Galletti
www.galletti

ESTRO fan coil units

ESTRO is the new fan coil range of Galletti designed to optimize the performance in terms of acoustic comfort, integrated controls and air quality.

Thanks to the new fan's group ESTRO reach the top level (on the fan coils) in its category in terms of sound pression .

ESTRO can be integrated in the ERGO supervision system.

The innovative BIOXIGEN system suitable for any versions guarantee high quality level in the air purification and in the sanification of the unit itself.

To carry out the ESTRO project, high quality materials have been selected, that together with the great care dedicated to the assembly of the main components grant the performances reliability and acoustic confort of the Galletti fan coil.

The construction concept allows to standardize the models for vertical mounting and those for horizontal mounting.
The range consitsts of versions for wall installation at sight, floor /cealing, recessed wall/cealing and floor recessed installation.

> COVER CABINET made of thick steel sheet panel, ABS side panels, air outlet grilles (orientable 180°) and air suction grilles (versions FU and FB) made of ABS.
The side doors allow access to the technical space and to the control panel (accessory).

> The used ABS has been treated with UV rays to mantain the colour in the time.

> BEARING STRUCTURE made of thick galvanized steel sheet, insulated withself-extinguishing Class 1 heat-insulating panels. The models for horizontal-installation include a large tray for collecting the condensate.

> HIGH-EFFICIENCY HEAT EXCHANGER, made of copper pipe and aluminium fins fixed to the pipes by means o mechanical expansion, equipped with brass manifoldsand air purge valve. The units normally come with water connection on left side,but the heat exchanger, and can be turned, on the field, by 180°.

> 3-speed ELECTRIC MOTOR installed on vibration-damping supports, complete with built-in capacitor and thermal protection for the windings.

> Double-intake CENTRIFUGAL FANS, statically and dynamically balanced and coupled directly to the electric motor; made of:
- antistatic ABS oversized diameter, with wing profile propeller integrated in an ABS-volute designed to reduce the noise emission.
- aluminium (models 10, 11 and 12)

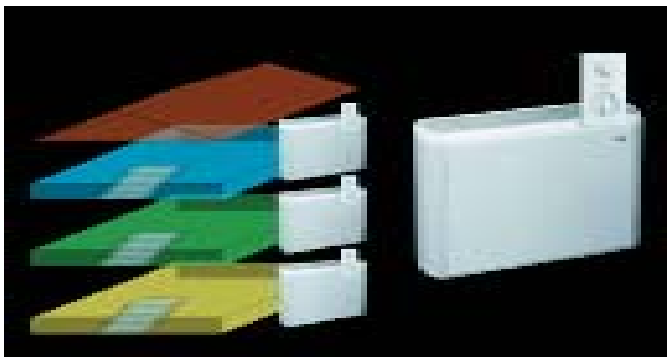
> WASHABLE AIR FILTER made of beehive polypropylene, installed on galvanized sheet frame with safety grille, easy to remove for maintenance.
In the FU - FB versions the air filters are inserted in the intake grilles on the front panel of the cover cabinet.

New CONTROL PANELS for controlling and regulating the temperature by means of a microprocessor-based system, which adapts the operation of the fan coil automatically when room conditions change.

The performance of ESTRO units are certified by EUROVENT

The ESTRO fan coil units can be fitted with BIOXIGEN system

ESTRO fan coils can be connected to ERGO network



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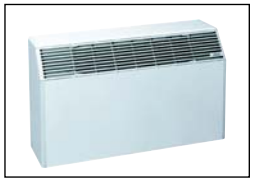
ESTRO >VERSIONS AND ACCESSORIES

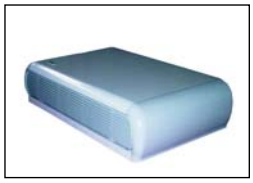
ESTRO FL
Wall-mounted, with cabinet, vertical air outlet

ESTRO FA
Wall-mounted, with cabinet, inclined air outlet



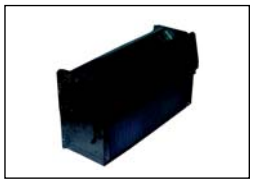
ESTRO FU
Floor standing and ceiling-mounted, with cabinet complete with air outlet grilles and air intake grilles with filter

ESTRO FP
Ceiling mounted, cabinet with air outlet grilles and rear air intake with filter.

