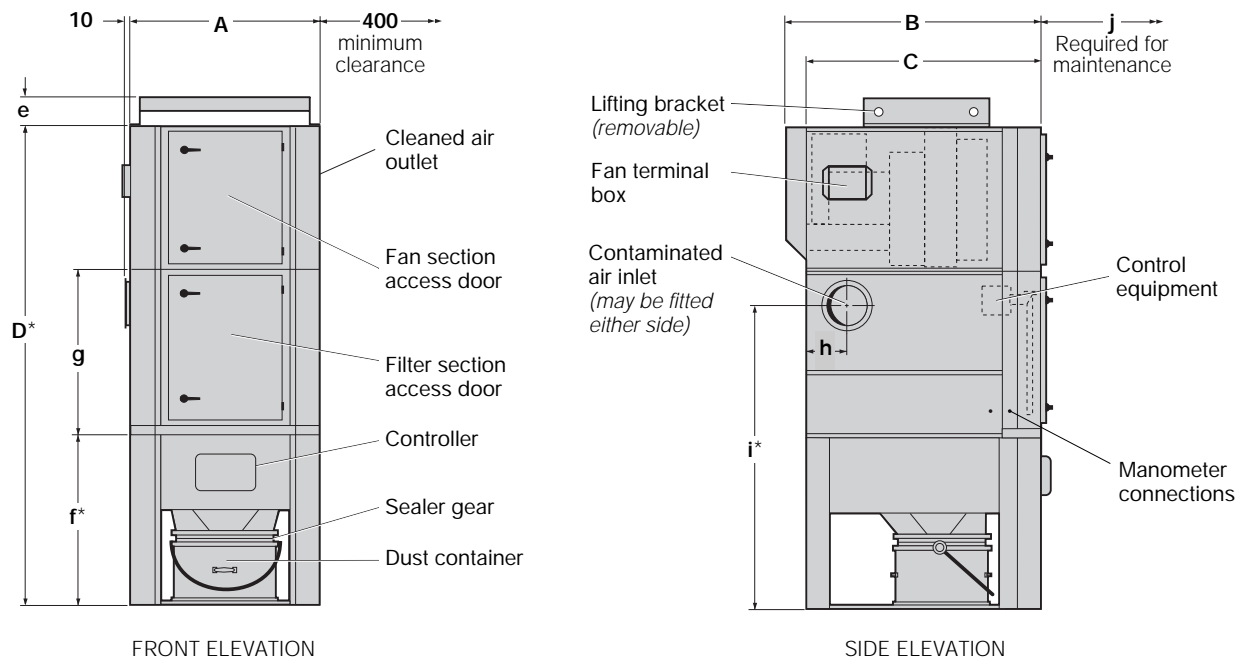


Unicell Dust Control Units

Series C

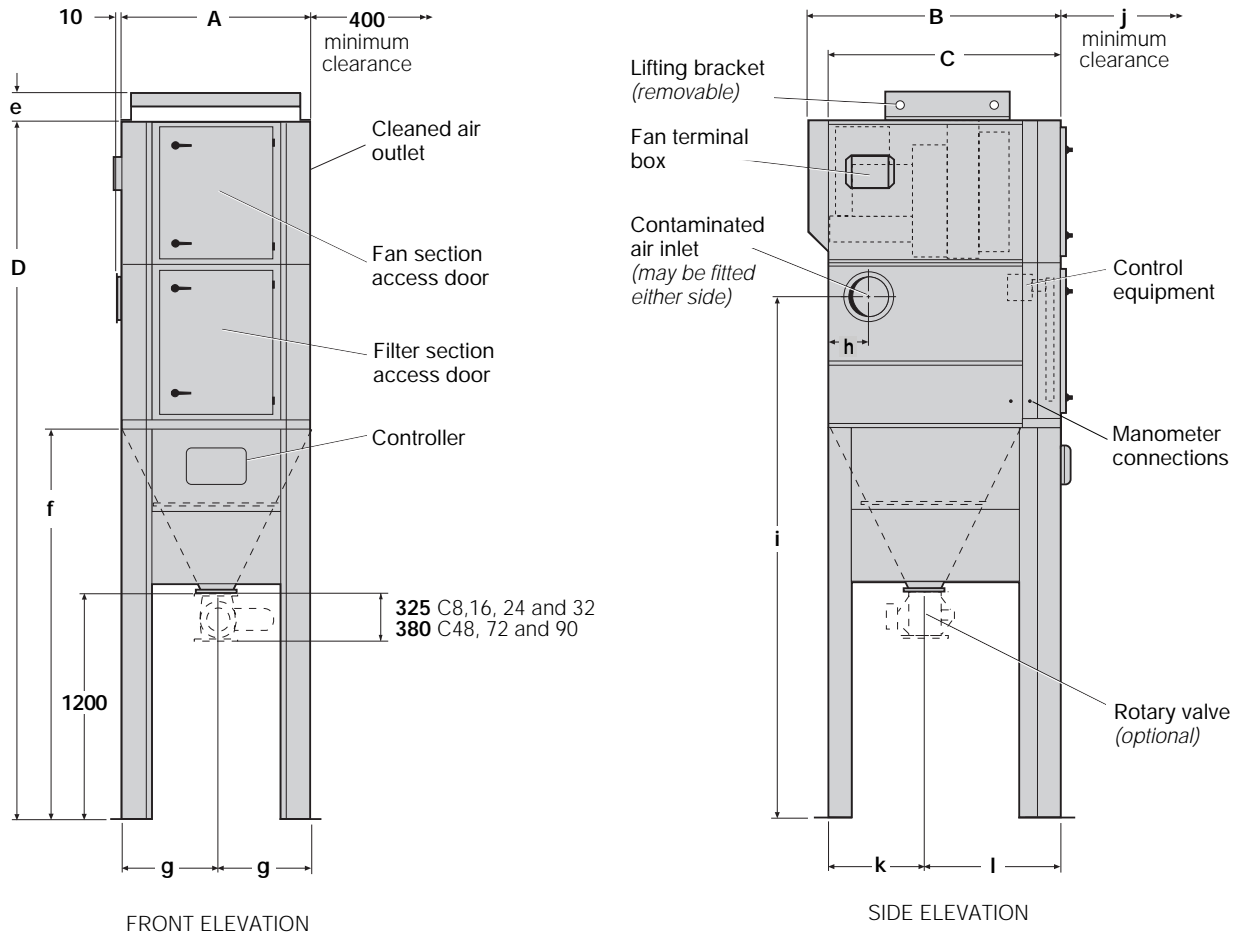


Unicell standard dust control unit
Model C16-2 K5 illustrated

SPECIFICATIONS														
Unit type	Filtration area	DIMENSIONS in mm										Dust container	Fan type	Motor rating
		A	B	C	D	e	f	g	h	i	j			
C8-2	8m ²	928	1254	1154	2343*	185	827*	814	195	1469*	804	55 litre	F1 K3	0.75 kW 1.50 kW
C16-2	16m ²	928	1254	1154	2343*	185	827*	814	195	1469*	804	55 litre	F1	0.75 kW
													K3	1.50 kW
													K5	2.20 kW
													K7	3.00 kW
C24-2	24m ²	1280	1254	1154	2343*	185	827*	814	195	1469*	970	55 litre	K3	1.50 kW
													K5	2.20 kW
													K7	3.00 kW
													G8	5.50 kW
C32-3	32m ²	1068	1624	1424	3308*	120	1019*	1364	280	2141*	804	80 litre	K10	5.50 kW
													K11	7.50 kW
C48-4	48m ²	1420	1624	1424	3428*	120	1139*	1364	280	2261*	970	110 litre	K10	5.50 kW
					3428*								K11	7.50 kW
					3680*								K15	11.00 kW
C72-4 or C72-8	72m ²	1420	1624	1424	4230*	120	1139*	1914	280	2811*	970	110 litre or 2x110 litre	K11	7.50 kW
													K15	11.00 kW
													K18	15.00 kW
													K21	18.50 kW
C90-4 or C90-8	90m ²	1420	1624	1624	4230*	120	1139*	1914	280	2811*	1170	110 litre or 2x110 litre	K11	7.50 kW
													K15	11.00 kW
													K18	15.00 kW
													K21	18.50 kW

* When bin slide valve is required add 264mm for C8, 16 and 24 units or add 261mm for C32, 48, 72 and 90 units.

