

PRODUCT BROCHURE

SMARTEMP[®]
IN COMFORT



Linear Swirl Diffuser

LSW-FD

DESCRIPTION

The SMARTEMP® Linear Swirl Diffuser, type LSW-FD (figure 1), has a row of rectangular chambers located in a recessed slot of galvanised sheet metal, which may optionally be powder coated. Air entry is from above (standard), or optionally from below (on request only).

Each rectangular chamber discharges a pair of highly inductive, counter rotating supply air vortices. High induction and intense mixing at the diffuser discharge surface strongly dilute the swirling supply air streams with large quantities of room air. Rapid temperature equalisation with room air temperature is achieved, preventing cold air dumping, thereby ensuring uniform temperature distribution (no cold and draughty or hot and stagnant spots) and high comfort levels in the space.

High induction also produces a strong increase in supply air stream mass flow rate, as well as rapid discharge velocity decay. As a result, at any given airflow rate, the LSW-FD diffuser is suitable both for

long throws (due to the high momentum of each supply air stream) as well as short throws (due to the supply air streams' low velocity).

The stable discharge characteristics of the LSW-FD diffuser operating at constant airflow over a wide range of supply air temperatures of up to $\Delta T_{\text{supply-room}} = -12 \text{ K}$ ensure enhanced levels of comfort over horizontal throws of up to 16 m.

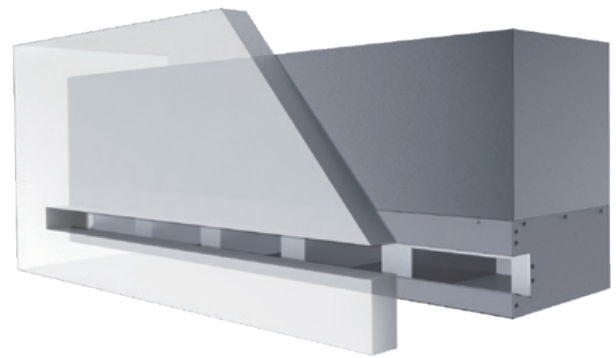
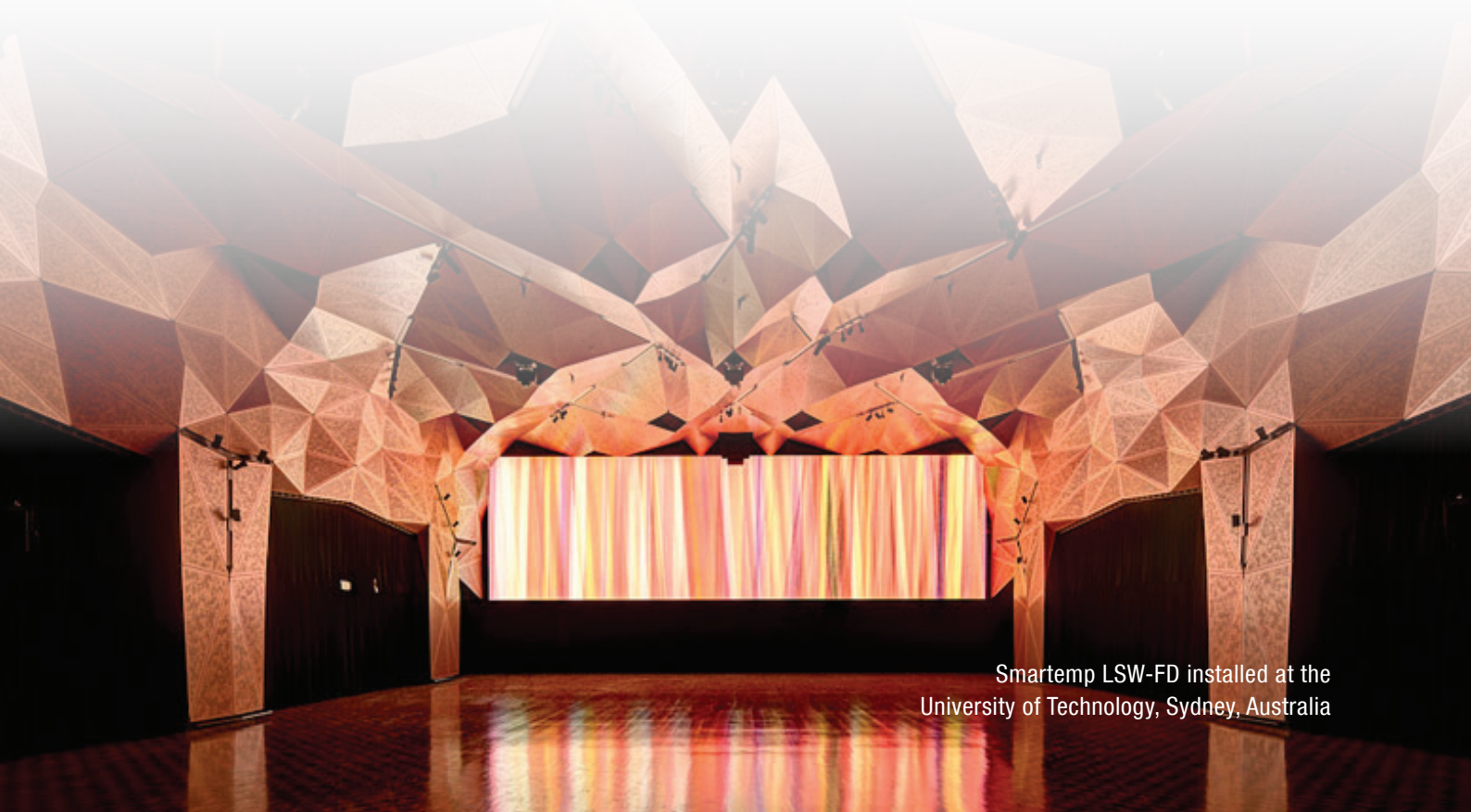


