

RGS HEAT RECOVERY UNITS

The new range of RGS heat recuperators has been designed to be suitable for environments subject to frequent air renewals where it is necessary to recover a part of the heat which would be otherwise expelled into the exhausted air. The range of RGS heat recuperators consists of 8 models with air flow rates ranging from 290 to 4000 m³/h, especially suitable for false ceiling installation.

CONSTRUCTION VERSIONS

RGS recuperator with double panelling

CONSTRUCTIVE COMPONENTS

RGS air change and heat recovery unit characterized by:

- bearing structure built from aluminium profiles and covering panels made of pre-painted steel outside and galvanized steel inside
- high-density polyurethane thermal and acoustic insulation: reaction to fire class 1 (according to DM 26/6/84);
- mechanical coupling with high-resistance steel screws and aluminium rivets
- possibility to reach all the internal components from all unit sides
- synthetic fibre filtering system with corrugated partition, galvanized steel frame and metal mesh enclosure, filtration class G3
- the air-air heat recuperator (class 1 according to EN 308) of the cross-flow static type guaranteeing a high yield (up to 60%), comprises sealed aluminium plates in order to avoid any contamination of exhausted and fresh air. It is mounted on guides to facilitate removal for cleaning operations
- corrosion resistant pre-painted drip tray, equipped with disassembly system for recuperator removal, condensate drainage in the lower part
- double suction centrifugal fan with onward blades, statically and dynamically balanced with directly connected single-phase, 3-speed motor (1 speed, three-phase YD) according to models
- electric control panel with relay board for the control of electric fans.



Unit conforming with electric safety directives according to EN 60335-1 and EN 60335-2 and electromagnetic compatibility according to EN 55014-1, EN 55014-2, EN 61000-3-2 and EN 61000-3-3

- Fan bodies mounted on vibration damping couplings.
- Fresh air and exhaust air double suction centrifugal fans, easily removable from each side of the unit to permit routine maintenance.
- Directly coupled electric motor.
(one-speed, single-phase for models RGS 33 and RGS 55)
(3-speed - single-phase for models from RGS 110 to RGS 320)
(2-speed - three-phase YD for model RGS 410)

ACCESSORIES

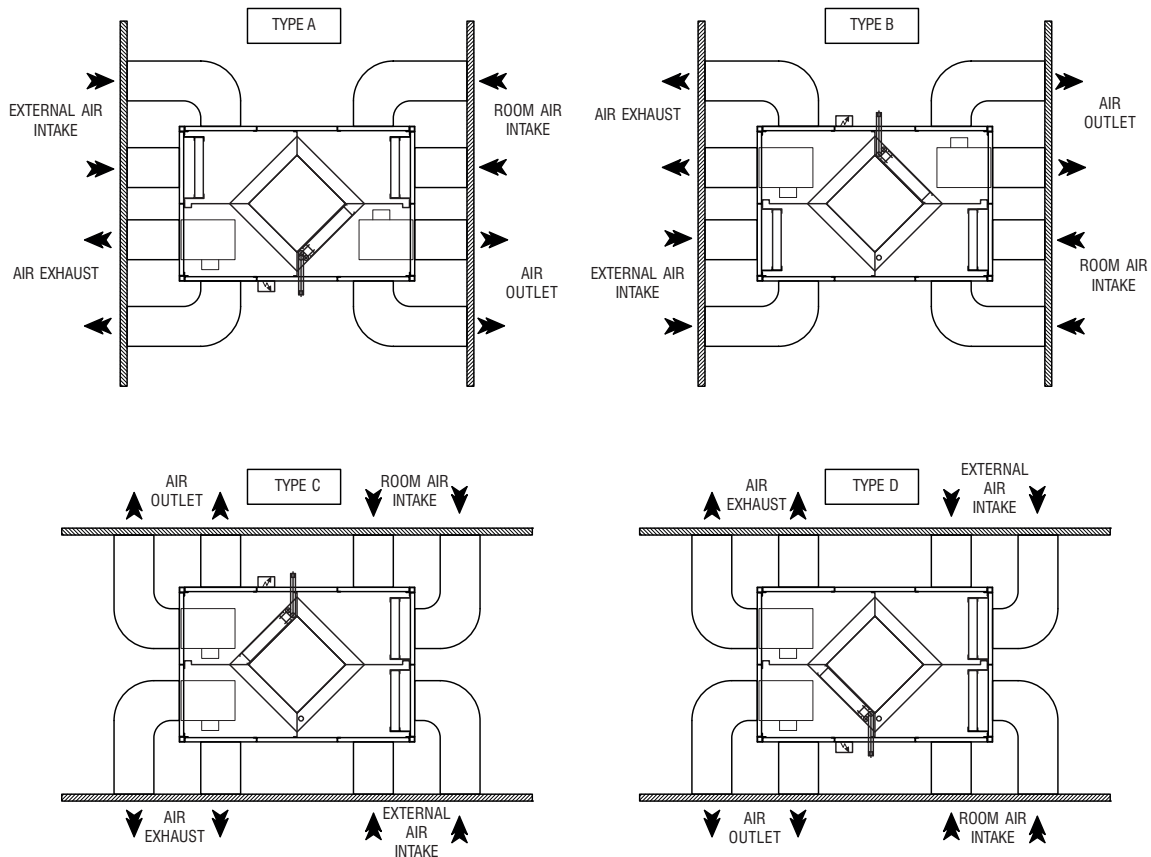
- BAP** Hot water coil
- REP** Electric heating element
- CDE** Wall-mounted speed switch
- TDV** Wall-mounted control panel complete with thermostat
- SAF** Re-heating water coil
- VVM** Phase-cut speed regulator
- CD** Recess mounted speed switch
- CST** Star-delta switch for installation in electric panels
- CSTP** Star-delta switch for wall mounting
- SB** Heat recuperator BYPASS louver
- TPL** Protection canopy
- PDF** Filter pressure switch
- AGF** Circular connections for flexible couplings
- TAG** Antifreeze thermostat
- SRP** Regulating louver
- KPA** Kit of 4 feet H=100 mm
3-way ON/OFF valve
230V electrothermal actuator for BAP/SAF valves

