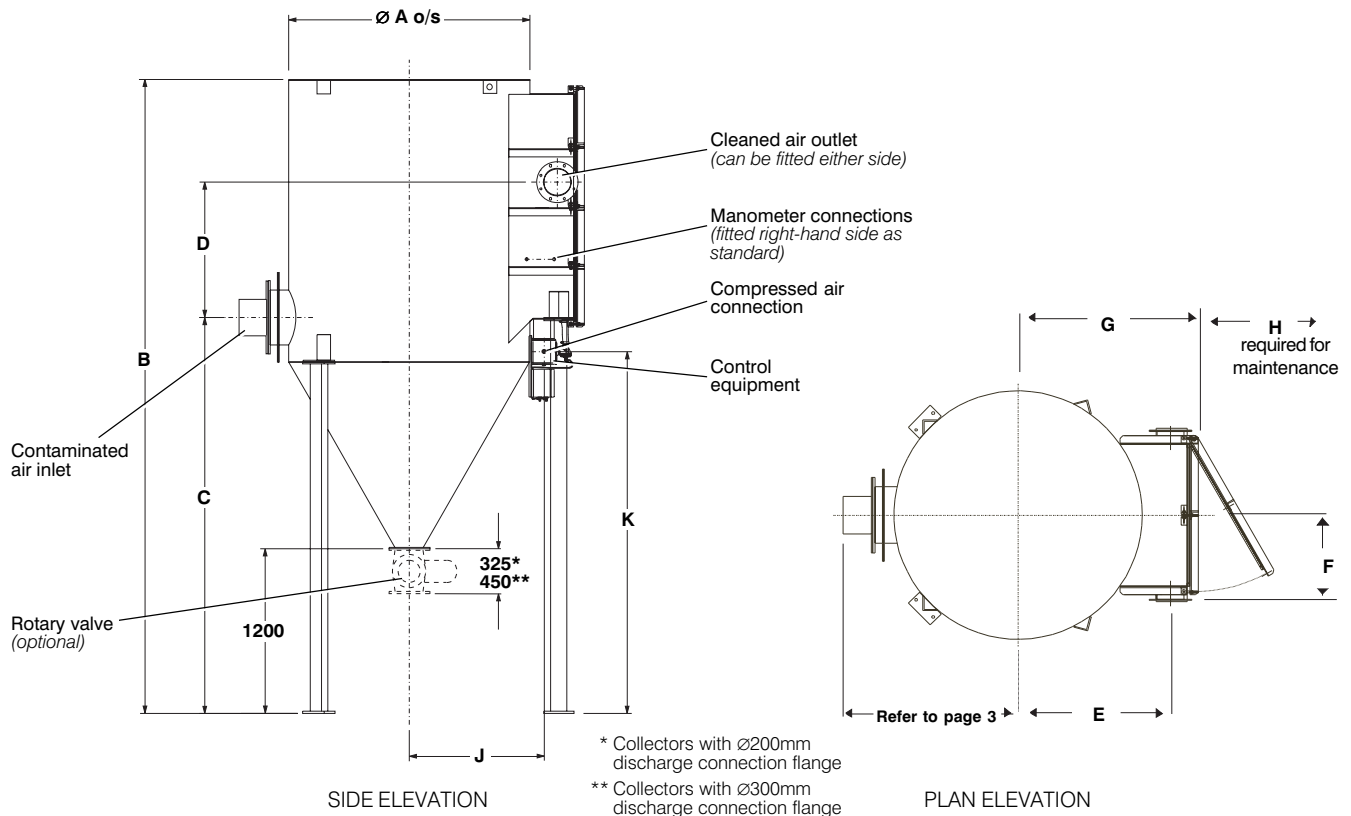


High Vacuum Dust Collectors

Series DCE HV500



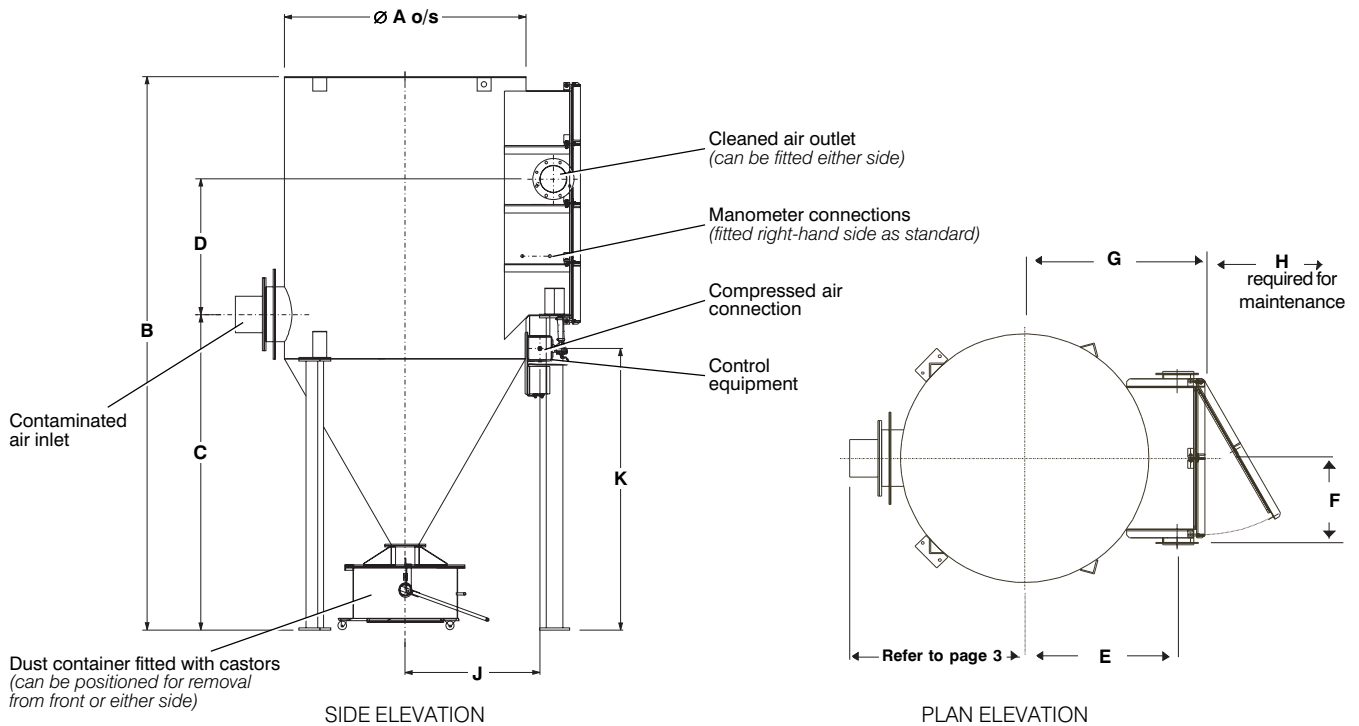
DCE HV500 series dust collector with discharge connection flange

DCE HV F545-D illustrated.

SPECIFICATIONS

Type	Filtration area	No. of elements	DIMENSIONS in mm										Approx net weight
			A	B	C	D	E	F	G	H	J	K	
Fabric media:													
DCE HV F504-D	4m ²	6	955	2870	2164	308	678	405	880	950	580	1940	530 kg
DCE HV F506-D	6m ²	6	1258	3130	2426	308	829	405	1035	1250	730	2200	640 kg
DCE HV F508-D	8m ²	12	955	3395	2164	571	678	405	880	950	580	1940	670 kg
DCE HV F510-D	10m ²	10	1258	3130	2426	308	829	605	1035	1250	730	2200	755 kg
DCE HV F514-D	14m ²	20	1258	3655	2426	571	829	605	1035	1250	730	2200	955 kg
DCE HV F520-D	20m ²	20	1258	3655	2426	571	829	605	1035	1250	730	2200	975 kg
