



RRA Submittal



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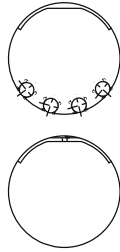
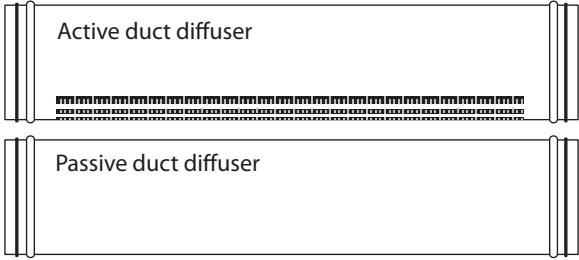
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Date

Project

Engineer

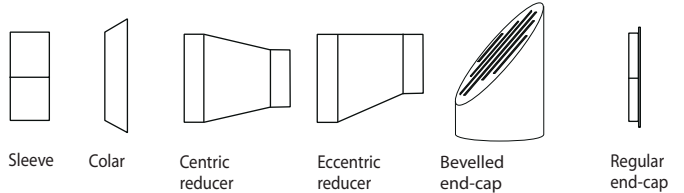
Contractor



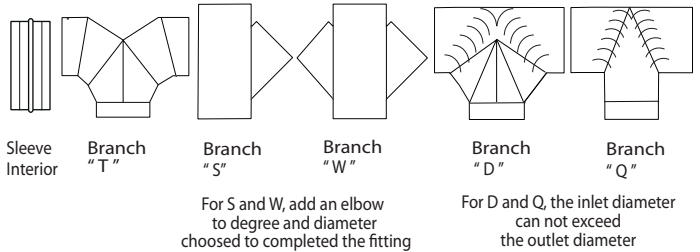
All of the standard accessories (elbows, connection sleeves, reduction connectors, multi-branch connectors, etc.) are available in the exact dimensions of the duct.

Accessories

Big-end



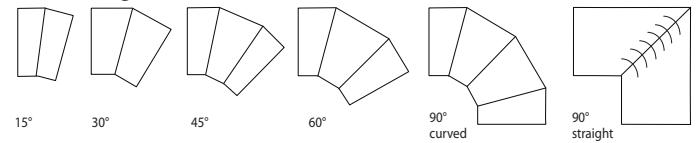
small-end



For S and W, add an elbow to degree and diameter choosed to completed the fitting

For D and Q, the inlet diameter can not exceed the outlet diameter

Elbows are big-end

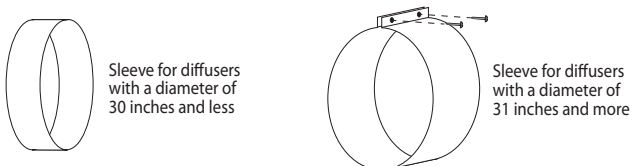


The diffuser

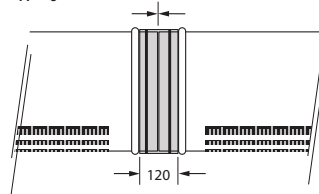
- Tubing diffuser
- Made of 22 ga brushed steel for ducts inferior to 457 mm (18 in) in diameter, and 20 ga for diameters superior or equal to 457 mm (18 in).
- Diameter from 203 mm (8 in) to 1419 mm (56 in).
- PVC gasket
- Tight sea between sections.
- Assembled with union sleeve.
- Steel reinforcements installed inside ducts of more than 433 mm (17 in) in diameter.
- Painted with a TGIC free polyester powder coat.
- Colour choosed by client on RAL colour chart only.
- Slots containing eccentric rollers and / or nozzle rollers.
- 100 mm (4 in) long eccentric rollers.
- Alphanumerically adjustment of duct's air flow.
- Air flow pattern over 180 degrees.
- Easy-to-clean
- A reducer fitting, or perforated balancing damper with a self-locking mechanism, installed after a maximum of 5 consecutive active sections of the same diameter.
- The duct diffuser can be active or passive (without slots).

