

The RRA is a high induction diffuser made to address the ventilation needs of spaces with low and medium heights.

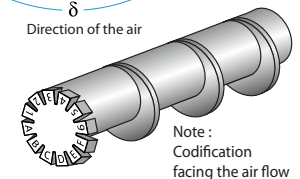
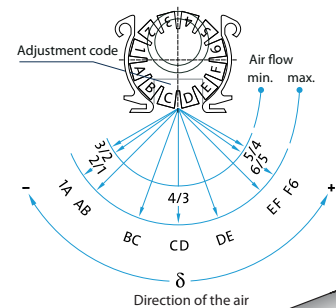
The RRA diffuser is made of galvanized steel covered with powder coated paint. The standard manufacture size is 1500 mm (59 in.) long. Alternatively, it is available in different lengths to meet your needs.

It is ideal for applications where the technology must be not only efficient but also integrated into the architectural design. Integrated eccentric rollers and/or nozzle rollers, the circular RRA diffuser offers a multitude of air direction choices. All air conditioning and heating solutions are found in one application which combines technology, aesthetics and comfort.

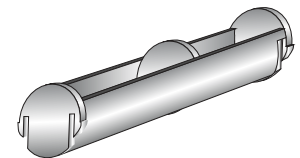
Benefits

- High induction diffuser which allows homogeneity of the air in a room: the temperature, humidity and air density.
- Increased comfort in the occupied zone : comfortable movement of air, low temperature differences and low noise
- Eccentric rollers allow an adjustment of the airflow in a 180° range
- Possibility to change the direction of air flow after installation.
- Possibility of reducing the total airflow up to 30% in VAV.
- Make it possible to eliminate the heating baseboard through heating by the diffuser
- Simplify the ventilation network and reduces installation costs
- Easy adaptation to systems with variable or constant airflow.
- Easy to maintain : powder coated paint which minimizes dust collection and makes it easy to clean (Swiffer)
- Low accumulation of dust in the interior because the dust is purged by the slots.
- Durability : the powder coated paint prevents chipping, sealed with PVC joint to prevent leakage and seal degradation
- The aluminum suspension rail and duct in galvanized metal covered with a powder coated paint.
- Easy installation : Installed using a suspension rail, no sealing required
- Fewer suspension rods and installation screws.

Eccentric roller



Nozzle roller



Composition

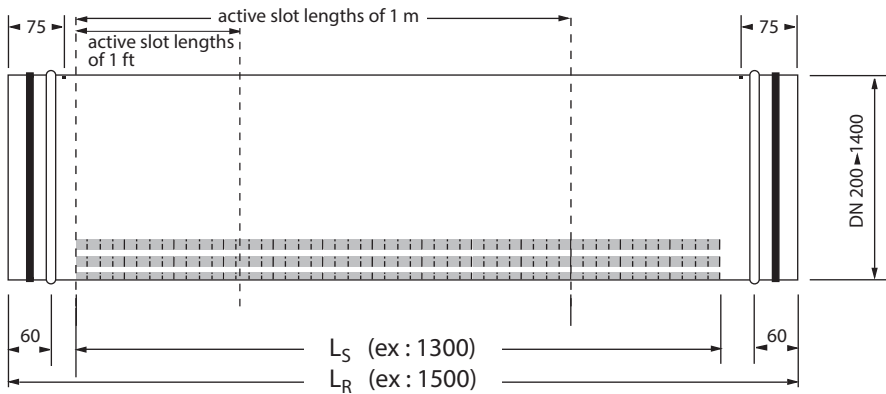
The RRA in-duct diffuser is a smooth circular pipe on which the slots are mounted in the direction of the length. The number of slots is determined by the quantity of air flow and by the diameter of the duct.

The slots contain 100 mm long ABS eccentric rollers or ABS nozzle rollers (black, cream or white). The eccentric rollers are provided with alphanumeric guides which allow adjustment of the airflow pattern across a 180° range. The RRA diffuser is constructed in diameters from 200mm up to 1419mm. Metallic reinforcements are installed on the interior of ducts wider than 433mm to maintain the circular integrity.

At each end a receiving groove fitted with an integrated PVC gasket ensures a proper seal.

Passive ducts without slots are available in the same dimensions as the active RRAs in order to ensure the uniformity of the duct network.

