

Round Duct Slot Diffusers

Model SKD-13

Features

- Steel Construction
- 1 to 14 Slots or 1 to 4 slots
- Duct diameters of $\text{\O}150\text{mm}$ to $\text{\O}900\text{mm}$
- Cylinder Inner Deflectors
- Swivel Discharge Adjustment



Air Diffusion

Grilles Diffusers Louvres Chilled Beams

Ruskin Air Management Limited
www.ruskinuk.co.uk

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Introduction



SKD - 13D

Model SKD-13D Round Duct Slot Diffuser

The distinctive design of the Model SKD-13D round duct slot diffuser means it can be directly integrated into a circular duct system, where supplying air into a large area with high mounting heights is a requirement. Mounting heights of 2.5m to 4.0m are possible for both heating and cooling applications. Typical installations include Conference Halls, Gymnasiums, Light Industrial areas or other large open spaces.

Each diffuser incorporates an adjustable inner cylindrical deflector, which, by simply swivelling gives a full range of air supply adjustment options, left, right and vertical discharge or a combination of all three from a single diffuser. The cylindrical deflectors also provide air control and shut off if required.

An active section of 800mm is located centrally into a standard nominal diffuser length of 1 metre and is available from 1 to 14 slots to suit duct diameters of Ø150mm to Ø900mm.

To regulate the amount of air through each diffuser section a control damper may be fitted behind the diffuser, this is particularly useful in long runs of ductwork; an externally located adjustment knob provides operation of

the control damper.

Standard Finish is White Polyester Powder to RAL9010 (30% Gloss), although other colours are also an option available on special request.

Specification

Materials

Galvanised Steel with inner cylinders from recycled plastics.

Slot Size

15mm wide
1 to 14 slots.

Diffuser Length

Standard: 1000mm nominal size (800mm active).

Duct Diameters

Ø 150mm
Ø 160mm
Ø 200mm
Ø 250mm

Ø 300mm
Ø 355mm
Ø 400mm
Ø 450mm

Ø 500mm
Ø 600mm
Ø 710mm
Ø 800mm
Ø 900mm

Finish

Standard finish is White PPC RAL9010 (30% Gloss).

Optional Finish

Other finishes within the RAL range are available on request.

Inner Cylinders

Standard finish is either Black or White (If colour not stated on order then Black cylinders will be supplied as standard).

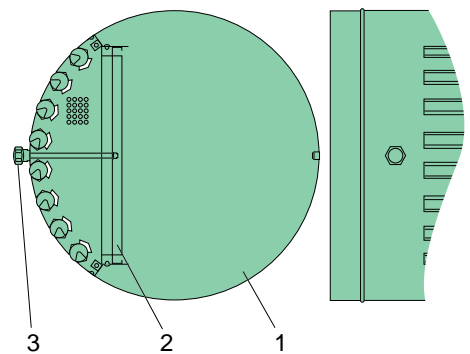
Fixings

Slip spigot connection to adjacent ductwork (by others).

Options

Control Damper with externally located adjustment knob.

Components



1. SKD-13D

2. T-register

3. T-registered

adjusting knob

A T register, black in colour, is inserted in the SKD-13D/T. The T register is adjusted by means of a PVC knob, screwed into a threaded bar.

Round Duct Slot Diffusers

Model SKD – 13R Radial Slot Diffuser

The Model SKD – 13R Radial Slot Diffuser panel is designed to fit onto a circular duct system to provide all the air distribution features of the Model SKD - 13D but in a smaller format.

A maximum active section of 800mm is available from 1 to 4 slots. Each panel is supplied with countersunk screw holes for installation onto circular duct (by others).

Standard Finish is White Polyester Powder to RAL9010 (30% Gloss), although other colours are also available as an option on special request.

Specification

Materials

Galvanised Steel with inner cylinders from recycled plastics.

Slot Size

15mm wide
1 to 4 slots.

Diffuser Length

Standard lengths:

- 1 Slot 580mm overall 500mm active
- 2 Slot 680mm overall 600mm active
- 3 Slot 880mm overall 800mm active
- 4 Slot 880mm overall 800mm active.

