



Ventilation Grilles

Rho

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Exhaust Grilles

RHO R-TYPE



Description

Exhaust aluminium grilles with horizontal adjustable bars.

Characteristics

Material: aluminium

Finish: anodized aluminium, powder coated

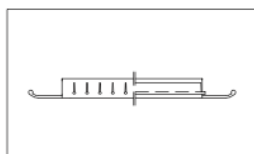
Installation: fixing by clips.

Selection Tables	Standard Size W*H (mm)	Effective Area (m ²)	Air Volume (m ³ /h)
	200*100	0,0162	117
	200*150	0,0237	213
	250*100	0,0203	183
	250*150	0,0297	267
	300*150	0,0357	321
	300*200	0,0482	434
	500*250	0,0995	896
	600*300	0,1392	1253
	750*300	0,1755	1580
1000*500	0,3951	3556	

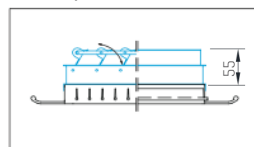
Options

- plenum galvanized;
- plenum isolated.

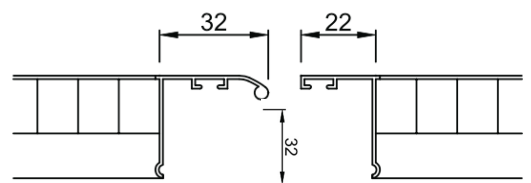
Standard



Damper controlled



Frame Options



Selection table

RHO R-TYPE

Neck Size mm x mm	Effective Area m ²	AIR VELOCITY m/s								
		1,5	2,0	2,5	3,0	4,0	5,0	6,0	7,0	8,0
100 x 100	0,008	43	58	72	86	115	144	173	202	230
100 x 150	0,0121	65	87	109	131	174	218	261	305	348
100 x 200	0,0162	87	117	146	175	233	292	350	408	467
100 x 250	0,0203	110	146	183	219	292	365	438	512	585
100 x 300	0,0244	132	176	220	264	351	439	527	615	703
150 x 150	0,0177	96	127	159	191	255	319	382	446	510
150 x 200	0,0237	128	171	213	256	341	427	512	597	683
150 x 250	0,0297	160	214	267	321	428	535	642	748	855
150 x 300	0,0357	193	257	321	386	514	643	771	899	1028
150 x 350	0,0417	225	300	375	450	600	751	901	1051	1201
150 x 400	0,0477	258	343	429	515	687	859	1030	1202	1374
150 x 450	0,0537	290	387	483	580	773	967	1160	1353	1547
150 x 500	0,0597	322	430	537	645	860	1075	1290	1504	1719
150 x 600	0,069	373	497	621	745	994	1242	1490	1739	1987
200 x 200	0,032	173	230	288	346	461	576	691	806	922
200 x 250	0,0401	217	289	361	433	577	722	866	1011	1155
200 x 300	0,0482	260	347	434	521	694	868	1041	1215	1388
200 x 350	0,0563	304	405	507	608	811	1013	1216	1419	1621
200 x 400	0,0644	348	464	580	696	927	1159	1391	1622	1855
200 x 450	0,0725	392	522	653	783	1044	1305	1566	1827	2088
200 x 500	0,0806	435	580	725	870	1161	1451	1741	2031	2321
200 x 600	0,0932	503	671	839	1007	1342	1678	2013	2349	2684
200 x 700	0,1094	591	788	985	1182	1575	1969	2363	2757	3151
200 x 750	0,1175	635	846	1058	1269	1692	2115	2538	2961	3384
200 x 800	0,1256	678	904	1130	1356	1809	2261	2713	3165	3617
250 x 250	0,0495	267	356	446	535	713	891	1069	1247	1426
250 x 300	0,0595	321	428	536	643	857	1071	1285	1499	1714
250 x 350	0,0695	375	500	626	751	1000	1251	1501	1751	2002
250 x 400	0,0795	429	572	716	859	1145	1431	1717	2003	2290
250 x 500	0,0995	537	716	896	1075	1433	1791	2149	2507	2866
250 x 600	0,115	621	828	1035	1242	1656	2070	2484	2898	3312
250 x 700	0,135	729	972	1215	1458	1944	2430	2916	3402	3888
250 x 750	0,145	783	1044	1305	1566	2088	2610	3132	3654	4176
250 x 800	0,155	837	1116	1395	1674	2232	2790	3348	3906	4464
250 x 1000	0,195	1053	1404	1755	2106	2808	3510	4212	4914	5616
300 x 300	0,072	389	518	648	778	1037	1296	1555	1814	2074
300 x 350	0,0841	454	606	757	908	1211	1514	1817	2119	2422
300 x 400	0,0962	519	693	866	1039	1385	1732	2078	2424	2771
300 x 450	0,1083	585	780	975	1170	1560	1949	2339	2729	3119
300 x 500	0,1204	650	867	1084	1300	1734	2167	2601	3034	3468
300 x 600	0,1392	752	1002	1253	1503	2004	2506	3007	3508	4009

