

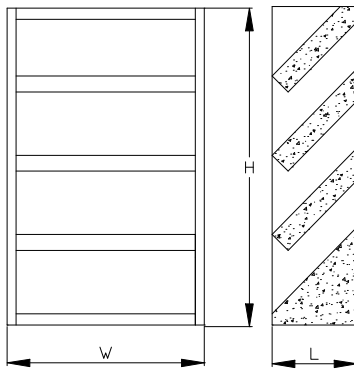
Needle Acoustics Company
Needle



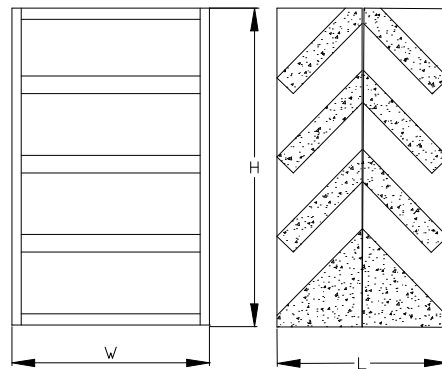
Acoustic Louvers

NL ACOUSTIC LOUVRE

- Design flexibility
- Continuous line option
- Robust construction
- Nacokleen Strata™
- environmentally friendly
acoustic media retained
behind perforated sheet
- Low energy blade
configuration
- Ease of installation
- Rapid delivery from
extensive stocks
- Louvre application and
technical support available
on request



NL 150-30/300-30



NL 600-30

STANDARD DIMENSIONS

LOUVRE MODEL	DEPTH (L)	HEIGHT (H)	MIN. HEIGHT	WIDTH (W)	MIN. WIDTH	Kg / m ²
NL_ 150-30	150	MULTIPLES OF 150	300	TO SUIT APPLICATION	300	39
NL_ 300-30	300	MULTIPLES OF 300	600	TO SUIT APPLICATION	300	53
NL_ 600-30	600	MULTIPLES OF 300	600	TO SUIT APPLICATION	300	110

Dimensions in mm.
Add 5mm to depth for bird mesh.

E&EO

**TECHNICAL DATA
MODEL: NL30**



DATA SHEET No : 40/1100/B/001E

TABLE 1. STATIC INSERTION LOSS

MODEL NL		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
150-300	SIL	3	4	4	7	13	14	12	11
300-30	SIL	8	6	9	13	22	24	18	15
600-30	SIL	9	8	14	22	29	30	25	22

TABLE 2. NOISE REDUCTION

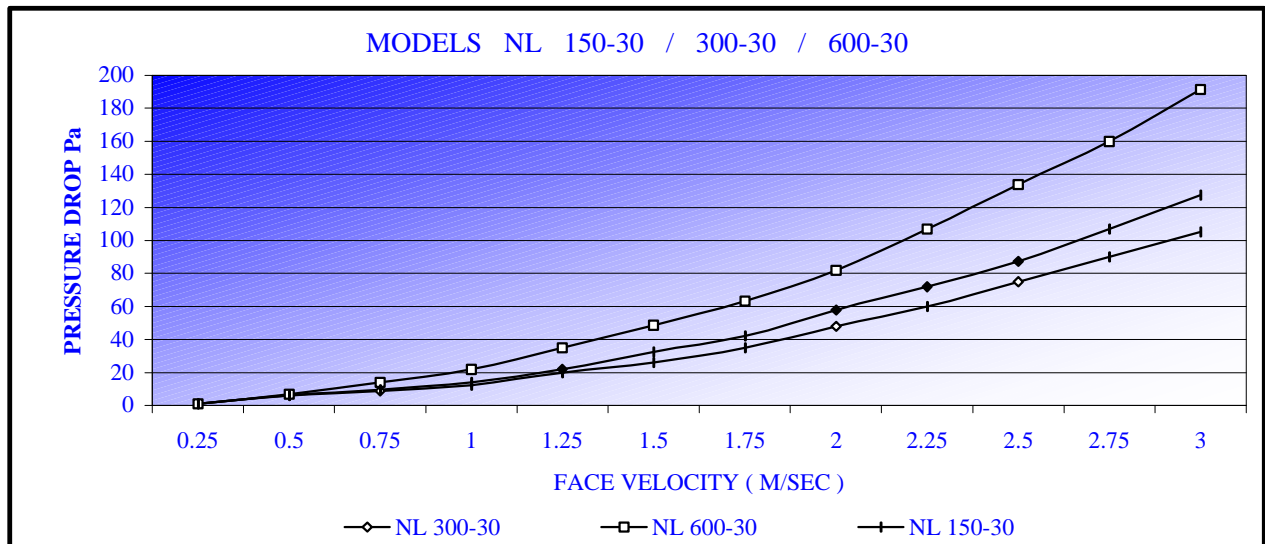
MODEL NL		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
150-300	NR	9	10	10	13	19	20	18	17
300-30	NR	14	12	15	19	28	30	24	21
600-30	NR	15	14	20	28	35	36	31	28