Duct Diameters

No. of Slots	ØD of Tube
1	150 - 355
2	355 - 900
3	600 - 2400
4	600 - 2400

Finish

Standard finish is White PPC RAL9010 (30% Gloss)

Optional Finish

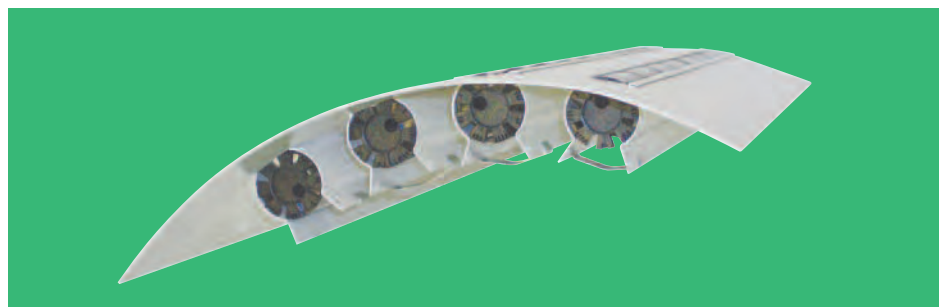
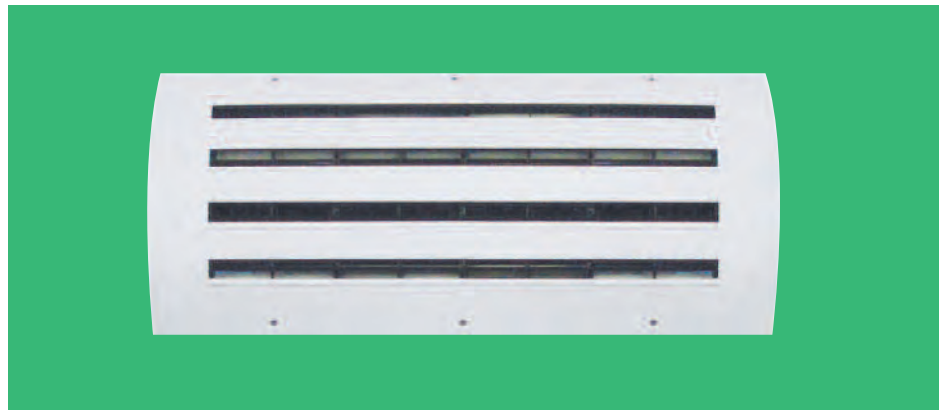
Other finishes within the RAL range are available on request.

Inner Cylinders

Standard finish is either Black or White (If colour not stated on order then Black cylinders will be supplied as standard)

Fixings

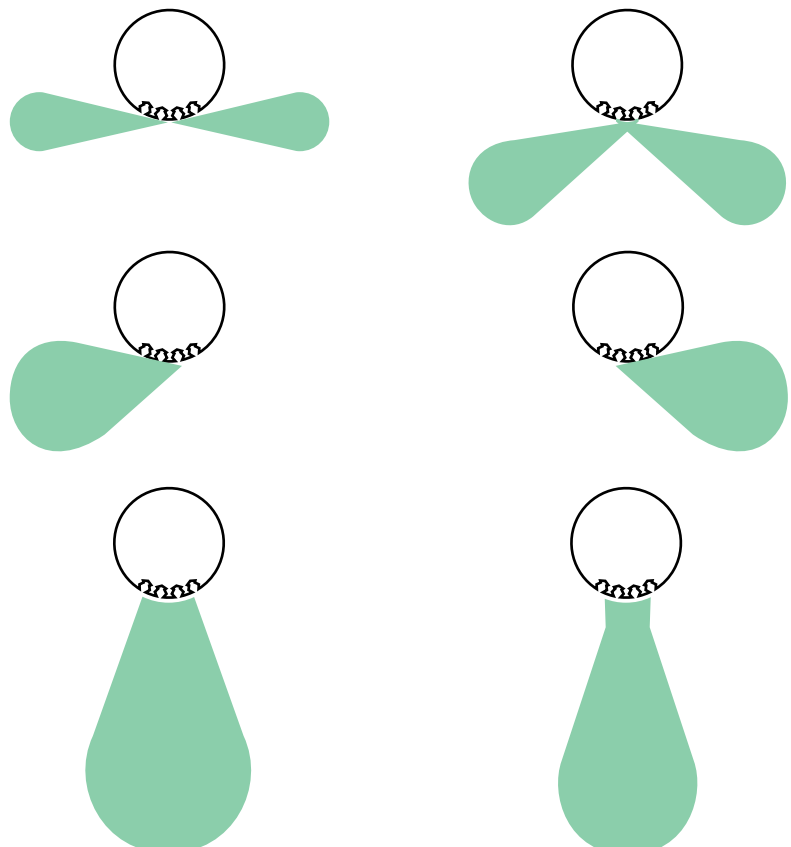
Countersunk screw holes for connection to circular ductwork (by others).



