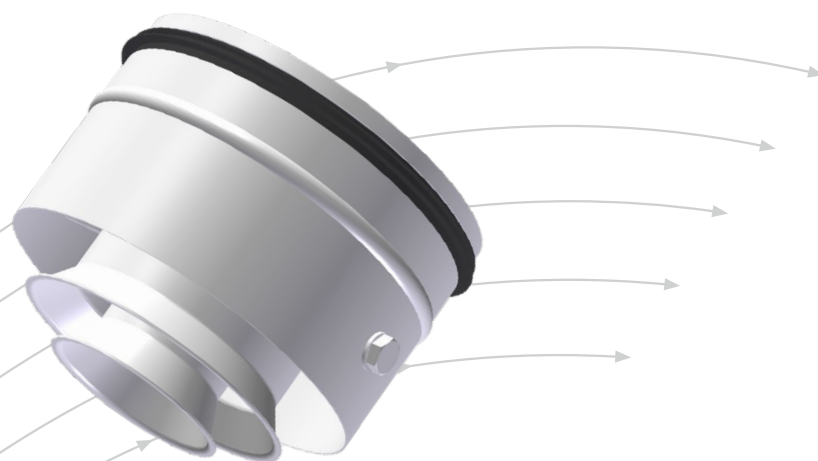


TDT

Circular multi-cone diffuser



- Choose between two flow patterns, wide and narrow
- Long throw length
- Large capacity
- Suitable for use in vertical or horizontal air throw applications.

TROX[®] TECHNIK

 **Auranor**

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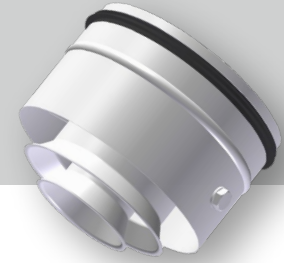
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www.trox.no/en

TDT



APPLICATION

TDT is a circular multi-cone supply diffuser with long throw length, designed for large rooms, e.g. gyms, sports halls, malls, atrium, factories etc. The diffuser is mounted directly in the spiro duct, either on a wall or in the ceiling.

DESIGN

TDT is a circular, multi-cone diffuser with adjustable nozzles. The diffuser can be adjusted 180 degrees, which makes it possible to choose between a wide or a narrow throw length. It can be tilted up to 20 degrees for directional adjustment of the air supply.

MATERIALS AND SURFACES

TDT is produced in galvanic steel, coated in standard RAL 9003, gloss 30 finish. EPDM rubber gasket. Other colors are available on request.

QUICK SELECTION, TDT

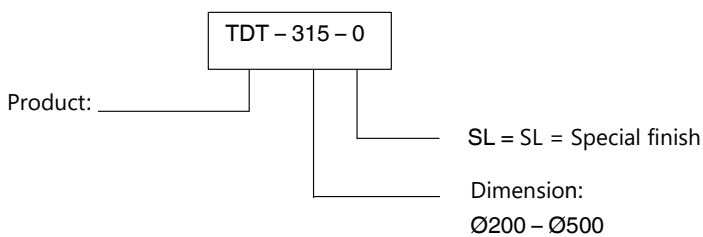
Valve ØD	m³/h		
	25 dB (A)	30 dB (A)	35 dB(A)
200	412	476	550
250	611	710	824
315	1081	1243	1429
400	1430	1653	1910
500	2513	2904	3355

Table 1: Quick selection for TDT with wide air jet

Valve ØD	m³/h		
	25 dB (A)	30 dB (A)	35 dB(A)
200	356	415	485
250	498	590	699
315	910	1058	1230
400	1237	1463	1731
500	2170	2567	3038

Table 2: Quick selection for TDT with narrow air jet

ORDER CODE, TDT



Example:

TDT, dimension Ø315, coated RAL 9003, gloss 30

DIMENSIONS AND WEIGHT, TDT

Dim.	D	G	H	Weight (kg)
200	199	159	121	0,9
250	249	181	135	1,2
315	314	198	135	1,6
400	399	225	145	2,0
500	499	353	248	3,9

