

variable geometry swirl air vents



DESCRIPTION

NWZG is an adjustable swirl air vent for rooms with a considerable difference between the temperature of the air present in the room and the temperature of supplied air. It is designed to operate on constant or variable airflow in 3 – 12 m high rooms. Thanks to movable blades which make it possible to select a proper air-supply angle, NWZG can be used both for room cooling and heating. It is recommended to install these devices on the ceiling surface.

SHORT CHARACTERISTIC

- high induction factor;
- movable blades make it possible to adjust the air-supply angle;
- internal part of the air vent moulded in order to achieve the Coanda effect;
- easy installation;
- possibility to mount with SR/NWZG plenum box;
- air vent made of steel sheet;
- robust structure;
- standard painted in RAL 9010;
- customized items can be painted in any colour from the RAL palette;

ORDER CODE

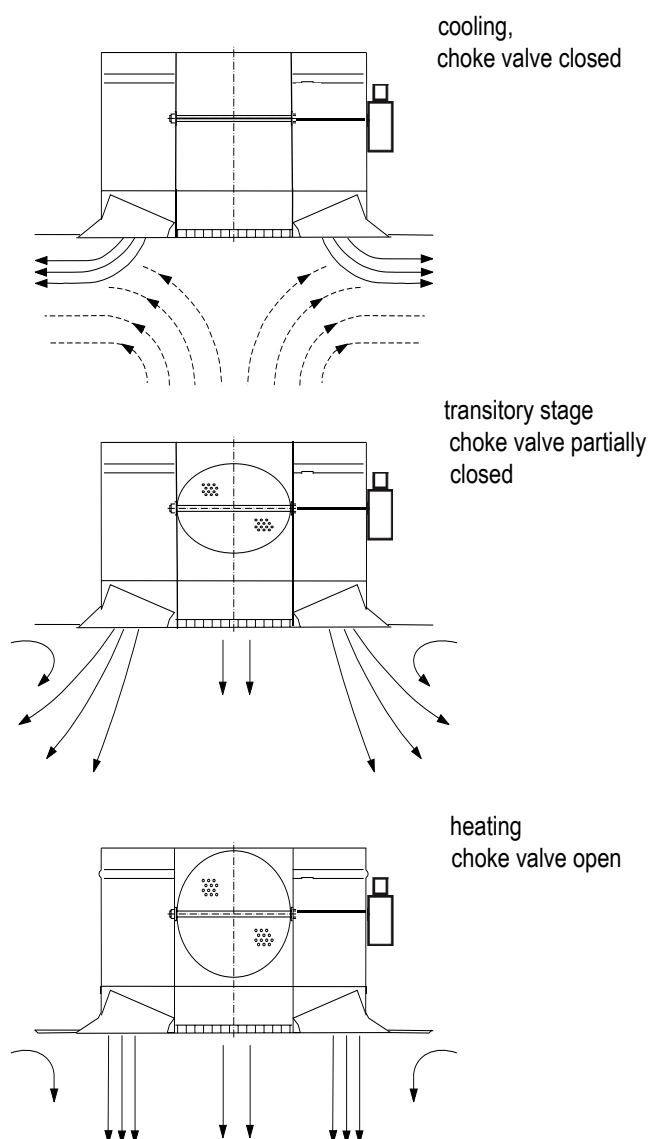
NWZG - 400 E RAL9010

specify colour
E – electrical servo
– manual adjustment

size
type

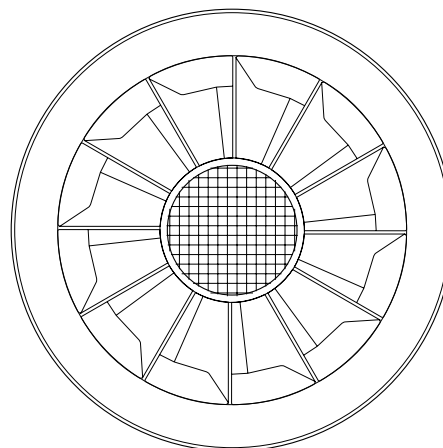
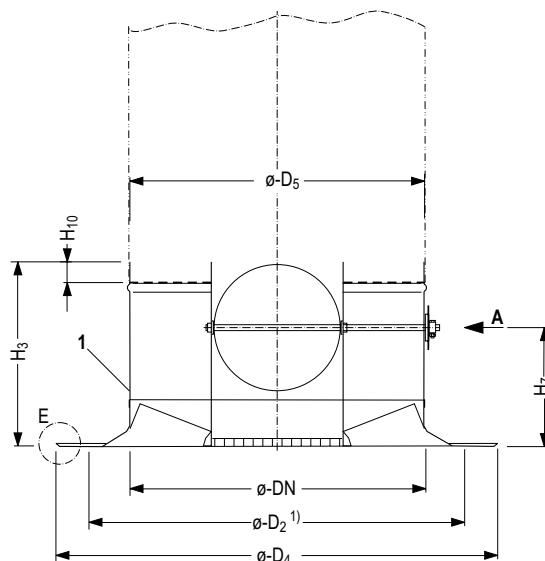
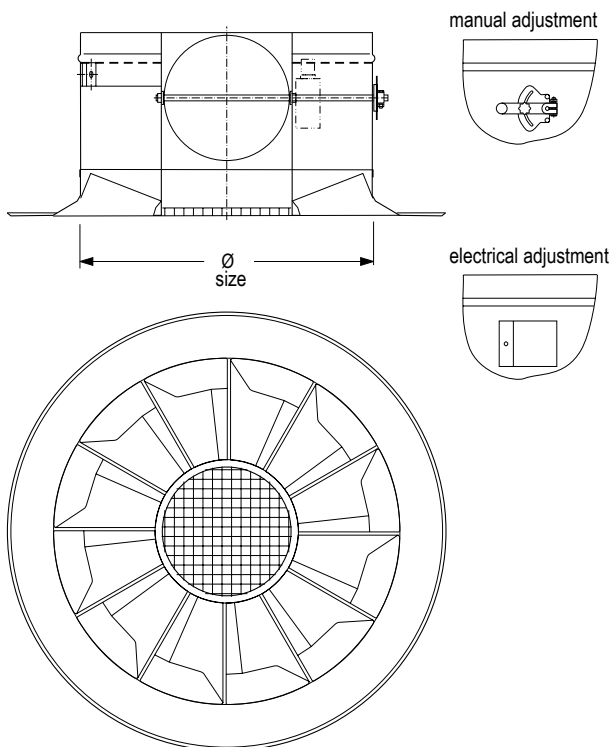
AIR OUTFLOW PARAMETERS

Size					
DN	V _{min} m ³ /h	V _{max} m ³ /h	H m	cooling mode K	heating mode K
250	300	1400	2.8-6	-12	+12
315	400	2200	3-8		
355	600	3000	3-9		
400	800	3800	3-12		
500	1000	5000	4-12		
630	2500	9000	5-13		
710	3500	11000	5-14		

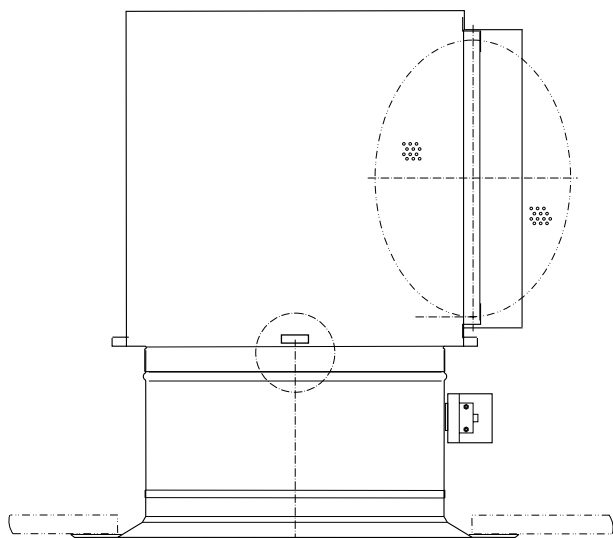


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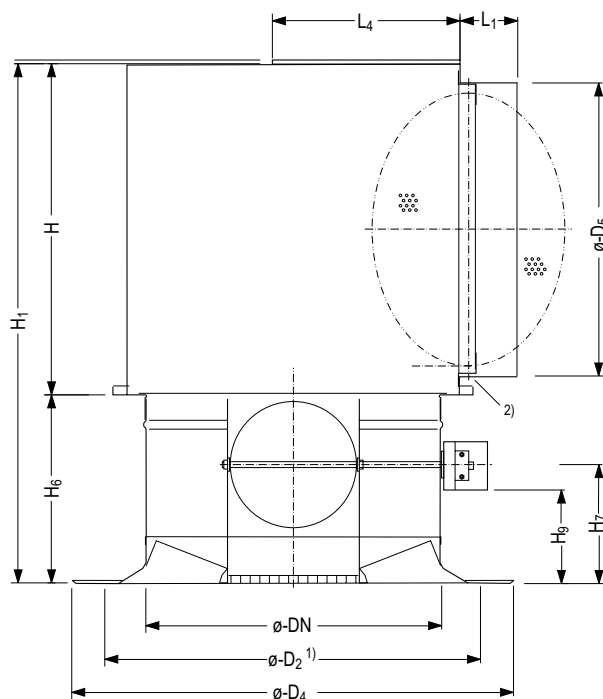
connection to the duct



