Round swirl diffuser NWO-9

Description and application

Round swirl diffusers NWO-9 are used in public buildings such as restaurants, conference rooms, hospitals, offices. Moreover willingly used in the industry (production halls) and wherever to increase the level of comfort mentions a large amount of air. Diffusers are mounted in conjunction with plenum box or directly on the ventilation ducts in ceilings or directly under the ceiling.

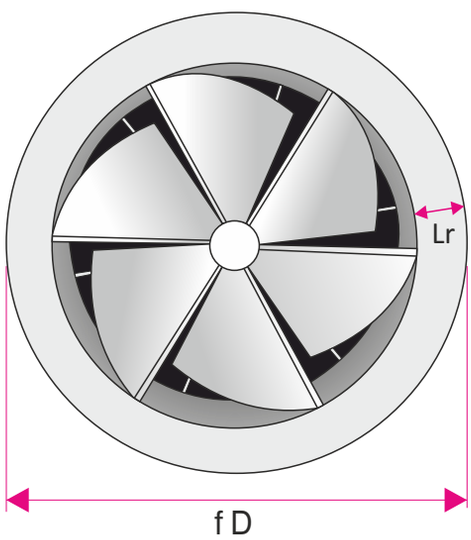
Diffusers have the Hygienic Certificate

Material and workmanship

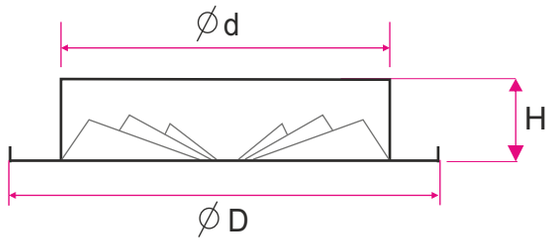
Diffusers are made in three material variants: galvanized steel, aluminum - powder coated or stainless steel (1.4301 or 1.4404). On customer request powder coated to any color from the RAL palette (standard RAL9016). The diffuser has a motionless blades. There is a possibility of production the diffuser on the modular plate. The manufacturer reserves the right to make technological changes.

Size

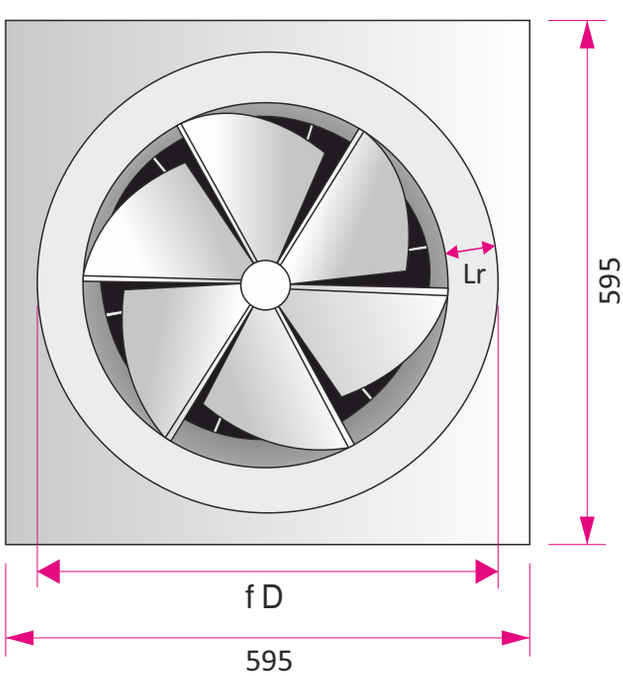
1.



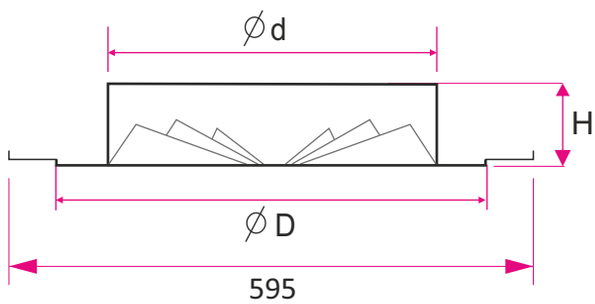
1. Standard version - NWO-9



2.



2. Version with modular plate 595x595 - NWO-9/PM



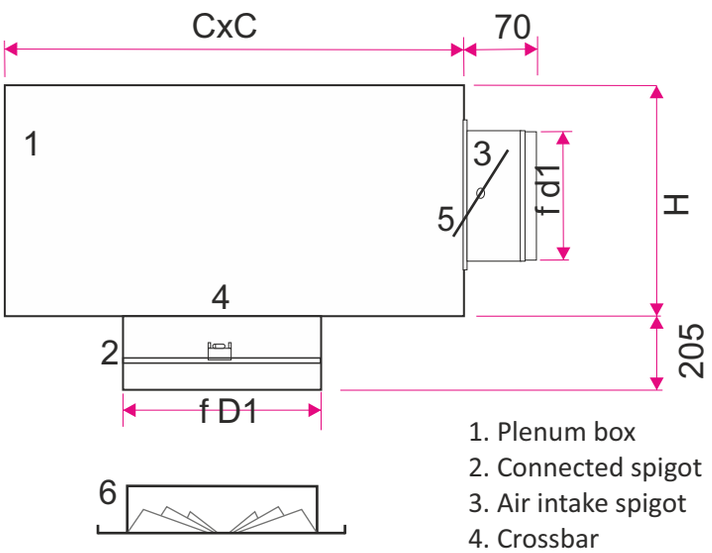
* other dimensions of the modular plate possible

