AIR SPEED VALUES FOR MATERIAL CONVEYANCE AND PLACES

Smoke and odours in a place may be discharged via a proper ventilation system and upon the application of an air variation coefficient. However, when dust occurring in the business concern is involved, the air variation coefficients and the ventilation system are far from being an effective solution. The dust occurring in the course of production should be retained at its source and conveyed to the filter by a proper duct system.

The first step for an effective dedusting is to retain the dust and remove it before it is scattered from its source. An optimum suction system should be designed and installed on the basis of the process requirements so that dust may be retained before it is scattered from its source. Along with the suction system, the air speeds in the duct through which the dust will pass are also quite important. As a matter of fact, lower air speeds will cause dust accumulations in the duct and an ineffective suction in the dust source. Air speeds required to suction the dust at its source before particles settle in the duct and reach the terminal point are detailed in the attached file.

ED_VAN
VANTİLATÖR SAN. ve TİC.LTD.ŞTİ
1975'TEN BUGÜNE GURURLA HİZMETİNİZDEYİZ
1201/2 Sokak No:2/C Temsil Plaza İş Merkezi Yenişehir / İZMİR
Tel: +90 232 433 78 33 (pbx) • Fax: +90 232 433 78 28
www.edvan.com.tr info@edvan.com.tr

AIR SPEED VALUES FOR MATERIAL CONVEYANCE AND PLACES

Description of Materials	Air Speed Values (m/s)
Materials of oakum or cotton waste type	7,5
Cereal dust	10
Jute or Indian fibre dust	10
Rubber dust	10
Flour	15
Metal dust released as a result of grinding or rectification operations	15
Wooden material chips	18
Sawdust	15
Fine coal particles	20
Fine rice dust	20
Lead dust	25

NOTE: When the transport of great quantities of materials is involved, these speed values should be increased.

ED_VAN
VANTİLATÖR SAN. ve TİC.LTD.ŞTİ

1975'TEN BUGÜNE GURURLA HİZMETİNİZDEYİZ

1201/2 Sokak No:2/C Temsil Plaza İş Merkezi Yenişehir / İZMİR
Tel: +90 232 433 78 33 (pbx) • Fax: +90 232 433 78 28
www.edvan.com.tr info@edvan.com.tr

NEED FOR AIR AND AIR VARIATION VALUES

TYPE OF LOCATION	Need for Air per Person m³/h	Number of Air Variation LW	REMARKS
Public Places			
Restaurants ;			
-Non-smoking	25-30		
-Smoking	30-50	5-12	
Refreshment bars and canteens		8	
Cinema houses	25-35	5-8	
Tiyatrolar	25-50	5-8	
Theatre houses			
Libraries	25-50	4-8	
Conference halls		5-10	
Department stores		4-8	
Schools	20-40	4-8	
Hotels	25-35	3-8	
Hospitals		2-6	
Corridors			
Operating rooms		3-5	
Internal diseases wards	40-60	5-10	
Dermatology, Surgery and infectious diseases	45-70		
wards	80-100	5-8	
Maternity wards	11		
Epidemics wards	35-70	10	
Paediatric wards		5-8	
Dentistry department		6	
Bathrooms		5-8	
Waiting rooms		5-10	
Such facilities as Turkish baths, etc.			
Bathrooms		8-10	
Swimming pools		1	
Bathrooms with bathtubs		2-3	
Steam baths		3-4	

1201/2 Sokak No:2/C Temsil Plaza İş Merkezi Yenişehir / İZMİR
Tel: +90 232 433 78 33 (pbx) • Fax: +90 232 433 78 28
www.edvan.com.tr info@edvan.com.tr

NEED FOR AIR AND AIR VARIATION VALUES

TYPE OF LOCATION	Need for Air per Person m^3/h	Number of Air Variation LW	REMARKS
Hot air baths	4-5		
Showers	6-12		
Offices			
Private offices	25-50		
Public offices	30-60	4-8	
Waiting rooms	30-50	5-10	
Workplaces		6-12	
Assembling workshops		4-10	
Workshops		3-8	
Polishing and varnishing workshops (manual)		10-20	
Polishing and varnishing workshops (using a gun)		50'ye kadar	
Machine room		10-40	
Battery rooms		5-10	
Measurement and control rooms		8-15	
Telephone exchange		5-10	
Broadcasting house			
Programme room		4-8	
Talking room		5-10	
Film workshops		5-20	
Laundry rooms			
- Laundry		15-25	
- Ironing section		10-15	
- Dry cleaning		10-15	Depending on suction
Defogging plants		15-25	A few times the summer
Blueprint house		10-15	
Large garages		5-8	A minimum height of 3m
Small garages		10-15	
Large kitchens		10-20	
Foundries		8-15	

ED_VAN
VANTİLATÖR SAN. ve TİC.LTD.ŞTİ
1975'TEN BUGÜNE GURURLA HİZMETİNİZDEYİZ
1201/2 Sokak No:2/C Temsil Plaza İş Merkezi Yenişehir / İZMİR
Tel: +90 232 433 78 33 (pbx) • Fax: +90 232 433 78 28
www.edvan.com.tr info@edvan.com.tr

NUMBER OF AIR RENEWAL/VARIATION PER HOUR

TYPE OF LOCATION	NUMBER OF AIR RENEWAL OR VARIATION PER HOUR
Furnace workshops (melting and thermal processing furnaces)	30-60
Paint workshops	30-60
Operating workshops	6-10
Banks	2-4
Hotel bars	4-6
Laundry rooms	20-30
Bakeries	20-30
Offices (*)	4-6
Cafeterias and cafeteria bars	10-12
Cargo warehouses (in general)	6-10
Ship hatches containing such foodstuff as meat, eggs, etc.	10-20
Canteens	4-6
Darks rooms available in photography studios	10-15
Mushroom fields (fields where mushroom is grown)	10-20
Cinema houses (*)	10-15
Commercial kitchens or school kitchens	15-20
Domestic kitchens	10-15
Factories (in general)	6-10
Foundries	20-30
Fruit hatches on board ships	20-30
Garages (car care and repair places)	6-8
Conference rooms (*)	4-6
Hospitals	4-6
Laboratories	4-6
Lavatories	10-15
Swimming pools	20-30
Poultry houses	6-10
Residential places	1-2
Restaurants	6-10
Billiard parlours	6-8
Boiler rooms	20-30
Classrooms	2-3
Club halls	8-10
Dance halls (*)	6-8
Machine rooms	20-30
Lounges on board ships	10-20
Paint houses	20-30
Theatre houses (*)	10-15

(*) In case smoking takes place in these locations, air renewal and variation numbers in the tables should be doubled up.

ED_VAN
VANTİLATÖR SAN. ve TİC.LTD.ŞTİ

1975'TEN BUGÜNE GURURLA HİZMETİNİZDEYİZ

1201/2 Sokak No:2/C Temsil Plaza İş Merkezi Yenişehir / İZMİR
Tel: +90 232 433 78 33 (pbx) • Fax: +90 232 433 78 28
www.edvan.com.tr info@edvan.com.tr