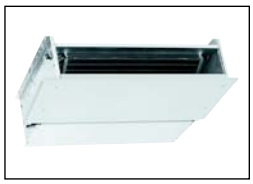


ESTRO FB
Low-body floor standing, height 438 mm, cabinet with air outlet grilles and air intake grilles with filter.

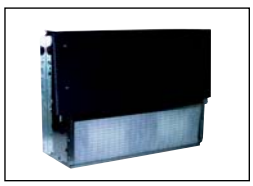
ESTRO FBC
low body vertical and horizontal recess-mounted, height 412 mm, front air intake, bearing structure made of thermally insulated galvanized steel sheet



ESTRO FC
Vertical and horizontal recessed, bearing structure made of thermally insulated galvanized steel sheet.

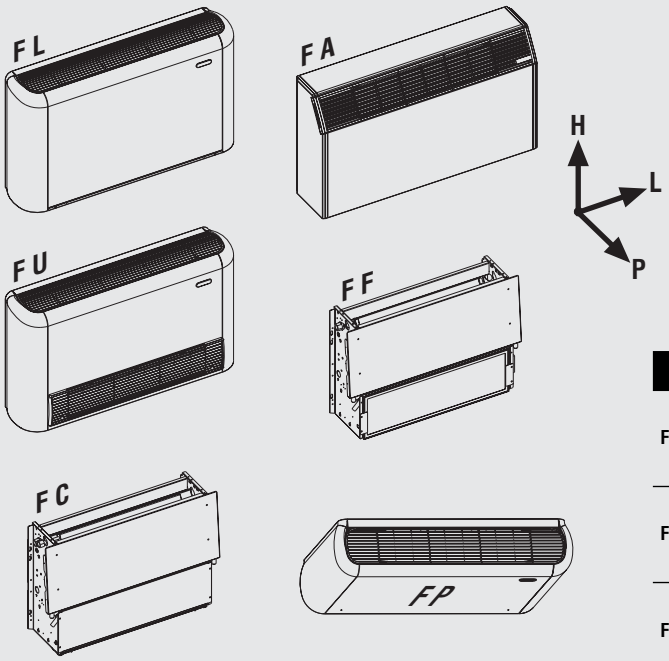


ESTRO FF
Vertical and horizontal recess mounted, front air intake, bearing structure made of thermally insulated galvanized steel sheet

