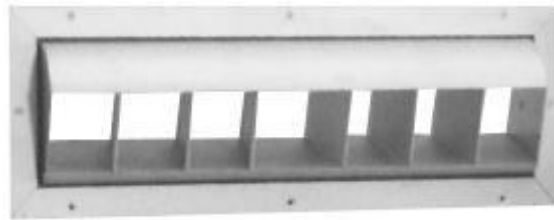




## DRUM DIFFUSERS



## Drum Diffusers DD



### DESCRIPTION:

The High-Capacity Drum Diffuser (DD) consist of extruded aluminum blades mounted inside a rotatable drum to produce long air throws with a high degree of directional control

### MATERIAL:

- Aluminum
- sheet metal

### FUNCTION:

The DD provides long throws to supply air to spaces that cannot be served by ductwork and conventional outlets due to structural or architectural restrictions. This makes the DD ideal for use in warehouses, factories, stadiums, or any large enclosed space. For demanding environments such as industrial plants, or areas where corrosion resistance is necessary, an all-stainless-steel option is available.

Cylindrical core installed in frame, which allows to adjust air pattern  $\pm 300$  horizontally the blade which is located cylindrical core allows to adjust the air pattern vertically

### FINISHING:

- Powder coated in RAL9010 color as standard. Other colors on request

### INSTALLATION:

- Screw
- Mounting Frame

### ACCESSORIES:

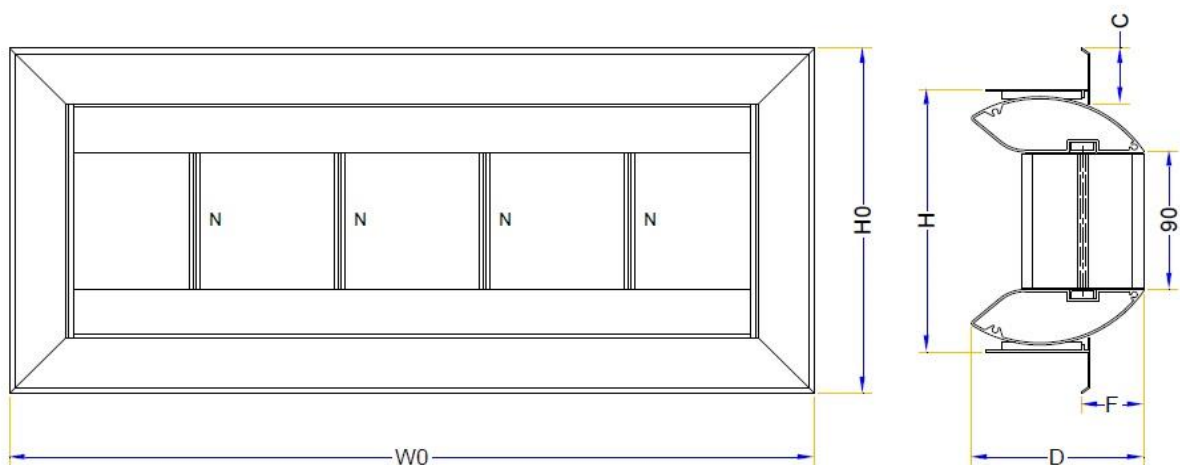
- Damper
- Mounting Frame

### STANDARD SIZES (mm):

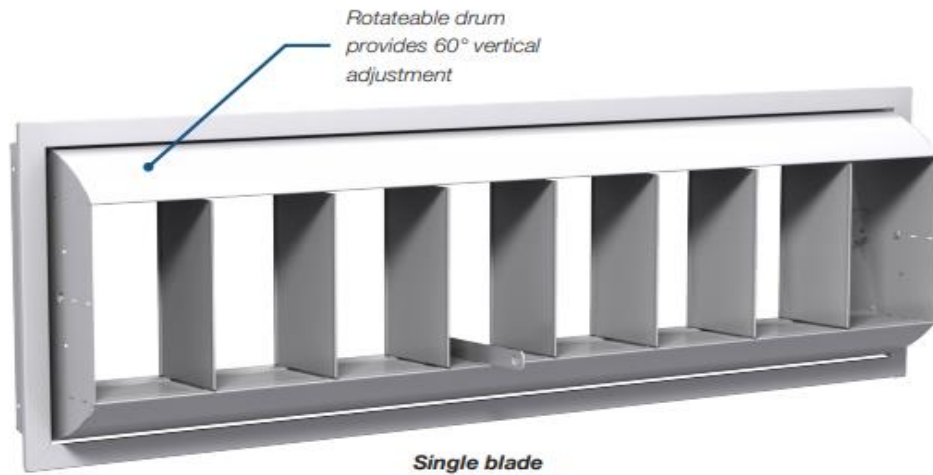
TYPE DD - AVAILABLE SIZES (mm)			
NECK SIZE			
250x165	300x165	475x165	625x165
X	X	X	X

### DIMENSIONS

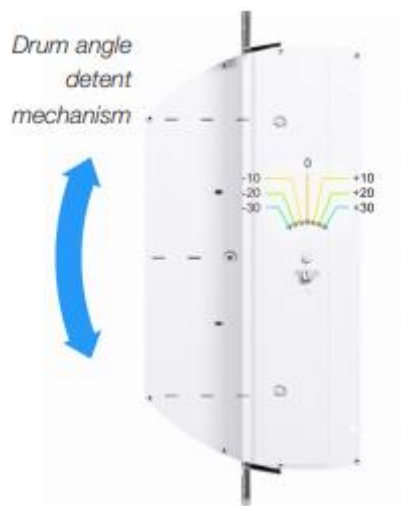
DIMENSIONS	W	W <sub>0</sub>	H	H <sub>0</sub>	D	F	C	N
<b>250X165</b>	250	332	165	217	107	40	35	2
<b>300X165</b>	300	370	165	217	107	40	35	3
<b>475X165</b>	475	545	165	217	107	40	35	5
<b>625X165</b>	625	695	165	217	107	40	35	7



