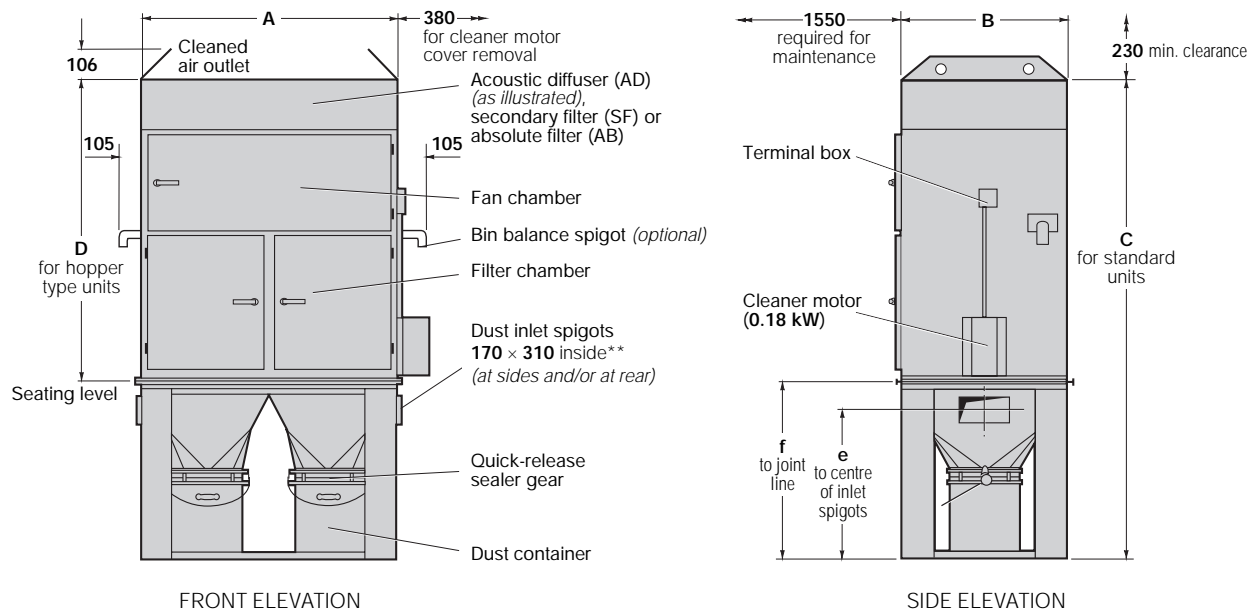


Unimaster Dust Filters

Series UMA 450



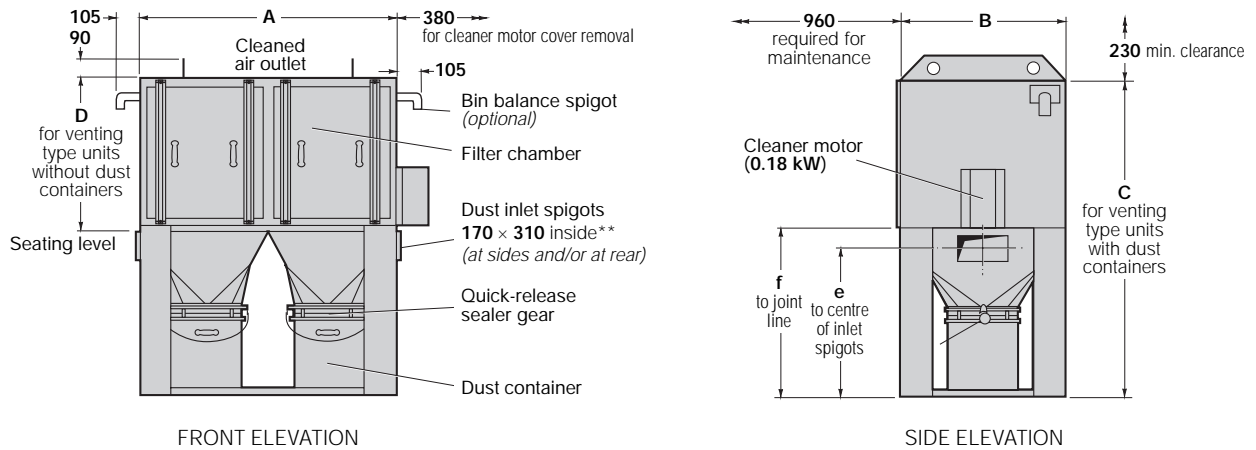
Unimaster standard and hopper type dust control units

Model UMA 454 AD illustrated. Suitable for inside locations.