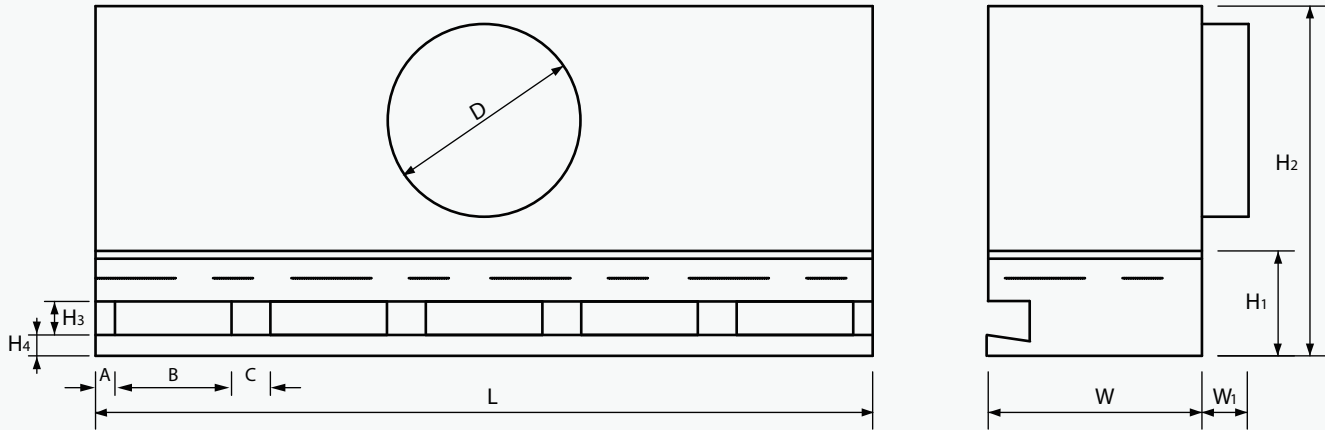
Figure 1: Typical installation behind wall