DCE HV F530-D	30m ²	30	1258	4255	2426	1155	829	605	1035	1250	730	2200	1230 kg
DCE HV F538-D	38m ²	30	1758	4690	2860	1155	1079	605	1285	1500	980	2635	1580 kg
DCE HV F545-D	45m ²	30	1758	4690	2860	1155	1079	605	1285	1750	980	2635	1610 kg
Spun-bonded polyester media:													
DCE HV C508-D	8m ²	2	1258	3180	2426	346	829	510	1035	1050	730	2225	620 kg
DCE HV C510-D	10m ²	2	1258	3180	2426	346	829	510	1035	1250	730	2225	620 kg
DCE HV C516-D	16m ²	4	1258	3180	2426	346	829	510	1035	1050	730	2225	625 kg
DCE HV C520-D	20m ²	4	1258	3180	2426	346	829	510	1035	1250	730	2225	630 kg
DCE HV C524-D	24m ²	6	1508	3390	2633	346	954	685	1155	1300	855	2435	770 kg
DCE HV C530-D	30m ²	6	1508	3390	2633	346	954	685	1155	1300	855	2435	845 kg
DCE HV C540-D	40m ²	8	1258	3730	2426	621	829	510	1035	1250	730	2225	850 kg
DCE HV C548-D	48m ²	12	1508	3940	2633	621	954	685	1155	1300	855	2435	1040 kg

