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IL CLIMA AMICO
A leading brand of AFG

Zeus
Air Handling Unit

The **Zeus** air handling units are suitable for cooling and heating commercial and industrial environments. They are available in **6 horizontal models** and **6 vertical models,** with air flow from 5.000 to 25.000 m³/h. Heating capacity **from 32 to 260 kW,** cooling capacity **from 17 to 160 kW.**

The units are made up of a extruded aluminium section bar frame, and **double panelling** filled with a 25 mm thick layer of high-density (90 kg/m³) rock wool insulation that guarantees, as well as high safety standards in the event of fires **(no toxic fumes are released),** excellent noise absorption and a very high degree of thermal insulation, minimising dispersions to the outside.

The metal plate used
to make the panels is galvanised and
pre-painted blue on the outside of the panel.

Each unit can be **easily dismantled and reassembled on site,** changing the direction of air flow according to specific needs. The special construction allows the coil and the fan assembly to be easily inspected and removed.

Technical characteristics of the main components:

Casing: made of an extruded aluminium frame with black fibreglass-reinforced nylon corner joints, and 25mm thick **sandwich panels.** The panels are made by joining two sheets: galvanised plate for the inner panel and galvanised plate painted blue **(RAL 5012)** for the outer panel. The sandwich panel is filled with a layer of high-density (90 kg/m^3) rock wool, fire resistant class A1 according to DIN 4102 standards.

Fan assembly: is made up of fan, motor and transmission, fitted on a special mount suspended on rubber anti-vibrating elements, and with anti-vibrating joints at the fan outlet. The elements making up the assembly have **the following characteristics:**

Fans: dual intake centrifugal fans with forward blades, single outlet for sizes 50-80-110, and double outlets for sizes 140-200-250. The fan shroud and impeller are made from galvanized steel.

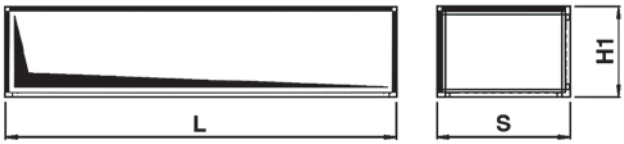
Electric motors: are suitable for a three-phase 50Hz power supply, voltage 400V; constructional characteristics standardised according to UNEL-MEC form B3. Index of protection IP 55, insulation class F.

Transmission: is made up of a variable-pitch drive pulley, a fixed-pitch fan pulley and drive belt. The motor is fitted to a special slide system used to adjust the tension of the belt.

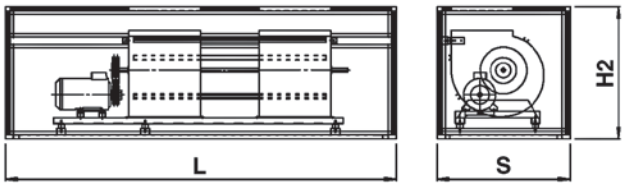
Coil and filter section: is ready to house the coil and filter.
The coil is supported by a frame and is easily removable and reversible, in terms of the side of the connections, even on site. The coils are with copper pipes and aluminium fins, and are made using 10mm diameter pipes with 25x22 pitch on sizes 50 - 80 - 110, and 16mm diameter pipes with 60mm pitch for sizes 140 - 200 - 250.
The water connections are made from steel, with male gas threads.
There are coils with **2-3-4 rows** for heating only operation,
and coils with **3-4-6 rows** for cooling operation.
The dimensions of the coil section depend on the type of operation. Configuration with horizontal coil for sections for heating only, and configuration with inclined coil and condensate collection tray for sections for cooling.
The coil is not suitable for use in corrosive atmospheres or in environments where aluminium may be subject to corrosion.