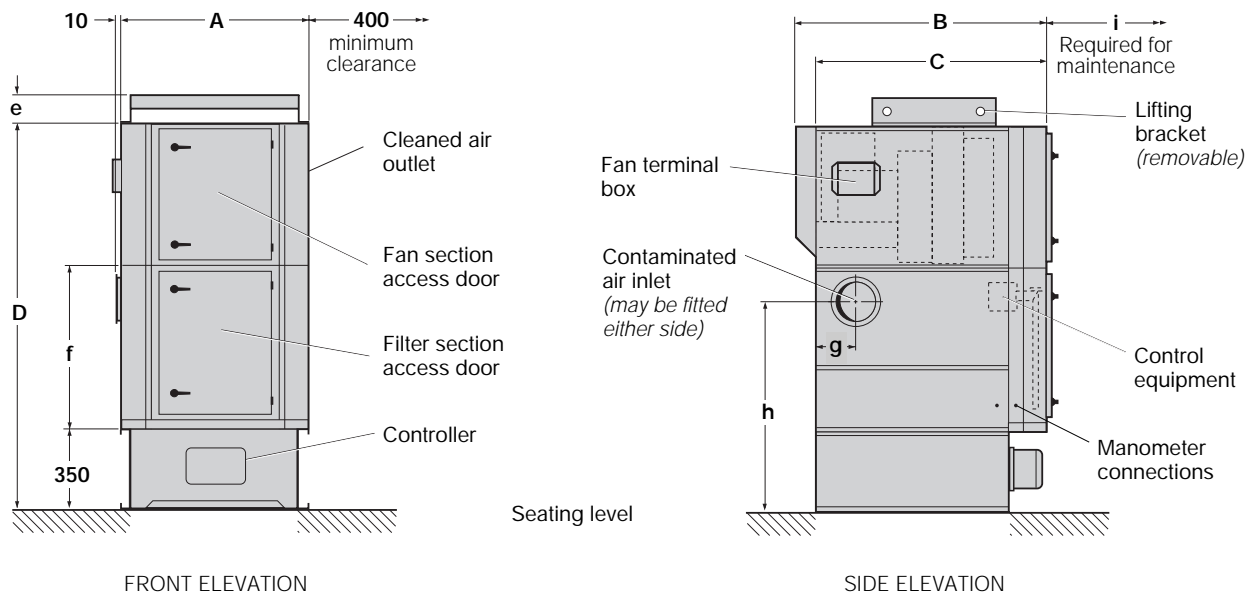
Unicell Dust Control Units – Series C



Unicell dust control unit with rotary valve
Model C16 R K5 illustrated

SPECIFICATIONS															
Unit type	Filtration area	DIMENSIONS in mm											Fan type	Motor rating	
		A	B	C	D	e	f	g	h	i	j	k			l
C8 R	8m ²	928	1254	1154	3438	185	1922	464	195	2564	804	482	672	F1	0.75 kW
														K3	1.50 kW
C16 R	16m ²	928	1254	1154	3438	185	1922	464	195	2564	804	482	672	F1	0.75 kW
														K3	1.50 kW
														K5	2.20 kW
														K7	3.00 kW
C24 R	24m ²	1280	1254	1154	3438	185	1922	640	195	2564	970	482	672	K3	1.50 kW
														K5	2.20 kW
														K7	3.00 kW
														G8	5.50 kW
C32 R	32m ²	1068	1624	1424	4275	120	1986	534	280	3108	804	582	842	K10	5.50 kW
														K11	7.50 kW
C48 R	48m ²	1420	1624	1424	4275	120	1986	710	280	3108	970	582	842	K10	5.50 kW
					4275									K11	7.50 kW
					4527									K15	11.00 kW
C72 R	72m ²	1420	1624	1424	5077	120	1986	710	280	3658	970	582	842	K11	7.50 kW
														K15	11.00 kW
														K18	15.00 kW
														K21	18.50 kW
C90 R	90m ²	1420	1624	1624	5077	120	1986	710	280	3658	1170	582	842	K11	7.50 kW
														K15	11.00 kW
														K18	15.00 kW
														K21	18.50 kW

Unicell Dust Control Units – Series C



Unicell hopper type dust control unit
Model C16 H K5 illustrated

SPECIFICATIONS												
Unit type	Filtration area	DIMENSIONS in mm									Fan type	Motor rating
		A	B	C	D	e	f	g	h	i		
C8 H	8m ²	928	1254	1154	1866	185	814	195	992	804	F1	0.75 kW
											K3	1.50 kW
C16 H	16m ²	928	1254	1154	1866	185	814	195	992	804	F1	0.75 kW
											K3	1.50 kW
											K5	2.20 kW
											K7	3.00 kW
C24 H	24m ²	1280	1254	1154	1866	185	814	195	992	970	K3	1.50 kW
											K5	2.20 kW
											K7	3.00 kW
											G8	5.50 kW
C32 H	32m ²	1068	1624	1424	2639	120	1364	280	1472	804	K10	5.50 kW
											K11	7.50 kW
C48 H	48m ²	1420	1624	1424	2639 2891	120	1364	280	1472	970	K10	5.50 kW
											K11	7.50 kW
											K15	11.00 kW
C72 H	72m ²	1420	1624	1424	3441	120	1914	280	2022	970	K11	7.50 kW
											K15	11.00 kW
											K18	15.00 kW
											K21	18.50 kW
C90 H	90m ²	1420	1624	1624	3441	120	1914	280	2022	1170	K11	7.50 kW
											K15	11.00 kW
											K18	15.00 kW
											K21	18.50 kW

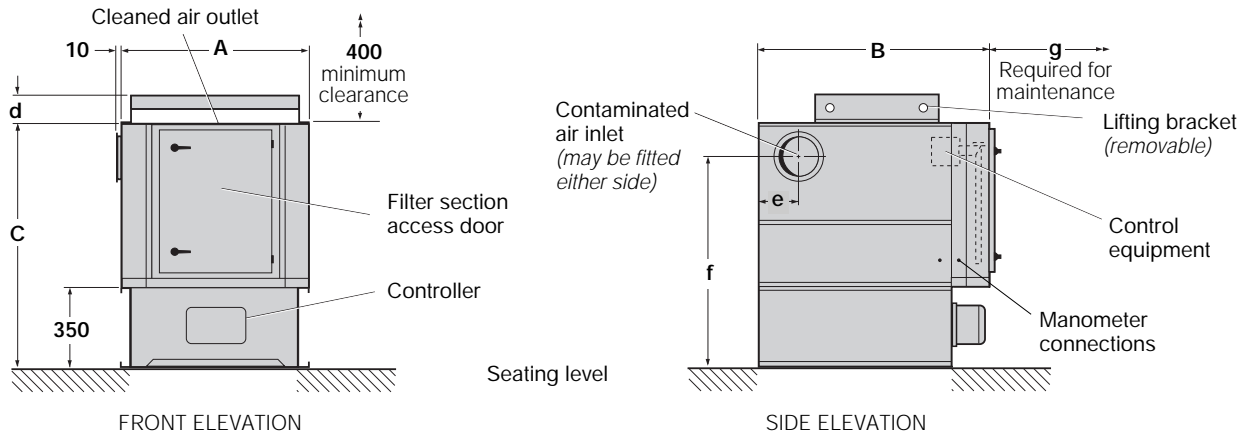
DESIGN LIMITS (standard equipment)

Temperature range: -10° to +60°C

Pressure range: -500mm W.G. For positive pressures please refer to Torit DCE

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

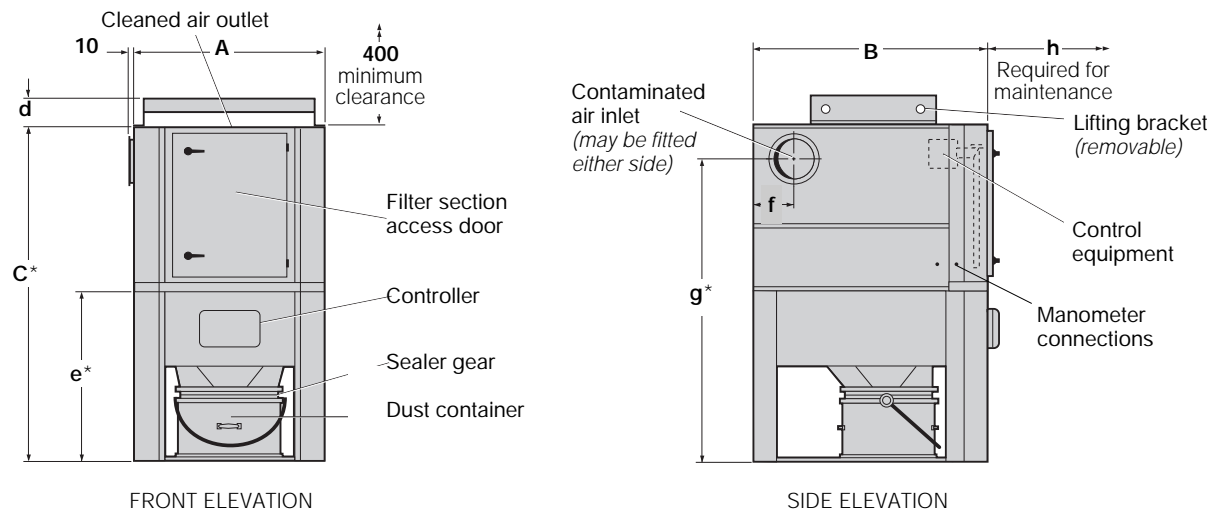
Unicell Dust Control Units – Series C



Unicell venting type dust control unit

Model C16 V illustrated

Unit type	Filtration area	DIMENSIONS in mm						
		A	B	C	d	e	f	g
C8 V	8m ²	928	1154	1164	185	195	992	804
C16 V	16m ²	928	1154	1164	185	195	992	804
C24 V	24m ²	1280	1154	1164	185	195	992	970
C32 V	32m ²	1068	1424	1714	120	280	1472	804
C48 V	48m ²	1420	1424	1714	120	280	1472	970
C72 V	72m ²	1420	1424	2264	120	280	2022	970
C90 V	90m ²	1420	1624	2264	120	280	2022	1170