Assembling

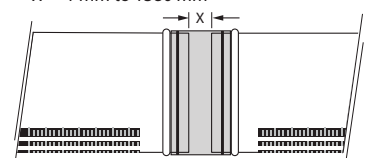
The RRA diffuser sections are connected by connection sleeves which are adapted to the diameter of the duct.



Standard Sleeve (120 mm)
(RRA are joined)
X = 0



Special sleeve
(spacing between RRA)
X = 1 mm to 1380 mm



RRA - Réglage de la direction du jet d'air

Thanks to the shape of the eccentric rollers and adjustment dial with alphanumeric characters, the air jet's direction at the outlet of the diffuser can vary up to 180°. For each direction, there are two (2) roller positions ("reduced" or "not reduced"), as illustrated in figure E.

The length of each roller is 100 mm and they are individually adjustable.

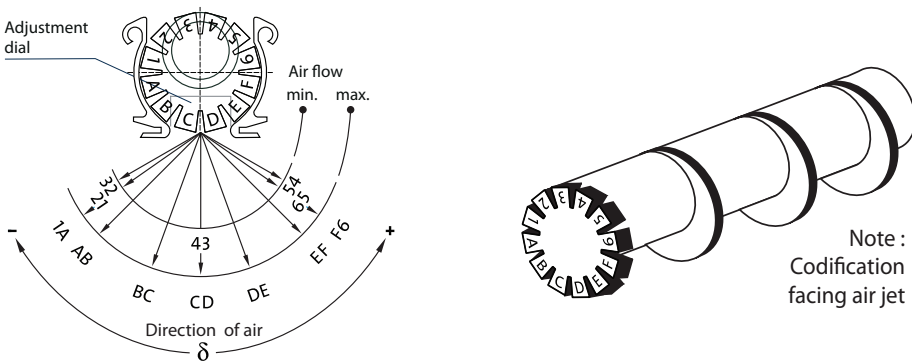
As a result, the combinations of airflow are almost infinite. In manufacturing, the ducts are individually adjusted for each project. The standard setting for the rollers is set to diffusion mode, in the positions "21" and "65" alternately.

This setting produces strong induction, which can be used to meet heating and cooling needs, thereby creating high mixing levels. The nozzle rollers can only be set in the open and closed position.

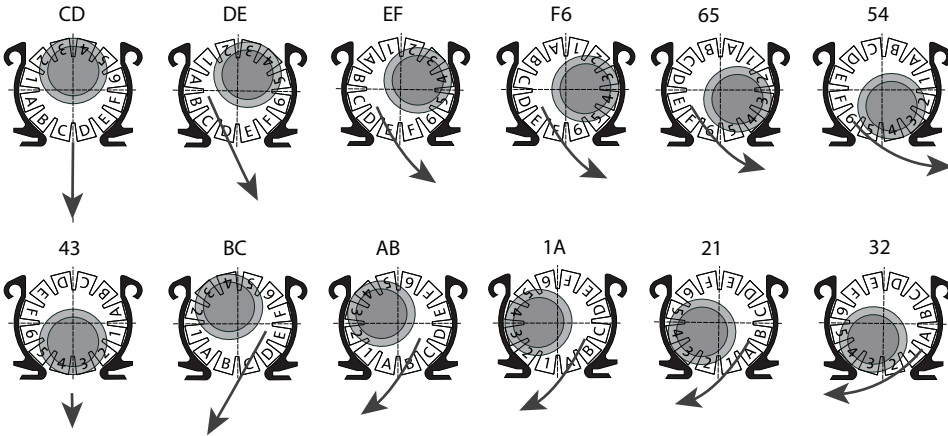
As a result, the divergent mode allows jets to blow in more accurate directions. This mode also allows a longer projection of the airflow. In specific zones which are habitually difficult to cover, a specialized setting can be created. Figures C and D show the relationship between the position of the eccentric roller and the direction of the exiting airflow. Note that to maximize air projection, multiple jets can be orientated in the same direction to optimize the coverage of a zone, even when heating.