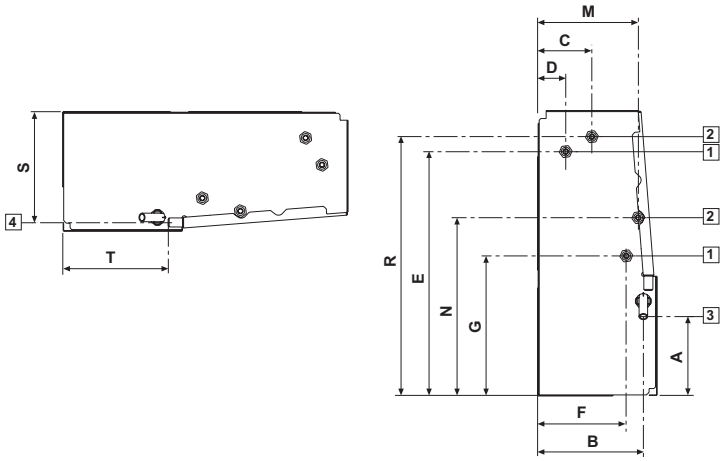


- Speed switch, installation on the unit
- Speed switch mounted on the unit and electromechanical thermostat
- Speed switch mounted on the unit, thermostat and summer/winter selecting switch
- Microprocessor control on the unit: automatic control of fan coil unit
- Microprocessor control on the unit: automatic control of fan coil unit, valves and electric heating element
- Water temperature electronic sensor for MICRO, MICROPRO-D and MICRO-D controls
- Control mounted on the unit for opening and closing the SM motor-driven regulating louver
- Electromechanical thermostat for minimum water temperature in heating mode, mounted on the heat exchanger
- Power interface for connecting in parallel up to 4 fan coil units to one control
- Recess wall-mounted speed switch
- Wall-mounted speed switch
- Wall-mounted speed switch, electromechanical thermostat and summer-winter selecting switch
- Wall-mounted speed switch and electromechanical thermostat
- Wall-mounted speed switch, electromechanical thermostat and summer-winter selecting switch for 2 or 4-pipe systems with valves
- Wall-mounted microprocessor control: automatic control of the fan coil unit
- Wall-mounted microprocessor control: automatic control of the fan coil unit, valves and electric heating element
- Wall-mounted control for opening and closing the SM motor-driven regulating louver
- Electromechanical room thermostat
- Electromechanical room thermostat with summer/winter selecting switch
- Microprocessor control ERGO solution
- 1 row additional heat exchanger for 4-pipe systems (hot water circuit)
- Two support covering feet
- Two support covering feet with front grille
- Support spacers
- Rear painted panel for vertical installation fan coil units with cabinet
- Rear painted panel for horizontal installation fan coil units with cabinet
- 3-way valve with ON/OFF electrothermal motor and hydraulic kit for standard heat exchanger
- 3-way valve with ON/OFF electrothermal motor and hydraulic kit for DF heat exchanger
- valve stem insulation shell
- Auxiliary water drip tray for vertical installation fan coil units
- Auxiliary water drip tray for horizontal installation fan coil units
- Drain pump kit
- Electric heating element complete with installation kit, safety devices, power relay box, heat resistant grilles
- Anodised aluminium grille for external air intake, complete with subframe
- Anodised aluminium grille for external air intake, complete with filter and subframe
- Anodised aluminium double-row finned air outlet grille, complete with subframe
- Angular connector for air outlet
- Straight connector for air outlet
- Angular connector for air inlet
- Straight connector for air inlet
- Manual external air intake louver
- Motor driven external air intake louver

ESTRO > DIMENSIONS



		1/4	5/6	7/9	95	10/11	12
FL - FU - FP	H	564	564	564	564	564	564
	L	774	984	1194	1194	1404	1614
	P	226	226	226	251	251	251
F A	H	556	556	556	556	556	556
	L	774	984	1194	1194	1404	1614
	P	228	228	228	253	253	253
FC - FF	H	535	535	535	535	535	535
	L	584	794	1004	1004	1214	1424
	P	224	224	224	249	249	249
FB	H	438	438	438	ND	ND	ND
	L	774	984	1194	ND	ND	ND
	P	251	251	251	ND	ND	ND
FBC	H	413	413	413	ND	ND	ND
	L	584	794	1004	ND	ND	ND
	P	250	250	250	ND	ND	ND



	FL - FA - FU - FP - FC - FF						FB - FBC		
	1/4	5/6	7/9	95	10/11	12	1 / 4	5 / 6	7 / 9
A	149	149	149	155	155	155	125	125	125
B	198	198	198	220	220	220	197	197	197
C	99	99	99	120	120	120	ND	ND	ND
D	51	51	51	48	48	48	38	38	38
E	458	458	458	497	497	497	371	371	371
F	163	163	163	185	185	185	212	212	212
G	263	263	263	259	259	259	228	228	228
M	187	187	187	195	195	195	ND	ND	ND
N	335	335	335	348	348	348	ND	ND	ND
R	486	486	486	478	478	478	ND	ND	ND
S	208	208	208	234	234	234	237	237	237
T	198	198	198	208	208	208	187	187	187