SKD - 13R

Air Pattern Discharge

Types of Air Discharge



Performance Guide

No. of Slots	Duct Ø (mm)	Vol (L/s/m)	Total Pressure Pt (Pa)	Noise (NRLpA)	Throw LT* (m)	Vt (m/s)
2	150	25	<5	8	<2	0.25
	150	80	<10	40	<5	0.25
	160	25	<5	8	<2	0.25
	160	90	<10	40	<5	0.25
	200	28	<5	9	<2	0.25
	200	100	<10	40	<5	0.25
	250	30	<5	9	<2	0.25
	250	108	<10	43	<7	0.25
	300	32	<5	12	<2	0.25
	300	110	<10	43	<7	0.25
	355	33	<5	11	<2	0.25
	355	110	<10	43	<7	0.25
	400	31	<5	10	<2	0.25
	400	113	<10	44	<8	0.25
	450	31	<5	10	<2	0.25
	450	113	<10	44	<8	0.25
	500	33	<5	11	<2	0.25
	500	113	<10	44	<8	0.25
	600	33	<5	11	<2	0.25
	600	113	<10	44	<8	0.25
710	33	<5	11	<2	0.25	
710	113	<10	44	<8	0.25	
800	33	<5	11	<2	0.25	
800	113	<10	44	<8	0.25	
900	33	<5	11	<2	0.25	
900	113	<10	44	<8	0.25	
4	150	28	<5	8	<2	0.25
	150	119	<10	35	4	0.25
	160	35	<5	8	<2	0.25
	160	144	<10	40	<10	0.25
	200	37	<5	8	<2	0.25
	200	150	<10	40	<10	0.25
	250	39	<5	8	<2	0.25
	250	156	<10	40	<10	0.25
	300	40	<5	8	<2	0.25
	300	160	<10	40	<10	0.25
	355	43	<5	8	<2	0.25
	355	162	<10	40	<10	0.25
	400	43	<5	8	<2	0.25
	400	167	<10	40	<10	0.25
	450	45	<5	8	<2	0.25
	450	167	<10	40	<10	0.25
	500	45	<5	8	<2	0.25
	500	168	<10	40	<10	0.25
	600	47	<5	8	<2	0.25
	600	180	<10	45	<10	0.25
710	48	<5	8	<2	0.25	
710	180	<10	45	<10	0.25	
800	50	<5	8	<2	0.25	
800	185	<10	45	<10	0.25	
900	47	<5	8	<2	0.25	
900	190	<10	45	<10	0.25	
300	50	<10	8	<2	0.25	
300	180	<25	40	<10	0.25	
355	55	<10	8	<2	0.25	
355	191	<25	40	<10	0.25	
400	56	<10	9	<2	0.25	
400	200	<25	45	<10	0.25	
450	60	<10	8	<2	0.25	
450	220	<25	45	<10	0.25	
500	63	<10	8	<2	0.25	
500	244	<25	45	<10	0.25	
600	65	<10	8	<2	0.25	
600	260	<25	45	<8	0.25	
710	68	<10	8	<2	0.25	
710	270	<25	45	<8	0.25	
800	68	<10	8	<2	0.25	
800	270	<25	45	<8	0.25	
900	68	<10	8	<2	0.25	
900	270	<25	45	<8	0.25	

