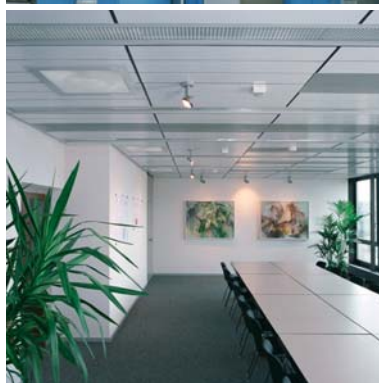
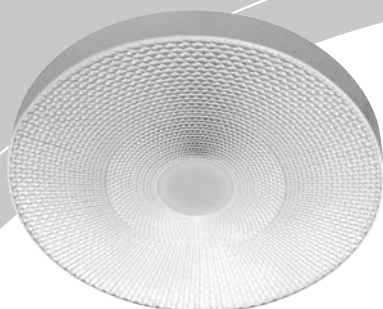


PROCONDIF®

The innovative diffuser



TROX® TECHNIK
The art of handling air



Optimum in function and design

Complex situation

Until recently, the use of non-highly entraining air discharge from above in warehouses and laboratories, etc. was somewhat problematic as the cooled air discharged from the ceiling often resulted in high downward velocities. The preferred solution was systems with extremely low discharge velocities, although this led to large diffuser areas and consequently costly products or diffusers that took up a lot of floor space.

The Innovative Solution

TROX HESCO Schweiz AG is pleased to present a system that is unique in both its design and its function: the innovative PROCONDIF® diffuser.

The "procondive" method is based on a controlled velocity profile at the outlet: **PRO (Profile) CON (Controlled) DIF (Diffusion)**. The PROCONDIF® (PCD), diffuser, the core of which is a highly porous honeycomb structure, creates a discharge profile appropriate for the intended application and ensures rapid, gentle diffusion of the fresh air with, above all, low turbulence.

In short: "procondive" air discharge.

What is more, there is hardly any secondary air entrained in the outlet, and so the ceiling around the diffuser does not get dirty. The efficient alignment of the honeycomb structure means that the flow of fresh air does not become constricted, preventing an accelerated downward speed of the supply air.



PROCONDIF® Type PCDQ



PROCONDIF® Type PCDR



Type PCDQ

Volume flow rate	\dot{V}	[m³/h]	300			400			nominal 500			600		
	q_v	[L/s]	83			111			139			167		
Pressure drop incl. connection box	Δp_s	[Pa]	7			12			17			23		
Sound power level	L_{wA}	dB(A)	17			25			32			37		
Temperature difference	$t_{zL} - t_R$	[K]	-2	-4 ¹⁾	-6 ¹⁾	-2	-4	-6	-2	-4	-6	0	-4	-6
max. jet velocity	v_{max}	[m/s]	0.22			0.26	0.32	0.38	0.36	0.38	0.45	0.38	0.45	0.49

Type PCDR

Volume flow rate	\dot{V}	[m³/h]	400			600			nominal 800			1000		
	q_v	[L/s]	111			167			222			278		
Pressure drop incl. connection box	Δp_s	[Pa]	5			11			18			27		
Sound power level	L_{wA}	dB(A)	19			27			34			41		
Temperature difference	$t_{zL} - t_R$	[K]	-2	-4	-6	-2	-4	-6	-2	-4	-6	0	-4	-6
max. jet velocity	v_{max}	[m/s]	0.22	0.28	0.34	0.26	0.32	0.38	0.36	0.38	0.45	0.38	0.45	0.49

1) Volume flow rate is too small

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