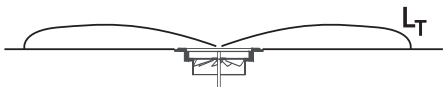
FLOOR SWIRL DIFFUSER
VMH VMV VM0

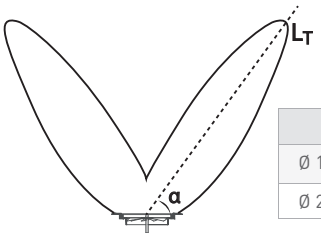
SELECTION

THROW

VMH

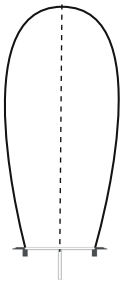


VMV

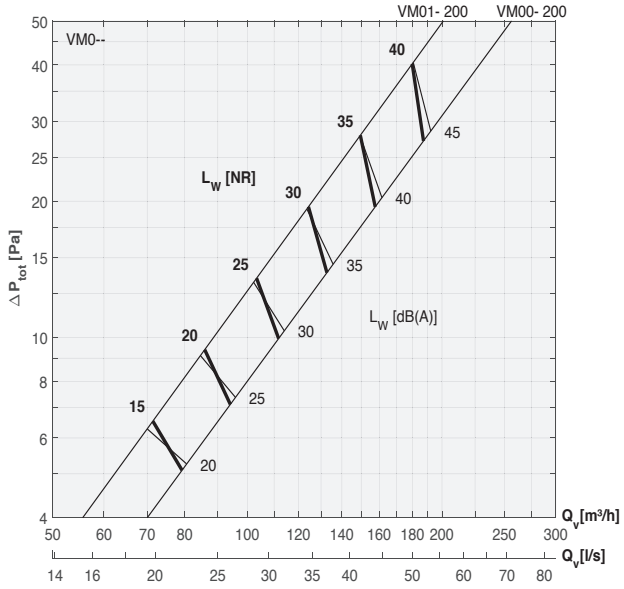


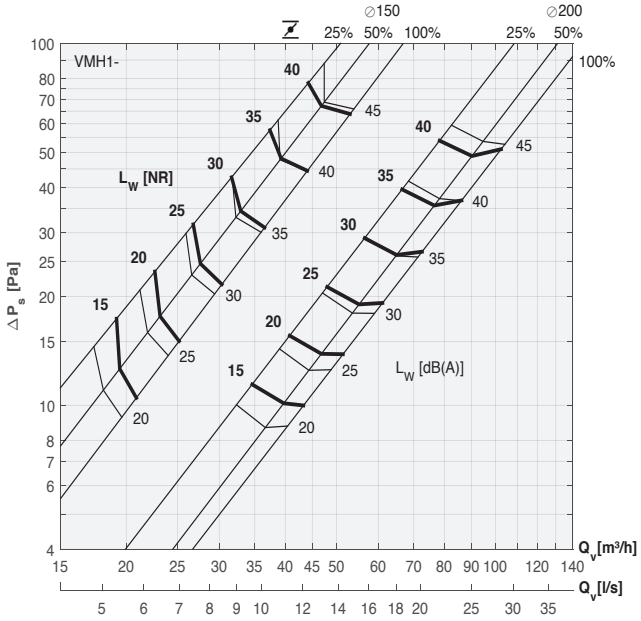
	α
Ø 150	65°
Ø 200	55°

