CIRCULAR CEILING DIFFUSERS

selection assistance

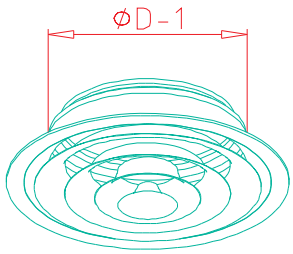
GRYFIT AIR

ADVANTAGES

- Low sound power level
- High capacity
- Aesthetic design

in the libraries

Fluid Desk
Building Engineering Solutions



parametric libraries

GRYFIT CAD

FUNCTION

KRS and KRK diffusers are designed as a part of supply or exhaust ventilation and air-conditioning systems. They may be used in all kinds of public buildings or industrial premises.

APPLICATION

KRS and KRK are designed for all kinds of spaces. On account a wide range of dimensions the diffusers may be used within a broad range of required airflow capacity. Thanks to the blades' shape of the KRS and KRK diffusers the optimal Coanda effect is achieved, and velocity drop of supplied airflow is low at the same time. The diffusers can be installed in the rooms' ceilings or directly in ventilation ducts.

DESCRIPTION

KRS and KRK diffusers are fitted with fixed blades. KRS type is fitted with blades which form a flat surface together with the front frame of the diffuser. KRK type has blades in conical arangement. Additionally both types of diffusers can be designed for direct installation in a false ceiling construction (KRS-FP or KRK-FP). The diffusers are made of steel painted RAL 9010 colour (white). There is available option of coating the surface with paint in any other RAL colour.

INSTALLATION

Standard installation of the diffuser is carried out with the use of the central fixing screw which is fitted with a covering plug. To install the diffuser a mounting bar or a plenum box are need to be used.

ACCESSORIES

- KRP damper made of steel painted RAL 9005 colour (black), fixed on the diffuser
- DNK or DNKL plenum box made of galvanised steel, with a side connection, insulated as an optional extra
- VFP damper made of galvanised steel and fixed in the connection of the plenum box
- FG-K mounting bar made of galvanised steel for installation of the diffuser at the end of a ventilation duct
- FH-K mounting bar made of galvanised steel for installation of the diffuser in a false ceiling construction

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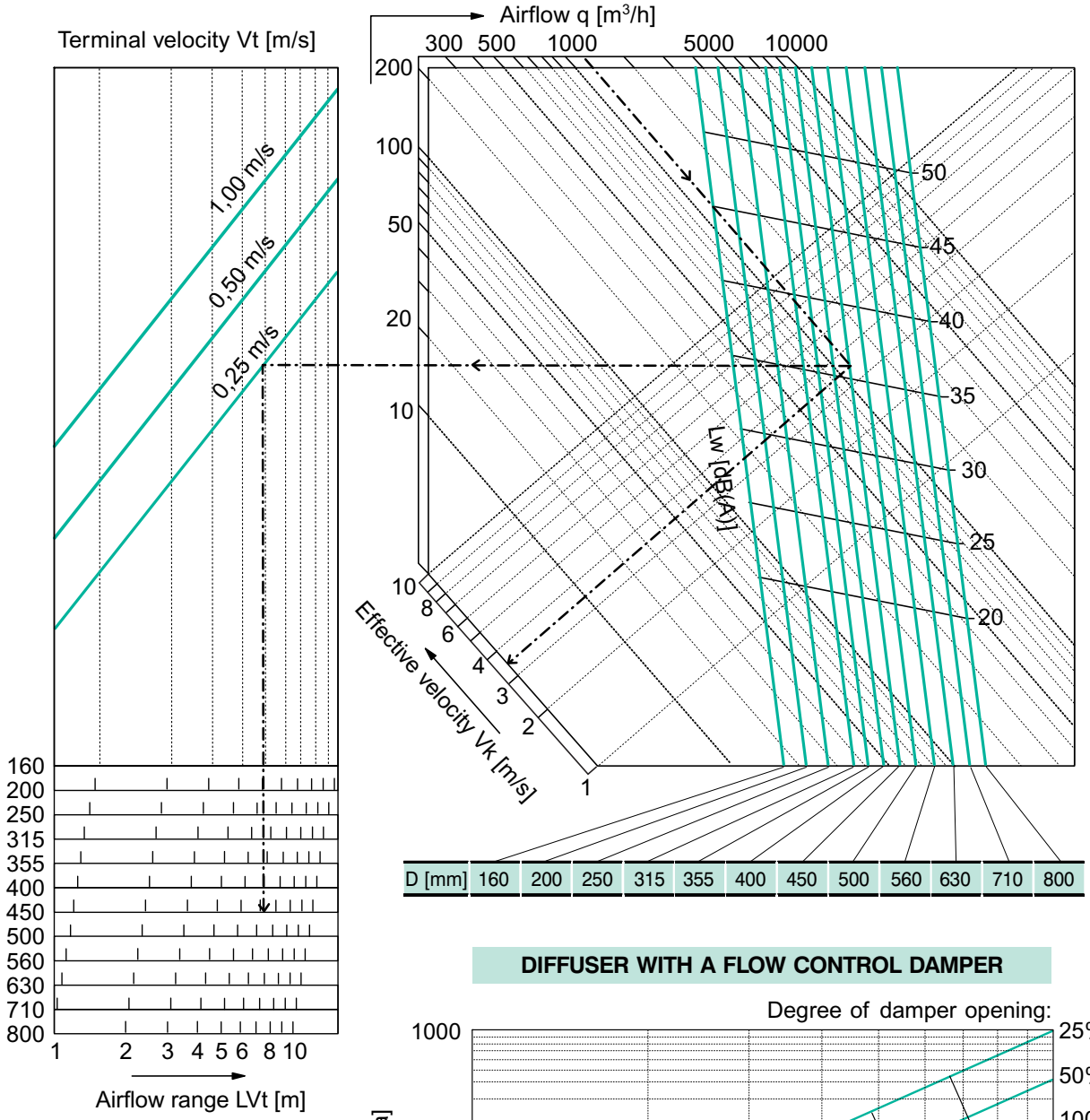
SELECTION



