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VOLTA EGYPT

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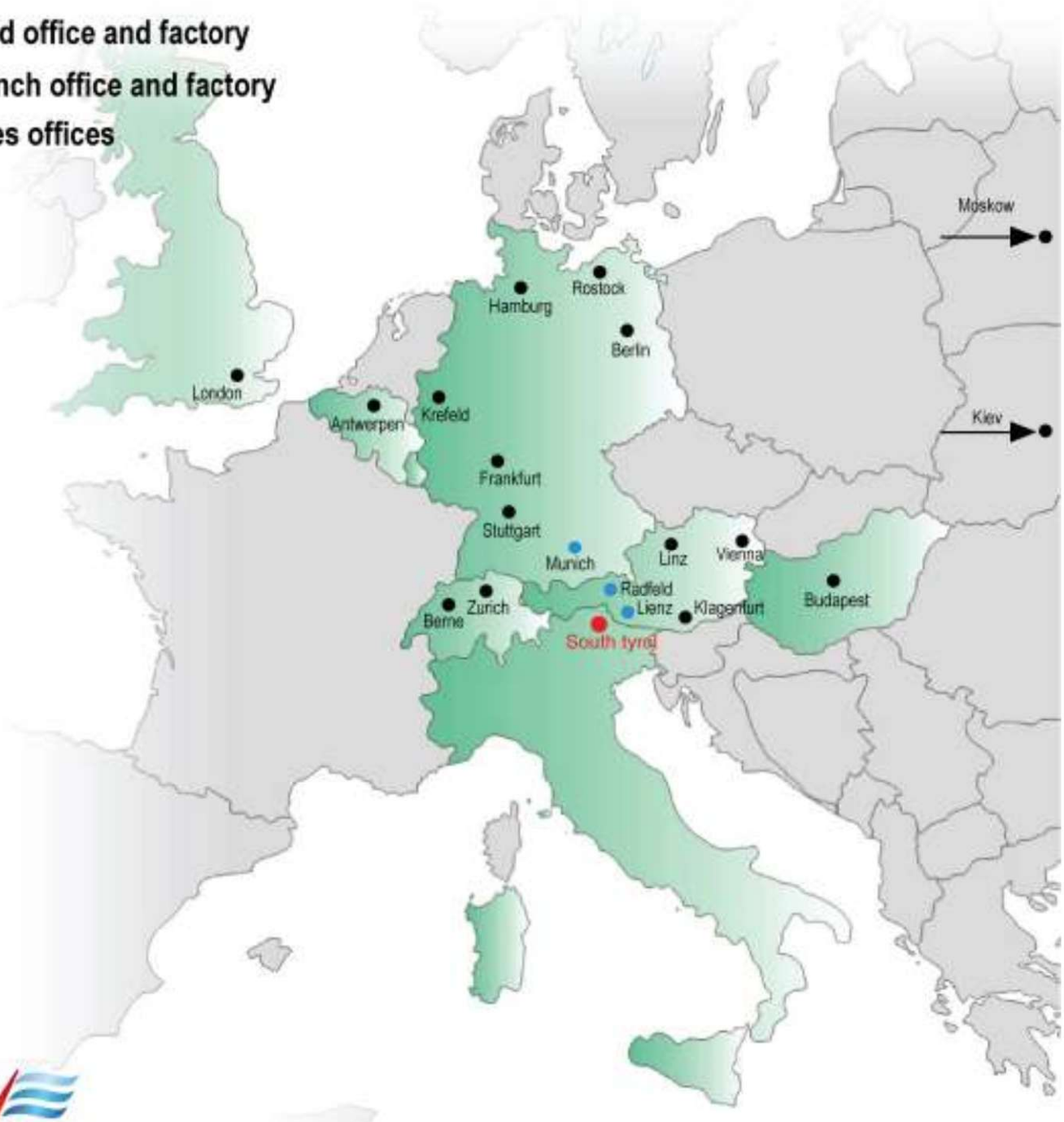
VOLTA EGYPT

WEGER

- Head office and factory
- Branch office and factory
- Sales offices



VOLTA EGYPT

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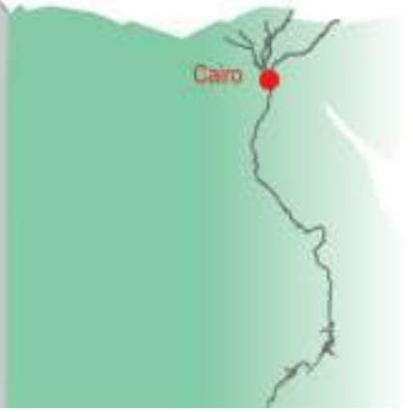

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VOLTA EGYPT

About us

VOLTA Egypt is a new company initiated by a group of highly experienced and very well known experts in the HVAC field.
It is specialized in the manufacturing of various "Air Side" products. The company's strategy is to bring the experience of well known manufacturers all around the world in the assembly and manufacturing of different components.
The company's production started in 1/1/2010 with "Air Handling Units" licensed from "WEGER Italy
(www.weger.it) founded in 1977 by Mr. Walter Weger.

VOLTA's goal is to insure that its product is built under the latest codes and standards' requirements. It is the first company to introduce the energy classification code of the Air handling units in its selection to the Egyptian market as well as the thermal break construction.

Our mission is building a highly appreciated product under well engineered designs with the most appropriate procedures and under
high quality assurance according to the latest standards. Improvingour employees' knowledge, understanding and level is the way by which we maintain our quality and try to prove ourselves as an admirable manufacturer.

About us

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Tenderspecification -DIWER

Housing

Double-skin Air Handling Units with modular construction for air conditioning and ventilation, with either horizontal or vertical mounting. The completely demountable casing contains no welded joints or screw fixings and has a completely smooth finishs.

Each casing module consists of a rigid frame housing double skin insulated panels which, make each module suitable for horizontal or vertical mounting.

The support frame is fabricated from an extruded anodised aluminium profile which, contains a rubber gasket, to ensure correct air sealing of the sections, connected with cast aluminium corner units and secured with the use of a single screw in each corner post, making it easy for dismanteling at the point of installation if required.

The wall, floor and roof panels are made of a double skin construction with galvanized sheet metal on the inside and outside which contains 40 mm mineral wool insulation. A range of finishes to both inner and out skin is also available, that includes Plastisol colour coating, aluminium or stainless steel.

The standard insulation is non flamable and conforms to the classification A1 according to DIN 4102. If required the panels can be insulated with rigid Polyurethane foam, fire class B2.

The panel edges have a 90 degree rebate to ensure an airtight seal to the main frame and are held in place by special push fit aluminium strips which slot into grooves in the main support frame. No rivets or screws are necessary to hold in place the panels.

The special and airtight construction method allows for absolutely smooth walls inside the AHU.
The service access doors are made in a similar construction to the panels and locking handles and adjustable sturdy hinges to ensure an airthight door seal over the whole life span of the AHU.

Panels which have to be completely removed for service access are held by key operated lugs on the outer casing complete with lifting handles. Doors on larger units have handles for opening also on the inside.

Doors of the AHU modules which are under positive pressure have an additional catch system to prevent accidental opening while in operation (option) .

All AHU's can be suppleid with a galvanized steel base frame if requested. The individual AHU modules can be connected with each other simply by using the supplied sealing strip connection bracket and screws.

Technical data WEGER standard casing construction

frame thickness	*2 mm*
sheet material thickness in./ex.	*1,0/1,0 mm*
panel thickness	*40 mm*
insulation density	*50 kg/m³*
mechanical stability	class 2A
casing thightness	class B
heat transfer coefficient casing	class T4 / *T3
thermal bridge factor casing	Klasse TB4 / *TB3
sound insertion consant accor. EN 1886-1998	33dB(A)
max. Pressure difference suction/ blowing	*3200 Pa*
max. temperature load of casing	*110 °C*

* in case of use of profiles with thermal break
* in case of [plyurethane injected panels the thichness of sheet metl in/ex 0.6/0.6 mm

Tenderspecification -DIWER

Fan Section

High performance DIDW centrifugal fan with either forward or backward curved blades. The casing is made of galvanized sheet steel with aerodinamically formed inlet openings.

Depending on the fan size, the rotor is either made of galvanized steel or durable polyamide. The rotor is statically and dynamically balanced according to Q 6.3 as specified on VDI 2060.

We use special low noise bearings which have an operating life span of at least 40.000 hours (L10h according to DIN ISO 28-1).

accesoires:

* spring isolators
* inlet opening protection
* inspection opening
* condensate drain opening
* epoxy coated fan
* relubrificable bearings
* shaft protection
* shaft in stainless steel
* PTC
* motor isolator switch with wiring
* belt guard

The fan and motor unit is mounted on a common base frame which is made of steel profiles.

The base frame is fitted with vibration mounts (rubber or spring isolators) and a flexible coupling is fitted between the fan outlet and the unit casing. The whole frame is designed to minimize any transmission of vibration between the fan and the unit casing.

The electric motor is mounted onto an adjustable belt tensioning base which has sliging rails and a central adjusting screw.

The electric motors are of the totaly enclosed type, form B3, insulation class F, protection IP 55. The motor can be single speed, double speed, triple speed or stepless regulable with inverter.

Belt drive with antistatic belt and cast iron pulleys with taper lock.

Tenderspecification -DIWER

Heat exchanger: Heating coil

High quality heat exchanger manufactured with frame made of galvanized sheet metal, seamless cupper tubes mechanically expanded into fins made of aluminium (if requested, other material can be used), to provide maximum thermal transmission.. The heat exchanger are pressure tested to 30 bar. Coil easily removable on guide rails. The header connection are threaded and an air tight rubber seal is provided where the pipes pass through the unit casing sealed with rubber grommet.

Optional coil types in the following executions:

Cu/Al, Cu/Cu, Cu/Al coated,
Cu/Cu tinned, Fe/Al, galvanized steel and stainless steel

Heat exchanger: Cooling coil

High quality heat exchanger manufactured with frame made of galvanized sheet metal, seamless cupper tubes mechanically expanded into fins made of aluminium (if requested, other material can be used), to provide maximum thermal transmission.. The heat exchanger are pressure tested to 30 bar . Coil easily removable on guide rails. The header connection are threaded and an air tight rubber seal is provided where the pipes pass through the unit casing sealed with rubber grommet. The heat exchanger is placed into a drain pan with drain connection on service side made of galvanized sheet or stainless steel. Optional downstream of the cooler moisture eliminators are available with a number of alternative constructions. The heat exchanger and eliminator section can be easily withdrawn for servicing from the Air Handling Unit, through service panels and guide rails.

accesoires:
* flanges with optional counterflange
* air vent and drain valves
* frost protection thermostat
* galvanized or stainless steel guide rails
* removable stainless steel drain trays

accesoires:
* flanges with optional counterflanges
* air vent and drain valves
* galvanized or stainless steel guide rails
* removable stainless steel drain trays
* droplet eliminator

Sand trap louvre

The sand trap louvre has the ability for separation of sand and large dust particles in areas exposed to extreme levels of dust concentration. It is used to protect the other filters in the system against the coarse sized dust particles in the severe dusty weathers and in the seasons of sand storms. It is self-cleaning and maintenance-free because of the vertically arranged U-shaped profiles and sand drainage holes.

Tenderspecification -DIWER

Flat Filter Section

Filter medium up to G4 is mounted on carrier frames in the filter cells can be withdrawn from the service side of the AHU by guide rails and removable or hinged access door

accesoires:
* differential pressure connection
* inclined tube manometer
* manometer with electrical contact
* differential pressure switch
* Dwyer Magnehelic 2000

Bag Filter Section

The filter cells are equiped with high quality bag type filters up to F9 The bag filters are hold in place by frames made of galvanized steel or stainless steel and are secured with quick release spring clips compling with DIN 1946 specifications.The filter cells can be either front (dirty side) or side withdrawal.

Options:Grease filter (metal mesh), Hepa filters, Active carbon filters, Stainless steel frames, Inspection window and light fitting

accessoires:
* differential pressure connection
* inclined tube manometer
* manometer with electrical contact
* differential pressure switch
* Dwyer Magnehelic 2000

Sound Attenuator Section

Constructed with 200 mm wide splitter having a high sound absorption performance and suitable for air speed upto 20 m/sec as standard.

The attenuator are constructed from galvanized sheet stel utalising mineral wool accustic insulation.

Flow adapted attenuator frames as well as resonance covering sheets made of galvanized metal sheet, stainless steel sheet or coated sheet.

Unit section lengths available between 500 and 2000 mm.

Optional available aerofoil splitters or C04 Hospital specification with Melinex linning or with special insulation and retaining specifications.

Multi Leaf Damper Section

Opposed blade type with aerodinamically shaped damper blades made of extruded aluminium profiles with tip seal, mounted in a frame made of extruded aluminium profiles with 30 mm flange. Blade acting with plastic gear wheels housed inside the hollow frame profile. The plastic gear wheels are protected against dirt and dust carried by the air stream inside the damper, and also protecteted against dirt or mechanical damage from outside.

Options:

Air tight damper to class 3 To Din - EN 1751

Anodized aluminium finish for added protection against corrosion

Tenderspecification -DIWER

Inlet and/or Outlet Plenums

Plenum for the inlet or outlet of the air with opening at the front, on top, bottom or on the side of the Air Handling Unit. Possible accessoires can be dampers, flexable canvas, weather proof louvre, hoods or utilized as access section.

accessoires:
* actuator
* damper hand fixinig device

Single Mixing Box

Mixing box with two internal or external dampers placed as requested for regulating fresh- and recirculating air quantity. Each opening can be complete with flexible canvas.
the dampers can be connected for opposite acting with one damper acting motor..

accessoires:
* actuator
* damper hand fixinig device
* flexible canvas
* weather resistant louvre

Double mixing box

Mixing box with three internal or external dampers placed as requested for regulating fresh- and recirculating air quantity. Each opening can be complete with flexible canvas. The dampers can be connected for opposite acting with one damper acting motor..

accessoires:
* actuator
* damper hand fixinig device
* flexible canvas
* weather louvre

Diffuser Section

A diffuser plate is installed after the fan outlet in order to provide a more efficienct distribution of discharge air, before entering filter, coils or other sections installed on the discharge side of the fan and partially recovery of the dynamic pressure drop of the fan.

Weatherproof Louvre/Hoods

Weatherproof louvre manufactured with special aluminium profiles with an integrated bird mesh screen in galvanized or stainless steel. The weather louvre/hoods are available for inlet or exhaust air applications.

Gravity shutter

for use in the intake and discharge opening in the air handling units. Blades are held in open position during operation by the effect of the air flow.
When the system is switched of, the blades close automatically and the shutter works as a non return damper.

Flexible Canvas

Flexible couplings complete with frame constructed from galvnized steel. Coupling available with either 20 or 30 mm flange width and lengths of 105, 150 or 200 mm for vibration uncoupling and length calibration ± 25 mm. The canvas is made of plastic coated fibre for maximum air thightness.

Options:

* insulated couplings
* heat resistance couplings for operation upto 250°C

The WEGER Air Handling Untits are tested in accordance with the specifications EN 1886-1998 and RAL - GZ 652. Alternative specifications available for Clean Room, Food and Hospital application.

Casing Structure

Certificates

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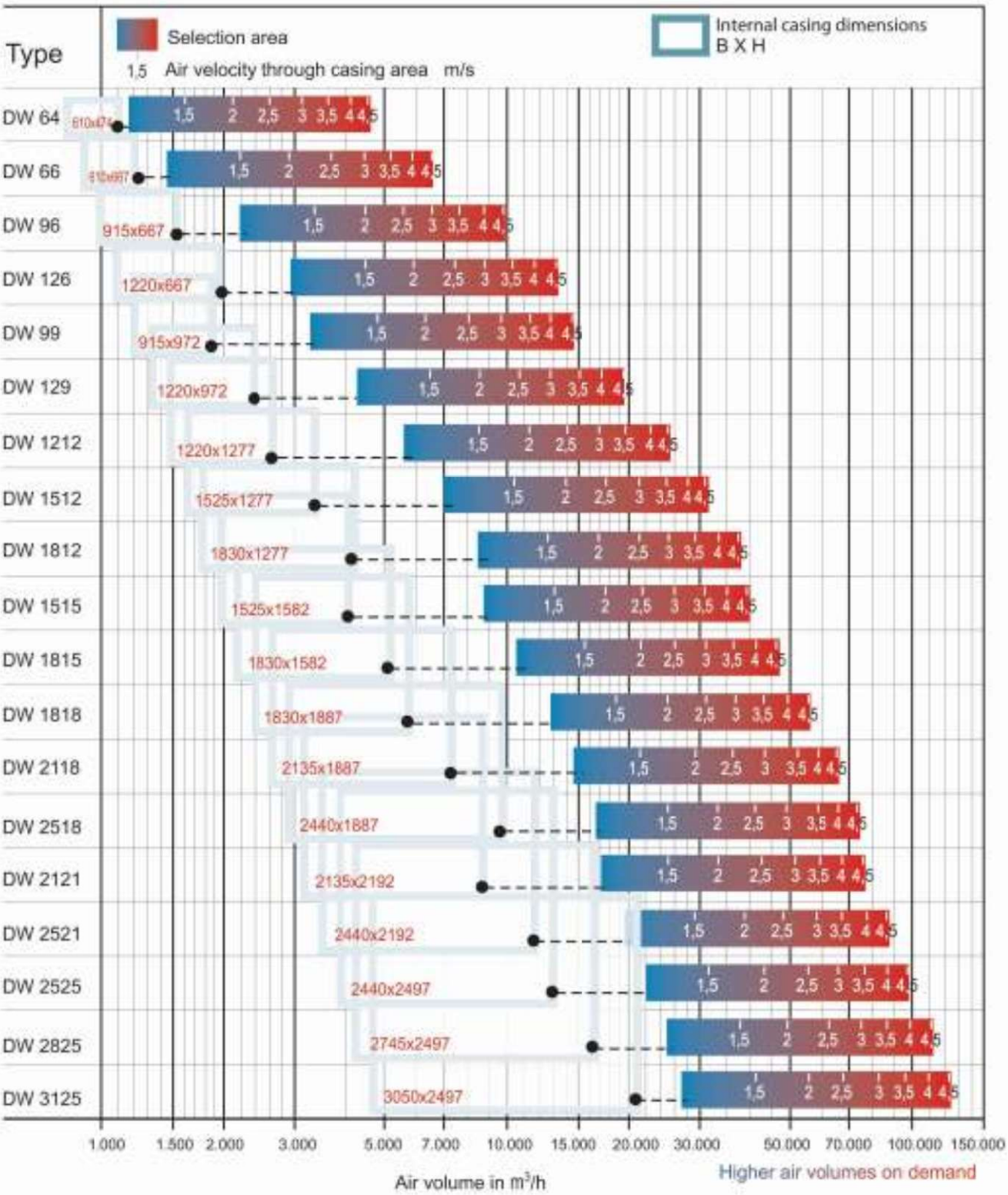
Basic Selection data for diwer 46 - 3125



- Now units upto unit size Dw 5026 (120 000 m^3 / Hr) are in standard sizes, please call sales office for details.
- Larger unit are available on request .

ITEM	Model	INTERNAL Dim.		AIR FLOW AT DIFFERENT COIL FACE VELOCITIES m³/hr				
		W (mm)	H (mm)	2.00 m/s	2.25 m/s	2.50 m/s	2.75 m/s	3.00 m/s
1	64	610	475	1090	1230	1370	1500	1640
2	66	610	667	1600	1800	2000	2200	2400
3	96	915	667	2780	3130	3480	3830	4170
4	126	1220	667	3970	4470	4960	5460	5950
5	99	915	972	4330	4870	5410	5950	6490
6	129	1220	972	6080	6840	7600	8360	9120
7	1212	1220	1277	8250	9290	10320	11350	12380
8	1512	1525	1277	10680	12010	13340	14680	16010
9	1812	1830	1277	13140	14780	16420	18060	19700
10	1515	1525	1582	13480	15170	16850	18540	20220
11	1815	1830	1582	16590	18670	20740	22810	24890
12	1818	1830	1887	20050	22560	25060	27570	30070
13	2118	2135	1887	23620	26570	29520	32480	35430
14	2518	2440	1887	27440	30870	34300	37730	41160
15	2121	2135	2192	27690	31150	34610	38070	41540
16	2521	2440	2192	32170	36190	40210	44230	48260
17	2525	2440	2497	36900	41510	46130	50740	55350
18	2825	2825	2497	43390	48810	54230	59660	65080
19	3125	3130	2497	48110	54120	60130	66140	72160
20	3826	3740	2514	55600	62550	69500	76450	83400
21	4126	4045	2514	60660	68240	75820	83400	90980
22	4426	4350	2514	65710	73930	82140	90350	98570
23	4726	4655	2514	70770	79610	88460	97300	106150
24	5026	4960	2514	75820	85300	94770	104250	113730

Selection example

Demanded equipment data:
Air volume 20000 m^3/h
Ext. pressure: 250 Pa.

Consisting of (component length in air direction)
- -Inlet suction section with damper.
- -Panel filter
- -Cooling coil CHW 6/12° C with air temperature in: 27° C and 50%, Air temperature out: 14 0C.
- -Fan with backward curved blades.

Max. Air velocity on coil face area: 2.5 m/s.

Step 1:

Look at the table for the air capacity of 20000 m^3/h and coil face velocity 2.5 m/s until a unit size will be found: DIWER 1815 is selected.

Go to the selection diagram with the air capacity of 20000 m^3/h and DIWER 1815 and get the inside air velocity 1.85 m/s.

Step 2:
A) Select from table" DIWER 1815 heat exchanger" appropriate cooling coil: 6 RR.
B) Total pressure for fan computation pressure drop inside the unit from table "DIWER 1815 pressure drops"

250 Pa.external
19 Pa.inlet suction section
76 Pa.panel filter
110 Pa.cooling coils 6 RR
19 Pa.fan section

474 Pa.total pressure in addition to dynamic pressure loss of the fan

C) Fan selection:
In the unit DIWER 1815 the following fans can be mounted: 500,560, 630, and 710.
Select favorable fan from the diagram.