Size	f d	Lr	f D	H	Aef (m³)
250	245	30	305	75	0,022
315	310	30	370	90	0,035
355	350	30	410	110	0,049
400	395	40	475	120	0,062
500	495	50	595	150	0,097
630	625	60	745	180	0,138
710	705	70	845	210	0,178
800	795	70	935	260	0,221
1000	995	90	1175	260	0,301

Accessories - plenum box

Plenum box is made of galvanized steel. On request it can be equipped with a damper control onto the connected spigot. The plenum box can be isolated inside with rubber (acoustic) or outside with mineral wool (thermal). In the standard height of the plenum box is adapted to size of the spigot or diffuser size (you can specify the height of the plenum box).

Round swirl diffuser NWO-9



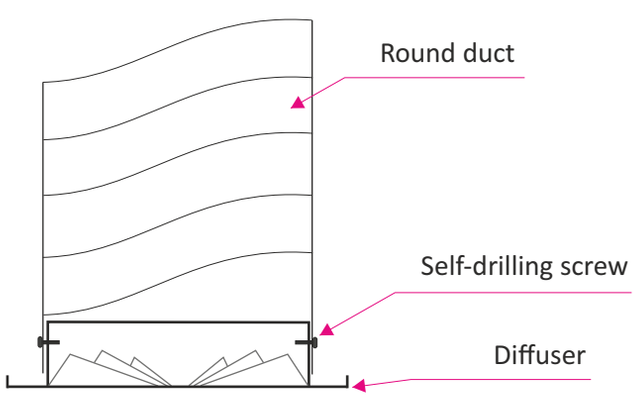
1. Plenum box
2. Connected spigot
3. Air intake spigot
4. Crossbar
5. Adjustment damper
6. Round swirl diffuser NWO-9

Size	C	H	f d1	f D1
250	400	280	198	250
315	580	330	248	315
355	580	330	248	355
400	590	380	313	400
500	700	380	313	500
630	800	595	398	630
710	900	595	398	710
800	1000	595	398	800
1000	1250	595	398	1000

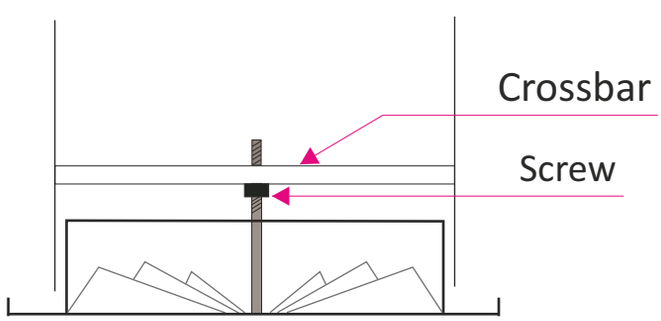
Methods of mounting

Round swirl diffuser NWO-9 can be mounted on a screw directly to the plate (W3), on a screw in the center of the diffuser mounted in the channel crosspiece (variant W2), directly on a circular duct using self-drilling screws (variant W1) or included with plenum box- diffuser is connected to the box (variant W4).