High Vacuum Dust Filters – Series DCE HV500

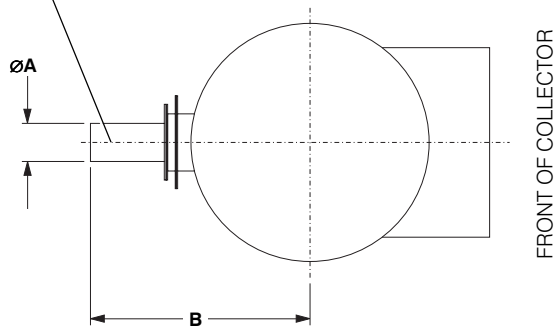


DCE HV500 series dust collector with dust container

DCE HV F545-10 illustrated.

SPECIFICATIONS														
Type	Filtration area	No. of elements	DIMENSIONS in mm										Dust container	Approx net weight
			A	B	C	D	E	F	G	H	J	K		
Fabric media:														
DCE HV F504-5	4m ²	6	955	2285	1578	308	678	405	880	950	580	1355	55 litre	505 kg
DCE HV F506-5	6m ²	6	1258	2545	1840	308	829	405	1035	1250	730	1615	55 litre	615 kg
DCE HV F508-5	8m ²	12	955	2810	1578	571	678	405	880	950	580	1355	55 litre	645 kg
DCE HV F510-5	10m ²	10	1258	2545	1840	308	829	605	1035	1250	730	1615	55 litre	730 kg
DCE HV F510-10													100 litre	
DCE HV F514-5	14m ²	20	1258	3070	1840	571	829	605	1035	1250	730	1615	55 litre	930 kg
DCE HV F514-10													100 litre	
DCE HV F520-5	20m ²	20	1258	3070	1840	571	829	605	1035	1250	730	1615	55 litre	950 kg
DCE HV F520-10													100 litre	
DCE HV F530-5	30m ²	30	1258	3670	1840	1155	829	605	1035	1250	730	1615	55 litre	1205 kg
DCE HV F530-10													100 litre	
DCE HV F538-5	38m ²	30	1758	4105	2274	1155	1079	605	1285	1500	980	2050	55 litre	1555 kg
DCE HV F538-10													100 litre	
DCE HV F538-15													155 litre	
DCE HV F545-5	45m ²	30	1758	4105	2274	1155	1079	605	1285	1750	980	2050	55 litre	1585 kg
DCE HV F545-10													100 litre	
DCE HV F545-15													155 litre	
Spun-bonded polyester media:														
DCE HV C508-5	8m ²	2	1258	2595	1840	346	829	510	1035	1050	730	1640	55 litre	595 kg
DCE HV C508-10													100 litre	
DCE HV C510-5	10m ²	2	1258	2595	1840	346	829	510	1035	1250	730	1640	55 litre	595 kg
DCE HV C510-10													100 litre	
DCE HV C516-5	16m ²	4	1258	2595	1840	346	829	510	1035	1050	730	1640	55 litre	600 kg
DCE HV C516-10													100 litre	
DCE HV C520-5	20m ²	4	1258	2595	1840	346	829	510	1035	1250	730	1640	55 litre	605 kg
DCE HV C520-10													100 litre	
DCE HV C524-5	24m ²	6	1508	2805	2047	346	954	685	1155	1300	855	1845	55 litre	740 kg
DCE HV C524-10													100 litre	
DCE HV C524-15													155 litre	
DCE HV C530-5	30m ²	6	1508	2805	2047	346	954	685	1155	1300	855	1845	55 litre	820 kg
DCE HV C530-10													100 litre	
DCE HV C530-15													155 litre	
DCE HV C540-5	40m ²	8	1258	3145	1840	621	829	510	1035	1250	730	1640	55 litre	825 kg
DCE HV C540-10													100 litre	
DCE HV C548-5	48m ²	12	1508	3355	2047	621	954	685	1155	1300	855	1845	55 litre	1015 kg
DCE HV C548-10													100 litre	
DCE HV C548-15													155 litre	