ESTRO > TECHNICAL INFORMATION

ESTRO RATED TECHNICAL DATA

ESTRO	Fan speed		1	2	3	4	5	6	7	8	9	95	10	11	12
Total cooling capacity [1]	(High)	kW	1,15	1,54	1,74	2,09	2,42	2,93	3,51	4,33	4,77	5,50	6,71	8,02	10,95
Sensible cooling capacity [1]	(High)	kW	0,87	1,20	1,30	1,51	1,88	2,11	2,75	3,15	3,65	3,96	4,91	6,38	8,07
Water flow		l/h	197	264	298	359	415	503	602	743	818	944	1152	1494	1879
Pressure drop		kPa	7	13	14	13	16	11	12	12	14	21	12	19	31
Heating capacity [2]	(High)	kW	1,55	2,14	2,20	2,57	3,20	3,81	4,78	5,30	6,20	6,90	7,83	11,10	14,50
Water flow		l/h	197	264	298	359	415	503	602	743	818	944	1152	1494	1879
Pressure drop		kPa	5	9	11	10	12	9	10	9	12	17	9	13	25
Coil water content		dm^3	0,5	0,5	0,5	0,7	0,7	1	1	1,4	1,4	1,7	2,1	2,1	2,6
Hydraulic connections		inches	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	3/4"	3/4"	3/4"	3/4"
DF Coil heating capacity [3]		kW	1,89	2,23	1,97	2,07	3,27	2,91	4,80	4,51	5,30	5,62	7,91	9,30	11,50
DF coil water flow		l/h	166	196	204	202	287	286	421	396	465	493	694	816	1010
DF coil pressure drop		kPa	5	7	8	8	5	5	9	10	10	15	27	36	50
DF heating coil water content		dm^3	0,20	0,20	0,20	0,20	0,30	0,30	0,40	0,40	0,40	0,50	0,60	0,60	0,90
Air flow	(High)	m^3/h	231	319	344	344	442	442	640	706	785	814	1011	1393	1850
	(med)	m^3/h	189	233	271	271	341	341	450	497	605	615	771	1022	1317
	(low)	m^3/h	149	178	211	211	241	241	320	361	470	488	570	642	1010
Power supply		V/ph/Hz	230 / 1 / 50												
Max. current absorbed	(High)	A	0,15	0,17	0,24	0,24	0,25	0,25	0,44	0,44	0,44	0,44	0,80	1,12	1,52
Max. power input	(High)	W	32	37	53	53	57	56	98	98	98	99	182	244	310
Sound power [4]	(High)	dB(A)	40	45	49	50	48	47	51	52	56	57	61	66	71
	(med)	dB(A)	32	39	44	44	42	41	43	43	49	50	54	59	64
	(low)	dB(A)	27	33	38	38	34	33	34	35	43	44	47	49	60

TECHNICAL DATA LOW BODY VERSION ESTRO FB - FB C

	Fan speed		1	2	3	4	5	6	7	8	9
Total cooling capacity [1]	(High)	kW	1,07	1,33	1,62	1,81	2,25	2,72	3,26	4,03	4,44
Sensible cooling capacity [1]	(High)	kW	0,81	1,05	1,21	1,35	1,79	1,97	2,61	2,95	3,49
Water flow		l/h	184	245	278	291	386	467	559	692	762
Pressure drop		kPa	7	11	13	13	14	10	11	11	13
Heating capacity [2]	(High)	kW	1,27	1,67	2,01	2,33	2,97	3,54	4,44	5,23	5,12
Water flow		l/h	184	245	278	291	386	467	559	692	762
Pressure drop		kPa	5	9	10	11	12	8	9	9	10
Coil water content		l	0,5	0,5	0,5	0,7	0,7	1	1	1,4	1,4
Hydraulic connections		inches	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Air flow	(High)	m^3/h	231	319	344	344	442	442	640	706	785
	(med)	m^3/h	189	233	271	271	341	341	450	497	605
	(low)	m^3/h	149	178	211	211	241	241	320	361	470
Power supply		V/ph/Hz	230 / 1 / 50								
Max. current absorbed	(High)	A	0,15	0,17	0,24	0,24	0,25	0,25	0,44	0,44	0,44
Max. power input	(High)	W	32	37	53	53	57	56	98	98	98
Sound power [4]	(High)	dB(A)	40	45	49	50	48	47	51	52	56
	(med)	dB(A)	32	39	44	44	41	41	43	43	49
	(low)	dB(A)	26	34	38	38	34	33	34	35	43

The performance of ESTRO units are certified by EUROVENT

1 Water temperature 7/12°C, air temperature 27°C dry bulb, 19°C wet bulb (47% relative humidity)
2 Inlet water temperature 50°C, water flow rate same as in cooling mode, inlet air temperature 20°C
3 Water temperature 70/60°C, inlet air temperature 20°C
4 Sound power measured according to ISO 3741 and ISO 3742.