

Linear Slot Diffusers

KCS-F KCS-L



Introduction

The Waterloo series KCS is a standard alternative to the infinitely variable CS linear slot diffuser. Available in 1 to 4 slots it comes complete with a black polymer pattern control element and will provide either a one or two way horizontal distribution. Each unit can be supplied with either conventional end caps or polymer flat inserts where a lay-in grid is used. The KCS is suitable for VAV systems or conventional fan coil systems and can be supplied with a plenum box if required. Lengths are available up to 1800mm long in one piece.

Product Description

- KCS-F** Flanged linear slot diffuser
- KCS-L** Recessed frame linear slot diffuser
- FL** End caps (For KCS-F)
- KPL** Polymer end caps (Suitable for KCS-F and KCS-L)

Features

- VAV system compatibility
- One or two way directional throw
- Other frame styles available
- Black pattern control elements

Finishes

PPM9010 (RAL 9010 20% Gloss White)
 Black polymer blades
 Other frame colours and anodised finish available on request

Advantages

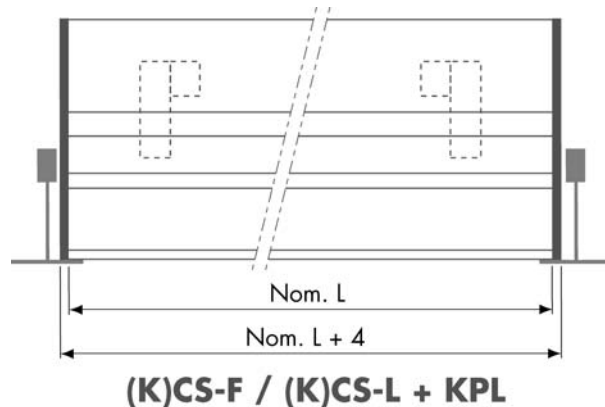
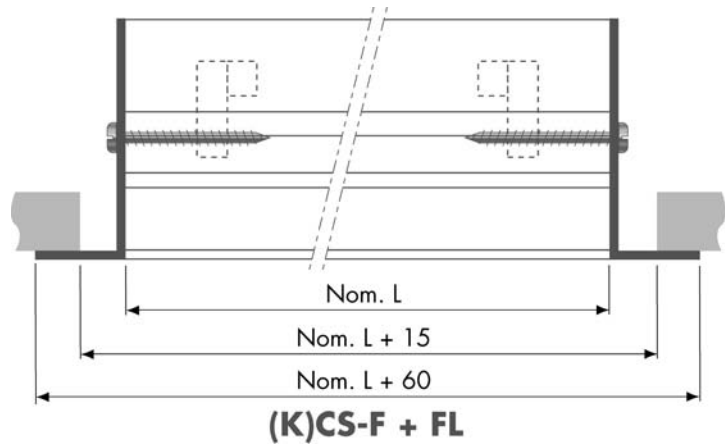
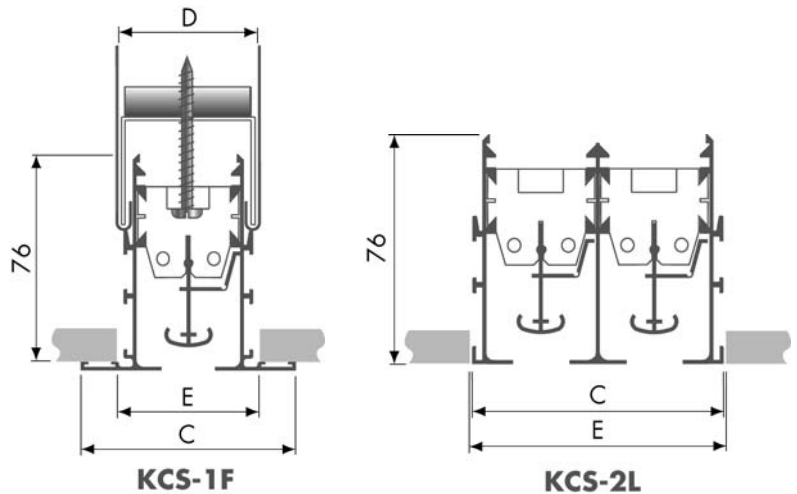
- Two way variable throw characteristics
- Easily adjustable air pattern
- Lay-in grid compatible

Weights

0.8N + 0.7 kg/m
 N = number of slots

Sizes

Standard from 1 to 4 slots wide 1800mm long (excluding ends). Continuous diffuser lengths are supplied in sections for butt jointing on site. (Alignment plates supplied)



Order Example

KCS-2F/1800/PPM9010/FL

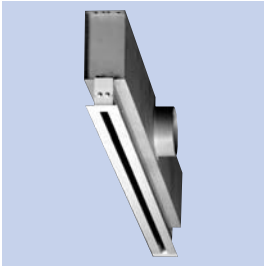
Type _____
 N° of slots _____
 Outer frame type _____
 Length _____
 Finish _____
 End caps _____

KCS	C	E	Plenum Widths D	
KCS-1F	75	55	KCS-1F	46
KCS-2F	113	93	KCS-2F	84
KCS-3F	151	131	KCS-3F	122
KCS-4F	189	169	KCS-4F	160
KCS-1L	46	48	KCS-1L	46
KCS-2L	84	86	KCS-2L	84
KCS-3L	122	124	KCS-3L	122
KCS-4L	160	162	KCS-4L	160



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Selection Criteria

Ceiling height 2.75m
 Temperature differential -11°C
 NC is sound pressure level/Noise Criteria Curve & based on a room absorption of 8dB.
 V_r = mean room air velocity (m/s)
 V_t = terminal velocity of supply air jet (m/s)

Please note that for heating applications the KCS diffusers are limited to a maximum supply air temperature of 50°C

Selection Example KCS-2F/1800

Total air flow rate 180 l/s
 Air flow rate per metre = 100 l/s/m
 Minimum throw 2.8m (3.5 x 0.8 factor)
 Maximum throw 7.2m (9.0 x 0.8 factor)
 Pressure drop 25Pa
 Noise level NC29 (NC32 - 3db length correction)

Length Corrections

Active Length (m)	0.5	1.25	2.0	2.5	3.0+
NR Adjustment	-8	-5	-3	-2	0
Throw Multiplier	0.45	0.65	0.8	0.9	1.0

Performance Nomogram

