

Introduction

The Waterloo high-induction ceiling diffuser type WID has a perforated faceplate and easily adjustable air pattern settings. The diffuser is made from aluminium extrusions with the plenum manufactured from galvanised steel. The complete unit has been specifically designed to ensure a constant air pattern, resulting in optimal mixing with room air at a very low noise level.

An optional mounting plate is available to suit 600x600 ceiling systems (the overall size of the mounting plate is 595x595).

Product Description

WID-4 Square ceiling diffuser with 4 way air pattern

WID-3 Square ceiling diffuser with 3 way air pattern

WID-2 Square ceiling diffuser with 2 way air pattern

WID-R Square ceiling diffuser for return air

WKDV Supply air plenum

WKDVI Insulated supply air plenum

WKRV Return air plenum

MPV Modular plate

WWM Fixing set

Features

- Supply and exhaust applications of warm, cool and isothermal air
- High induction characteristics
- Variety of air patterns
- Suitable for modular ceiling systems
- Excellent free-jet performance

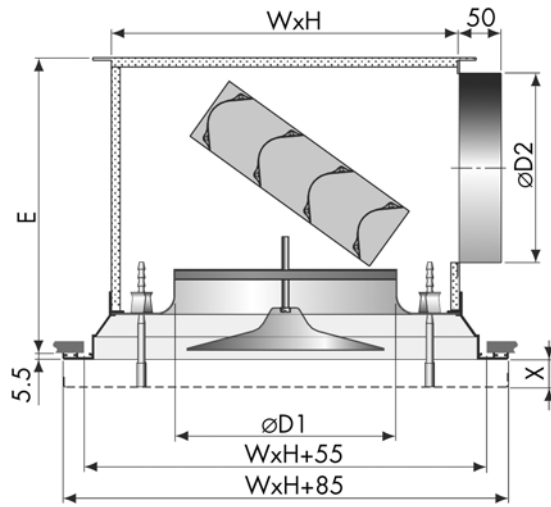
Finishes

PPM9010 (RAL 9010 20% Gloss White)

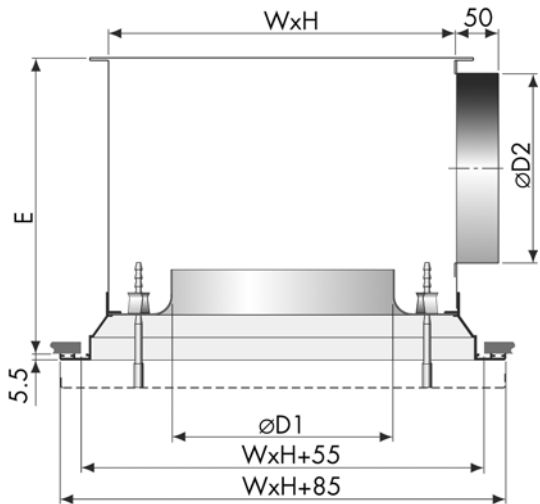
Other colours available on request

Advantages

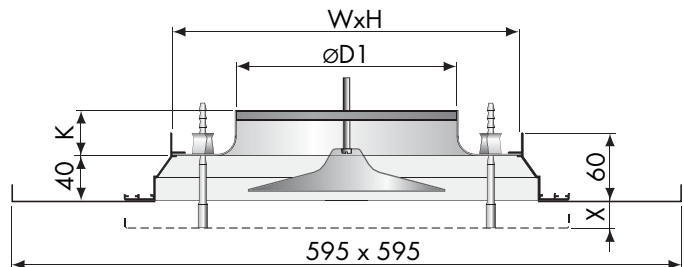
- Excellent aerodynamic performance
- Good mixing with room air
- Can be used for full tile replacement
- Short throws



WID + WKDVI



WID-R + WKRV



WID + MPV

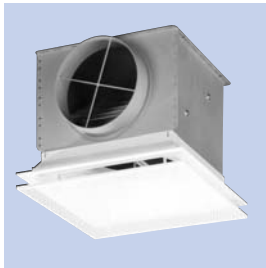
Order Example:

WID-3-200-WKDVI

Type _____
 Diffuser Pattern _____
 Spigot Diameter _____
 Plenum Type _____

W x H	øD1	øD2	E	K	X
210x210	125	125	196	33	20 27.5 35
210x210	160	160	231	33	20 27.5 35
310x310	200	200	270	40	20 27.5 35
410x410	250	250*oval	288	55	20 27.5 35
510x510	315	315*oval	288	70	20 27.5 35

* The perimeter of the oval is equivalent to the circumference of a circle of the stated diameter



Selection Criteria

Ceiling Height 2.7 m
 Temperature Differential -10K
 Room Velocity V_r 0.15 m/s
 L_w based on diffuser sound power level
 minus 8 dB room absorption.

All selections include the plenum

Selection Example WID-4-125 4 way supply

Air Volume 125 m³/h (35 l/s)
 Throw 0.4 m
 Pressure Drop 22 Pa
 Noise level L_w 25

Faceplate Height Corrections	X (mm)	T' Throw (m)	P _s (Pa)	Noise level (L _w)
	20	x 1.0	x 1.0	+0
	27.5	x 0.9	x 0.6	- 2
	35	x 0.8	x 0.5	- 2

Performance Tables

WID		Supply 4 way					Supply 3 way					Supply 2 way					Exhaust						
m ³ /h	l/s		125	160	200	250	315	125	160	200	250	315	125	160	200	250	315	125	160	200	250	315	
50	14	T						0.4					0.6										
		P _s						7					9										
		L _p						-					-										
75	21	T	0.2					0.5					0.7										
		P _s	10					12					15										
		L _p	-					-					22										
100	28	T	0.3					0.6					0.8										
		P _s	14					19					22					6					
		L _p	21					24					27					-					
125	35	T	0.4	0.3				0.7	0.5				0.9	1.2									
		P _s	22	10				26	12				32	16				8					
		L _p	25	-				28	-				33	-				-					
150	42	T	0.5	0.4				0.9	0.7				1.0	0.8									
		P _s	29	15				35	18				43	22				13	5	2			
		L _p	28	20				32	21				36	25				-	-	-			
200	56	T	0.7	0.6	0.5			1.2	0.9	0.7			1.4	1.2	1.1								
		P _s	45	25	12			57	28	16			69	35	18			23	9	4			
		L _p	34	24	-			41	25	-			44	27	18			18	-	-			
250	69	T		0.7	0.6				1.2	0.9				1.6	1.5								
		P _s		33	19				40	21				50	25			36	13	5	2		
		L _p		29	-				30	19				33	22			24	-	-	-		
300	83	T		0.9	0.8	0.7			1.4	1.2	1.1			2.0	1.7	1.5							
		P _s		48	23	9			52	27	12			66	35	15			52	19	8	3	
		L _p		32	21	-			34	23	-			38	26	21			29	-	-	-	
400	111	T			1.2	1.0				1.6	1.5				2.4	2.1							
		P _s			37	17				46	26				57	26			91	34	14	6	2
		L _p			26	20				28	23				33	26			35	23	-	-	-
500	139	T			1.5	1.3	1.1			2.0	1.8	1.6			3.1	2.6	2.3						
		P _s			50	24	11			60	27	12			85	38	15			52	21	9	4
		L _p			30	24	21			32	26	22			40	30	24			29	15	-	-
600	167	T				1.5	1.3				2.2	2.0				3.2	2.7						
		P _s				33	16				40	18				53	19			75	31	13	5
		L _p				28	24				30	26				33	28			34	22	-	-
750	208	T				1.9	1.6				2.8	2.4					3.3						
		P _s				50	22				60	25					28				48	21	9
		L _p				34	28				38	30					33				28	-	-
1000	278	T					2.3				3.1					4.4							
		P _s					36				40					46					84	38	15
		L _p					34				36					38					36	23	-
1250	347	T					2.9				3.8												
		P _s					52				57											60	24
		L _p					38				40											29	19