SPECIFICATIONS											
Unit type	Filtration area	DIMENSIONS in mm*						Fan type	Motor rating	Dust container (x2)	Approx net weight
		A	B	C	d	e	f				
454 AD	42m ²	1515	965	2886	-	873	1056	K10	5.5 kW	55 litre	545 kg
								K11	7.5 kW		610 kg
456 AD	42m ²	1515	965	3114	-	1102	1284	K10	5.5 kW	80 litre	560 kg
								K11	7.5 kW		620 kg
458 AD	42m ²	1515	965	3114	-	1102	1284	K10	5.5 kW	110 litre	565 kg
								K11	7.5 kW		625 kg
450H AD	42m ²	1515	965	-	1830	-	-	K10	5.5 kW	-	410 kg
								K11	7.5 kW		460 kg
454 SF	42m ²	1515	965	3104	-	873	1056	K10	5.5 kW	55 litre	615 kg
								K11	7.5 kW		680 kg
456 SF	42m ²	1515	965	3332	-	1102	1284	K10	5.5 kW	80 litre	630 kg
								K11	7.5 kW		690 kg
458 SF	42m ²	1515	965	3332	-	1102	1284	K10	5.5 kW	110 litre	635 kg
								K11	7.5 kW		695 kg
450H SF	42m ²	1515	965	-	2050	-	-	K10	5.5 kW	-	480 kg
								K11	7.5 kW		530 kg
454 AB	42m ²	1515	965	3304	-	873	1056	K10	5.5 kW	55 litre	645 kg
								K11	7.5 kW		710 kg
456 AB	42m ²	1515	965	3532	-	1102	1284	K10	5.5 kW	80 litre	660 kg
								K11	7.5 kW		720 kg
458 AB	42m ²	1515	965	3532	-	1102	1284	K10	5.5 kW	110 litre	665 kg
								K11	7.5 kW		725 kg
450H AB	42m ²	1515	965	-	2250	-	-	K10	5.5 kW	-	510 kg
								K11	7.5 kW		560 kg

*Tolerance ±3mm **DCE tolerance - 0mm to +2mm (NOTE: Outside dimensions of duct connectors must not exceed inside dimensions of inlets)

