



- nozzles are made of high-quality ABS material, and painted standard white
- all diffusers use nozzles of 35mm (RDM) and 57 mm (RD) diameter; single nozzle capacity of 6 and 9 m³/h with acoustic pressure of 30 dB (A)
- installation in uncovered ceilings systems
- available in standard RAL 9003 colour
- upon customer's request, can be made available in any size and colour from RAL palette

INSTALLATION

ONS/RD, ONS/RDM diffusers can be installed directly in the round ventilation duct using rivets. Or the upper part of the diffuser can be fixed to the ceiling using screws (only variant 1). To take off the front panel, unscrew down bolts.

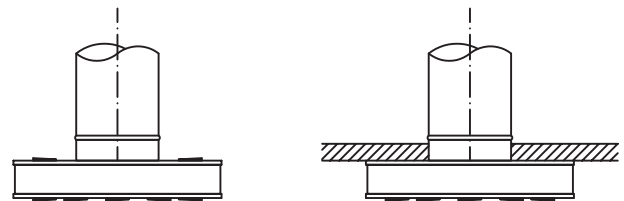
They can be also installed with the expansion box SR/ONS. See: SR/ONS

DESCRIPTION

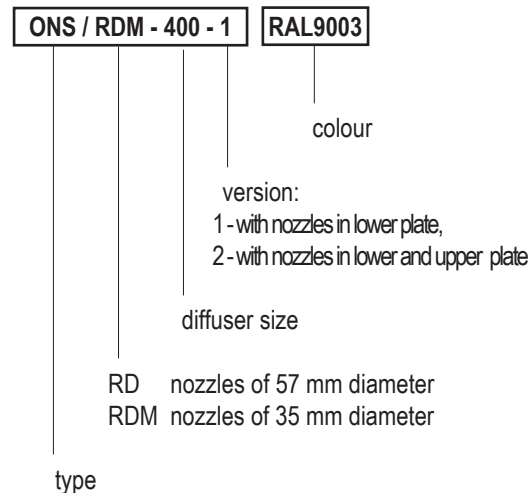
ONS/RD and ONS/RDM are round ceiling with adjustable round nozzles designed for low- and medium-pressure uncovered ceilings installations. Nozzles of diameter sizes 57 mm (RD) and 35 (RDM) mm are ended with sinusoidal outlets that allows for high air diffusion. Nozzles position can be adjusted to any direction so that shape of the air stream can be regulated. They can be used with constant and variable airflow. The air can be supplied at the temperature lower or higher than the temperature in the ventilated room. They are available in two variants: with nozzles in lower plate and with nozzles in lower and upper plates. It is recommended to install ONS diffusers into the ceiling or hang them from the ceiling. Hanging diffusers will increase air supply capacity.

FEATURES

- adjustable airflow stream shape (360°C)
- easy dispersion of vertical stream
- available in two variants:
 - ONS/RD-1 - with nozzles in lower plate
 - ONS/RD-2 - with nozzles in lower and upper plates
- possible to swirl the stream
- possible simultaneous vertical and horizontal ventilation
- high induction factor
- possible to be installed with an expansion box SR/ONS



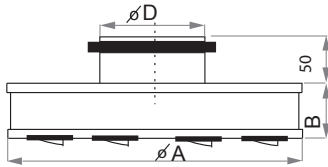
ORDER REFERENCE



3.4 ONS/RD, ONS/RDM

round ceiling diffusers with round nozzles

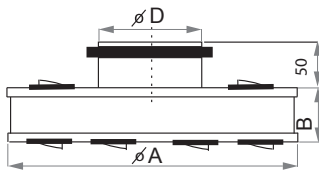
Diffuser ONS/RD, ONS/RDM



STANDARD SIZES

size	300	400	500	600	700	
$\varnothing A$ [mm]	300	400	500	600	700	
B [mm]	60		90		120	
$\varnothing D$ [mm]	98	123	158	198	248/313	
number of nozzles RD	1	14	21	36	50	77
	2	24	35	66	86	108
number of nozzles RDM	1	28	45	76	108	143
	2	52	77	140	188	223