Air filters: the units are fitted with **synthetic filters,** class G3 according to EN 779 standard, and class F1 as regards to resistance to fire, according to DIN 53438 standard.
The filtering layer is designed with special pleating, 48mm thick, which reduces the overall dimensions of the filter for the same filtering surface.
The filters are made from individual cells with a metal frame and galvanized protective mesh.
The filters are removed from the same side **of water connections,** so it will be necessary to keep **at least 600 mm** free on this side, in order to allow cleaning and replacement of the filters.

Dimensions of the main sections



Outlet plenum section



SUEZ

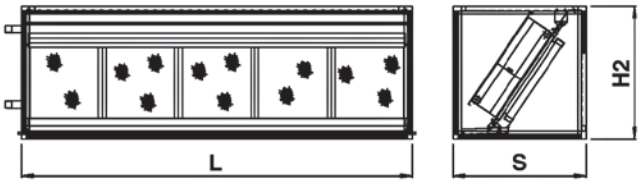
Fan section

SBC 2-3-4

Heating coil section
with 2, 3, 4 rows

SBCF 2-3-4

Heating coil section
with 2, 3, 4 rows
+ filter
(for horizontal
configuration only)



SBF 2 SX-DX
SBF 3 SX-DX
SBF 4 SX-DX
SBF 6 SX-DX

Cooling coil section
with 2, 3, 4, 6 rows
+ filter
+ condensate tray
(DX = right connections)
(SX = left connections)

Mixing plenum section

MODEL			TZ 50	TZ 80	TZ 110	TZ 140	TZ 200	TZ 250
Width	L	mm	1250	1900	1900	2560	2580	2780
Depth	S	mm	740	740	870	870	1150	1270
Fan section height	H2	mm	740	740	870	870	1150	1270
Cooling coil section height	H2	mm	740	740	870	870	1150	1270
Heating coil section height	H3	mm	350	350	350	350	400	450
Intake plenum section height	H1	mm	490	490	590	590	810	810
Outlet plenum section height	H1	mm	490	490	590	590	810	810
Coil header diameter	2R	Ø	1"	1"	1" 1/4	1" 1/2	1" 1/2	2"
Coil header diameter	3R	Ø	1"	1" 1/4	1" 1/2	1" 1/2	2"	2"
Coil header diameter	4R	Ø	1"	1" 1/4	1" 1/2	1" 1/2	2"	2" 1/2
Coil header diameter	6R	Ø	1" 1/4	1" 1/2	1" 1/2	1" 1/2	2"	2" 1/2

Weight and water content

MODEL	ROWS	WATER CONTENT	COOLING COIL SECTION SBF	HEATING COIL SECTION SBC	FAN SECTION	PLENUM SECTION
		liters	kg	kg	kg	kg
TZ 50	2	3,2	102	66	112	53
	3	4,6	105	69		
	4	6,2	109	72		
	6	8,2	117	–		
TZ 80	2	5,3	139	91	155	75
	3	7,7	143	93		
	4	10,2	149	99		
	6	14,8	161	–		
TZ 110	2	7,2	174	107	187	92
	3	10,7	177	110		
	4	14,3	185	118		
	6	20,9	201	–		
TZ 140	2	10,2	236	152	248	118
	3	15,3	241	157		
	4	20,4	256	172		
	6	30,4	286	–		
TZ 200	2	15,3	324	193	379	169
	3	22,5	329	198		
	4	29,4	351	220		
	6	44,5	388	–		
TZ 250	2	18,4	376	225	522	190
	3	27,5	382	231		
	4	37,5	408	257		
	6	55,6	459	–		

FAN SECTION
Technical Specifications

MODEL		TZ 50	TZ 80	TZ 110	TZ 140	TZ 200	TZ 250	
Type of fan		AT 12/12	AT 15/15	AT 18/18	AT 15/15	AT 18/18	AT 18/18G2C	
Single / Double outlet		S	S	S	D	D	D	
Power consumption	kW	1,1	2,2	3,0	4,0	5,5	7,5	
Poles		4	4	4	4	4	4	
Tension	3 ~ 50Hz	400 V					400 V	690 V
Nominal current	A	2,6	4,8	6,6	8,3	11,0	14,6	9
Available static pressure Low / High Model **(1)**	Pa	0 ÷ 191	0 ÷ 256	0 ÷ 298	0 ÷ 202	0 ÷ 164	0 ÷ 166	
Available static pressure Low / High Model **(2)**	Pa	108 ÷ 238	64 ÷ 303	87 ÷ 345	35 ÷ 257	32 ÷ 220	0 ÷ 221	