TABLE 3. LOUVRE SELF-NOISE. (SWL:Db RE:10⁻¹² WATTS, PER M² FACE AREA).

FACE VELOCITY		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
-1	INLET	13	13	11	9	4	-	-	-
-1.5	INLET	22	22	20	18	13	8	3	-
-2	INLET	29	29	27	25	20	15	10	5
-2.5	INLET	35	35	33	31	26	21	16	11
-3	INLET	39	39	37	35	30	25	20	15
+1	OUTLET	16	16	14	12	7	3	3	3
+1.5	OUTLET	25	25	23	21	16	11	6	3
+2	OUTLET	32	32	30	28	23	18	13	8
+2.5	OUTLET	38	38	36	34	29	24	19	14
+3	OUTLET	42	42	40	38	33	28	23	18

CORRECTION FOR FACE AREA - 10*log (Area)

AREA	0.25	0.5	1	2	4	6	8	12	m ²
CORRECTION	-6	-3	0	3	6	8	9	11	dB



PRESSURE DROP CHART CORRECTION FACTORS FOR HEIGHT. (NL).

LOUVRE HEIGHT	600	900	1200	1500	1800	2100
MULTIPLY (P. D.) BY:	2.2	1.4	1	0.86	0.86	0.82

E&EO

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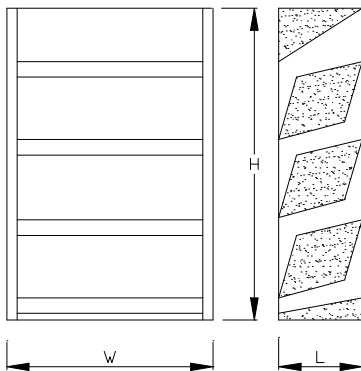
SOUTH WEST REGIONAL OFFICE:
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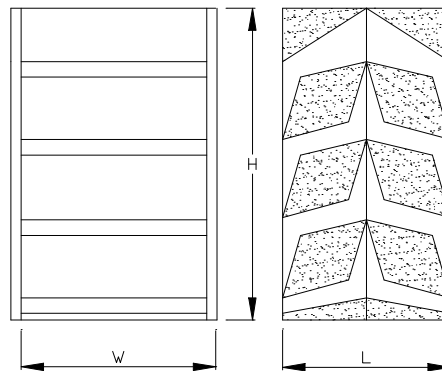
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EL ACOUSTIC LOUVRE

- Design flexibility
- Continuous line option
- Robust construction
- Nacokleen Strata™
- environmentally friendly
acoustic media retained
behind perforated sheet
- Low energy blade
configuration
- Ease of installation
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extensive stocks
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technical support available
on request



EL 150-24/300-24



EL 600-24

STANDARD DIMENSIONS

LOUVRE MODEL	DEPTH (L)	HEIGHT (H)	MIN. HEIGHT	WIDTH (W)	MIN. WIDTH	Kg / m ²
EL_ 150-24	150	MULTIPLES OF 150	300	TO SUIT APPLICATION	300	40
EL_ 300-24	300	MULTIPLES OF 300	600	TO SUIT APPLICATION	300	60
EL_ 600-24	600	MULTIPLES OF 300	600	TO SUIT APPLICATION	300	125

Dimensions in mm.
Add 5mm to depth for bird mesh.