Diffuser ONS/RD, ONS/RDM version 2



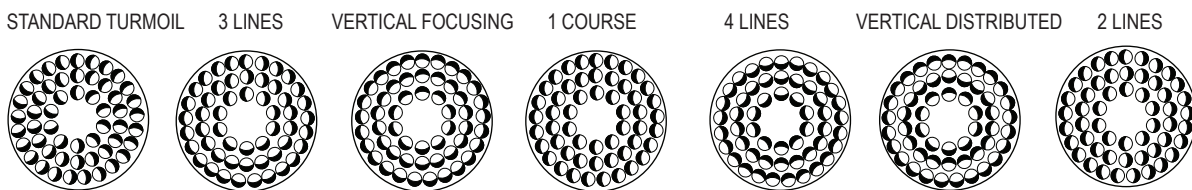
FEATURES

The figure shows airflow capacity V (m^3/h), pressure loss p (Pa), air-flow scope L (m) for end speed of 0.25 m/s, and volume level [db(A)].

The airflow scope L relates to isothermal air supply and standard nozzle position - rotation. For other positions, the airflow stream scope should be recalculated using the figures below.

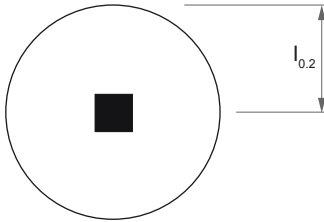
1 direction	2 direction	3 direction	4 direction
3,71	2,45	2,02	1,47

ABILITY TO CONFIGURE THE DIFFUSER NOZZLES



DIMENSIONS STREAM

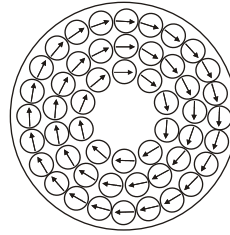
Isothermal Flux



ARRANGEMENT OF NOZZLES ONS/RD(M) 1

Isothermal Flux

Turmoil



Acoustical data - ONS/RD(M) 1 i 2

Sound power level L_w (dB)

Factor K_{OK}

Size	Center frequency band, Hz						
	125	250	500	1000	2000	4000	8000
300-1	4	4	4	-1	-19	-28	-24
400-1	3	3	5	-2	-18	-30	-29
500-1	5	5	5	-4	-22	-32	-29
600-1	5	4	5	-5	-22	-32	-29
700-1	4	5	6	-7	-25	-32	-29
700-1	3	5	6	-7	-23	-32	-29
300-2	8	2	3	0	-13	-22	-29
400-2	7	5	3	0	-13	-26	-29
500-2	5	4	4	-2	-17	-29	-29
600-2	6	6	4	-2	-16	-27	-29
700-2	6	6	5	-4	-20	-30	-29
700-2	5	6	5	-4	-22	-32	-29
Tol +/-	2	2	2	2	2	2	2

Arrangement of nozzles ONS/RD(M) 2

Standard Arrangement

Turmoil in line

- Nozzles at the top and bottom side of the diffuser arranged in the same direction.

Alternative arrangement of nozzles

Against turmoil

- Nozzles on the bottom arranged in a direction opposite to the nozzles at the top of the page

ACOUSTICAL DATA - ONS/RD(M) 1 I 2 + ONS/RD(M)

Sound power level L_w (dB)

Factor K_{OK}

Size	Center frequency band, Hz						
	125	250	500	1000	2000	4000	8000
300-1	12	6	5	-7	-20	-22	-24
400-1	10	7	4	-6	-20	-27	-25
500-1	10	7	5	-7	-21	-26	-24
600-1	8	6	4	-6	-17	-23	-22
700-1	10	6	5	-7	-18	-24	-23
700-1	7	4	6	-7	-24	-31	-27
300-2	13	6	2	-6	-17	-20	-23
400-2	12	8	2	-4	-14	-22	-23
500-2	13	-7	-3	-7	-16	-22	-22
600-2	11	8	2	-4	-12	-19	-20
700-2	12	7	3	-5	-13	-19	-21
700-2	10	5	4	-4	-17	-23	-22
Tol +/-	2	2	2	2	2	2	2