Unimaster Dust Filters – Series UMA 450



Unimaster venting type dust control units

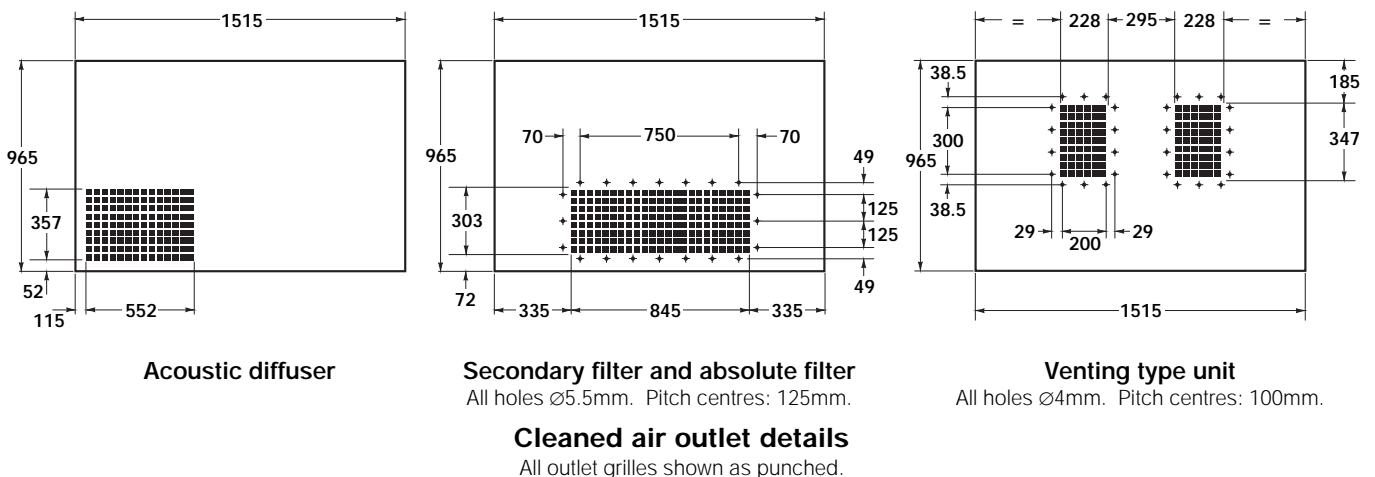
Model UMA 454 V illustrated. Suitable for inside locations and outside when fitted with side outlet box and weather cowl.

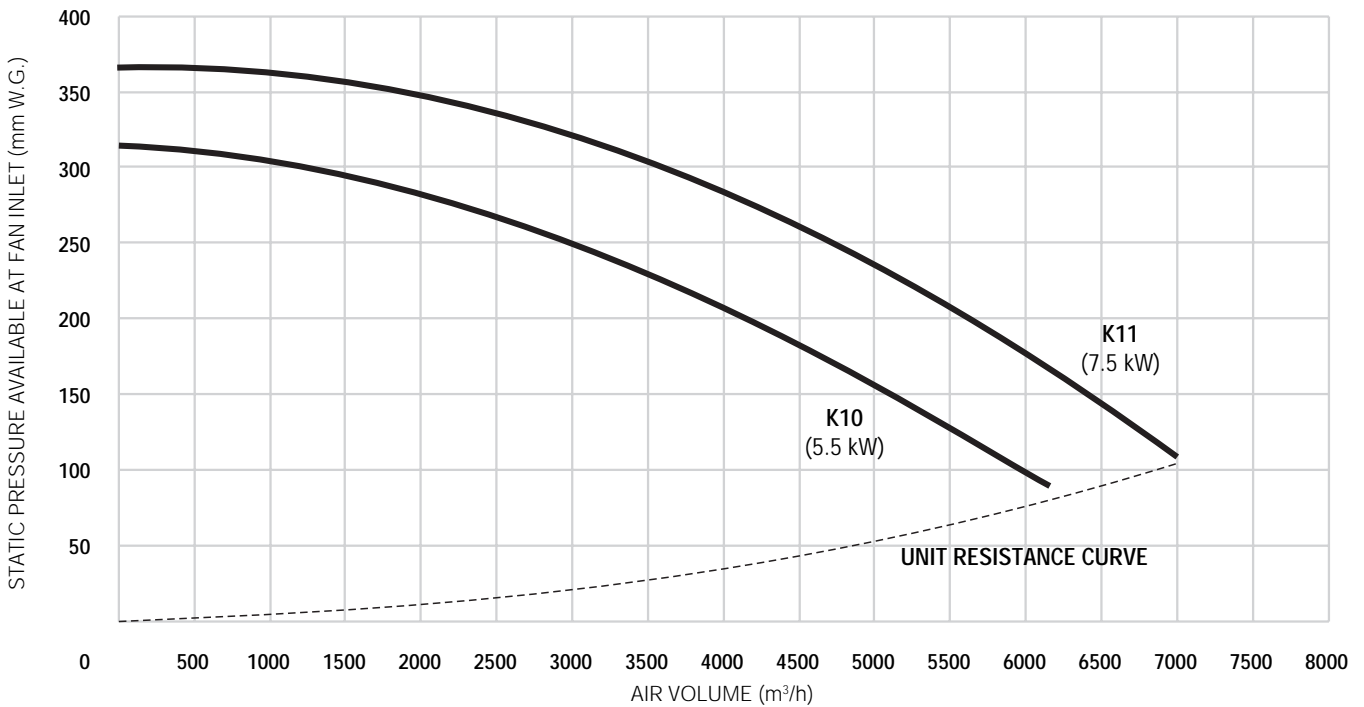
SPECIFICATIONS									
Unit type	Filtration area	DIMENSIONS in mm*						Dust container (x2)	Approx net weight
		A	B	C	d	e	f		
454 V	42m ²	1515	965	1855	–	873	1018	55 litre	350 kg
456 V	42m ²	1515	965	2083	–	1102	1246	80 litre	360 kg
458 V	42m ²	1515	965	2083	–	1102	1246	110 litre	365 kg
450 V	42m ²	1515	965	–	874	–	–	–	215 kg