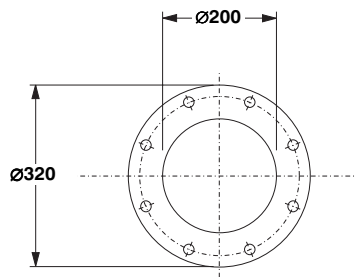
Single inlet may be positioned at rear (as shown) or to either side



SINGLE INLET		
Type	$\varnothing A$ o/s	B
DCE HV F504*	89mm (3 1/2")	960mm
DCE HV F506*	102mm (4")	1110mm
DCE HV F508	127mm (5")	960mm
DCE HV F510*	127mm (5")	1110mm
DCE HV F514	152mm (6")	1110mm
DCE HV F520	203mm (8")	1110mm
DCE HV F530	254mm (10")	1110mm
DCE HV F538	254mm (10")	1360mm
DCE HV F545	305mm (12")	1360mm
DCE HV C508*	102mm (4")	1110mm
DCE HV C510*	127mm (5")	1110mm
DCE HV C516*	152mm (6")	1110mm
DCE HV C520*	203mm (8")	1110mm
DCE HV C524*	203mm (8")	1235mm
DCE HV C530*	254mm (10")	1235mm
DCE HV C540	254mm (10")	1110mm
DCE HV C548*	305mm (12")	1235mm

Contaminated air inlet details

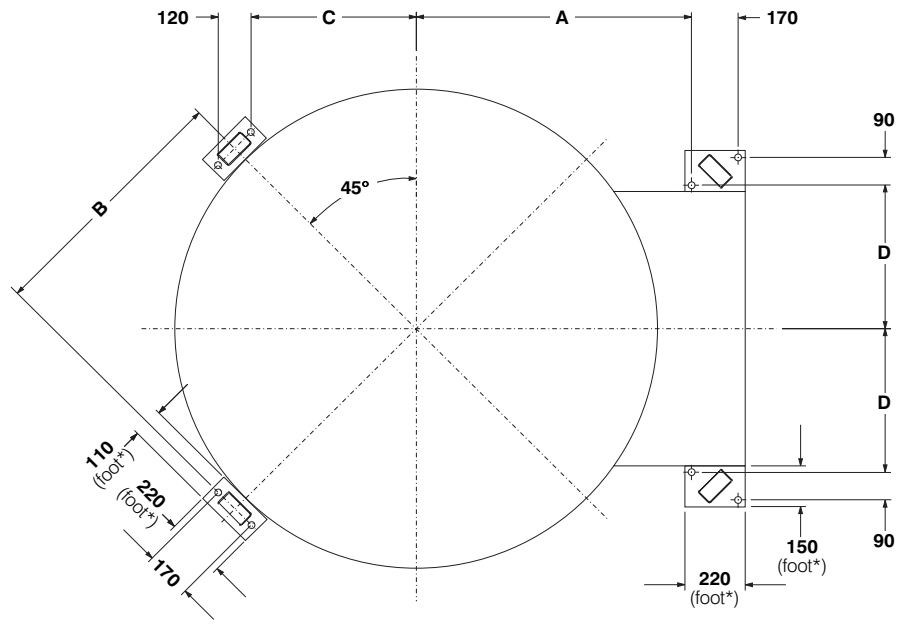
*NOTE: A rear inlet cannot be positioned on DCE HVF504, F506, F510, C508, C510, C516, C520, C524, C530 and C548 collectors fitted with rear explosion relief.



Cleaned air outlet flange details

All holes $\varnothing 18$ mm for M16 bolts equally spaced on 280mm p.c.d. off centre. Flange is 10mm thick.