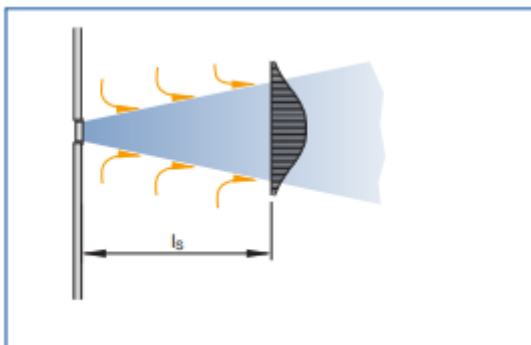
## DRUM DIFFUSERS



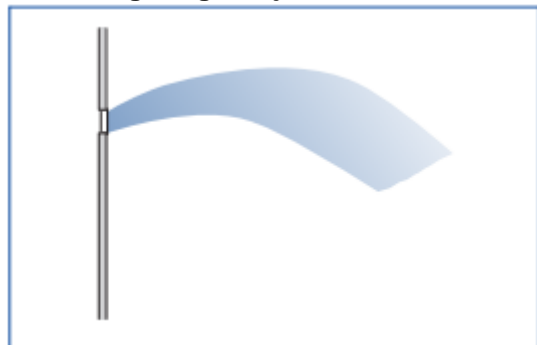
### Air patterns



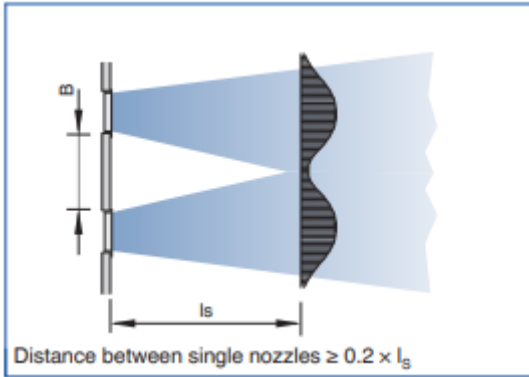
Air pattern, isothermal air



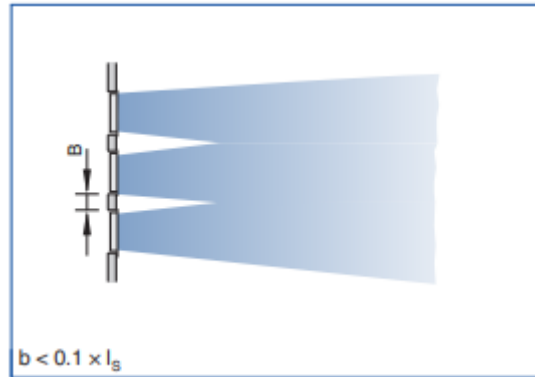
Air pattern in cooling mode, with vertical discharge angle adjustment



**Air pattern without ceiling effect, group of grilles, top view**



**Air pattern, group of grilles, top view**



- L [mm] : Nominal length of the ventilation grille
- H [mm] : Nominal height of the ventilation grille
- LWA [dB(A)] : Sound power level of the air-regenerated noise
- V [m<sup>3</sup>/h] and [l/s] : Volume flow rate
- $\Delta p_t$  [Pa] : Total differential pressure
- IS [m] : Distance from single grille or horizontal run section (throw distance)

### TECHNICAL DATA

Nominal length	250mm up to 1000mm
Nominal height	165mm
Minimum volume flow rate	138 – 1000 l/s or 500 – 3600 m <sup>3</sup> /h
Maximum volume flow rate, with L <sub>WA</sub> max. 45 dB(A) without attachments	378 – 1683 l/s or 1360 – 6060 m <sup>3</sup> /h
Supply air to room air temperature difference	-12 to +10 K