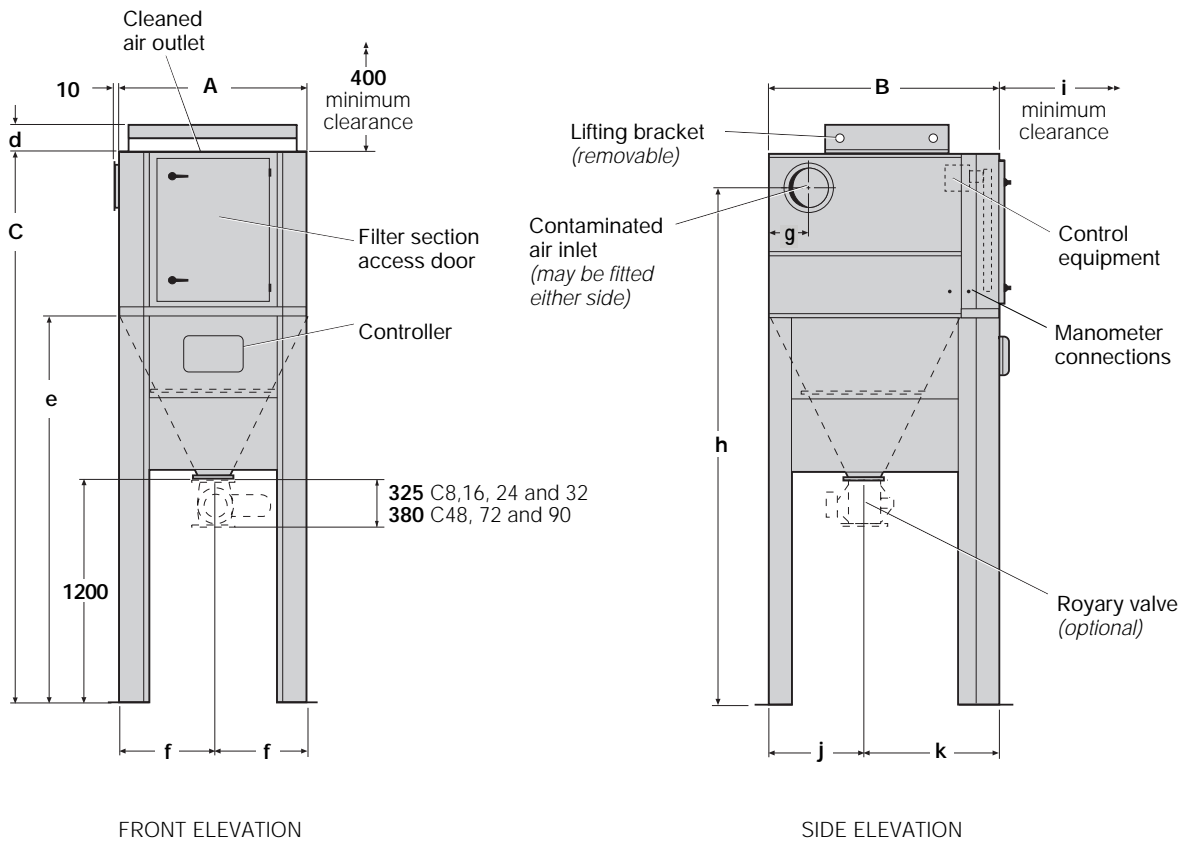


Unicell venting type dust control unit with dust container

Model C16-2 V illustrated

Unit type	Filtration area	DIMENSIONS in mm								Dust Container
		A	B	C	d	e	f	g	h	
C8-2 V	8m ²	928	1154	1641*	185	827*	195	1469*	804	55 litre
C16-2 V	16m ²	928	1154	1641*	185	827*	195	1469*	804	55 litre
C24-2 V	24m ²	1280	1154	1641*	185	827*	195	1469*	970	55 litre
C32-3 V	32m ²	1068	1424	2383*	120	1019*	280	2141*	804	80 litre
C48-4 V	48m ²	1420	1424	2503*	120	1139*	280	2261*	970	110 litre
C72-4 V or C72-8 V	72m ²	1420	1424	3053*	120	1139*	280	2811*	970	110 litre or 2x110 litre
C90-4 V or C90-8 V	90m ²	1420	1624	3053*	120	1139*	280	2811*	1170	110 litre or 2x110 litre

* When bin slide valve is required add 264mm for C8, 16 and 24 units or add 261mm for C32, 48, 72 and 90 units.



Unicell venting type dust control unit with rotary valve

Model C16 VR illustrated

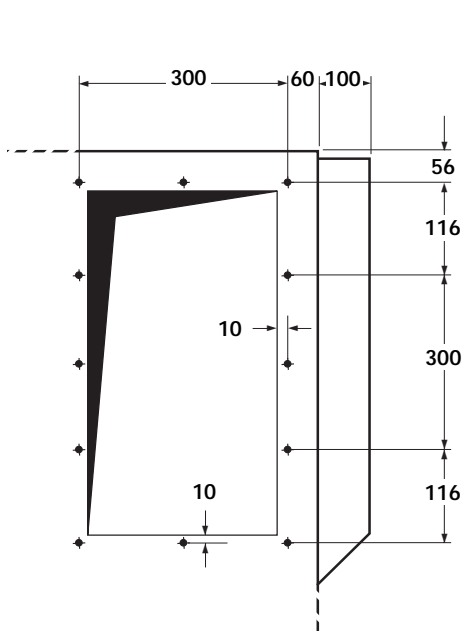
SPECIFICATIONS												
Unit type	Filtration area	DIMENSIONS in mm										
		A	B	C	d	e	f	g	h	i	j	k
C8 VR	8m ²	928	1154	2736	185	1922	464	195	2564	804	482	672
C16 VR	16m ²	928	1154	2736	185	1922	464	195	2564	804	482	672
C24 VR	24m ²	1280	1154	2736	185	1922	640	195	2564	970	482	672
C32 VR	32m ²	1068	1424	3350	120	1986	534	280	3108	804	582	842
C48 VR	48m ²	1420	1424	3350	120	1986	710	280	3108	970	582	842
C72 VR	72m ²	1420	1424	3900	120	1986	710	280	3658	970	582	842
C90 VR	90m ²	1420	1624	3900	120	1986	710	280	3658	1170	582	842

DUST CONTAINERS				TYPICAL DUST WEIGHTS		
SIZE	Base dia.	Height	Approx net wt.	DUST	DENSITY with 50% voidage, in kg/litre	
55 litre	555	260	4 kg	Sander	0.13	
80 litre	555	380	6 kg	Graphite	0.80	
110 litre	555	500	8 kg	Sand	1.33	
A reasonable total load for removal by hand would be 25 kg				Iron	3.58	
				Steel	3.72	