Dimensions and weight



Duct length - LR	1000	1500	1700
Slot length - LS	800	1300	1500
Weight per slot (Kg)	0.30	0.48	0.56
Weight of passive RRA (Kg)			
Sheet thickness : 0.85 mm			
Diameter of RRA (mm)	200	251	302
	353	403	454
	505	553	607
	657	708	759
	810	861	911
	962	1013	1064
	1115	1165	1216
	1267	1318	1369
	1419		
	1500	1600	1700
	1800		
Sheet thickness : 1.00 mm			
	200	251	302
	353	403	454
	505	553	607
	657	708	759
	810	861	911
	962	1013	1064
	1115	1165	1216
	1267	1318	1369
	1419		
	1500	1600	1700
	1800		

Codification for RRA duct diffusers

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	Rollers and roller nozzles Color
	9003 = White 9010 = Cream 00SB = Solar black (Standard matte black) 00SM = Silver mat (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	Example

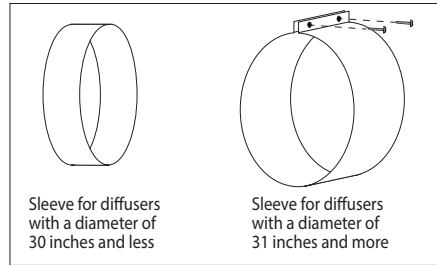


Accessories

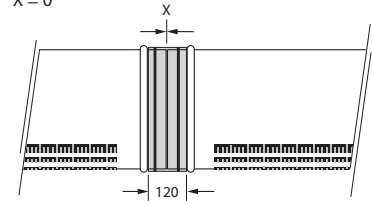
All of the standard accessories (elbows, connection sleeves, reduction connectors, multi-branch connectors, etc.) are available in the exact dimensions of the duct.

Assembling

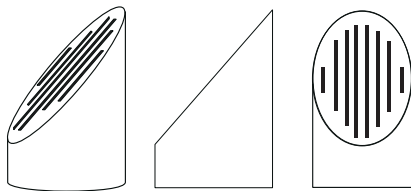
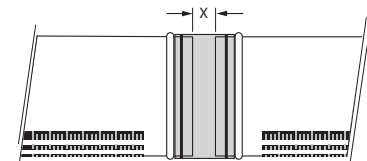
The RRA diffuser sections are connected by connection sleeves which are adapted to the diameter of the duct.



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

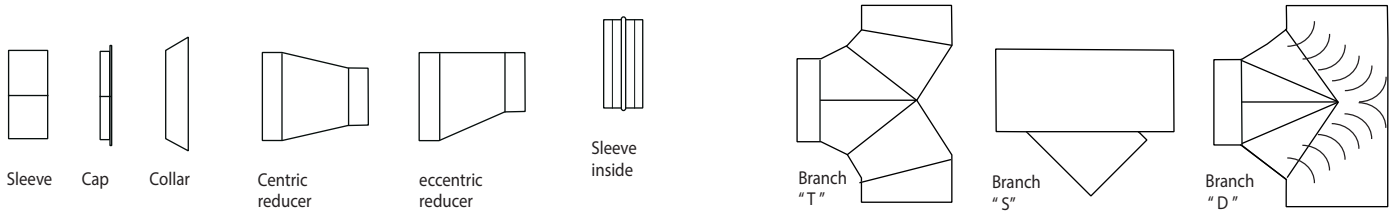


Special Sleeve (Spacing between RRA)
X = 1 mm to 1380 mm

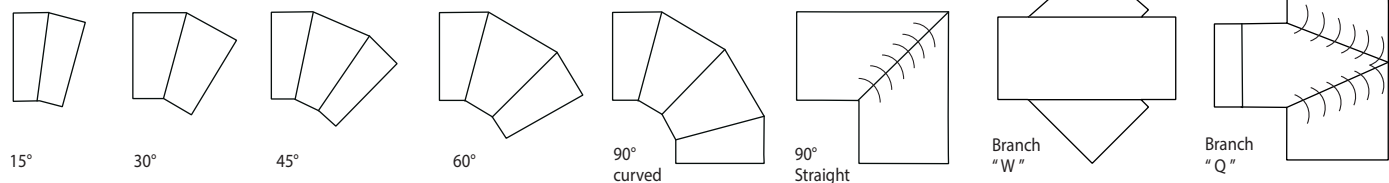


Bevelled end cap

Accessories are big-end



Elbows are big-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

Codification for sleeves

RRA	SLE (Sleeve) , SLI (Inner sleeve) (no lenght 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 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 SLE 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 = Solar black (Standard matte black), 00SM = Silver Mat (Standard metallic grey), ___ = RAL colors (write the color number of RAL)		Color
	X = Without insulation A = With closed cell acoustic insulation		Acoustic insulation
RRA	SLE - 203 - 0000 - 9003 - X		Example