At 20000 m^3/h and 474 Pa, the suitable best fan size is 560.
Dynamic pressure approximate: 70 Pa, total pressure therefore 474 + 70 = 544 Pa.
Operating point of the fan:
Air volume: 20000 m^3/h
Total pressure: 544 Pa
Efficiency: 69%
Power requirement: 4.3 +20% security reserve (friction loss of belt) =5.16 Kw
Select a motor with 5.5 Kw (size 132).

D) Determination of the unit length

-Inlet suction section	780mm + 48 mm
-Panel filter	152 mm
-Cooling coil 6 RR	305 mm
-Fan selection	1525 mm + 48 mm
Total length	2858 mm

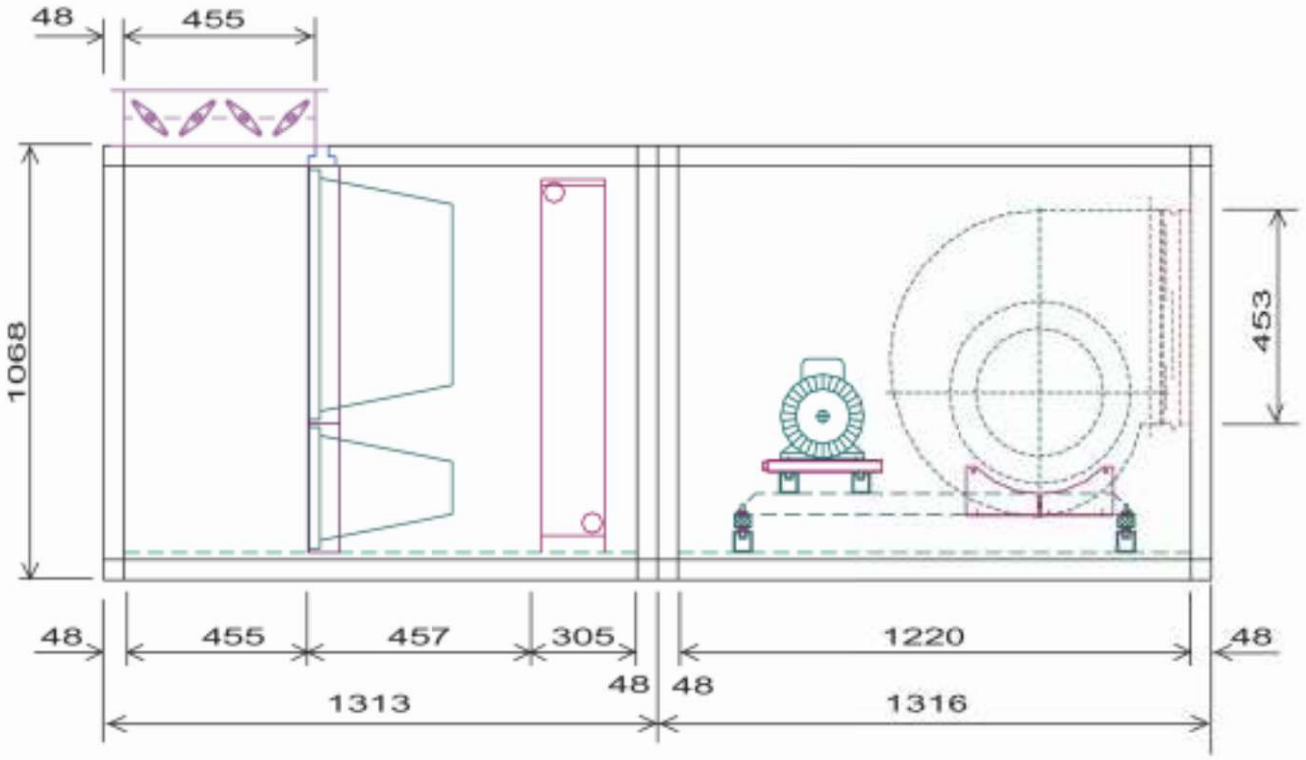
Selection example

D) Determination of the unit length

- inlet suction section	455 mm + 48mm
- bag filter	457 mm
- heating coil 4 RR	305 mm
- fan section	1220 mm + 48 mm

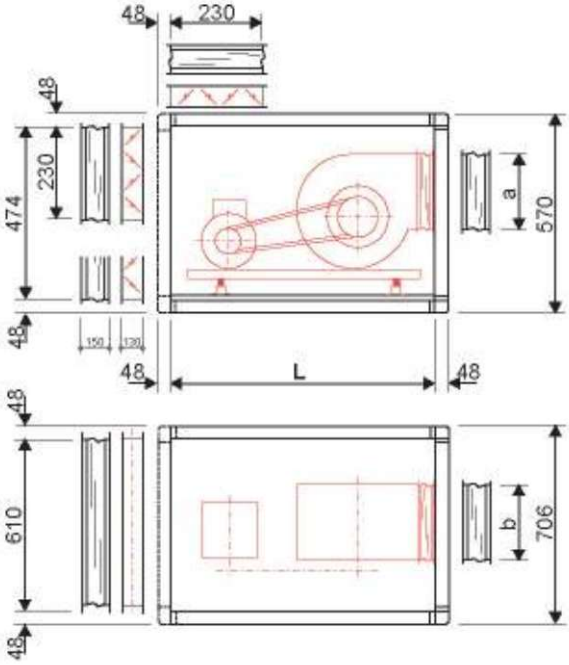
Total length	2533 mm

Due to the bringing in opening on the building site the unit must be divided once.
Best between heating coil and fan section.
Per division the unit becomes longer by 96 mm. Overall length therefore 2629 mm.

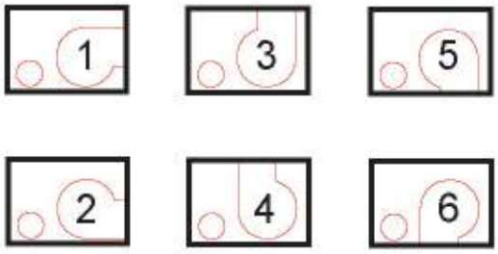


Dimensions DIWER 64

V Belt driven fan section

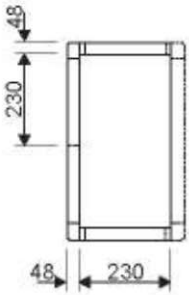


Fan outlet positions

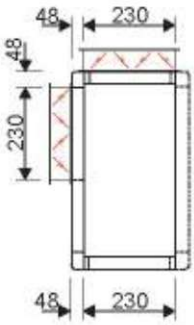


Fan type	Fan outlet	Motorsize 71-112	Motorsize 132	a/b
		Fan casing length L		
160	1-6	762		205
180	1-6	915		230
215	1-6	915		322

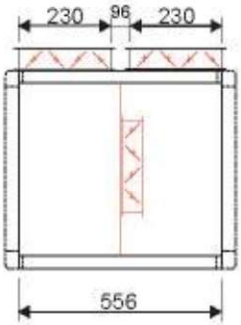
A Inlet section



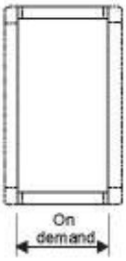
M Mixing box



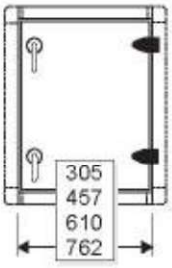
M2 Double mixing box



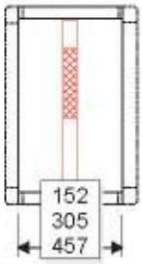
L Empty box



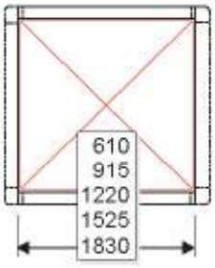
LB Empty box with door



P Diffusor section

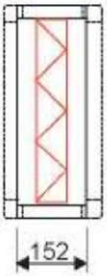


SD Sound attenuator

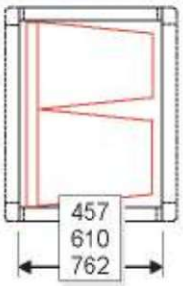


Dimensions DIWER 64

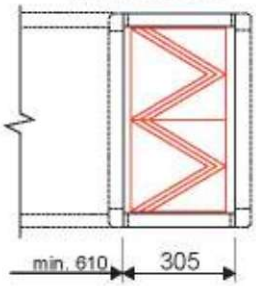
KF Panel filter section



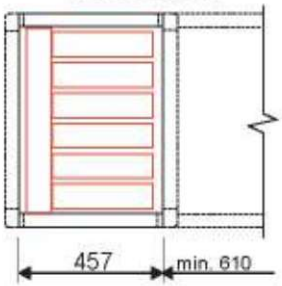
TF Bag filter section



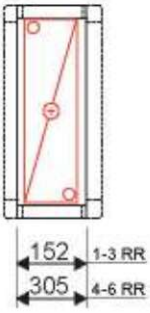
AF Absolute-filter section



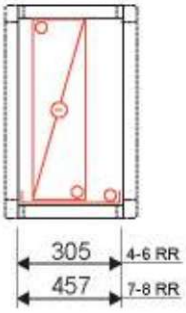
AKF Active carbon filter section



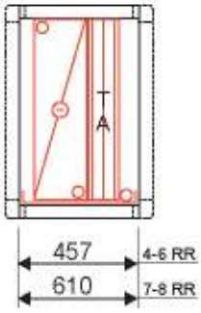
EH Heating coil



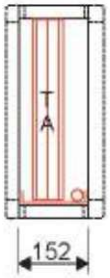
KH Cooling coil



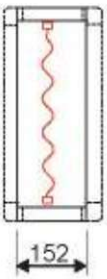
KHT Cooling coil with TA



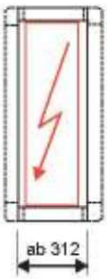
TA Droplet eliminator



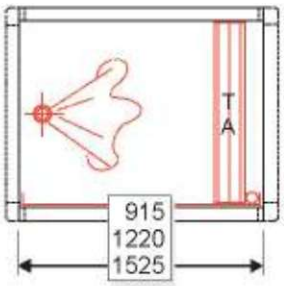
FS Anti frost frame



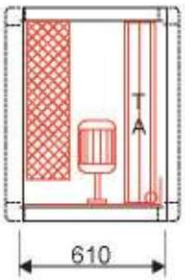
EE Electric heater



DB Steam humidifier



OB Honey comb-humidifier



Reserves of right for technical modifications. The indicated dimensions are not binding.
The flexible WEGER production permits device manufacturing "after measure".

Heat exchanger DIWER 64

Heating coil

LTHW			90/70°C						80/60°C						70/50°C						60/40°C					
v	V		inlet temperature						inlet temperature						inlet temperature						inlet temperature					
m/s	m³/h	RR	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5
1,5	1580	2	19	22	25	28	30	33	18	20	23	26	29	31	13	15	18	21	24	26	8	10	13	16	19	22
		4	47	48	50	42	53	55	40	41	43	43	46	47	32	33	35	36	38	39	24	26	27	29	30	32
1,75	1840	2	16	19	22	24	28	31	11	14	17	20	23	26	6	9	12	16	18	21	5	8	11	14	17	20
		4	40	43	44	46	47	50	36	37	39	41	42	45	28	31	32	33	35	37	22	23	24	26	28	30
2	2100	2	14	17	20	23	26	29	9	12	15	19	21	24	5	7	11	14	17	20	3	6	9	13	15	19
		4	38	39	41	43	44	47	33	35	36	38	40	42	26	28	29	31	33	36	19	20	23	24	26	28
2,25	2370	2	11	14	18	21	24	27	7	10	13	17	20	23	3	6	9	12	16	19	2	5	8	11	15	18
		4	34	37	38	40	43	44	27	30	33	34	35	37	23	25	28	29	31	33	17	19	21	23	25	27
2,5	2630	2	9	13	16	19	23	26	5	9	12	15	19	22	1	5	8	12	15	18	1	4	7	10	14	17
		4	32	35	36	38	41	43	25	28	30	32	34	37	19	21	24	25	28	30	15	17	20	21	24	26
2,75	2890	2	8	11	15	18	21	25	4	8	11	14	18	21	0	4	7	10	14	17	0	3	6	9	13	16
		4	30	32	34	36	38	41	23	25	28	30	32	35	17	19	22	24	27	29	14	16	18	20	23	25
3	3150	2	6	10	13	17	20	24	3	6	10	13	17	20	-1	3	6	10	13	17	-1	2	6	9	12	16
		4	28	30	33	35	37	40	23	24	26	29	31	34	16	18	21	23	25	28	12	15	17	20	21	24
3,25	3420	2	5	9	13	16	19	23	2	5	9	13	16	19	-1	2	5	9	13	16	-5	-1	2	6	9	13
		4	26	28	31	33	36	38	20	23	25	28	31	32	14	18	19	22	24	27	11	14	16	18	21	23
3,5	3680	2	5	8	11	15	19	22	1	5	8	12	15	19	-2	1	5	8	12	16	-5	-2	1	5	9	12
		4	24	27	29	31	34	38	18	21	24	26	29	31	13	15	18	21	23	26	11	12	15	17	20	23

Cooling coil

LTCW			6/12°C				8/14°C				R22 5°C				R22 8°C			
v	V		inlet temperature				inlet temperature				inlet temperature				inlet temperature			
m/s	m³/h	RR	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%
1,5	1580	6	16,8	91	14,8	90	17	91	16,1	89	18,1	90	15,1	89	18,9	90	16,1	89
		8	13,8	97	13,2	95	15,3	96	14,2	95	15,7	96	13,1	95	16,7	96	14,4	95
1,75	1840	6	17,4	89	15,4	89	18,8	88	16,8	97	18,4	88	15,8	88	19,8	88	16,9	87
		8	14,4	95	13,9	94	16	94	14,7	93	16,7	94	14	94	17,6	94	15,1	93
2	2100	6	18,2	87	15,9	96	19,3	86	17	86	19,9	86	16,6	86	20,6	86	17,4	86
		8	15,1	93	14,3	92	16,6	93	15,1	94	17,6	93	14,7	92	18,4	92	15,7	92
2,25	2370	6	18,7	85	16,4	94	19,9	85	17,6	94	20,6	85	17,3	84	21,1	85	17,7	84
		8	16	92	14,8	91	17,2	91	15,5	90	18,3	91	15,3	90	19,1	91	16,2	90
2,5	2630	6	19,3	84	16,7	83	20,4	83	17,9	83	21,1	83	17,7	83	21,6	83	18,3	83
		8	16,4	91	15,2	89	17,7	90	16,6	89	18,9	90	15,8	89	19,6	90	16,7	89
2,75	2890	6	19,7	83	17,2	82	20,7	82	18,3	82	21,6	82	18,1	82	22,2	82	18,8	82
		8	16,9	89	15,5	88	18,2	89	16,8	88	19,5	88	16,3	88	20,2	88	17,1	88
3	3150	6	20	82	17,5	81	21,1	81	18,6	80	22,1	81	18,5	80	22,6	81	19,1	81
		8	17,2	88	15,9	87	19,1	87	17,2	87	20,1	87	16,8	87	20,7	87	17,5	87
3,25	3420	6	20,6	80	17,6	80	21,4	80	18,7	79	22,6	80	18,9	79	23	80	19,4	80
		8	17,5	87	16,2	86	19,5	86	17,5	86	20,5	86	17,2	86	21,1	86	17,9	86
3,5	3680	6	21	79	18,7	79	21,9	79	19,1	79	23	79	19,2	79	23,3	79	19,7	79
		8	18,1	86	16,7	84	19,9	85	17,9	84	20,9	85	17,5	85	21,5	85	18,2	85

Other calculations of heating or cooling coils on request

Pressure drops DIWER 64

Pressure drops in Pa

Air velocity m/s	1,5	1,75	2	2,25	2,5	2,75	3	3,25	3,5
Air volume m³/ h	**1580**	**1840**	**2100**	**2370**	**2630**	**2890**	**3150**	**3420**	**3680**
Fan section	11	14	19	24	29	35	42	50	57
Panel filter section	79	84	90	96	103	110	107	128	130
Bag filter G 3/4	143	151	159	167	175	182	190	198	206
Bag filter F 5/6	159	166	174	182	189	198	206	215	225
Bag filter F 7/8/9	186	186	198	210	223	235	248	250	/ /
Heating coil 2 RR P2,0	51	64	80	97	114	133	152	174	195
Heating coil 4 RR P2,0	88	112	139	168	199	231	265	302	340
Electrical heater	18	24	30	37	44	52	60	69	78
Cooling coil 6 RR P2,5	143	183	226	273	323	375	430	490	551
Cooling coil 8 RR P2,5	180	228	283	341	403	468	536	611	688
Droplet eliminator	13	18	24	31	38	46	55	65	76
Air washer	31	40	50	62	75	86	100	114	129
Surface humidifier W10	19	22	25	28	32	36	40	46	52
Surface humidfier W20	25	29	33	39	45	51	59	68	79
Sound attenuator	13	18	23	29	36	43	51	60	70
Inlet plenum / empty box	10	14	19	24	29	35	42	49	57
Damper open	2	2	3	4	5	6	7	8	9
Weather louvre	12	17	22	28	35	42	50	59	6

Notes

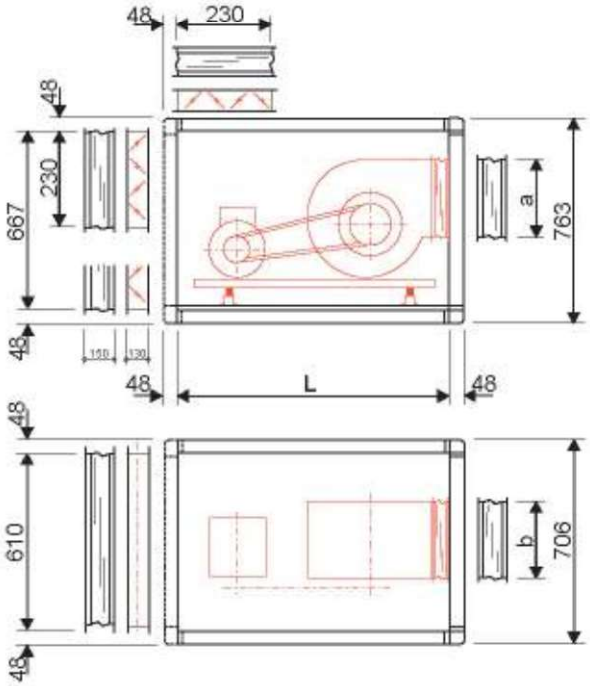
Quotation of the filter pressure drops calculated as mean value between initial and final pressure drop

Heating coil fin spacing 2,0 mm
Cooling coil fin spacing 2,5 mm
Suction section / Mixing box with damper
Damper open and weather louvre through clear cross-flow

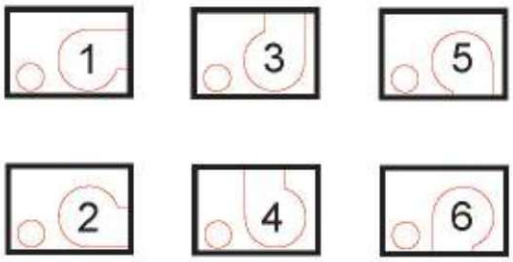
Missing pressure drops on demand

Dimensions DIWER 66

V Belt driven fan section

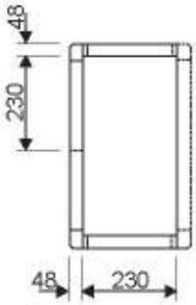


Fan outlet positions

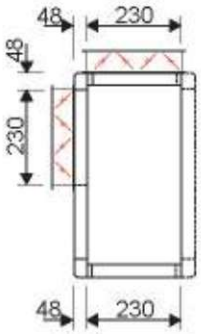


Fan type	Fan outlet	Motorsize 71-112	Motorsize 132	a/b
		Fan casing length L		
200	1-6	915		256
225	1-6	915		290
250	1-6	915		322

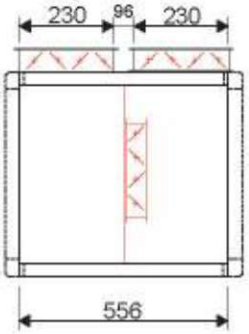
A Inlet section



M Mixing box

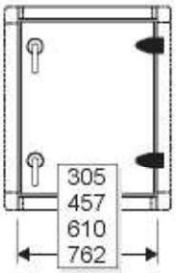


M2 Double mixing box

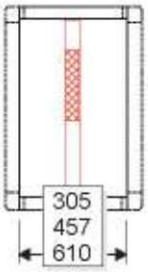


L Empty box

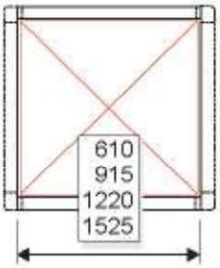
LB Empty box with door



P Diffusor section

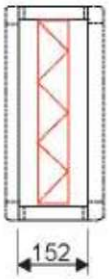


SD Sound attenuator

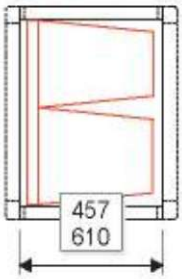


Dimensions DIWER 66

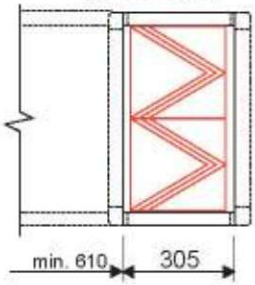
KF Panel filter section



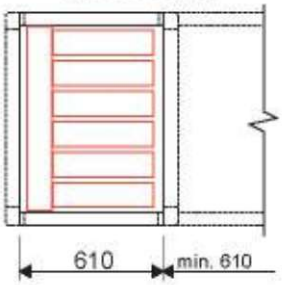
TF Bag filter section



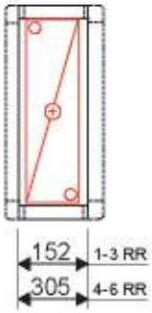
AF Absolute - filter section



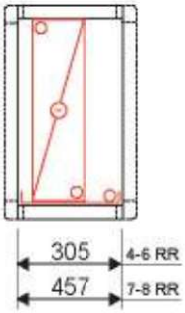
AKF Active carbon filter section



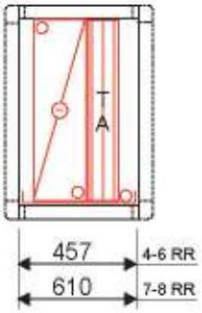
EH Heating coil



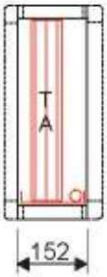
KH Cooling coil



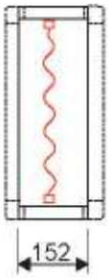
KHT Cooling coil with TA



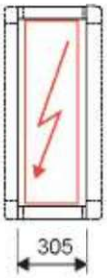
TA Droplet eliminator



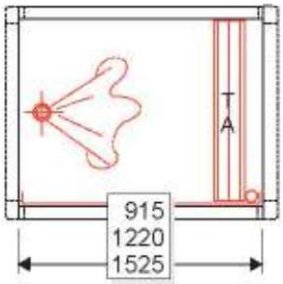
FS Anti frost frame



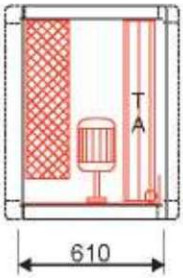
EE Electric heater



DB Steam humidifier



OB Honey comb-humidifier



Reserves of right for technical modifications . The indicated dimensions are not binding.
The flexible WEGER production permits device manufacturing "after measure".