Air volume m³/h

Supply Grilles

RHO S-TYPE



Description

Supply aluminium grilles with vertical and horizontal adjustable bars.

Characteristics

Material: aluminium.

Finish: anodized aluminium, powder coated

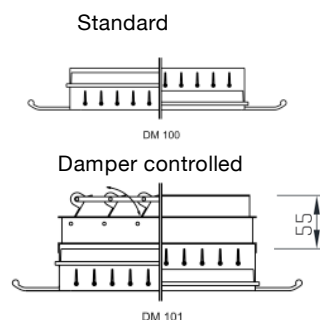
Installation: fixing by clips.

Selection Tables	Standard Size W*H (mm)	Effective Area (m ²)	Air Volume (m ³ /h)
	200*100	0,0134	150
	200*150	0,0201	200
	250*100	0,0167	160
	250*150	0,0251	250
	300*150	0,0301	300
	300*200	0,0402	450
	500*250	0,09	810
	600*300	0,149	1400
	750*300	0,185	1800
1000*500	0,373	3500	

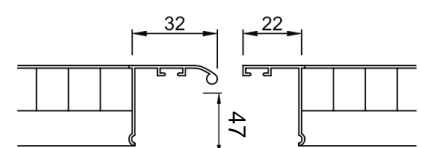
Assumed air velocity is 2,5-3 m/s.

Options

- plenum galvanized;
- plenum isolated.



Frame Options



Selection table

RHO S-TYPE

Grille size [mm]		Air flow rate																				
		m ³ /h	100	150	200	250	300	350	400	500	600	700	800	900	1000	1250	1500	2000	2500	3000		
A _k [m ²]		l/s	(28)	(42)	(56)	(69)	(83)	(97)	(111)	(139)	(167)	(194)	(222)	(250)	(278)	(347)	(417)	(556)	(694)	(833)		
H=100	200x100 (0,012)	L _{WA} [dB(A)]	20	32	41	47																
		V _k [m/s]	2,4	3,6	4,8	5,9																
		Δp _t [Pa]	4	10	17	26																
		l _{0,2} [m]	4,5	6,5	8,7	10,6																
		L _{WA} [dB(A)]		21	29	35	41	45	49													
		V _k [m/s]		2,3	3	3,7	4,5	5,2	6													
H=150	300x150 (0,018)	L _{WA} [dB(A)]																				
		V _k [m/s]																				
		Δp _t [Pa]																				
		l _{0,2} [m]																				
		L _{WA} [dB(A)]																				
		V _k [m/s]																				
H=200	400x100 (0,025)	L _{WA} [dB(A)]																				
		V _k [m/s]																				
		Δp _t [Pa]																				
		l _{0,2} [m]																				
		L _{WA} [dB(A)]																				
		V _k [m/s]																				
H=300	500x100 (0,032)	L _{WA} [dB(A)]																				
		V _k [m/s]																				
		Δp _t [Pa]																				
		l _{0,2} [m]																				
		L _{WA} [dB(A)]																				
		V _k [m/s]																				

Data valid for:

- Supply air
- Blade setting 0°
- Isotherm conditions
- Throw without ceiling effect (distance > 800 mm to ceiling)

Terminology:

- A_k = effective free area
- V_k = effective face velocity
- Δp_t = total pressure loss
- L_{WA} = sound power level
- l_{0,2} = throw to terminal velocity at 0,2 m/s

Exhaust Grilles

RHO EGG



Description

Exhaust grilles with aluminium frame and egg crate grille 12x12 mm pitch.

