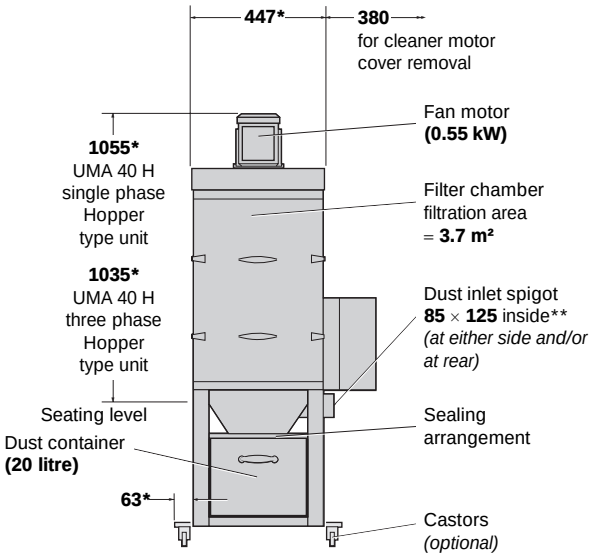
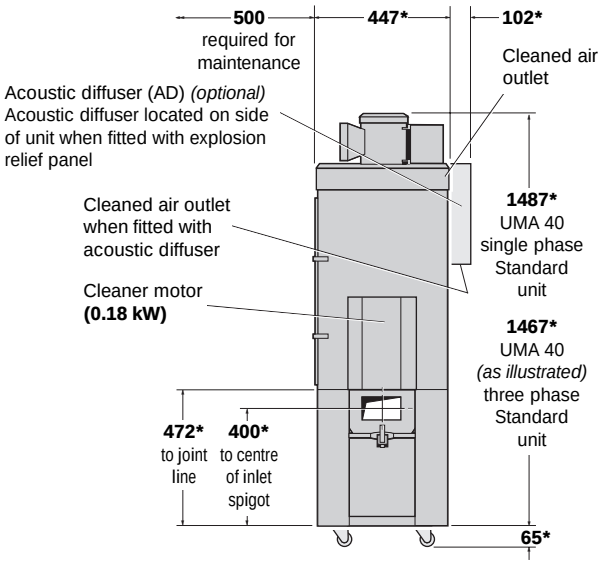
Unimaster Dust Filters

Series UMA 40 and 40MM



FRONT ELEVATION



SIDE ELEVATION

Unimaster standard and hopper type dust control units

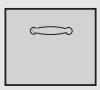
Model UMA 40 AD illustrated. Suitable for inside locations

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

APPROXIMATE NET WEIGHTS (kg)

UMA type:	40 H	40	40 H AD	40 AD
Single phase	85	105	90	110
Three phase	80	100	85	105

Explosion relief panel: 7 Castors: 3.5



20 litre
(0.75 cu.ft.)

DUST CONTAINER

SIZE	Base dia.	Height	Approx net wt.
20 litre	325	273	3 kg

TYPICAL DUST WEIGHTS

DUST:	Graphite	Iron	Sand	Sander	Steel
DENSITY with 50% voidage in kg/litre	0.80	3.58	1.33	0.13	3.72

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

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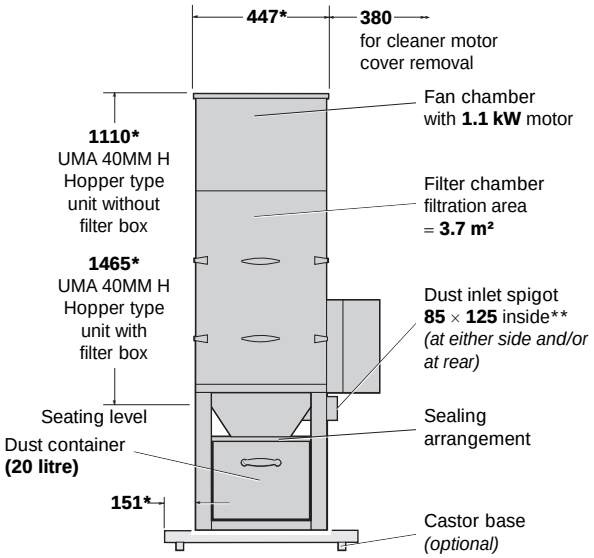
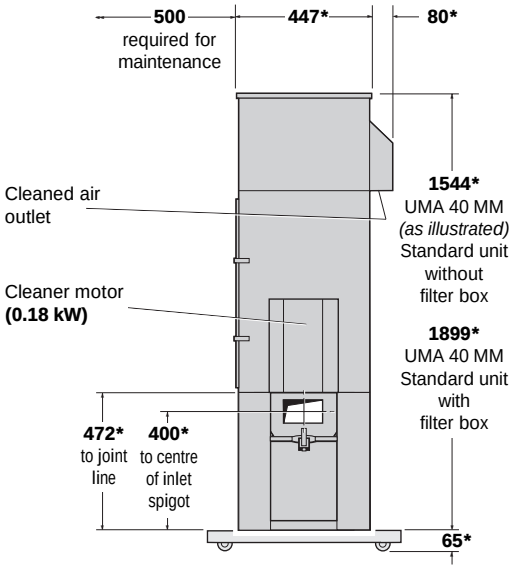