Heat exchanger DIWER 66

Heating coil

LTHW			90/70°C						80/60°C						70/50°C						60/40°C					
v	V		inlet temperature						inlet temperature						inlet temperature						inlet temperature					
m/s	m³/h	RR	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5
1,5	2100	2	24	27	29	32	35	37	19	22	24	26	32	34	13	16	21	24	26	29	8	14	16	19	21	24
		4	50	52	53	57	57	59	43	46	47	48	50	51	36	38	39	40	42	43	29	30	31	32	34	35
1,75	2450	2	23	23	26	29	31	35	16	18	21	25	27	30	11	14	16	19	24	28	6	9	14	17	20	22
		4	46	48	49	51	54	55	39	41	42	45	47	48	32	35	37	38	39	41	26	27	29	30	32	33
2	2800	2	18	22	24	27	29	32	13	16	19	22	25	29	9	12	15	18	23	26	4	7	12	15	18	21
		4	43	45	46	48	49	51	36	38	39	41	44	46	29	30	34	36	37	39	23	25	27	29	30	32
2,25	3150	2	16	19	21	25	28	31	11	15	17	20	24	27	7	10	13	16	19	25	3	6	9	14	17	20
		4	40	42	44	46	48	49	33	35	36	38	40	44	26	28	30	34	36	37	19	23	25	27	29	31
2,5	3500	2	15	17	20	23	24	30	9	13	16	19	23	25	6	9	12	15	18	23	1	5	8	11	16	19
		4	38	39	41	43	45	47	30	33	34	36	39	43	23	26	28	31	34	36	18	19	23	25	27	29
2,75	3850	2	11	15	18	22	25	28	8	12	14	17	21	24	4	7	10	14	17	20	0	3	6	9	15	18
		4	34	37	38	41	43	45	28	30	33	35	37	39	23	24	26	28	32	34	15	17	21	24	25	28
3	4200	2	11	13	16	20	23	27	6	10	13	16	20	23	3	6	9	12	16	19	-1	2	6	9	14	19
		4	32	35	37	39	41	43	27	29	31	33	35	37	21	23	25	27	30	33	14	17	18	23	25	27
3,25	4560	2	9	12	15	19	22	26	5	9	12	15	19	22	2	5	8	12	16	18	-2	2	5	8	14	17
		4	31	32	35	37	40	42	24	27	29	31	34	36	19	21	25	25	28	32	13	15	17	21	24	26
3,5	4910	2	8	11	15	18	21	25	4	8	11	14	18	22	1	4	8	11	15	18	-3	1	4	8	11	16
		4	29	32	33	36	38	41	23	25	28	30	32	35	17	20	22	25	27	31	12	14	17	20	23	25

Cooling coil

LTCW			6/12°C				8/14°C				R22 5°C				R22 8°C			
v	V		inlet temperature				inlet temperature				inlet temperature				inlet temperature			
m/s	m³/h	RR	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%
1,5	2100	6	15,2	87	13,6	87	17,3	87	15,1	82	16,4	87	13,8	87	17,4	87	15,6	91
		8	13	94	12,1	94	14,6	94	13,4	87	13,9	94	11,7	94	15,1	94	13,8	96
1,75	2450	6	15,9	85	14,2	84	17,9	84	15,5	82	17,3	84	14,5	84	18,2	84	16,3	89
		8	13,6	92	12,5	92	15,3	92	14	83	14,9	92	12,6	92	16,1	92	14,6	95
2	2800	6	16,7	83	15,4	82	18,5	82	15,9	80	18,2	82	15,3	82	19	82	16,9	87
		8	14,3	90	13,2	90	15,9	90	14,5	84	15,7	90	13,2	90	16,7	90	15,1	93
2,25	3150	6	17,8	80	15,9	80	19,1	80	16,5	79	18,9	80	15,8	80	19,7	80	17,4	86
		8	14,9	88	13,6	88	16,5	88	14,8	83	16,5	88	13,9	88	17,5	88	15,7	92
2,5	3500	6	18,3	79	16,3	79	19,4	79	16,9	80	19,5	79	16,4	79	20,2	79	17,9	84
		8	15,5	87	14	86	16,9	86	15,3	82	17,2	86	14,4	86	18,1	86	16,2	91
2,75	3850	6	18,9	77	16,5	77	20	77	17,3	76	20,1	77	16,8	77	20,7	77	18,3	83
		8	16,4	85	14,4	85	17,2	85	15,7	82	17,7	85	14,8	85	18,6	85	16,6	89
3	4200	6	19,1	76	17	76	20,4	76	17,7	76	20,6	76	17,5	74	21,2	76	18,6	82
		8	17	84	15,3	84	17,8	84	15,9	80	18,3	84	15,3	84	19,1	84	17	88
3,25	4560	6	19,7	74	17,3	74	20,5	74	17,9	74	21,1	74	17,9	74	21,5	75	18,9	91
		8	17,3	82	15,4	82	18	82	16,3	81	18,9	82	15,8	82	19,5	82	17,4	87
3,5	4910	6	20	73	17,6	73	21	73	18	72	21,5	73	18,4	70	21,9	73	19,2	80
		8	17,7	81	15,8	81	18,4	81	16,7	77	19,2	81	16,1	81	19,9	81	17,7	86

Other calculations of heating or cooling coils on request

Pressure drops DIWER 66

Pressure drops in Pa

Air velocity in m/s	1,5	1,75	2	2,25	2,5	2,75	3	3,25	3,5
Air volume m³/h	**2100**	**2450**	**2800**	**3150**	**3504**	**3850**	**4200**	**4560**	**4910**
Fan section	11	14	19	24	29	35	42	50	47
Panel filter section	72	74	76	78	81	85	88	92	96
Bag filter G 3/4	121	124	126	129	133	136	140	145	149
Bag filter F 5/6	145	149	154	158	162	167	172	177	182
Bag filter F 7/8/9	161	169	176	184	191	199	207	215	232
Heating coil 2 RR P2,0	42	53	66	80	94	110	126	144	162
Heating coil 4 RR P2,0	73	93	115	139	164	191	220	251	282
Electrical heater	18	24	30	37	44	52	60	69	78
Cooling coil 6 RR P2,5	112	142	174	209	245	282	322	363	405
Cooling coil 8 RR P2,5	143	182	224	268	314	364	415	468	524
Droplet eliminator	13	18	24	30	38	46	55	65	76
Air washer	/	/	/	/	/	/	/	/	/
Surface humidifier W10	20	23	26	29	33	38	43	49	56
Surface humidifier W20	26	30	35	41	47	55	64	74	86
Sound attenuator	14	19	25	32	40	48	57	67	78
Inlet plenum / empty box	8	11	14	18	22	26	31	36	42
Damper open	2	2	3	4	5	6	7	8	9
Weather louvre	12	17	22	28	35	42	50	59	68

Notes

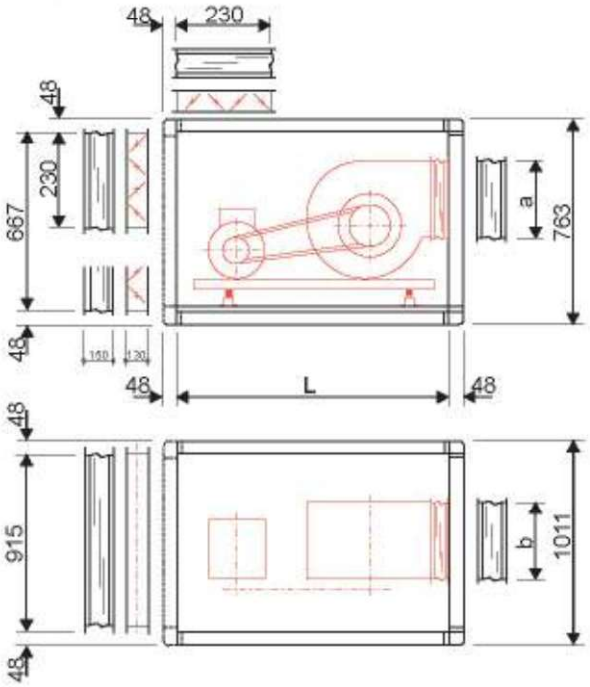
Quotation of the filter pressure drops calculated as mean value between initial and final pressure drop

Heating coil fin spacing 2,0 mm
Cooling coil fin spacing 2,5 mm
Suction section / Mixing box with damper
Damper open and weather louvre through clear cross-flow

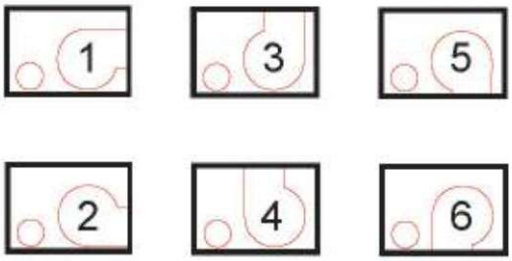
Missing pressure drops on demand

Dimensions DIWER 96

V Belt driven fan section

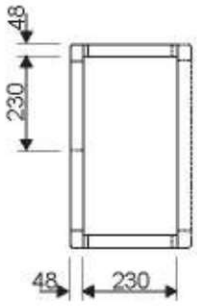


Fan outlet positions

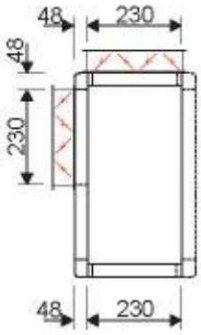


Fan type	Fan outlet	Motorsize 71-112	Motorsize 132	a/b
		Fan casing length L		
225	1-6	915		290
250	1-6	915	1220	322
280	1-6	915	1220	361

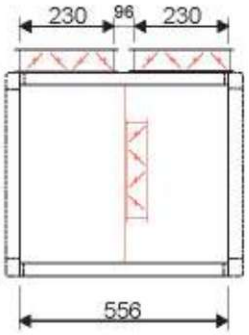
A Inlet section



M Mixing box

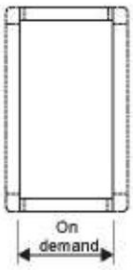


M2 Double mixing box

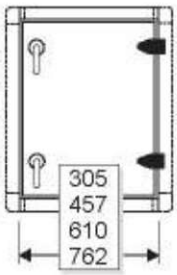


On request dampers of inlet and mixing plenum
with dimensions
340 or 455 mm instead of 230 mm (Attention! Adapt respective the section length)

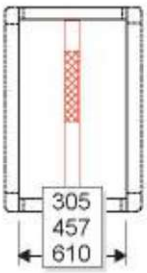
L Empty box



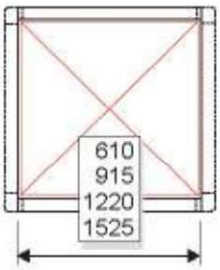
LB Empty box with door



P Diffusor section

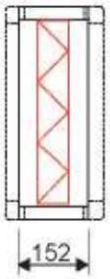


SD Sound attenuator

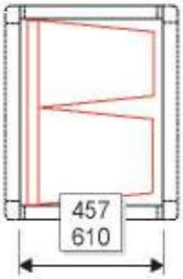


Dimensions DIWER 96

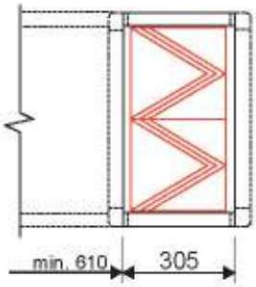
KF Panel filter section



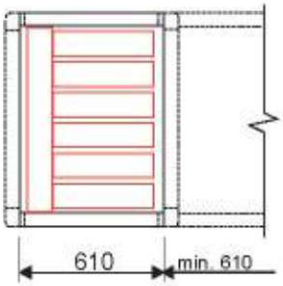
TF Bag filter section



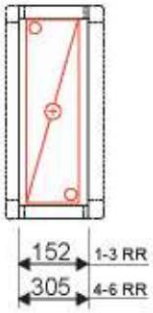
AF Absolute - filter section



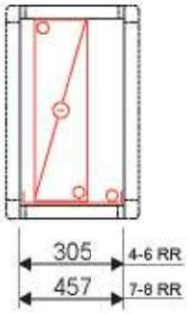
AKF Active carbon filter section



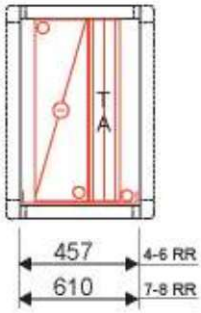
EH Heating coil



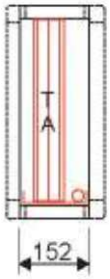
KH Cooling coil



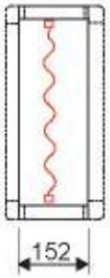
KHT Cooling coil with TA



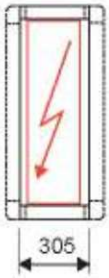
TA Droplet eliminator



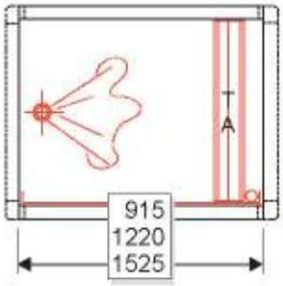
FS Anti frost frame



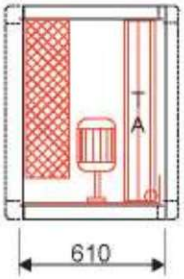
EE Electrical heater



DB Steam humidifier



OB Honey comb-humidifier



Reserves of right for technical modifications. The indicated dimensions are not binding.
The flexible WEGER production permits device manufacturing "after measure".

Heat exchanger DIWER 96

Heating coil

LTHW			90/70°C						80/60°C						70/50°C						60/40°C					
v	V		inlet temperature						inlet temperature						inlet temperature						inlet temperature					
m/s	m³/h	RR	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5
1,5	3150	2	28	31	33	26	38	40	23	26	27	30	32	35	17	20	22	24	27	30	12	14	17	19	21	24
		4	53	55	58	58	60	60	47	48	50	50	52	52	39	40	42	42	43	45	31	32	33	35	35	38
1,75	3680	2	23	27	30	32	35	38	19	22	25	28	30	32	15	18	20	22	25	27	9	12	15	17	20	22
		4	50	52	52	55	56	58	42	45	46	48	49	50	36	37	39	40	41	43	28	29	31	32	33	36
2	4210	2	20	23	27	30	33	35	17	20	22	25	28	31	12	15	18	21	23	26	8	10	13	15	19	21
		4	46	48	50	51	53	55	39	41	43	45	47	48	31	35	36	38	39	41	26	27	28	30	32	33
2,25	4730	2	18	21	24	28	31	34	13	18	21	23	26	29	10	13	16	19	22	25	6	9	12	14	17	20
		4	44	45	47	48	50	52	36	38	39	42	44	46	29	31	34	35	37	39	23	25	27	28	30	31
2,5	5260	2	16	19	22	24	29	32	11	14	19	22	25	28	8	11	15	18	21	23	5	7	10	13	17	19
		4	40	43	44	46	48	50	34	36	38	40	41	45	28	29	31	33	36	37	20	23	25	27	28	31
2,75	5780	2	14	18	20	23	27	31	10	13	16	21	24	27	6	10	13	16	19	23	3	6	9	12	16	19
		4	38	40	43	44	46	48	32	34	35	38	39	43	25	27	29	32	34	36	19	21	24	26	28	29
3	6310	2	13	15	18	22	26	30	8	12	15	19	22	26	6	9	12	16	19	22	2	5	8	12	15	18
		4	35	38	40	42	44	46	30	32	34	36	38	41	24	25	28	29	33	35	17	19	22	24	27	28
3,25	6830	2	11	14	18	21	24	27	7	10	14	17	22	25	3	7	11	14	18	21	1	4	7	11	14	17
		4	33	36	38	41	43	45	28	30	33	34	37	39	23	24	26	28	32	34	15	18	21	23	26	28
3,5	7360	2	10	13	16	20	23	26	6	9	13	16	20	24	3	6	10	14	17	20	0	4	7	10	13	17
		4	32	33	39	39	41	43	25	29	31	33	35	38	21	23	25	27	30	33	15	17	19	23	24	27

Cooling coil

LTCW			6/12°C				8/14°C				R22 5°C				R22 8°C			
v	V		inlet temperature				inlet temperature				inlet temperature				inlet temperature			
m/s	m³/h	RR	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%
1,5	3150	6	14,2	89	13,1	88	15,9	89	14,7	88	15,6	89	13,9	92	16,7	88	15,1	92
		8	12	96	11,4	95	13,8	95	12,9	95	13,1	90	11,8	98	14,5	95	13,3	97
1,75	3680	6	15,1	87	13,7	86	16,5	86	15,1	82	16,6	86	14,7	90	17,6	86	15,8	90
		8	12,8	94	12	93	14,4	93	13,7	93	14,1	93	12,6	96	15,4	93	14	96
2	4210	6	16,2	84	14,7	84	17,1	84	15,5	80	17,5	84	15,5	89	18,4	84	16,4	89
		8	13,6	92	12,4	91	14,9	91	14,2	91	15,1	91	13,5	95	16,3	91	14,7	94
2,25	4730	6	16,7	82	15,1	82	8,1	82	15,9	79	18,2	82	16,1	87	19	82	16,9	87
		8	14,3	90	13,2	90	15,7	90	14,5	90	15,9	90	14,2	93	16,8	90	15,2	93
2,5	5260	6	17,3	81	15,6	80	18,5	80	16,5	76	18,9	80	16,6	86	19,7	80	17,4	86
		8	14,7	88	13,6	88	16,1	88	14,7	84	16,6	88	14,7	92	17,5	88	15,7	92
2,75	5780	6	17,8	79	15,8	79	18,9	79	17	75	19,5	79	17,1	84	20,2	79	17,9	84
		8	15,5	87	14	87	16,6	87	15,1	82	17,1	87	15,1	91	18	87	16,1	91
3	6310	6	18,1	78	16,2	77	19,3	77	17,5	70	19,9	77	174	83	20,6	77	18,2	83
		8	16	85	14,3	85	17,1	85	15,3	81	17,6	85	15,6	90	18,5	85	16,5	90
3,25	6830	6	18,9	76	16,5	76	19,7	76	17,9	69	20,4	76	17,9	82	21	76	18,5	82
		8	16,3	84	14,7	84	17,4	84	15,9	79	18,1	84	16	89	18,9	84	16,9	89
3,5	7360	6	19,2	75	16,8	75	20	75	18	67	20,8	75	18,2	81	21,4	75	18,9	81
		8	16,6	83	14,8	83	18	83	16,3	78	18,6	83	16,4	88	19,4	83	17,2	88

Other calculations of heating or cooling coils on request

Pressure drops DIWER 96

Pressure drops in Pa

Air velocity m/s	1,5	1,75	2	2,25	2,5	2,75	3	3,25	3,5
Air volume m³/h	**3150**	**3680**	**4210**	**4730**	**5260**	**5780**	**6310**	**6830**	**7360**
Fan section	11	14	19	24	29	35	42	49	57
Panel filter section	72	74	76	79	82	85	89	92	97
Bag filter G 3/4	127	132	137	142	147	152	157	162	168
Bag filter F 5/6	146	150	154	158	163	168	172	177	182
Bag filter F 7/8/9	162	169	177	185	192	200	208	216	224
Heating coil 2 RR P2,0	35	45	56	67	80	93	107	121	137
Heating coil 4 RR P2,0	61	79	97	117	139	162	186	211	238
Electrical heater	18	24	30	37	44	52	60	69	78
Cooling coil 6 RR P2,5	89	112	137	163	190	218	250	279	313
Cooling coil 8 RR P2,5	114	144	176	210	246	284	232	263	404
Droplet eliminator	13	18	24	30	38	46	55	65	76
Air washer	/	/	/	/	/	/	/	/	/
Surface humidifier W10	21	24	27	31	36	41	47	53	61
Surface humidifier W20	27	32	37	43	51	59	70	81	95
Sound attenuator	14	19	26	32	40	48	57	67	78
Inlet plenum / empty box	10	14	19	24	29	35	42	49	57
Damper open	2	2	3	4	5	6	7	8	9
Weather louvre	12	17	22	28	35	42	50	59	68