TABLE 1. STATIC INSERTION LOSS

MODEL EL		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
150-24	SIL	3	2	4	6	12	14	13	15
300-24	SIL	6	6	8	13	18	17	14	15
600-24	SIL	7	7	12	19	25	26	25	20

TABLE 2. NOISE REDUCTION

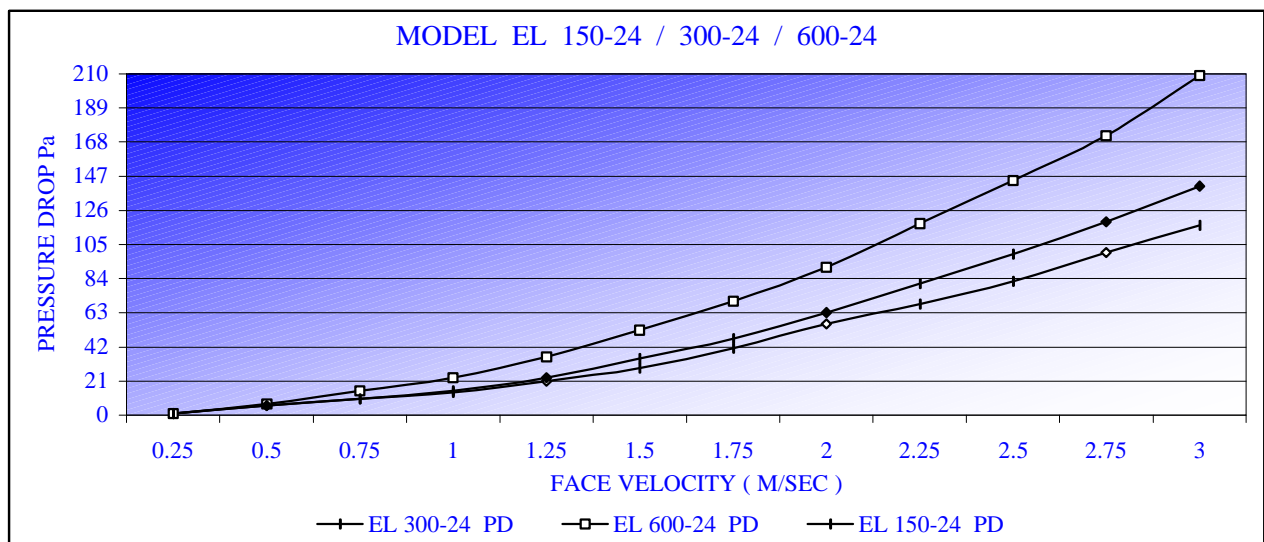
MODEL EL		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
150-24	NR	9	8	10	12	18	20	19	21
300-24	NR	12	12	14	19	24	23	20	21
600-24	NR	13	13	18	25	31	32	31	26

TABLE 3. LOUVRE SELF-NOISE. (SWL:Db RE:10⁻¹² WATTS, PER M² FACE AREA).

FACE VELOCITY		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
-1	INLET	20	20	18	16	11	6	-	-
-1.5	INLET	30	30	28	26	21	16	11	6
-2	INLET	37	37	35	33	28	23	18	13
-2.5	INLET	42	42	40	38	33	28	23	18
-3	INLET	52	52	50	48	43	38	33	28
+1	OUTLET	23	23	21	19	14	9	3	3
+1.5	OUTLET	33	33	31	29	24	19	14	9
+2	OUTLET	40	40	38	36	31	26	21	16
+2.5	OUTLET	45	45	43	41	36	31	26	21
+3	OUTLET	55	55	53	51	46	41	36	31

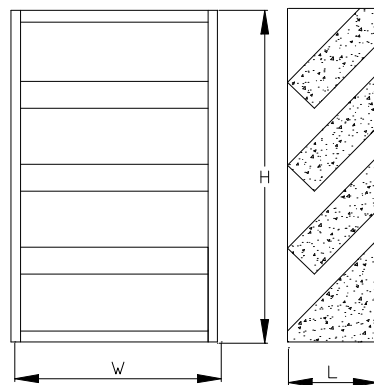
CORRECTION FOR FACE AREA - 10*log (Area)