Eccentric roller

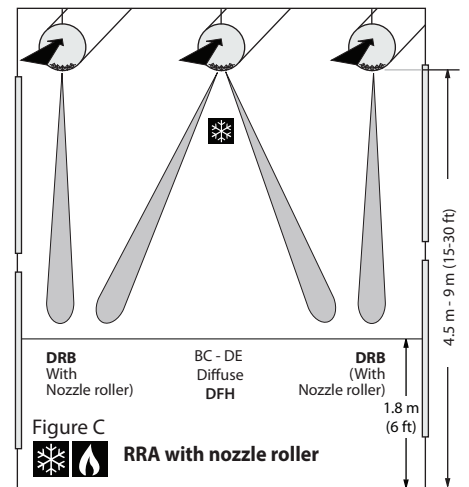
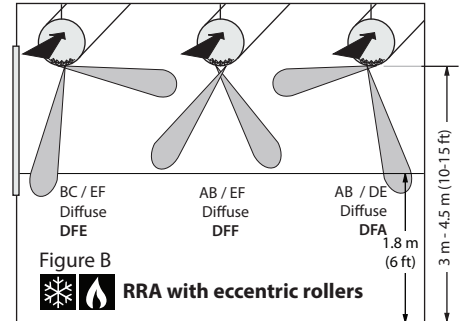
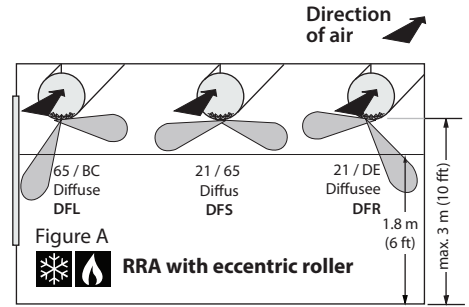
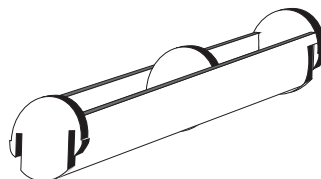
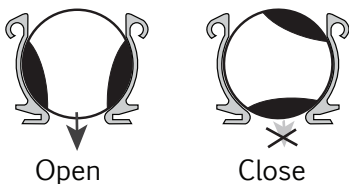
Figure E



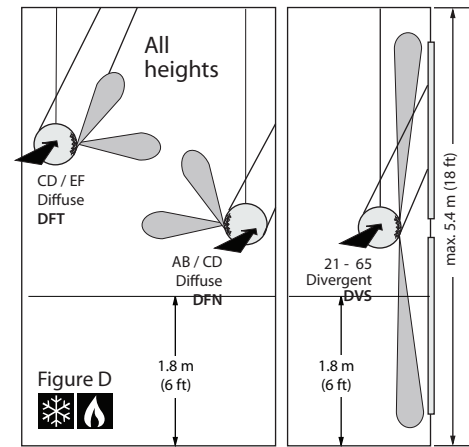
Guide of direction of flow



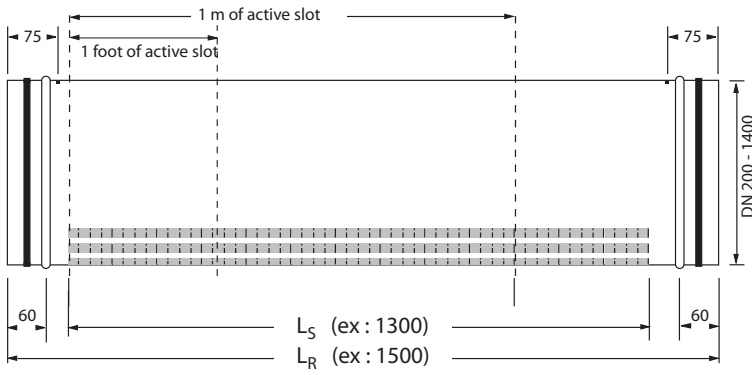
Nozzle roller (DRB)



