



LINEAR GRILLE WITH FIXED BLADES

UF
SERIES

OVERVIEW TECHNICAL CHARACTERISTICS

CHARACTERISTICS :

The UF linear grilles with fixed blades are used in the ventilation and air conditioning systems, both for ceiling and wall installation.

They are suitable for floor mounting and for application on fan-coils; as they are appropriate for both ventilation and aspiration, it is possible to maintain the same structure for each application. Moreover the possibility of composition is another important characteristic that permits to obtain continue air flow in large environments without changing the aesthetic figure.

The grille door, which does not change the design of the grille, represents a simple way to access to the command keys.

TECHNICAL CHARACTERISTICS :

The fixed blades can have two different profiles: with 0° degree deflection or with 15° degree deflection, which permit to obtain different flow directions. For this reason this type of grilles can be furnished with a second row of individually adjustable blades. Moreover, MP3 can supply this product with or without frame which means only the core. Depending on the specific functional and application requirements, three types of frame profiles are available, each of them can be equipped with the grille door.

The UF grilles are made of anodized extruded aluminium and the fixed blades are to be considered as horizontal and therefore parallel to the base (usually the upper measure). The position of the door has always to be considered as referred to the grille seen from a frontal view and with turned down 15° degree blades.

This consideration is not necessary in case of grilles set of 0° pitch blades or with two doors.

CONSTRUCTION :

Here below are indicated the maximum and minimum built dimensions, available models and the relative technical draws.

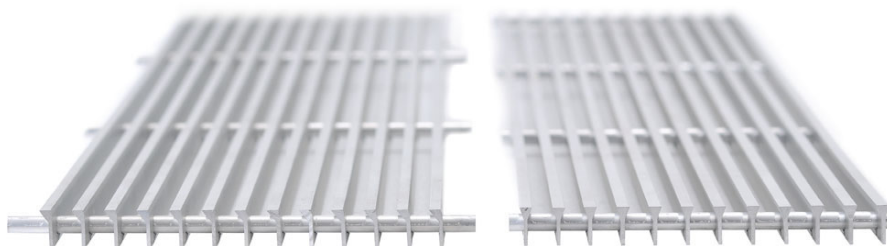
UNSUITABLE ENVIRONMENTS

The aluminum products are not suitable for installation in environments with an atmosphere containing corrosive substances for this material and in particular containing chlorine, such as swimming pools, spas and some types of food industries.

MINIMAL ASSEMBLY MEASUREMENTS	200 x 75 mm
MAXIMUM ASSEMBLY MEASUREMENTS	2,000 x 600 mm
2 PARTS ASSEMBLY	Height from 75 to 250 mm Base from 2,001 to 4,000 mm
MULTIPLE PARTS ASSEMBLY	Height from 75 to 250 mm Base more than 4,000 mm

ASSEMBLE MEASUREMENTS

< 4.000 mm	In 2 equal parts
4.100 mm	1.500 + 1.100 + 1.500
.....	1.500 + + 1.500
5.000 mm	1.500 + 2.000 + 1.500
5.100 mm	2.000 + 1.100 + 2.000
.....	2.000 + + 2.000
6.000 mm	2.000 + 2.000 + 2.000
6.100 mm	2.000 + 1.000 + 1.100 + 2.000
6.200 mm	2.000 + 1.100 + 1.100 + 2.000
.....	2.000 + + + 2.000
7.000 mm	2.000 + 1.500 + 1.500 + 2.000
7.100 mm	2.000 + 2.000 + 1.100 + 2.000
.....	2.000 + 2.000 + + 2.000
8.000 mm	2.000 + 2.000 + 2.000 + 2.000
8.100 mm	2.000 + 2.000 + 1.000 + 1.100 + 2.000
.....	2.000 + 2.000 + 1.000 + + 2.000
9.000 mm	2.000 + 2.000 + 1.000 + 2.000 + 2.000
9.100 mm	2.000 + 2.000 + 1.100 + 2.000 + 2.000
.....	2.000 + 2.000 + + 2.000 + 2.000
10.000 mm	2.000 + 2.000 + 2.000 + 2.000 + 2.000