Notes

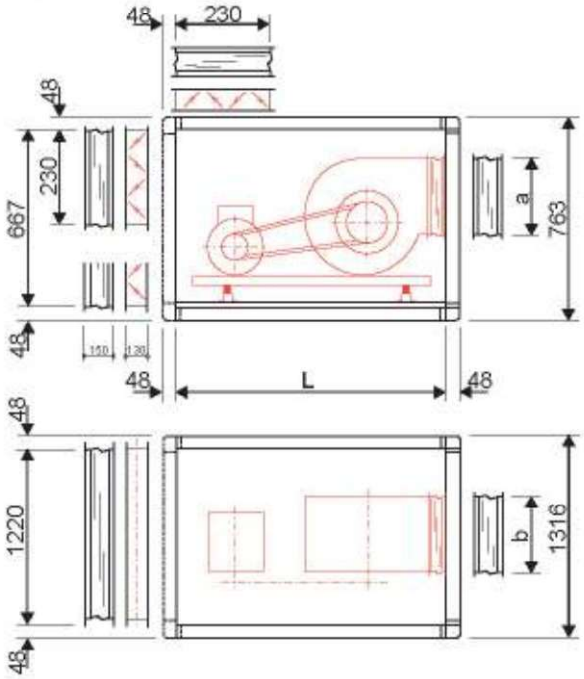
Quotation of the filter pressure drops calculated as mean value between initial and final pressure drop

Heating coil fin spacing 2,0 mm
Cooling coil fin spacing 2,5 mm
Suction section / Mixing box with damper
Damper open and weather louvre through clear cross- flow

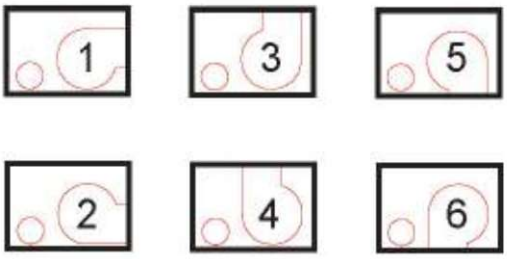
Missing pressure drops on demand

Dimensions DIWER 126

V Belt driven fan section

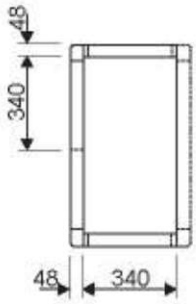


Fan outlet positions

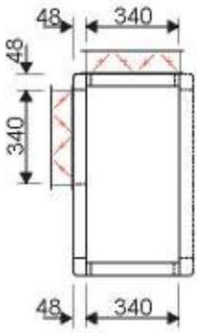


Fan type	Fan outlet	Motorsize 71-112 Fan casing length L	Motorsize 132 Fan casing length L	a/b
250	1-6	915	1220	322
280	1-6	915	1220	361
315	1-6	915	1220	404

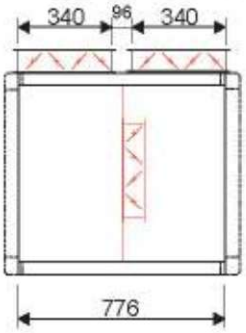
A Inlet section



M Mixing box

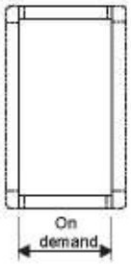


M2 Double mixing box

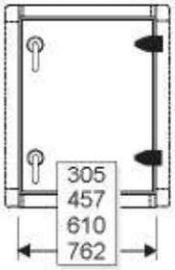


On request dampers of inlet and mixing plenum
with dimensions
455 or 570 mm indstead of 340 mm (Attention! Adapt respective the section length)

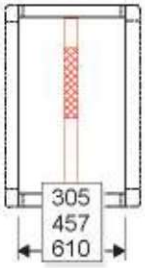
L Empty box



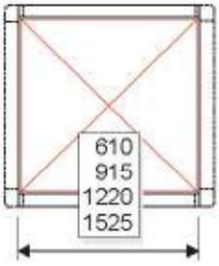
LB Empty box with door



P Diffusor section

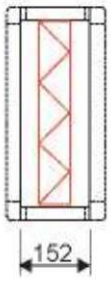


SD Sound attenuator

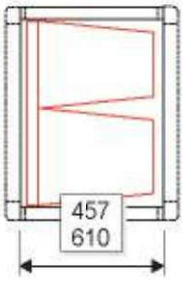


Dimensions DIWER 126

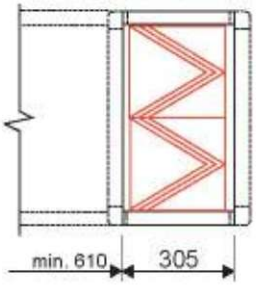
KF Panel filter section



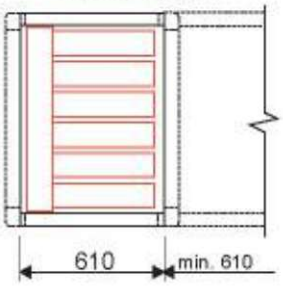
TF Bag filter section



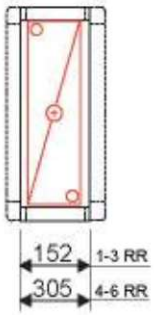
AF Absolute-filter section



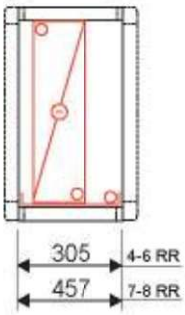
AKF Active carbon filter section



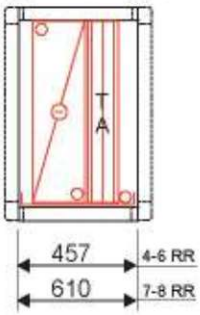
EH Heating coil



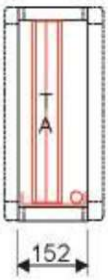
KH Cooling coil



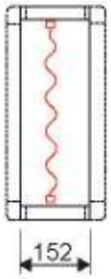
KHT Cooling toil with TA



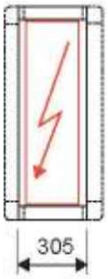
TA Droplet eliminator



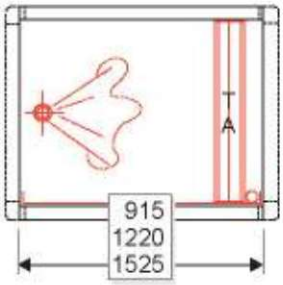
FS Anti frost frame



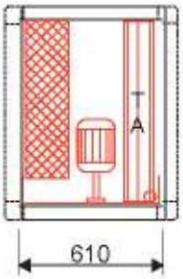
EE Electric heater



DB Steam humidifier



OB Honey comb-humidifier



Reserves of right for technical modifications. The indicated dimensions are not binding.
The flexible WEGER production permits device manufacturing "after measure".

Heat exchanger DIWER 126

Heating coil

LTHW			90/70°C						80/60°C						70/50°C						60/40°C					
v	V		inlet temperature						inlet temperature						inlet temperature						inlet temperature					
m/s	m³/h	RR	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5
1,5	4210	2	29	32	34	36	38	41	24	26	28	31	33	37	18	20	22	27	29	31	12	16	18	21	23	26
		4	56	56	59	59	61	63	49	49	51	52	53	54	40	42	42	44	46	47	32	33	34	36	37	38
1,75	4910	2	26	28	31	33	36	38	21	23	25	28	31	34	15	18	21	23	27	29	10	12	17	19	21	24
		4	52	54	55	57	58	60	49	45	47	49	50	52	37	39	40	41	43	44	30	31	32	33	35	37
2	5610	2	22	25	28	31	34	36	18	20	23	26	29	31	13	15	18	21	24	28	8	11	13	17	20	23
		4	48	50	51	53	54	57	41	43	44	46	48	49	34	36	37	39	40	41	27	29	30	31	33	35
2,25	6310	2	20	23	26	28	32	34	15	18	21	24	28	30	11	14	17	20	22	26	6	9	12	16	19	22
		4	45	47	49	51	52	53	39	40	41	43	46	47	31	32	35	37	38	40	25	26	28	29	32	34
2,5	7010	2	17	21	25	27	30	33	13	17	20	22	25	28	9	12	15	18	21	24	5	8	11	14	18	21
		4	42	44	46	48	49	52	36	37	39	41	43	45	28	31	32	35	37	38	22	25	27	28	29	31
2,75	7710	2	15	18	22	25	28	31	12	15	18	21	25	27	8	11	14	17	20	23	4	7	9	13	17	20
		4	39	42	43	46	48	50	33	35	38	40	41	43	28	29	31	33	35	37	20	22	24	26	28	30
3	8410	2	14	17	20	24	27	30	10	14	17	20	23	26	7	10	13	16	19	22	2	6	9	12	15	19
		4	38	39	41	44	46	48	31	33	35	38	39	41	25	27	29	31	34	36	19	21	23	26	27	29
3,25	9110	2	12	15	18	23	26	29	8	13	16	19	22	25	5	9	12	15	18	22	1	4	8	11	14	19
		4	35	38	39	42	44	46	29	31	34	36	38	41	24	25	28	29	32	35	18	19	22	24	27	28
3,5	9810	2	11	14	18	21	25	29	7	10	15	18	21	24	4	8	11	14	17	21	0	4	7	10	14	18
		4	33	36	38	40	43	45	28	30	31	35	37	39	21	24	26	29	31	34	16	18	20	23	26	28

Cooling coil

LTCW			6/12°C				8/14°C				R22 5°C				R22 8°C			
v	V		inlet temperature				inlet temperature				inlet temperature				inlet temperature			
m/s	m³/h	RR	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%
1,5	4210	6	13,9	90	13,1	93	15,6	89	14,9	93	15,2	89	13,5	93	16,3	89	14,7	93
		8	11,7	96	12,1	98	14,1	96	13,1	98	12,7	96	11,5	98	14,1	96	13	98
1,75	4910	6	14,8	87	13,6	91	16,2	87	15,5	91	16,2	87	14,4	91	17,2	87	15,5	91
		8	12,5	94	12,8	97	14,8	94	13,7	96	13,8	94	12,4	97	15,1	94	13,8	96
2	5610	6	15,4	85	14,1	90	17	85	15,9	89	17,1	85	15,2	89	18	85	16,1	89
		8	13,3	93	13,2	95	15,3	92	14,2	95	14,7	92	13,1	95	15,9	92	14,4	95
2,25	6310	6	16,4	83	14,9	88	17,5	83	16,3	88	17,9	83	15,8	88	18,8	83	16,7	88
		8	13,7	91	13,7	94	15,8	91	14,5	94	15,4	91	13,7	94	16,5	91	14,9	94
2,5	7010	6	16,8	82	15,3	87	18	81	16,7	86	18,6	81	16,3	86	19,3	81	17,2	86
		8	14,6	89	14	93	16,4	89	14,9	93	16,1	89	14,4	93	17,2	89	15,4	93
2,75	7710	6	17,4	80	15,7	85	18,3	80	17	85	19,2	80	16,8	85	19,8	80	17,6	85
		8	15,1	88	14,4	92	16,7	88	15,3	91	16,7	87	14,8	91	17,7	88	15,9	91
3	8410	6	17,8	79	16	84	19,1	78	17,2	84	19,7	78	17,3	84	20,4	78	18	84
		8	15,6	86	14,7	91	17,1	86	15,6	90	17,3	86	15,3	90	18,2	86	16,3	90
3,25	9110	6	18,5	77	16,4	83	19,4	77	17,7	83	20,1	77	17,6	83	20,7	77	18,3	83
		8	16,1	85	15,1	89	17,5	85	15,8	89	17,8	85	15,6	89	18,6	85	16,6	89
3,5	9810	6	18,9	76	17	82	19,8	76	17,9	82	20,5	76	18	82	21,1	76	18,6	82
		8	16,5	84	15,3	89	17,7	84	16,1	88	18,3	84	16,1	88	19	84	17	88

Other calculations of heating or cooling coils on request

Pressure drops DIWER 126

Pressure drops in Pa

Air velocity m/s	1,5	1,75	2	2,25	2,5	2,75	3	3,25	3,5
Air volume m³/h	**4210**	**4910**	**5610**	**6310**	**7010**	**7710**	**8410**	**9110**	**9810**
Fan section	11	14	19	24	29	35	42	49	57
Panel filter section	72	74	76	79	81	85	88	92	96
Bag filter G 3/4	127	132	137	142	147	152	157	162	167
Bag filter F 5/6	145	149	154	158	162	167	172	176	181
Bag filter F 7/8/9	161	169	176	184	191	199	207	215	223
Heating coil 2 RR P2,0	32	41	51	61	73	85	97	111	125
Heating coil 4 RR P2,0	56	72	89	107	127	147	169	193	217
Electrical heater	18	24	30	37	44	52	60	69	78
Cooling coil 6 RR P2,5	82	103	125	149	174	200	228	256	284
Cooling coil 8 RR P2,5	105	132	162	193	226	261	297	334	371
Droplet eliminator	13	18	24	31	38	46	55	65	76
Air washer	/	/	/	/	/	/	/	/	/
Surface humidifier W10	21	24	28	32	37	42	42	56	64
Surface humidifier W20	28	33	38	45	53	62	62	85	100
Sound attenuator	14	20	25	32	40	48	48	67	78
Inlet plenum / empty box	10	14	19	24	29	35	35	49	57
Damper open	2	2	3	4	5	6	6	8	9
Weather louvre	12	17	22	28	35	42	42	59	68

Notes

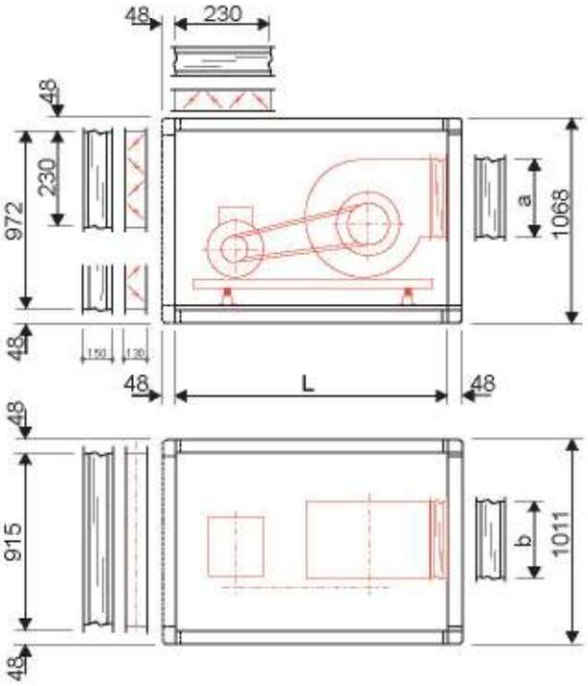
Quotation of the filter pressure drops calculated as mean value between inital and final pressure drop

Heating coil fin spacing 2,0 mm
Cooling coil fin spacing 2,5 mm
Suction section / Mixing box with damper
Damper open and weather louvre through clear cross-flow

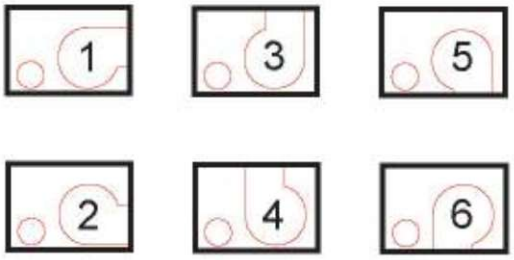
Missing pressure drops on demand

Dimensions DIWER 99

V Belt driven fan section

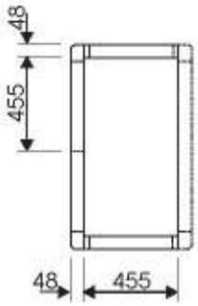


Fan outlet positions

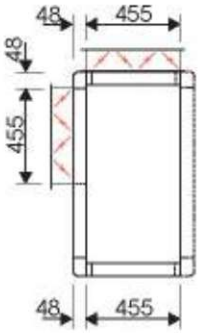


Fan type	Fan outlet	Motorsize 112	132	160	a/b
		Fan casing length L			
250	1-6	915	1220		322
280	1-6	915	1220		361
315	1-6	915	1220		404
355	1-6	1220	1220		453
400	1-6	1220	1220	1525	507

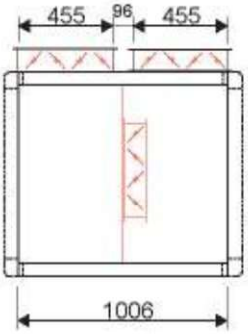
A Inlet section



M Mixing box

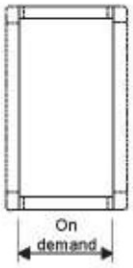


M2 Double mixing box

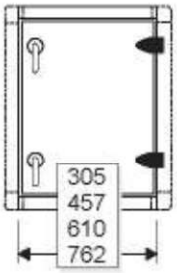


On request dampers of inlet and mixing plenum
with dimensions
570 or 680 mm instead of 455 mm (Attention! Adapt respective the section length)

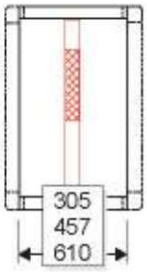
L Empty box



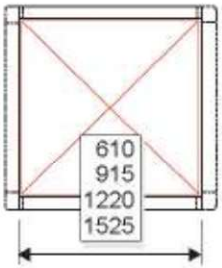
LB Empty box with door



P Diffusor section

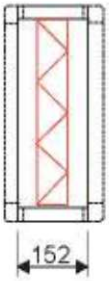


SD Sound attenuator

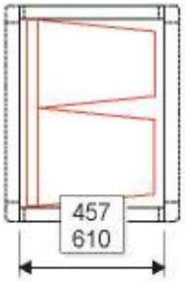


Dimensions DIWER 99

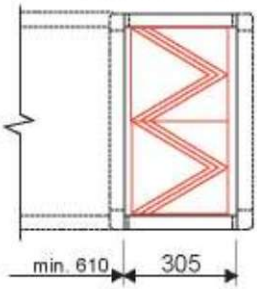
KF Panel filter section



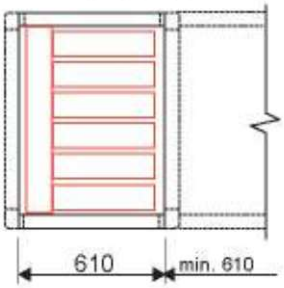
TF Bag filter section



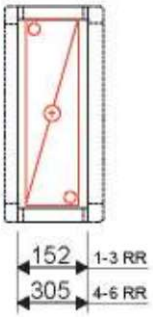
AF Absolute-filter section



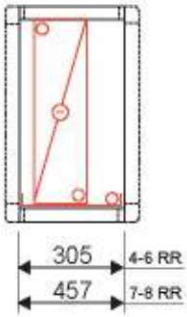
AKF Active carbon filter section



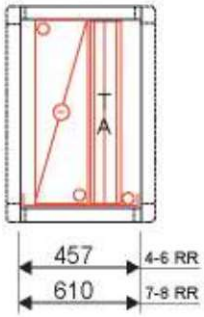
EH Heating coil



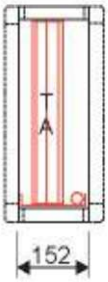
KH Cooling coil



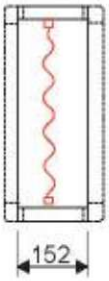
KHT Cooling coil with TA



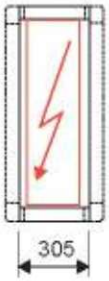
TA Droplet eliminator



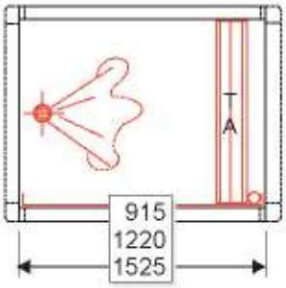
FS Anti frost frame



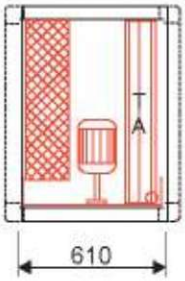
EE Electric heater



DB Steam humidifier



OB Honey comb-humidifier



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The flexible WEGER production permits device manufacturing "after measure".

