

# PLFF

- > Louvre Full Face Diffuser
- > High Capacity
- > Spread Pattern Options

## DESCRIPTION

A high capacity louvred face directional diffuser that can supply large volumes of air at relatively low sound levels and pressure drops. Available with a wide variety of core styles and neck sizes, a combination can be selected to suit a specified air pattern and deliver the desired volume of air to suit any particular requirement.

## CONSTRUCTION

Extruded aluminium.

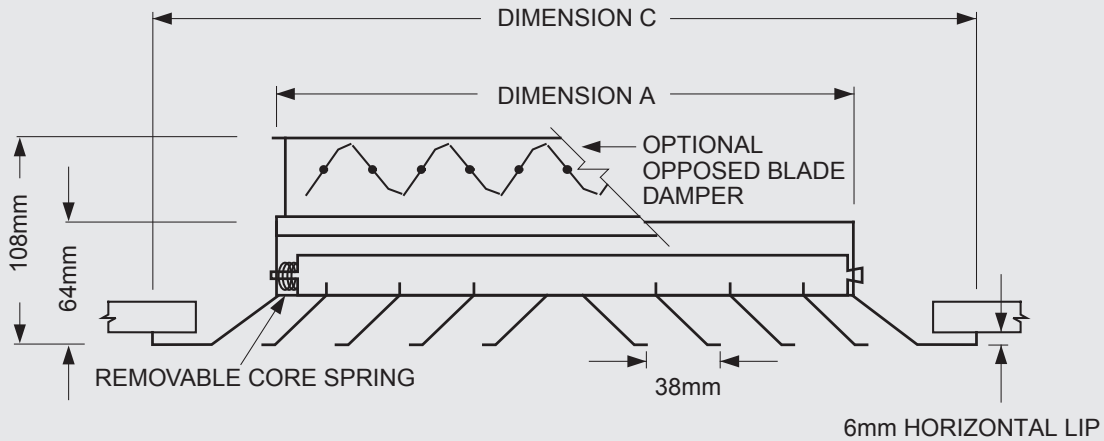
### Finish:

White polyester powder finish RAL 9010 semi-gloss as standard. *Other finishes available.*

## MODELS

**PLFF:** Fixed Pattern Full Face

PLFF – Louvre Full Face Diffuser



DIMENSIONS (mm)		
Nominal Unit Size	Actual Neck 'A'	Overall Flanges 'C'
150 x 150	146 x 146	595 x 595
225 x 225	223 x 223	595 x 595
300 x 300	299 x 299	595 x 595
375 x 375	375 x 375	595 x 595
450 x 450	451 x 451	595 x 595

## NOTES


### Available Sizes:


Unit size is determined by duct dimensions.  
Diffuser necks are under sized to suit ductwork.  
Duct Sizes are available in 75 mm increments.


### Minimum size:


150 mm x 150 mm square neck.  
225 mm x 150 mm rectangular neck.


# PLFF – CORE STYLES

1-WAY	Size (mm)		
	CORE	MIN	MAX
	1S	150 x 150	450 x 450

2-WAY	Size (mm)		
	CORE	MIN	MAX
	2S	150 x 150	450 x 450

2-WAY CORNER	Size (mm)		
	CORE	MIN	MAX
	2G	150 x 150	450 x 450

3-WAY	Size (mm)		
	CORE	MIN	MAX
	3A	150 x 150	450 x 450

4-WAY	Size (mm)		
	CORE	MIN	MAX
	4A	150 x 150	450 x 450

## RETURN SELECTION DATA

Air Volume (m³/s)		4-Way																	
		0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.080	0.100	0.125	0.150	0.200	0.250	0.300	0.400	0.500		
Size	15.60	Pa	1	3	5	6	10	15	22										
		dB(A)	-	-	-	-	-	12	18										
	22.60	Pa			1	1	2	3	4	6	9								
		dB(A)			-	-	-	-	-	-	-								
	30.60	Pa					1	2	2	3	7	11	18						
		dB(A)					-	-	-	-	-	14	23						
	37.60	Pa							1	2	4	8	12	24					
		dB(A)							-	-	-	10	17	23					
	45.60	Pa									2	4	6	9	15	22	36	63	98
		dB(A)									-	-	-	10	17	22	28	33	40

## RETURN KEY INFORMATION

Throw based on diffuser installed in a standard suspended ceiling.