Performance Guide

No. of Slots	Duct Ø (mm)	Vol (L/s/m)	Total Pressure Pt (Pa)	Noise (NR LpA)	Throw LT* (m)	Vt (m/s)
8	400	56	<10	8	<2	0.25
	400	225	<30	40	<10	0.25
	450	56	<10	8	<2	0.25
	450	228	<30	40	<10	0.25
	500	58	<10	8	<2	0.25
	500	231	<30	40	<10	0.25
	600	58	<10	8	<2	0.25
	600	240	<30	40	<8	0.25
	710	60	<10	8	<2	0.25
	710	245	<35	43	<8	0.25
	800	64	<10	8	<2	0.25
	800	250	<35	43	<8	0.25
	900	65	<10	8	<2	0.25
	900	258	<35	44	<8	0.25
10	500	63	<10	8	<2	0.25
	500	277	<35	40	<10	0.25
	600	65	<10	8	<2	0.25
	600	284	<40	40	<8	0.25
	710	65	<20	8	<2	0.25
	710	288	<40	43	<8	0.25
	800	70	<20	8	<2	0.25
	800	288	<40	41	<8	0.25
	900	70	<20	8	<2	0.25
	900	300	<40	40	<8	0.25
12	500	75	<20	8	<2	0.25
	500	320	<35	40	<10	0.25
	600	75	<20	8	<2	0.25
	600	331	<40	40	<8	0.25
	710	77	<20	8	<2	0.25
	710	335	<40	40	<8	0.25
	800	77	<20	8	<2	0.25
	800	339	<40	40	<8	0.25
	900	80	<20	8	<2	0.25
	900	340	<40	41	<8	0.25
14	500	82	<30	8	<2.5	0.25
	500	360	<50	40	<10	0.25
	600	82	<30	8	<2.5	0.25
	600	368	<50	40	<8	0.25
	710	84	<30	8	<2.5	0.25
	710	374	<50	42	<8	0.25
	800	84	<30	8	<2.5	0.25
	800	374	<50	40	<8	0.25
	900	86	<30	8	<2.5	0.25
	900	380	<50	42	<8	0.25

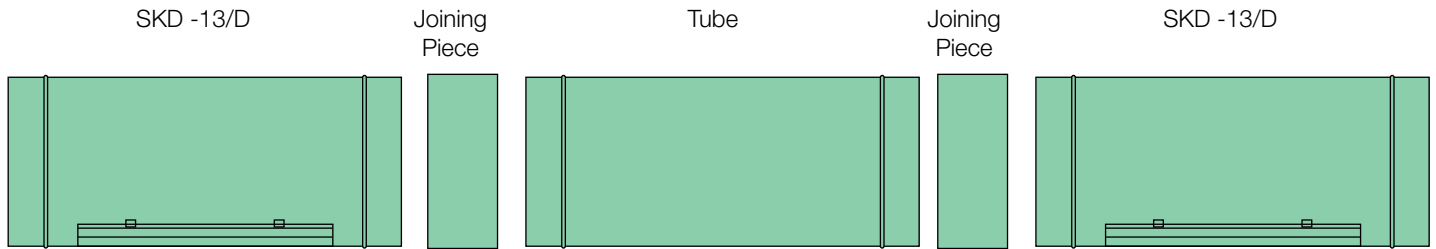
Notes:

- Throws are based on ceiling height of 2.8 metres and Temp differential of 10° C cooling
1 Sided Horizontal only.
- Sound Levels (NR) are based on average room absorption of 8dB.
- The above chart is for general guidance and should initially be based on the size of duct you are fitting the diffuser to.

For further technical and selection information please contact our technical sales office
Tel: 01746 761921