High Vacuum Dust Filters – Series DCE HV500



Foundation details

All holes \varnothing 28mm for M16 foundation bolts. *Feet are 10mm thick.

Type	A	B	C	D
DCE HV F504 and F508	607mm	533mm	317mm	333mm
DCE HV F506	759mm	684mm	424mm	333mm
DCE HV F510, F514, F520 and F530	759mm	684mm	424mm	533mm
DCE HV C508, C510, C516, C520 and C540	759mm	684mm	424mm	437mm
DCE HV C524, C530 and C548	884mm	809mm	512mm	613mm
DCE HV F538 and F545	1009mm	934mm	600mm	533mm

DESIGN LIMITS

Temperature range: -10° to $+60^{\circ}$ C

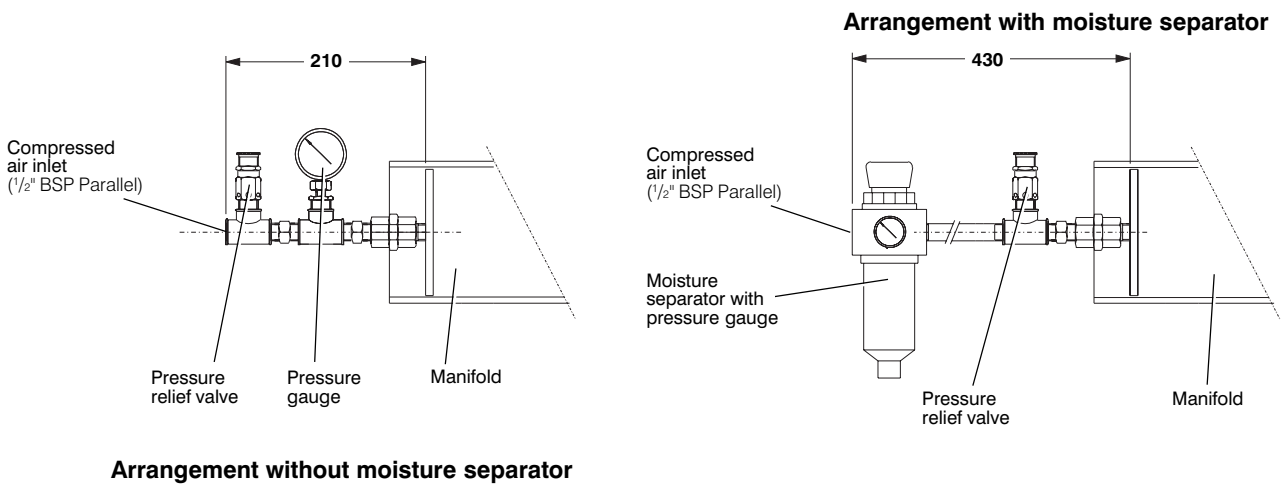
Pressure limit: 500 mbar maximum negative operating pressure.

Dimension tolerances: \pm 5mm on main dimensions. \pm 2mm on detail dimensions.

ELECTRICAL REQUIREMENTS

DCE HV F504, F508 and F506: 3-way controller
 DCE HV F510, F514 and F520: 5-way controller
 DCE HV F530, F538 and F545: 10-way controller
 DCE HV C508 and C510: 2-way controller
 DCE HV C516, C520 and C540: 4-way controller
 DCE HV C524, C530 and C548: 6-way controller

Voltage input: AC version: 105-120V, 200-240V ±10% DC version: 24V



Compressed air assembly details showing optional arrangements

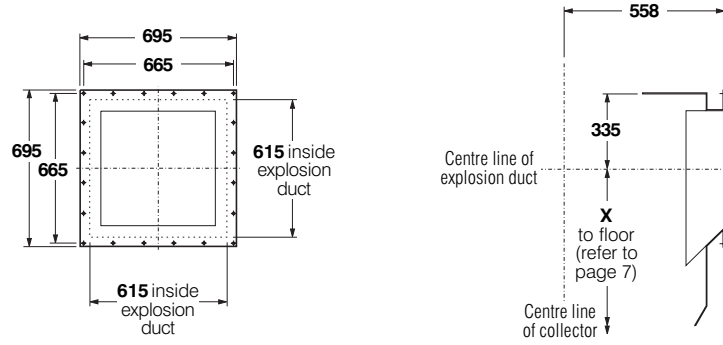
Arrangements may be fitted to either end of manifold.
 A 90° BSP m/f elbow is supplied with both arrangements to allow alternative assembly.