Slots at +90°



RRA - Dimensions and weight



Duct length - L_R	1000	1500	1700	2000
Slot length - L_S	800	1300	1500	1800

Weight / slot (kg)

0.30	0.48	0.56	0.67
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Weight of passive RRA (kg)

Diameter of RRA (mm)	Thickness of the metal sheet : 0.85 mm			
200	4.20	6.38	7.15	8.41
251	5.28	7.92	8.97	10.55
302	6.35	9.52	10.79	12.70
353	7.42	11.13	12.69	14.84
403	8.47	12.71	14.40	16.94

Thickness of the metal sheet : 1.00 mm

454	11.41	17.00	19.30	22.66
505	12.67	18.93	21.43	25.19
556	13.94	20.83	23.58	27.72
607	15.69	23.21	26.22	30.73
657	16.93	25.07	28.32	33.21
708	18.97	27.74	31.25	36.51
759	20.33	29.74	33.50	39.14
810	21.70	31.73	35.75	41.77
861	23.07	33.73	38.00	44.40
911	24.40	35.69	40.21	46.98
962	26.40	38.31	43.08	50.23
1013	27.79	40.35	45.37	52.90
1064	29.19	42.38	47.65	55.56
1115	30.59	44.41	49.93	58.22
1165	31.96	46.40	52.17	60.83
1216	33.36	48.43	54.46	63.50
1267	34.76	50.46	56.74	66.16
1318	36.16	52.49	59.02	68.82
1369	37.56	54.52	61.31	71.48
1419	38.93	56.51	63.55	74.10

Standard

RRA - Codification

RRA	1000, 1500, 1800										Product	
	0800, 1300, 1600										Length of duct L_R	
	_____ = Special length, write the length in mm XXXX = Non applicable (passive duct)										Length of slots L_S	
	200, 251, 302, 353, 403, 454, 505, 556, 607, 657, 708, 759, 810, 861, 911, 962, 1013, 1064, 1115, 1165, 1216, 1267, 1318, 1369, 1419										Ø Duct diameter	
	X = Passive 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15,										Quantity of slots	
	XXX = Passive duct 006 = Slots at 0° (6h) 003 = Slots at +90° (3h) 009 = Slots at -90° (9h) 012 = Slots at 180° (12h)	039 = Slots at +90° (3h) and at -90° (9h) 369 = Slots at +90° (3h), 0° (6h) and at -90° (9h) 612 = Slots at 0° (6h) and at 180° (12h) AAA = Other (specify in annotation)									Slots position	
	XXX = Passive DFS = Diffuse standard 21/ 65 DFR = Diffuse window DE / 21 DFL = Diffuse window BC / 65 DFF = Diffuse height AB / EF DFT = Diffuse CD / EF - slots at 3 o'clock DFN = Diffuse CD / AB - slots at 9 o'clock	DFH = Diffuse height BC / DE DFA = Diffuse AB / DE DVB = Divergent 21 DVD = Divergent 65 DVV = Divergent vertical CD DRB = Divergent with roller nozzle									Air flow	
	W = White roller or white roller nozzle (RAL 9003) C = Cream roller or cream roller nozzle (RAL 9010) B = Black roller or black roller nozzle X = Without roller										Color of eccentric rollers and roller nozzles	
	9003 = White 9010 = Cream 00SB = Solar Black (Standard matte black) 00SM = Silver Matte (Standard metallic grey) _____ = RAL color* (write the color number of RAL)										Diffuser color	
	A = With closed-cell acoustic insulation X = Without insulation										Acoustic insulation	
	D = With damper X = Without damper										Balancing damper	
	R = With register (perforated plate) X = Without register										Register	
RRA	1500	1300	200	1	006	DFS	W	9003	X	X	Annotation	Example