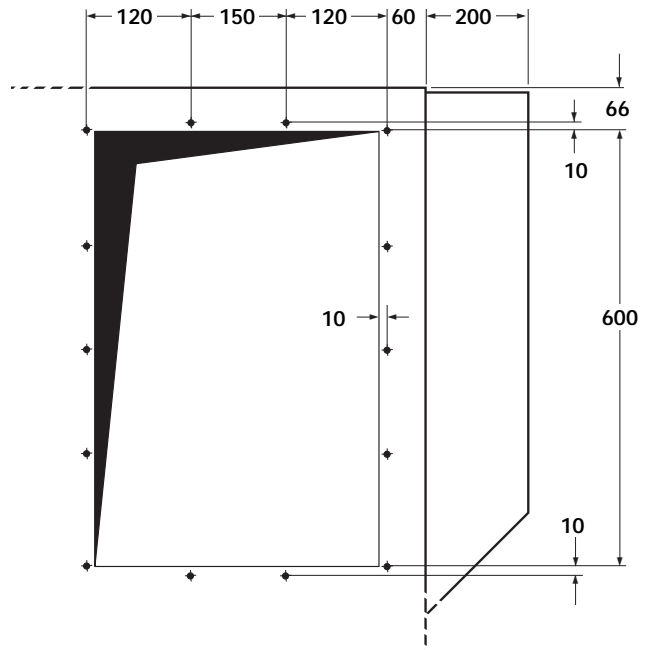
Unicell Dust Control Units – Series C

APPROXIMATE NET UNIT WEIGHTS												
Unit type	Fan type	NET WEIGHT			Unit type	Fan type	NET WEIGHT					
		Unit only	Unit with secondary filter	Unit with absolute filter			Unit only	Unit with secondary filter	Unit with absolute filter			
UNICELL STANDARD DUST CONTROL UNIT	C8-2	F1	537 kg*	557 kg*	558 kg*	UNICELL HOPPER TYPE DUST CONTROL UNIT	C8 H	F1	381 kg*	401 kg*	403 kg*	
		K3	542 kg*	562 kg*	563 kg*			K3	386 kg*	406 kg*	408 kg*	
	C16-2	F1	546 kg*	556 kg*	568 kg*		C16 H	F1	390 kg*	411 kg*	413 kg*	
		K3	551 kg*	571 kg*	573 kg*			K3	395 kg*	416 kg*	418 kg*	
		K5	556 kg*	586 kg*	588 kg*			K5	410 kg*	431 kg*	433 kg*	
		K7	591 kg*	611 kg*	613 kg*			K7	435 kg*	456 kg*	458 kg*	
	C24-2	K3	665 kg*	689 kg*	702 kg*		C24 H	K3	486 kg*	510 kg*	523 kg*	
		K5	680 kg*	704 kg*	717 kg*			K5	501 kg*	525 kg*	538 kg*	
		K7	705 kg*	729 kg*	742 kg*			K7	536 kg*	560 kg*	573 kg*	
		G8	720 kg*	744 kg*	757 kg*			G8	541 kg*	565 kg*	578 kg*	
	C32-3	K10	900 kg*	920 kg*	934 kg*		C32 H	K10	695 kg*	715 kg*	729 kg*	
		K11	960 kg*	980 kg*	994 kg*			K11	755 kg*	775 kg*	789 kg*	
C48-4	K10	1074 kg*	1096 kg*	1140 kg*	C48 H	K10	832 kg*	854 kg*	898 kg*			
	K11	1134 kg*	1156 kg*	1200 kg*		K11	892 kg*	914 kg*	958 kg*			
	K15	1242 kg*	1401 kg*	1425 kg*		K15	947 kg*	1106 kg*	1130 kg*			
C72-4	K11	1336 kg*	1495 kg*	1519 kg*	C72 H	K11	1095 kg*	1254 kg*	1278 kg*			
	K15	1383 kg*	1542 kg*	1566 kg*		K15	1142 kg*	1301 kg*	1325 kg*			
	K18	1409 kg*	1568 kg*	1592 kg*		K18	1168 kg*	1327 kg*	1351 kg*			
	K21	1516 kg*	1675 kg*	1699 kg*		K21	1275 kg*	1434 kg*	1458 kg*			
C72-8	K11	1420 kg*	1579 kg*	1603 kg*	C90 H	K11	1207 kg*	1366 kg*	1390 kg*			
	K15	1467 kg*	1626 kg*	1650 kg*		K15	1254 kg*	1413 kg*	1437 kg*			
	K18	1493 kg*	1652 kg*	1676 kg*		K18	1280 kg*	1439 kg*	1463 kg*			
	K21	1600 kg*	1759 kg*	1783 kg*		K21	1387 kg*	1546 kg*	1570 kg*			
C90-4	K11	1448 kg*	1607 kg*	1631 kg*	UNICELL VENTING TYPE DUST CONTROL UNIT	C8 V	-	252 kg*	-	-		
	K15	1495 kg*	1654 kg*	1678 kg*		C16 V	-	262 kg*	-	-		
	K18	1521 kg*	1680 kg*	1704 kg*		C24 V	-	339 kg*	-	-		
	K21	1628 kg*	1787 kg*	1811 kg*		C32 V	-	432 kg*	-	-		
C90-8	K11	1532 kg*	1691 kg*	1715 kg*		C48 V	-	583 kg*	-	-		
	K15	1579 kg*	1738 kg*	1762 kg*		C72 V	-	743 kg*	-	-		
	K18	1605 kg*	1764 kg*	1788 kg*		C90 V	-	705 kg*	-	-		
	K21	1712 kg*	1871 kg*	1895 kg*								
UNICELL DUST CONTROL UNIT WITH ROTARY VALVE	C8 R	F1	504 kg*	524 kg*	525 kg*	UNICELL VENTING TYPE DUST CONTROL UNIT WITH DUST CONTAINER	C8-2 V	-	399 kg*	-	-	
		K3	509 kg*	529 kg*	530 kg*			C16-2 V	-	409 kg*	-	-
	C16 R	F1	513 kg*	533 kg*	535 kg*		C24-2 V	-	496 kg*	-	-	
		K3	518 kg*	538 kg*	540 kg*			C32-3 V	-	628 kg*	-	-
		K5	533 kg*	553 kg*	555 kg*			C48-4 V	-	810 kg*	-	-
		K7	558 kg*	578 kg*	580 kg*			C72-4 V	-	970 kg*	-	-
	C24 R	K3	624 kg*	648 kg*	661 kg*		C72-8 V	-	1054 kg*	-	-	
		K5	639 kg*	663 kg*	676 kg*			C90-4 V	-	946 kg*	-	-
		K7	674 kg*	698 kg*	711 kg*			C90-8 V	-	1030 kg*	-	-
		G8	679 kg*	703 kg*	716 kg*							
	C32 R	K10	854 kg*	874 kg*	888 kg*		UNICELL VENTING TYPE DUST CONTROL UNIT WITH ROTARY VALVE	C8 VR	-	366 kg*	-	-
		K11	914 kg*	934 kg*	948 kg*				C16 VR	-	376 kg*	-
C48 R	K10	1009 kg*	1031 kg*	1075 kg*	C24 VR	-		455 kg*	-	-		
	K11	1069 kg*	1091 kg*	1135 kg*		C32 VR		-	582 kg*	-	-	
	K15	1124 kg*	1283 kg*	1307 kg*		C48 VR		-	745 kg*	-	-	
C72 R	K11	1271 kg*	1430 kg*	1454 kg*	C72 VR	-		905 kg*	-	-		
	K15	1318 kg*	1477 kg*	1501 kg*		C90 VR		-	881 kg*	-	-	
	K18	1344 kg*	1503 kg*	1527 kg*								
	K21	1451 kg*	1610 kg*	1634 kg*								
C90 R	K11	1383 kg*	1542 kg*	1566 kg*								
	K15	1430 kg*	1589 kg*	1613 kg*								
	K18	1456 kg*	1615 kg*	1639 kg*								
	K21	1563 kg*	1722 kg*	1746 kg*								

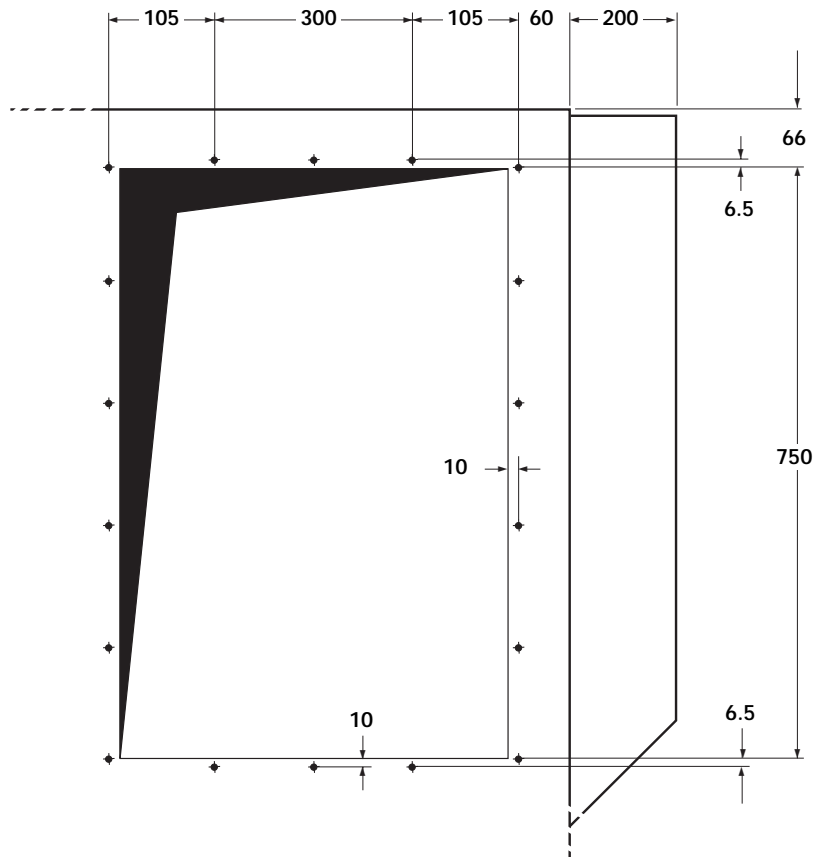
*Indicates heaviest configuration



C8-2, C16-2, C24-2,
C8 H, C16 H, C24 H,
C8 R, C16 R and C24 R



C32-3, C48-4 K10 or K11,
C32 H, C48 H K10 or K11,
C32 R and C48 R K10 or K11

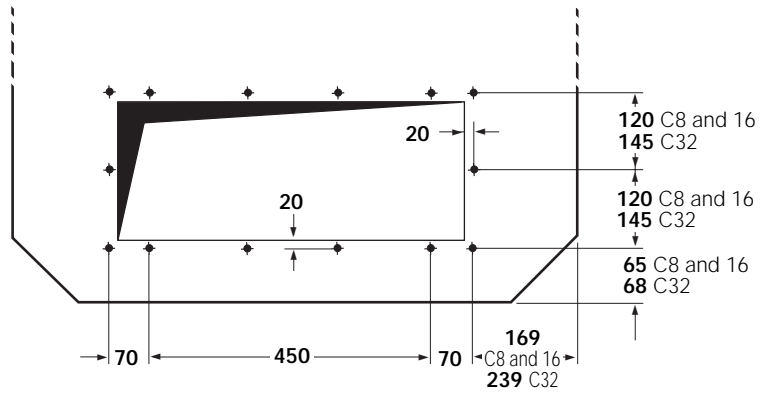


C48-4 K15, C72-4, C72-8, C90-4, C90-8, C48 H K15, C72 H, C90 H,
C48 R K15, C72 R and C90 R

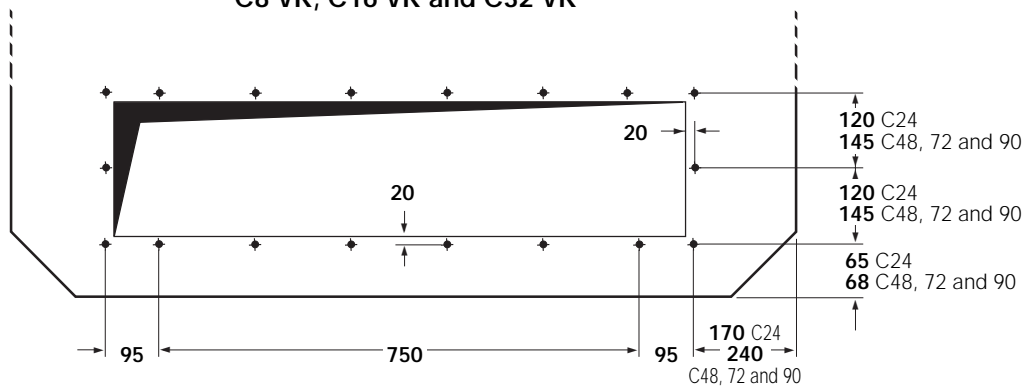
Cleaned air outlet details for standard and hopper type units (with outlet grille removed)