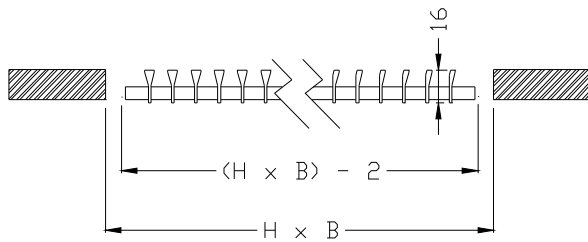
LINEAR GRILLE WITH FIXED BLADES

UF SERIES

CONSTRUCTION

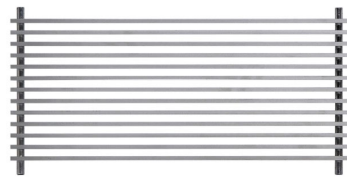
UF 0

Grille with horizontal fixed blades with deflection angle 0° without frame.



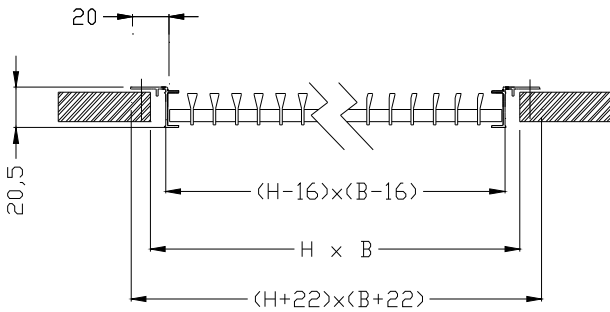
UF 1

Grille with horizontal fixed blades with deflection angle 15° without frame



UF 0 B

Grille with horizontal fixed blades with deflection angle 0° with flat frame.



UF 1 B

Grille with horizontal fixed blades with deflection angle 15° with flat frame.

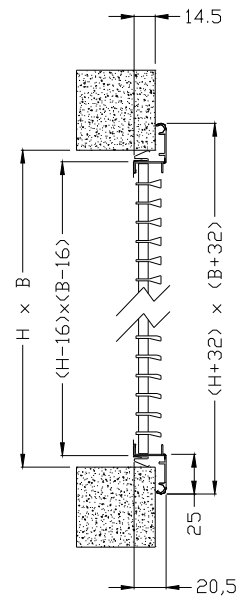


UF 0 A

Grille with horizontal fixed blades with deflection angle 0° with high frame.

UF 1 A

Grille with horizontal fixed blades with deflection angle 15° with high frame.





LINEAR GRILLE WITH FIXED BLADES

UF SERIES

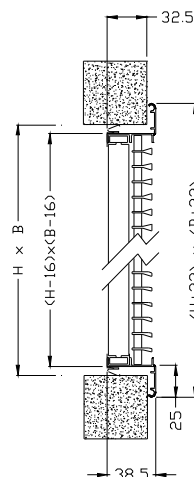
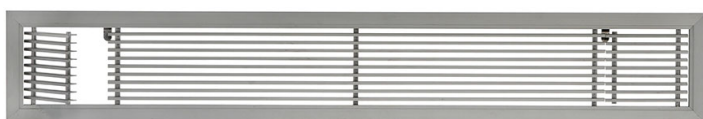
CONSTRUCTION

UF 0 AH

Grille with horizontal fixed blades with deflection angle 0° with high frame and back adjustable vertical blades.

UF 1 AH

Grille with fixed horizontal blades, deflection angle 15° with high frame and internal group of adjustable vertical blades.



