

# TUN

Ductable air-conditioning unit



- **UNIVERSAL CONFIGURATION**
- **VERSION WITH 4–6 ROW COIL**
- **VERSION WITH EXTRACTOR**

## Features

The air-conditioning units of the TUN series are intended for civil, commercial and hotel systems in small to medium sized environments. They are distinguished by their compactness (a necessary requisite for false ceiling applications) and low noise. The wide range of accessories meets various system requirements

- The **structure** is made of 1.5 mm thick hot galvanised sheet metal, insulated internally with a V0 insulation class. The unit is designed for any flow and/or intake channels to be connected. The unit can be installed horizontally or vertically and both are facilitated by the relative brackets.

- **Air-filtering** relies on standard G2 class filters in accordance with EN779 (6 mm thick), positioned on intake.

- Forward blade double intake centrifugal fans with a directly coupled motor. The single-phase 230V-50Hz multi-speed motor has three speeds that are selected via a control.

- Internal condensate **drip tray** made of 1 mm thick hot galvanised sheet metal.

- **4-6 row coils**, powered with hot or cold water and made of copper piping with aluminium louvered fins blocked by mechanical expansion of the pipes. The threaded

sleeves for the hydraulic connections and the air bleeding valve are supplied. The coils can be rotated on site.

- Post-heating 2-row coils **are also available**, made of copper piping with aluminium louvered fins blocked by mechanical expansion of the pipes.

## Choosing the unit

By appropriately combining the variety of options available, it is possible to configure every model in a manner that satisfies all specific implant requirements.

### Fields configurator:

1 2 3	4 5	6	7
Code		Version	
	Size		Configuration

### Identification:

TUN

### Size:

10, 15, 20, 25, 40

### Version:

4 - 4 row coil

6 - 6 row coil

### Configuration:

P - Powered

X - Extractor

Example of a sale code: **TUN104P**

This is a TUN unit, size 10 with a powered 4-row coil.

#### • M2S Mixing chamber 2 dampers

Section made of galvanised steel sheet with two air calibration dampers and louvers made of galvanised sheet steel. 50 mm louver pitch; 8 mm motorised regulation pin made of galvanised steel.

#### • M3S Mixing chamber 3 dampers

Section made of galvanised steel sheet with three air calibration dampers and louvers made of galvanised sheet steel. 50 mm louver pitch; 8 mm motorised regulation pins made of galvanised steel. It must be coupled with the VRF accessory.

#### • FTF Soft bag filter section

Section made of galvanised steel sheet with F6 filtering degree soft bag filters. For different filtering degrees please contact the Aermec Sales Technical Dept. It must be coupled with a powered unit.

#### • B2R 2 row water coil

For 4-pipe systems, positioned internally, downstream the main coil.

#### • PBE Section with post-heating coil

The electric coil consists of armoured resistances fitted with a twin safety thermostat.

#### • SSL Module with silencer baffles

Section made of galvanised steel sheet with mineral wool silencer baffles covered in a polyethylene film in order to prevent flaking.

#### • S2Z 2-area damper (70-30%)

Damper made of galvanised steel sheet with opposite louvers for the external air flow to blend with the air circulation flow. 50 mm louver pitch; 8 mm motorised regulation pin made of galvanised steel.

#### • VRF Return ventilating section with a G4 filter

Ventilating unit equipped with an electronic rev shifter, contained in a galvanised steel sheet section with flat filters having a G4 efficiency (EN779).

#### • PMM Plenum with circular flow attachments

1.5 mm Plenum made of hot galvanised sheet metal. The plenum has multi-diameter circular plastic fittings (200 mm, 180 mm and 150 mm) for circular pipes to be connected.

#### • TPMC Plenum of delivery

Plenum to be used for the connection with circular canals. Made of galvanized steel with insulating mat with circular nozzles. Three sections closed. It can be used as a plenum, both as a plenum aspiration with circular channels.

#### • PMC Closed flow plenum

1.5 mm Plenum made of hot galvanised sheet metal. The plenum allows the flow to turn 90°. The installer must make the flow aperture.

#### • SAS Intake damper

Air calibration damper with louvers made of galvanised sheet steel. 50 mm louver pitch; 8 mm motorised regulation pin made of galvanised steel.

#### • GMD Flow grid with adjustable louvers

Grid with double row adjustable louvers for air to be introduced in the relative room. It can be installed directly on to the appliance by removing the flanges or on to the wall.