Smartemp LSW-FD installed at the
University of Technology, Sydney, Australia

TECHNICAL DATA

DIMENSIONS

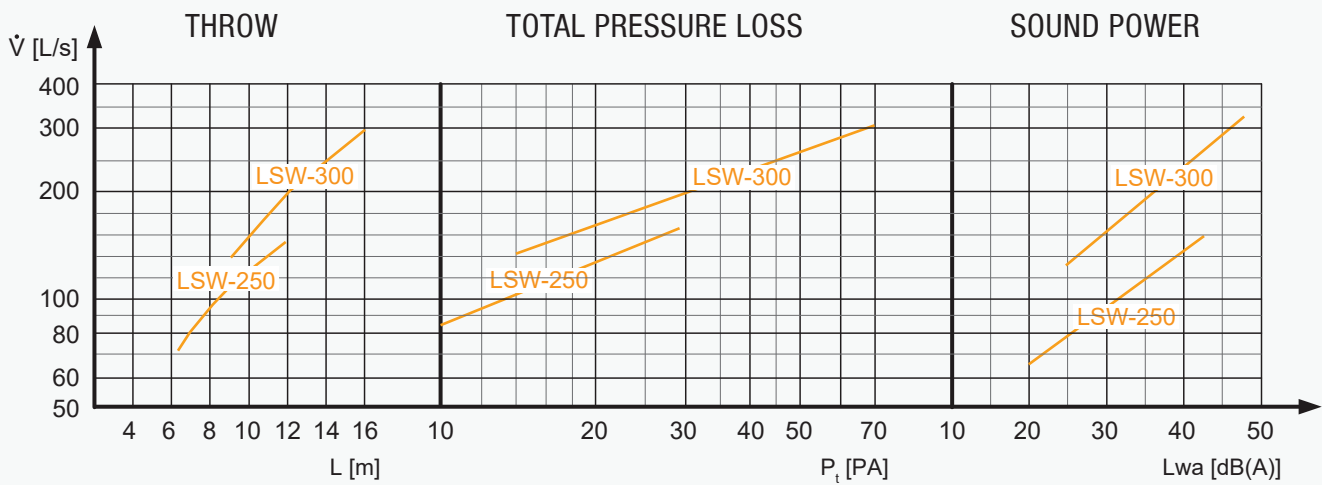


MODEL	A	B	C	L	W	W1	H1	H2	H3	H4	D
LSW-FD-250	25	150	50	1000	250	60	135	450	46	35	248
LSW-FD-300	25	150	50	1050	290	60	160	500	66	35	298

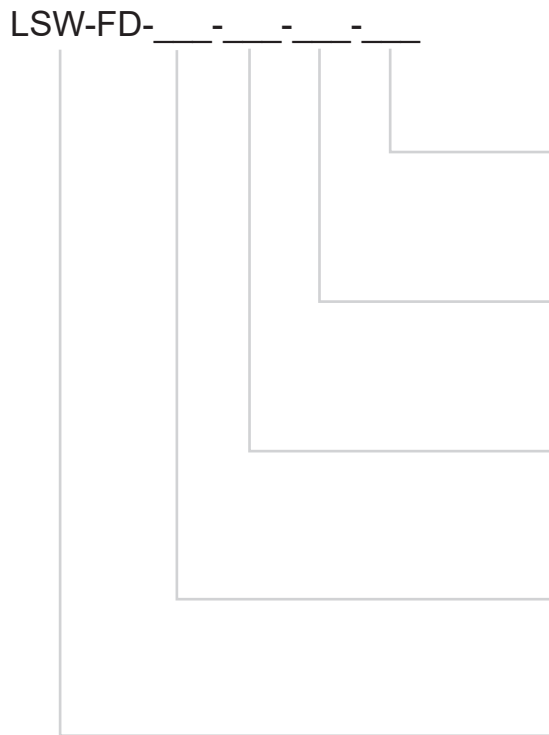
All dimensions in mm.

Products supplied may differ slightly from those described in this technical brochure due to on-going product development.

PERFORMANCE



ORDER DETAILS



CONNECTION BOX:

- 0* - Diffuser only
- K - With connection box

AIR ENTRY:

- AA* - From above
- AB - From below

COLOUR:

- 0* - Unpainted
- RAL_____

NOMINAL SIZE:

- 250 (250 mm)
- 300 (290 mm)*

MODEL:

- Linear Swirl Wall - Fixed Direction

Note:

* Standard, if no type code entered.

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