CONFIGURATIONS

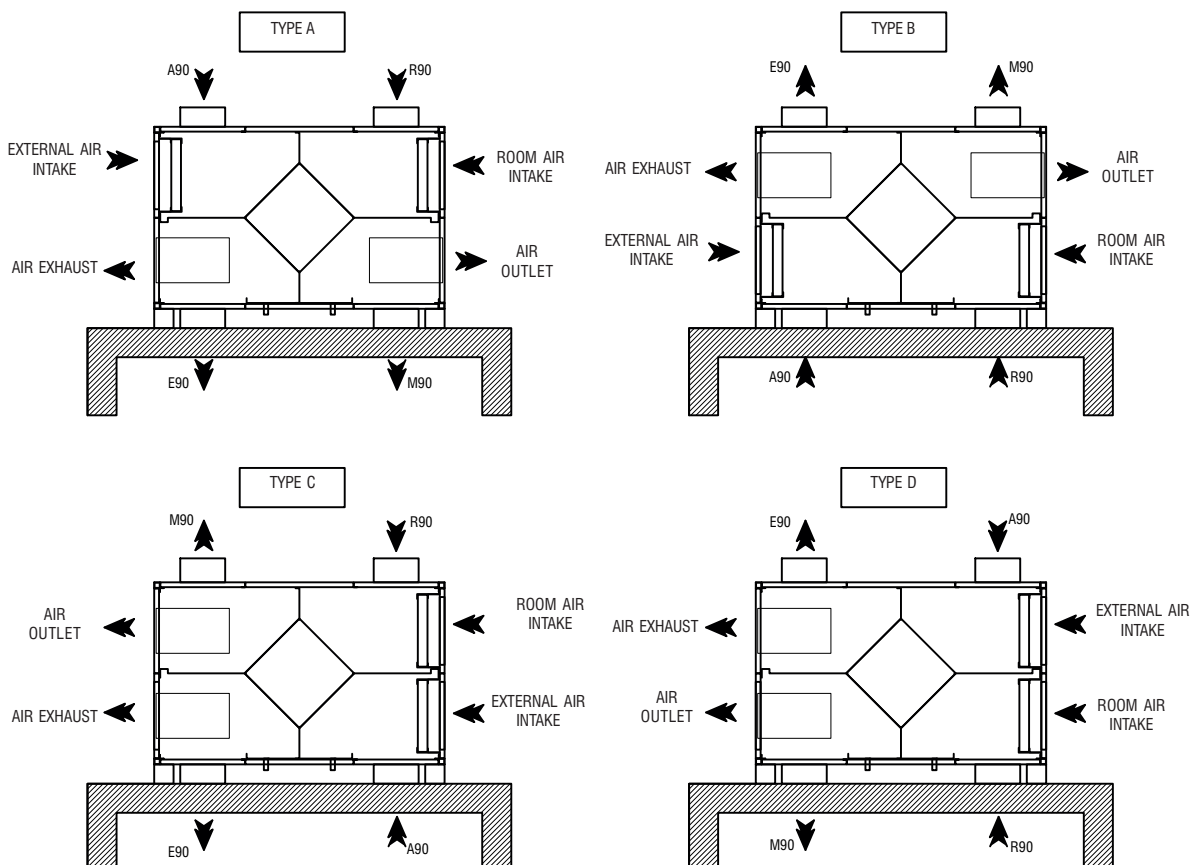
For each size 4 configurations of the heat recuperator are available.