3.4 ONS/RD, ONS/RDM

round ceiling diffusers with round nozzles

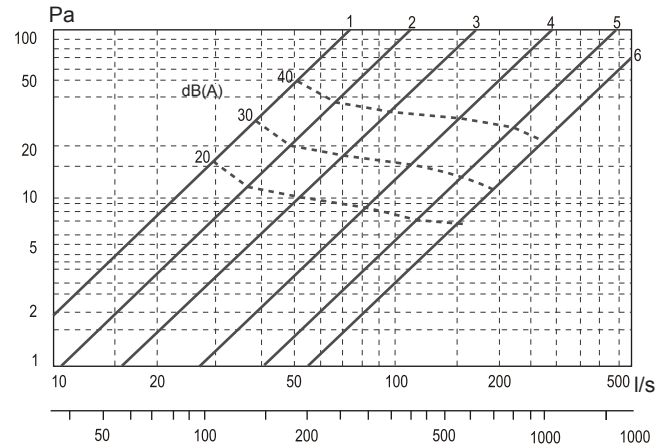
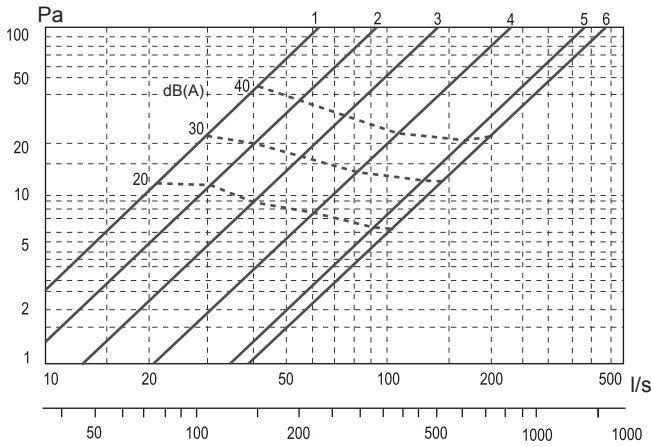
FLOW - PRESSURE DROP - SOUND LEVEL