Table 3: Dimensions and weight

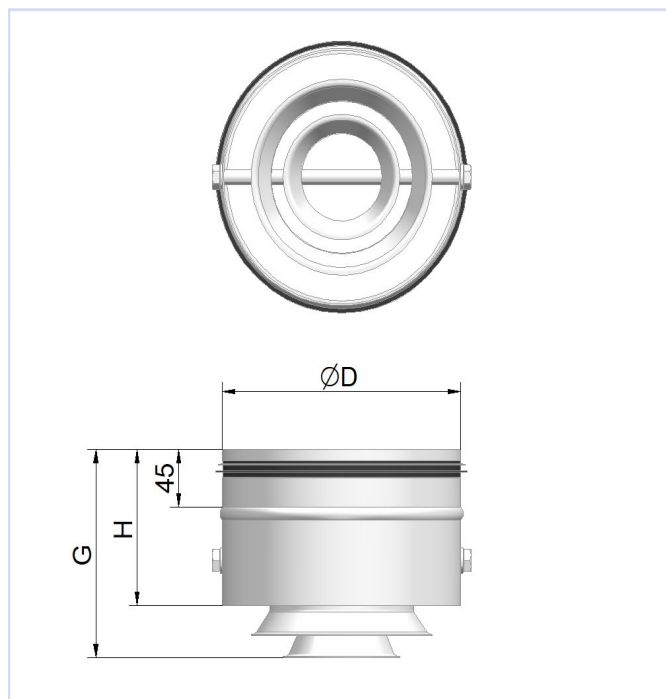
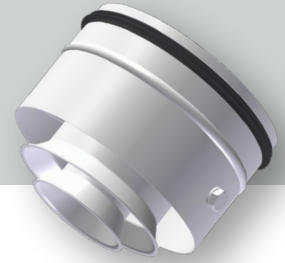


Figure 1: Measurement illustration TDT.



ACOUSTIC DOCUMENTATION

The diagrams provide a summary of the A-weighted sound power level from diffuser, L_{WA} . Correction factors in the tables are used to calculate emitted sound power level at the respective frequencies, $L_W = L_{WA} + KO$. A room with absorption equivalent to 10m² Sabine will have a sound pressure level which is 4 dB below the sound power level emitted.

Example:

5 units of TDT Ø400 supply diffusers with a broad air jet is chosen. The desired air flow is set to 600 l/s per diffuser.

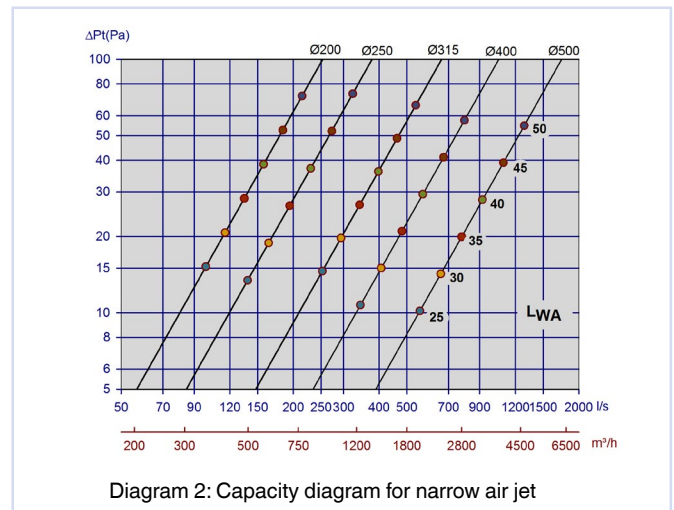
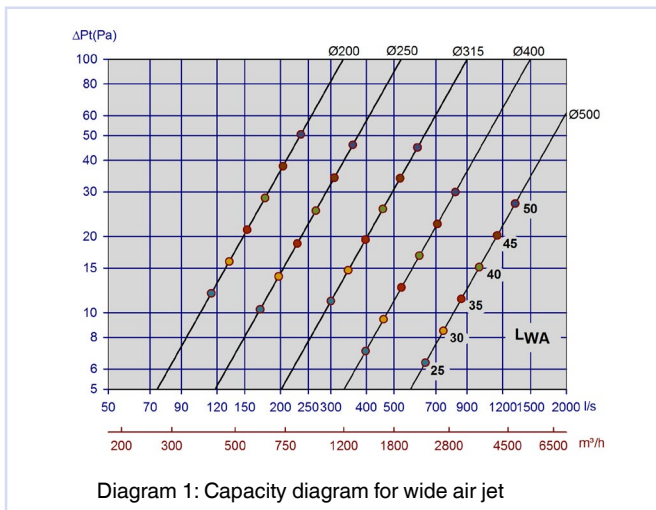
From Diagram 1 we find that $L_{WA} = 40\text{dB(A)}$ and 17 Pa pressure loss. We are looking find the following data:

- The diffusers emitted sound power level at 250 Hz.
- Total sound power level for 5 diffusers.

Solution:

- The correction factor in table 4 is -2dB : $40 + (-2) = 38\text{ dB}$.
- The sound power level per diffuser is 40 dB(A) . With 5 equal sound levels combined, the total sound power level increases to 47 dB(A) .

CAPACITY DIAGRAM



KO for calculating frequency spesific sound power levels								
Type.	63	125	250	500	1k	2k	4k	8k
200 wide	-10	-5	1	-4	-5	-8	-14	-12
200 narrow	-10	-5	-1	-4	-4	-10	-15	-12
250 wide	-10	-5	1	-4	-4	-11	-13	-12
250 narrow	-11	-5	0	-4	-3	-13	-15	-12
315 wide	-10	-5	-1	-3	-3	-13	-14	-12
315 narrow	-11	-5	-3	-5	-2	-15	-15	-12
400 wide	-10	-5	-2	-3	-3	-14	-15	-12
400 narrow	-11	-5	-3	-5	-3	-13	-15	-12
500 wide	-10	-5	-2	-3	-3	-14	-15	-12
500 narrow	-11	-5	-3	-5	-2	-12	-15	-12

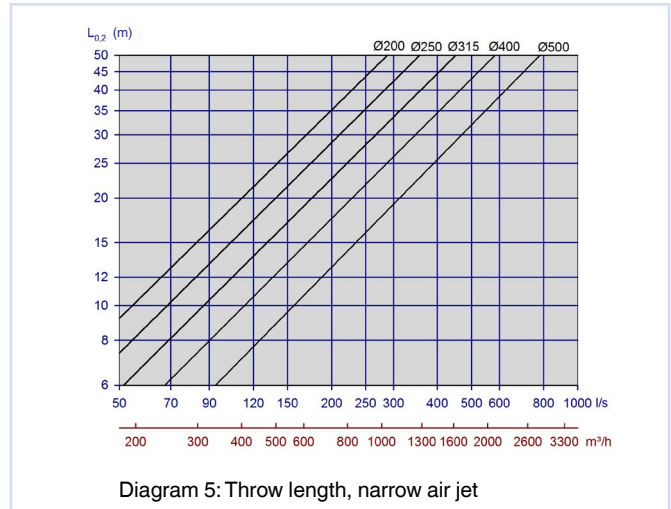
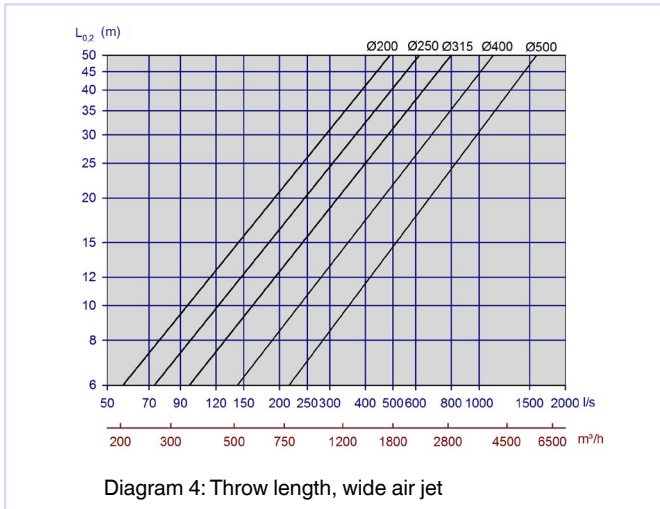
Table 4: Correction factor [KO]