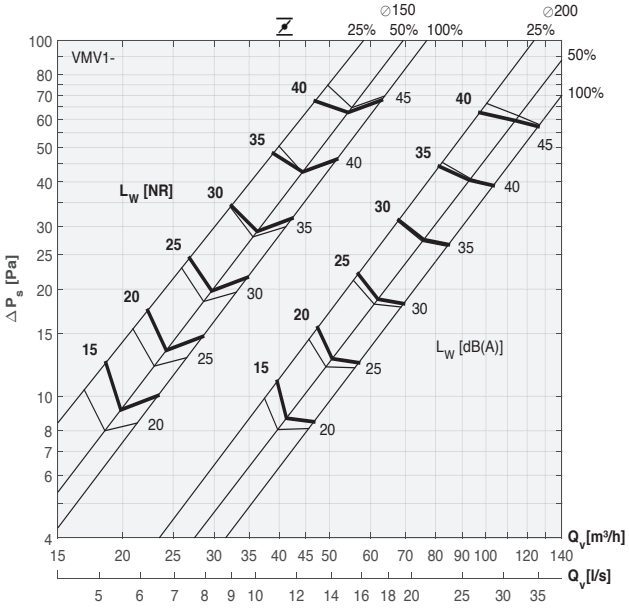
VM0



SOUND POWER, PRESSURE DROP



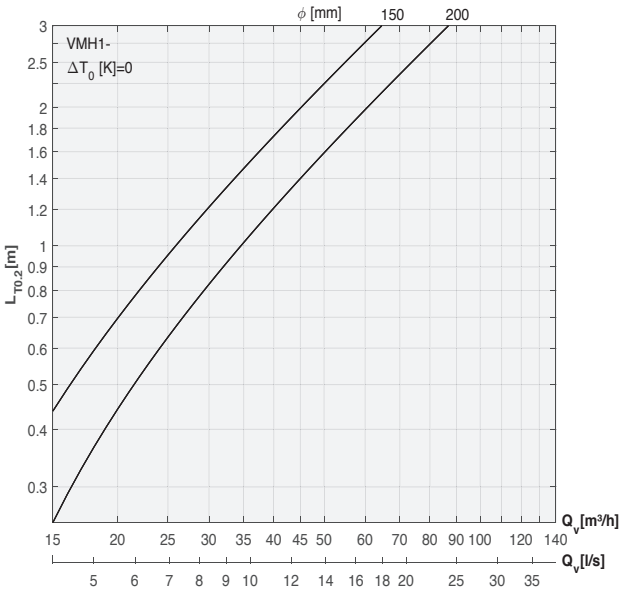


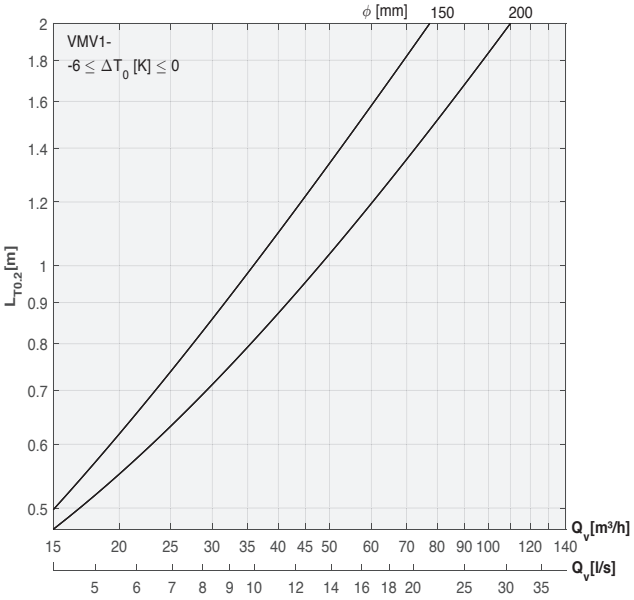


To calculate the airflow behavior in rooms as well as performance data such as sound level and pressure loss, please consult our **FACT selection software.**