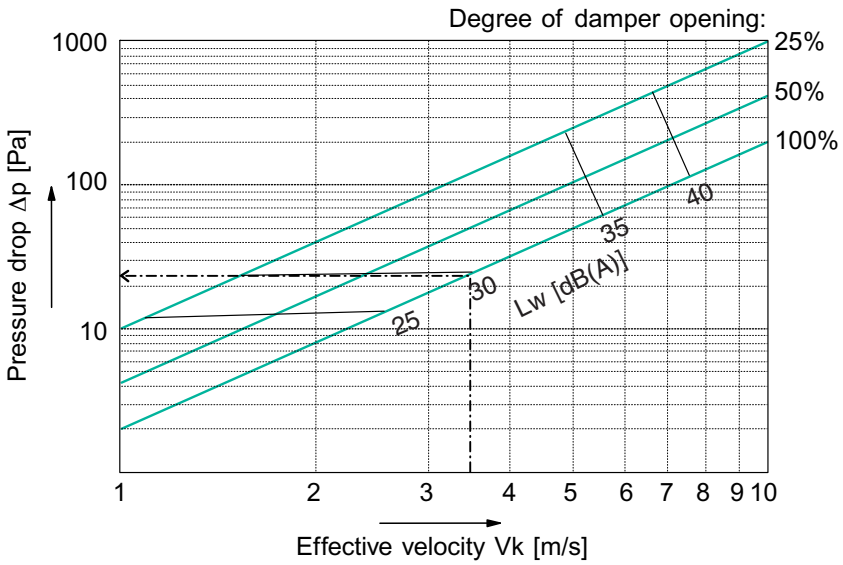
Correction factor ΔLw depending on the diameter of the diffuser:

LwA = Lw + ΔLw

D	160	200	250	315	355	400
ΔLw	-6	-5	-3	+1	+4	+5

D	450	500	560	630	710	800
ΔLw	+7	+8	+9	+10	+12	+13

DIFFUSER WITH A FLOW CONTROL DAMPER



Example of selection:

Airflow Q	= 1200	[m³/h]	Sound power level Lw	= 36 + 7	[dB(A)]
Diameter of the diffuser	= 450	[mm]	Pressure drop ΔP	= 25	[Pa]
Effective velocity Vk	= 3,5	[m/s]	Airflow range LVt for Vt=0,25 m/s	= 6,2	[m]