connection to the box



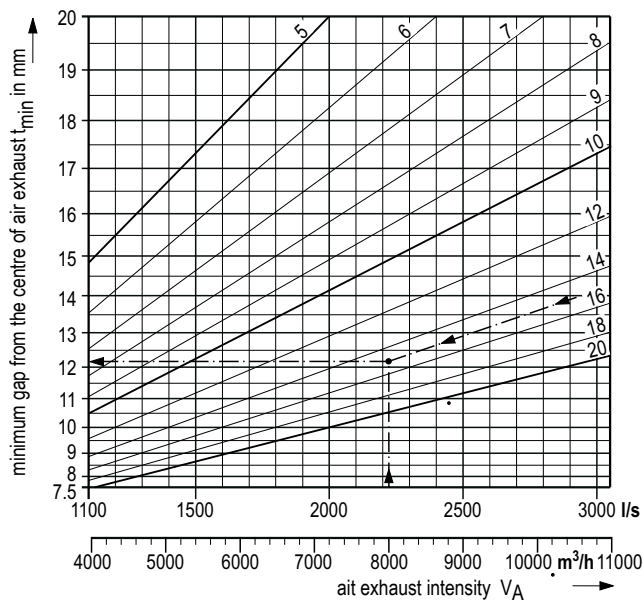
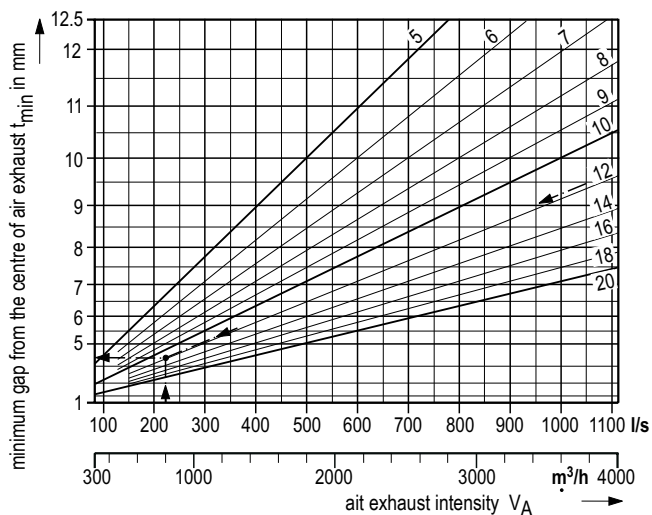
connection to the box



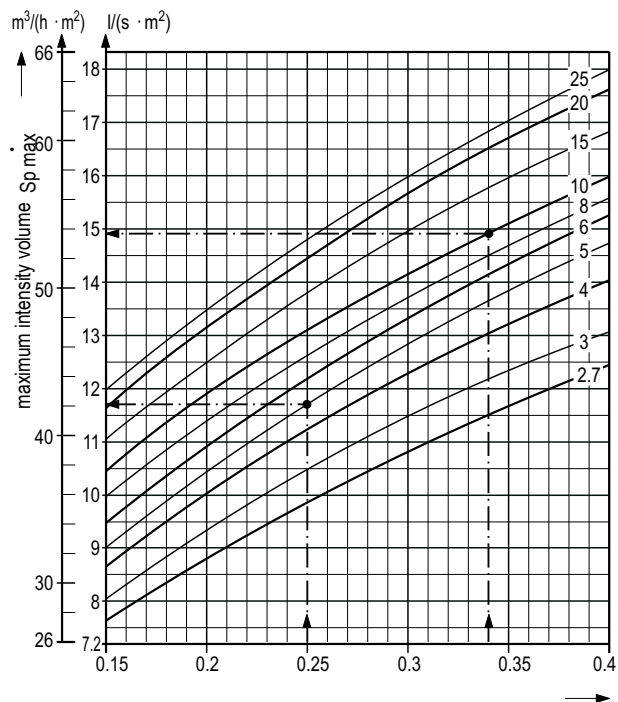
Size	Dimensions in mm																Weight in [kg]	
	D2	D4	D5	H	H1	H3	H6	H7	H9	H10	L	B	B1	L1	L3	L4	1	2
DN 250	325	375	249	300	505	200	205	127	94	30	350	375	298	60	135	180	3,8	8,0
DN 315	420	470	314	365	587	217	222	141	108	30	415	445	357	60	168	213	5,2	11,2
DN 355	460	530	354	405	640	230	235	151	118	30	455	485	390	60	188	233	6,2	13,5
DN 400	502	600	399	450	705	250	255	161	128	35	500	535	432	80	210	255	7,5	16,6
DN 500	602	750	499	550	849	294	299	183	150	40	600	645	525	80	260	305	10,6	23,9
DN 630	758	945	628	680	1035	350	355	211	178	50	730	785	642	80	325	370	16,0	35,3
DN 710	854	1065	708	760	1150	385	390	229	196	50	810	870	713	100	365	410	19,8	44,8