Type (1) = The values refer to a configuration with intake grill, filter, 6-row cooling coil, 2-row heating coil, fan section.
Type (2) = The values refer to a configuration with filter, 4-row cooling coil, fan section.

ZEUS Technical Specifications

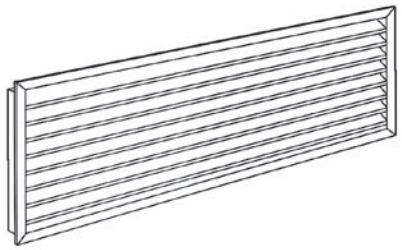
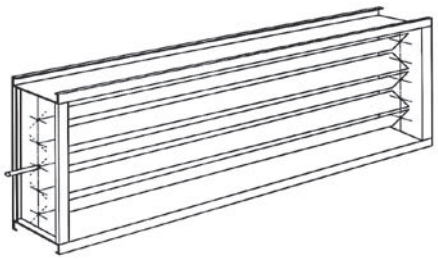
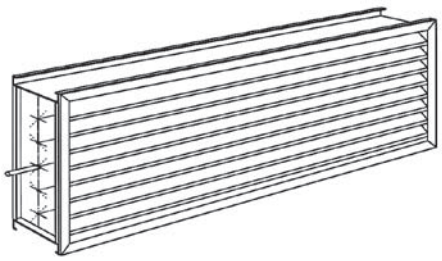
HEATING EMISSION: Water temperature 70/60°C – Entering air temperature +20°C

MODEL	AIR FLOW	ROWS	THERMAL POWER	LEAVING AIR TEMPERATURE	WATER FLOW
	m³/h		kW	°C	l/h
TZ 50	4400	2	32,35	41,9	2828
		3	42,37	48,6	3704
		4	49,77	53,6	4350
TZ 80	7400	2	54,38	41,9	4753
		3	71,22	48,6	6226
		4	83,66	53,6	7312
TZ 110	10400	2	76,13	41,9	6655
		3	99,70	48,6	8716
		4	117,12	53,6	10236
TZ 140	14000	2	98,93	41,2	8688
		3	129,05	47,5	11317
		4	151,28	52,7	13266
TZ 200	20200	2	142,40	41,1	12506
		3	186,88	47,5	16389
		4	219,08	52,7	19211
TZ 250	24500	2	171,61	41,3	15071
		3	226,34	47,7	19849
		4	263,21	52,8	23082

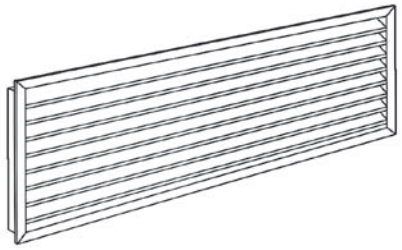
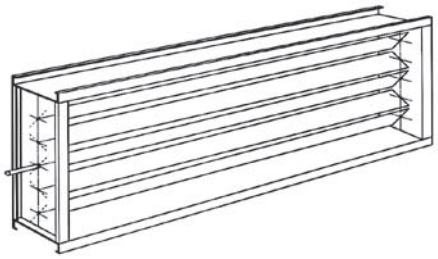
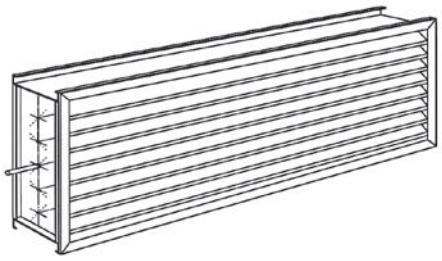
COOLING EMISSION: Water temperature 7/12°C – Entering air temp. +27°C – Relative Humidity 50%

