Ferroli

COMPAT PLUS DD

LARGE CAPACITY FAN COIL UNITS



TECHNICAL MANUAL

INTRODUCTION

COMPAT PLUS DD series come in both horizontal configurations (H) and in vertical configurations (V). The range includes 5 models with air-flows rates from 1,000 to 4,000 m^3/h equipped with a three speed fan with a permanently operating condenser. The **COMPAT PLUS DD** series can be built with an single coil having 2, 4, 6 rows to handle both primary and secondary air. The compact dimensions with which the series was developed allow false-ceiling or outdoors installation (with a cover) with connection to ducts or with delivery with plenum. The versatility offered by the series is topped off with a wide range of accessories such as the safety micro-switch, the three-speed switch, the cover for both configurations, the outlet plenum, the 90° intake plenum with fixed louvers, the intake grill and air intake damper with or without manual servo control. None of the **COMPAT PLUS DD** units are suitable for operation in environments with an explosive atmosphere.

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1. CONSTRUCTION FEATURES

The COMPAT PLUS DD series fan coil units (fig. 1) satisfy all the heating and cooling requirements in residential and commercial environments with a functional and economical system.
The high performance of the ventilated section allows air distribution within complex duct work, guaranteeing a proper circulation at minimum speed, with extremely low sound emission levels.



fig. 1

1.1 Models

All the machines in the series (5 models) may be installed both horizontally (H) and vertically (V).

1.2 Structure

The single-unit structures are built from an extruded aluminium section (fig. 2) and an internal galvanized sheet panel 23 mm thick; they are pre-painted on the outside, with internal mineral fibre or polyurethane insulation (fig. 3).

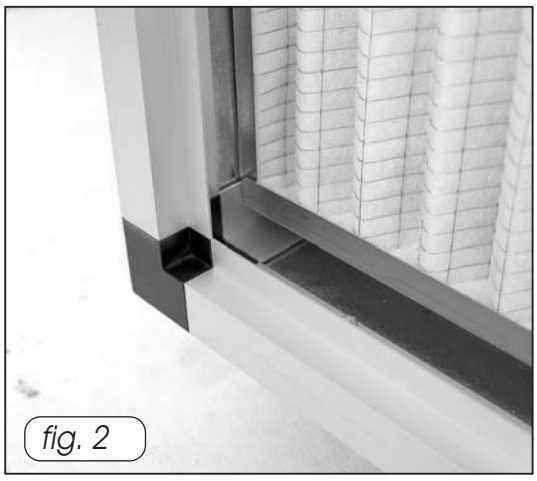


fig. 2

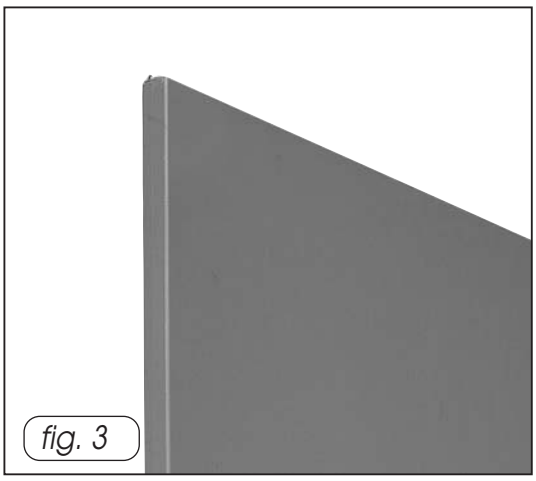


fig. 3

1.3 Filters

The filtering section (fig. 4) is composed of flat cells with synthetic corrugated partition, with EU4 efficiency, metal frame and electrostatic containment grid (fig. 5).