**Pa** = Static Pressure Drop

**dB(A)** = Sound Pressure Level

## SUPPLY KEY INFORMATION

Throw based on diffuser installed in a standard suspended ceiling.

**T1 & T2** = Throw in metres (m)

**Pa** = Static Pressure Drop

**dB(A)** = Sound Pressure Level

**VEL** = Neck Velocity m/s

*Supply data over the page.*

# PLFF - SELECTION DATA

SUPPLY SELECTION DATA															
4-Way															
Air Volume (m³/s)		0.047	0.071	0.094	0.118	0.141	0.165	0.188	0.212	0.235	0.282	0.329	0.376	0.424	
Size	15.60	T1	<b>0.6</b>	<b>1.2</b>											
		T2	<b>1.2</b>	<b>1.6</b>											
		VEL	2.5	3.8											
		Pa	2	5											
		NC	-	23											
	20.60	T1			<b>1.6</b>	<b>1.9</b>	<b>2.6</b>								
		T2			<b>2.2</b>	<b>2.9</b>	<b>3.5</b>								
		VEL			2.9	3.6	4.3								
		Pa			3	6	8								
		NC			-	-	19								
	30.60	T1			<b>1.4</b>	<b>1.5</b>	<b>1.5</b>	<b>1.5</b>	<b>1.8</b>	<b>2.1</b>	<b>2.4</b>	<b>2.7</b>	<b>3.4</b>		
		T2			<b>2.0</b>	<b>2.3</b>	<b>2.1</b>	<b>2.4</b>	<b>2.8</b>	<b>3.1</b>	<b>3.5</b>	<b>4.3</b>	<b>4.9</b>		
		VEL			1.3	1.6	1.9	2.1	2.5	2.9	3.2	3.8	4.4		
		Pa			1	2	2	3	4	6	6	10	13		
		NC			-	-	-	-	16	18	20	25	27		
	37.60	T1					<b>1.5</b>	<b>1.4</b>	<b>1.5</b>	<b>1.8</b>	<b>2.0</b>	<b>2.3</b>	<b>2.7</b>	<b>3.0</b>	
		T2					<b>2.1</b>	<b>2.3</b>	<b>2.2</b>	<b>2.7</b>	<b>3.1</b>	<b>3.7</b>	<b>4.1</b>	<b>4.5</b>	
		VEL					1.5	1.7	2.0	2.5	2.7	3.0	3.5	3.9	
		Pa					2	2	3	5	6	8	11	16	
		NC					-	-	-	16	18	20	24	32	
40.60	T1					<b>1.4</b>	<b>1.3</b>	<b>1.2</b>	<b>1.5</b>	<b>1.8</b>	<b>2.0</b>	<b>2.5</b>	<b>2.8</b>	<b>3.0</b>	
	T2					<b>2.0</b>	<b>2.2</b>	<b>1.8</b>	<b>2.4</b>	<b>2.6</b>	<b>3.2</b>	<b>3.7</b>	<b>4.0</b>	<b>4.4</b>	
	VEL					1.1	1.3	1.5	1.7	1.9	2.2	2.6	2.9	3.4	
	Pa					1	2	2	4	4	7	8	12	15	
	NC					-	-	-	-	17	18	24	32	37	