UF 0 A P1

UF 1 A PD

UF 1 A PS

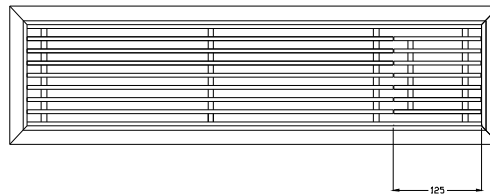
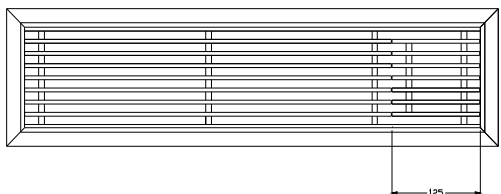
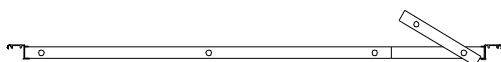
Grille with horizontal fixed blades and deflection angle 0°/15°, with high frame and grille door. In case of fixed blades with deflection angle 15° the position of the door on the left or right side is to be considered as seen from a frontal point of view with turned down deflection.

UF 0 B P1

UF 1 B PD

UF 1 B PS

Grille with horizontal fixed blades and deflection angle 0°/15°, with low frame and grille door. In case of fixed blades with deflection angle 15° the position of the door on the left or right side is to be considered as seen from a frontal point of view with turned down deflection.



UF 0 A P2

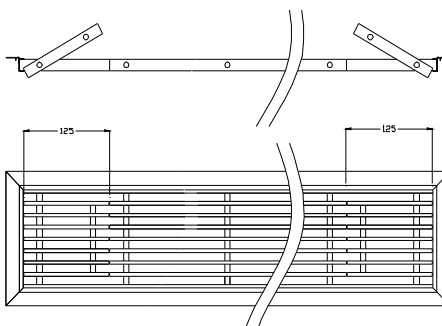
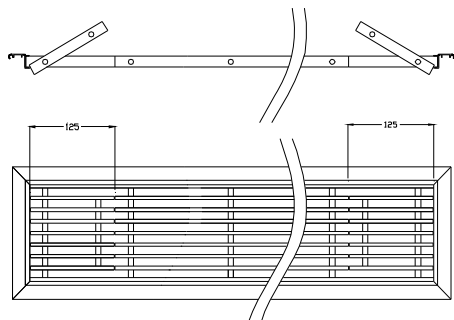
UF 1 A P2

Grille with fixed horizontal blades with deflection angle of 0° / 15°, with high frame and double gridded gate.

UF 0 B P2

UF 1 B P2

Grille with fixed horizontal bars, with deflection angle 0° / 15°, with flat frame and double gridded gate .





LINEAR GRILLE
WITH FIXED BLADES
WITHOUT FRAME

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EFFECTIVE AREA ak



		Base									
		200	250	300	350	400	450	500	550	600	650
Height	75	0,0140	0,0174	0,0209	0,0244	0,0279	0,0314	0,0349	0,0384	0,0419	0,0453
	100	0,0186	0,0233	0,0279	0,0326	0,0372	0,0419	0,0465	0,0512	0,0558	0,0605
	150	0,0279	0,0349	0,0419	0,0488	0,0558	0,0628	0,0698	0,0767	0,0837	0,0907
	200	0,0372	0,0465	0,0558	0,0651	0,0744	0,0837	0,0930	0,1023	0,1116	0,1209
	250	0,0465	0,0581	0,0698	0,0814	0,0930	0,1046	0,1163	0,1279	0,1395	0,1511
	300	0,0558	0,0698	0,0837	0,0977	0,1116	0,1256	0,1395	0,1535	0,1674	0,1814
	350	0,0651	0,0814	0,0977	0,1139	0,1302	0,1465	0,1628	0,1790	0,1953	0,2116
	400	0,0744	0,0930	0,1116	0,1302	0,1488	0,1674	0,1860	0,2046	0,2232	0,2418
	450	0,0837	0,1046	0,1256	0,1465	0,1674	0,1883	0,2093	0,2302	0,2511	0,2720
	500	0,0930	0,1163	0,1395	0,1628	0,1860	0,2093	0,2325	0,2558	0,2790	0,3023
	550	0,1023	0,1279	0,1535	0,1790	0,2046	0,2302	0,2558	0,2813	0,3069	0,3325
600	0,1116	0,1395	0,1674	0,1953	0,2232	0,2511	0,2790	0,3069	0,3348	0,3627	