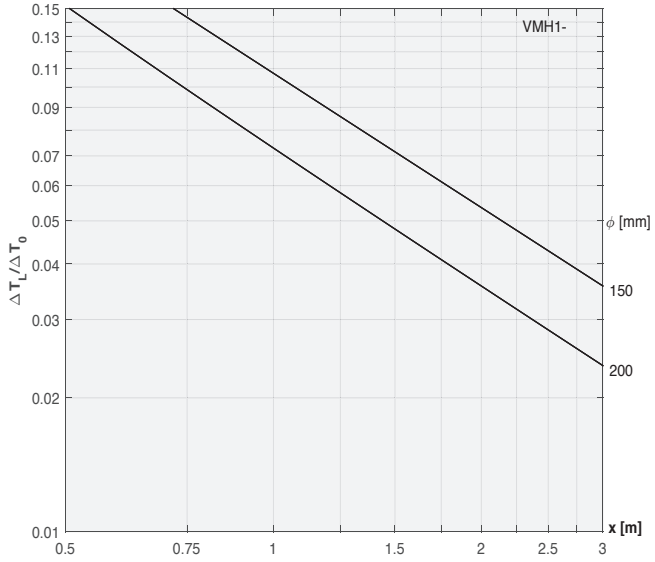
SELECTION

SUPPLY





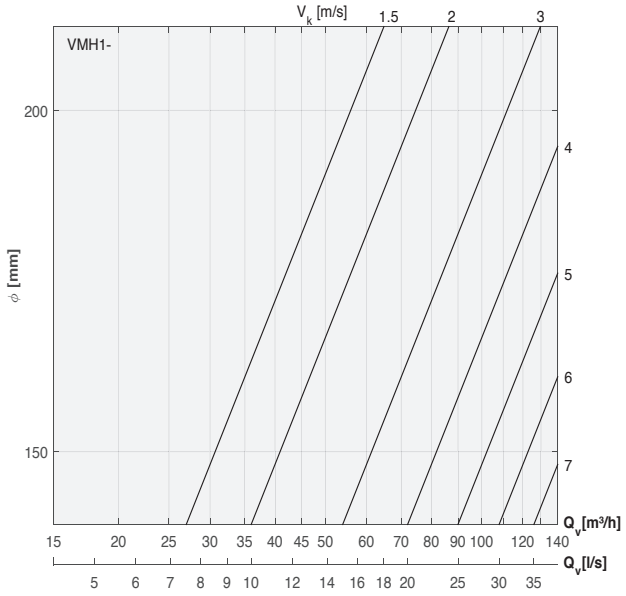
TEMPERATURE

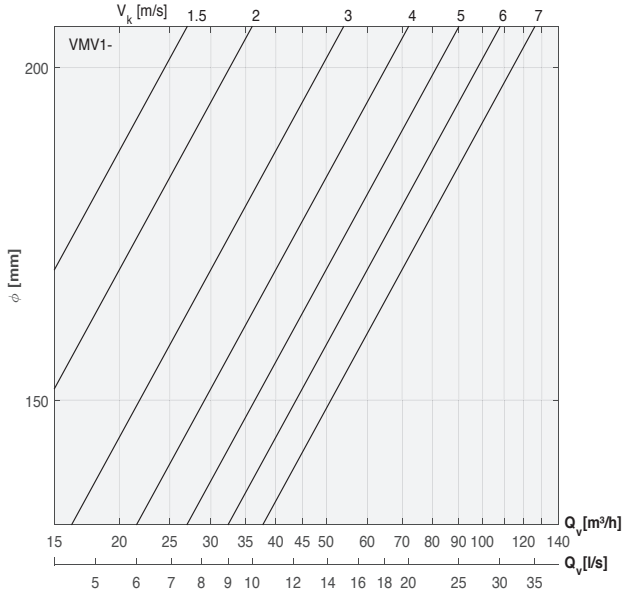


To calculate the airflow behavior in rooms as well as performance data such as sound level and pressure loss, please consult our **FACT selection software.**

SELECTION

AIR DISCHARGE VELOCITY BASED ON A_K





EFFECTIVE AIR DISCHARGE AREA

	A_k [m²]
VMV1 150	0,0020
VMV1 200	0,0045
VMH1 150	0,0057
VMH1 200	0,0104

SELECTION EXAMPLE

Known data		
supply air flow rate VMH011, Qv	[m³/h]	75
supply air temperature, T_0	[°C]	20
ambiant temperature, T_a	[°C]	26
max. allowable sound pressure, L_p	[dB(A)]	30
acoustic room attenuation, ΔL_r	[dB(A)]	8
max. air velocity in occupied zone	[m/s]	0,2
Selection from graphs		
Sound		
requested max. sound power, $L_{w,L}$	[dB(A)]	38
proposal of size, Ø	[mm]	200
Pressure drop		
statique pressure loss, ΔP_s	[Pa]	29
Velocity		
air discharge surface area A_k	[m²]	0,0104
discharge velocity V_k, Q_v/A_k (or by graph)	[m/s]	2,0
throw, $L_{T0.2}$	[m]	2,6
Temperature		
temperature coefficient @ $L_{T0.2}$, $\Delta T_x/\Delta T_0$	[-]	0,028
--> temperature $T_x = T_a-(\Delta T_x/\Delta T_0)(T_a-T_0)$	[°C]	25,8

To calculate the airflow behavior in rooms as well as performance data such as sound level and pressure loss, please consult our **FACT selection software.**

SELECTION

LEGEND

Symbol	Unit	
A_k	[m²]	effective air discharge surface area (measured)
L_w	[NR] / [dB(A)]	sound power
$L_{T0.2}$	[m]	distance at which the jet centreline velocity decreases to 0.2 m/s
ΔP_s	[Pa]	static pressure loss
Q_v	[m³/h] / [l/s]	airflow
ΔT_x	[K]	difference between ambiant temperature and jet centreline temperature at distance x
ΔT_0	[K]	temperature difference between ambiant air and supply air
V_k	[m/s]	air discharge velocity based on A_k
x	[m]	distance measured from the diffuser/grille's centre

To calculate the airflow behavior in rooms as well as performance data such as sound level and pressure loss, please consult our **FACT selection software.**