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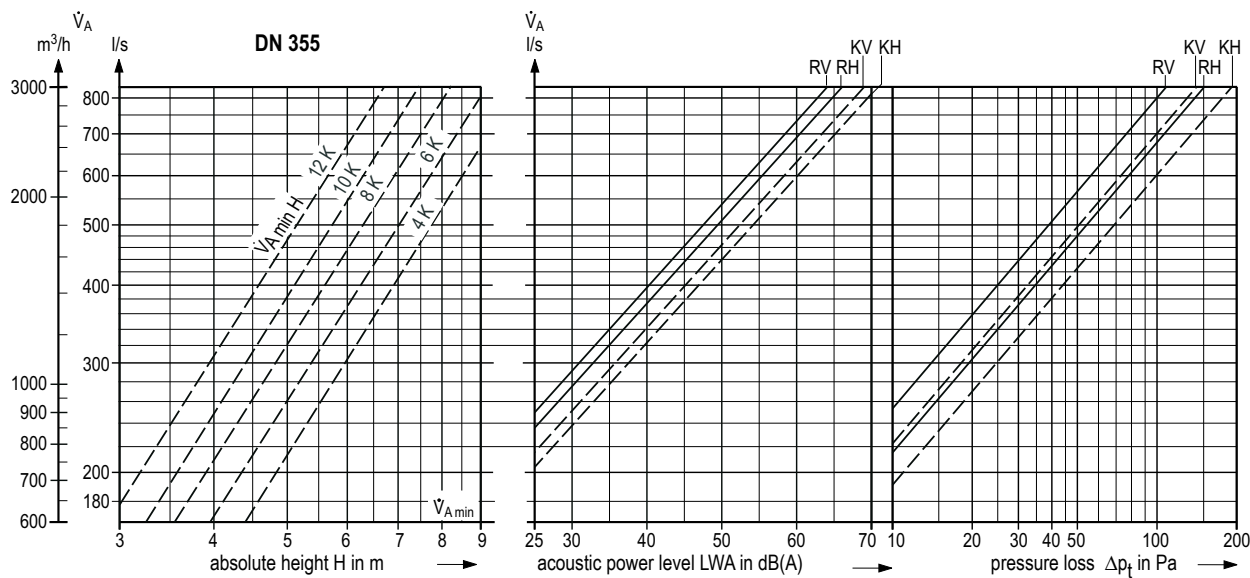
