



Serie **TBR-TR**



THERMOSTATIC ROTARY NOZZLE



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THERMOSTATIC ROTARY NOZZLE SERIE TBR-AT



DESCRIPTION

Nozzle adjustable in all directions with a maximum inclination of $\pm 30^\circ$. The regulation is automatic, without the aid of electrical power supply, by means of a thermostatic actuator made of special shape-memorizing materials in Nickel-Titanium.

When the inlet air is hot (heating condition) the actuator will move the flow towards the bottom; while when the inlet air is cold (cooling condition) the actuator will move it towards the top, following the previously calculated deflection angle.

The **TBR-AT** does not need to be pre-regulated at the beginning. It can be mounted on duct, wall or plenum and adjusted at the end.

The adjustment of the deflection angle is very simple and intuitive by means of mechanical stops assisted by a color scale placed inside the connection (picture 3).

The diffuser operates in a temperature range between 15°C and 40°C . At an average temperature of 25°C the deflection angle is 0° .

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FINISH

Material: Aluminum diffuser body

Acabado: Natural satin with transparent primer

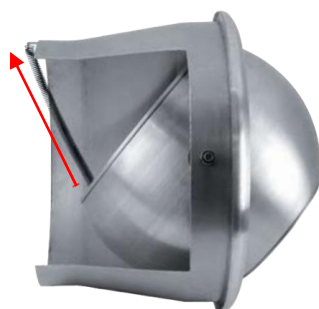
ACCESSORIES

RR: Rectangular duct connection

RC: Circular duct connection

FIXING SYSTEM

Screw fixing (standard)



Heating mode

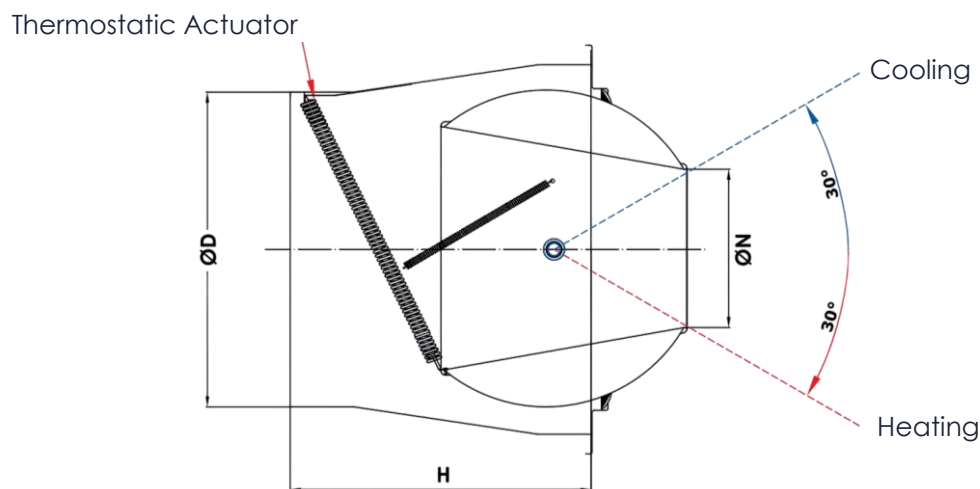


Cooling mode



THERMOSTATIC ROTARY NOZZLE SERIE TBR-AT

DIMENSIONS



Measurements (mm)			
Model	$\varnothing N$	H	$\varnothing D$
TBR-AT150	150	285	298
TBR-AT200	200	290	398
TBR-AT230	230	290	398

IMPULSION



Images "A" and "B" show the behavior of the diffuser when the inlet air temperature changes. Image "A" shows that, in case of cooling, the thermostatic actuator shifts the flow upwards. Image "B" shows that the actuator shifts the flow downward as the temperature increases, which favors the entry of warm air into the occupied zone.