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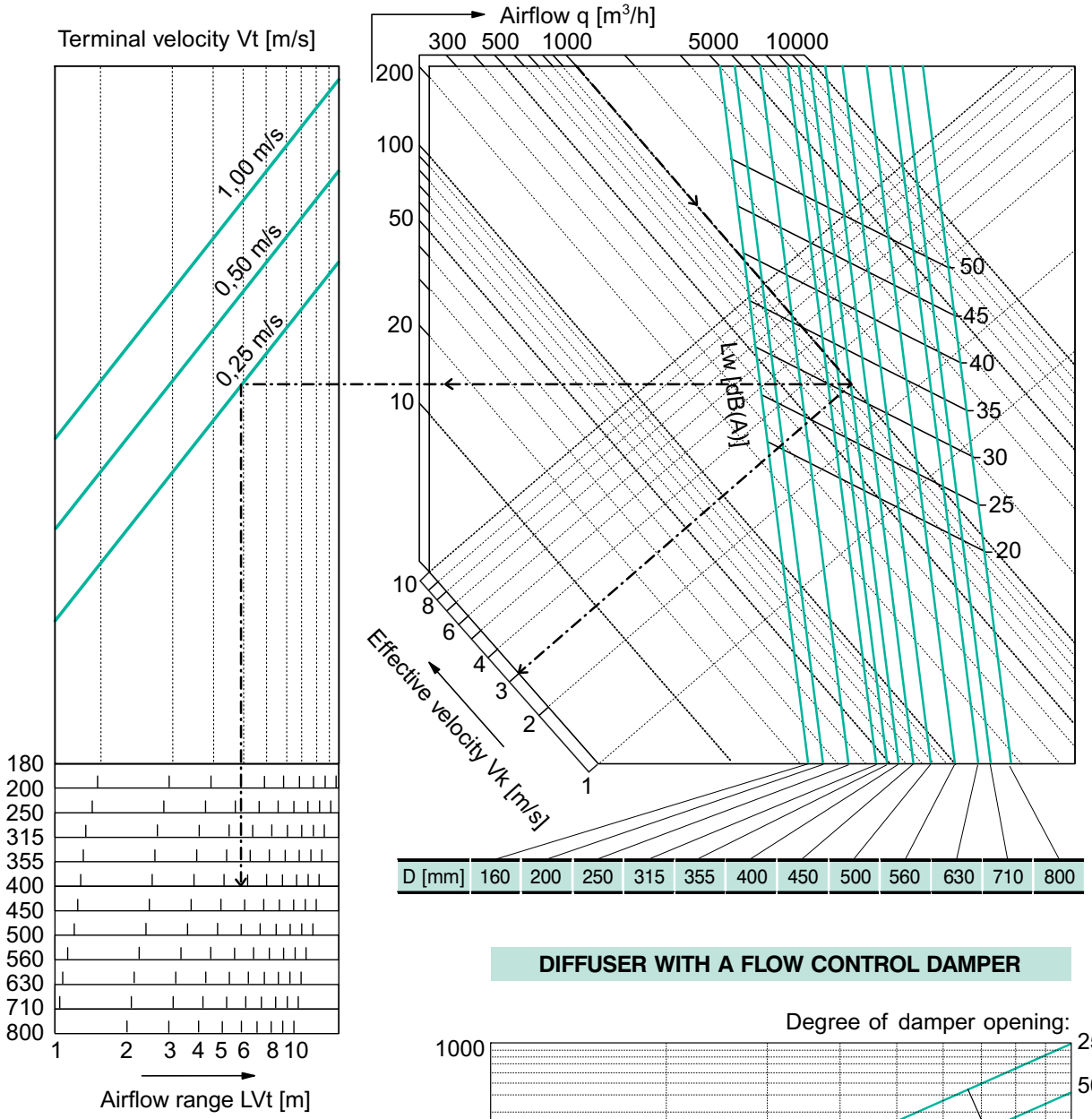
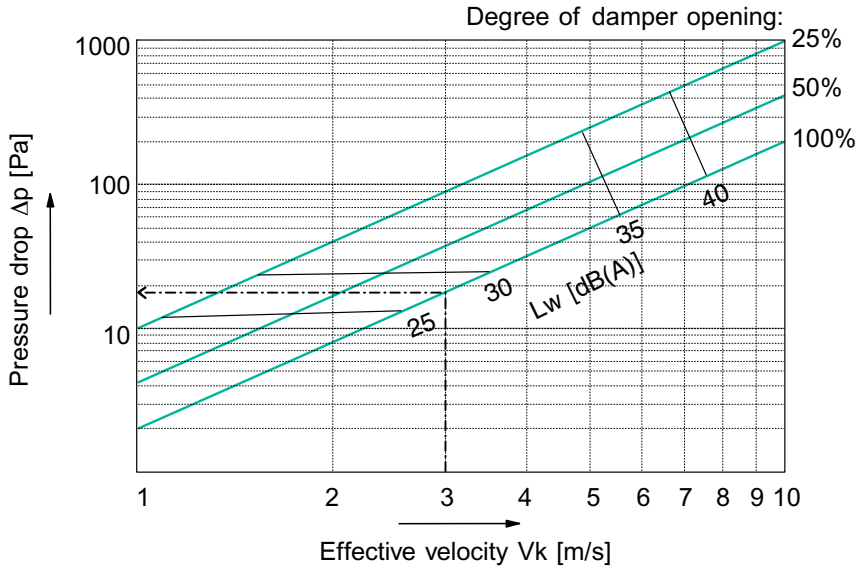