		Base									
		700	750	800	850	900	950	1000	1050	1100	1200
Height	75	0,0488	0,0523	0,0558	0,0593	0,0628	0,0663	0,0698	0,0732	0,0767	0,0837
	100	0,0651	0,0698	0,0744	0,0791	0,0837	0,0884	0,0930	0,0977	0,1023	0,1116
	150	0,0977	0,1046	0,1116	0,1186	0,1256	0,1325	0,1395	0,1465	0,1535	0,1674
	200	0,1302	0,1395	0,1488	0,1581	0,1674	0,1767	0,1860	0,1953	0,2046	0,2232
	250	0,1628	0,1744	0,1860	0,1976	0,2093	0,2209	0,2325	0,2441	0,2558	0,2790
	300	0,1953	0,2093	0,2232	0,2372	0,2511	0,2651	0,2790	0,2930	0,3069	0,3348
	350	0,2279	0,2441	0,2604	0,2767	0,2930	0,3092	0,3255	0,3418	0,3581	0,3906
	400	0,2604	0,2790	0,2976	0,3162	0,3348	0,3534	0,3720	0,3906	0,4092	0,4464
	450	0,2930	0,3139	0,3348	0,3557	0,3767	0,3976	0,4185	0,4394	0,4604	0,5022
	500	0,3255	0,3488	0,3720	0,3953	0,4185	0,4418	0,4650	0,4883	0,5115	0,5580
	550	0,3581	0,3836	0,4092	0,4348	0,4604	0,4859	0,5115	0,5371	0,5627	0,6138
600	0,3906	0,4185	0,4464	0,4743	0,5022	0,5301	0,5580	0,5859	0,6138	0,6696	

		Base									
		1250	1300	1350	1400	1450	1500	1550	1600	1650	1700
Height	75	0,0872	0,0907	0,0942	0,0977	0,1011	0,1046	0,1081	0,1116	0,1151	0,1186
	100	0,1163	0,1209	0,1256	0,1302	0,1349	0,1395	0,1442	0,1488	0,1535	0,1581
	150	0,1744	0,1814	0,1883	0,1953	0,2023	0,2093	0,2162	0,2232	0,2302	0,2372
	200	0,2325	0,2418	0,2511	0,2604	0,2697	0,2790	0,2883	0,2976	0,3069	0,3162
	250	0,2906	0,3023	0,3139	0,3255	0,3371	0,3488	0,3604	0,3720	0,3836	0,3953
	300	0,3488	0,3627	0,3767	0,3906	0,4046	0,4185	0,4325	0,4464	0,4604	0,4743
	350	0,4069	0,4232	0,4394	0,4557	0,4720	0,4883	0,5045	0,5208	0,5371	0,5534
	400	0,4650	0,4836	0,5022	0,5208	0,5394	0,5580	0,5766	0,5952	0,6138	0,6324
	450	0,5231	0,5441	0,5650	0,5859	0,6068	0,6278	0,6487	0,6696	0,6905	0,7115
	500	0,5813	0,6045	0,6278	0,6510	0,6743	0,6975	0,7208	0,7440	0,7673	0,7905
	550	0,6394	0,6650	0,6905	0,7161	0,7417	0,7673	0,7928	0,8184	0,8440	0,8696
600	0,6975	0,7254	0,7533	0,7812	0,8091	0,8370	0,8649	0,8928	0,9207	0,9486	

		Base					
		1750	1800	1850	1900	1950	2000
Height	75	0,1221	0,1256	0,1290	0,1325	0,1360	0,1395
	100	0,1628	0,1674	0,1721	0,1767	0,1814	0,1860
	150	0,2441	0,2511	0,2581	0,2651	0,2720	0,2790
	200	0,3255	0,3348	0,3441	0,3534	0,3627	0,3720
	250	0,4069	0,4185	0,4301	0,4418	0,4534	0,4650
	300	0,4883	0,5022	0,5162	0,5301	0,5441	0,5580
	350	0,5696	0,5859	0,6022	0,6185	0,6347	0,6510
	400	0,6510	0,6696	0,6882	0,7068	0,7254	0,7440
	450	0,7324	0,7533	0,7742	0,7952	0,8161	0,8370
	500	0,8138	0,8370	0,8603	0,8835	0,9068	0,9300
	550	0,8951	0,9207	0,9463	0,9719	0,9974	1,0230
600	0,9765	1,0044	1,0323	1,0602	1,0881	1,1160	