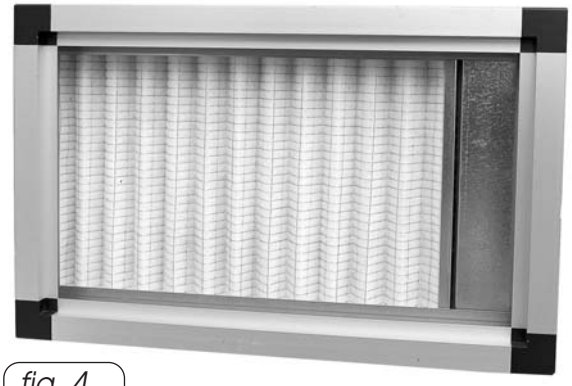


fig. 4

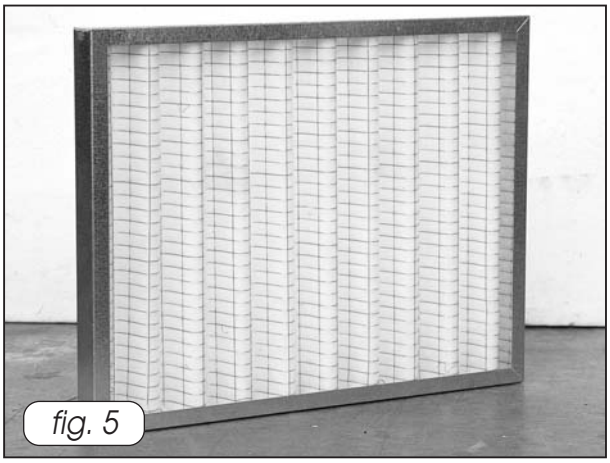


fig. 5

1.4 Coils

The heating (fig. 6) and cooling coils are constructed with copper pipe and aluminum fins; the cooling coils are equipped with condensate collection trays and the corresponding drain.

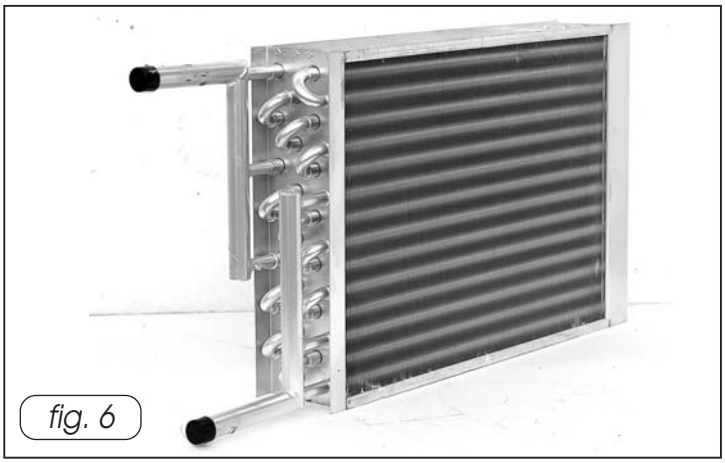


fig. 6

1.5 Fans

These models mount a double suction centrifugal fan with the forward-facing blades (fig. 7), direct drive, 3-speed, single-phase 220V-50 Hz 4 or 6 pole motor, with continuously operating condenser.

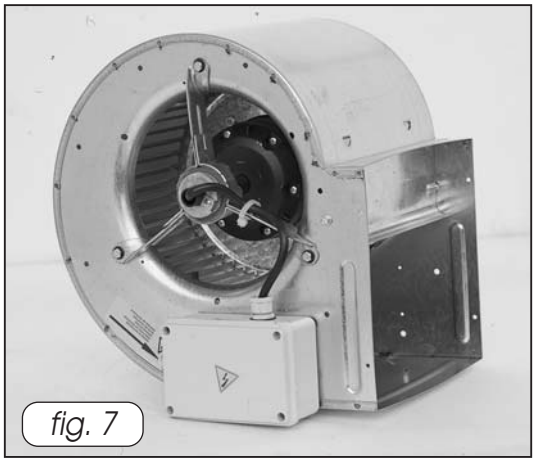


fig. 7

2. TECHNICAL FEATURES

TECHNICAL FEATURES	MU	10			15			20			30			40		
Rows	No.	2	4	6	2	4	6	2	4	6	2	4	6	2	4	6
Air-flow	m^3/h	1.000			1.500			2.000			3.000			4.000		
Available static press. (*)	Pa	160	150	130	160	150	130	160	150	130	160	150	130	160	150	130
Heating capacity	kW	10,6	16,5	-	14,1	22,6	-	18,9	30,6	-	26,2	42,8	-	34,3	55,9	-
Cooling capacity	kW	-	7,3	9,2	-	10,4	13,3	-	13,8	17,9	-	18,1	22,8	-	23,7	30,1
Motor power input	W	147			243			368			2 x 243			2 x 368		
No. of motor poles	no.	6			6			4			6			4		

NOTES:

Cooling capacity measured with intake air = 30°C Dry Bulb RH 50% - Water temperature inlet/outlet = 7/12°C - values refer to nominal air-flow rate

Heating capacity measured with intake air = 12°C Dry Bulb - Water temperature inlet/outlet= 80/70°C - values refer to nominal air-flow rate

(*) measured at maximum speed

2.1 Sample order

Model	Configuration	Coil	Accessories
Compat Plus 10-DD	H	4R	MS, SER, ...

