

Introduction

The Waterloo circular diffuser type RWK has an adjustable radial diffusion pattern and provides excellent induction characteristics. The diffuser and faceplate are manufactured from aluminium and the plenum is zintec steel. The shape of both the plenum and the adjustable faceplate ensure an excellent air pattern, and the internal control disc can also be adjusted to achieve high induction rates and a low sound power level.

Product Description

- RWK** Circular supply diffuser with plain faceplate
- RWK-R** Circular return diffuser with plain faceplate
- UKDV** Supply air plenum
- UKDVI** Insulated supply air plenum
- UKRV** Return air plenum
- UKRVI** Insulated return air plenum

Features

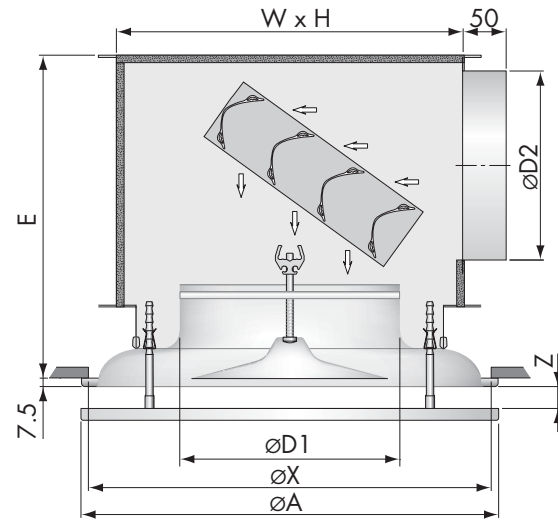
- Supply and exhaust applications for heating, cooling and isothermal conditions
- Excellent induction characteristics
- Variety of air patterns
- Suitable for modular ceiling systems

Finishes

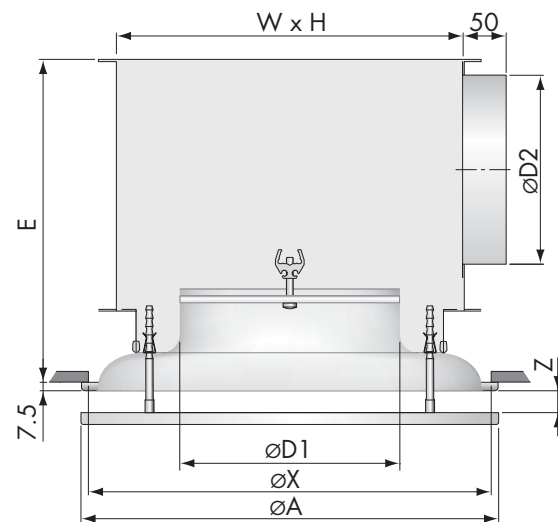
PPM9010 (RAL 9010 20% Gloss White)
Other colours are available on request

Advantages

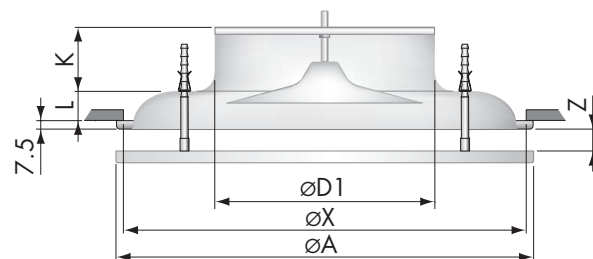
- Excellent aerodynamic performance
- No ceiling effect required
- Short throw



RWK + UKDVI



RWK-R + UKRV



RWK

Order Example	
Type	RWK-250/UKDV-250
Diameter	
Plenum Type	
Plenum Spigot Diameter	

Nom Size $\phi D1$	WxH	$\phi D2$	ϕA overall	ϕX aperture	E	K	L	Z
100	210x210	100	190	175	205	55	12.5	19 / 26.5 / 34
125	210x210	125	230	215	215	60	20.0	19 / 26.5 / 34
160	310x310	160	270	255	295	65	27.5	19 / 26.5 / 34
200	310x310	200	370	345	295	70	27.5	19 / 26.5 / 34
250	410x410	250	470	440	365	75	35.0	19 / 26.5 / 34
315	510x510	315	570	535	435	90	35.0	19 / 26.5 / 34



Selection Criteria

Ceiling Height 2.7m
 Temperature Differential -11K
 Average room velocity V_r 0.15m/s
 NC is sound pressure level/Noise Criteria
 Curve based on a room absorption of 8dB
All selections include the plenum

Selection Example RWK-125

Air Volume 42 l/s
 Throw 1.1 m
 Pressure Drop 29 Pa
 Noise Level NR 20

Faceplate Height Corrections	Z (mm)	T' Throw (m)	Pressure (Pa)	Noise level (NR)
	19	x 1.0	1.0	0
	26.5	x 0.9	x 0.6	- 1
	34	x 0.8	x 0.5	- 2

Performance Table

RWK		Supply						
m ³ /h	l/s		100 Dia	125 Dia	160 Dia	200 Dia	250 Dia	315 Dia
50	14	T	0.5					
		Ps	6					
		Lw	-					
75	21	T	0.6	0.5				
		Ps	20	7				
		Lw	-	-				
100	28	T	0.8	0.7				
		Ps	36	12				
		Lw	20	-				
125	35	T	1.0	0.9	0.7			
		Ps	50	20	8			
		Lw	24	-	-			
150	42	T		1.1	0.8			
		Ps		29	12			
		Lw		20	-			
200	56	T		1.3	1.1			
		Ps		48	18			
		Lw		31	-			
250	69	T			1.4	1.3		
		Ps			28	12		
		Lw			23	-		
300	83	T			1.7	1.5	1.4	
		Ps			40	16	7	
		Lw			27	-	-	
400	111	T				1.9	1.7	
		Ps				30	13	
		Lw				24	21	
500	139	T				2.3	2.1	1.2
		Ps				45	20	7
		Lw				29	26	-
600	167	T					2.5	1.5
		Ps					30	10
		Lw					31	21
750	208	T					3.1	2.1
		Ps					48	15
		Lw					40	28
1000	278	T						2.7
		Ps						30
		Lw						34
1250	347	T						3.5
		Ps						54
		Lw						40

Exhaust						
100 Dia	125 Dia	160 Dia	200 Dia	250 Dia	315 Dia	
7						
-						
17						
-						
27	10					
-	-					
39	16	9				
21	-	-				
51	22	13				
27	-	-				
	40	23	8			
	20	-	-			
	60	36	14			
	26	21	-			
		53	20			
		20	-			
			36	12		
			-	-		
			56	18		
			24	21		
			80	26	10	
			28	24	-	
				39	14	
				30	23	
					24	
					29	
						32
						32