Heat exchanger DIWER 99

Heating coil

LTHW			90/70°C						80/60°C						70/50°C						60/40°C					
v	V		inlet temperature						inlet temperature						inlet temperature						inlet temperature					
m/s	m³/h	RR	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5
1,5	4730	2	29	32	34	36	38	41	24	26	28	31	33	35	18	20	22	25	27	31	12	15	17	21	23	26
		4	56	56	58	59	60	62	48	48	50	52	53	54	40	40	42	44	45	46	32	34	34	35	36	38
1,75	5520	2	24	27	31	33	36	38	20	23	25	28	31	34	15	18	21	23	26	28	10	12	15	18	21	24
		4	52	53	55	55	57	58	45	45	47	48	49	52	36	38	39	41	43	44	29	31	32	33	35	36
2	6310	2	22	24	27	30	34	36	17	20	23	26	29	31	13	15	18	21	24	27	8	11	13	16	19	23
		4	47	49	51	53	54	56	40	42	44	45	47	48	34	35	37	38	40	41	2	28	30	31	33	34
2,25	7100	2	19	22	25	28	32	34	15	18	21	24	27	30	11	14	17	20	22	25	6	9	12	15	18	22
		4	45	47	48	49	51	53	37	39	41	43	45	46	30	32	34	36	38	40	24	25	27	29	32	33
2,5	7880	2	17	20	23	26	30	33	12	16	18	22	25	28	8	12	15	18	22	24	5	8	11	14	17	20
		4	42	44	45	47	48	52	35	37	38	41	43	45	28	31	32	35	36	38	22	23	25	27	29	31
2,75	8670	2	15	18	21	24	28	31	11	14	17	21	24	27	7	10	14	1	20	23	4	7	10	13	16	19
		4	39	40	43	45	48	49	33	35	36	39	41	43	26	28	31	33	34	36	20	22	24	26	28	30
3	9460	2	14	17	20	23	26	29	10	13	16	19	23	26	6	9	13	16	19	22	2	6	9	12	15	19
		4	36	39	40	43	45	47	30	33	34	36	39	41	24	26	29	31	33	35	18	21	3	24	27	29
3,25	10250	2	12	15	18	22	25	29	8	12	15	18	22	25	4	8	11	15	18	22	2	4	8	11	14	18
		4	34	37	38	41	44	45	28	30	34	35	38	41	23	25	27	29	32	34	16	19	22	24	26	28
3,5	11040	2	11	14	18	21	24	27	7	10	14	17	20	24	3	7	10	14	17	21	0,4	4	7	10	14	17
		4	32	35	38	40	43	44	28	29	31	34	36	38	21	23	25	28	31	33	15	18	20	23	25	28

Cooling coil

LTCW			6/12°C				8/14°C				R22 5°C				R22 8°C			
v	V		inlet temperature				inlet temperature				inlet temperature				inlet temperature			
m/s	m³/h	RR	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%
1,5	4730	6	13,8	90	13,3	93	15,6	89	14,4	93	15,4	89	13,7	93	16,5	89	14,9	93
		8	12	96	11,3	89	13,4	96	12,8	98	12,8	96	11,6	98	14,3	96	13,2	98
1,75	5520	6	15	87	13,8	91	16,2	87	15,1	91	16,4	87	14,5	91	17,4	87	15,6	92
		8	24,8	60	12	97	14	94	13,3	96	13,8	94	12,4	97	15,2	94	13,8	96
2	6310	6	15,7	85	14,5	89	17,1	85	15,5	89	17,3	84	15,3	89	18,2	84	16,3	89
		8	13,4	92	12,5	95	14,7	92	14,1	95	14,7	92	13,2	95	16,1	92	14,6	95
2,25	7100	6	16,6	83	14,7	88	17,5	83	16,3	88	17,9	83	15,8	88	18,9	83	16,8	88
		8	14,1	91	13	94	15,3	90	14,3	94	15,5	90	13,8	94	16,7	90	15	94
2,5	7880	6	17,1	61	15,5	86	18,2	81	16,6	86	18,7	81	16,5	86	19,4	81	17,2	86
		8	14,4	89	13,4	93	16	89	14,8	92	16,3	89	14,5	92	17,3	89	15,6	92
2,75	8670	6	17,6	80	16	85	18,6	79	16,9	85	19,2	79	16,9	85	19,9	79	17,6	85
		8	15,2	87	13,8	92	16,4	87	15,3	91	16,9	87	15	91	17,7	87	15,6	91
3	9460	6	18,3	78	16,3	84	19,3	78	17,3	84	15,8	78	17,4	84	20,4	78	18	84
		8	15,6	86	14,4	90	16,9	86	15,7	90	17,4	86	15,4	90	18,3	86	16,4	90
3,25	10250	6	19	77	17,7	83	19,5	77	17,6	83	20,2	77	17,7	83	20,9	77	18,4	83
		8	16,1	85	14,6	89	17,3	85	15,9	89	17,9	85	15,8	89	18,7	85	16,7	89
3,5	11040	6	19,1	76	17,9	82	19,8	75	18	82	20,7	76	18,1	82	21,2	76	18,7	82
		8	16,6	84	15,1	88	17,6	83	16,2	88	18,4	83	16,3	88	19,2	83	17,1	88

Other calculations of heating or cooling coils on request

Pressure drops DIWER 99

Pressure drops in Pa

Air velocity m/s	1,5	1,75	2	2,25	2,5	2,75	3	3,25	3,5
Air volume m³/h	**4730**	**5520**	**6310**	**7100**	**7880**	**8670**	**9460**	**10250**	**11038**
Fan section	11	14	19	24	29	35	42	49	57
Panel filter section	73	76	79	82	86	90	95	100	105
Bag filter G 3/4	131	137	142	148	154	160	165	171	177
Bag filter F 5/6	147	154	159	164	169	175	180	186	192
Bag filter F 7/8/9	168	173	184	194	203	212	221	253	239
Heating coil 2 RR P2,0	33	43	53	64	75	88	101	115	129
Heating coil 4 RR P2,0	58	74	92	111	131	153	175	199	224
Electrical heater	18	24	30	37	44	52	60	69	78
Cooling coil 6 RR P2,5	84	106	129	155	180	208	235	264	294
Cooling coil 8 RR P2,5	108	137	167	200	233	269	306	344	382
Droplet eliminator	13	18	24	31	38	46	55	65	76
Air washer	39	51	63	77	92	108	125	143	162
Surface humidifier W10	21	25	28	33	38	44	50	58	67
Surface humidifier W20	28	33	39	46	55	64	76	89	105
Sound attenuator	14	19	25	32	40	48	57	67	78
Inlet plenum / empty box	10	14	19	24	29	35	42	49	57
Damper open	2	2	3	4	5	6	7	8	9
Weather louvre	12	17	22	28	35	42	50	59	68

Notes

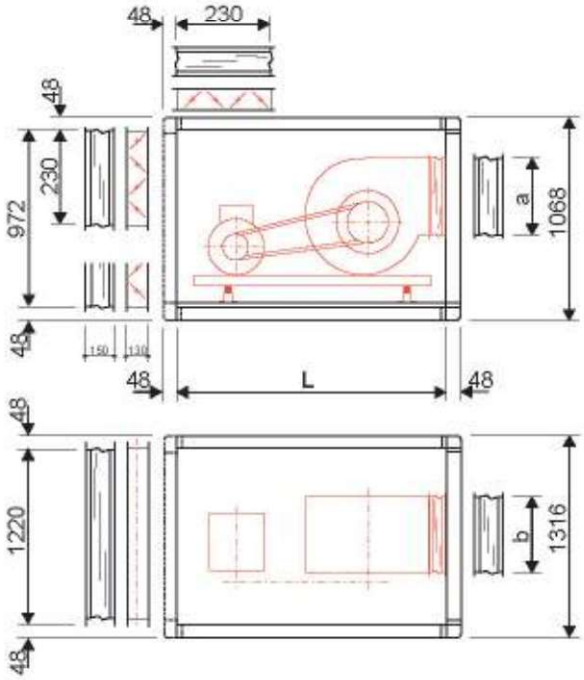
Quotation of the filter pressure drops calculated as mean value between inital and final pressure drop

Heating coil fin spacing 2,0 mm
Cooling coil fin spacing 2,5 mm
Suction section / Mixing box with damper
Damper open and weather louvre through clear cross-flow

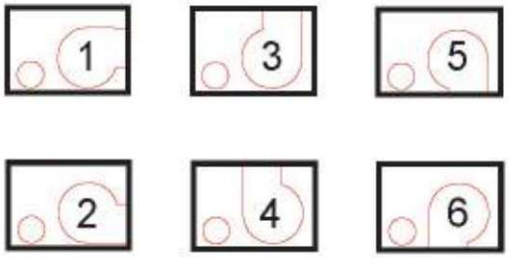
Missing pressure drops on demand

Dimensions DIWER 129

V Belt driven fan section

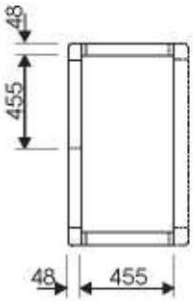


Fan outlet positions

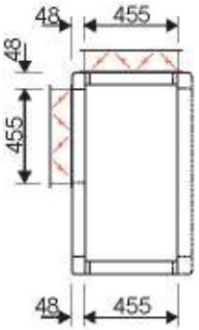


Fan type	Fan outlet	Motorsize 112	132	180	a/b
		Fan casing length L			
315	1-6	915	1220		404
355	1-6	1220	1220		461
400	1-6	1220	1220	1525	507
450	1-6	1220	1525	1525	569

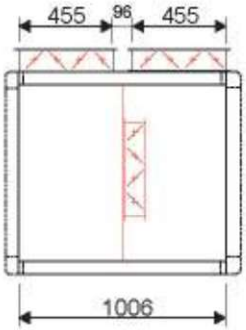
A Inlet section



M Mixing box

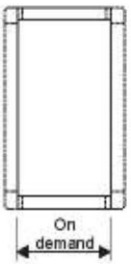


M2 Double mixing box

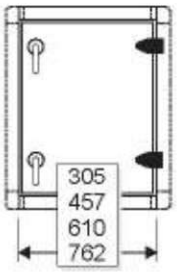


On request dampers of inlet and mixing plenum
with dimensions
570 or 680 mm instead of 455 mm (Attention! Adapt respective the section length)

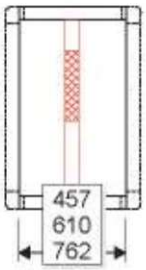
L Empty box



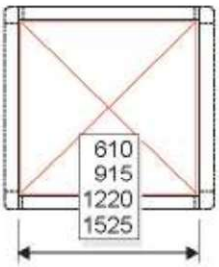
LB Empty box with door



P Diffusor section

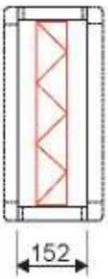


SD Sound attenuator

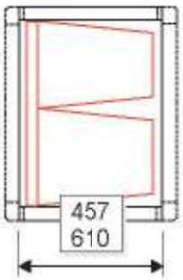


Dimensions DIWER 129

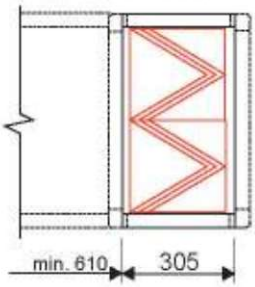
KF Panel filter section



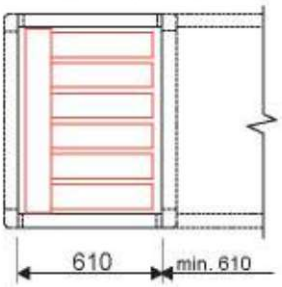
TF Bag filter section



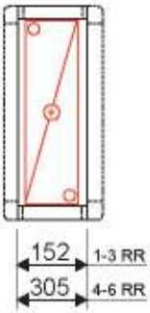
AF Absolute-filter section



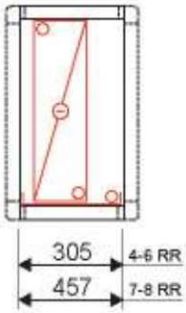
AKF Active carbon filter section



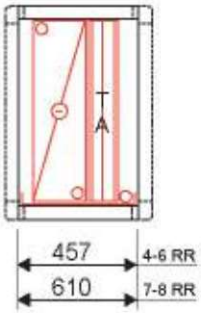
EH Heating coil



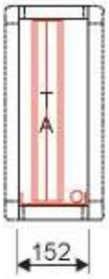
KH Cooling coil



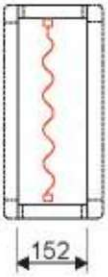
KHT Cooling coil with TA



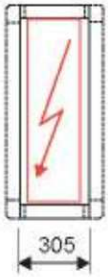
TA Droplet eliminator



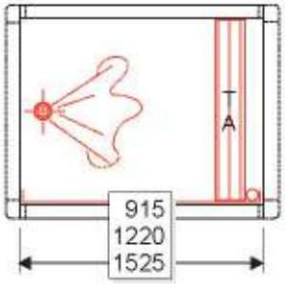
FS Anti frost frame



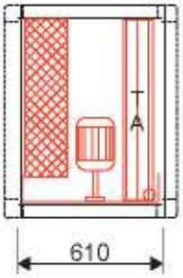
EE Electric heater



DB Steam humidifier



OB Honey comb-humidifier



Reserves of right for technical modifications. The indicated dimensions are not binding.
The flexible WEGER production permits device manufacturing “after measure”.

Heat exchanger DIWER 129

Heating coil

LTHW			90/70°C						80/60°C						70/50°C						60/40°C					
v	V		inlet temperature						inlet temperature						inlet temperature						inlet temperature					
m/s	m³/h	RR	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5
1,5	6310	2	30	33	35	37	40	42	24	27	29	32	35	37	19	21	25	27	30	31	14	17	19	21	24	26
		4	57	57	59	61	62	63	49	51	51	53	53	55	41	43	43	45	46	47	33	34	3	37	38	39
1,75	7360	2	26	30	31	34	37	40	21	24	27	29	31	35	16	19	21	24	27	30	11	14	17	20	22	24
		4	52	54	55	57	59	60	45	47	48	50	51	52	37	39	41	42	43	45	30	32	33	35	36	37
2	8410	2	23	25	29	31	35	38	18	21	25	27	29	32	15	17	19	22	26	28	9	11	15	18	21	23
		4	48	51	52	54	55	57	42	43	45	46	48	50	35	36	38	39	41	42	28	29	31	32	33	35
2,25	9460	2	20	23	26	30	32	35	16	19	22	25	28	31	12	14	18	21	24	27	8	10	12	16	19	22
		4	46	48	49	51	53	55	39	41	43	44	46	48	33	33	35	37	39	41	25	27	28	30	32	34
2,5	10510	2	18	21	25	28	31	33	15	17	21	23	26	29	10	13	16	19	22	25	6	9	12	15	19	21
		4	43	45	47	48	50	52	36	38	39	42	44	45	29	32	33	35	37	39	23	25	27	28	30	33
2,75	11560	2	16	20	22	26	29	32	12	15	19	22	25	28	8	11	15	18	21	24	5	8	10	13	17	20
		4	40	43	45	46	48	51	34	36	38	40	42	43	28	30	32	33	35	38	21	23	24	27	29	31
3	12620	2	15	18	21	24	27	31	11	14	17	21	24	27	7	11	14	17	20	23	3	6	9	13	17	19
		4	38	40	43	45	46	49	31	34	36	38	40	42	25	28	30	32	34	36	19	21	23	26	28	30
3,25	13670	2	13	17	20	23	26	30	10	13	16	19	23	26	6	9	12	16	19	22	2	6	9	12	16	19
		4	35	38	40	42	44	47	29	32	34	36	39	41	24	26	28	31	33	35	19	21	22	24	27	29
3,5	14720	2	11	15	18	22	25	29	8	12	15	18	22	25	4	9	12	15	18	21	1	4	8	11	14	18
		4	34	36	38	41	44	45	28	30	33	35	37	39	23	25	27	29	32	34	16	19	21	23	26	28

Cooling coil

LTCW			6/12°C				8/14°C				R22 5°C				R22 8°C			
v	V		inlet temperature				inlet temperature				inlet temperature				inlet temperature			
m/s	m³/h	RR	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%
1,5	6310	6	13,8	90	12,7	94	15,2	90	14,2	93	15,1	90	13,5	93	16,3	90	14,7	93
		8	11,4	97	10,9	99	13	96	12,6	98	12,7	96	11,4	98	14,1	96	13	98
1,75	7360	6	14,8	88	13,5	92	16	87	14,9	91	16,2	87	14,3	91	17,2	87	15,5	91
		8	12,2	95	11,5	97	13,9	94	13,1	97	13,6	94	12,2	97	14,9	94	13,6	97
2	8410	6	15,3	86	14,1	90	16,8	85	15,4	90	16,9	85	14,9	90	17,9	85	16,1	90
		8	12,8	93	12,2	96	14,4	93	13,7	95	14,5	93	13	96	15,6	93	14,2	95
2,25	9460	6	16,2	84	14,5	89	17,3	83	16	88	17,7	83	15,6	88	18,6	83	16,6	88
		8	13,7	91	12,6	95	15,1	91	14,2	94	15,4	91	13,7	94	16,5	91	14,9	94
2,5	10510	6	16,7	82	15,2	87	17,8	82	16,4	87	18,4	82	16,2	87	19,2	82	17,1	87
		8	14,4	90	13,2	93	15,6	89	14,6	93	15,9	89	14,2	93	17	89	15,3	93
2,75	11560	6	17,3	80	15,6	86	18,4	80	16,8	86	18,9	80	16,6	86	19,7	80	17,5	86
		8	14,7	88	13,5	92	16,1	88	15	92	16,6	88	14,7	92	17,5	88	15,7	92
3	12620	6	17,8	79	16,1	85	18,7	79	17,1	84	19,5	79	17,1	84	20,2	79	17,9	84
		8	15,2	87	14,2	91	16,5	87	15,3	91	17,1	87	15,1	91	18	87	16,1	91
3,25	13670	6	18,1	78	16,5	84	19,2	77	17,5	83	19,9	77	17,4	83	20,6	78	18,2	83
		8	15,6	86	14,4	90	17,1	85	15,7	90	17,6	95	15,6	90	18,5	85	16,5	90
3,5	14720	6	18,8	76	16,7	83	19,7	76	17,7	82	20,4	76	17,9	82	21	76	18,5	82
		8	16,1	84	14,6	89	17,3	84	16,1	89	18,1	84	16	89	18,9	84	16,9	89

Other calculations of heating or cooling coils on request

Pressure drops DIWER 129

Pressure drops in Pa

Air velocity m/s	1,5	1,75	2	2,25	2,5	2,75	3	3,25	3,5
Air volume m³/h	**6310**	**7360**	**8410**	**9460**	**10510**	**11560**	**12620**	**13670**	**14720**
Fan section	11	14	19	24	29	35	42	49	57
Panel filter section	72	74	76	79	82	85	89	92	97
Bag filter G 3/4	129	132	137	142	147	152	157	163	168
Bag filter F 5/6	146	150	154	158	163	168	172	177	182
Bag filter F 7/8/9	162	169	177	185	192	200	208	216	224
Heating coil 2 RR P2,0	31	39	49	59	70	81	93	106	119
Heating coil 4 RR P2,0	54	69	85	102	121	151	162	185	208
Electrical heater	18	24	30	37	44	52	60	69	78
Cooling coil 6 RR P2,5	78	98	121	143	168	193	219	248	274
Cooling coil 8 RR P2,5	100	127	155	185	217	250	285	320	357
Droplet eliminator	13	18	24	30	38	46	55	65	76
Air washer	41	53	66	80	96	112	130	149	168
Surface humidifier W10	22	25	29	34	39	45	52	61	70
Surface humidifier W20	29	34	41	48	57	67	80	94	111
Sound attenuator	14	19	25	32	40	48	57	67	78
Inlet plenum / empty box	10	14	19	24	29	35	42	48	57
Damper open	2	2	3	4	5	6	7	8	9
Weather louvre	12	17	22	28	35	42	50	59	68

Notes

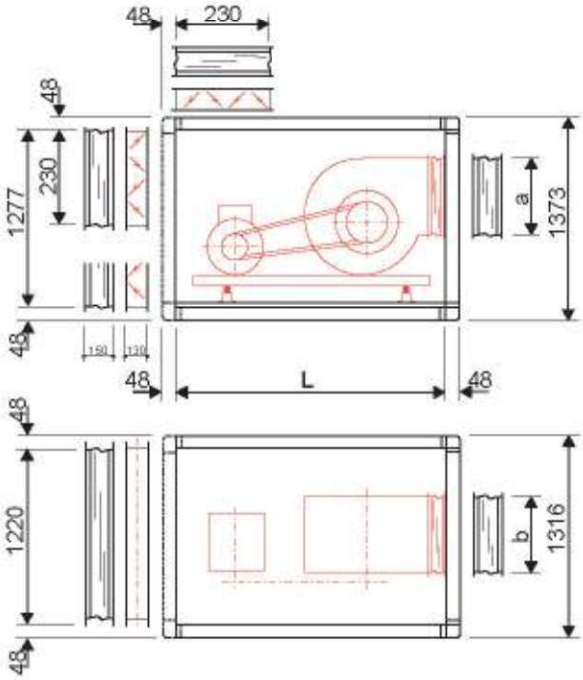
Quotation of the filter pressure drops calculated as mean between inital and final pressure drop

Heating coil fin spacing 2,0 mm
Cooling coil fin spacing 2,5 mm
Suction section / Mixing box with damper
Damper open and weather louvre through clear cross-flow

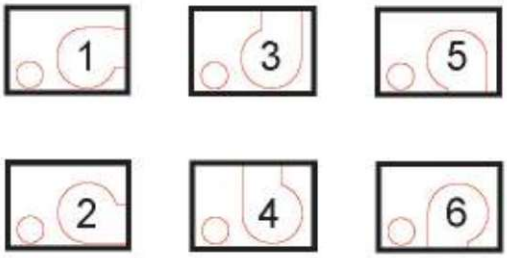
Missing pressure drops on demand

Dimensions DIWER 1212

V Belt driven fan section

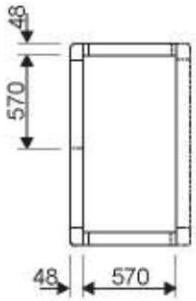


Fan outlet positions

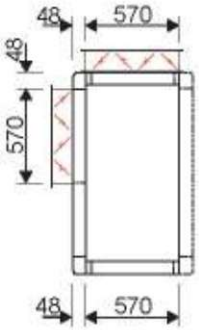


Fan type	Fan outlet	Motorsize 112	132	180	a/b
		Fan casing length L			
355	1-6	1220	1220		453
400	1-6	1220	1220	1525	507
450	1-6	1220	1525	1525	569
500	1,2 3-6	1220 1525	1525 1525	1525 1830	638