Characteristics

Material: aluminium

Finish: anodized, powder coated

Installation: fixing on wall by clips (holes for screws for ceiling installation on demand)

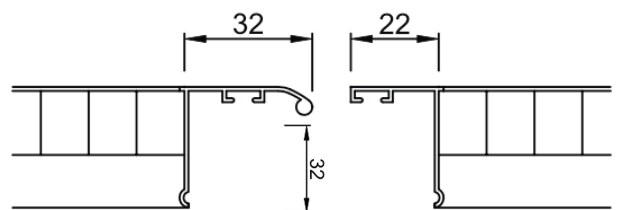
Selection Tables	Standard Size W*H (mm)	Effective Area (m ²)	Air Volume (m ³ /h)
	200*100	0,0134	150
	200*150	0,0201	200
	250*100	0,0167	160
	250*150	0,0251	250
	300*150	0,0301	300
	300*200	0,0402	450
	500*250	0,09	810
	600*300	0,149	1400
	750*300	0,185	1800
1000*500	0,373	3500	

Assumed air velocity is 2,5-3 m/s.

Options

- plenum galvanized;
- plenum isolated.

Frame Options



Selection table

RHO EGG

H	Vk m/s	L								Pa	dB(A)
		200	300	400	500	600	800	1000	1200		
		air flow m ³ /h									
100	1	50	72	94	126	158	208	252	302	5	<20
	3	150	216	280	378	475	626	756	907	12	28/32
	5	250	360	282	630	790	1040	1260	1512	20	35/40
150	1	80	115	162	209	252	345	432	518	5	<20
	3	240	345	486	627	756	1035	1296	1555	12	28/32
	5	400	575	810	1045	1260	1725	2160	2592	20	35/40
200	1	108	166	209	274	330	468	612	735	5	<20
	3	234	498	627	822	990	1404	1836	2205	12	24/26
	5	540	830	1045	1370	1650	2340	3060	3672	20	35/40
300	1	166	252	330	454	560	742	930	1995	5	<20
	3	498	756	990	1362	1680	2226	2790	5985	12	24/26
	5	830	1260	1650	2270	2800	3710	4650	9972	20	35/40
400	1	209	330	468	612	756	1037	1282	1537	5	<20
	3	627	990	1404	1836	2268	3111	3840	4612	12	24/26
	5	1045	1650	2340	3060	3780	5185	6410	7686	20	35/40
500	1	274	454	612	742	930	1310	1620	1945	5	<20
	3	822	1362	1836	2226	2790	3930	4860	5832	12	24/26
	5	1370	2270	3060	3710	4650	6550	8100	9720	20	35/40
600	1	330	560	756	930	1180	1584	1980	2376	5	<20
	3	990	1680	2268	2790	3540	4752	5940	7128	12	24/26
	5	1650	2800	3780	4650	5900	7920	9900	11880	20	35/40
800	1	468	742	1037	1310	1584	2088	2592	3110	5	<20
	3	1404	2226	3111	3930	4752	6264	7776	9992	12	24/26
	5	2340	3710	5185	6550	7920	10440	12960	15552	20	35/40
1000	1	612	930	1282	1620	1980	2592	3204	3845	5	<20
	3	1836	2790	3846	4860	5940	7776	9612	11535	12	24/26
	5	3060	4650	6410	8100	9900	12960	16020	19224	20	35/40



Exhaust Grilles

RHO EGG PUSH



Description

Exhaust egg crate grille 12x12 mm pitch for false ceiling installation, with double frame (internal 15 mm) with hinged opening and push-pull system for easy storage and replacement of the filter.

Characteristics

Material: aluminium.

Finish: anodized aluminium, powder coated

Filter: COARSE class (G2) thickness 12 mm.