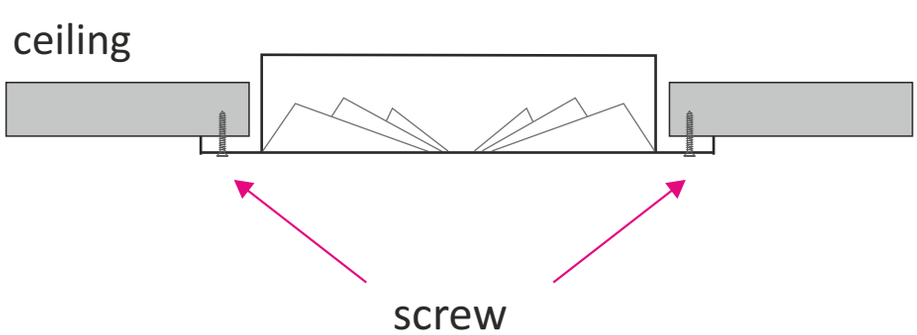
Variant W1



Variant W2



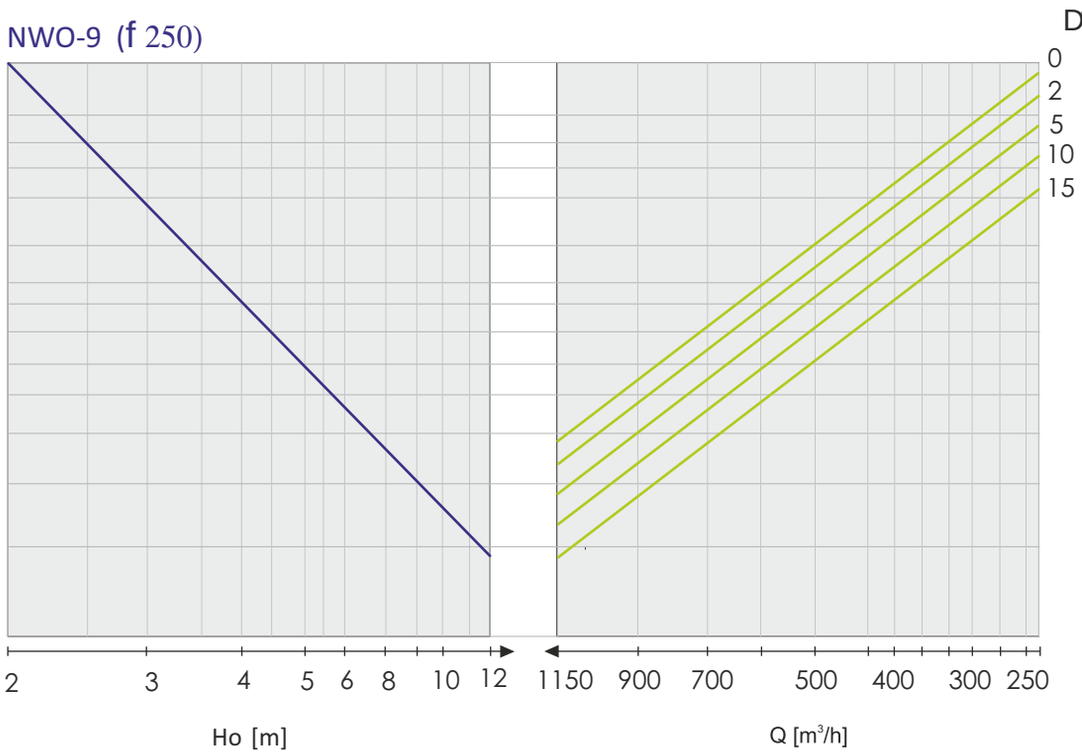
Variant W3



Technical data

The dependence of flow range Ho [m] depending on the temperature difference in the room and air volume flow Q [m³/h].

Round swirl diffuser NWO-9 Dn-250



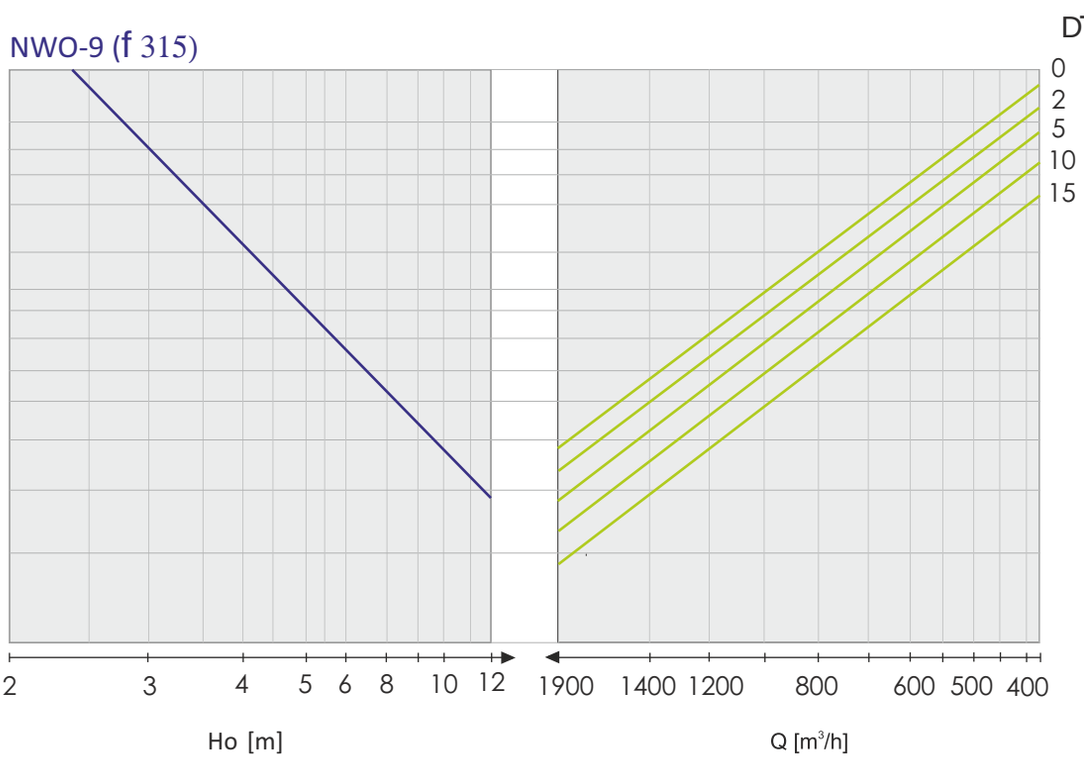
Marking:

Q [m³/h] - air volume flow

Ho [m] - the distance to occupied zone

DT [K] - difference between supply air temperature and the temperature in the room

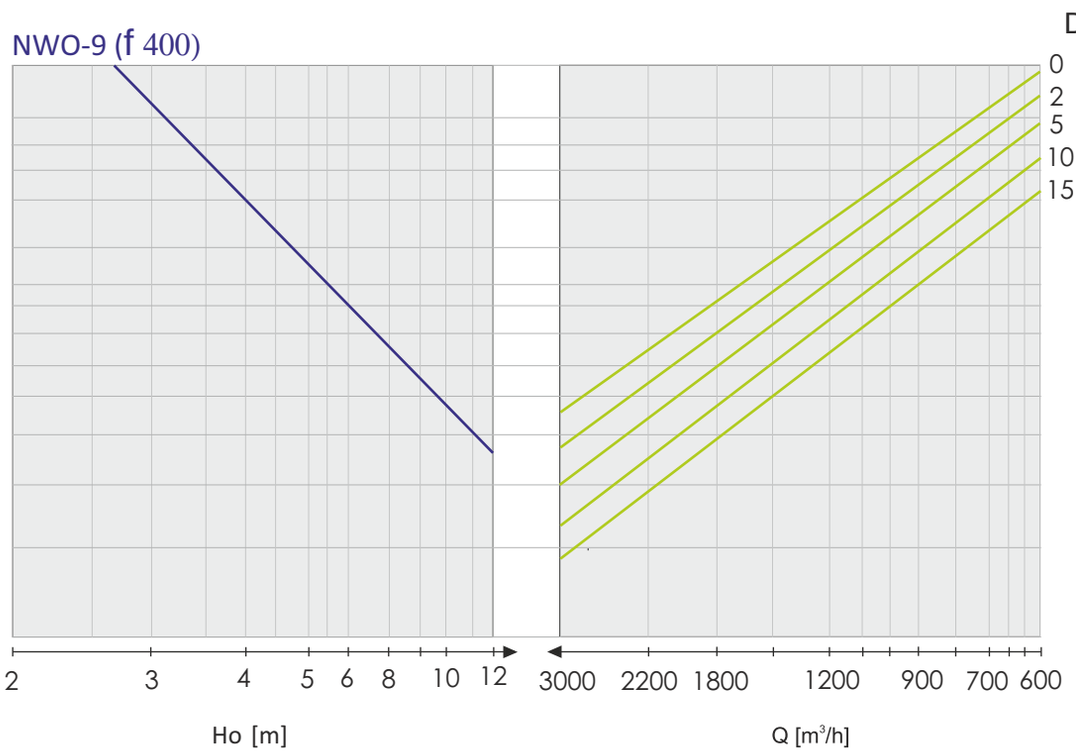
Round swirl diffuser NWO-9 Dn-315



Technical data

The dependence of flow range Ho [m] depending on the temperature difference in the room and air volume flow Q [m³/h].

Round swirl diffuser NWO-9 Dn-400



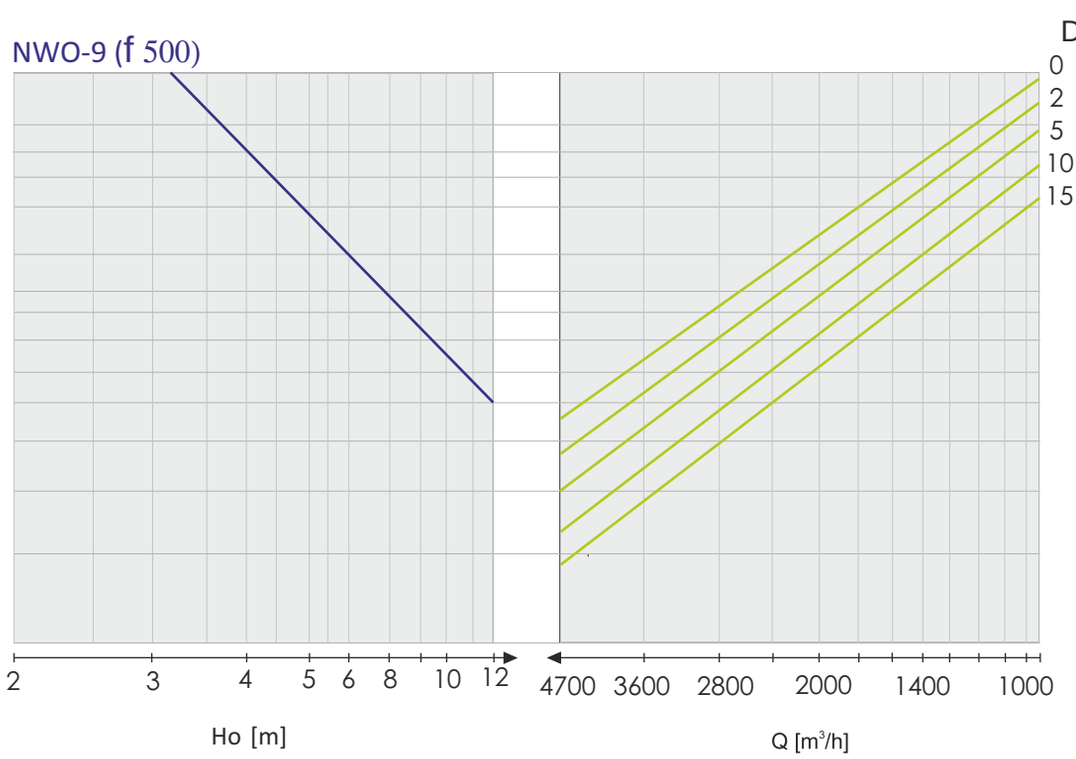
Marking:

Q [m³/h] - air volume flow

Ho [m] - the distance to occupied zone

DT [K] - difference between supply air temperature and the temperature in the room

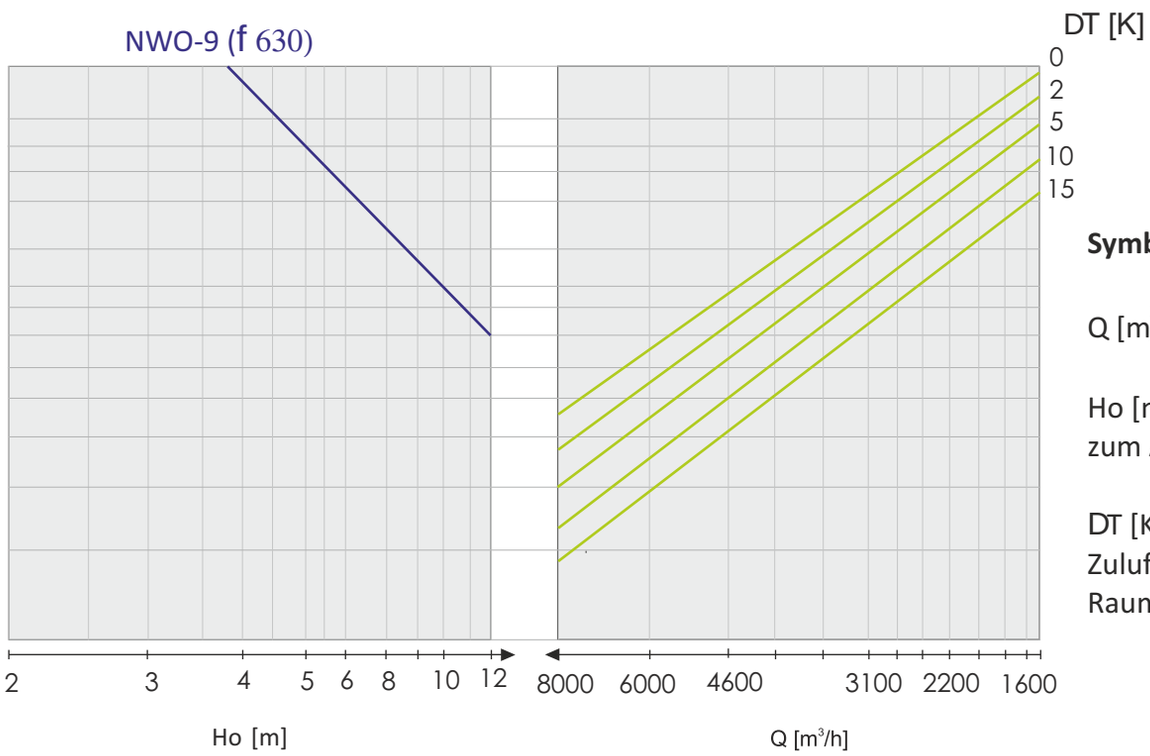
Round swirl diffuser NWO-9 Dn-500



Technical data

The dependence of flow range Ho [m] depending on the temperature difference in the room and air volume flow Q [m³/h].