Data refer to the diffuser ONS / RD (M) without Plenums

Characteristics can not be used to regulate

ONS/RD(M) 1

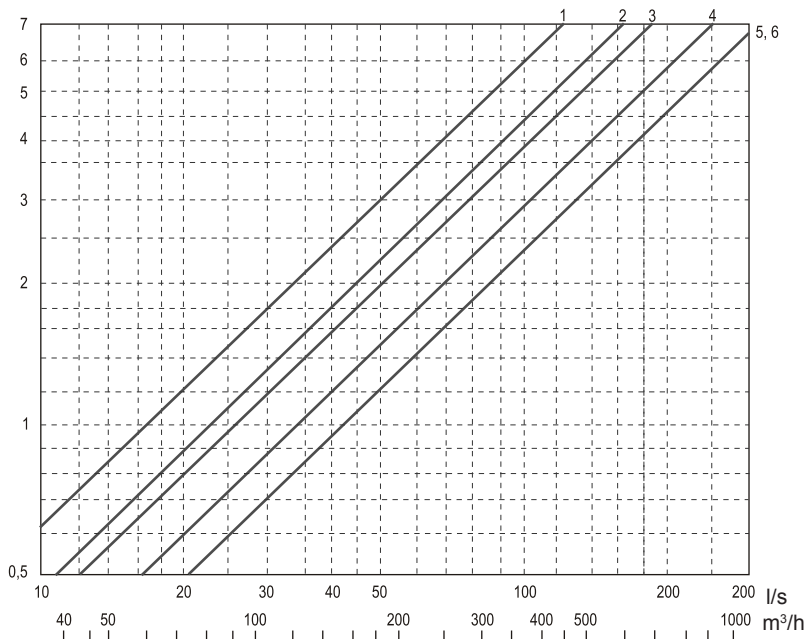
ONS/RD(M) 2



Size: 1 = 300 4 = 600
 2 = 400 5 = 700 Ød = 248
 3 = 500 6 = 700 Ød = 313

Movement - range, the standard arrangement of nozzles

ONS/RD(M) 1

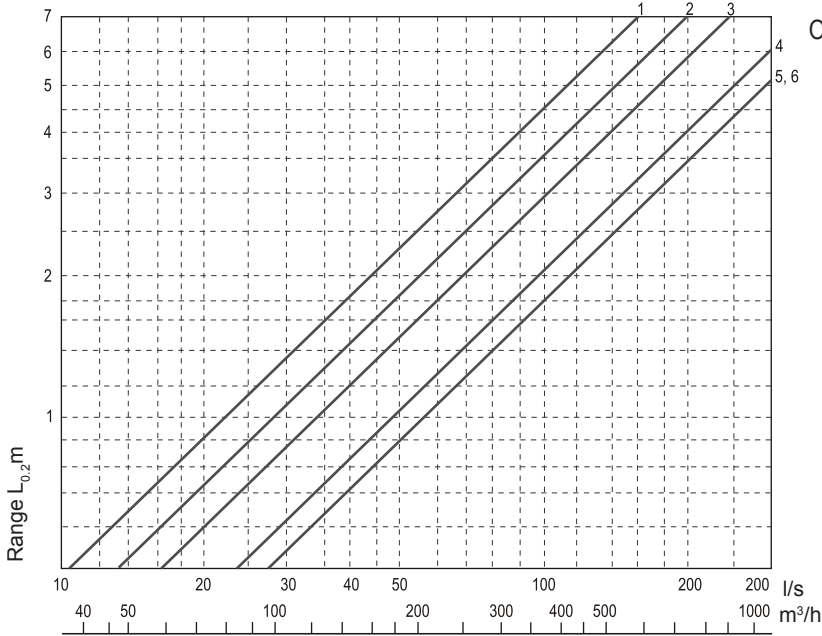


ONS/RD(M) 1, size 1. 300
 2. 400
 3. 500
 4. 600
 5. 700 Ød = 248
 6. 700 Ød = 313

Range $L_{0.2m}$

MOVEMENT - RANGE

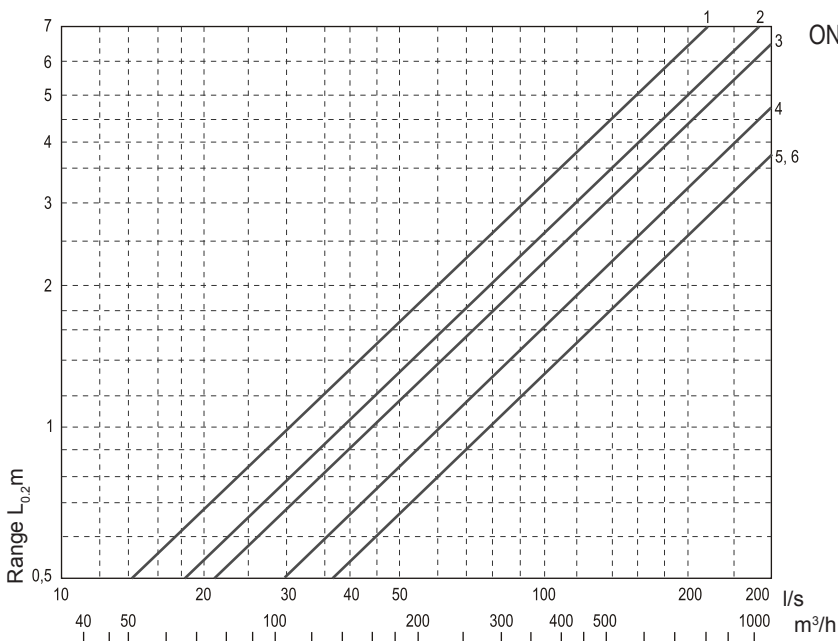
ONS/RD(M) 2, LOWER AND UPPER NOZZLES ARRANGED IN ACCORDANCE



ONS/RD(M) 2 size:

- 1. 300
- 2. 400
- 3. 500
- 4. 600
- 5. 700 Ød = 248
- 6. 700 Ød = 313

ONS/RD(M) 2 LOWER NOZZLES ARRANGED IN THE OPPOSITE DIRECTION THAN THE UPPER



ONS/RD(M) 2 size:

- 1. 300
- 2. 400
- 3. 500
- 4. 600
- 5. 700 Ød = 248
- 6. 700 Ød = 313

3.4 ONS/RD, ONS/RDM

round ceiling diffusers with round nozzles

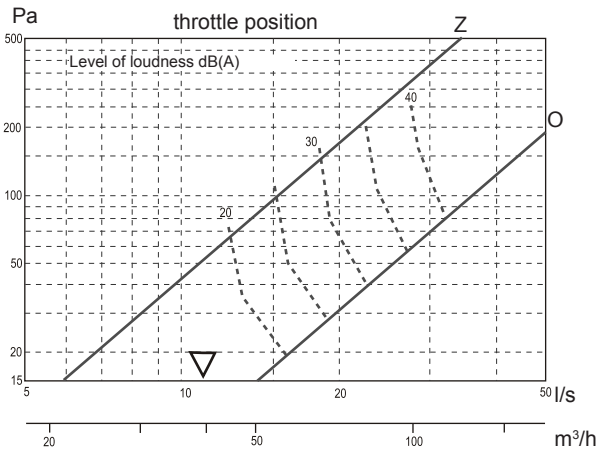
Flow - Pressure drop - Sound level

Data refer to the diffuser ONS / RD (M) to the mailbox expansion
Characteristics can not be used to regulate