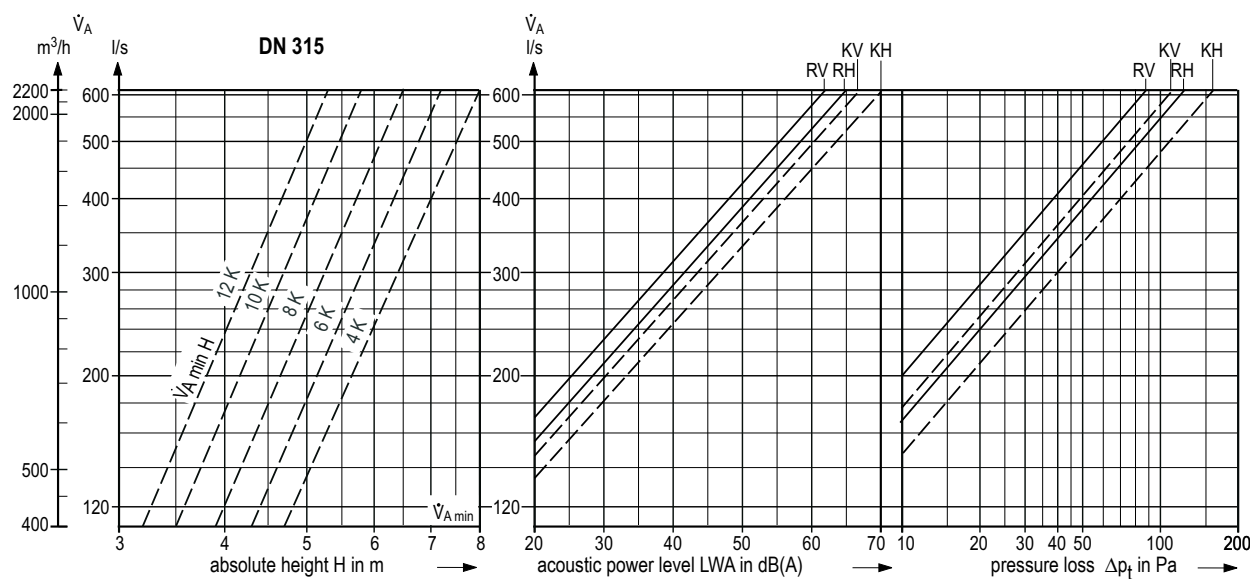
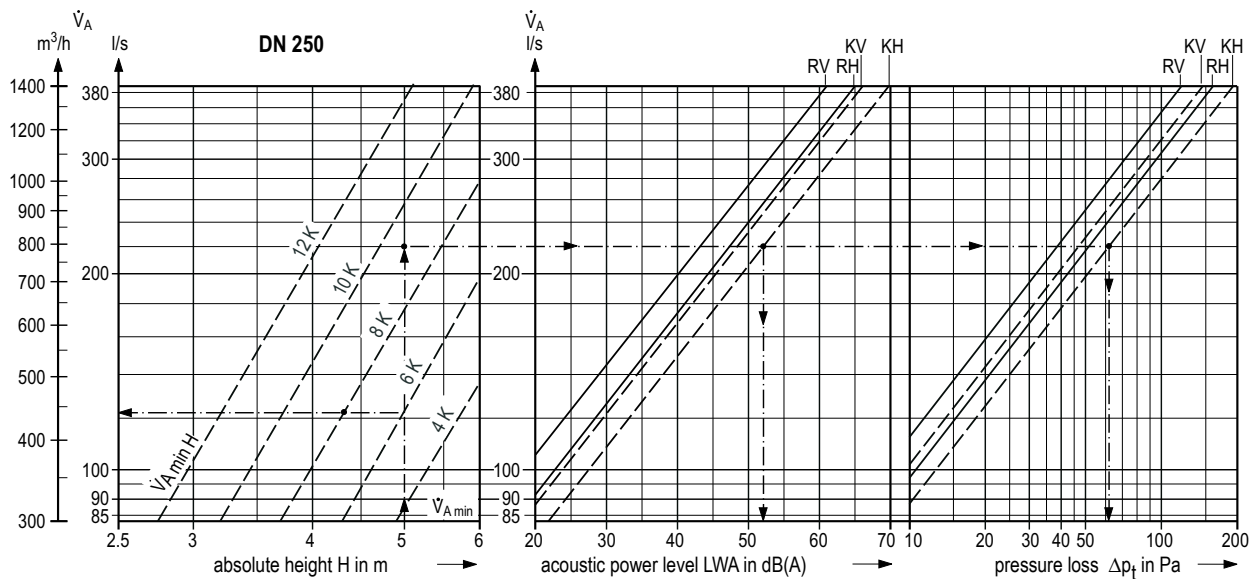
Minimum gap from the centre of air exhaust