DIFFUSER WITH A FLOW CONTROL DAMPER



Correction factor ΔLw depending on the diameter of the diffuser:

$$LwA = Lw + \Delta Lw$$

D	160	200	250	315	355	400
ΔLw	-6	-5	-3	+1	+4	+5

D	450	500	560	630	710	800
ΔLw	+7	+8	+9	+10	+12	+13

Example of selection:

Airflow Q	= 1000	[m³/h]	Sound power level Lw	= 31 + 5	[dB(A)]
Diameter of the diffuser	= 400	[mm]	Pressure drop ΔP	= 17	[Pa]
Effective velocity Vk	= 3,0	[m/s]	Airflow range LVt for Vt=0,25 m/s	= 4,7	[m]

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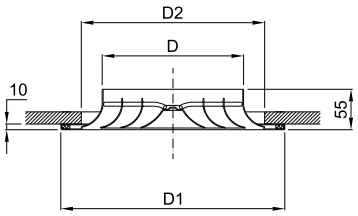
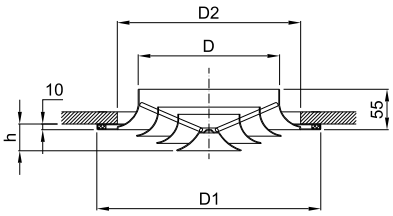
DIMENSIONS AND INSTALLATION METHOD

DIMENSIONS

KRS

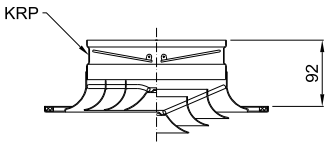


KRK



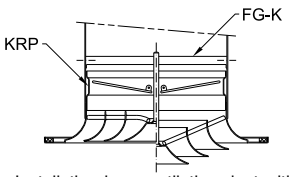
KRS / KRK			KRK	DNK(L)
D	D1	D2	h	NA*
160	260	210	44	125
200	300	250	55	160
250	350	300	65	200
315	400	365	80	250
355	450	405	88	250
400	500	450	95	315
450	550	500	104	315
500	600	550	112	315
560	650	610	126	355
630	700	680	140	355
710	800	760	160	500
800	900	850	175	500

* Standard diameters of the connections. There is available option to order a plenum box with connection which is smaller than standard connection diameter

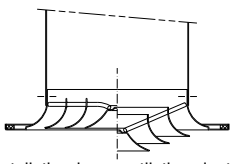


INSTALLATION

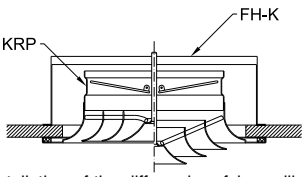
Installation of a diffuser is carried out with the use of M6 central screw with a covering plug (except for direct fixing to the diffuser flange).



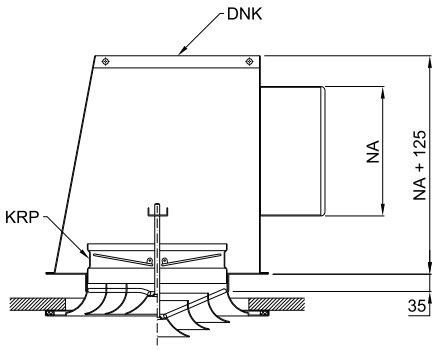
Installation in a ventilation duct with the use of FG-K mounting bar



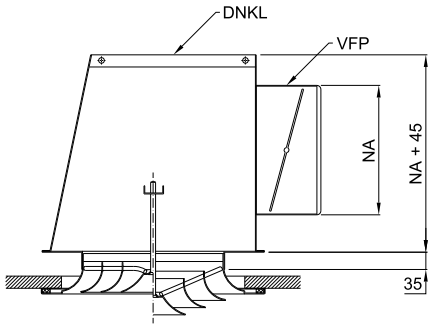
Installation in a ventilation duct: direct fixing to the diffuser flange



Installation of the diffuser in a false ceiling with the use of FH-K mounting bar



Installation with the use of DNK plenum box with side connection



Installation with the use of DNKL plenum box with VFP damper

Order key:

KRS **D.400** **RAL 9010** + **DNKL** + **VFP**

- KRS — Diffuser type
- D.400 — Diameter of the diffuser
- RAL 9010 — Colour of the diffuser
- DNKL — Plenum box
- VFP — Damper

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