*Tolerance ±3mm **DCE tolerance – 0mm to +2mm (NOTE: Outside dimensions of duct connectors must not exceed inside dimensions of inlets)

DUST CONTAINERS					Typical dust densities	
Size	Base diameter	Height	Approx. net weight	Dust	Density with 50% voidage, in kg/litre	
55 litre	420mm	400mm	5 kg	Sander	0.13	
80 litre	420mm	630mm	7 kg	Graphite	0.80	
110 litre	555mm	630mm	8 kg	Sand	1.33	
				Iron	3.58	
				Steel	3.72	

A reasonable total load for removal by hand would be 25 kg





UMA 450 performance curves

FAN SELECTION

These curves indicate static pressure available at fan inlet for a given volume, when fitted inside a Unimaster 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, in mm W.G., at air volume required.
- 3 Assess pressure drop across filter bags prior to cleaning, usually 50-100mm 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 airborne noise emissions.

Actions that employers are required to comply with if employees are subjected to a daily personal noise exposure $L_{p,d}$ of 85 dB(A) or more are also specified.

All Unimaster UMA 450 dust control units are below this action limit.

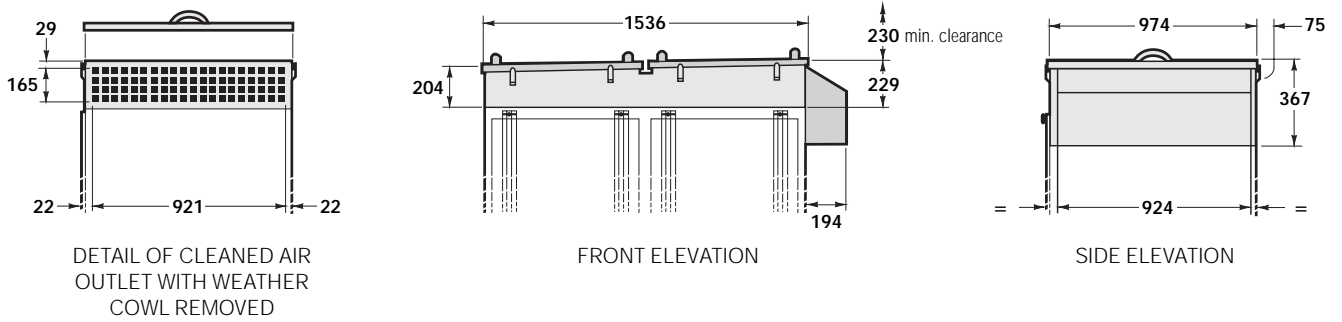
WEIGHTED SOUND PRESSURE LEVELS

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.