AREA	0.25	0.5	1	2	4	6	8	12	m ²
CORRECTION	-6	-3	0	3	6	8	9	11	dB

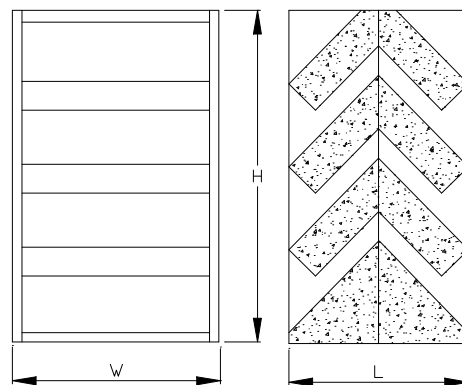


PL-20 ACOUSTIC LOUVRE

- Design flexibility
- Continuous line option
- Robust construction
- Nacokleen Strata™
- environmentally friendly
acoustic media retained
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- Low energy blade
configuration
- Ease of installation
- Rapid delivery from
extensive stocks
- Louvre application and
technical support available
on request



PL 150-30/300-20



PL 600-20

STANDARD DIMENSIONS

LOUVRE MODEL	DEPTH (L)	HEIGHT (H)	MIN. HEIGHT	WIDTH (W)	MIN. WIDTH	Kg / m ²
PL_ 150-30	150	MULTIPLES OF 150	300	TO SUIT APPLICATION	300	40
PL_ 300-30	300	MULTIPLES OF 300	600	TO SUIT APPLICATION	300	55
PL_ 600-30	600	MULTIPLES OF 300	600	TO SUIT APPLICATION	300	115

Dimensions in mm.
Add 5mm to depth for bird mesh.

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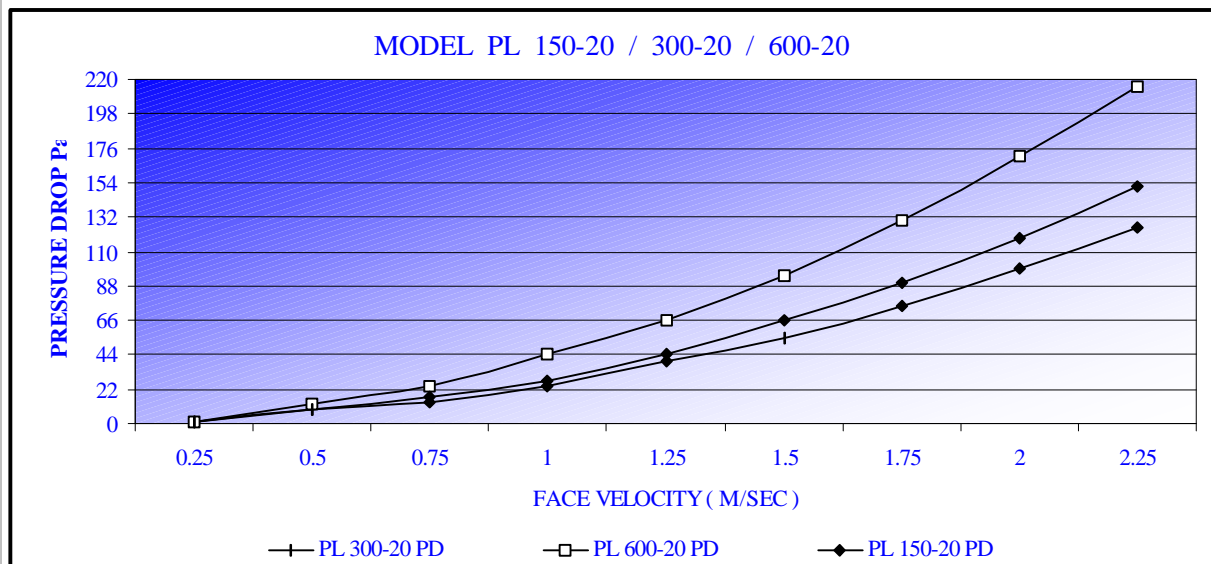


MODEL PL		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
150-20	SIL	6	5	7	9	14	18	18	16
300-20	SIL	7	8	12	17	24	26	26	20
600-20	SIL	8	11	16	28	38	39	37	30

MODEL PL		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
150-20	NR	12	11	13	15	20	24	24	22
300-20	NR	13	14	18	23	30	32	32	26
600-20	NR	14	17	22	34	44	45	43	36