COMPRESSED AIR REQUIREMENTS

Type	Working compressed air pressure ^a		Atmospheric air volume — F.A.D. ^b		Pulse duration
			at 25 sec. intervals ^c		
DCE HV F504 and F506	4.5 bar	65 psig	3.9 m ³ /h	2.3 cfm	200 millisec.
DCE HV F510	4.5 bar	65 psig	4.7 m ³ /h	2.8 cfm	200 millisec.
DCE HV F508	6.2 bar	90 psig	7.1 m ³ /h	4.2 cfm	200 millisec.
DCE HV F514 and F520	6.2 bar	90 psig	8.5 m ³ /h	5.0 cfm	200 millisec.
			at 12 sec. intervals ^c		
DCE HV F530	5.2 bar	75 psig	7.8 m ³ /h	4.6 cfm	60 millisec.
DCE HV F538 and F545	5.2 bar	75 psig	11.2 m ³ /h	6.6 cfm	110 millisec.
DCE HV C508, C510, C516 and C520	4.2 bar	60 psig	9.1 m ³ /h	5.4 cfm	200 millisec.
DCE HV C524 and C530	4.2 bar	60 psig	12.0 m ³ /h	7.1 cfm	200 millisec.
DCE HV C540	5.2 bar	75 psig	12.3 m ³ /h	7.3 cfm	200 millisec.
DCE HV C548	5.2 bar	75 psig	17.1 m ³ /h	10.1 cfm	200 millisec.

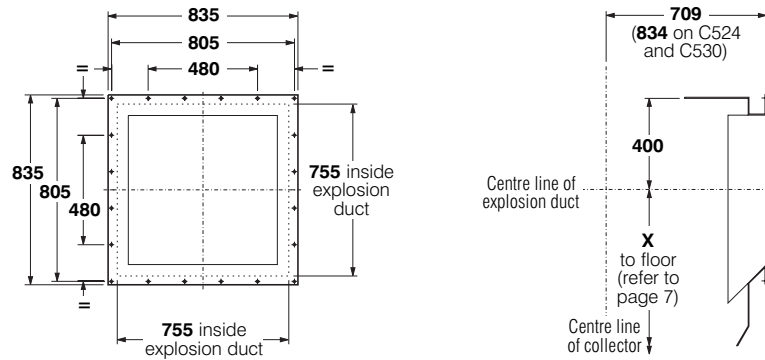
^a Normal operating pressure. ^b Recommended atmospheric air volume of clean, dry compressed air.
^c Recommended initial settings; these may be varied with experience.
 For connection details please refer to Donaldson.

High Vacuum Dust Filters – Series DCE HV500



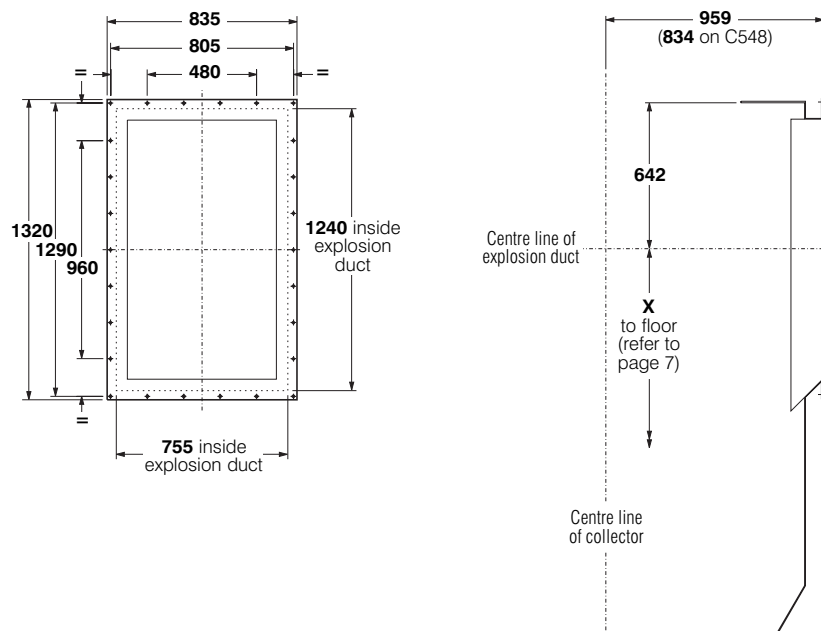
DCE HV F504 and F508

All holes \varnothing 12mm for M10 set screws. Pitch centres: 133mm.



