



## Plain Face Adjustable Circular Diffusers

### RWV

#### Introduction

The Waterloo Plain Face Circular Diffuser type RWV has a solid circular face providing a 360° air pattern with excellent air induction characteristics. This all aluminium diffuser is fully adjustable for horizontal and vertical discharge patterns.

With their high induction ratios these diffusers ensure rapid primary and secondary air mixing with low noise levels.

The diffusers are available with zintec steel plenums with the option of thermal insulation lining on supply plenums.

#### Product Description

**RWV** Circular supply diffuser with plain face-plate

**RWV-R** Circular return diffuser with plain face-plate

**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 Matt - 20% Gloss White)

Other colours available on request

#### Advantages

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

#### Selection Criteria

Ceiling Height 2.7m

Temperature Differential -11K

Average room velocity  $V_r$  0.15m/s

Noise level is based on diffuser sound power level less 8dB room absorption.

All selections include the plenum

#### Selection Example RWV-200

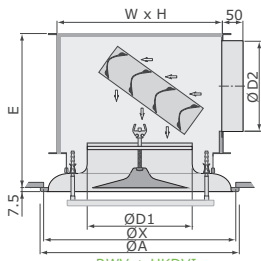
(Horizontal throw)

Air Volume 139 l/s

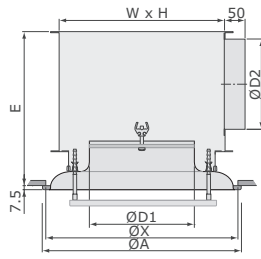
Throw 3.6 m

Pressure Drop 28 Pa

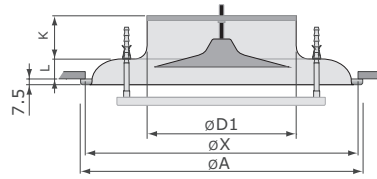
Noise Level 35 dBA



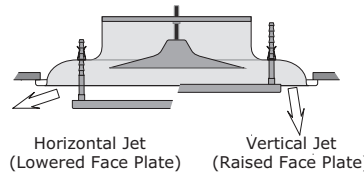
RWV + UKDVI



RWV-R + UKRV



RWV



Nom Size Ø D1	W x H	Ø D2	Ø A overall	Ø X aperture	E	K	L
100	210x210	100	190	175	205	55	12.5
125	210x210	125	230	215	215	60	20.0
160	310x310	160	270	255	295	65	27.5
200	310x310	200	370	345	295	70	27.5
250	410x410	250	470	440	365	75	35.0
315	510x510	315	570	535	435	90	35.0

#### Performance Table

m³/h	l/s	RWV							Horizontal							Vertical							Exhaust						
		100 Dia	125 Dia	160 Dia	200 Dia	250 Dia	315 Dia	100 Dia	125 Dia	160 Dia	200 Dia	250 Dia	315 Dia	100 Dia	125 Dia	160 Dia	200 Dia	250 Dia	315 Dia	100 Dia	125 Dia	160 Dia	200 Dia	250 Dia	315 Dia				
50	14	T	0.7					1.2																					
		P <sub>s</sub>	6					20						4															
		L <sub>w</sub>	-					-						-															
75	21	T	1.2					1.8																					
		P <sub>s</sub>	12					44						10															
		L <sub>w</sub>	-					25						-															
100	28	T	1.6	1.3				2.7	2.0																				
		P <sub>s</sub>	20	7				80	40					17	5														
		L <sub>w</sub>	26	-				31	-					-	-														
125	35	T	2.1	1.5	1.4			3.8	3.0	2.0																			
		P <sub>s</sub>	31	11	4			125	60	16				26	9														
		L <sub>w</sub>	33	-				37	27	-				29	-														
150	42	T	2.5	1.7	1.6			3.9	2.6																				
		P <sub>s</sub>	42	16	6			90	24					33	13	4													
		L <sub>w</sub>	37	25	-			31	-					35	-	-													
200	56	T		2.1	2.0	1.4			5.2	3.7	2.9																		
		P <sub>s</sub>		28	11	5			150	42	20				23	9													
		L <sub>w</sub>		32	-	-			37	27	-				30	-													
250	69	T			2.3	1.8				5.0	4.0																		
		P <sub>s</sub>			16	8				65	32				39	14	7												
		L <sub>w</sub>			-	-				31	25				45	-	-												
300	83	T			2.7	2.2	1.8			6.4	5.2	4.6																	
		P <sub>s</sub>			23	11	8			90	46	22			52	20	10												
		L <sub>w</sub>			30	-	-			36	28	-			42	27	-												
400	111	T			2.9	2.2				7.8	6.7																		
		P <sub>s</sub>			18	14				81	39				33	16	11												
		L <sub>w</sub>			27	-				33	27				39	26	-												
500	139	T			3.6	2.5	2.2			10.0	9.5	7.6																	
		P <sub>s</sub>			28	21	8			127	61	24			24	18	6												
		L <sub>w</sub>			35	25	-			39	32	24			32	-	-												
600	167	T			4.3	2.9	2.7			12.0	10.0																		
		P <sub>s</sub>			40	30	18			87	35				34	26	14												
		L <sub>w</sub>			38	31	-			37	27				37	33	-												
750	208	T				3.5	3.3			14.0	12.0																		
		P <sub>s</sub>				45	26			136	54				40	21													
		L <sub>w</sub>				39	30			41	32				39	30													
1000	278	T					4.0			14.0																			
		P <sub>s</sub>						47			96															31			
		L <sub>w</sub>						39			38															37			
1250	346	T					4.7																						
		P <sub>s</sub>						70																					
		L <sub>w</sub>						45																					

#### ORDER EXAMPLE

Type            RWV/160/UKDV/160  
 Diameter             
 Plenum Type             
 Plenum Spigot Diameter