Maximum constant air speed in rooms

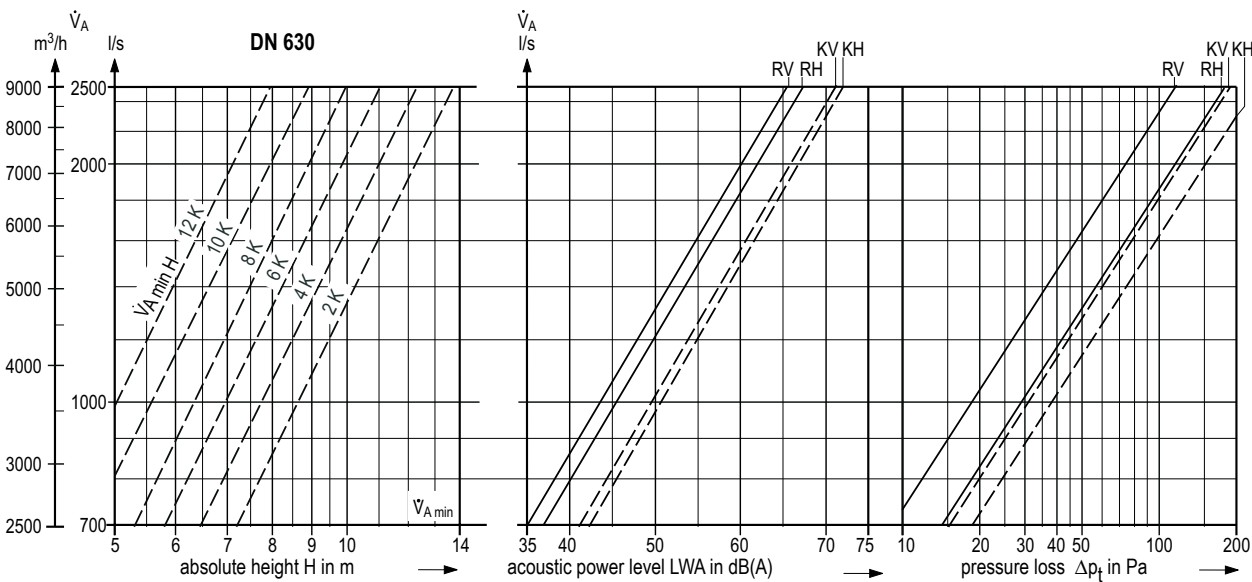
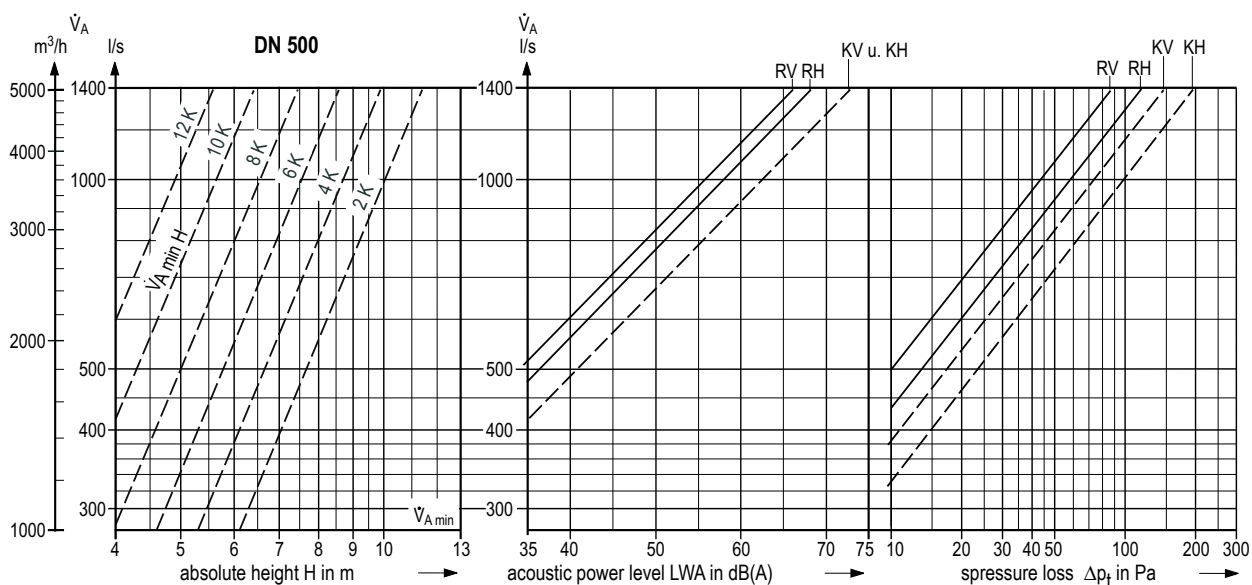
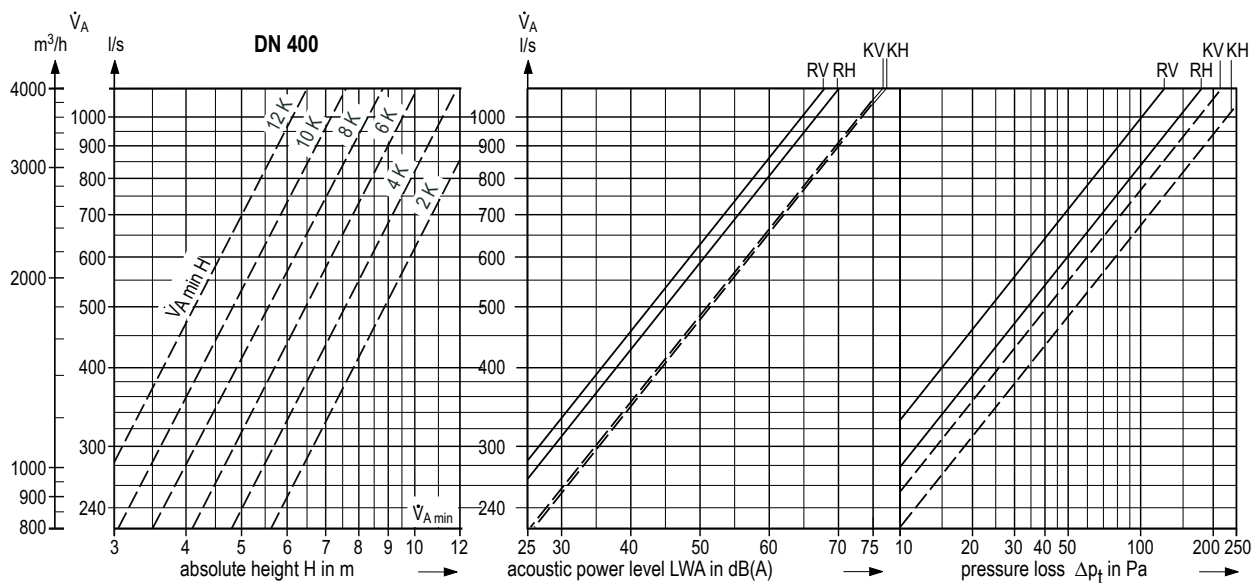