SUPPLY SELECTION DATA																
3-Way																
Air Volume (m³/s)		0.047	0.071	0.094	0.118	0.141	0.165	0.188	0.212	0.235	0.282	0.329	0.376	0.424		
Size	15.60	T1	<b>0.6</b>	<b>1.1</b>												
		T2	<b>1.2</b>	<b>1.7</b>												
		VEL	2.5	3.8												
		Pa	2	6												
		NC	-	25												
	20.60	T1				<b>1.6</b>	<b>1.6</b>	<b>2.5</b>								
		T2				<b>2.2</b>	<b>2.1</b>	<b>3.5</b>								
		VEL				2.9	3.6	4.4								
		Pa				3	5	8								
		NC				-	-	17								
	30.60	T1				<b>1.6</b>	<b>1.2</b>	<b>1.5</b>	<b>1.8</b>	<b>1.8</b>	<b>2.1</b>	<b>2.4</b>	<b>3.1</b>	<b>3.4</b>		
		T2				<b>2.2</b>	<b>1.8</b>	<b>2.2</b>	<b>2.4</b>	<b>2.7</b>	<b>3.1</b>	<b>3.5</b>	<b>4.3</b>	<b>4.9</b>		
		VEL				1.3	1.6	1.9	2.2	2.5	2.9	3.2	3.8	4.4		
		Pa				1	2	2	3	4	6	7	10	12		
		NC				-	-	-	-	16	18	20	22	31		
	37.60	T1						<b>1.5</b>	<b>1.6</b>	<b>1.7</b>	<b>2.0</b>	<b>2.4</b>	<b>3.0</b>	<b>3.5</b>	<b>3.5</b>	
		T2						<b>2.1</b>	<b>2.3</b>	<b>2.4</b>	<b>3.0</b>	<b>3.6</b>	<b>4.2</b>	<b>4.8</b>	<b>5.5</b>	
		VEL						1.5	1.7	2.0	2.5	2.7	3.0	3.5	3.9	
		Pa						2	2	3	5	6	8	10	16	
		NC						-	-	-	16	18	20	26	33	
40.60	T1							<b>1.4</b>	<b>1.5</b>	<b>1.6</b>	<b>1.9</b>	<b>2.2</b>	<b>2.8</b>	<b>3.2</b>	<b>3.5</b>	<b>4.5</b>
	T2							<b>2.0</b>	<b>2.2</b>	<b>2.5</b>	<b>2.9</b>	<b>3.4</b>	<b>4.1</b>	<b>4.7</b>	<b>5.3</b>	<b>6.0</b>
	VEL							1.1	1.3	1.4	1.7	1.9	2.2	2.6	2.9	3.4
	Pa							1	2	2	4	5	6	8	12	14
	NC							-	-	-	-	16	18	24	32	33

2-Way															
Air Volume (m³/s)		0.047	0.071	0.094	0.118	0.141	0.165	0.188	0.212	0.235	0.282	0.329	0.376	0.424	
Size	15.60	T1	<b>1.4</b>	<b>2.7</b>											
		T2	<b>2.3</b>	<b>3.8</b>											
		VEL	2.5	3.8											
		Pa	2	6											
		NC	-	22											
	20.60	T1			<b>2.1</b>	<b>2.9</b>	<b>3.9</b>								
		T2			<b>3.4</b>	<b>4.3</b>	<b>5.3</b>								
		VEL			2.9	3.6	4.3								
		Pa			3	5	9								
		NC			-	-	19								
	30.60	T1			<b>1.8</b>	<b>2.4</b>	<b>2.5</b>	<b>3.4</b>	<b>3.7</b>	<b>4.2</b>	<b>4.6</b>	<b>5.5</b>	<b>6.7</b>		
		T2			<b>2.7</b>	<b>3.4</b>	<b>4.0</b>	<b>4.9</b>	<b>5.5</b>	<b>6.0</b>	<b>6.7</b>	<b>7.6</b>	<b>9.5</b>		
		VEL			1.3	1.6	1.9	2.2	2.5	2.9	3.2	3.8	4.4		
		Pa			1	2	2	3	4	6	7	10	12		
		NC			-	-	-	-	16	18	22	23	27		
	37.60	T1					<b>2.6</b>	<b>3.0</b>	<b>3.1</b>	<b>3.7</b>	<b>4.2</b>	<b>5.0</b>	<b>6.2</b>	<b>6.5</b>	
		T2					<b>3.8</b>	<b>4.3</b>	<b>4.6</b>	<b>5.1</b>	<b>6.0</b>	<b>7.0</b>	<b>8.2</b>	<b>8.6</b>	
		VEL					1.5	1.7	2.0	2.5	2.7	3.0	3.5	3.9	
		Pa					2	2	3	5	6	8	12	16	
		NC					-	-	-	16	18	20	26	30	
40.60	T1					<b>2.4</b>	<b>2.7</b>	<b>2.7</b>	<b>3.2</b>	<b>3.9</b>	<b>4.5</b>	<b>5.3</b>	<b>5.8</b>	<b>6.0</b>	
	T2					<b>3.7</b>	<b>3.7</b>	<b>3.7</b>	<b>4.3</b>	<b>5.3</b>	<b>6.4</b>	<b>7.5</b>	<b>8.1</b>	<b>9.0</b>	
	VEL					1.1	1.2	1.5	1.7	1.9	2.2	2.6	2.9	3.4	
	Pa					1	2	2	3	4	6	8	12	14	
	NC					-	-	-	-	15	18	24	32	37	