**LINEAR GRILLE
WITH FIXED BLADES
WITH FRAME**

UF
SERIES



EFFECTIVE AREA ak

		Base									
		200	250	300	350	400	450	500	550	600	650
Height	75	0,0065	0,0085	0,0104	0,0124	0,0143	0,0163	0,0182	0,0202	0,0221	0,0241
	100	0,0104	0,0135	0,0166	0,0198	0,0229	0,0260	0,0291	0,0322	0,0353	0,0384
	150	0,0182	0,0236	0,0291	0,0345	0,0399	0,0454	0,0508	0,0563	0,0617	0,0671
	200	0,0259	0,0337	0,0415	0,0492	0,0570	0,0648	0,0725	0,0803	0,0881	0,0958
	250	0,0337	0,0438	0,0539	0,0640	0,0741	0,0842	0,0942	0,1043	0,1144	0,1245
	300	0,0415	0,0539	0,0663	0,0787	0,0911	0,1035	0,1160	0,1284	0,1408	0,1532
	350	0,0492	0,0640	0,0787	0,0935	0,1082	0,1229	0,1377	0,1524	0,1672	0,1819
	400	0,0570	0,0741	0,0911	0,1082	0,1253	0,1423	0,1594	0,1765	0,1935	0,2106
	450	0,0648	0,0842	0,1035	0,1229	0,1423	0,1617	0,1811	0,2005	0,2199	0,2393
	500	0,0725	0,0942	0,1160	0,1377	0,1594	0,1811	0,2028	0,2245	0,2463	0,2680
	550	0,0803	0,1043	0,1284	0,1524	0,1765	0,2005	0,2245	0,2486	0,2726	0,2967
600	0,0881	0,1144	0,1408	0,1672	0,1935	0,2199	0,2463	0,2726	0,2990	0,3254	

		Base									
		700	750	800	850	900	950	1000	1050	1100	1200
Height	75	0,0261	0,0280	0,0300	0,0319	0,0339	0,0358	0,0378	0,0397	0,0417	0,0456
	100	0,0416	0,0447	0,0478	0,0509	0,0540	0,0571	0,0603	0,0634	0,0665	0,0727
	150	0,0726	0,0780	0,0835	0,0889	0,0943	0,0998	0,1052	0,1107	0,1161	0,1270
	200	0,1036	0,1114	0,1191	0,1269	0,1347	0,1424	0,1502	0,1580	0,1657	0,1812
	250	0,1346	0,1447	0,1548	0,1649	0,1750	0,1851	0,1952	0,2052	0,2153	0,2355
	300	0,1656	0,1780	0,1905	0,2029	0,2153	0,2277	0,2401	0,2525	0,2649	0,2898
	350	0,1966	0,2114	0,2261	0,2409	0,2556	0,2703	0,2851	0,2998	0,3146	0,3440
	400	0,2277	0,2447	0,2618	0,2789	0,2959	0,3130	0,3300	0,3471	0,3642	0,3983
	450	0,2587	0,2781	0,2975	0,3168	0,3362	0,3556	0,3750	0,3944	0,4138	0,4526
	500	0,2897	0,3114	0,3331	0,3548	0,3765	0,3983	0,4200	0,4417	0,4634	0,5068
	550	0,3207	0,3447	0,3688	0,3928	0,4169	0,4409	0,4649	0,4890	0,5130	0,5611
600	0,3517	0,3781	0,4044	0,4308	0,4572	0,4835	0,5099	0,5363	0,5626	0,6154	