Codification for reducers

RRA	RED = Reducer	254, 305, 356, 406, 457, 508, 559, 610, 660, 711, 762, 813, 864, 914, 965, 1016, 1067, 1118, 1168, 1219, 1270, 1321, 1372, 1422		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		Ø D - Inlet diameter				
		T = Flat on Top (standard) C = Center B = Flat on Bottom		Ø d - Outlet diameter	Configuration			
		S = Standard $\alpha = 14^\circ$ A = Other (specify in annotation)		Length				
		9003 = White, 9010 (Cream), 00SB = Solar black (Standard matte black) 00SM = Silver mat (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	Example

Codification for elbows

RRA	ELB = Elbows	15, 30, 45, 60, 90, QA		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		Angle			
		S = Standard (based on : $r = 1.5 D$) A = Other (specify in annotation)		Ø Diameter	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

Codification for the branches

RRA	BRA = Branches	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		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				
		T, D, W, S, Q		Ød2 - Outlet diameter (For «T» and «W» only)	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)	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		Product			
		9003 = White, 9010 = Cream, 00SB = Standard matte black, 00SM = Standard metallic grey ____ = RAL colors (write the color number of RAL)		Ø Diameter			
		A = With closed-cell insulation X = Without insulation		Color			
				Insulation			
		RRA	CAP	203	9003	X	Example



Suspension of RRA duct diffuser

Hanging System
Submittal

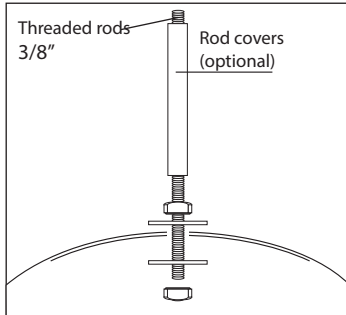
NAD Klima
144 rue Léger,
Sherbrooke (Qué) J1L 1L9
(819) 780-0111 - 1 866 531-1739
info@nadklima.com

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2840, Argentia Road, Unit 6
Mississauga (Ont) L5N 8G4
(416) 860-1067
ontario@nadklima.com

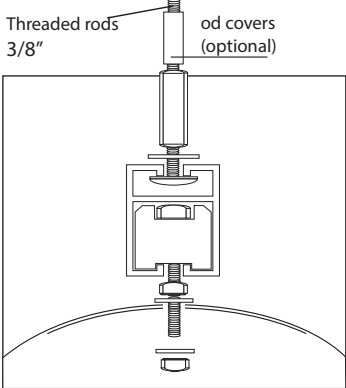
The RRA diffuser is suspended by threaded rods supplied by the ventilation system vendors (standard method of suspension). Other methods of suspension are available; suspended from an aluminum rail or suspended by a metallic cable increase the ease of installation. These alternative methods of suspension can also be supplied by NAD Klima.

On request, rod covers which are the same color as the duct can be supplied to cover the threaded rods.