#### • GAP Intake grid

With louvers tilted at 45°; it can be installed directly on to the appliance by removing the flanges or on to the wall.

#### • FPI G4 filters for lower intake

#### • FPF G4 filters

#### • PX Control panel with only the switch-over

#### • WMT 05 Electro-mechanical thermostat

For fan coils installed in 2-pipe systems. The panel must be installed on the wall and protected electrically with an internal fuse. It has the following functions: on / off switch; cursor to select the heating / cooling modes (manual season change); cursor to select the fan speed (high, medium and low); temperature selector (+5°C to 30°C)

#### • WMT10 Control panel

For fan coils installed on the wall. Controls the fan coil operation according to the set mode. The panel must be wall mounted; it is to be used in 4-pipe and 2-pipe systems and systems with 2-pipes with resistance, with the possibility of connecting two ON - OFF type valves for the cut-off of the coil supply water. The panel is protected electrically by an internal fuse. The control has the following functions:

- 1) cursor to select the cooling or heating mode;
- 2) manual season change;
- 3) manual selection of the fan speed;
- 4) selection of the desired room temperature (+ 10°C to 30°C);
- 5) 2-pipe system management;
- 6) 4-pipe system management;
- 7) 2-pipe system management (cooling) + electrical resistance (heating);
- 8) thermostatic ventilation;
- 9) continuous ventilation;
- 10) continuous ventilation in cooling mode and thermostatic in heating mode.

Accessories compatibility

	TUN 10	TUN 15	TUN 20	TUN 25	TUN 40	TUN 40P
<b>M2S</b>	M2S1	M2S2	M2S3	M2S4	M2S4	M2S5
<b>M3S</b>	M3S1	M3S2	M3S3	M3S4	M3S4	M3S5
<b>FTF</b>	FTF1	FTF2	FTF3	FTF4	FTF4	FTF5
<b>B2R</b>	B2R11	B2R21	B2R31	B2R41	B2R41	B2R51
<b>PBE</b>	PBE2	PBE3	PBE4	PBE5	PBE6	PBE7
<b>SSL</b>	SSL1	SSL2	SSL3	SSL4	SSL4	SSL5
<b>S2Z</b>	S2Z1	S2Z2	S2Z3	S2Z4	S2Z4	S2Z5
<b>VRF</b>	VRF1	VRF3	VRF4	VRF5	VRF6	VRF7
<b>PMM</b>	PMM1	PMM2	PMM3	PMM4	PMM4	PMM5
<b>TPMC</b>	TMPC1	TMPC2	TMPC3	TMPC4	TMPC4	TMPC5
<b>PMC</b>	PMC1	PMC2	PMC3	PMC4	PMC4	PMC5
<b>SAS</b>	SAS1	SAS2	SAS3	SAS4	SAS4	SAS5
<b>GMD</b>	GMD1	GMD2	GMD3	GMD4	GMD4	GMD5
<b>GAP</b>	GAP1	GAP2	GAP3	GAP4	GAP4	GAP5
<b>FPI</b>	FPI11	FPI12	FPI13	FPI14	FPI14	FPI15
<b>FPF</b>	FPF1	FPF2	FPF3	FPF4	FPF4	FPF5
<b>PX</b>	•	•	•	•	•(2)	•(2)
<b>WMT 05</b>	•	•(1)	•(1)	•(1)	•(2)	•(2)
<b>WMT 10</b>	•	•(1)	•(1)	•(1)	•(2)	•(2)
<b>SIT3</b>	•	•	•	•	•	•

