

3/S5
v 2.6 (en)

FLOOR DIFFUSER

PDI

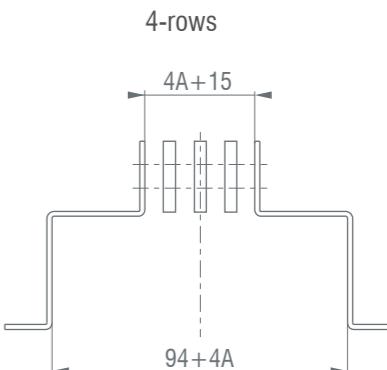
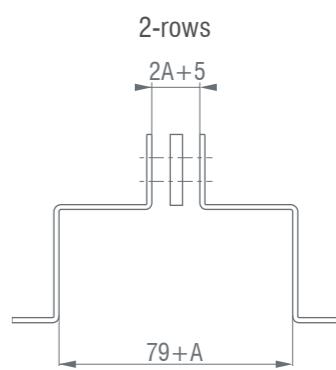
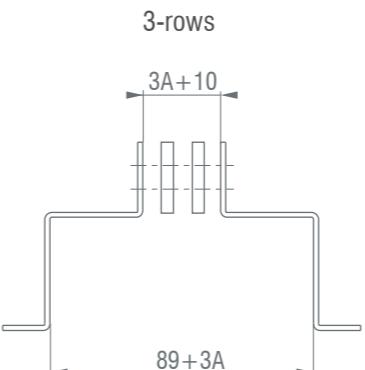
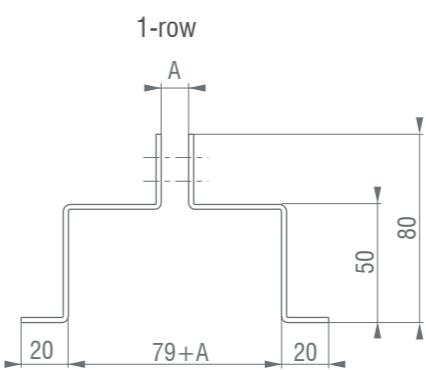
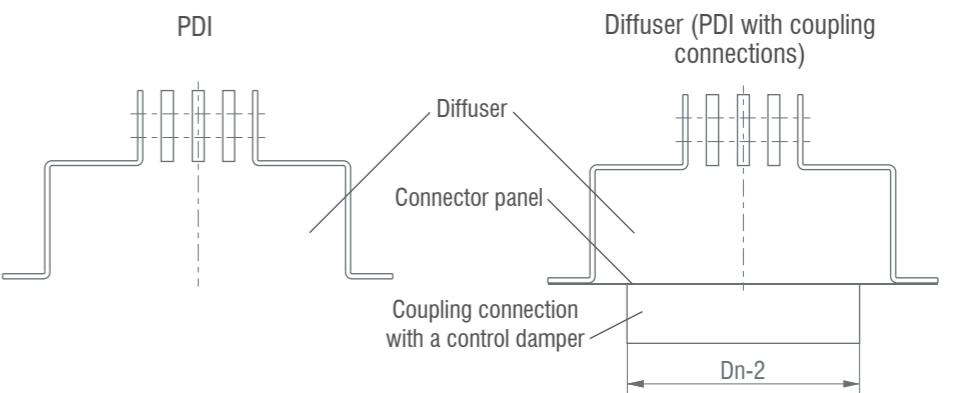


FLOOR DIFFUSER
FLOOR DIFFUSER
TABLE OF CONTENTS

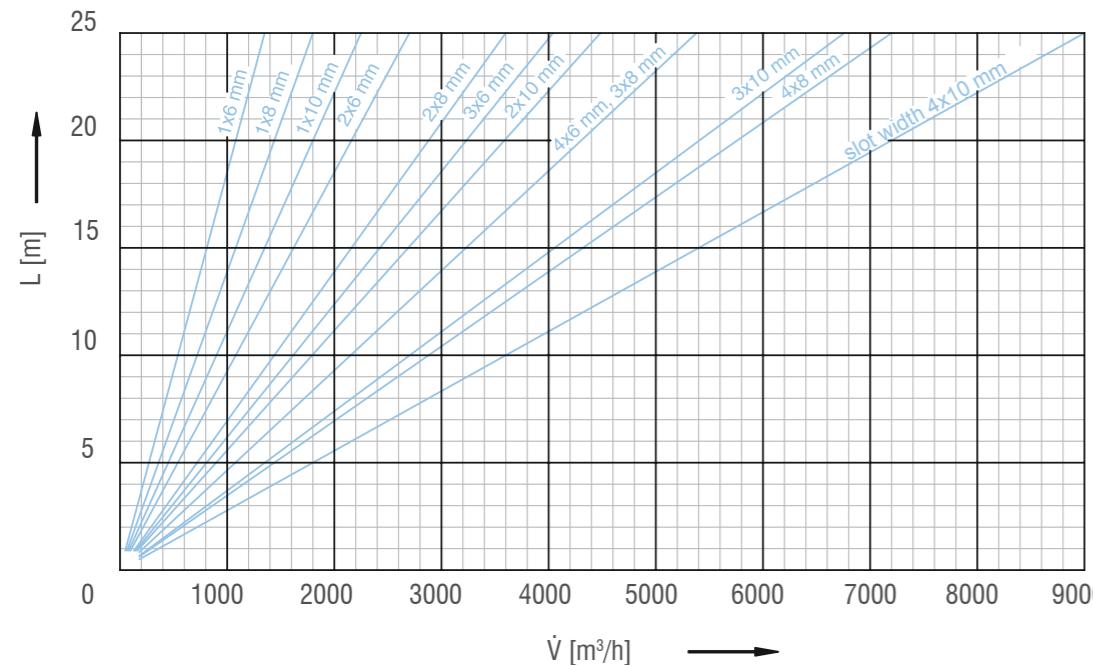
Floor diffuser, type PDI.....	233
Selection diagram.....	234
Installation.....	235