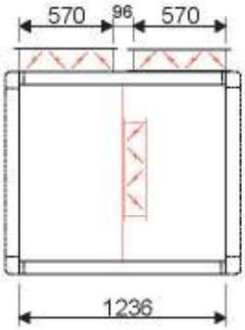
A Inlet section



M Mixing box

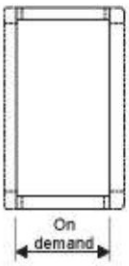


M2 Double mixing box

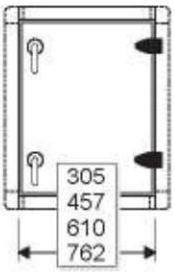


On request dampers of inlet and mixing plenum
with dimensions
687 or 780 mm instead of 455 mm (Attention! Adapt respective the section length)

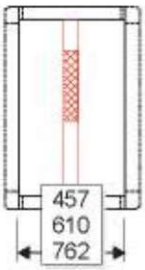
L Empty box



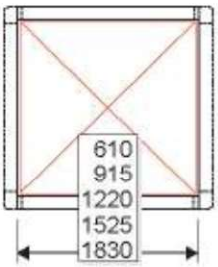
LB Empty box with door



P Diffusor section

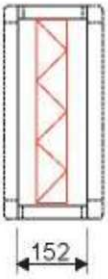


SD Sound attenuator

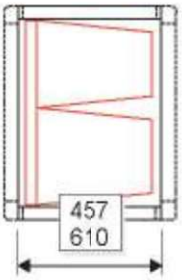


Dimensions DIWER 1212

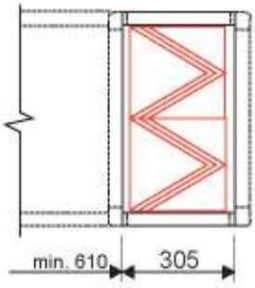
KF Panel filter section



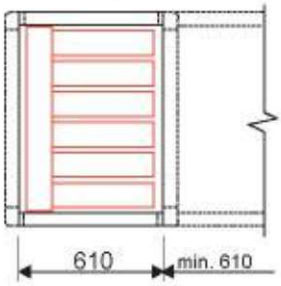
TF Bag filter section



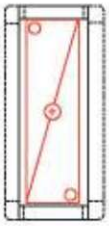
AF Absolute-filter section



AKF Active carbon filter section

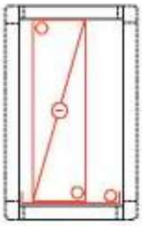


EH Heating coil



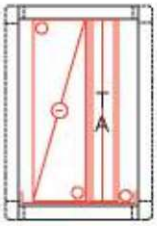
152 1-3 RR
305 4-6 RR

KH Cooling coil



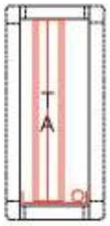
305 4-6 RR
457 7-8 RR

KHT Cooling coil with TA



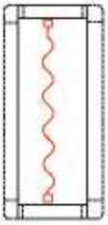
457 4-6 RR
610 7-8 RR

TA Droplet eliminator



152

FS Anti frost frame

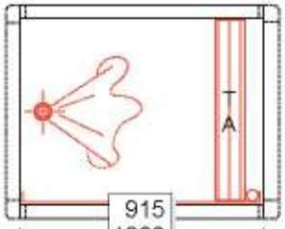


152

EE Electronic heater

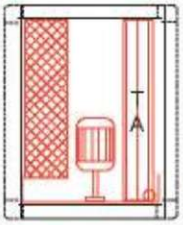
305

DB Steam humidifier



915
1220
1525

OB Honey comb-humidifier

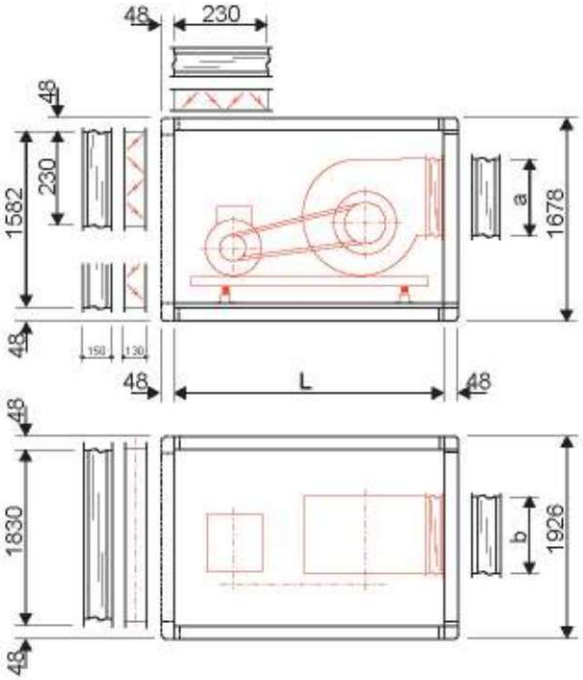


610

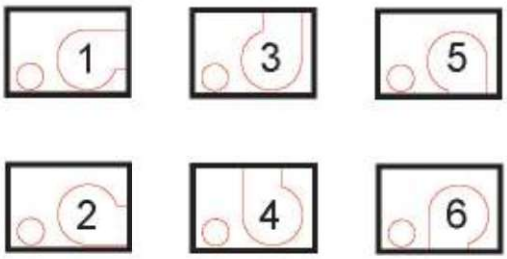
Reserves of right for technical modifications. The indicated dimensions are not binding.
The flexible WEGER production permits device manufacturing "after measure".

Dimensions DIWER 1815

V Belt driven fan section

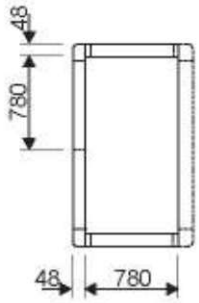


Fan outlet positions

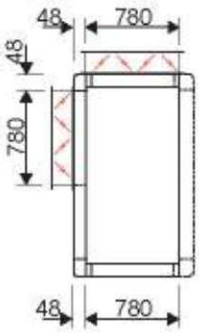


Fan type	Fan outlet	Motorsize 132	180	225	a/b
		Fan casing length L			
500	1,2 3-6	1525 1525	1525 1830		638
560	1,2 3-6	1525 1525	1525 1830	1830 1830	732 715
630	1,2 3-6	1525 1525	1525 1830	1830 1830	818 801
710	1,2 3-6	1830 1830	1830 2135	2135 2135	915 898

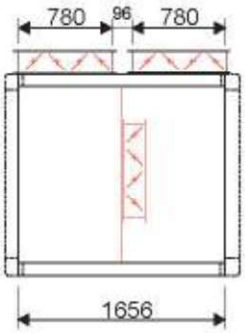
A Inlet section



M Mixing box

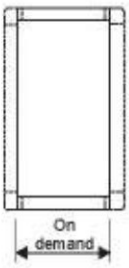


M2 Double mixing box

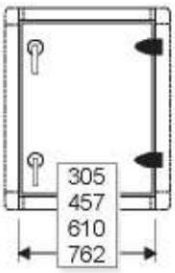


On request dampers of inlet and mixing plenum
with dimensions
900 mm instead of 780 mm (Attention! Adapt respective the section length)

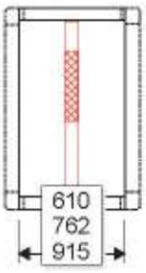
L Empty box



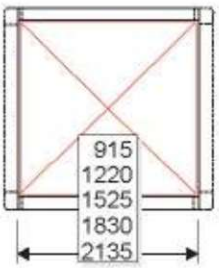
LB Empty box with door



P Diffusor section

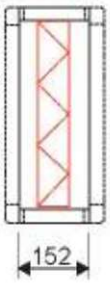


SD Sound attenuator

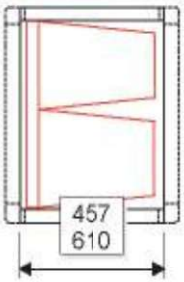


Dimensions DIWER 1815

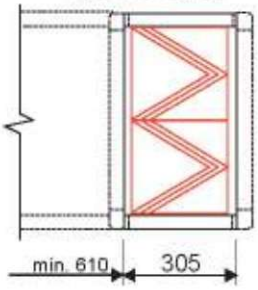
KF Panel filter section



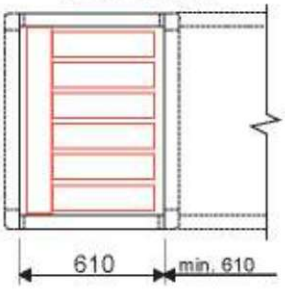
TF Bag filter section



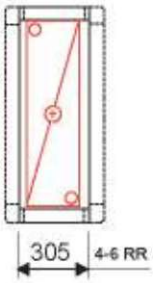
AF Absolute-filter section



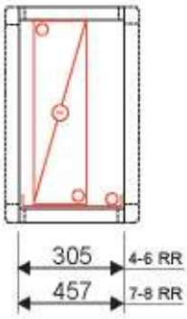
AKF Active carbon filter section



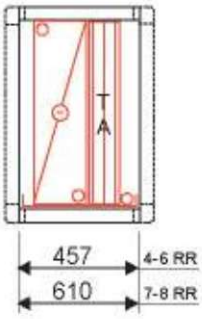
EH Heating coil



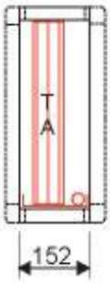
KH Cooling coil



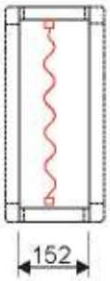
KHT Cooling coil with TA



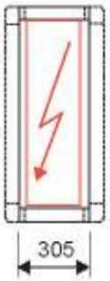
TA Droplet eliminator



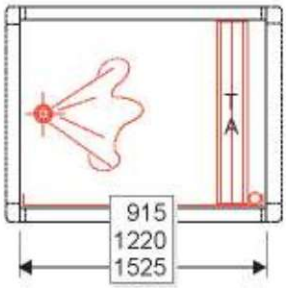
FS Anti frost frame



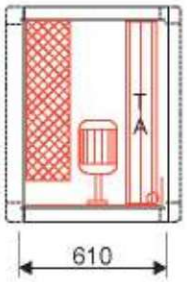
EE Electric heater



DB Steam humidifier



OB Honey comb-humidifier



Reserves of right for technical modifications. The indicated dimensions are not binding.
The flexible WEGER production permits device manufacturing "after measure".

Heat exchanger DIWER 1815

Heating coil

LTHW			90/70°C						80/60°C						70/50°C						60/40°C					
v	V		inlet temperature						inlet temperature						inlet temperature						inlet temperature					
m/s	m³/h	RR	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5
1,5	15770	2	32	35	36	39	41	43	26	29	31	33	36	38	21	23	25	28	30	33	15	18	20	23	25	27
		4	59	60	60	62	63	65	50	52	53	54	55	57	42	44	45	46	47	48	34	36	36	38	39	40
1,75	18400	2	28	31	33	36	38	41	23	26	28	31	33	36	17	20	22	25	28	30	12	15	18	20	23	25
		4	55	56	58	58	60	62	47	48	50	50	52	54	39	40	42	43	44	46	32	32	34	35	36	38
2	21030	2	25	28	30	33	36	38	20	23	25	28	31	34	15	18	21	24	26	29	11	13	16	19	21	24
		4	52	53	53	55	57	59	43	45	47	48	50	51	36	38	40	41	42	44	29	30	32	33	35	36
2,25	23650	2	22	25	28	30	34	36	18	20	24	26	29	32	13	16	19	21	24	27	8	11	14	17	20	23
		4	48	49	51	53	54	56	41	42	44	46	47	49	34	35	37	39	40	42	27	28	30	31	33	34
2,5	26280	2	20	23	26	28	32	35	15	18	21	24	28	31	11	14	18	20	23	26	7	10	12	16	19	22
		4	45	47	49	51	52	53	39	40	41	43	45	47	31	32	35	37	38	40	24	26	28	30	32	33
2,75	28910	2	18	21	25	27	30	33	14	16	20	23	26	29	10	12	16	19	22	25	5	8	12	14	18	21
		4	43	44	46	48	49	52	36	37	39	42	43	45	29	31	33	35	37	38	22	25	27	28	30	32
3	31540	2	16	19	22	25	28	32	12	15	18	21	25	28	8	11	15	18	21	24	4	7	11	14	17	20
		4	40	42	44	46	48	50	34	35	38	40	42	43	28	30	31	33	35	37	21	23	25	27	29	31
3,25	34170	2	14	18	21	24	27	31	11	14	17	20	24	27	7	10	13	17	20	23	3	6	9	13	16	19
		4	38	40	43	44	46	49	31	34	36	38	40	42	25	28	29	32	34	36	19	21	23	26	28	30
3,5	36800	2	13	16	20	23	26	30	9	13	16	19	22	26	6	9	12	16	19	22	2	5	9	12	15	19
		4	35	38	40	43	44	47	29	32	34	36	39	41	24	26	28	31	33	35	18	21	22	24	27	29

Cooling coil

LTCW			6/12°C				8/14°C				R22 5°C				R22 8°C			
v	V		inlet temperature				inlet temperature				inlet temperature				inlet temperature			
m/s	m³/h	RR	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%
1,5	15770	6	13,2	91	12,3	94	14,8	91	14	94	14,7	91	13,1	94	15,8	91	14,3	94
		8	11,1	97	10,6	99	12,7	97	12,3	99	12,1	97	11	99	13,7	97	12,6	99
1,75	18400	6	14,2	89	13,1	93	15,5	88	14,5	92	15,6	88	13,9	92	16,7	88	15,1	92
		8	11,8	96	11,3	98	13,4	95	12,9	97	13,1	95	11,8	98	14,5	95	13,3	97
2	21030	6	14,9	87	13,6	91	16,2	86	15,1	91	16,6	86	14,7	91	17,6	86	15,8	90
		8	12,5	94	11,8	96	14,2	94	13,3	96	14,1	94	12,9	96	15,3	93	14	96
2,25	23650	6	15,4	85	14,3	89	16,9	84	15,5	89	17,3	84	15,3	89	18,2	84	16,3	89
		8	13,1	92	12,3	95	14,7	92	13,8	95	14,9	92	13,3	95	16,1	92	14,6	95
2,5	26280	6	16,3	83	14,7	88	17,5	83	16,1	88	17,9	83	15,8	88	18,8	83	16,4	88
		8	13,7	91	12,8	94	15,1	90	14,2	94	15,4	90	13,7	94	16,7	90	15	94
2,75	28910	6	16,8	82	15,2	87	17,9	81	16,4	86	18,6	81	16,3	86	19,4	81	17,2	86
		8	14,4	89	13,3	93	15,6	89	14,7	93	16,2	89	14,4	93	17,2	89	15,4	92
3	31540	6	17,4	80	15,6	86	18,5	80	16,7	85	19,2	80	16,8	85	19,8	80	17,6	85
		8	14,9	88	13,6	92	16,1	88	15	91	16,6	88	14,7	92	17,7	88	15,9	91
3,25	34170	6	17,8	79	16	84	18,8	78	17,1	84	19,6	78	17,2	84	20,2	79	17,9	84
		8	15,2	87	14	91	16,5	86	15,4	90	17,3	86	15,3	91	18,1	86	16,2	90
3,5	36800	6	18,1	78	16,3	84	19,2	77	17,3	83	19,9	77	17,5	83	20,7	77	18,2	83
		8	15,7	85	14,4	90	16,9	85	15,6	90	17,7	85	15,6	90	18,5	85	16,5	90

Other calculations of heating or cooling coils on request

Pressure drops DIWER 1815

Pressure drops in Pa

Air velocity m/s	1,5	1,75	2	2,25	2,5	2,75	3	3,25	3,5
Air volume m^3/h	**15770**	**18400**	**21030**	**23650**	**26280**	**28910**	**31540**	**34170**	**36800**
Fan section	11	14	19	24	29	35	42	49	57
Panel filter section	72	74	76	79	82	85	88	92	96
Bag filter G 3/4	127	132	137	142	147	152	157	162	167
Bag filter F 5/6	146	150	154	158	163	167	172	177	182
Bag filter F 7/8/9	162	169	177	184	192	200	208	216	224
Heating coil 2 RR P2,0	28	36	44	53	63	73	84	96	108
Heating coil 4 RR P2,0	49	62	77	93	110	128	147	167	188
Electrical heater	18	24	30	37	44	52	60	69	78
Cooling coil 6 RR P2,5	71	90	110	131	153	176	200	226	253
Cooling coil 8 RR P2,5	91	115	141	168	198	228	261	292	327
Droplet eliminator	13	18	24	31	38	46	55	65	76
Air washer	45	56	70	86	102	120	139	159	180
Surface humidifier W10	23	26	31	36	41	48	56	65	76
Surface humidifier W20	31	36	43	51	61	72	86	102	122
Sound attenuator	14	19	25	32	40	48	57	67	78
Inlet plenum / empty box	10	14	19	24	29	35	42	49	57
Damper open	2	2	3	4	5	6	7	8	9
Weather louvre	12	17	22	28	35	42	50	59	68

Notes

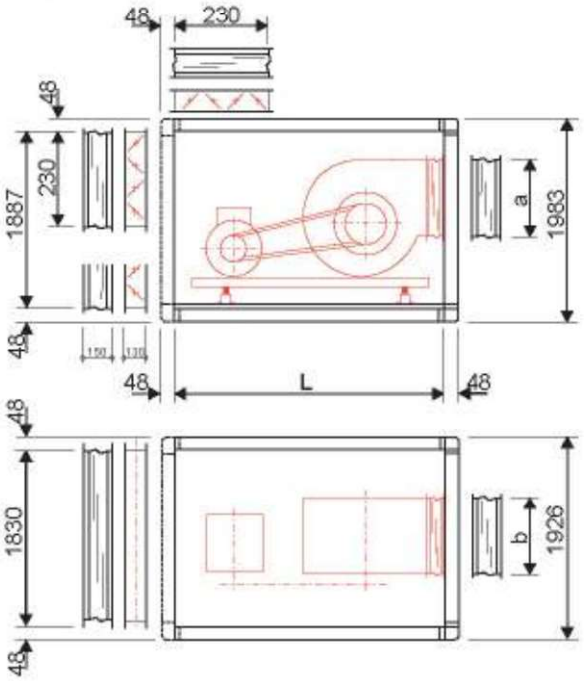
Quotation of the filter pressure drops calculated as mean value beween inital and final pressure drop

Heating coil fin spacing 2,0 mm
Cooling coil fin spacnig 2,5 mm
Suction section / Mixing box with damper
Damper open and weather louvre through clear cross-flow

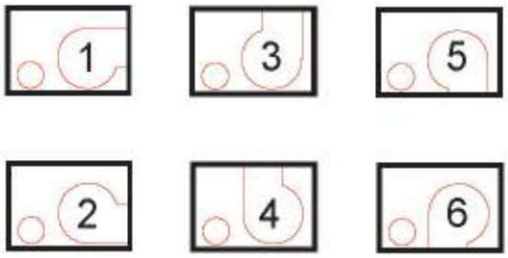
Missing pressure drops on demand

Dimensions DIWER 1818

V Belt driven fan section

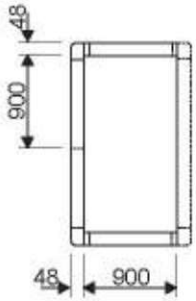


Fan outlet positions

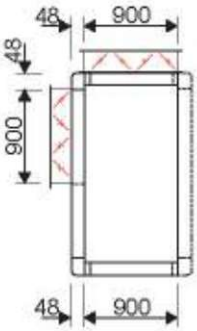


Fan type	Fan outlet	Motorsize 132	180	225	a/b
		Fan casing length L			
560	1,2 3-6	1525 1525	1525 1830	1830 1830	732 715
630	1,2 3-6	1525 1830	1830 1830	1830 2135	818 801
710	1,2 3-6	1830 1830	1830 2135	2135 2135	915 898
800	1,2 3-6		2135 2135	2135 2440	1024 1007

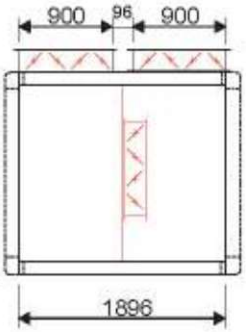
A Inlet section



M Mixing box

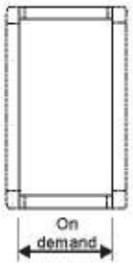


M2 Double mixing box

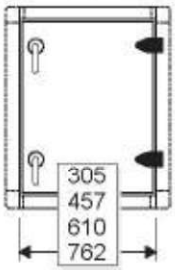


On request dampers of inlet and mixing plenum
with dimensions
1015 or 1240 mm instead of 900 mm (Attention! Adapt respective the section length)

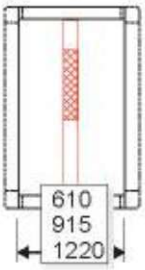
L Empty box



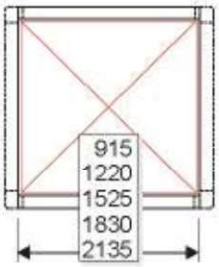
LB Empty box with door



P Diffusor section

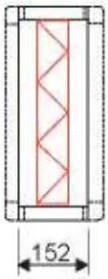


SD Sound attenuator

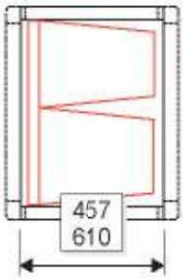


Dimensions DIWER 1818

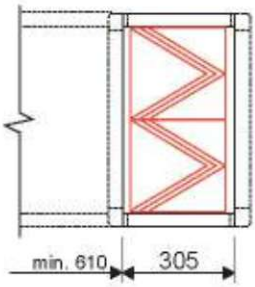
KF Panel filter section



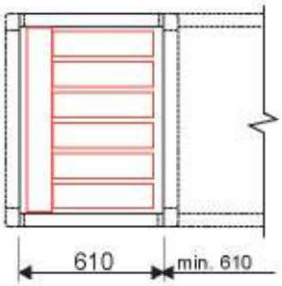
TF Bag filter section



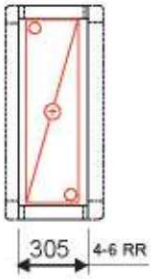
AF Absolute-filter section



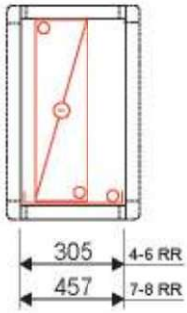
AKF Active carbon filter section



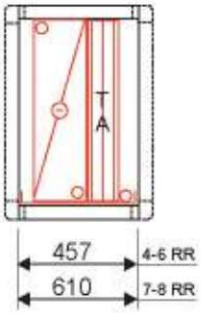
EH Heating coil



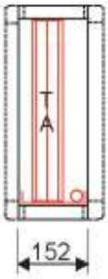
KH Cooling coil



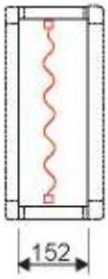
KHT Cooling coil with TA



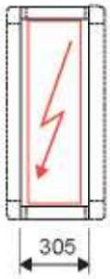
TA Droplet eliminator



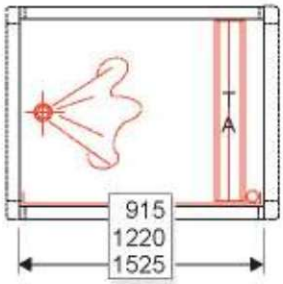
FS Anti frost frame



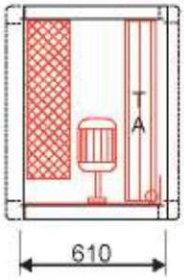
EE Electric heater



DB Steam humidifier



OB Honey comb-humidifier



Reserves of right for technical modifications. The indicated dimensions are not binding.
The flexible WEGER production permits device manufacturing "after measure".