Codification for reducers

RRA	RED = Reducer										Product	
	254, 305, 356, 406, 457, 508, 559, 610, 660, 711, 762, 813, 864, 914, 965, 1016, 1067, 1118, 1168, 1219, 1270, 1321, 1372, 1422										Ø D - Inlet diameter	
	203, 254, 305, 356, 406, 457, 508, 559, 610, 660, 711, 762, 813, 864, 914, 965, 1016, 1067, 1118, 1168, 1219, 1270, 1321, 1372										Ø d - Outlet diameter	
	T = Flat on Top (standard) C = Center B = Flat on Bottom										Configuration	
	S = Standard α = 14° A = Other (specify in annotation)										Length	
	9003 = White, 9010 = Cream 00SB = Solar Black (Standard matte black) 00SM = Silver Matte (Standard metallic grey) _____ = RAL color * (write the color number of RAL)										Color	
	A = With closed-cell acoustic insulation X = Without insulation										Acoustic insulation	
RRA	RED	305	203	T	S	9003	X				Annotation	Example

RRA - Codification

Codification for elbows

RRA	ELB = Elbows								Product
		15, 30, 45, 60, 90, QA							Angle
		203, 254, 305, 356, 406, 457, 508, 559, 610, 660, 711, 762, 813, 864, 914, 965, 1016, 1067, 1118, 1168, 1219, 1270, 1321, 1372, 1422							Ø Diameter
		S = Standard (based on : r = 1.5 D) A = Other (specify in annotation)							Radius
		9003 = White 9010 = Cream 00SB = Standard Matte Black 00SM = Standard Metallic Grey _____ = RAL colors * (write the color number of RAL)							Color
		A = With closed-cell insulation X = Without insulation							Insulation
RRA	ELB	15	203	S	9003	X			Example

Codification for the branches

RRA	BRA = Branches								Product
		203, 254, 305, 356, 406, 457, 508, 559, 610, 660, 711, 762, 813, 864, 914, 965, 1016, 1067, 1118, 1168, 1219, 1270, 1321, 1372, 1422							ØD - Inlet diameter
		203, 254, 305, 356, 406, 457, 508, 559, 610, 660, 711, 762, 813, 864, 914, 965, 1016, 1067, 1118, 1168, 1219, 1270, 1321, 1372, 1422							Ød1 - Outlet diameter (for T, W and S only)
		203, 254, 305, 356, 406, 457, 508, 559, 610, 660, 711, 762, 813, 864, 914, 965, 1016, 1067, 1118, 1168, 1219, 1270, 1321, 1372, 1422							Ød2 - Outlet diameter (for T and W only)
		T, D, W, S, Q							Configuration
		9003 = White 9010 = Cream 00SB = Standard Matte Black 00SM = Standard Metallic Grey _____ = RAL colors * (write the color number of RAL)							Color
		A = With closed-cell insulation X = Without insulation							Insulation
RRA	BRA	305	305	203	T	9003	X		Example

Codification for endcap and collar

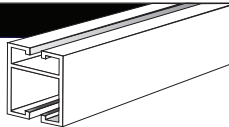
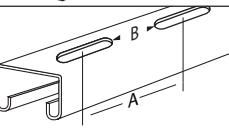

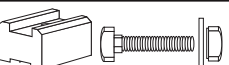
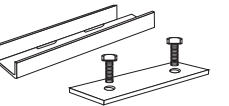


RRA	CAP (End cap), BEC (Bevelled endcap), BES (Bevelled endcap + slots - return), BEG (Bevelled endcap + grid - return), WCO (Collar)								Product
		203, 254, 305, 356, 406, 457, 508, 559, 610, 660, 711, 762, 813, 864, 914, 965, 1016, 1067, 1118, 1168, 1219, 1270, 1321, 1372, 1422							Ø Diameter
		9003 = White 9010 = Cream 00SB = Standard Matte Black 00SM = Standard Metallic Grey _____ = RAL colors (write the color number of RAL)							Color
		A = With closed-cell insulation X = Without insulation							Insulation
RRA	CAP	203	9003	X					Example