		Base									
		1250	1300	1350	1400	1450	1500	1550	1600	1650	1700
Height	75	0,0475	0,0495	0,0514	0,0534	0,0553	0,0573	0,0593	0,0612	0,0632	0,0651
	100	0,0758	0,0789	0,0821	0,0852	0,0883	0,0914	0,0945	0,0976	0,1008	0,1039
	150	0,1324	0,1379	0,1433	0,1487	0,1542	0,1596	0,1651	0,1705	0,1759	0,1814
	200	0,1890	0,1968	0,2045	0,2123	0,2201	0,2278	0,2356	0,2434	0,2511	0,2589
	250	0,2456	0,2557	0,2658	0,2759	0,2860	0,2961	0,3061	0,3162	0,3263	0,3364
	300	0,3022	0,3146	0,3270	0,3394	0,3519	0,3643	0,3767	0,3891	0,4015	0,4139
	350	0,3588	0,3735	0,3883	0,4030	0,4177	0,4325	0,4472	0,4620	0,4767	0,4914
	400	0,4154	0,4324	0,4495	0,4666	0,4836	0,5007	0,5178	0,5348	0,5519	0,5690
	450	0,4720	0,4914	0,5107	0,5301	0,5495	0,5689	0,5883	0,6077	0,6271	0,6465
	500	0,5286	0,5503	0,5720	0,5937	0,6154	0,6371	0,6588	0,6806	0,7023	0,7240
	550	0,5851	0,6092	0,6332	0,6573	0,6813	0,7053	0,7294	0,7534	0,7775	0,8015
600	0,6417	0,6681	0,6945	0,7208	0,7472	0,7736	0,7999	0,8263	0,8527	0,8790	

		Base					
		1750	1800	1850	1900	1950	2000
Height	75	0,0671	0,0690	0,0710	0,0729	0,0749	0,0768
	100	0,1070	0,1101	0,1132	0,1163	0,1194	0,1226
	150	0,1868	0,1923	0,1977	0,2031	0,2086	0,2140
	200	0,2667	0,2744	0,2822	0,2900	0,2977	0,3055
	250	0,3465	0,3566	0,3667	0,3768	0,3869	0,3970
	300	0,4263	0,4388	0,4512	0,4636	0,4760	0,4884
	350	0,5062	0,5209	0,5357	0,5504	0,5652	0,5799
	400	0,5860	0,6031	0,6202	0,6372	0,6543	0,6714
	450	0,6659	0,6853	0,7047	0,7240	0,7434	0,7628
	500	0,7457	0,7674	0,7891	0,8109	0,8326	0,8543
	550	0,8256	0,8496	0,8736	0,8977	0,9217	0,9458
600	0,9054	0,9318	0,9581	0,9845	1,0109	1,0372	