FACE VELOCITY		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
-1	INLET	26	26	24	22	17	12	7	2
-1.5	INLET	36	36	34	32	27	22	17	12
-2	INLET	43	43	41	39	34	29	24	19
-2.5	INLET	48	48	46	44	39	34	29	24
-3	INLET	53	53	51	49	44	39	34	29
+1	OUTLET	29	29	27	25	20	15	10	5
+1.5	OUTLET	39	39	37	35	30	25	20	15
+2	OUTLET	46	46	44	42	37	32	27	22
+2.5	OUTLET	51	51	49	47	42	37	32	27
+3	OUTLET	56	56	54	52	47	42	37	32

AREA	0.25	0.5	1	2	4	6	8	12	m ²
CORRECTION	-6	-3	0	3	6	8	9	11	dB



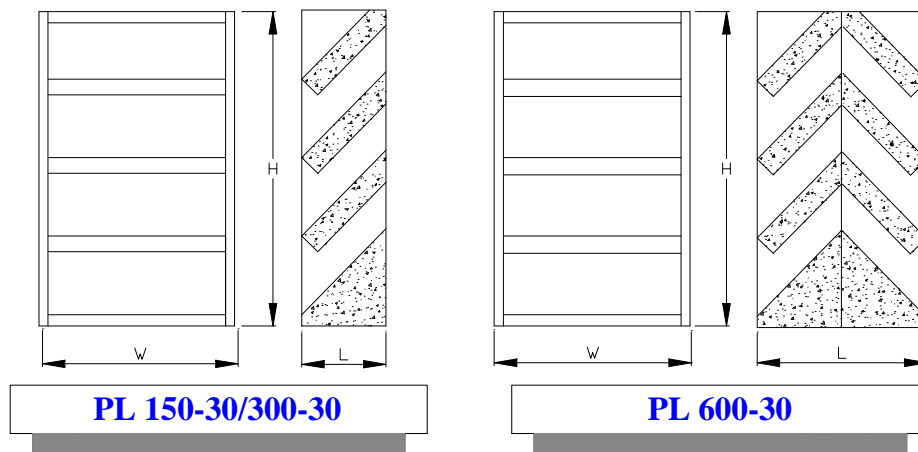
LOUVRE HEIGHT	600	900	1200	1500	1800	2100
MULTIPLY (P. D.) BY:	1.96	1.14	1	0.83	0.77	0.77

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PL-30 ACOUSTIC LOUVRE

- Design flexibility
- Continuous line option
- Robust construction
- Nacokleen Strata™
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acoustic media retained
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configuration
- Ease of installation
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technical support available
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STANDARD DIMENSIONS						
LOUVRE MODEL	DEPTH (L)	HEIGHT (H)	MIN. HEIGHT	WIDTH (W)	MIN. WIDTH	Kg / m ²
PL_ 150-30	150	MULTIPLES OF 150	300	TO SUIT APPLICATION	300	40
PL_ 300-30	300	MULTIPLES OF 300	600	TO SUIT APPLICATION	300	55
PL_ 600-30	600	MULTIPLES OF 300	600	TO SUIT APPLICATION	300	115

Dimensions in mm.
Add 5mm to depth for bird mesh.

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**TECHNICAL DATA
MODEL: PL30**



DATA SHEET No : 40/1250/B/001E

TABLE 1. STATIC INSERTION LOSS

MODEL PL		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
150-30	SIL	5	4	6	7	12	14	15	11
300-30	SIL	6	7	10	13	20	24	18	16
600-30	SIL	8	8	13	23	30	35	30	29