All holes threaded for M6 set screws
Pitch centres: 150mm except where shown

Unicell Dust Control Units – Series C



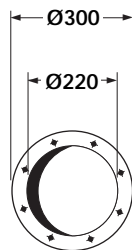
**C8 V, C16 V C32 V,
C8-2 V, C16-2 V, C32-3 V,
C8 VR, C16 VR and C32 VR**



**C24 V, C48 V, C72 V, C90 V,
C24-2 V, C48-4 V, C72-4 V, C72-8 V, C90-4 V, C90-8 V,
C24 VR, C48 VR, C72 VR and C90 VR**

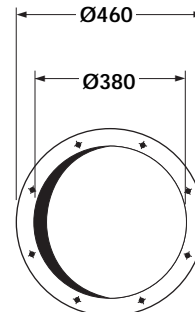
Cleaned air outlet details for venting type unit

All holes Ø10mm for M8 set screws. Pitch centres: 150mm except where shown



C8, C16 and C24

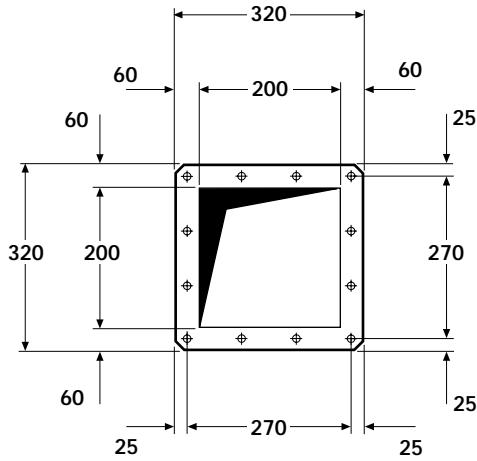
All holes Ø10mm for M8 bolts
equally spaced on 270 p.c.d. off centre.



C32, C48, C72 and C90

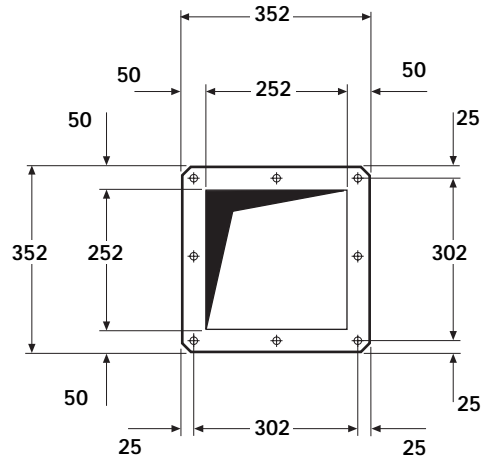
All holes Ø10mm for M8 bolts
equally spaced on 430 p.c.d. off centre.

Contaminated air inlet details



C8, C16, C24 and C32

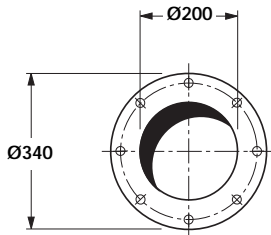
All holes Ø12 mm for M10 setscrews
Pitch centres: 90 mm



C48, C72 and C90

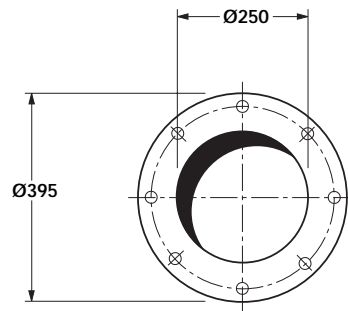
All holes Ø14 mm for M12 setscrews
Pitch centres: 151 mm

Rotary valve hopper outlet flange details



C8, C16, C24 and C32

All holes Ø14 mm for M12 bolts
equally spaced on 280 mm p.c.d.



C48, C72 and C90

All holes Ø14 mm for M12 bolts
equally spaced on 350 mm p.c.d.

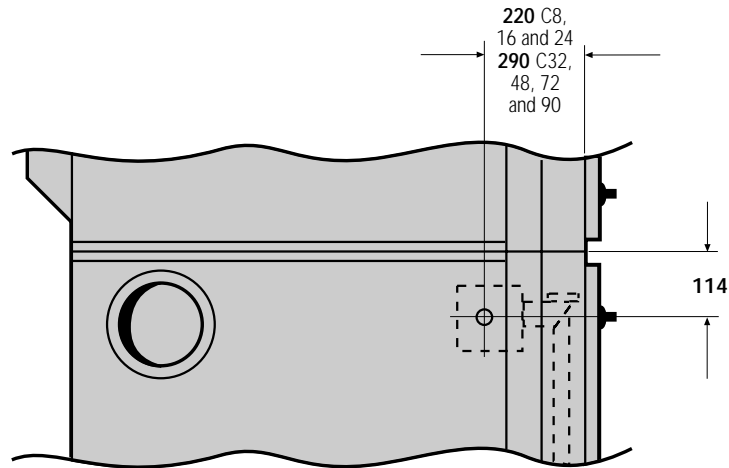
Rotary valve outlet flange details (for rotary valve supplied by Torit DCE)

COMPRESSED AIR REQUIREMENTS					
Unit type	Working compressed air pressure ^a		Atmospheric air volume – F.A.D. ^b at 12 sec. intervals ^c		Pulse duration
C8	4.2 bar	60 psig	9.1 m ³ /h	5.4 cfm	200 millisec.
C16	4.2 bar	60 psig	9.1 m ³ /h	5.4 cfm	200 millisec.
C24	4.2 bar	60 psig	12.0 m ³ /h	7.1 cfm	200 millisec.
C32	5.2 bar	75 psig	12.3 m ³ /h	7.3 cfm	200 millisec.
C48	5.2 bar	75 psig	17.1 m ³ /h	10.1 cfm	200 millisec.
C72	6.2 bar	90 psig	20.8 m ³ /h	12.2 cfm	200 millisec.
C90	6.2 bar	90 psig	20.8 m ³ /h	12.2 cfm	200 millisec.

^aNormal operating pressure. ^bRecommended atmospheric air volume of clean, dry compressed air.

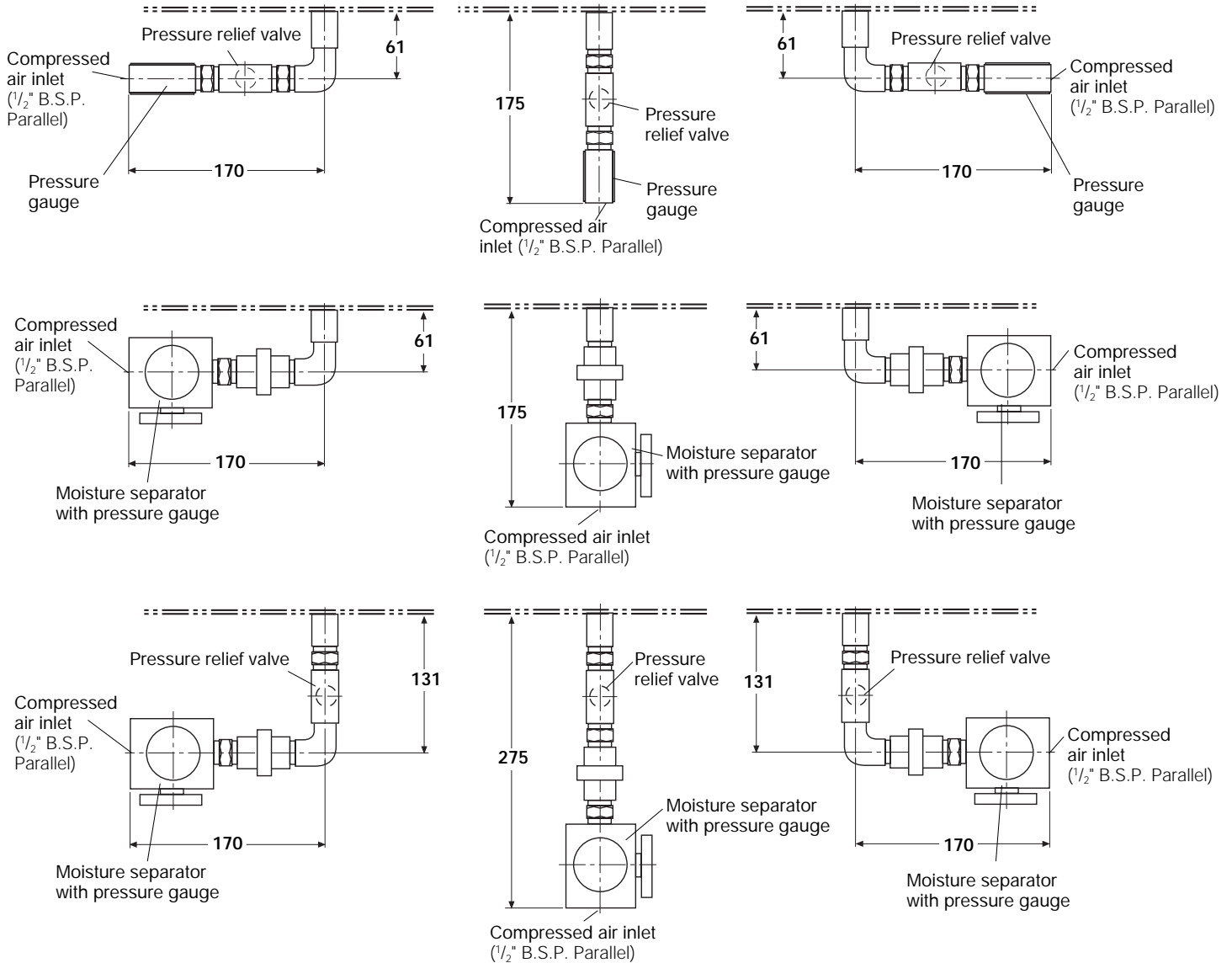
^cRecommended initial settings; these may be varied with experience.

