UMA Dust Collectors

CONTACT US

Phone: 310-830-6601
FAX: 310-830-9336
Email: info@sepor.com
& services@sepor.com

LOCATIONS

WEST COAST
718 N. Fries Avenue
Wilmington, CA 90744

EAST COAST
3740 NW 124th Ave
Coral Springs, FL 33065

Description:
The UMA Series of dust control systems are designed to provide economical and effective solutions to a wide variety of dust problems throughout industry. A high quality, compact design solution for dust control problems.
The UMA dust control system is a completely self contained fabric filter designed for intermittent duty. Fitter cleaning is automatically activated when the dust unit is turned off. The UMA is based on seven fabric areas between 150 Ft 2 and 750 Ft 2 with a range of standard components and accessories which can be assembled in hundreds of different combinations.

The UMA dust control units are complete including fan, easy access filter assembly, triple inlet hopper and dust container with quick release sealer gear.

Operation:
The dust laden air from the dust generation source is drawn through the inlet to the fitter by the fan. Initially, some pre-separation takes place as heavier dust particles lose momentum and fall into the collection bin or hopper. Finer dusts are carried up to the filter elements where they are retained on the outer surface of the filter fabric. The cleaned air passes through the filter fabric, into the fan chamber and is discharged. When the fan is switched off, the filter fabric cleaning cycle is automatically activated. The collected dust is then dislodged from the filter elements and falls into the collection bin below. On normal applications, the optimum interval between cleaning cycles would be four hours.

Catalog Number	Model	Filter Area (SqFt)	Capacity (CFM)	Shipping Weight
030H-020	UMA 150	150	650	700
030H-030	UMA 250	250	2000	1000
030H-040	UMA 750	750	6000	2000

Accessories, such as Acoustic Diffuser (Reduces Noise); Secondary Fitter (For Use With Hazardous Ousts); Explosion Relief (For Use With Explosive Ousts); Weather Cowl (Vents Clean Air Out Side of Machine) are available as options. For Oust Control Units which require greater than 10,000 CFM, the reverse jet dust control units are recommended, or in applications where continuous operation is required.

Model	Airflow (CFM)	Cloth Area	# Filter Bags	# of Bins/Drums	Inlet Dia (In.)	Shipping Weight (Lbs)	Noise Level (dB) with Diffuser
UMA 150	450-2000	150	1	1	8	650	74
UMA 250	450-3000	244	1	1	10	1265	74
UMA 750	2000-8000	750	2	2	14	2350	79

Sample Dust Calculations for determining the size of a dust collector are shown below.
The capture velocity of dust is determined upon the density of the particle, and most importantly, the particle size. From a practical standpoint. this evolved in to use full statistical generalities, such as the quantity of dust liberated by each process, and relating it to a air velocity that will capture the dust and move it to a dust collector.
So the number of items of equipment that generate dust, and the types of equipment are the largest detenninant of the size of a dust collector required. Another important factor, is the Open area of the dust hood (the smaller, the less air required} and the distance from the dust hood to the dust source. The closer, the less air required to remove the dust If the machine is basically enclosed, the dust may be extracted from the bottom, taking advantage of gravity, and requiring less air, as well.
These are the basic elements that come into play when sizing a dust control system.

Very low dust emission
50-100 FPM

Active emissions
200-500 FPM

High velocity emission (hammermill, pulverizer)
200-2000 FPM

Name of Dust Control Station	Quantity of Air (CFM)	Capture velocity at source of dust (FPM)	Distance from hood to dust source (Ft)	Area of open face of hood (Ft Sq.)
D-1 Hammermill	2275	350	0.5	4
D-2 Pulverizer	2275	350	0.5	4
D-3 Jaw Crusher	660	200	0.5	0.8
D-4 Splitter	487.5	75	0.5	4
D-5 Rock Saw	975	150	0.5	4