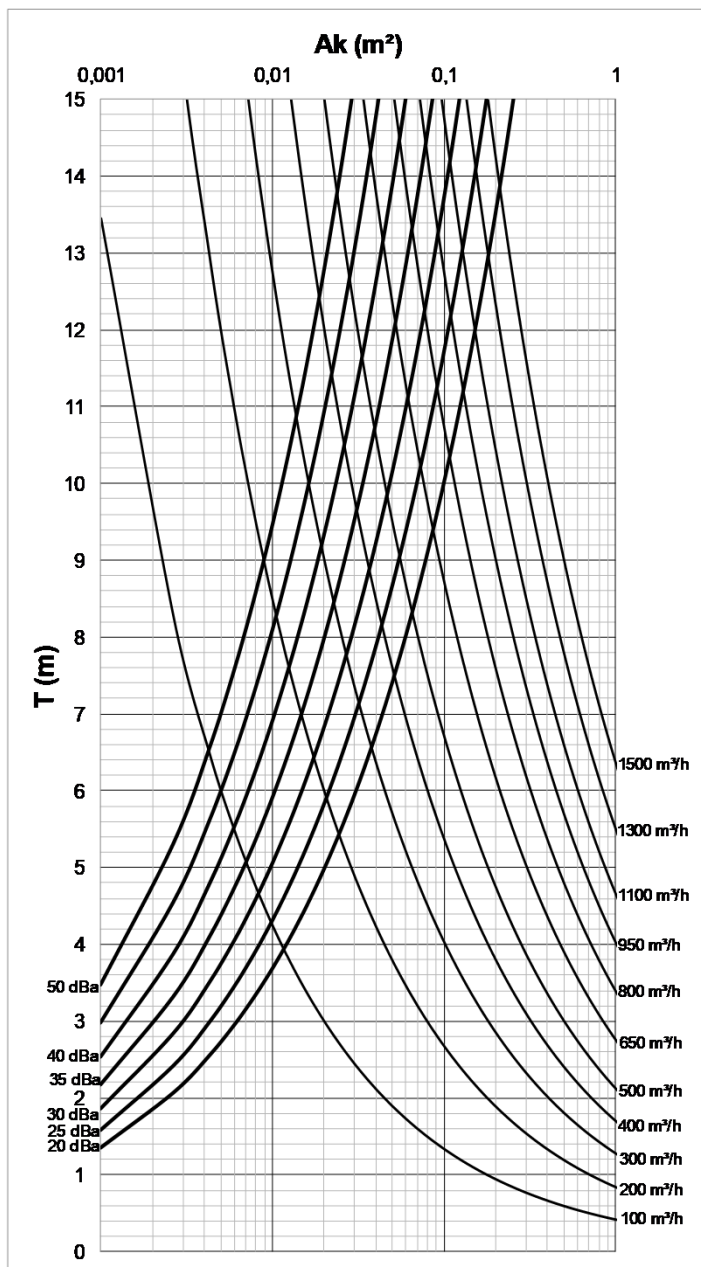




LINEAR GRILLE
WITH FIXED BLADES
VETICAL THROW - SUPPLY

UFO
SERIES

PERFORMANCE



- Ak Effective area (m²)
- Q Air Flow (m³/h)
- T Throw (m) for Vt=0,2 m/s
- Vk Velocity (m/s) in section Ak

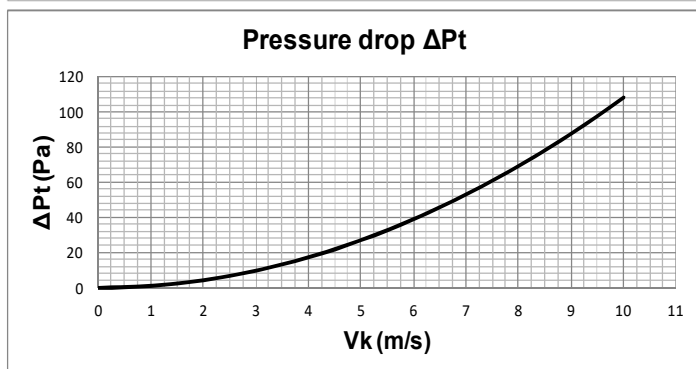
$$V_k = Q/3600/A_k$$

Aeraulic data measured in isothermal conditions in accordance with international standard:
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*

Acoustic data measured in reverberation room in accordance with international standard:
ISO 3741 1999: *Acoustic - determination of sound power levels of noise sources using sound pressure - Precision methods for reverberation rooms*

ISO 5135 1997: *Acoustic - determination of sound power levels of noise from air-terminal devices ; air terminal units; dampers and valves by measurement in a reverberation room.*

The data in the diagrams does not consider the attenuation due to the installation environment. This attenuation is usually between 6 and 10 dBA and is determined by the size and shape of the environment and the characteristics of the furnishings.