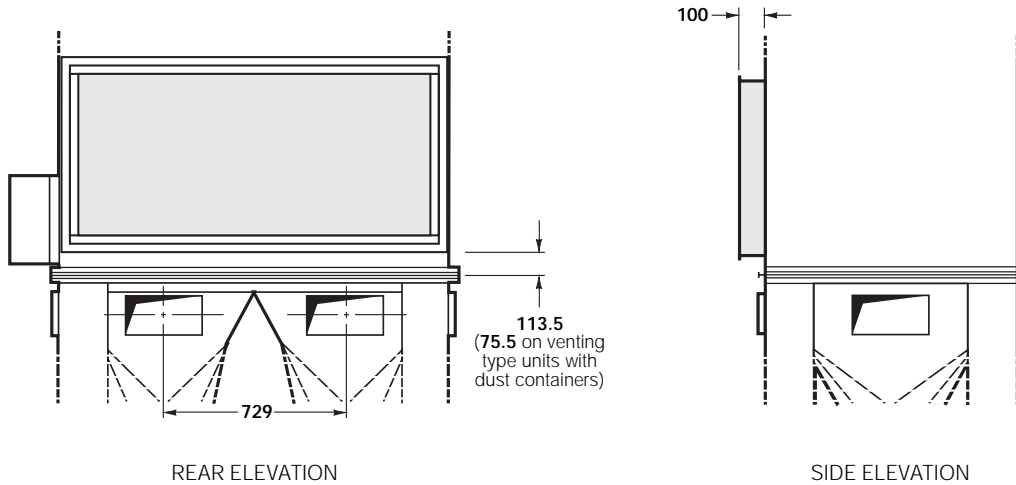
K10
74 dB(A)*

K11
76 dB(A)

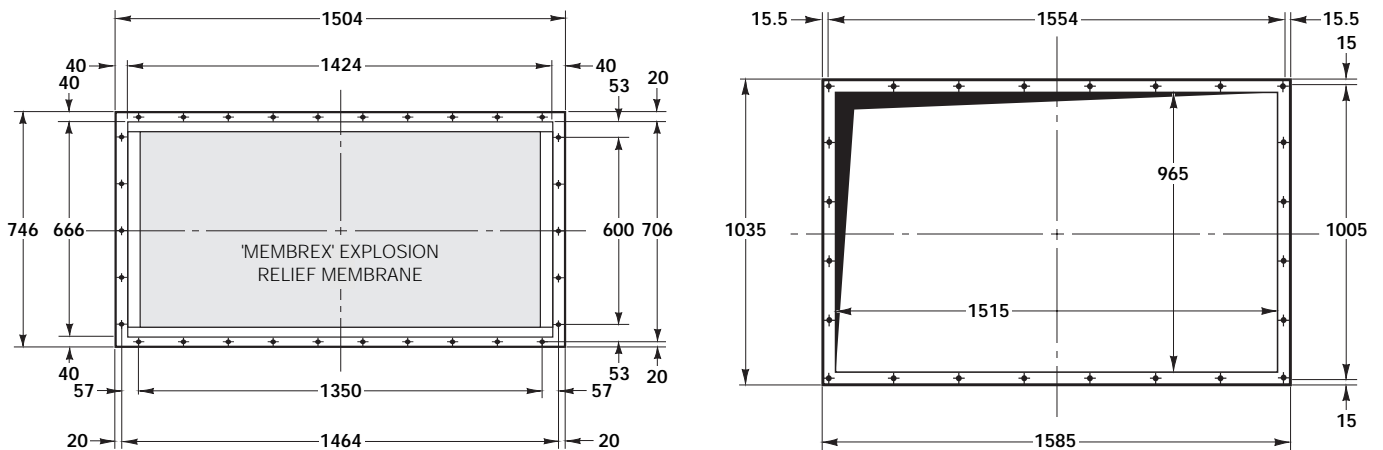
Noise measurements of installed equipment may vary due to site conditions. *Estimated data.



Unimaster side outlet box and weather cowl
Model UMA 450 V illustrated. Outlet grille is shown as punched.



Explosion relief panel and rear dust inlet spigots
Model UMA 454, standard unit illustrated.



Explosion relief flange mounting details
All holes \varnothing 10mm for M8 bolts. Pitch centres: 150mm.

**Aperture and mounting flange details for
hopper and venting type units**
All holes \varnothing 12mm for M10 bolts.
Pitch centres: 222mm horizontally; 201mm vertically.



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