THERMOSTATIC ROTARY NOZZLE

SERIE TBR-AT

SELECTION TABLE

Sound Level: NR [dB(A)]		<20	20	25	30	35	40	45	50	>55
Churches, Libraries										
Hospitals										
Houses, Offices										
Stores										
TBR-AT 150	Installation height (m)	2,6 5,2	2,7 5,4	2,8 5,6	3 5,8	3,2 6	3,4 6,2	3,6 6,4	3,8 6,6	4,2 7
	V (m/s)	2	4	6	8	10	12	14	16	20
	ΔP (mm c.a.)	0,2	0,8	1,9	3,5	5,6	8,2	11,3	14,9	23,8
	Q (m³/h)	129	257	386	514	643	771	900	1029	1286
	Alc. (m)	4,3	8,5	12,8	17	21,3	25,5	29,8	34	42,5
TBR-AT 200	Installation height (m)	3,4 6,6	3,6 7,7	3,8 8,7	4 9,4	4,2 10	4,4 10,5	4,6 11	4,8 11,5	5,2 11,5
	V (m/s)	2	4	6	8	10	12	14	16	20
	ΔP (mm c.a.)	0,2	0,7	1,7	3,1	4,9	7,2	9,9	13,1	21,0
	Q (m³/h)	221	443	664	886	1107	1329	1550	1772	2214
	Alc. (m)	4,3	8,6	13	13,6	17,3	26	30,2	34,6	43,2
TBR-AT 230	Installation height (m)	3,4 6,6	3,6 7,7	3,8 8,7	4 9,4	4,2 10	4,4 10,5	4,6 11	4,8 11,5	5,2 11,5
	V (m/s)	2	4	6	8	10	12	14	16	20
	ΔP (mm c.a.)	0,2	0,7	1,6	2,9	4,6	6,8	9,3	12,3	19,7
	Q (m³/h)	288	577	865	1154	1442	1730	2019	2307	2884
	Alc. (m)	4,6	9,1	13,7	18,2	22,8	27,4	31,9	36,5	45,6

V (m/s) : Impulsion speed

ΔP (mm c.a.) : Pressure drop

Q (m³/h) : Air flow

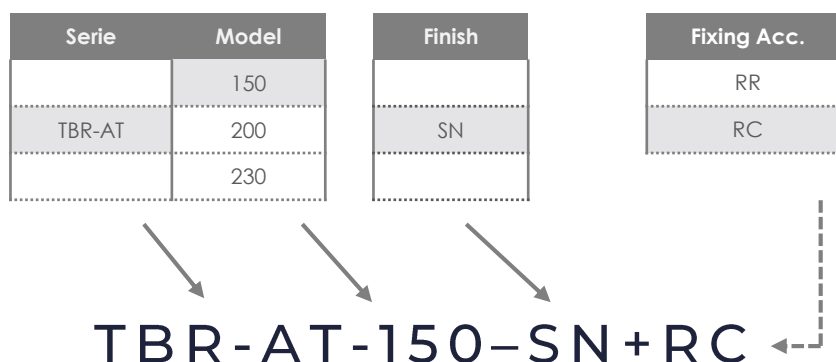
Alc. (m) : Range for residual speed

dB(A) : Sound Level

THERMOSTATIC ROTARY NOZZLE

SERIE TBR-AT

GRAPHIC DESCRIPTION



SERIE

- TBR-AT: Thermostatic rotary nozzle.

MODEL

- TBR-AT 150: Ø150mm Thermostatic rotary nozzle.

FINISH

- SN: Natural satin with transparent primer (standard).

ACCESSORY

- RC: Connection for circular duct.

Order example: TBR-AT-150-SN+RC

- To order a thermostatic rotary nozzle, Ø150mm with circular duct connection, you should request:

Order	Description
1 Nozzle TBR-AT 150-SN	Thermostatic rotary nozzle, Ø150mm made in natural satin with transparent primer (standard).
1 Connection RC	Circular duct connection.

Order example: TBR-AT-200-SN

- To order a thermostatic rotary nozzle, Ø200mm, you should request:

Order	Description
1 Nozzle TBR-AT 200-SN	Thermostatic rotary nozzle, Ø200mm made in natural satin with transparent primer (standard).



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