Round swirl diffuser NWO-9 Dn-630



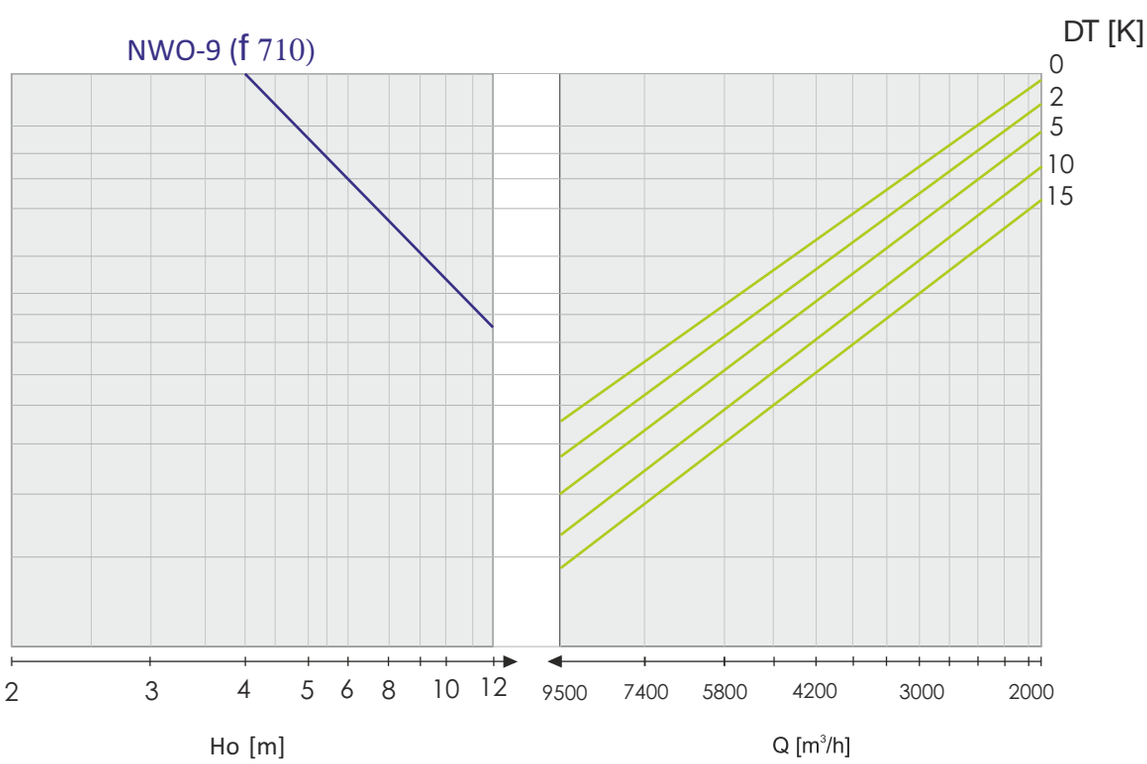
Symbole:

Q [m³/h] - Volumenstrom

Ho [m] - Entfernung zum Aufenthaltsbereich

DT [K] - Differenz zwischen Zulufttemperatur und Raumtemperatur

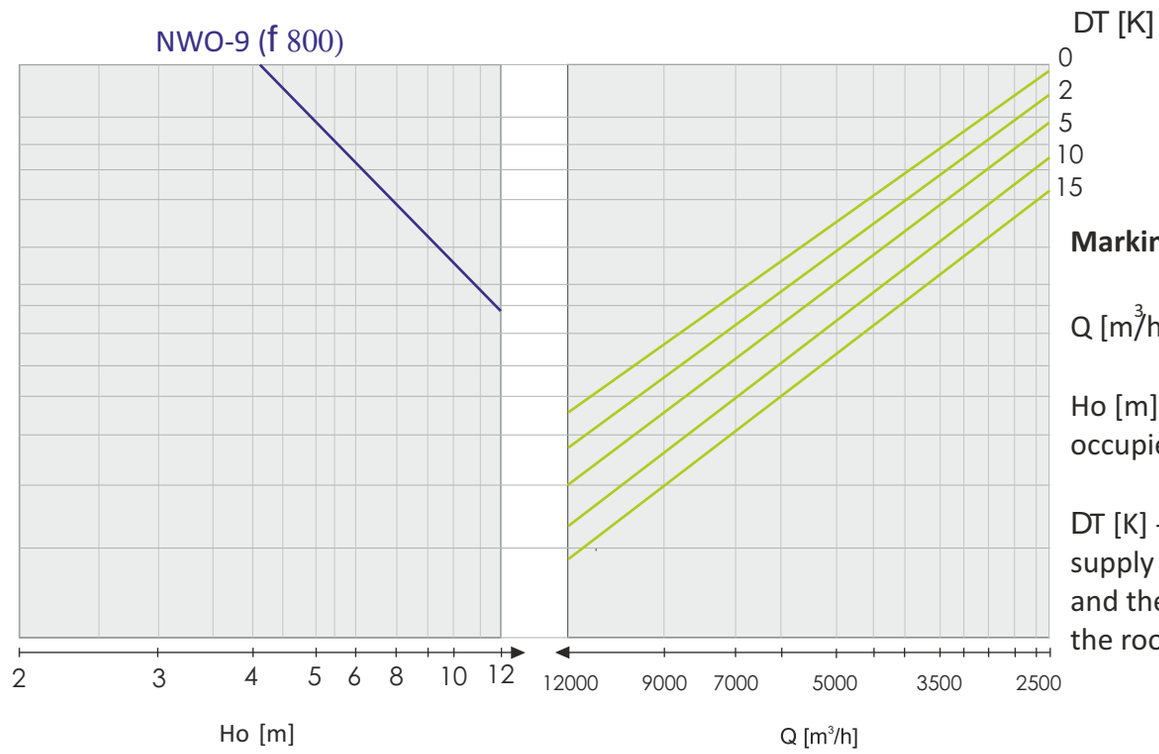
Round swirl diffuser NWO-9 Dn-710



Technical data

The dependence of flow range Ho [m] depending on the temperature difference in the room and air volume flow Q [m³/h].