MODEL	AIR FLOW	ROWS	TOTAL THERMAL POWER	SENSIBLE THERMAL POWER	WATER FLOW
	m³/h		kW	kW	l/h
TZ 50	4400	3	17,04	14,00	2931
		4	20,82	16,40	3581
		6	26,68	19,36	2656
TZ 80	7400	3	28,93	23,77	4976
		4	35,52	27,98	6109
		6	45,47	33,00	7821
TZ 110	10400	3	39,98	32,85	6876
		4	50,46	39,36	8680
		6	63,85	46,01	10982
TZ 140	14000	3	54,40	41,60	9333
		4	72,10	51,10	12364
		6	92,50	62,70	15830
TZ 200	20200	3	78,78	60,24	13516
		4	104,41	74,00	17913
		6	133,95	90,80	22982
TZ 250	24500	3	101,58	75,50	17428
		4	126,45	89,62	21695
		6	160,94	109,09	27612

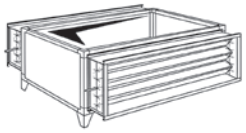
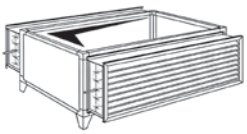
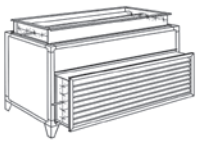
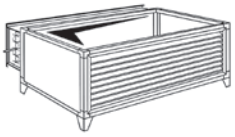
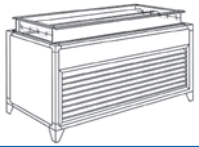
Vertical Sections **accessories**

GASV	**Anodised aluminium intake grid**	
SRASV	**Intake galvanized damper**	
SRAGV	**Intake galvanized damper with intake grid**	

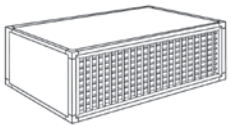
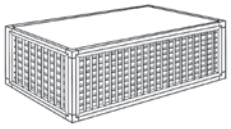
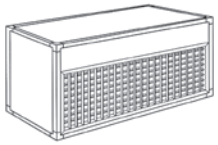
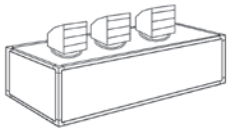
Horizontal Sections **accessories**

GASO	**Anodised aluminium intake grid**	
SRASO	**Intake galvanized damper**	
SRAGO	**Intake galvanized damper with intake grid**	

Inlet Plenum **accessories**

PDSV	**Mixing box with two galvanized dampers** ***(for vertical versions)***	
PDSO	**Mixing box with two galvanized dampers** ***(for horizontal versions)***	
PDSGV	**Mixing box with two galvanized dampers and intake grid** ***(for vertical versions)***	
PDSGO	**Mixing box with two galvanized dampers and intake grid** ***(for horizontal versions)***	
PGSV	**Mixing box with intake grid and galvanized damper** ***(for vertical versions)***	
PGSO	**Mixing box with intake grid and galvanized damper** ***(for horizontal versions)***	

Outlet Plenum **accessories**

PMB 1VV	**1 way plenum** ***(for vertical versions)*** Outlet plenum with double row of aluminium fins.	
PMB 3VV	**3 way plenum** ***(for vertical versions)*** Outlet plenum with double row of aluminium fins.	
PMB 1VO	**1 way plenum** ***(for horizontal versions)*** Outlet plenum with double row of aluminium fins.	
PMU	**Supply plenum with adjustable diffusers**	

Controls

Q	**Control panel**

The descriptions and illustrations provided in this publication are not binding: Sabiana reserves the right, whilst maintaining the essential characteristics of the types described and illustrated, to make, at any time, without the requirement to promptly update this piece of literature, any changes that it considers useful for the purpose of improvement or for any other manufacturing or commercial requirements.

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