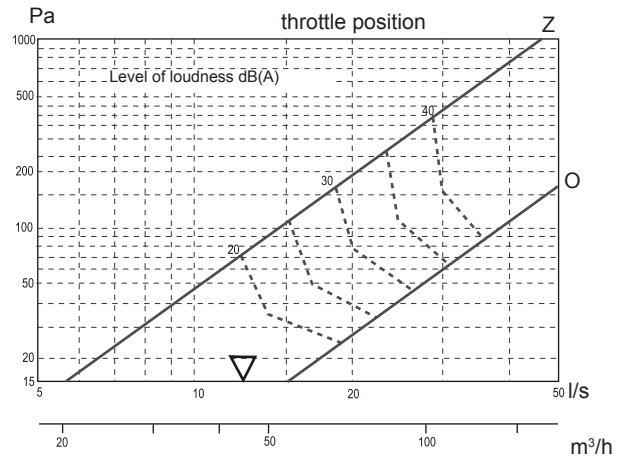
▽ = adjustable minimum flow

3

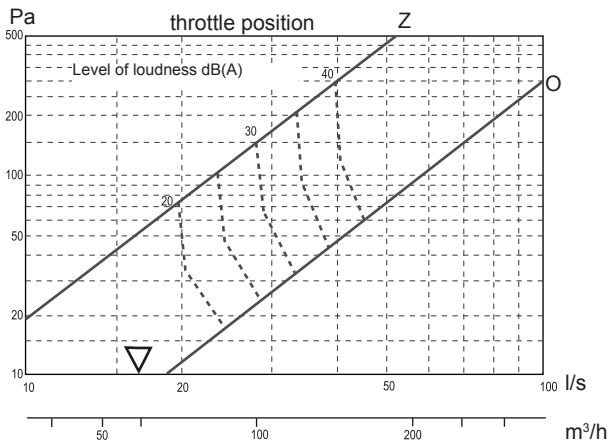
ONS/RD(M) 300-1 + SR/ONS



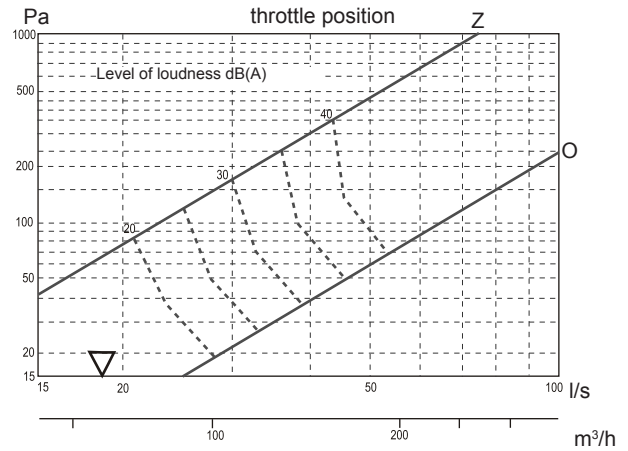
ONS/RD(M) 300-2 + SR/ONS



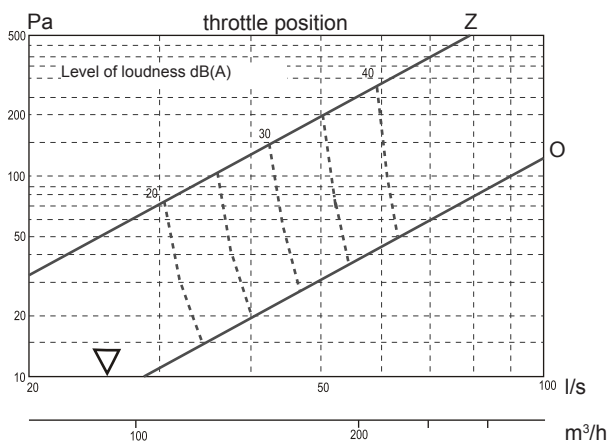
ONS/RD(M) 400-1 + SR/ONS



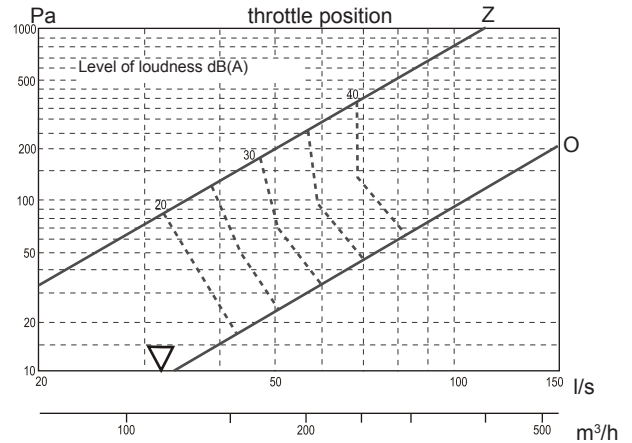
ONS/RD(M) 400-2 + SR/ONS



ONS/RD(M) 500-1 + SR/ONS



ONS/RD(M) 500-2 + SR/ONS

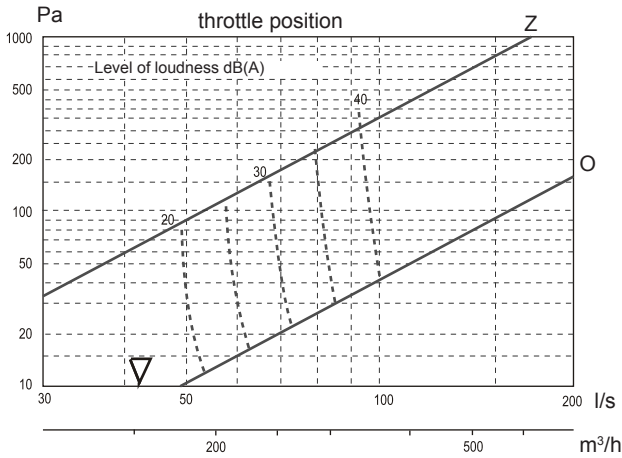


Flow - Pressure drop - Sound level