It will be hence possible to choose among the 4 under-mentioned options depending on the mains configuration and the room available.

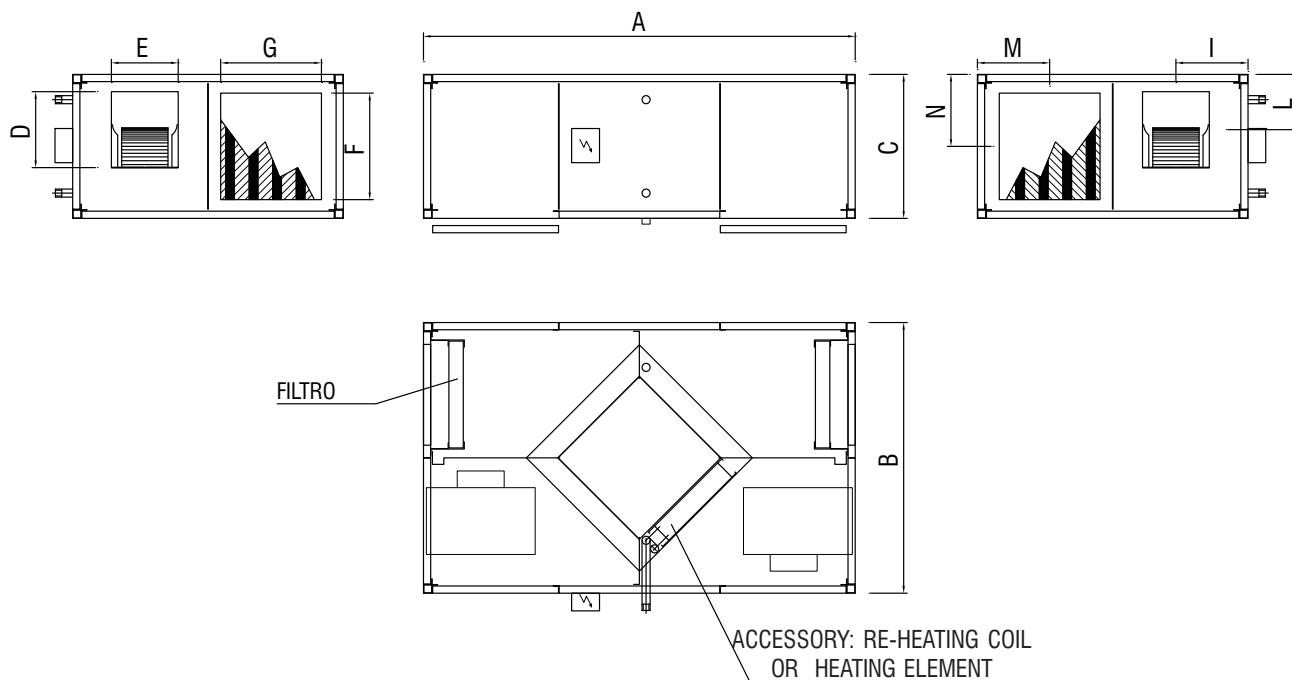
HORIZONTAL INSTALLATION



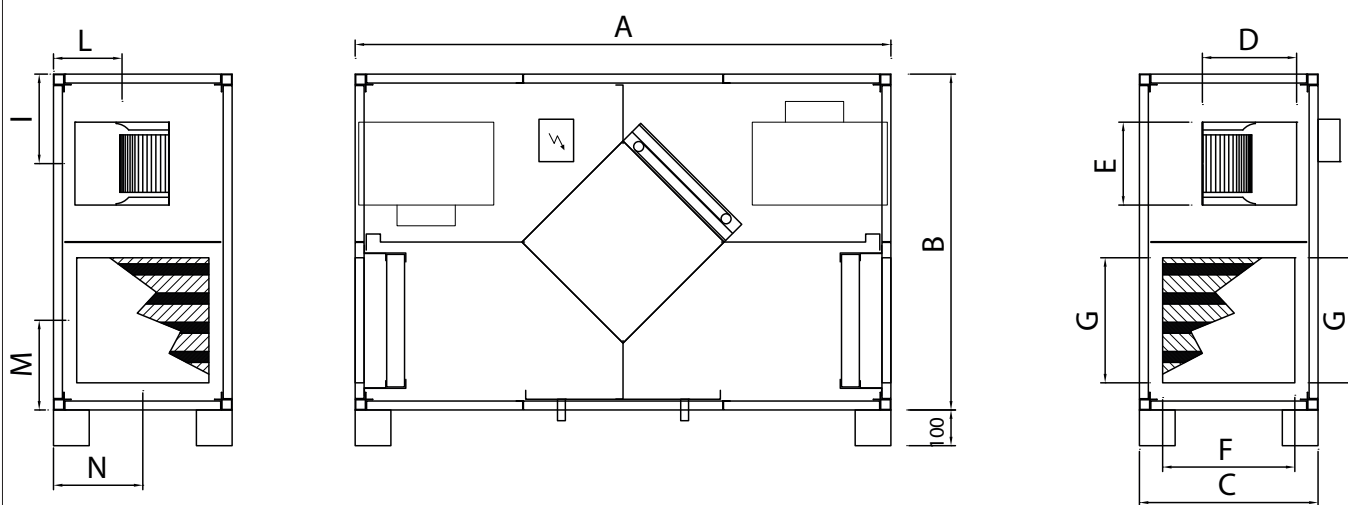
VERTICAL INSTALLATION



OVERALL DIMENSIONS - HORIZONTAL MODELS



OVERALL DIMENSIONS - VERTICAL MODELS



DIMENSIONS	33	35	110	175	220	255	320	410
A (mm)	1000	1100	1370	1500	1600	1700	1700	1940
B (mm)	750	810	900	940	1080	1230	1230	1320
C (mm)	290	290	410	500	500	600	600	600
D (mm)	97	97	208	264	264	264	289	289
E (mm)	214	214	232	232	298	298	265	331
F (mm)	160	160	280	370	370	470	470	470
G (mm)	254	284	330	350	420	495	495	540
I (mm)	203	218	240	251	286	323	323	346
L (mm)	103	103	153	192	192	192	205	205
M (mm)	203	218	240	251	286	323	323	346
N (mm)	145	145	205	250	250	300	300	300
Weight (kg)	53	58	85	110	116	180	190	246

HEAT RECOVERY UNITS RGS RATED TECHNICAL DATA									
Model		33	55	110	175	220	255	320	410
Air flow	m³/h	290	570	1050	1650	2120	2450	3150	4060
Available static pressure	Pa	279	162	66	207	123	148	198	152
Sound pressure ₁	dB(A)	58	56	62	64	59	59	65	65
FAN-MOTOR GROUP									
Axle power available	W	2x90	2x90	2x147	2x420	2x420	2x420	2x550	2x750