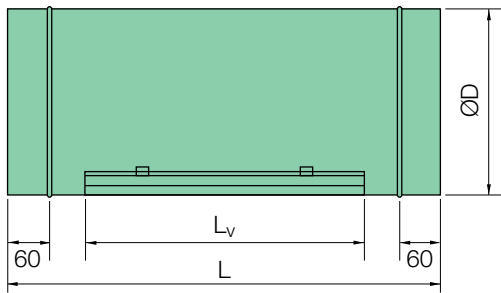
Installation Guide and Dimensions

Installation of SKD-13/D

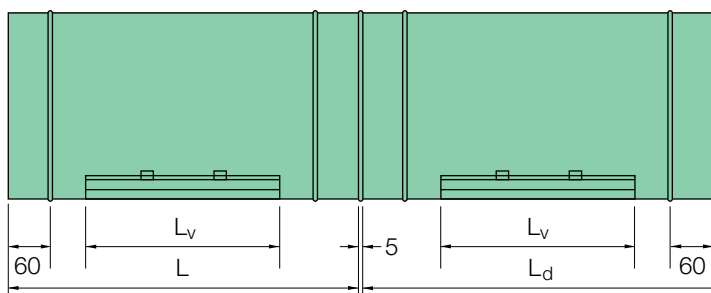


Dimensions

Single section



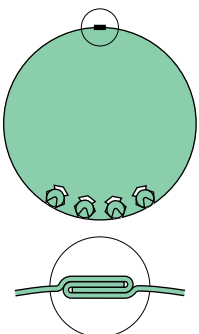
For diffuser lengths exceeding 1000mm



Model SKD-13/D

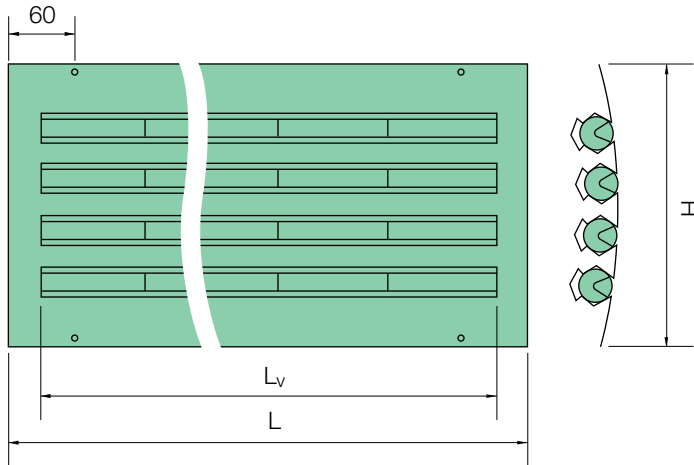
L_d	L	L_v	No. of Slots	ØD
1000	800	800	1 - 2	150 - 900
			3 - 4	150 - 900
			5 - 6	280 - 900
			7 - 8	355 - 900
			9 - 10	500 - 900
			11 - 12	500 - 900
			13 - 14	500 - 900
1505	1000	800	1 - 2	150 - 900
			3 - 4	150 - 900
			5 - 6	280 - 900
			7 - 8	355 - 900
			9 - 10	500 - 900
			11 - 12	500 - 900
			13 - 14	500 - 900
1755	875	2 x 600	3 - 4	150 - 450
			5 - 6	280 - 450
			7 - 8	355 - 450
			9 - 10	355 - 450
2005	1000	2 x 800	3 - 4	150 - 450
			5 - 6	280 - 450
			7 - 8	355 - 450
			9 - 10	355 - 450

Joint method



Installation Guide and Dimensions

Typical Installation of SKD-13/R



SKD-13/R

SKD-13/R is constructed for installations into round ducts with square openings.

L	L _v	H	No. of Slots	ØD of Tube	Installation L-35	Openings H-35
580	500	100	1	150 - 355	545	65
680	600	150	2	355 - 900	645	115
880	800	200	3	600 - 2400	845	165
880	800	250	4	600 - 2400	845	215

Ordering Information

Ordering Information Example

Model	Damper	Duct Diameter	No. of Slots	Diffuser Length	Diffuser Finish	Deflectors
SKD - 13D	0	350	4	1000	83	Black
SKD - 13D Round Duct Slot Diffuser	O - No Damper T - Control Damper	SKD - 13D 150 to 900mm Ø SKD - 13R 150 to 900mm Ø	SKD - 13D 1 to 14 Slots SKD - 13R 1 to 4 Slots	SKD - 13D 1000mm Standard Length SKD - 13R 1 Slot - 580mm 2 Slot - 680mm 3 Slot - 800mm 4 Slot - 880mm Standard Lengths	83 - White RAL 9010 PPC (20% Gloss) 6 - Special Finish Other colours available on request	Inner Deflectors Black White Deflectors available on request

Important Note: All orders must be addressed to Air Diffusion, Ruskin Air Management Limited.

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is a BS EN ISO 9000 registered
company.**

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Due to a policy of continuous product development the specification and details contained herein are subject to alteration without prior notice.

**Comprehensive and detailed information
is available for all Air Diffusion products.
Visit our website at www.air-diffusion.co.uk**

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