Round swirl diffuser NWO-9 Dn-800



Marking:

Q [m³/h] - air volume flow

Ho [m] - the distance to occupied zone

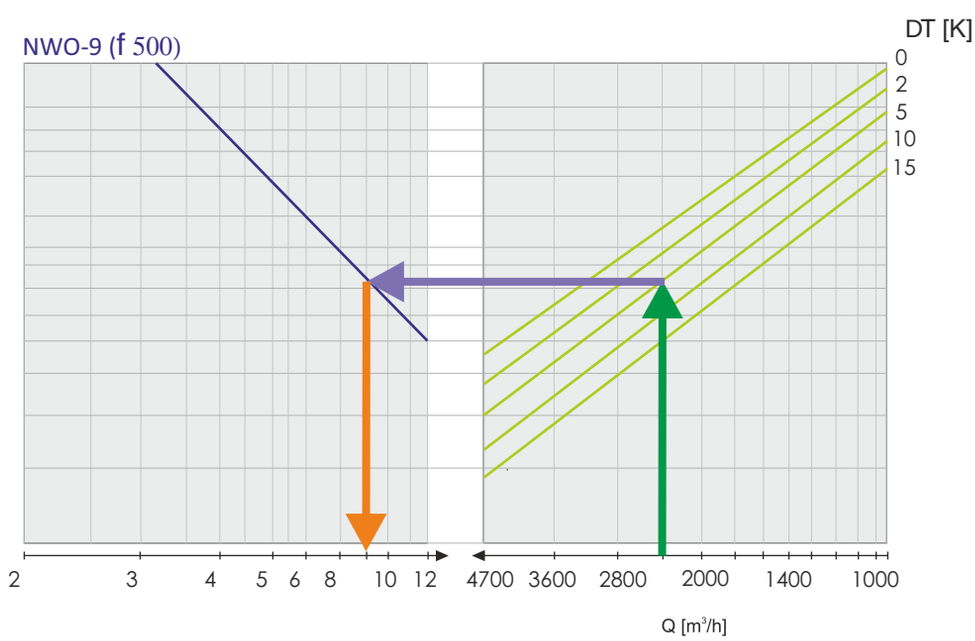
DT [K] - difference between supply air temperature and the temperature in the room

EXAMPLE

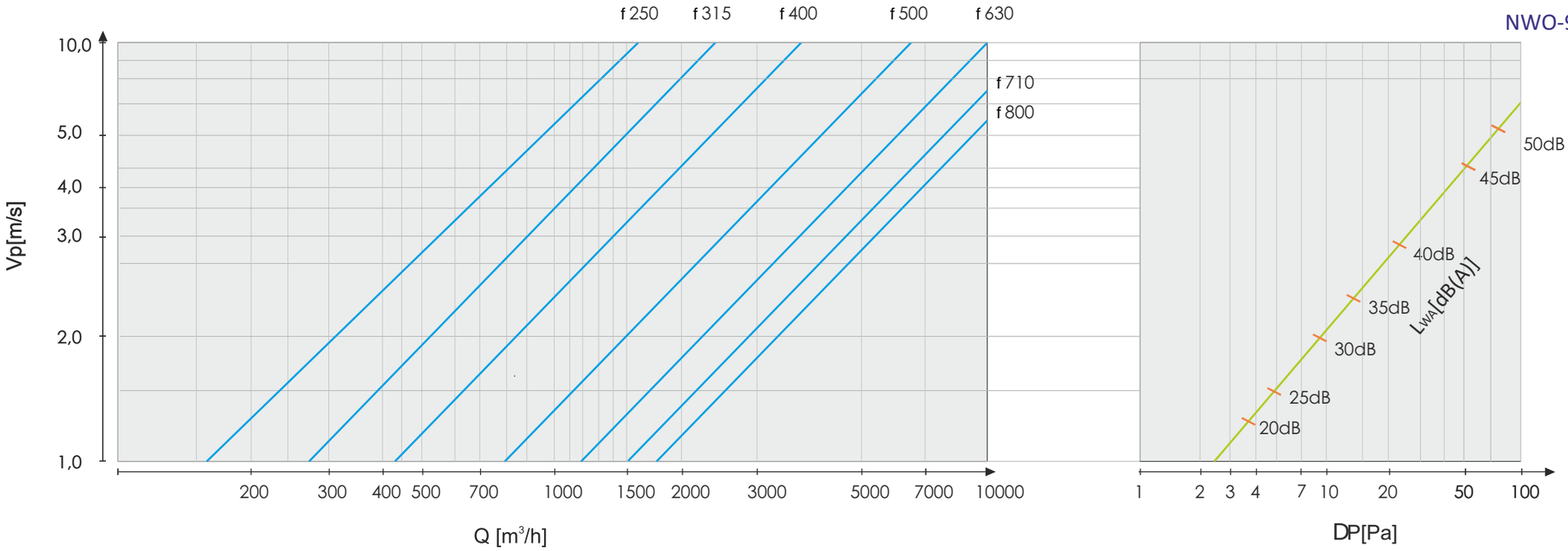
- round swirl diffuser NWO-9 (f 500)
- air volume flow Q=2400 m³/h
- difference between the temperature ΔT=5°K