3. ACCESSORIES AVAILABLE UPON REQUEST:

- **MS** safety micro-switch on the inspection door (fig. 8).
- **CP** 3-speed switch (fig. 9).

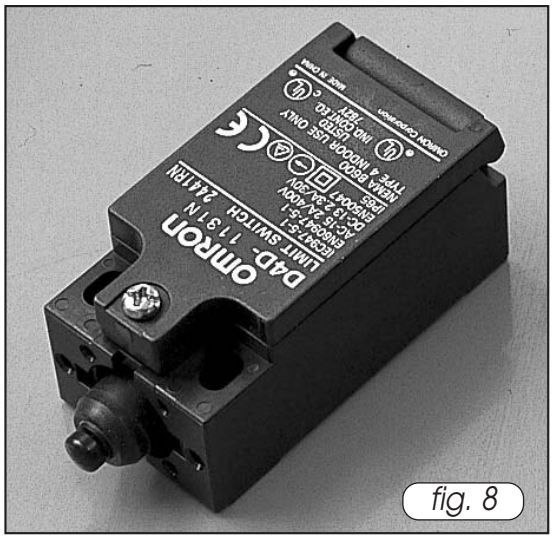
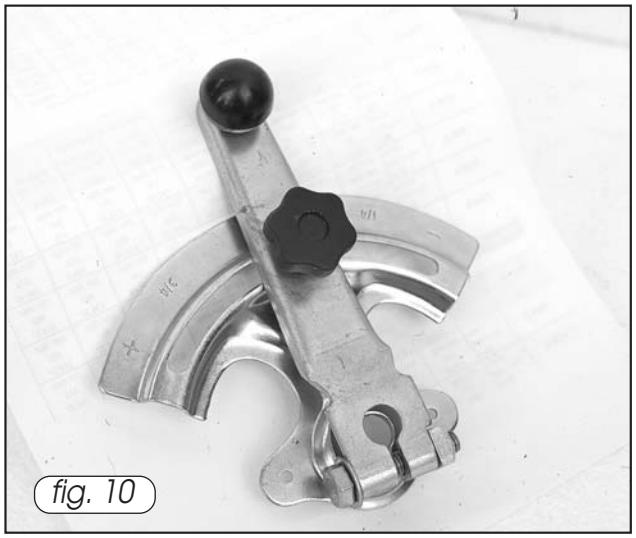
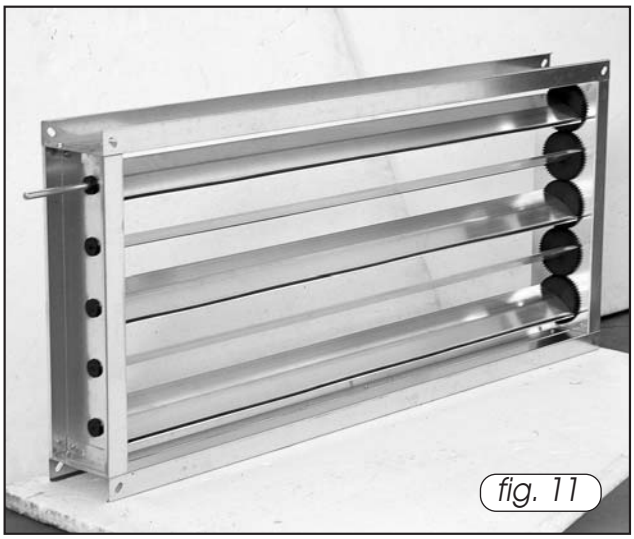


fig. 8


fig. 9

- **COS** manual control for damper (fig. 10).
- **SER** air intake complete with control damper with motor pin (fig. 11).


fig. 10


fig. 11

- **GRA** intake grill with fixed galvanized sheet louvers complete with bird-protection grid (fig. 12).
- **PLA** intake plenum with fixed-louver aluminium grill (fig. 13).