Heat exchanger DIWER 1818

Heating coil

LTHW			90/70°C						80/60°C						70/50°C						60/40°C					
v	V		inlet temperature						inlet temperature						inlet temperature						inlet temperature					
m/s	m³/h	RR	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5
1,5	18920	2	32	35	38	39	41	43	26	29	31	33	36	38	21	23	25	28	30	3	15	18	20	22	25	27
		4	59	60	61	62	63	64	50	52	52	54	55	56	42	44	45	46	47	48	34	36	36	38	39	40
1,75	22080	2	28	30	33	35	38	41	23	26	28	31	33	35	18	20	23	25	28	30	12	15	17	20	23	25
		4	55	56	57	58	60	62	46	48	50	50	52	54	39	40	42	43	44	46	32	32	34	35	36	38
2	25230	2	25	28	30	33	36	38	20	23	25	28	31	34	15	18	21	24	26	29	11	13	16	19	21	24
		4	52	53	54	55	57	58	43	45	46	48	50	51	36	38	39	41	42	44	29	31	32	33	35	36
2,25	28390	2	22	25	28	31	33	37	17	20	23	26	29	32	13	16	19	22	24	27	8	11	14	17	20	23
		4	47	49	51	53	54	56	41	42	44	46	47	49	34	35	37	39	40	42	27	28	30	31	33	34
2,5	31540	2	20	23	26	29	32	35	15	18	22	24	28	31	11	14	18	21	23	26	7	10	13	16	19	22
		4	45	47	49	51	52	53	39	40	41	43	45	47	31	32	35	36	38	40	24	26	28	30	32	33
2,75	34690	2	15	18	21	24	28	31	11	14	18	21	24	27	8	11	14	17	20	23	4	7	10	13	17	20
		4	38	40	43	45	48	49	33	35	36	39	40	43	26	28	30	33	34	36	19	22	24	26	28	30
3	37850	2	13	17	20	23	27	30	10	13	16	20	23	26	6	9	13	16	19	23	2	6	9	12	16	19
		4	36	39	40	43	45	47	30	32	34	37	39	41	24	26	29	31	33	35	18	21	23	25	27	29
3,25	41000	2	12	15	18	22	25	29	8	12	15	19	22	25	5	9	12	15	18	22	1	5	8	12	15	19
		4	34	37	38	41	44	45	28	31	33	35	38	39	23	25	27	29	32	34	17	19	21	24	26	28
3,5	44160	2	11	14	18	21	24	28	8	11	14	18	21	24	4	7	11	14	17	21	1	4	7	11	14	18
		4	32	35	38	40	41	44	28	29	31	33	36	38	21	23	25	28	30	33	15	18	20	23	26	27

Cooling coil

LTCW			6/12°C				8/14°C				R22 5°C				R22 8°C			
v	V		inlet temperature				inlet temperature				inlet temperature				inlet temperature			
m/s	m³/h	RR	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%
1,5	18920	6	13,3	91	12,3	94	14,8	91	14	94	14,7	91	13,1	94	15,8	91	14,3	94
		8	11,1	97	10,6	99	12,7	97	12,3	99	12,1	97	11	99	13,7	97	12,6	99
1,75	22080	6	14,3	89	13,1	92	15,5	88	14,5	92	15,6	88	13,9	92	16,7	88	15,1	92
		8	11,8	96	11,1	98	13,3	95	12,9	97	13,1	95	11,8	98	14,7	95	13,4	97
2	25230	6	15,1	87	13,7	91	16,3	86	15,1	90	16,6	86	14,7	91	17,6	86	15,8	90
		8	12,5	94	11,8	96	14	93	13,3	96	14,1	93	12,6	96	15,4	93	14	96
2,25	28390	6	15,7	85	14,3	89	16,9	84	15,5	89	17,3	84	15,3	89	18,3	84	16,3	89
		8	13,3	92	12,3	95	14,7	92	13,8	95	14,9	92	13,3	95	16,1	92	14,6	95
2,5	31540	6	16,3	83	14,7	88	17,5	83	16,1	88	17,9	83	15,8	88	18,9	83	16,8	88
		8	13,7	91	12,8	94	15,2	90	14,2	94	15,5	90	13,8	94	16,7	90	15	94
2,75	34690	6	16,8	81	15,2	87	17,9	81	16,4	86	18,6	81	16,4	86	19,4	81	17,2	86
		8	14,4	89	13,3	93	15,6	89	14,7	92	16,2	89	14,4	93	17,2	89	15,5	92
3	37850	6	17,4	80	15,7	85	18,3	80	16,8	85	19,2	80	16,9	85	19,8	80	17,6	85
		8	14,9	88	13,5	92	16,1	88	15	91	16,9	87	14,9	91	17,7	87	15,9	91
3,25	41000	6	17,8	79	16	84	18,8	78	17,1	84	19,7	78	17,3	84	20,3	78	17,9	84
		8	15,3	87	14	91	16,5	86	15,4	90	17,3	86	15,3	90	18,1	86	16,2	90
3,5	44160	6	18,1	77	16,4	83	19,2	77	17,3	83	20,1	77	17,6	83	20,7	77	18,3	83
		8	15,9	85	14,4	90	16,9	85	15,6	89	17,7	85	15,6	89	18,6	85	16,6	89

Other calculations of heating or cooling coils on request

Pressure drops DIWER 1818

Pressure drops in Pa

Air velocity m/s	1,5	1,75	2	2,25	2,5	2,75	3	3,25	3,5
Air volume m^3/h	18920	22080	25230	28390	31540	34690	37850	41000	44160
Fan section	11	14	19	24	29	35	42	49	57
Panel filter section	72	74	76	79	81	82	88	92	96
Bag filter G 3/4	126	132	137	142	147	152	157	162	167
Bag filter F 5/6	145	149	154	158	162	167	172	177	181
Bag filter F 7/8/9	161	169	176	184	191	199	207	215	223
Heating coil 2 RR P2,0	28	36	45	54	64	92	103	120	155
Heating coil 4 RR P2,0	49	63	77	94	111	159	183	208	234
Electrical heater	18	24	30	37	44	52	60	69	78
Cooling coil 6 RR P2,5	71	91	111	132	155	178	201	226	252
Cooling coil 8 RR P2,5	92	116	142	170	200	230	261	295	330
Droplet eliminator	13	18	24	31	38	46	55	65	76
Air washer	46	59	74	91	108	127	147	168	191
Surface humidifier W10	23	27	32	37	44	51	60	70	82
Surface humidifier W20	31	38	45	54	64	77	92	110	132
Sound attenuator	14	19	25	32	40	48	57	67	78
Inlet plenum / empty box	10	14	19	24	29	35	42	49	57
Damper open	2	2	3	4	5	6	7	8	9
Weather louvre	12	17	22	28	35	42	50	59	68

Notes

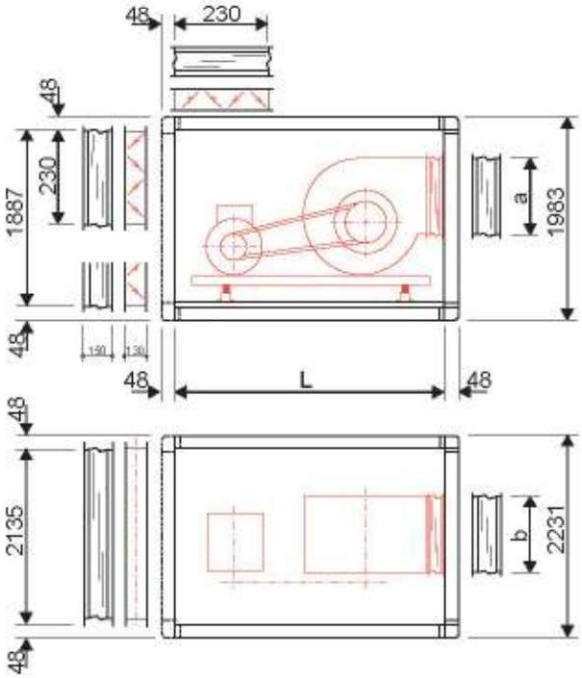
Quotation of the filter pressure drops calculated as mean value between inital and final pressure drop

Heating coil fin spacing 2,0 mm
Cooling coil fin spacing 2,5 mm
Suction section / Mixing box with damper
Damper open and weather louvre through clear cross-flow

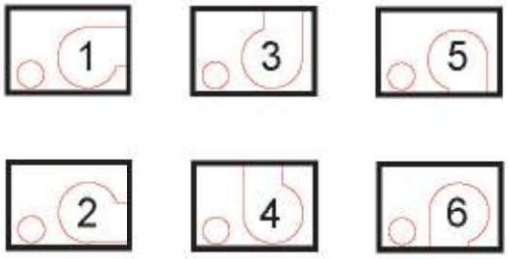
Missing pressure drops on demand

Dimensions DIWER 2118

V Belt driven fan section

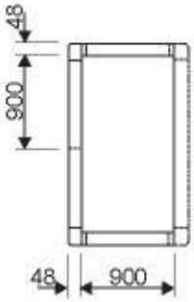


Fan outlet positions

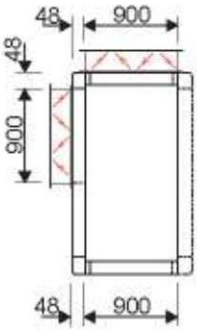


Fan type	Fan outlet	Motorsize 132	180	225	a/b
		Fan casing length L			
630	1,2 3-6	1525 1830	1830 1830	1830 2135	818 801
710	1,2 3-6	1830 1830	1830 2135	2135 2135	915 898
800	1,2 3-6		2135 2135	2135 2440	1024 1007

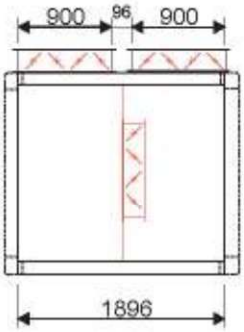
A Inlet section



M Mixing box



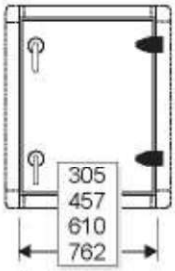
M2 Double mixing box



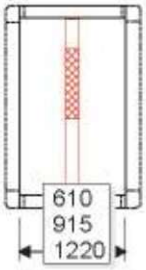
On request dampers of inlet and mixing plenum
with dimensions
1015 or 1240 mm instead of 900 mm (Attention! Adapt respective the section length)

L Empty box

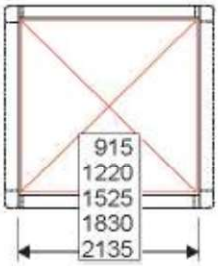
LB Empty box with door



P Diffusor section

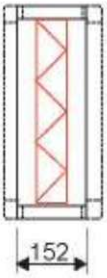


SD Sound attenuator

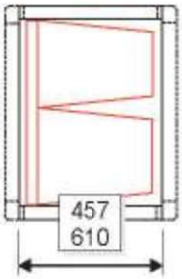


Dimensions DIWER 2118

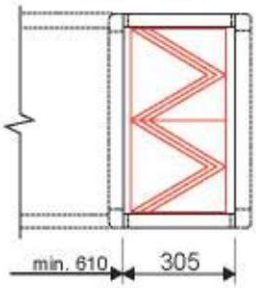
KF Panel filter section



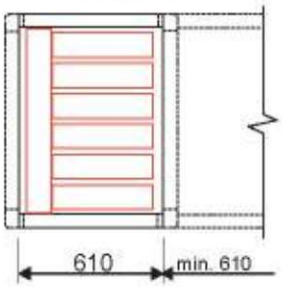
TF Bag filter section



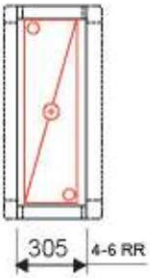
AF Absolute-filter section



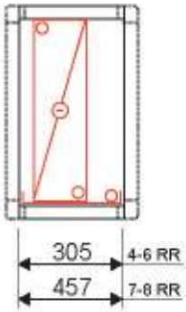
AKF Active carbon filter section



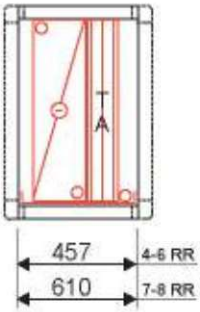
EH Heating coil



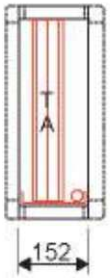
KH Cooling coil



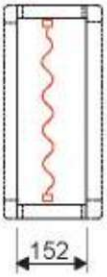
KHT Cooling coil with TA



TA Droplet eliminator

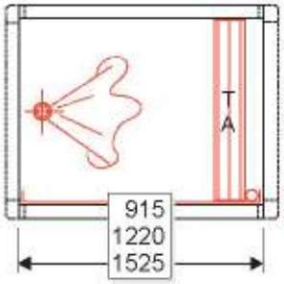


FS Anti frost frame

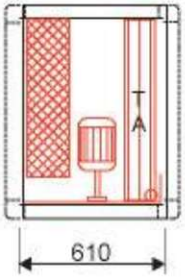


EE Electric heater

DB Steam humidifier



OB Honey comb-humidifier



Reserves of right for technical modifications. The indicated dimensions are not binding.
The flexible WEGER production permits device manufacturing " after measure".

Heat exchanger DIWER 2118

Heating coil

LTHW			90/70°C						80/60°C						70/50°C						60/40°C					
v	V		inlet temperature						inlet temperature						inlet temperature						inlet temperature					
m/s	m h	RR	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5
1,5	22080	2	23	35	38	40	41	44	28	29	31	34	36	39	21	23	26	28	31	33	15	18	20	23	26	28
		4	60	61	62	63	64	65	52	52	53	55	55	57	43	44	45	47	47	49	35	36	37	38	39	41
1,75	25760	2	29	31	34	36	39	41	24	26	28	31	34	36	18	21	23	26	28	31	13	15	18	21	23	26
		4	55	56	58	59	60	62	48	48	50	51	52	54	40	41	42	4	45	46	32	33	34	36	37	38
2	29440	2	25	28	31	34	36	39	21	23	26	28	31	34	16	18	21	24	27	29	11	14	16	19	22	24
		4	52	54	55	56	57	59	45	45	47	49	50	52	37	38	40	41	43	44	29	31	32	34	35	37
2,25	33120	2	22	25	28	31	35	37	18	21	24	27	29	32	14	16	19	22	25	28	9	12	15	18	21	23
		4	48	50	52	53	55	56	41	43	45	46	48	49	34	36	37	39	41	42	27	29	30	32	33	35
2,5	36800	2	20	23	26	29	32	35	16	19	22	25	28	31	12	14	18	21	23	26	8	11	13	16	19	22
		4	46	47	49	51	53	55	39	41	43	43	46	47	31	33	36	37	38	41	25	27	28	30	32	34
2,75	40480	2	18	21	25	28	31	33	15	18	20	23	26	29	10	13	16	19	22	25	6	9	12	15	18	21
		4	43	45	47	48	50	52	36	38	40	42	44	45	29	32	33	35	37	39	23	25	27	29	31	33
3	44160	2	16	20	23	26	29	32	12	16	18	22	25	28	8	12	15	18	22	24	5	8	11	14	17	21
		4	40	43	45	46	48	51	34	36	38	40	42	45	28	30	32	33	36	38	21	23	25	27	29	31
3,25	47830	2	15	18	22	24	28	31	11	14	18	21	24	27	8	11	14	17	20	23	4	7	10	13	17	20
		4	38	40	43	45	48	49	33	34	36	39	40	43	2	28	30	32	34	36	20	22	24	26	28	30
3,5	51510	2	13	17	20	23	27	30	10	13	16	20	23	26	6	9	13	16	19	23	3	6	9	13	16	19
		4	36	39	40	43	45	47	30	33	34	37	39	41	24	26	29	31	33	35	18	21	23	25	27	29

Cooling coil

LTCW			6/12°C				8/14°C				R22 5°C				R22 8°C			
v	V		inlet temperature				inlet temperature				inlet temperature				inlet temperature			
m/s	m /h	RR	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%
1,5	22080	6	13,2	91	12,3	95	14,6	91	13,9	94	14,4	91	12,9	94	15,8	92	14,3	94
		8	11,1	98	10,4	99	12,7	97	12,1	99	12,1	97	11	99	13,6	97	12,6	99
1,75	25760	6	13,9	89	12,9	93	15,5	89	14,5	92	15,6	89	13,9	923	16,7	89	15,1	92
		8	11,7	96	11,1	98	13,3	95	12,9	98	13,1	96	11,8	98	14,4	95	13,2	98
2	29440	6	14,8	87	13,6	91	16,2	87	15	91	16,4	87	14,5	91	17,4	86	15,6	91
		8	12,5	94	11,8	97	14	94	13,3	96	13,9	94	12,4	96	15,3	94	14	96
2,25	33120	6	15,4	85	14,1	90	16,7	85	15,5	89	17,2	85	15,2	89	18	85	16,1	89
		8	13,1	93	12,3	95	14,5	92	13,8	95	14,7	92	13,2	95	15,9	92	14,4	95
2,5	36800	6	16,1	83	14,6	88	17,3	83	15,9	88	17,9	83	15,8	88	18,8	83	16,7	88
		8	13,7	91	12,6	94	15,1	91	14,2	94	15,4	91	13,7	94	16,5	91	14,9	94
2,75	40480	6	16,6	82	15,1	87	17,9	81	16,3	87	18,5	81	16,3	87	19,2	81	17,1	87
		8	14,2	90	13,1	93	15,6	89	14,6	93	16,1	89	14,3	93	17,1	89	15,4	93
3	44160	6	17,2	80	15,4	86	18,3	80	16,7	85	19	80	16,7	85	19,7	80	17,5	85
		8	14,7	88	13,5	92	16,1	88	14,9	92	16,6	88	14,7	92	17,5	88	15,8	92
3,25	47830	6	17,6	79	15,8	85	18,7	79	17	84	19,5	79	17,1	84	20,2	79	17,9	84
		8	15,2	87	14	91	16,5	87	15,2	91	17,1	87	15,1	91	18	87	16,1	91
3,5	51510	6	18,1	78	16,2	84	19,1	78	17,3	83	19,9	78	17,4	83	20,5	78	18,1	83
		8	15,6	86	14,2	90	16,9	85	15,4	90	17,6	85	15,6	90	18,5	85	16,5	90

Other calculations of heating or cooling coils on request

Pressure drops DIWER 2118

Pressure drops in Pa

Air velocity m/s	1,5	1,75	2	2,25	2,5	2,75	3	3,25	3,5
Air volume m /h	**22080**	**25760**	**29440**	**33120**	**36800**	**40480**	**44160**	**47830**	**51510**
Fan section	11	14	19	24	29	35	42	49	57
Panel filter section	72	74	76	79	81	82	88	92	96
Bag filter G 3/4	126	132	137	142	147	152	157	162	167
Bag filter F 5/6	145	149	154	158	162	167	172	177	181
Bag filter F 7/8/9	161	169	176	184	191	199	207	215	223
Heating coil 2 RR P2,0	27	35	43	52	61	72	82	93	105
Heating coil 4 RR P2,0	47	60	75	90	107	124	143	163	183
Electrical heater	18	24	30	37	44	52	60	69	78
Cooling coil 6 RR P2,5	69	87	107	128	149	171	169	219	246
Cooling coil 8 RR P2,5	89	112	138	165	193	222	254	286	318
Droplet eliminator	13	18	24	31	38	46	55	65	76
Air washer	46	59	74	91	108	127	147	168	191
Surface humidifier W10	23	27	32	37	44	51	60	70	82
Surface humidifier W20	31	38	45	54	64	77	92	110	132
Sound attenuator	14	19	25	32	40	48	57	67	78
Inlet plenum / empty box	10	14	19	24	29	35	42	49	57
Damper open	2	2	3	4	5	6	7	8	9
Weather louvre	12	17	22	28	35	42	50	59	68