### DD SELECTION TABLE



## DRUM DIFFUSERS

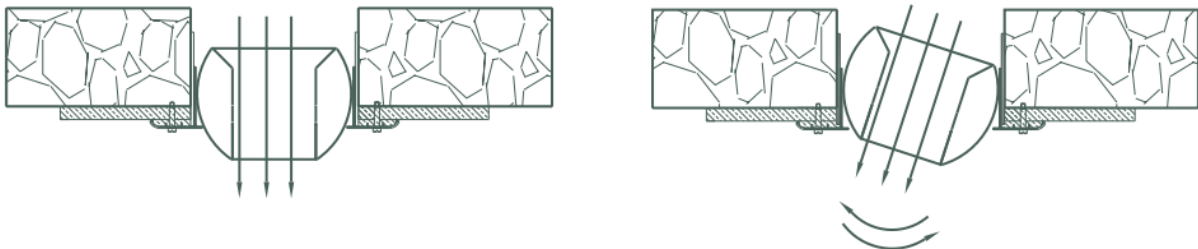
Dimension	Arrival Speed		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.2	1.5	2.0	2.5	
	Throw Distance	m <sup>2</sup> /h														
250x165	500		24.1	10.6	6.4	4.6	3.6	2.9								
	600		32.9	14.8	9.0	6.3	4.9	4.0	3.5	2.7						
	700		41.7	18.9	11.5	8.2	6.3	5.1	4.4	3.7	2.6					
	800		53.9	25.2	15.1	10.6	8.3	6.6	5.9	4.8	3.7	3.0				
	900		>55	30.1	18.5	13.1	9.8	8.2	6.8	5.9	4.5	3.7	2.5			
	1000		>55	38.0	23.3	16.3	12.7	10.0	8.6	7.2	5.7	4.5	3.4	2.2		
	1200		>55	52.1	32.6	23.5	18.1	14.6	12.5	10.4	8.0	6.44	4.87	3.5	2.6	
	1500		>55	>55	47.0	34.0	26.6	21.7	18.0	15.1	11.7	9.4	7.0	5.0	3.9	
300x165	600		20.7	9.4	5.7	4.1	3.1	2.5								
	700		28.1	12.7	7.8	5.5	4.3	3.5	3.0	2.5						
	800		36.7	16.6	10.1	7.2	5.6	4.5	3.9	3.2	2.4					
	900		43.7	19.8	12.1	8.6	6.6	5.4	4.6	3.8	2.9					
	1000		52.1	23.6	14.4	10.2	7.9	6.4	5.5	4.6	3.5	2.8				
	1200		>55	34.0	20.8	14.8	11.4	9.2	7.9	6.6	5.0	4.0	3.0	2.1		
	1500		>55	50.5	30.8	21.9	17.0	13.7	11.8	9.8	7.4	6.0	4.4	3.1	2.3	
	2000		>55	>55	51.2	36.4	28.2	22.8	19.6	16.2	12.3	9.9	7.3	5.2	4.3	
475x165	700		18.5	8.4	5.1	3.6	2.8	2.3								
	800		20.6	9.3	5.7	4.0	3.1	2.5								
	900		28.8	13.0	8.0	5.7	4.4	3.5	3.0	2.5						
	1000		34.7	15.7	9.6	6.8	5.3	4.3	3.7	3.0	2.3					
	1200		48.3	21.9	13.3	9.5	7.3	5.9	5.1	4.2	3.2	2.6				
	1500		>55	33.0	20.1	14.3	11.1	9.0	7.7	6.4	4.9	3.9	2.9			
	2000		>55	53.1	32.4	23.0	17.8	14.4	12.4	10.3	7.8	6.3	4.6	3.3	2.6	
	2500		>55	>55	49.7	35.3	27.3	22.1	19.0	15.7	12.0	9.7	7.1	5.1	4.2	
625x165	900		18.9	8.6	5.2	3.7	2.9									
	1000		23.4	10.6	6.5	4.6	3.6	2.9								
	1200		34.7	15.7	9.6	6.8	5.3	4.3	3.7	3.0	2.3					
	1500		41.6	18.8	11.5	8.2	6.3	5.1	4.4	3.6	2.8					
	2000		>55	36.9	22.5	16.0	12.4	10.0	8.6	7.1	5.4	4.4	3.2	2.3		
	2500		>55	54.2	33.1	23.5	18.2	14.7	12.6	10.5	8.0	6.4	4.7	3.4	2.6	
	3000		>55	>55	45.4	32.3	25.0	20.2	17.3	14.4	11.0	8.8	6.5	4.6	3.7	
	3500		>55	>55	>55	42.9	33.2	26.9	23.1	19.1	14.6	11.7	8.6	6.2	4.9	

### Flow - Sound Level and Pressure Relationship

## DRUM DIFFUSERS

Flow Rate (m <sup>3</sup> /h)	250X165		300X165		475X165		625X165	
	Pressure Drop (Pa)	Sound Level (dB)	Pressure Drop (Pa)	Sound Level (dB)	Pressure Drop (Pa)	Sound Level (dB)	Pressure Drop (Pa)	Sound Level (dB)
500	68	32						
600	87	34	48	<30				
700	106	37	62	30	<40	<30		
800	142	39	83	33	41	<30		
900	150	41	96	36	50	<30	<40	<30
1000	196	43	106	37	63	30	<45	<30
1200	254	47	150	40	94	34	50	<30
1500	>300	>55	220	44	126	37	92	33
2000			>300	>50	195	43	108	37
2500					254	47	171	42
3000							220	44
3500							254	47

### INSTALLATION:



**ORDER CODES**

DD	00	RAL9010	SM	N 250x165mm
				N: Neck Size F: Frame Size
				00: No Mounting SM: Screw Mounting
				00: No coating EX: Eloxal Coating
000: Without Damper OFD: Opposite Flap Damper				RAL----: Powder Coating