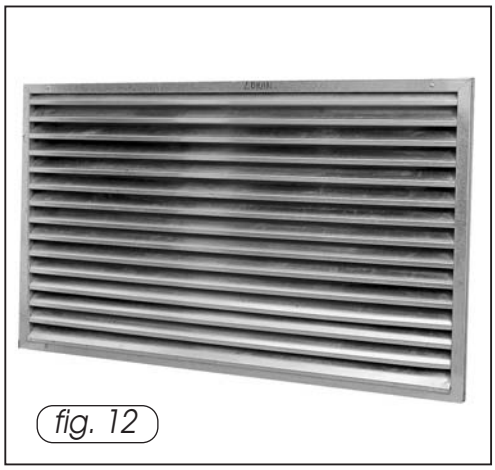

fig. 12


fig. 13

- **PMA** outlet plenum with two rows of adjustable aluminium louvers (fig. 14).
- **TEV** galvanized sheet rain cover for vertical units.
- **TEH** galvanized sheet rain cover for horizontal units (fig. 15).

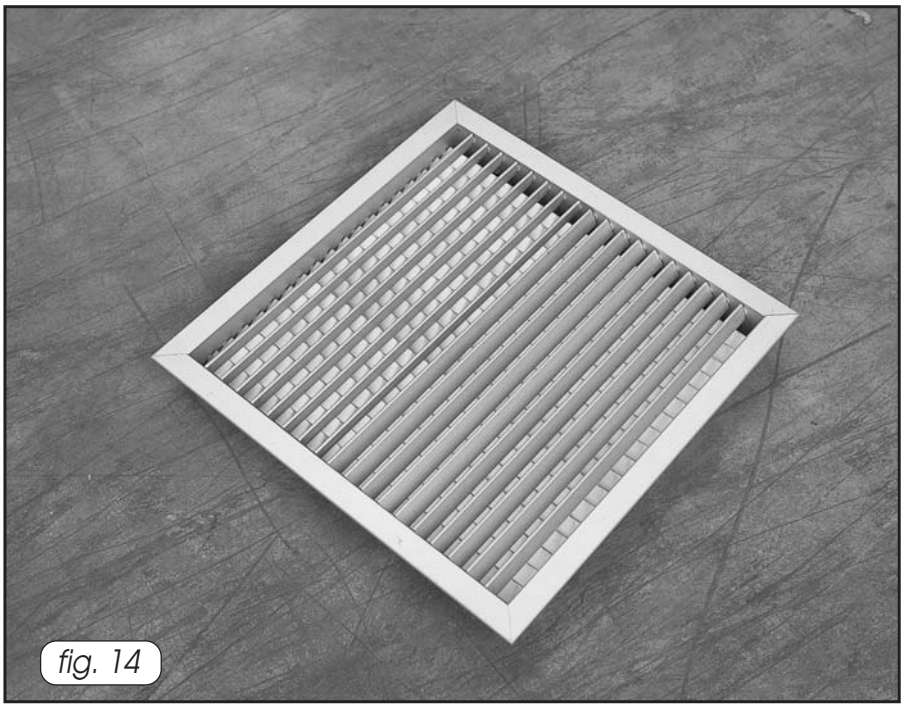


fig. 14

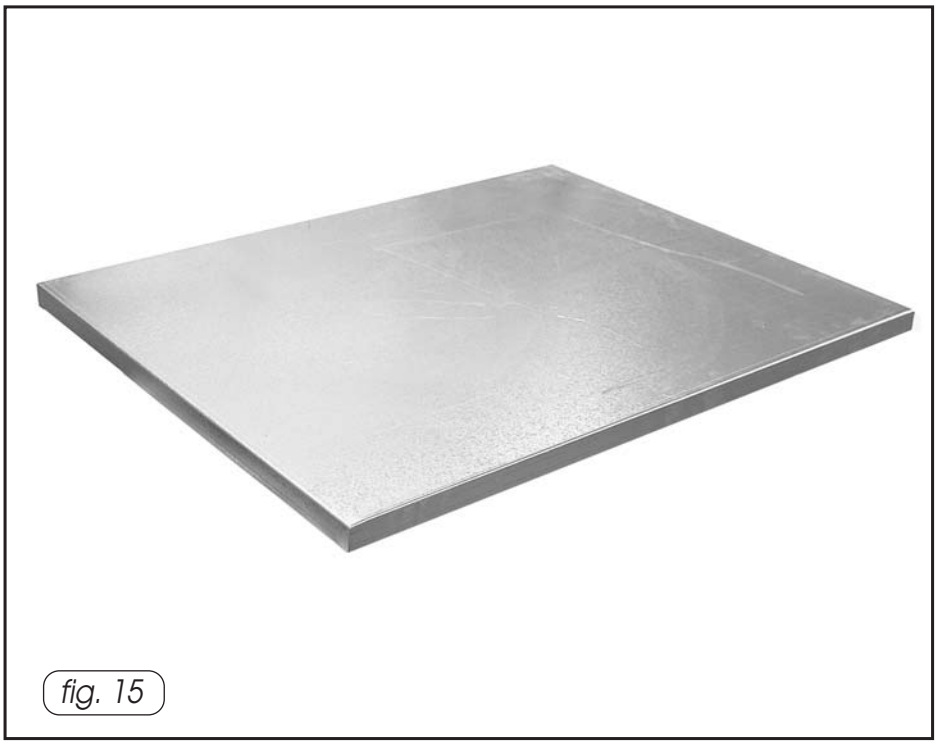
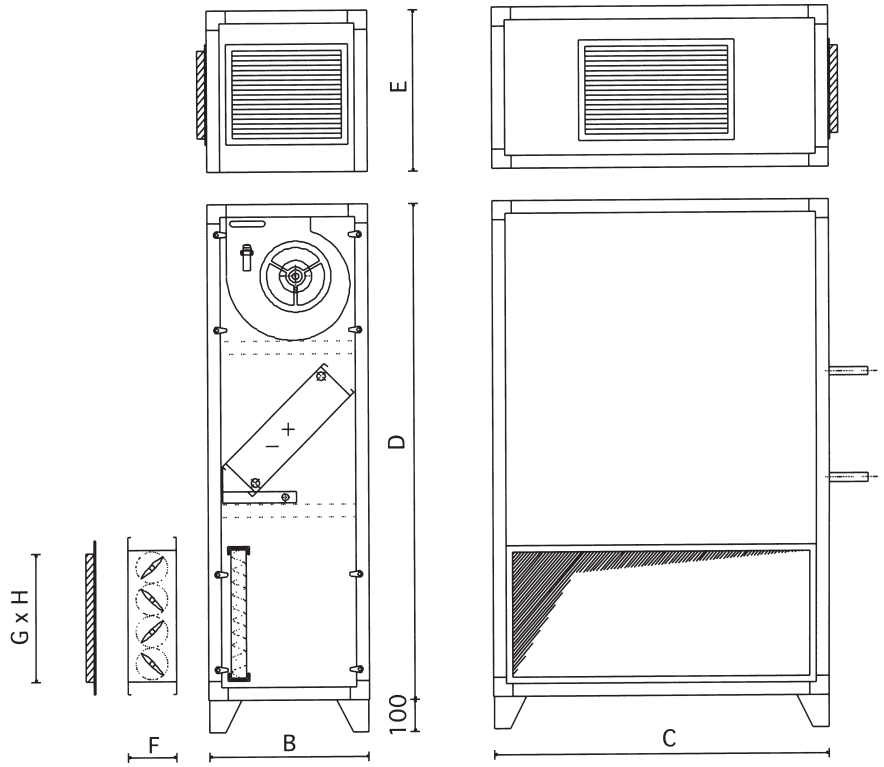