FLOOR DIFFUSER - PDI

- Floor diffuser is used for air supply to large glass surfaces.
- Made of aluminium sheet, discharge elements made of extruded aluminium profiles, connecting elements made of stainless steel.
- Possible version with or without end connections at bottom plate from aluminium sheet.


Definition of symbols:

V [m ³ /h]	- Airflow rate
y [m]	- Jet deflection
A [m]	- Horizontal difference between nozzle and point of jet collision
B [m]	- Distance between two nozzles in row
L [m]	- Isothermal jet throw
L_{max} [m/s]	- Total air throw of isothermal vertical jet
H_1 [m]	- Distance from occupied zone to collision point of two cold jet
H_2	- Distance from occupied zone to collision point of two warm jet
H_{uk} [m]	- Installation height
α [°]	- Angle of deflection
v_L [m/s]	- Medium air velocity at a point of jet collision
v_{H1} [m/s]	- Average air velocity at occupied zone
Δt_{H1} [K]	- Temperature difference between supply air at throw distance and room temperature
Δt_L [K]	- Difference between core and room temperature

FLOOR DIFFUSER
FLOOR DIFFUSER
SELECTION DIAGRAM


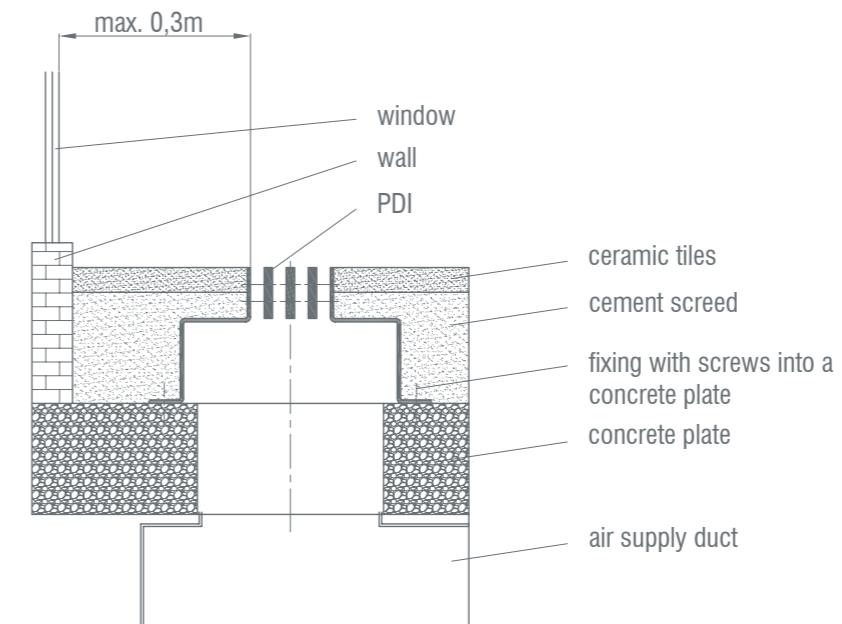
Diffuser characteristics

		Slot width														
		6 mm			8 mm			10 mm			12 mm			15 mm		
		V_{min} [m³/h]	V_{max} [m³/h]	$n \times D_n$												
No. of slots	1	45	90	2xø80	55	110	2xø80	70	145	3xø80	90	180	3xø80	105	215	4xø80
	2	90	180	2xø80	110	220	4xø80	140	290	5xø80	180	360	4xø100	210	430	5xø100
	3	135	270	3xø100	165	330	4xø100	210	435	5xø100	270	540	6xø100	315	650	4xø125
	4	180	360	4xø100	220	440	5xø100	280	560	6xø100	360	720	5xø125	420	860	6xø125

* Flow data given for diffuser length of 1m.

Ordering key:

Floor diffuser PDI - 4 - 10 - 1600 - K - P
 No. of slots 1,2,3 or 4
 Slot width - standard (6, 8, 10)
 - on request (12, 15)
 Length
 End plate
 Coupling connections

INSTALLATION


Corner connection



Line connection



End plate



Control damper