Codification for sleeves

RRA	SLE (Sleeve), SLI (Inner sleeve) (no length available)								Product
		203, 254, 305, 356, 406, 457, 508, 559, 610, 660, 711, 762, 813, 864, 914, 965, 1016, 1067, 1118, 1168, 1219, 1270, 1321, 1372, 1422							Ø Diameter of SLE
		200, 251, 302, 353, 403, 454, 505, 556, 607, 657, 708, 759, 810, 861, 911, 962, 1013, 1064, 1115, 1165, 1216, 1267, 1318, 1369, 1419							Ø Diameter of SLI
		XXXX = Non applicable (SLI) 0000 = Standard (The distance between RRA is 0 mm) _____ = Special - write the «x» value (distance between RRA) - from 0001 mm to 1380 mm maximum							Length of the SLE
		9003 = White, 9010 = Cream, 00SB = Standard Matte Black, 00SM = Standard Metallic Grey, _____ = RAL colors (write the color number of RAL)							Color
		A = With closed-cell insulation X = Without insulation							Insulation
RRA	SLE	203	0000	9003	X				Example

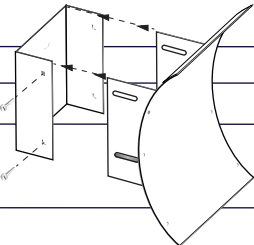
RRA - Codification

Suspension with rail

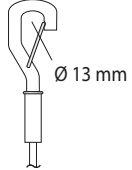

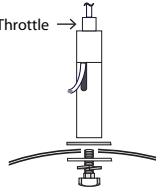
Description			
RAI	ALU Aluminum rail 1 1/4 in x 1 3/4 in x 10 ft		
	S33 Steel rail 1 5/8 in x 7/8 in x 10 ft A : 2 po B : 7/8 po		
	9003 = White 00SB = Solar Black 9010 = Cream 00SM = Silver Matte _____ = Color RAL * (write the #) XXXX = Unpainted	Color	
RAI - ALU - 9003			Example
RCT	Rod-cover for threaded rod 16 mm x 3.05 m (5/8 in x 10 ft)		
	9003 = White 00SB = Solar black 9010 = Cream 00SM = Silver Mat _____ = Color RAL * (write the #) XXXX = Unpainted	Color	
RCT - 9003			Example
Accessories supplied for aluminum rail (ALU)			
RKG	Nylon guides assembly		
RKJ	Junction bar plate 200 x 28 x 12 mm (7 13/16 x 1/2 x 1 1/16 in) Plate : 60 mm X 16 mm (2 3/8 in X 5/8 in)		
RKC	Coupling assembly with bolt and washer for installation with aluminum rail (ALU)		
Accessories supplied for steel rail (S33)			
RKS	Slider, bolt, standard washer and lock washer assembly		
RKG			Example
Touch-up spray paint			
CAN	9003 Paint can (RAL 9003)		Example
CAN	_____ Paint can (other colour RAL) (write the number of the colour)		
CAN - 9003			

Example

Adjustable wall mount

RRA	AWM	203, 254, 305, 356, 406, 457, 508, 559, 610, 660, 711, 762, 813, 864, 914, 965,		Product
		9003 = White, 9010 = Cream, 00SB = Solar Black (Standard black matte), 00SM = Standard Metallic Grey _____ = Colour RAL (write the number of colour)		Ø Diameter / diffuser
				Colour
RRA - AWM - 203 - 9003				Example

Suspension with cable

Description of anchors for the ceiling			
CPA	Anchor with hook nickel plated Ø 13 mm x 70 mm x 14.3 mm (Ø 1/2 in x 2 3/4 in x 9/16 in)		
CCP	Swiveling anchor nickel plated Not adjustable Ø 25 x 28 1/2 mm (Ø 1 in x 1 1/8 in) (screw not supplied)		
CCA	Anchor for duct Adjustment throttle nickel plated Ø 19 X 50 mm (Ø 3/4 in x 2 in)		
	XXXX = Without cable	Cable length	
	3048 mm - standard (10 ft)		
	A = Nickel plated steel (standard) S = Stainless Steel (optional)		
CPA - 3048 - A			Example