TABLE 2. NOISE REDUCTION

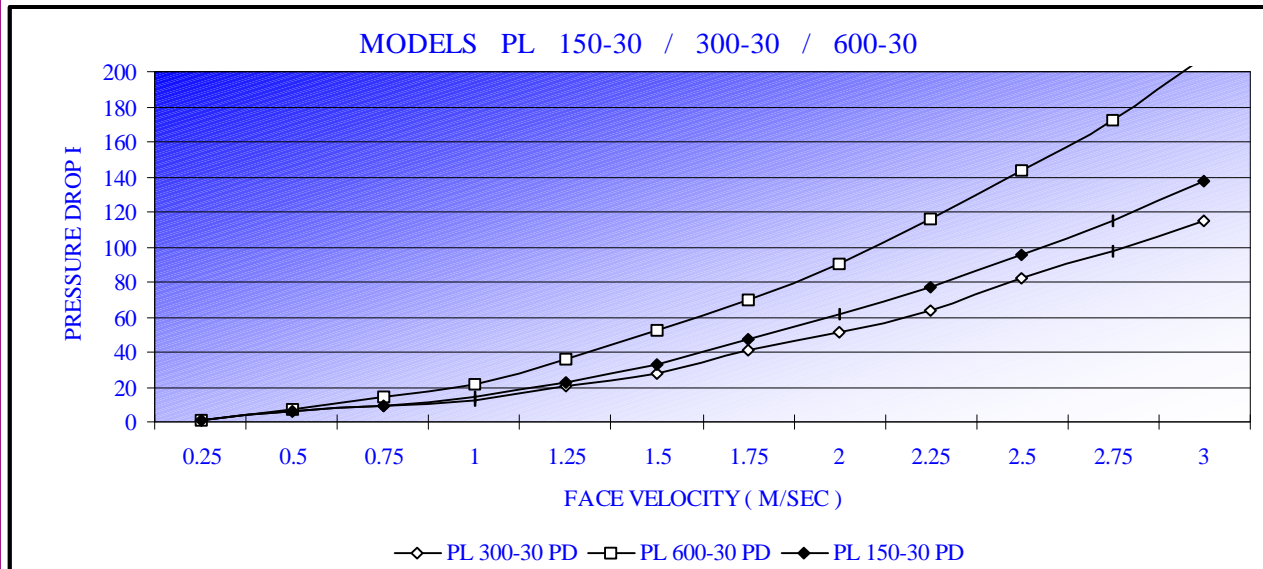
MODEL PL		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
150-300	NR	11	10	12	13	18	20	21	18
300-30	NR	12	13	16	19	26	30	24	22
600-30	NR	14	14	19	29	36	41	36	35

TABLE 3. LOUVRE SELF-NOISE. (SWL:Db RE:10⁻¹² WATTS, PER M² FACE AREA).

FACE VELOCITY		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
-1	INLET	12	12	10	8	23	-	-	-
-1.5	INLET	21	21	19	17	12	7	2	-
-2	INLET	28	28	26	24	19	15	9	4
-2.5	INLET	34	34	32	30	25	20	15	10
-3	INLET	38	38	36	34	29	24	19	14
+1	OUTLET	14	14	12	10	25	2	2	2
+1.5	OUTLET	23	23	21	19	14	9	4	2
+2	OUTLET	30	30	28	26	21	17	11	6
+2.5	OUTLET	36	36	34	32	27	22	17	12
+3	OUTLET	40	40	38	36	31	26	21	16

CORRECTION FOR FACE AREA - 10*log (Area)

AREA	0.25	0.5	1	2	4	6	8	12	m ²
CORRECTION	-6	-3	0	3	6	8	9	11	dB



PRESSURE DROP CHART CORRECTION FACTORS FOR HEIGHT. (PL30).

E&EO

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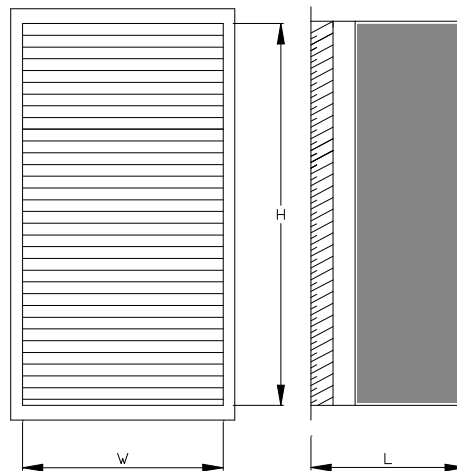
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AL425-80/725-80/1025-80

STANDARD DIMENSIONS

LOUVRE MODEL	DEPTH (L)	HEIGHT (H)	MIN. HEIGHT	WIDTH (W)	MIN. WIDTH	Kg / m ²
AL_ 425-80	425	MULTIPLES OF 150	300	TO SUIT APPLICATION	300	48
AL_ 725-80	725	MULTIPLES OF 300	300	TO SUIT APPLICATION	300	84
AL_ 1025-80	1025	MULTIPLES OF 300	300	TO SUIT APPLICATION	300	120

Dimensions in mm.
Add 5mm to depth for bird mesh.