DCE HV F506, F510, F514, F520, F530, C508, C510, C516, C520, C524, C530 and C540

All holes \varnothing 12mm for M10 set screws. Pitch centres: 160mm, except where shown.



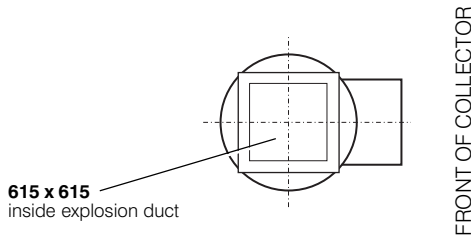
DCE HV F538, F545 and C548

All holes \varnothing 12mm for M10 set screws. Pitch centres: 160mm, except where shown.

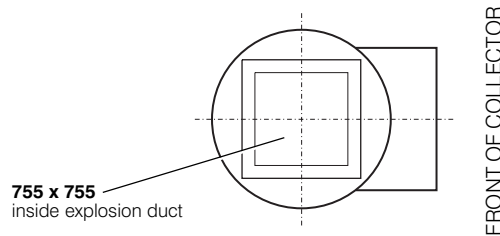
Rear explosion relief flange mounting details

EXPLOSION RELIEF

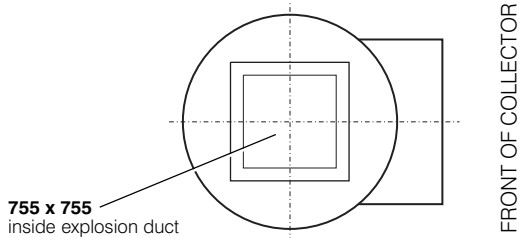
Type	Dimension X (rear explosion relief)		Dimension Y (top explosion relief)	
	Collectors with dust container	Collectors with other discharge arrangement	Collectors with dust container	Collectors with other discharge arrangement
DCE HV F504	1943mm	2529mm	2364mm	2950mm
DCE HV F508	2468mm	3054mm	2889mm	3475mm
DCE HV F506 and F510	2140mm	2726mm	2626mm	3212mm
DCE HV F514 and F520	2665mm	3251mm	3151mm	3737mm
DCE HV F530	3265mm	3851mm	3751mm	4337mm
DCE HV F538 and F545	3457mm	4043mm	4185mm	4771mm
DCE HV C508, C510, C516 and C520	2190mm	2776mm	2676mm	3262mm
DCE HV C524 and C530	2397mm	2983mm	2883mm	3469mm
DCE HV C540	2740mm	3326mm	3226mm	3812mm
DCE HV C548	2705mm	3291mm	3433mm	4019mm



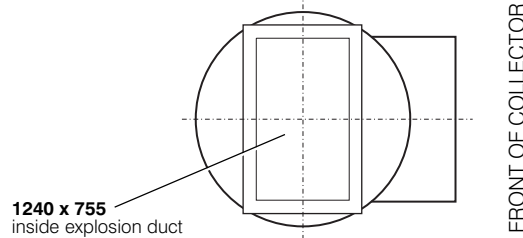
DCE HV F504 and F508



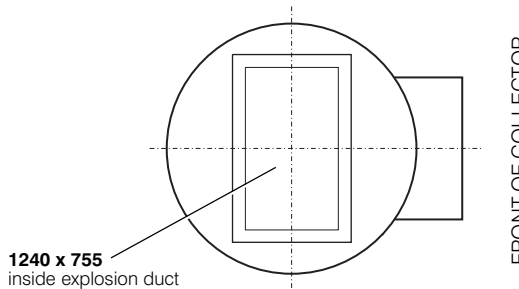
DCE HV F506, F510, F514, F520, F530, C508, C510, C516, C520 and C540