Sound attenuation, TDT supply diffusers								
Type.	63	125	250	500	1k	2k	4k	8k
200	16	12	7	3	1	0	0	0
250	14	10	6	2	0	0	0	0
315	12	9	4	2	0	0	0	0
400	6	7	3	1	0	0	0	0
500	5	6	2	0	0	0	0	0

Table 5: Static sound attenuation incl. end reflection.

TDT

THROW LENGTH, TDT



FLOW PATTERN, TDT

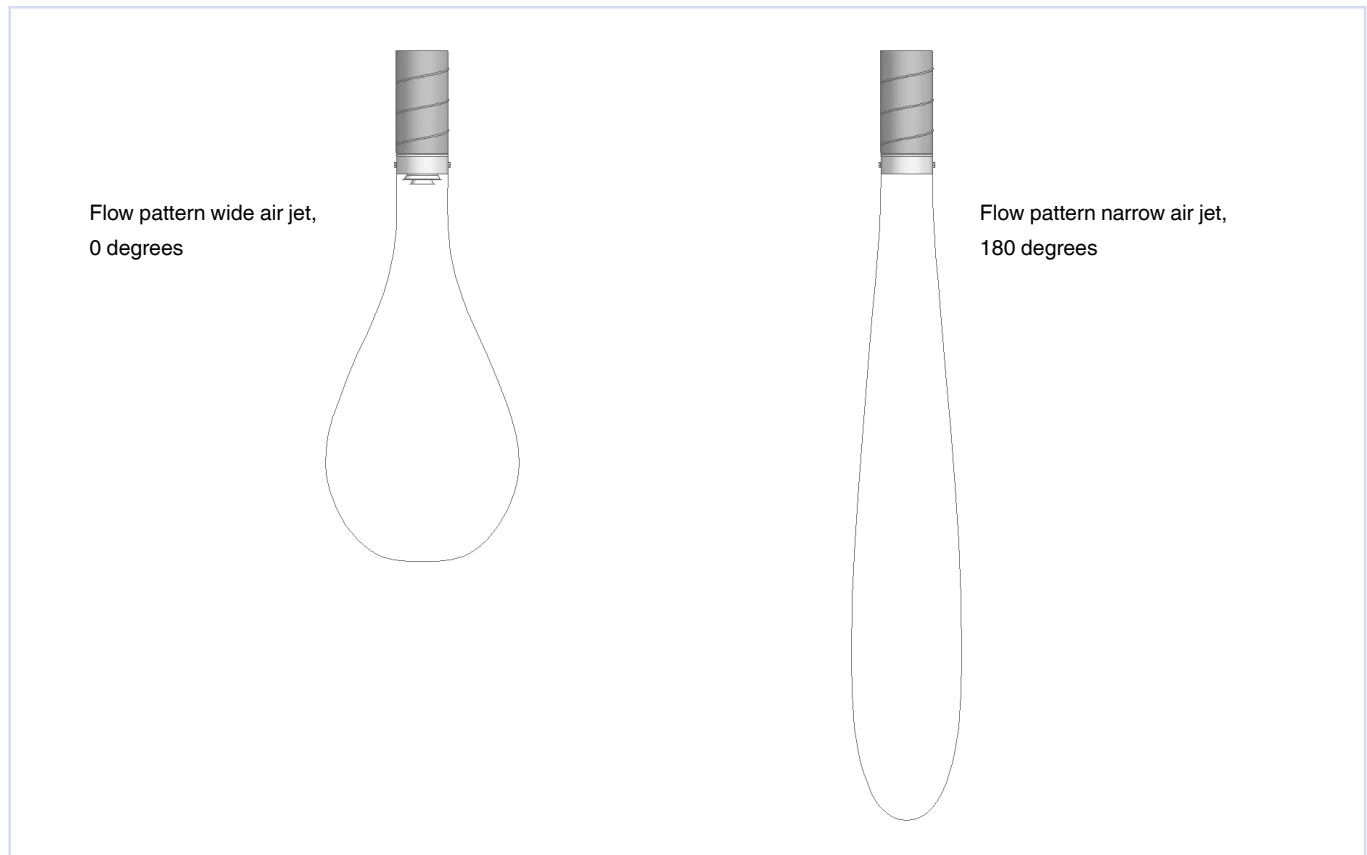


Figure 4: Flow pattern

INSTALLATION

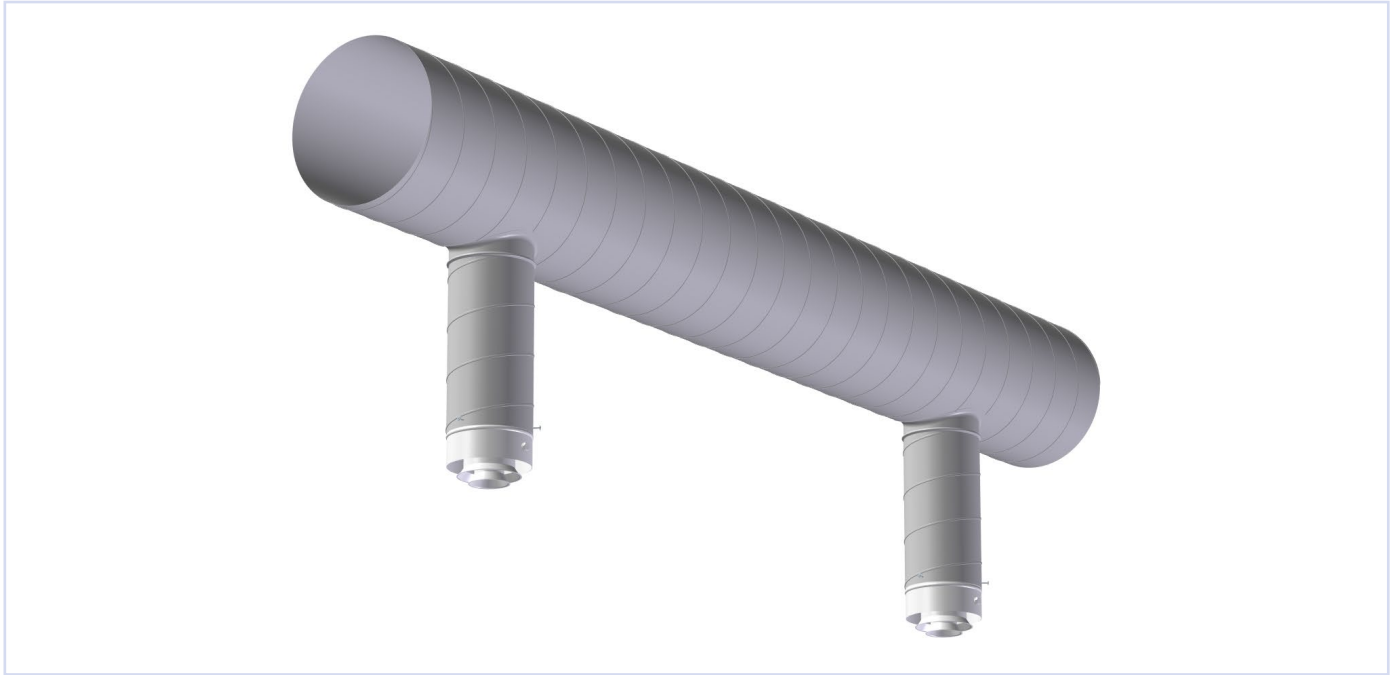


Figure 2: Installation

COMMISSIONING

When adjusting, an external damper must be used, e.g. DRS or Leo.

MAINTENANCE

The diffuser can be cleaned using a damp cloth.

ENVIRONMENT

Inquiries regarding product declaration can be directed to our sales team, or information can be found at our website: www.trox.no

The company reserves the right to make amendments without prior notice.