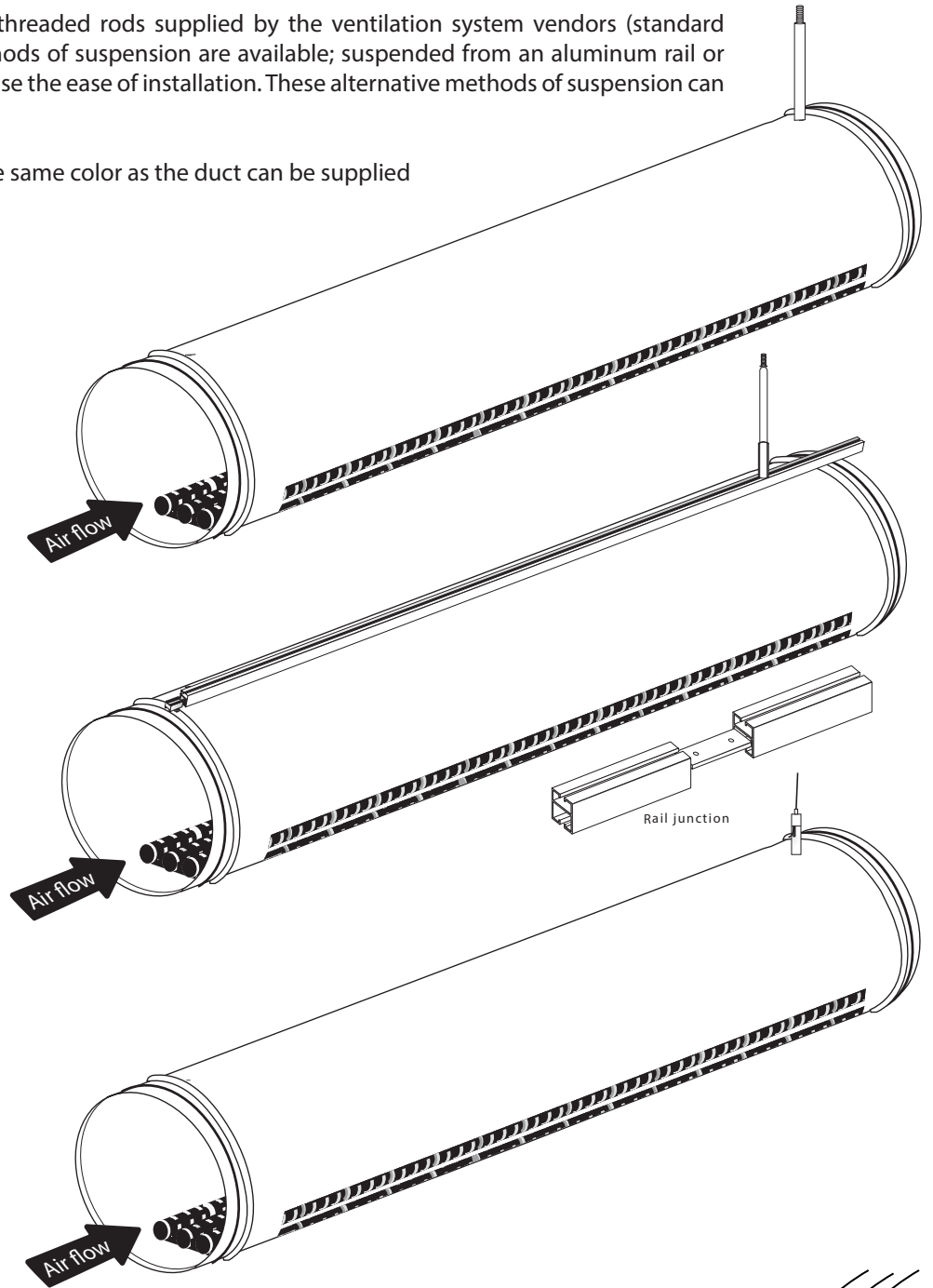
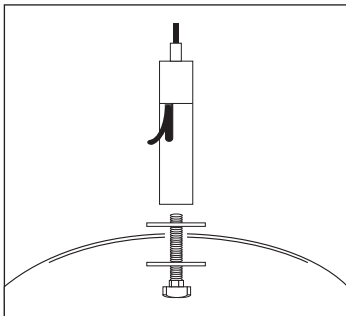
Suspension by threaded rod



Suspension by rail

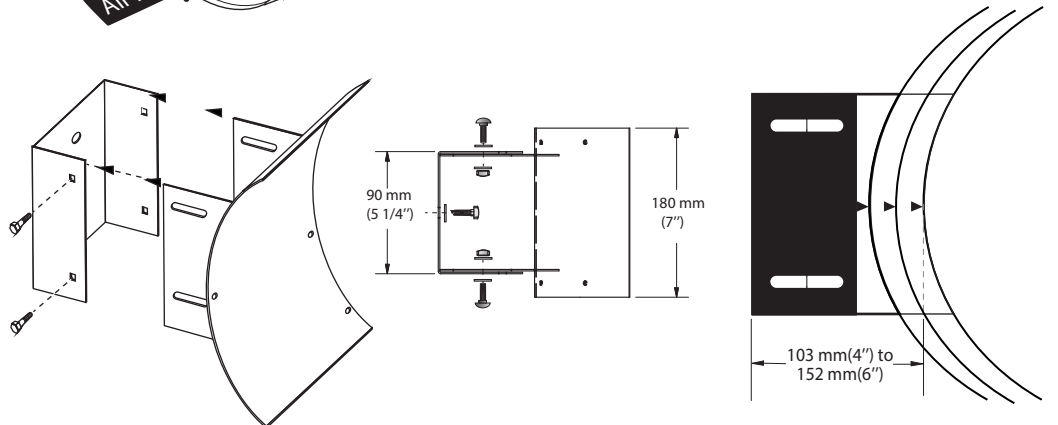


Suspension by metallic cable

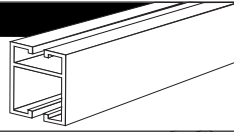
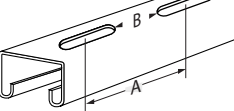