Unicell Dust Control Units – Series C



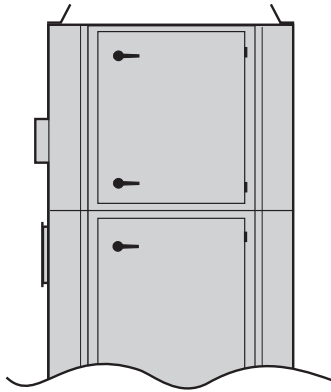
Position of compressed air assembly connection to unit

May be fitted either side

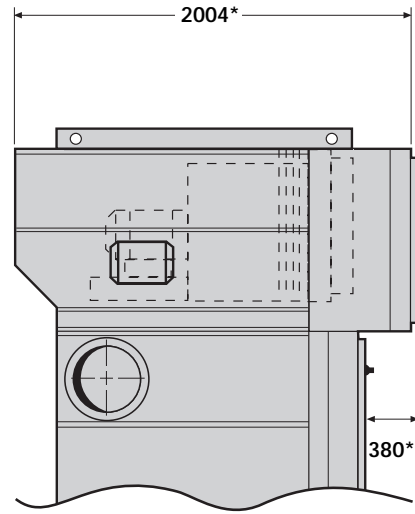


PLAN ELEVATIONS

Compressed air assembly details showing optional arrangements



FRONT ELEVATION

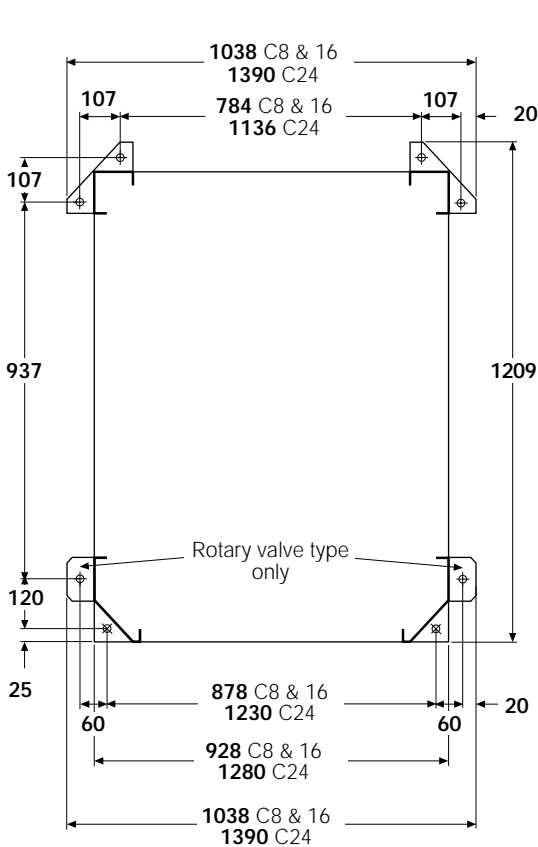


SIDE ELEVATION

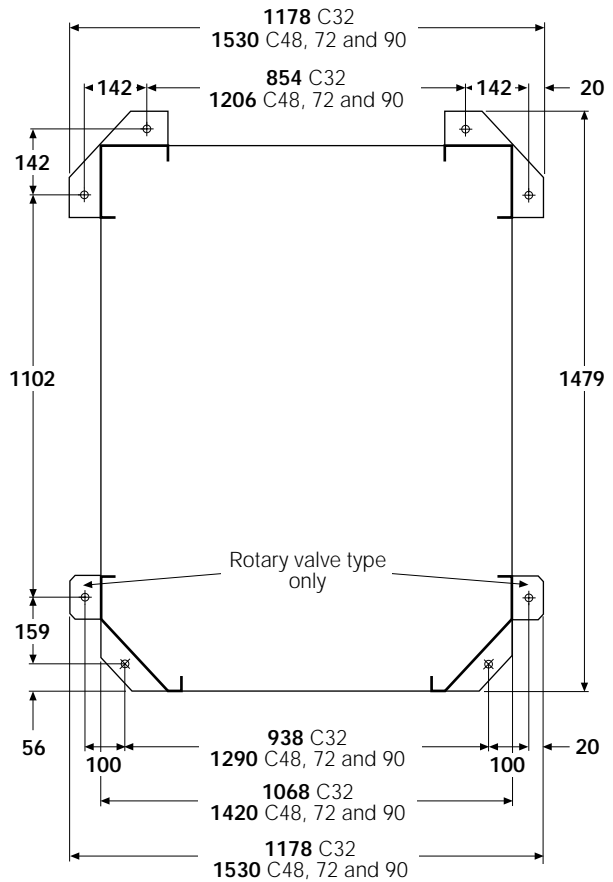
Unicell dust control unit with secondary filter or absolute filter

Model C72-4 SF K15 illustrated

* All dimensions for C8, C16, C24, C32 and C48 are as standard units.
Dimensions for C72, C48 K15 and C90 are as standard unit except for the ones indicated.



C8-2, C16-2, C24-2,
C8-2 V, C16-2 V, C24-2 V,
C8 R, C16 R, C24 R, C8 VR, C16 VR and C24 VR

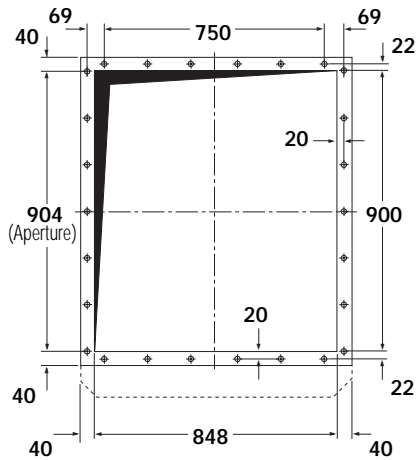


C32-3, C48-4, C72-4, C72-8, C90-4, C90-8,
C32-3 V, C48-4 V, C72-4 V, C72-8 V, C90-4 V, C90-8 V,
C32 R, C48 R, C72 R, C90 R, C32 VR, C48 VR, C72 VR and C90 VR

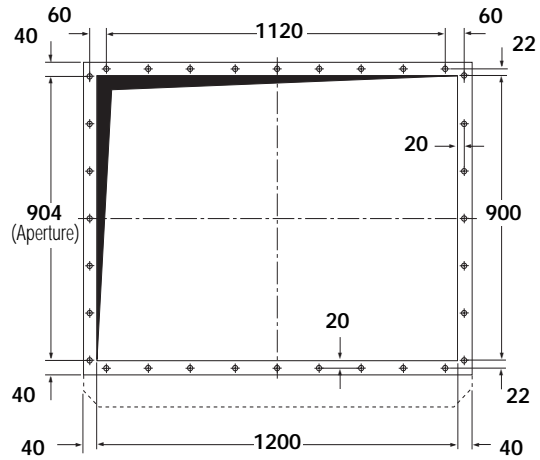
**Foundation details for standard and venting type units
with dust container or rotary valve**