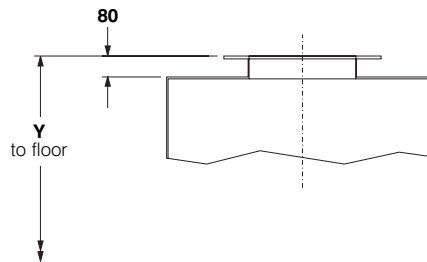
DCE HV C524 and C530



DCE HV C548

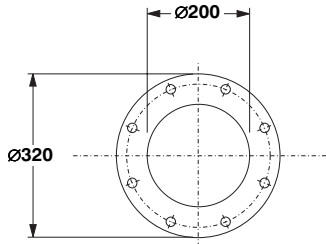


DCE HV F538 and F545

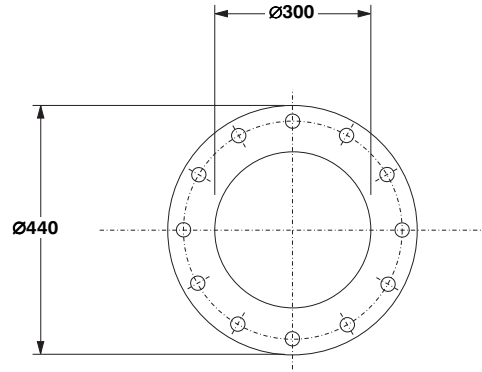


Top explosion relief flange mounting details

Top explosion relief flange mounting details
All holes \varnothing 12mm for M10 set screws. Flange sizes and drillings are the same as for rear explosion.



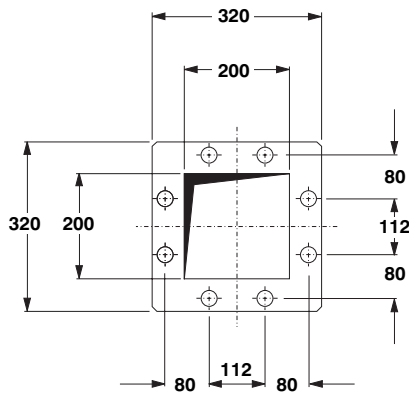
Ø200mm discharge connection flange
All holes Ø18mm for M16 bolts equally spaced on 280mm p.c.d. off centre. Flange is 10mm thick.



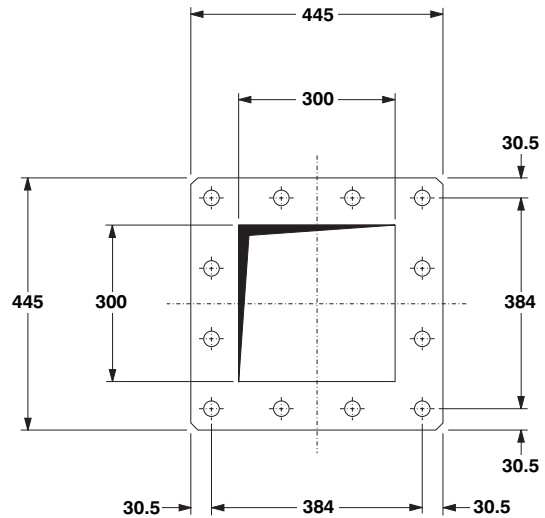
Ø300mm discharge connection flange
All holes Ø18mm for M16 bolts equally spaced on 395mm p.c.d. on centre. Flange is 10mm thick.

Alternative discharge connection flange details

NOTE: All collectors with dust container have a Ø300mm discharge connection flange.



Rotary valve flange for collectors with Ø200mm discharge connection flange (for rotary valve supplied by Donaldson)
All holes Ø18mm for M16 bolts.



Rotary valve flange for collectors with Ø300mm discharge connection flange (for rotary valve supplied by Donaldson)
All holes Ø18mm for M16 bolts. Pitch centres 128mm.

Rotary valve outlet flange details



All containers are fitted with castors

DUST CONTAINERS

Size	Net weight	Typical dust densities	
		Dust	Density with 50% voidage, in kg/litre
55 litre (2.0 ft ³)	20 kg	Sander	0.13
100 litre (3.5 ft ³)	30 kg	Graphite	0.80
155 litre (5.5 ft ³)	40 kg	Sand	1.33
		Iron	3.58
		Steel	3.72



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