Reading from the graph:

- stream range X=9,0 m (to the occupied zone)



PRESSURE DROP AND ACOUSTIC POWER



Designation:

Q [m³/h] - air volume flow

DT [K] - difference between supply air temperature and the temperature in the room

Vp [m/s] - the speed of air flowing from the diffuser

DP [Pa] -pressure drop through the diffuser

L_{WA}[dB(A)] - acoustic power

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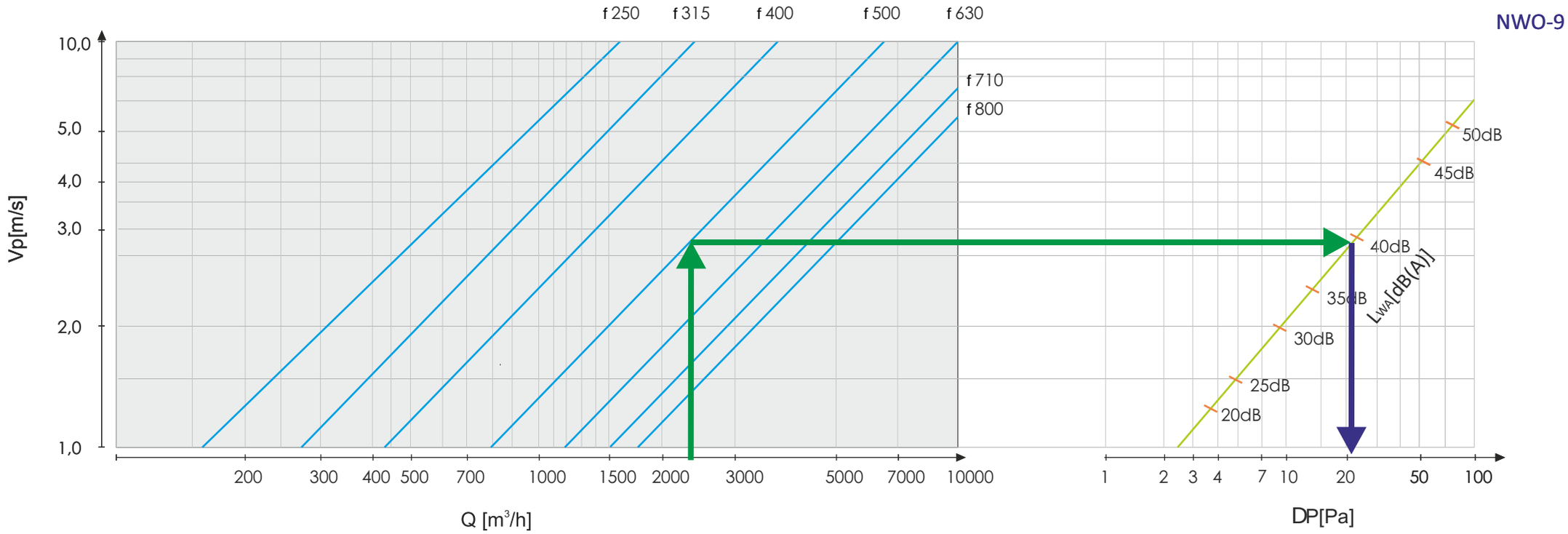
EXAMPLE

- round swirl diffuser NWO-9 (f 500)
- air volume flow Q=2400 m³/h

Reading from the graph:

- pressure drop through the diffuser Δp=22 Pa
- acustic power L_{WA}<40 dB



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The method of placing an order

Please make orders according to the following formula:

NWO-9 / 'WW' / 'R' / 'RAL' / 'M' / 'W' + 'SR' / 'I' / 'P' / 'K' / 'H'

'WW' execution options:
none - standard
PM - version with modular plate 595x595 (plate size to be agreed)
'R' the size of the diffuser: **250**, **315**, **355**, **400**, **500**, **630, 710, 800**, **1000**
'RAL' diffuser color according to RAL palette (standard RAL9016*)
'M' material:
ST - powder coated steel*
AL - aluminum powder coated
KO - stainless steel / acid proof steel (type 1.4301 or 1.4404)
'W' mounting option:
W1 - direct mounting in round duct using self-drilling screws
W2 - central assembly to the crossbar mounted in the channel/ ducts
W3 - screw mounting in the frame
W4 - installation in plenum box suspended directly from the ceiling (suspended ceiling)

'SR-2' plenum box:
SR-G2 - plenum box with top spigot connection
SR-B2 - plenum box with side spigot connection
'I' isolation:
none - plenum box without isolation*
Iz - outside isolation (thermal)
Iw - inside isolation (acoustic)
'P' adjustment damper at spigot connection:
none - no damper*
P - damper on spigot connection adjustable from the outside
PP - damper on spigot connection adjustable from the inside
'K' diameter spigot connection in size mm
'H' the height of the plenum box in mm*

* - If you do not give the information will be used standard parameters.