Adjustable wall mount

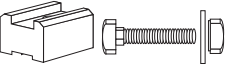
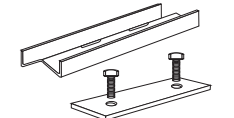
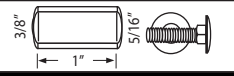
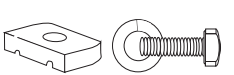
The two sections of the support allow for a 51 mm (2") adjustment.



Anchorage with rail

Description	
RAI	<p>ALU Aluminium rail (1 1/4" X 1 3/4" X 10 pi.)</p> 
	<p>S33 Steel rail (1 5/8" X 7/8" X 10 ft.)</p> <p>A: 2" B: 7/8"</p> 
	<p>9003 = White 00SB = Solar black 9010 = Cream 00SM = Silver Mat _____ = Color RAL * (write the #) XXXX = Unpainted</p> <p style="text-align: right;">Color</p>
RAI	ALU 9003 Example
RCT	<p>Rod cover for threaded rod 16 mm X 3.05 m (5/8" X 10 pi.)</p> 
	<p>9003 = White 00SB = Solar black 9010 = Cream 00SM = Silver Mat _____ = Color RAL * (write the #) XXXX = Unpainted</p> <p style="text-align: right;">Color</p>
RCT	9003 Example

Accessories supplied for aluminum rail (ALU)

RKG	Nylon guides assembly	
RKJ	<p>Junction bar plate 200 X 28 X 12 mm (7 13/16" X 1 1/2" X 1 1/16")</p> <p>Plaque : 60 mm X 16 mm (2 3/8" X 5/8")</p>	
RKC	Coupling assembly with bolt and washer	
Accessories supplied for steel rail (S33)		
RKS	Slider, bolt and washer assembly	
RKG	Example	

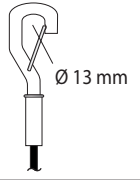
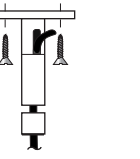
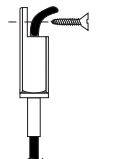
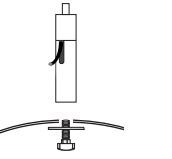
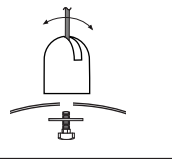
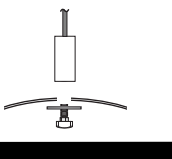
Accessories supplied with the aluminum rail (ALU)

- RKG - Nylon guides assembly
- RKJ - Junction bar plate assembly
- RKC - Coupling assembly

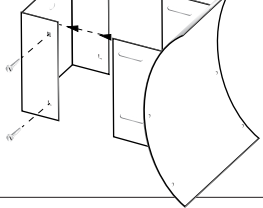
Accessories supplied with the steel rail (S33)

- RKS - Slider, blot and washer assembly

Anchorage with cable

Description of anchors for the ceiling	
CPA	<p>Anchor with adjustable hook and nickel plating finish Ø 13 mm (Ø 1/2" X 2 3/4" X 9/16")</p> 
CPP	<p>Flat anchor with pins and throttle adjustment 2 screws (#4 wood) included Anodized aluminum only. Ø 40 X ø 15 X 70 mm (Ø 1 5/8" X ø 9/16" X 2 3/4")</p> 
CPS	<p>Anchor with pin and throttle adjustment Screw (#4 wood) included Nickel plating finish 13 X 55 mm (1/2" X 2 3/16")</p> 
Description of anchors for the diffuser	
CCA	<p>Adjustable anchor for duct with a nickel plate finish. Ø19 X 50 mm (Ø 3/4" X 2")</p> 
CCP	<p>Swiveling anchor finished in nickel plating Not adjustable Ø19 X 25 mm (Ø 3/4" X 1")</p> 
CCS	<p>Swiveling anchor finished in nickel plating Not adjustable Ø19 X 25 mm (Ø 3/4" X 1")</p> 
	<p>XXXX = Without cable 3048 mm - standard _____ Write the lenght in mm</p> <p style="text-align: right;">Cable lenght</p>
	<p>A = Nickel plated steel (standard) S = Stainless Steel (optional)</p>
CCS	3048 - A Example

Adjustable wall mount

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