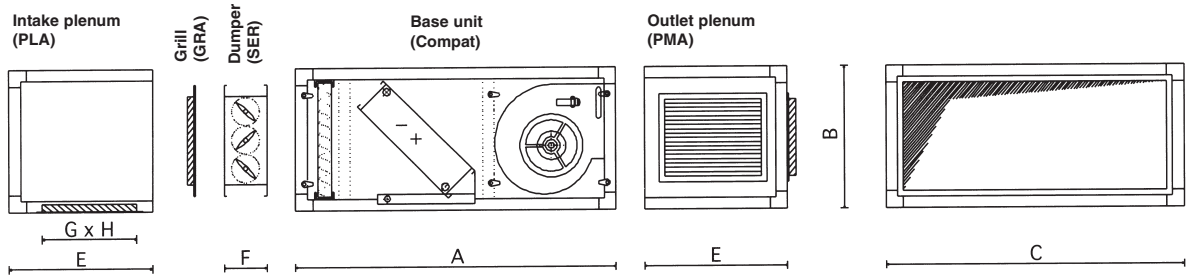


fig. 15

4. CLEARANCE DIMENSIONS





Unit size	MU	10-DD	15-DD	20-DD	30-DD	40-DD
A	mm	1.040	1.040	1.040	1.040	1.040
B	mm	500	500	500	500	500
C	mm	790	790	790	1.040	1.290
D	mm	1.290	1.290	1.290	1.290	1.290
E	mm	500	500	500	500	500
F	mm	150	150	150	150	150
G	mm	210	310	410	410	410
H	mm	700	700	700	950	1.200

NOTES

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