Maximum current absorbed	A	0,88	0,88	2	3,9	3,8	3,8	5,9	3,1
Fan speeds	n°	1	1	3	3	3	3	3	2
Protection degree	IP	20	20	20	20	20	20	20	20
Insulation class		B	B	B	B	B	B	B	B
Power supply	V	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	400/3/50
HEAT EXCHANGER									
Efficiency	%	55,6	53,6	50,8	57,1	53,4	53,7	52,2	53,3
Heating capacity	kW	1,3	2,6	4,5	7,9	9,5	11	13,8	18,1
Outlet air temperature	°C	8,9	8,4	7,7	9,3	8,3	8,4	8,1	8,3
FILTERS									
Class		G3	G3	G3	G3	G3	G3	G3	G3
Frontal air speed	m/s	2	3,5	3,2	3,5	3,8	2,9	3,8	4,4
Dimensions	mm	275	305	350	370	440	515	515	560
		165	165	285	375	375	475	475	475
		48	48	48	48	48	48	48	48

The performance data refer to the following conditions:

- exhausted air = 20°C

- fresh air = -5°C

- air flow rate

1 Measured at 1 m - intake side

CONFIGURATION																
Fixed code									Variable code							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
R	G	S	0	5	5	0	A	0	B	0	0	0	0	0		
Range			Size			Version	Orient.	Revision	Post Heating	Post Heat. controller	Insulation	Filters	Special option	Motor reg.		
						0 Horiz. V Vert.	A B C D	0 initial	0 not present B water coil E Electric	0 not present	0 polyurethane foam	0 G3	0 none S Bypass damper	0 standard		
Sizes:	33	55	110	175	220	255	320	410								