All holes Ø22mm for M12 bolts

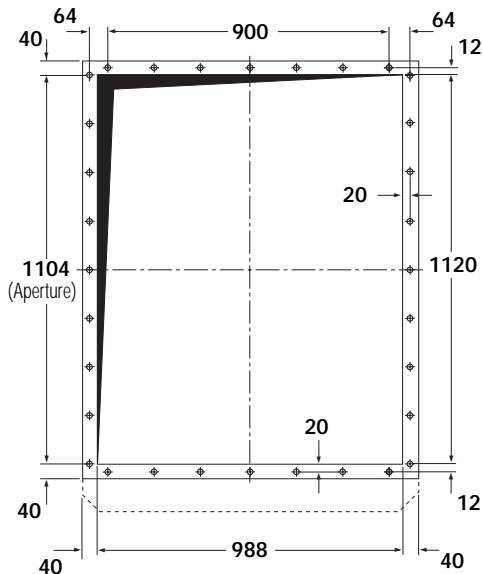
Unicell Dust Control Units – Series C



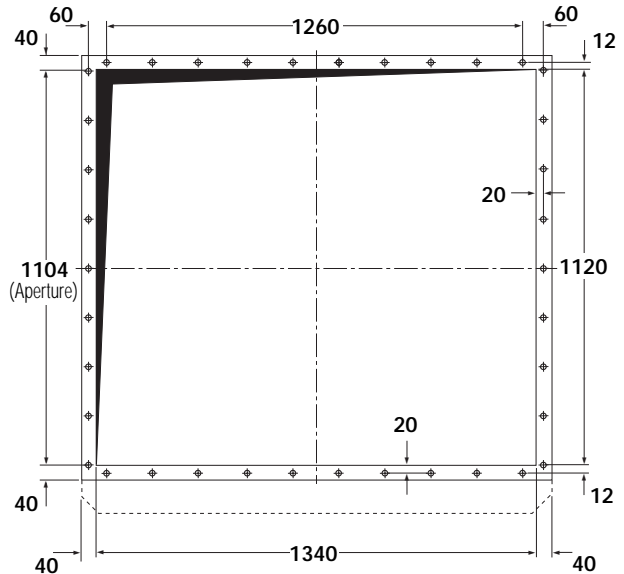
C8 H, C16 H, C8 V and C16 V
All holes Ø12 mm for M10 bolts
Pitch centres: 150 mm



C24 H and C 24 V
All holes Ø12 mm for M10 bolts
Pitch centres: 140 mm horizontally; 150 mm vertically



C32 H and C32 V
All holes Ø12 mm for M10 bolts
Pitch centres: 150 mm horizontally; 140 mm vertically



C48 H, C72 H, C90 H, C48 V, C72 V and C90 V
All holes Ø12 mm for M10 bolts
Pitch centres: 140 mm

Aperture and mounting flange details for hopper and venting type units

ELECTRICAL REQUIREMENTS

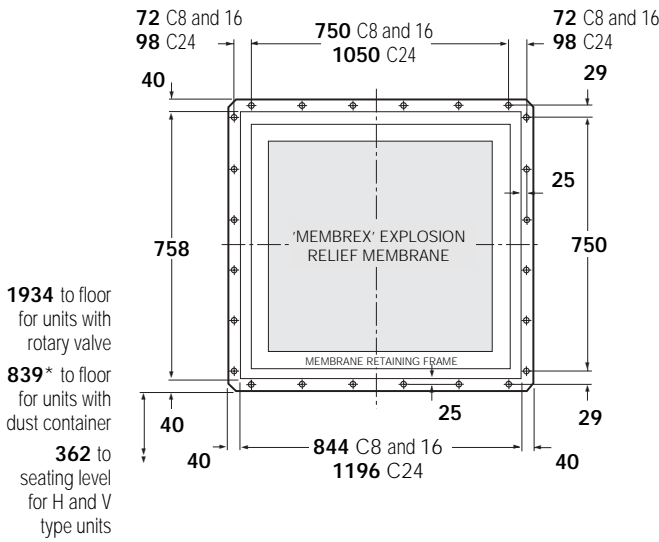
C8: 2-way RJC controller

C16 and 32: 4-way RJC controller

C24, 48, 72 and 90: 6-way RJC controller

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

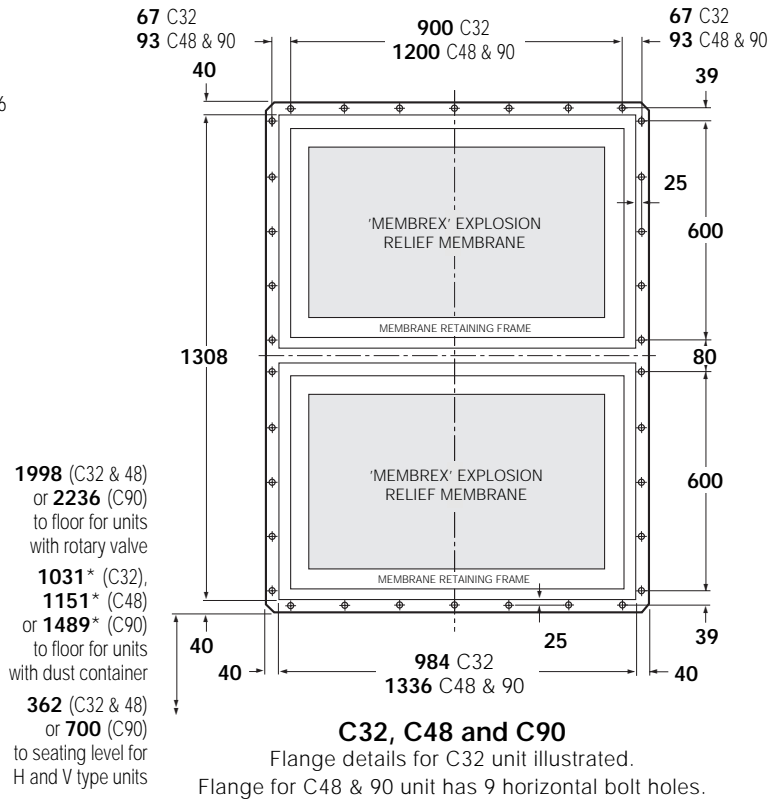
Fan motor: To suit local voltage



C8, C16 and C24

Flange details for C8 and 16 units illustrated.
Flange for C24 unit has 8 horizontal bolt holes.

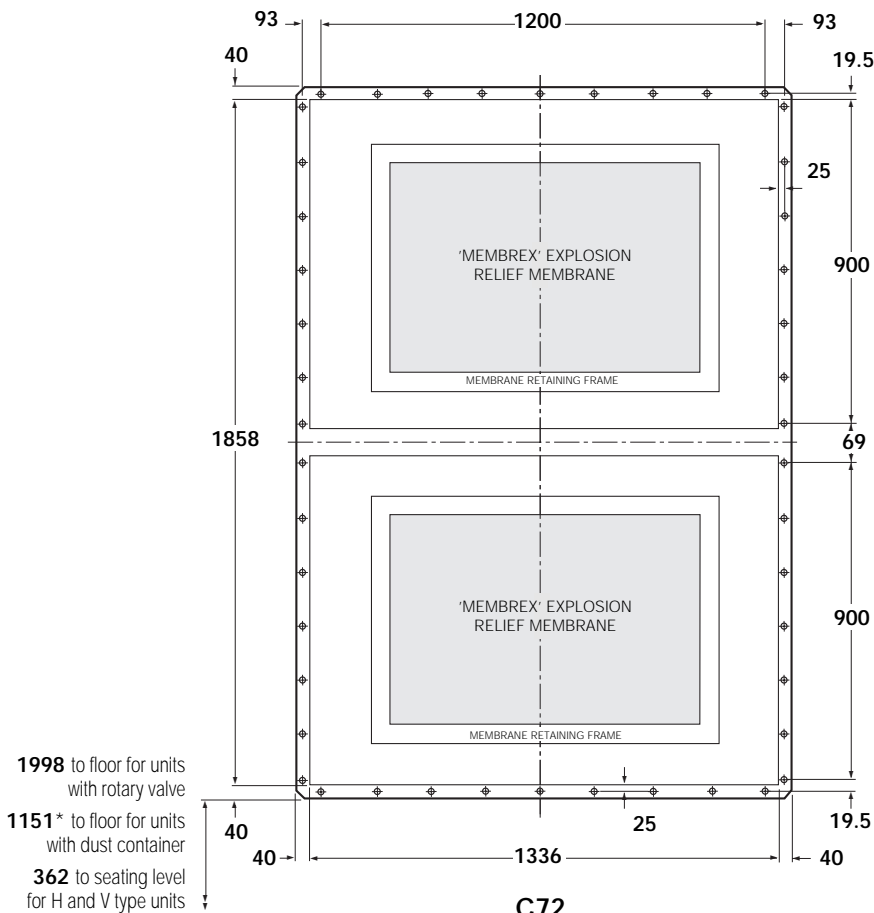
1934 to floor for units with rotary valve
839* to floor for units with dust container
362 to seating level for H and V type units



C32, C48 and C90

Flange details for C32 unit illustrated.
Flange for C48 & 90 unit has 9 horizontal bolt holes.