1-Way																
Air Volume (m³/s)		0.047	0.071	0.094	0.118	0.141	0.165	0.188	0.212	0.235	0.282	0.329	0.376	0.424		
Size	15.60	T1	<b>1.7</b>	<b>3.1</b>												
		T2	<b>3.0</b>	<b>4.3</b>												
		VEL	2.5	3.8												
		Pa	2	6												
		NC	-	21												
	20.60	T1				<b>2.1</b>	<b>1.8</b>	<b>3.7</b>								
		T2				<b>3.4</b>	<b>2.4</b>	<b>5.3</b>								
		VEL				2.9	3.6	4.3								
		Pa				3	6	8								
		NC				-	-	18								
	30.60	T1				<b>1.8</b>	<b>2.1</b>	<b>2.7</b>	<b>3.1</b>	<b>3.4</b>	<b>4.1</b>	<b>4.3</b>	<b>5.2</b>	<b>6.1</b>		
		T2				<b>2.4</b>	<b>3.1</b>	<b>4.0</b>	<b>4.2</b>	<b>5.5</b>	<b>6.0</b>	<b>6.7</b>	<b>7.6</b>	<b>9.4</b>		
		VEL				1.3	1.6	1.9	2.2	2.5	2.9	3.2	3.8	4.4		
		Pa				1	2	2	3	4	6	6	10	12		
		NC				-	-	-	-	16	18	20	23	30		
	37.60	T1						<b>2.6</b>	<b>2.6</b>	<b>3.1</b>	<b>3.5</b>	<b>4.0</b>	<b>4.8</b>	<b>5.6</b>	<b>6.5</b>	
		T2						<b>3.8</b>	<b>4.0</b>	<b>4.6</b>	<b>5.1</b>	<b>6.0</b>	<b>7.0</b>	<b>8.9</b>	<b>9.0</b>	
		VEL						1.5	1.7	2.0	2.5	2.7	3.0	3.5	3.9	
		Pa						2	2	3	5	6	8	10	17	
		NC						-	-	-	16	18	20	28	32	
40.60	T1							<b>2.4</b>	<b>2.1</b>	<b>2.3</b>	<b>2.7</b>	<b>3.6</b>	<b>4.5</b>	<b>5.2</b>	<b>5.8</b>	<b>6.5</b>
	T2							<b>3.7</b>	<b>3.4</b>	<b>3.7</b>	<b>4.3</b>	<b>5.5</b>	<b>6.4</b>	<b>8.1</b>	<b>8.2</b>	<b>9.6</b>
	VEL							1.1	1.3	1.5	1.7	1.9	2.2	2.6	2.9	3.4
	Pa							1	2	2	4	4	6	8	11	14
	NC							-	-	-	-	16	19	24	32	36