FRONT ELEVATION



SIDE ELEVATION

Unimaster MM standard and hopper type dust control units

Model UMA 40 MM illustrated. Suitable for inside locations

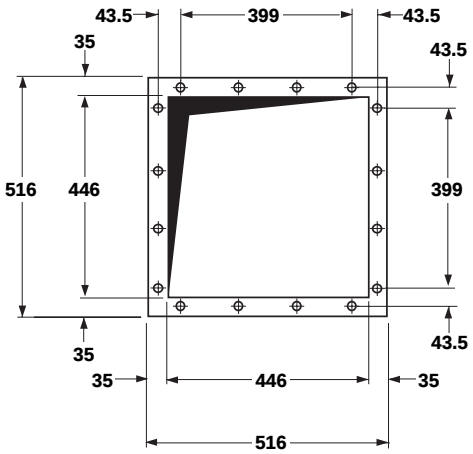
Note: UMA 40 MM units fitted with filter box use an Absolute (or HEPA) filter

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

APPROXIMATE NET WEIGHTS (kg)

UMA type:	40MM H (without filter box)	40MM (without filter box)	40MM H (with filter box)	40MM (with filter box)
Single phase	110	130	125	145
Three phase	105	125	120	140

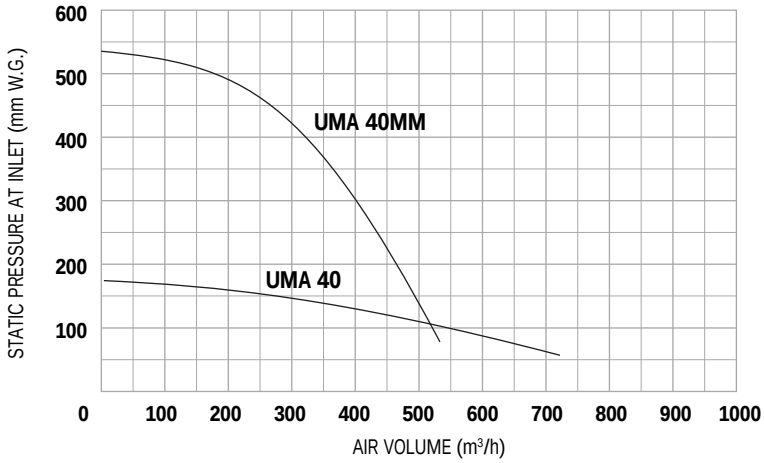
Explosion relief panel: 7 Castor base: 20



Aperture and mounting flange details for hopper type units

All holes 12mm diameter for M10 bolts.

Pitch centres: 133mm



Unit performance curves

FAN SELECTION

These curves were obtained from volume and pressure readings taken at unit inlet with the filter clean.

To obtain the unit performance for a given application:

1. Determine the air volume, in m³/h, needed to entrain the dust.
2. Estimate pressure drop through connected system – i.e. between point of entrainment and unit inlet.
3. Assess pressure drop across filter prior to shaking, usually 50-100mm W.G.
4. The sum of **2** and **3** = W.G. required.
5. Consult graph for fan performances available.

NOISE LEVELS

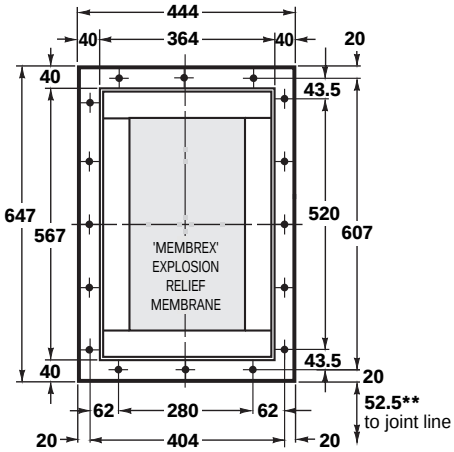
Machinery noise levels are an important consideration in the design and selection of new equipment.
Several EC Directives and National Laws/Regulations adopting these directives make reference to airborne noise emissions.
Actions that employers are required to comply with if employees are subjected to a daily personal noise exposure Lep,d of 85 dB(A) or more are also specified.

All Unimaster UMA40 and 40MM 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.

	Without acoustic diffuser	With acoustic diffuser	Without filter box	With filter box
UMA 40	80 dB(A)	75 dB(A)	–	–
UMA 40MM	–	–	80 dB(A)	75 dB(A)



Explosion relief flange mounting details

All vertical holes 10mm diameter for M8 bolts. All horizontal holes threaded to accept M8 bolts.
Pitch centres: 130mm vertically; 140mm horizontally.
Mounting flange projects 100mm beyond rear of filter.
**Increase dimension by 38 for hopper type unit without bottom assembly.

Donaldson
Filtration Solutions

www.toritdce.com
www.donaldson.com

Humberstone Lane
Thurmaston
Leicester LE4 8HP
England

Tel +44 (0)116 269 6161
Fax +44 (0)116 269 3028

Email: toritdce.uk@mail.donaldson.com

Research Park Zone 1
Interleuvenlaan 1
B-3001 Leuven (Heverlee)
Belgium

Tel +32 (0)16 383 970
Fax +32 (0)16 383 938

Email: toritdce.be@mail.donaldson.com