1998 (C32 & 48) or 2236 (C90) to floor for units with rotary valve
1031* (C32), 1151* (C48) or 1489* (C90) to floor for units with dust container
362 (C32 & 48) or 700 (C90) to seating level for H and V type units



C72

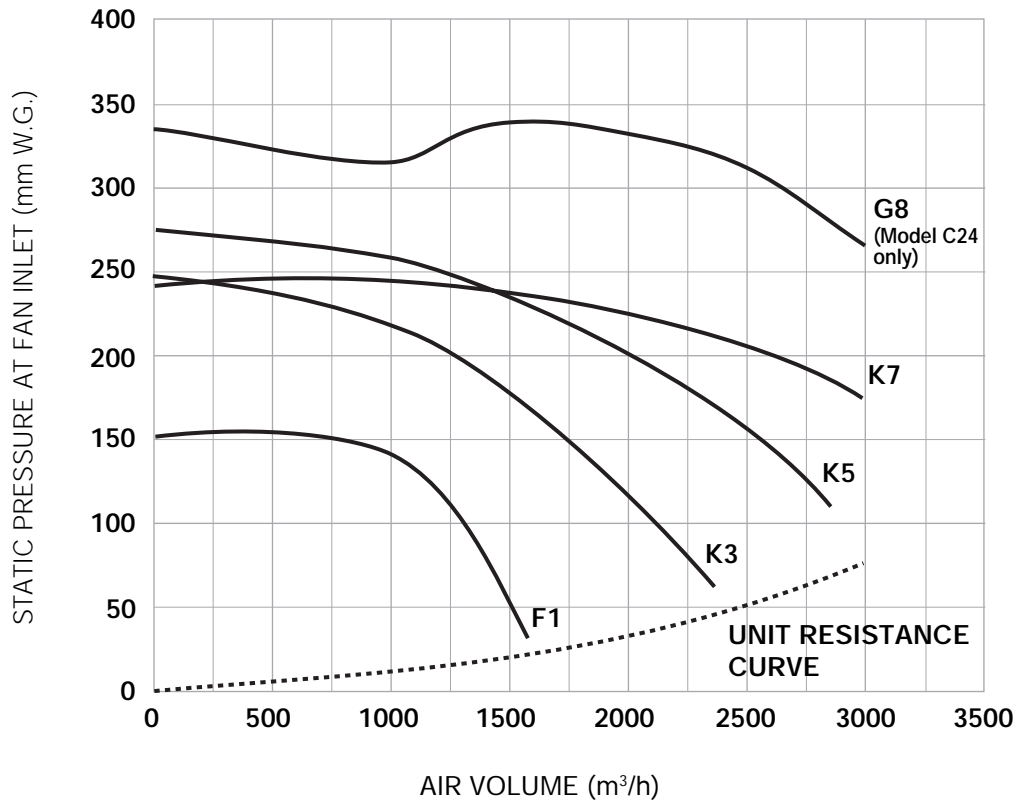
1998 to floor for units with rotary valve
1151* to floor for units with dust container
362 to seating level for H and V type units

Explosion relief flange mounting details

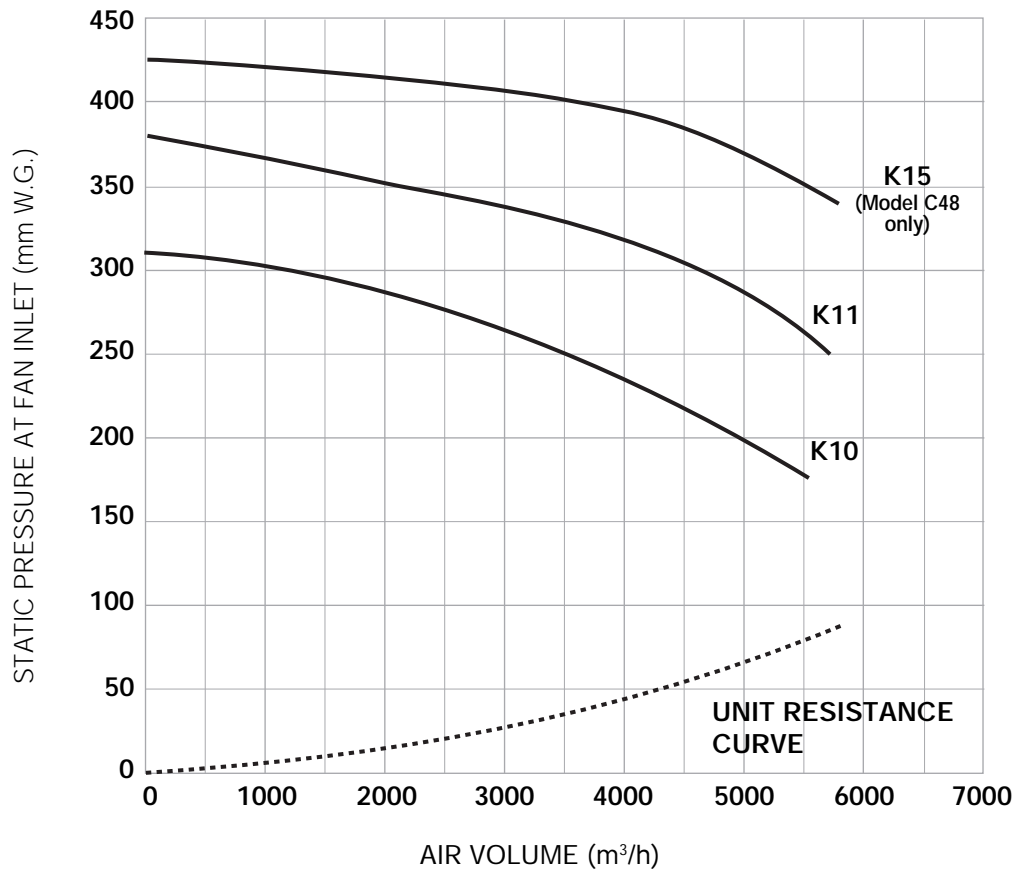
All holes Ø10mm for M8 bolts. Pitch centres: 150mm except where shown.
Mounting flange projects 60mm beyond rear of unit.

* When bin slide valve is required add 264mm for C8, 16 and 24 units or add 261mm for C32, 48, 72 and 90 units.

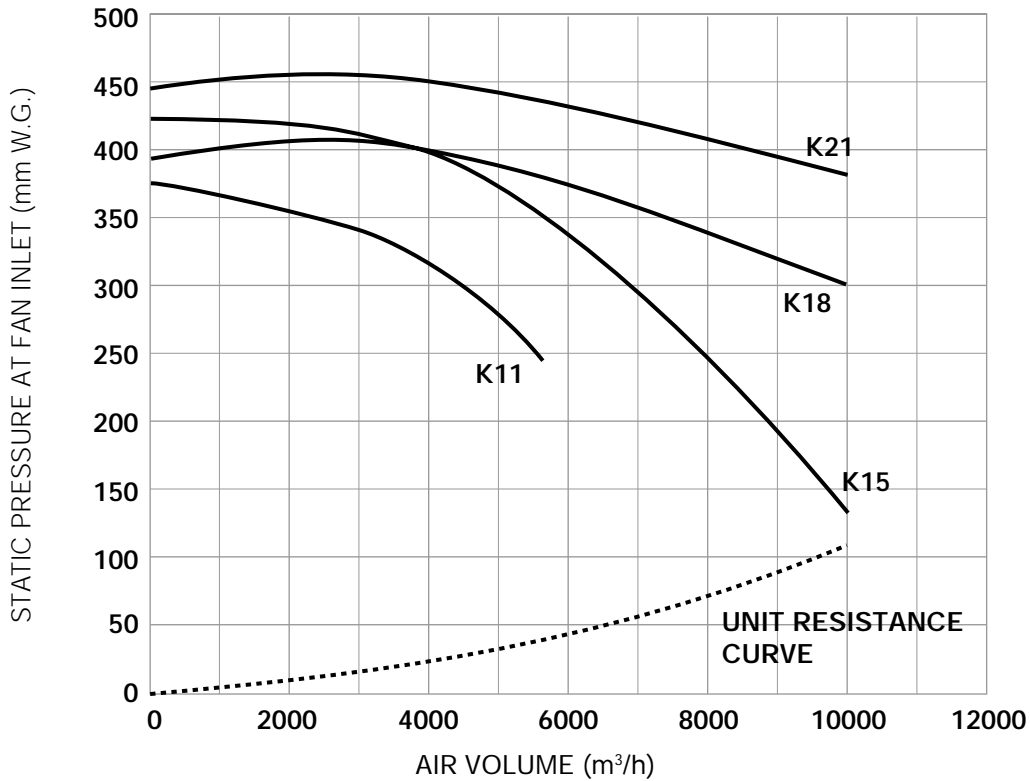
Unicell Dust Control Units – Series C



C8, C16 and C24 fan performance curves



C32 and C48 fan performance curves



C72 and C90 fan performance curves

FAN SELECTION

These curves indicate static pressure available at fan inlet for a given volume, when fitted inside a Unicell unit.

To select the most suitable fan for a given application:

- 1 Determine the air volume, in m³/h, needed to entrain the dust.
- 2 Read off the unit resistance, mm W.G, at air volume required.
- 3 Assess pressure drop across filter elements prior to cleaning, usually 50-125 mm W.G.
- 4 Estimate pressure drop through connected system – i.e. between point of entrainment and unit inlet.
- 5 The sum of 2, 3 and 4 = W.G. required.
- 6 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 airbourne noise emissions. Actions that employers are required to comply with if employees are subjected to a daily personal noise exposure $L_{ep,d}$ of 85 dB(A) or more are also specified.

All Unicell dust control units operating an 8 hour shift are below this action limit.

WEIGHTED SOUND PRESSURE LEVELS

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	K5	K7	G8	K10	K11	K15	K18	K21
65dB(A)	66dB(A)	72dB(A)*	74dB(A)	76dB(A)	75dB(A)	77dB(A)*	79dB(A)	81dB(A)	82dB(A)

Noise measurements of installed equipment may vary due to site conditions

*Measured data



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