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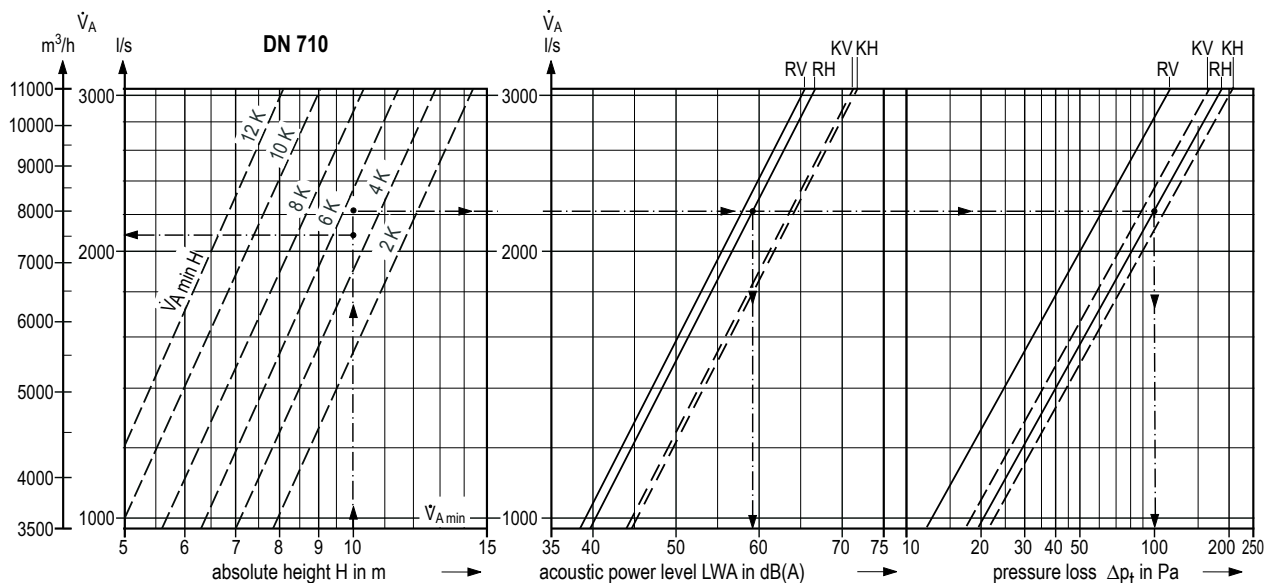
CWK Sp. z o.o. reserves the right to introduce necessary technical data changes.

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Correction table: radial adjustable NWZG exhaust from its own automatic thermostatically-operated unit.

Correction table: air-supply distance during heating operation and acoustic power level with pressure loss on the exhaust from perforated discs above the curved blades.

Size	L_{WA} acoustic power level increase (dB(A))	Pressure loss increase - ΔPt factor
DN 250	+1 do 5	1.4
DN 315	+1 do 3	1.3
DN 355	+1	1.15
DN 400	0	1.05
DN 500	0	1.0
DN 630	0	1.0
DN710	0	1.0

Size	Connection type	Absolute height - H factor	L_{WA} acoustic power level increase (dB(A))	Pressure loss increase - ΔPt factor
DN 400	RH	-	2	1.45
	RV	1.4	2	1.45
DN 500	RH	-	2	1.45
	RV	1.4	2	1.45
DN 630	RH	-	2	1.25
	RV	1.4	2	1.25
DN 710	RH	-	2	1.25
	RV	1.4	2	1.25