(1) SIT3 is to be used and the 2A fuse is to be replaced with a 4A fuse

(2) Install a relay, one per speed

## Technical data

			10	15	20	25	40	10P	40P
<b>Cooling capacity with:</b>									
4-row coil <sup>(1)</sup>	total	kW	4,7	9,3	12,5	16,5	23,3	4,7	26,4
	sensible	kW	3,6	6,6	8,7	11,4	16,3	3,6	18,2
6-row coil <sup>(1)</sup>	total	kW	6,2	11,1	14,1	18,5	26,6	6,2	29,4
	sensible	kW	4,4	7,6	9,8	12,7	18,5	4,4	20,1
<b>Water flow rate</b>									
4-row coil		l/h	804	1599	2141	2832	4002	804	4536
6-row coil		l/h	1072	1910	2420	3184	4572	1072	5051
<b>Pressure drop</b>									
4-row coil <sup>(2)</sup>		kPa	3	16	33	33	60	3	56
6-row coil <sup>(2)</sup>		kPa	9	34	20	20	37	9	28
<b>Heating capacity with</b>			kW						
4-row coil <sup>(2)</sup>	total	kW	11,2	19	24,9	32,3	46,7	16,6	51,1
6-row coil <sup>(2)</sup>	total	kW	12,5	21,1	27,5	35,4	52,2	18,5	56,1
4-row coil	total	kW	5,5	9,3	12,1	16	25,9	6,4	30,8
6-row coil	total	kW	6,1	10,5	13,6	17,6	28,9	7,2	34,8
<b>Water flow rate</b>									
4-row coil		l/h	978	1663	2183	2831	4089	978	4475
6-row coil		l/h	1097	1849	2410	3101	4573	1097	4909
<b>Pressure drop</b>									
4-row coil		kPa	4	13	24	24	46	4	41
6-row coil		kPa	7	24	15	14	28	7	20
Heating capacity 2-row water coil		kW	7	11,7	15,3	20,5	27,9	7	31,8
Water flow rate		l/h	609	1026	1339	1792	2444	609	2786
Pressure drop		kPa	4	7	7	10	17	4	10
Electrical coil:									
Electric coil capacity		kW	4	8	10	12	20	6	20
No. of stages of the electric coil		n°	2	2	2	2	2	2	2
Power supply	400V/3/50Hz								
fan:									
Air flow rate <sup>(3)</sup>		m3/h	900	1500	2000	2500	4000	900	4000
Static pressure		Pa	110	150	170	150	120	330	220
Fan power supply		W	357	713	886	874	1771	713	1771
Fan input current		A	1,6	3,1	3,9	3,8	7,7	3,1	7,7
Poles		n°	2	2	4	4	4	2	4
Power supply	230V/1/50Hz								
<b>Filters:</b>									
Efficiency of flat filters <sup>(4)</sup> std/opt	STD/OPT		G2/G4	G2/G4	G2/G4	G2/G4	G2/G4	G2/G4	G2/G4
Efficiency of bag filters			F6	F6	F6	F6	F6	F6	F6
<b>Sound data:</b>									
Sound power		dB(A)	68	72	77	78	79	71	80
<b>Hydraulic connections:</b>									
Main coil collectors	Ø		1"	1"	1"	1"	1"	1"	1"
Additional coil	Ø		¾"	¾"	¾"	¾"	¾"	¾"	¾"

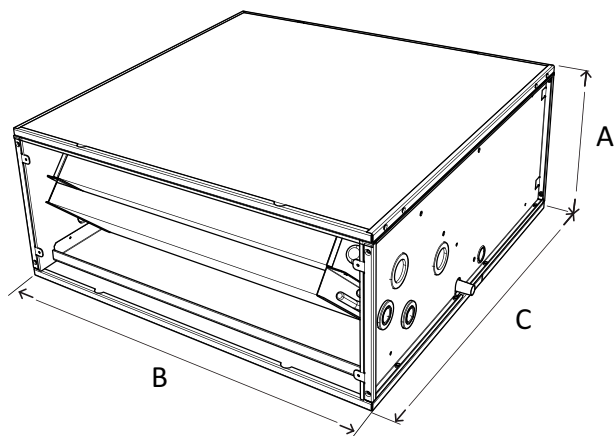
(1) Temperature of incoming air 27°C b.s./19°C b.u.  
Water temperature inlet 7°C  
Water temperature outlet 12°C

(2) Temperature of incoming air 20°C  
Water temperature inlet 70°C  
Water temperature outlet 60°C

(3) At nominal flow rate with 4-row coil

(4) In compliance with EN 779

Dimensional data (mm)



TUN HORIZONTAL INSTALLATION WITH EXTRACTOR  
FRONT VIEW

Mod. TUN		10	10P	15	20	25	40	40P
DIMENSIONS OF A HORIZONTAL INSTALLATION AND "EXTRACTOR" CONFIGURATION								
Height (A)	mm	300	300	300	390	390	390	390
Width (B)	mm	700	700	1050	1050	1475	1475	2100
Length (C)	mm	700	700	700	850	850	850	1000
Connection projection	mm	82	82	82	82	82	82	82
Number of fans	n°	1	2	2	1	1	2	2
UNIT NET WEIGHTS		10	10P	15	20	25	40	40P
4-row coil	kg	33	37	47	59	88	88	108
6-row coil	kg	35	38	49	61	92	92	108