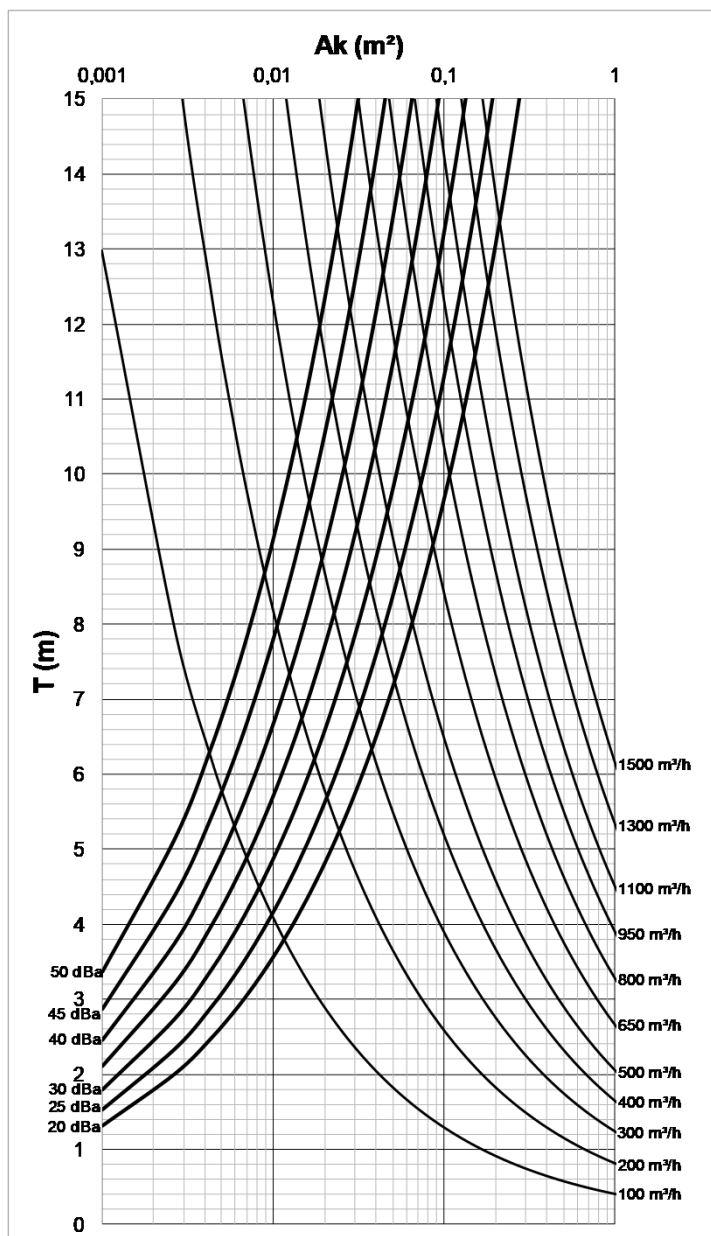




LINEAR GRILLE
WITH FIXED BLADES
ANGLED THROW - SUPPLY

UFI
SERIES

PERFORMANCE



- Ak Effective area (m²)
- Q Air Flow (m³/h)
- T Throw (m) for Vt=0,2 m/s
- Vk Velocity (m/s) in section Ak

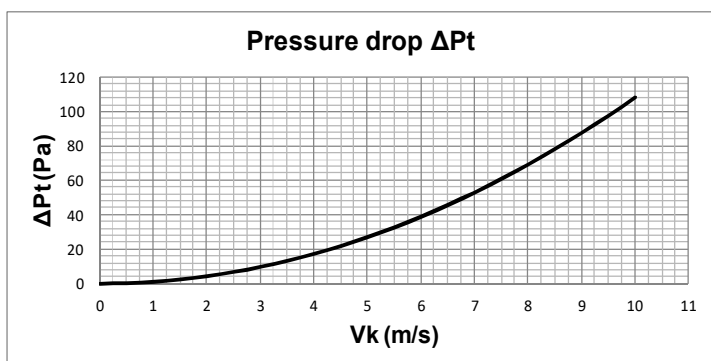
$$V_k = Q/3600/A_k$$

Aeraulic data measured in isothermal conditions in accordance with international standard:
ISO 5219 1984: *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*

Acoustic data measured in reverberation room in accordance with international standard:
ISO 3741 1999: *Acoustic - determination of sound power levels of noise sources using sound pressure - Precision methods for reverberation rooms*

ISO 5135 1997: *Acoustic - determination of sound power levels of noise from air-terminal devices ; air terminal units; dampers and valves by measurement in a reverberation room.*

The data in the diagrams does not consider the attenuation due to the installation environment. This attenuation is usually between 6 and 10 dBA and is determined by the size and shape of the environment and the characteristics of the furnishings.





LINEAR GRILLE
WITH FIXED BLADES
EXTRACTION

PERFORMANCE

UFO-UF1
SERIES