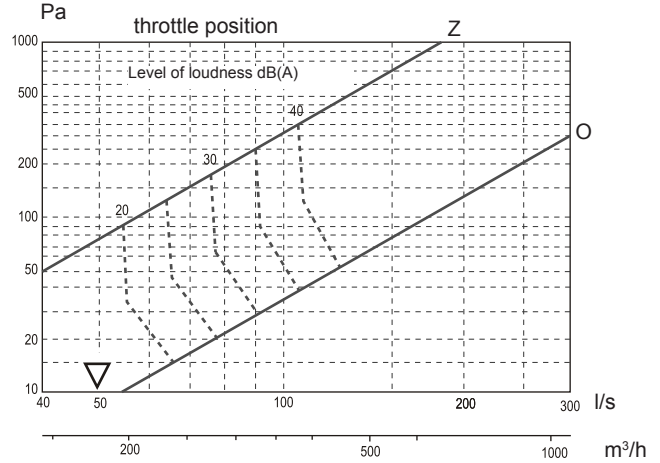
Data refer to the diffuser ONS / RD (M) to the mailbox expansion
Characteristics can not be used to regulate

▽ = adjustable minimum flow

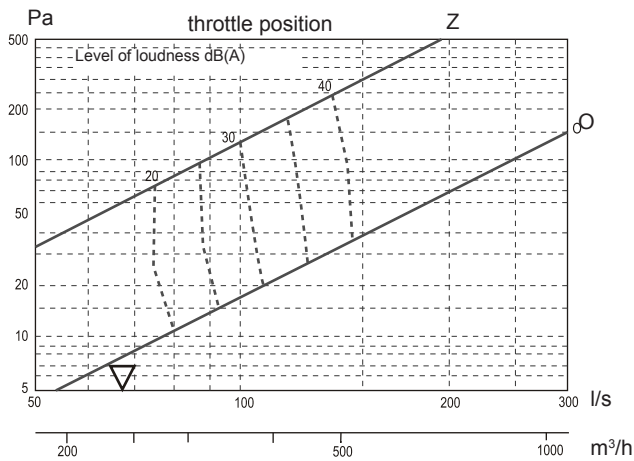
ONS/RD(M) 600-1 + SR/ONS



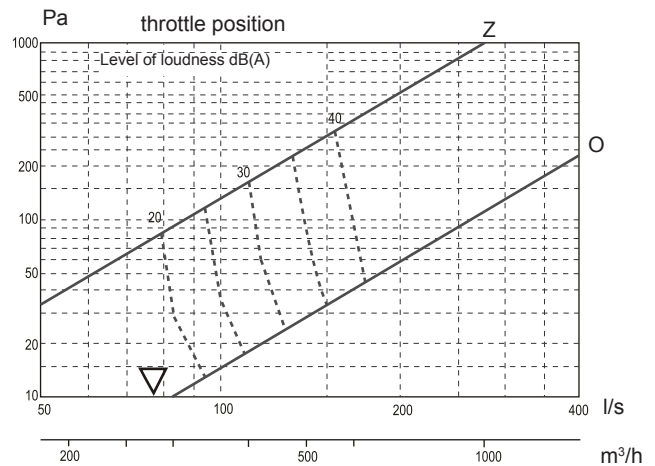
ONS/RD(M) 600-2 + SR/ONS



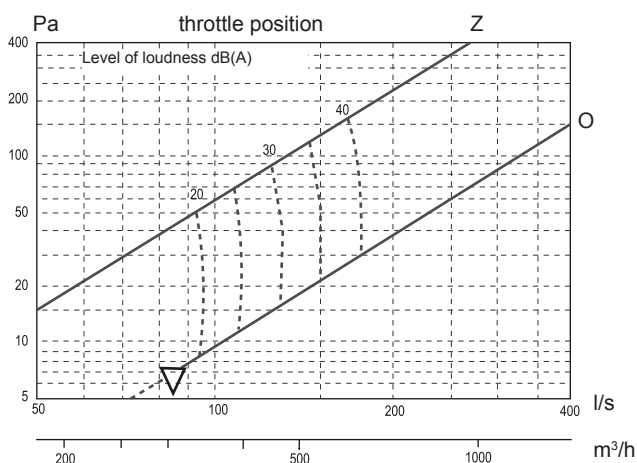
ONS/RD(M) 700-1 + SR/ONS (Ød = 248)



ONS/RD(M) 700-2 + SR/ONS (Ød = 313)



ONS/RD(M) 700-1 + SR/ONS (Ød = 313)



ONS/RD(M) 700-2 + SR/ONS (Ød = 313)