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TABLE 1. STATIC INSERTION LOSS

MODEL AL		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
425-80	SIL	6	7	9	14	20	18	16	15
725-80	SIL	8	10	14	23	38	37	33	22
1025-80	SIL	9	13	22	35	45	45	36	30

TABLE 2. NOISE REDUCTION

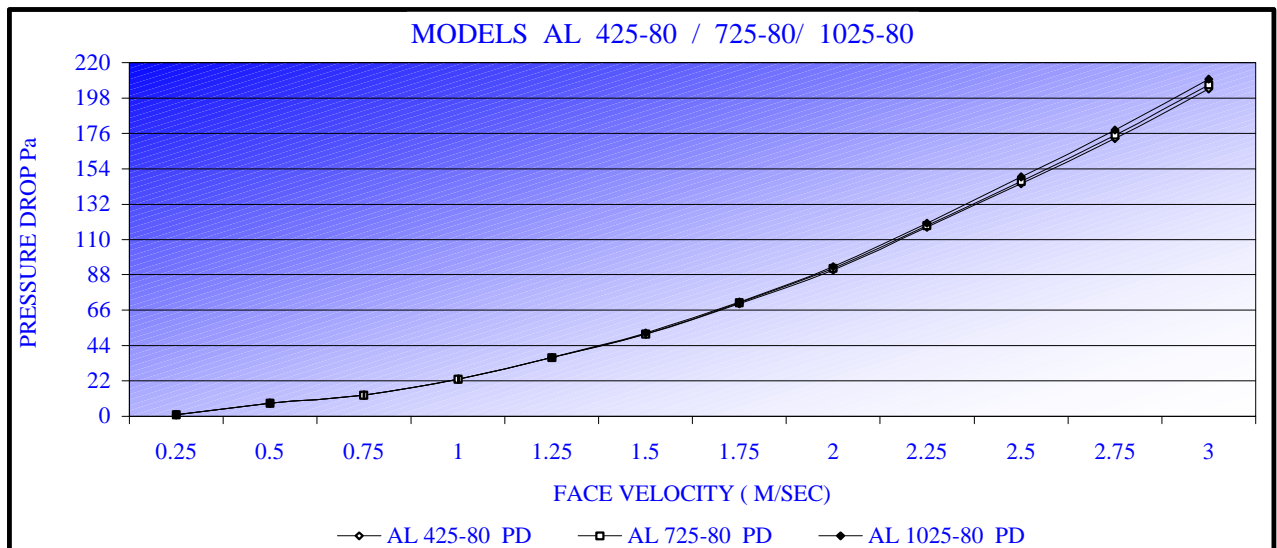
MODEL AL		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
425-80	NR	12	13	15	20	26	24	22	21
725-80	NR	14	16	20	29	44	43	39	28
1025-80	NR	15	19	28	41	51	51	42	36

TABLE 3. LOUVRE SELF-NOISE. (SWL:Db RE:10⁻¹² WATTS, PER M² FACE AREA).

FACE VELOCITY		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
-1	INLET	26	26	24	22	17	12	7	2
-1.5	INLET	36	36	34	32	27	22	17	12
-2	INLET	43	43	41	39	34	29	24	19
-2.5	INLET	48	48	46	44	39	34	29	24
-3	INLET	53	53	51	49	44	39	34	29
+1	OUTLET	29	29	27	25	20	15	10	5
+1.5	OUTLET	39	39	37	35	30	25	20	15
+2	OUTLET	46	46	44	42	37	32	27	22
+2.5	OUTLET	51	51	49	47	42	39	32	27
+3	OUTLET	56	56	54	52	47	42	37	32

CORRECTION FOR FACE AREA - 10*log (Area)

AREA	0.25	0.5	1	2	4	6	8	12	m ²
CORRECTION	-6	-3	0	3	6	8	9	11	dB



PRESSURE DROP CHART CORRECTION FACTORS FOR HEIGHT. (AL80).

LOUVRE HEIGHT	600	900	1200	1500	1800	2100
MULTIPLY (P. D.) BY:	1.24	1.04	1	1	0.98	0.98

E&EO