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V _A air exhaust intensity		on connection duct	Total pressure loss ΔPt	Acoustic power level L _W in dB										with a box	Total pressure loss ΔPt	octave frequency band in Hz							
				L _{WA}	octave frequency band in Hz								L _{WA}			octave frequency band in Hz							
l/s	m ³ /h		Pa	dB(A)	63	125	250	500	1 K	2 K	4 K	8 K		Pa	dB(A)	63	125	250	500	1 K	2 K	4 K	8 K
DN 250																							
167	600	RH	30	38	36	40	38	37	32	27	17	-	KH	36	43	41	46	43	43	37	32	22	12
		RV	22	35	30	38	36	33	29	27	25	10	KV	27	40	35	42	41	39	35	30	20	10
278	1000	RH	82	54	52	55	53	52	49	45	41	34	KH	99	59	57	60	58	57	55	50	46	40
		RV	61	51	44	49	48	47	45	45	42	30	KV	74	56	49	54	53	52	50	50	44	34
389	1400	RH	160	65	62	64	62	60	60	57	75	51	KH	191	70	67	69	66	66	66	62	61	57
		RV	120	61	52	56	55	56	55	56	53	42	KV	142	66	57	61	59	59	59	61	58	47
DN 315																							
278	1000	RH	27	39	40	46	40	38	33	28	17	12	KH	34	44	45	51	45	43	38	33	22	13
		RV	18	36	32	39	37	35	30	27	14	-	KV	23	41	37	44	42	40	36	31	17	-
444	1600	RH	69	55	50	58	54	51	50	47	40	33	KH	86	60	56	63	59	57	55	52	45	37
		RV	47	52	44	54	48	49	45	46	37	24	KV	60	57	49	58	53	54	51	51	41	28
556	2200	RH	130	65	57	66	63	60	60	59	54	47	KH	160	70	62	71	67	65	66	64	60	52
		RV	89	62	52	64	55	58	54	58	52	38	KV	116	67	56	67	60	63	60	63	57	42
DN 355																							
278	1000	RH	17	30	42	38	30	29	23	18	16	-	KH	22	35	46	43	35	34	30	21	19	10
		RV	12	28	38	35	29	27	21	18	12	-	KV	16	33	42	39	33	32	27	20	11	-
556	2000	RH	67	53	60	56	52	49	48	45	41	31	KH	86	58	64	61	55	54	53	50	45	39
		RV	48	51	55	51	48	46	46	44	41	30	KV	63	56	60	56	53	52	52	49	43	34
833	3000	RH	150	66	69	65	63	60	61	60	54	47	KH	190	71	73	70	66	65	66	66	60	55
		RV	108	64	64	50	57	56	60	58	56	46	KV	139	69	68	65	62	61	64	63	61	51
DN 400																							
556	2000	RH	43	48	51	50	48	46	44	39	30	19	KH	67	55	58	52	51	54	51	46	37	27
		RV	30	46	48	48	45	44	41	39	29	17	KV	51	54	57	51	50	54	49	45	38	26
833	3000	RH	97	61	62	60	57	57	56	55	48	39	KH	157	68	68	61	62	65	63	62	55	45
		RV	69	59	58	57	56	55	54	52	48	38	KV	118	67	67	61	62	64	62	62	54	45
1055	3800	RH	156	68	67	65	62	63	64	63	58	51	KH	256	75	74	66	67	70	69	70	65	56
		RV	111	66	64	63	62	61	61	60	58	50	KV	192	75	73	67	68	70	68	71	63	56
DN 500																							
833	3000	RH	40	52	57	54	50	51	47	44	37	26	KH	71	57	61	55	55	55	53	49	39	28
		RV	30	50	58	50	48	48	46	43	36	22	KV	53	57	62	54	54	54	53	49	41	29
1111	4000	RH	73	61	64	61	56	58	56	55	50	39	KH	125	66	67	61	61	62	63	60	51	42
		RV	54	59	65	56	55	56	54	54	49	33	KV	94	66	69	61	61	62	62	59	53	45
1389	5000	RH	116	68	69	65	61	63	63	63	59	48	KH	194	73	71	66	66	68	70	67	60	53
		RV	85	66	70	60	59	60	60	62	59	41	KV	147	73	75	65	65	68	49	66	63	57
DN630																							
1111	4000	RH	36	48	56	49	45	45	43	40	31	26	KH	38	53	61	55	50	50	48	45	36	31
		RV	23	46	57	50	45	44	42	37	29	22	KV	47	52	63	56	51	49	47	43	35	28
1667	6000	RH	81	57	63	57	53	54	52	50	46	41	KH	105	62	68	63	59	59	57	55	51	49
		RV	51	56	61	56	52	51	51	59	44	36	KV	86	62	68	62	58	57	55	50	42	
2222	8000	RH	144	64	67	63	59	60	58	57	56	52	KH	187	69	72	68	64	65	63	62	61	57
		RV	91	63	64	60	56	56	58	57	55	45	KV	152	69	70	66	62	62	64	62	60	51
DN710																							
1389	5000	RH	35	48	63	52	48	44	41	41	34	23	KH	43	53	68	57	53	49	46	46	39	28
		RV	24	47	57	50	45	44	43	38	29	20	KV	35	53	63	56	51	50	48	43	34	25
2083	7500	RH	86	58	68	61	57	53	52	52	47	39	KH	98	63	73	66	62	58	57	57	52	44
		RV	53	56	64	57	53	52	51	49	45	34	KV	79	62	70	63	59	58	58	55	51	39
2778	10000	RH	152	65	71	67	53	59	58	59	56	50	KH	176	70	76	72	68	64	63	64	61	55
		RV	93	63	69	62	58	58	56	56	56	43	KV	140	69	74	68	64	64	64	62	62	49