Opening / closing: push-pull system.

Installation

Installation is carried out by fixing the outer frame of the grille to the wall using screws or in support on structure for paneled ceilings 600x600 mm.

Selection table

model	external frame size	effective filter section	Front speed on the filter	air flow rate
	mm	m ²	m/s	m ³ /h
RHO EGG PUSH	595x595	0,238	1,5	1285
			2	1713
		V m/s	dB(A)	
		1,5	<20	
		2	20/25	
		V m/s	Pa	
		1,5	25/30	
		2	45/50	

Transfer Grilles



RHO TG

Description

Aluminum Transfer Door Grille with Frame

Characteristics

Extruded aluminum construction

Vision proof

Inverted V type grille bar for best vision proof quality and airflow

Excellent for installation in doors or partitions

Bright White or Satin Anodized finish

Use the engineering data files to determine the proper size to use for maximum performance. Refer to the submittal drawing for key product dimensions.

Selection table

Standard Size W*H (mm)	Effective Area (m ²)	Air Volume (m ³ /h)
300*150	0,029	260
500*150	0,050	450
500*250	0,088	788
750*250	0,131	1180
750*350	0,183	1650
900*300	0,203	1830
900*500	0,338	3040
1000*250	0,188	1690
1000*350	0,263	2360
1000*500	0,400	3600

Accessories

RHO

OD calibration damper

OD calibration damper with fins with opposing movement

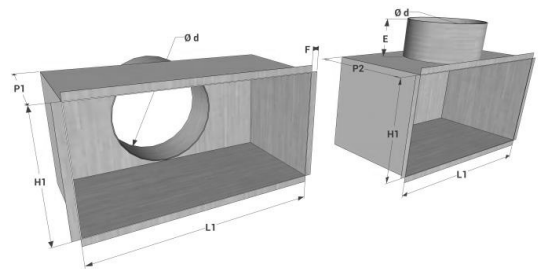


Installation sub frame



Plenum box

- Can be used for both supply and extract air
- Easy-to-detach the grilles for access to the plenum
- Same box used for several type of grilles
- Special lip bend allow an easy clips mounting of all grilles model



All dimensions are expressed in mm.

model L1 x H1	upper air connection			side air connection			E	F	model L1 x H1	upper air connection			side air connection			E	F
	P1	n° connection	Ø d	P2	n° connection	Ø d				P1	n° connection	Ø d	P2	n° connection	Ø d		
200x100	200	1	98	200	1	98	80	12	1000x200	200	2	198	300	2	198	80	12
300x100	200	1	98	200	1	98	80	12	300x300	200	1	248	350	1	248	80	12
400x100	200	2	98	200	2	98	80	12	400x300	200	1	248	350	1	248	80	12
500x100	200	2	98	200	2	98	80	12	500x300	200	1	248	350	1	248	80	12
600x100	200	2	98	200	2	98	80	12	600x300	200	2	198	350	2	248	80	12
800x100	200	2	98	200	2	98	80	12	800x300	200	2	248	350	2	248	80	12
200x200	200	1	198	300	1	198	80	12	1000x300	200	2	248	350	2	248	80	12
300x200	200	1	198	300	1	198	80	12	400x400	200	1	298	350	1	298	80	12
400x200	200	1	198	300	1	198	80	12	500x400	200	1	298	350	1	298	80	12
500x200	200	1	198	300	1	198	80	12	600x400	200	2	198	350	2	248	80	12
600x200	200	2	198	300	2	198	80	12	800x400	200	2	298	350	2	298	80	12
800x200	200	2	198	300	2	198	80	12	1000x400	200	2	298	400	2	298	80	12
560x560	-	-	-	300	1	248	80	12									

SELECTION GUIDE

Spigot Velocity (m/s)	1,5	2	2,5	3	3,5	4	4,5	5	6	
Pressure Drop (Pa)	2	4	6	8	12	16	20	28	36	

*The pressure drop given is for supply diffuser with damper fully open.

When the diffuser is installed with plenum box the pressure loss of the box has to be added to the diffuser.



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