Notes

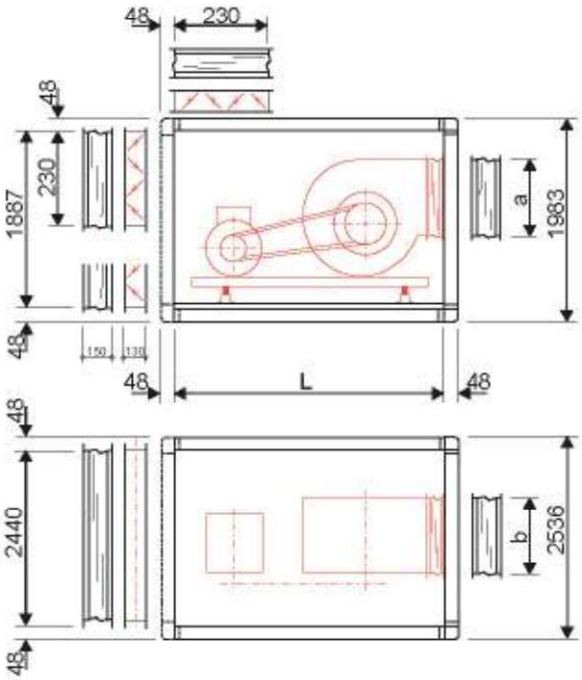
Quotation of the filter pressure drops calculated as mean value between initial and final pressure drop

Heating coil fin spacing 2,0 mm
Cooling coil fin spacing 2,5 mm
Suction section / Mixing box with damper
Damper open and weather louvre clear cross-flow

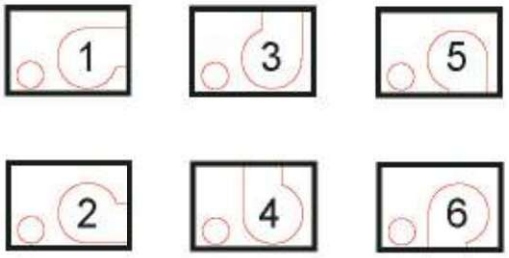
Missing pressure drops on demand

Dimensions DIWER 2518

V Belt driven fan section

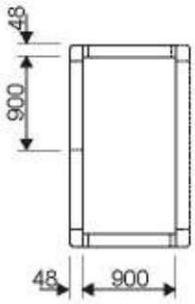


Fan outlet positions

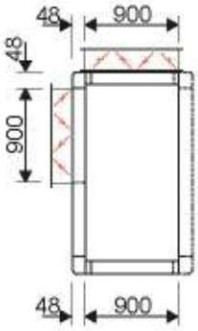


Fan type	Fan outlet	Motorsize 132	180	225	a/b
		Fan casing length L			
630	1,2 3-6	1525 1830	1830 1830	1830 2135	818 801
710	1,2 3-6	1830 1830	1830 2135	2135 2135	915 898
800	1,2 3-6		2135 2135	2135 2440	1024 1007

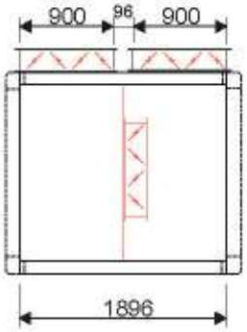
A Inlet section



M Mixing box

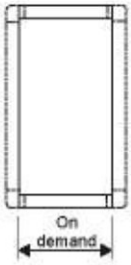


M2 Double mixing box

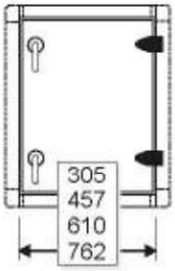


On request dampers of inlet and mixing plenum
with dimensions
1025 or 1240 mm instead of 900 mm (Attention! Adapt repective the secton length)

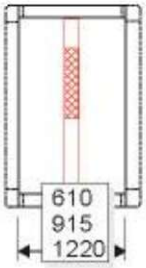
L Empty box



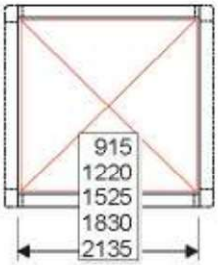
LB Empty box with door



P Diffusor section

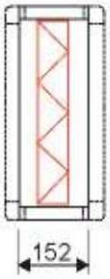


SD Sound attenuator

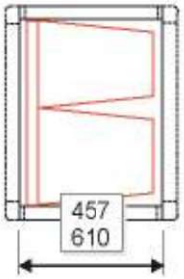


Dimensions DIWER 2518

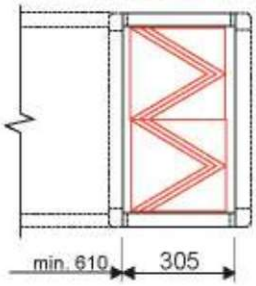
KF Panel filter section



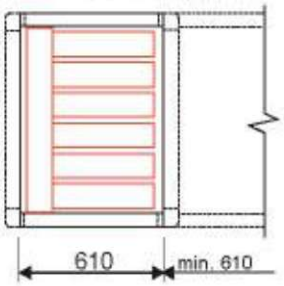
TF Bag filter section



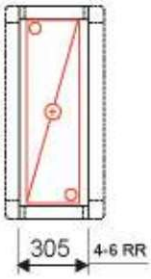
AF Absolute-filter section



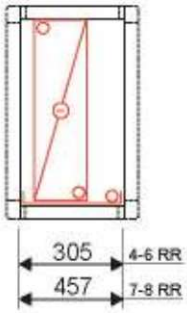
AKF Active carbon filter section



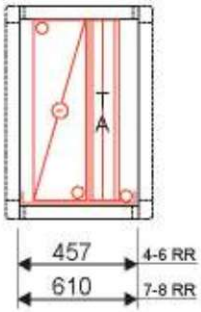
EH Heating coil



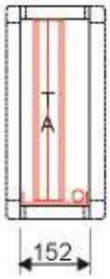
KH Cooling coil



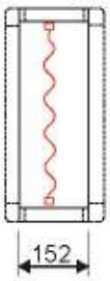
KHT Cooling coil with TA



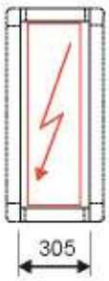
TA Droplet eliminator



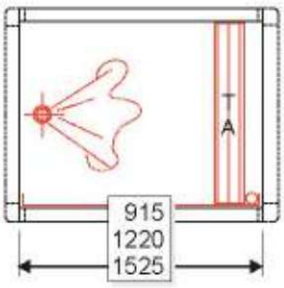
FS Anti frost frame



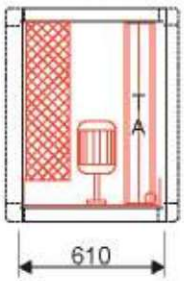
EE Electric heater



DB Steam humidifier



OB Honey comb-humidifier



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Heat exchanger DIWER 2518

Heating coil

LTHW			90/70°C						80/60°C						70/50°C						60/40°C					
v	V		inlet temperature						inlet temperature						inlet temperature						inlet temperature					
m/s	m³/h	RR	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5
1,5	25230	2	33	35	38	40	43	44	28	30	32	34	37	39	22	24	26	29	31	33	16	19	21	23	26	28
		4	60	62	63	63	65	65	52	53	54	55	57	57	44	45	46	47	48	49	36	36	38	38	40	41
1,75	29440	2	29	32	34	37	39	42	24	27	29	32	34	37	19	22	24	26	29	32	13	16	19	21	24	26
		4	56	57	58	60	61	62	48	50	50	52	53	54	40	42	42	44	46	46	32	34	35	36	37	39
2	33640	2	26	29	31	34	37	39	21	24	26	29	32	35	16	19	22	24	27	30	11	14	17	19	22	25
		4	52	54	53	57	58	59	46	48	47	49	51	52	37	39	40	42	43	23	30	31	33	34	35	37
2,25	37850	2	23	26	29	32	35	38	19	22	25	27	30	33	14	17	20	23	25	28	10	12	14	18	21	24
		4	49	51	52	53	55	57	41	43	45	46	48	50	34	36	38	39	41	43	27	29	31	32	34	35
2,5	42050	2	21	24	27	29	33	36	16	19	23	25	28	31	12	15	18	21	24	27	8	11	14	17	20	23
		4	46	48	49	51	53	55	39	41	43	45	46	48	33	34	36	37	39	41	25	27	29	31	32	34
2,75	46260	2	18	22	25	28	31	35	15	18	20	24	27	30	10	13	17	19	23	26	6	9	12	15	19	22
		4	43	45	47	49	51	53	37	38	41	43	44	46	30	32	34	36	38	40	23	26	27	30	31	33
3	50460	2	17	20	23	27	29	33	13	16	19	22	26	29	9	12	15	19	22	25	5	9	11	14	18	21
		4	41	43	45	47	49	51	35	36	39	40	43	45	28	30	33	34	36	38	23	24	25	28	30	32
3,25	54670	2	15	19	21	25	28	32	11	15	18	22	24	27	8	11	14	17	21	24	4	7	10	14	17	20
		4	38	41	43	45	48	49	33	35	37	39	41	43	26	29	30	33	35	37	20	22	24	27	29	31
3,5	58870	2	15	17	20	24	27	30	10	13	17	20	23	27	6	10	13	17	20	24	3	6	10	13	16	20
		4	37	39	42	43	46	48	31	33	36	37	40	42	25	27	29	32	33	36	19	21	23	25	27	30

Cooling coil

LTCW			6/12°C				8/14°C				R22 5°C				R22 8°C			
v	V		inlet temperature				inlet temperature				inlet temperature				inlet temperature			
m/s	m³/h	RR	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%
1,5	25230	6	13	92	12,1	95	14,6	91	13,7	94	14,3	91	12,8	95	15,7	91	14,3	94
		8	10,8	98	10,4	99	12,4	97	12,1	99	11,9	98	10,8	99	13,6	97	12,3	99
1,75	29440	6	13,9	89	12,9	93	15,3	89	14,2	93	15,1	89	13,7	93	16,5	89	14,9	92
		8	11,7	96	10,9	98	13,3	96	12,7	98	12,9	96	11,6	98	14,4	96	13,2	98
2	33640	6	14,8	87	13,6	91	16	87	14,9	91	16,4	87	14,5	91	17,4	87	15,6	91
		8	12,3	94	11,6	97	13,9	94	13,3	96	13,9	94	12,4	97	15,1	94	13,8	96
2,25	37850	6	15,4	85	14,1	90	16,6	85	15,5	89	17,1	85	15,1	89	18	85	16,1	89
		8	13,1	93	12	96	14,5	92	13,6	95	14,7	92	13,1	95	15,9	92	14,4	95
2,5	42050	6	16	84	14,5	88	17,1	83	15,8	88	17,7	83	15,7	88	18,6	83	16,6	88
		8	13,7	91	12,6	94	14,9	91	14	94	15,4	91	13,7	94	16,5	91	14,9	94
2,75	46260	6	16,6	82	15	87	17,6	82	16,3	87	18,4	82	16,2	87	19,2	82	17,1	87
		8	14,2	90	13,1	93	15,6	89	14,4	93	15,9	89	14,2	93	17	89	15,3	93
3	50460	6	17,1	81	15,4	86	15,1	80	16,5	86	18,9	80	16,6	86	19,7	80	17,5	86
		8	14,7	88	13,5	92	15,9	88	14,8	92	16,6	88	14,7	92	17,5	88	15,7	92
3,25	54670	6	17,6	79	15,8	85	18,6	79	16,9	85	19,4	79	17	85	20,1	79	17,8	85
		8	15,2	87	13,8	91	16,4	87	15,2	91	17,1	87	15,1	91	18	87	16,1	91
3,5	58870	6	18,1	78	16,2	84	19	78	17,2	84	19,8	78	17,4	87	20,5	78	18,1	84
		8	15,6	86	14,2	90	16,7	86	15,4	90	17,5	86	15,5	90	18,3	86	16,4	90

Other calculations of heating or cooling coils on request

Pressure drops DIWER 2518

Pressure drops in Pa

Air velocity m/s	1,5	1,75	2	2,25	2,5	2,75	3	3,25	3,5
Air volume m^3/h	**25230**	**29440**	**33640**	**37850**	**42050**	**46260**	**50460**	**54670**	**58870**
Fan section	11	14	19	24	29	35	42	49	57
Panel filter section	72	74	76	79	81	82	88	92	96
Bag filter G 3/4	126	132	137	142	147	152	157	162	167
Bag filter F 5/6	145	149	154	158	162	167	172	177	181
Bag filter F 7/8/9	161	169	176	184	191	199	207	215	223
Heating coil 2 RR P2,0	26	34	42	51	60	70	80	91	102
Heating coil 4 RR P2,0	46	59	73	88	104	121	139	158	178
Electrical heater	18	24	30	37	44	52	60	69	78
Cooling coil 6 RR P2,5	68	85	104	124	146	168	191	215	239
Cooling coil 8 RR P2,5	87	110	134	160	188	217	247	278	311
Droplet eliminator	13	18	24	31	38	46	55	65	76
Air washer	46	59	74	91	108	127	147	168	191
Surface humidifier W10	23	27	32	37	44	51	60	70	82
Surface humidifier W20	31	38	45	54	64	77	92	110	132
Sound attenuator	14	19	25	32	40	48	57	67	78
Inlet plenum / empty box	10	14	19	24	29	35	42	49	57
Damper open	2	2	3	4	5	6	7	8	9
Weather louvre	12	17	22	28	35	42	50	59	68

Notes

Quotation of the filter pressure drops calculated as mean value between initial and final pressure drop.

Heating coil fin spacing 2,0 mm
Cooling coil fin spacing 2,5 mm
Suction section / Mixing box with damper
Damper open and weather louvre through clear cross-flow

Missing pressure drops on demand

Heat exchanger DIWER 1212

Heating coil

LTHW			90/70°C						80/60°C						70/50°C						60/40°C					
v	V		inlet temperature						inlet temperature						inlet temperature						inlet temperature					
m/s	m³/h	RR	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5
1,5	8410	2	30	33	35	37	40	42	24	27	29	32	34	37	19	21	24	27	30	31	14	16	19	21	23	26
		4	56	58	59	61	62	63	49	49	51	53	53	55	41	42	43	45	46	47	32	34	36	36	38	39
1,75	9810	2	27	29	31	34	37	40	21	24	27	29	32	34	17	19	21	24	27	30	11	14	17	20	22	24
		4	52	54	55	57	59	60	45	47	48	49	51	52	37	39	41	42	43	45	30	31	33	34	35	37
2	11210	2	23	26	28	31	35	38	18	21	24	28	30	32	14	17	19	22	25	28	9	12	15	18	21	23
		4	48	50	52	53	55	57	41	43	45	47	48	50	34	36	37	39	41	43	27	29	31	32	33	36
2,25	12620	2	20	23	27	29	32	35	16	19	22	25	28	31	11	14	18	21	23	26	8	10	13	16	19	22
		4	45	47	49	51	53	54	39	41	43	43	46	47	31	33	36	37	39	41	25	26	28	30	32	34
2,5	14020	2	18	21	25	28	30	33	15	18	20	23	26	29	10	12	16	19	22	25	6	9	12	15	19	21
		4	42	44	46	48	50	52	36	38	39	42	43	45	29	32	33	35	37	39	22	25	27	28	31	32
2,75	15420	2	16	19	22	26	29	32	12	16	18	21	25	28	8	11	15	18	21	24	4	8	11	13	17	20
		4	39	42	44	46	48	50	33	35	38	40	42	43	28	29	31	33	30	38	21	23	24	27	29	31
3	16820	2	14	18	21	24	28	31	11	14	17	20	24	27	7	10	13	17	20	23	3	6	9	13	16	19
		4	36	39	41	44	46	48	31	33	35	38	40	42	25	27	29	31	34	36	19	21	23	26	28	30
3,25	18220	2	13	16	20	23	26	30	9	13	16	19	22	26	6	9	12	16	19	22	2	5	9	12	15	19
		4	34	37	39	42	44	46	29	32	34	36	38	41	23	25	28	31	32	35	18	21	22	24	27	29
3,5	19620	2	11	15	18	22	25	29	8	12	15	19	22	25	4	8	11	14	18	22	1	4	8	11	14	18
		4	32	35	38	40	43	45	28	30	33	35	37	39	21	24	27	29	31	34	16	18	21	23	26	28

Cooling coil

LTCW			6/12°C				8/14°C				R22 5°C				R22 8°C			
v	V		inlet temperature				inlet temperature				inlet temperature				inlet temperature			
m/s	m³/h	RR	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%
1,5	841	6	13,8	90	12,7	94	15,2	90	14,2	93	15,1	90	13,5	93	16,3	90	14,7	93
		8	11,4	97	10,9	99	13	96	12,6	98	12,7	96	11,4	98	14,1	96	13	98
1,75	9810	6	14,5	88	13,5	92	15,8	87	14,9	91	16,2	87	14,3	91	17,2	87	15,5	91
		8	12,2	95	11,5	97	13,9	94	12,9	97	13,6	94	12,2	97	14,9	94	13,6	97
2	11210	6	15,3	86	14,1	90	16,6	85	15,3	90	16,9	85	14,9	90	18	85	16,1	90
		8	13,1	93	12,2	96	14,4	93	13,6	95	14,5	93	13	96	15,6	93	14,2	95
2,25	12620	6	16	84	14,7	88	17,3	83	15,9	88	17,7	83	15,6	88	18,6	83	16,6	88
		8	13,7	91	12,6	95	15,1	91	14,2	94	15,4	91	13,7	94	16,5	91	14,9	94
2,5	14020	6	16,6	82	15	87	17,8	82	16,4	87	18,4	82	16,2	87	19,2	82	17,1	87
		8	14,2	90	13,2	93	15,6	89	14,4	93	16	89	14,2	93	17	89	15,3	93
2,75	15420	6	17,3	80	15,6	86	18,3	80	16,7	86	18,9	80	16,7	86	19,7	80	17,5	86
		8	14,7	88	13,5	92	16,1	88	15	92	16,6	88	14,7	92	17,5	88	15,7	92
3	16820	6	17,6	79	15,8	85	18,7	79	17,1	84	19,5	79	17,1	84	20,2	79	17,9	84
		8	15,2	87	14	91	16,5	87	15,3	91	17,2	87	15,3	91	18	87	16,1	91
3,25	18220	6	18,1	78	16,2	84	19,2	77	17,3	83	19,9	77	17,4	83	20,6	78	18,2	83
		8	15,8	86	14,4	90	16,9	85	15,6	90	17,6	85	15,6	90	18,5	85	16,5	90
3,5	19620	6	18,6	76	16,7	83	19,6	76	17,6	82	20,4	76	17,9	82	21	76	18,5	82
		8	16,1	84	14,6	89	17,3	84	15,9	89	18,1	84	16	89	18,9	84	16,9	89

Other calculations of heating or cooling coils on request

Pressure drops DIWER 1212

Pressure drops in Pa

Air velocity m/s	1,5	1,75	2	2,25	2,5	2,75	3	3,25	3,5
Air volume m^3/h	**8410**	**9810**	**11210**	**12620**	**14020**	**15420**	**16820**	**18220**	**19620**
Fan section	11	14	19	24	29	35	42	49	57
Panel filter section	72	74	76	78	81	85	88	92	96
Bag filter G 3/4	121	124	126	129	133	136	140	145	149
Bag filter F 5/6	145	147	151	155	160	165	169	172	178
Bag filter F 7/8/9	160	167	175	180	188	197	203	210	218
Heating coil 2 RR P2,0	31	40	49	49	70	81	93	106	120
Heating coil 4 RR P2,0	54	69	85	103	122	142	163	185	208
Electrical heater	19	24	30	37	44	52	60	69	78
Cooling coil 6 RR P2,5	88	109	139	161	198	222	264	289	326
Cooling coil 8 RR P2,5	111	138	175	205	250	281	333	366	426
Droplet eliminator	13	18	24	30	38	46	55	65	76
Air washer	42	55	68	83	100	117	135	155	176
Surface humidifier W10	22	26	30	35	41	47	55	63	74
Surface humidifier W20	30	35	42	50	59	70	83	99	117
Sound attenuator	14	19	25	32	40	48	57	67	78
Inlet plenum / empty box	10	14	19	24	29	35	42	49	57
Damper open	2	2	3	4	5	6	7	8	9
Weather louvre	12	17	22	28	35	42	50	59	68

Notes

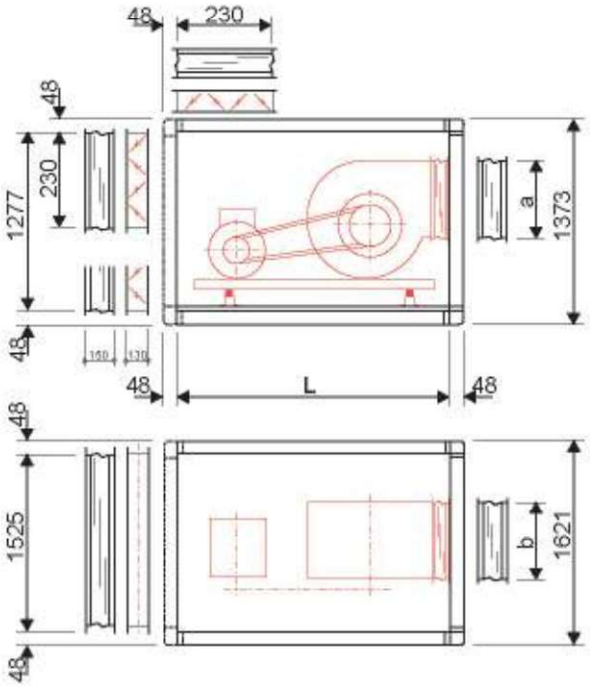
Quotation of the filter pressure drops calculated as mean value between inital and final pressure drop.

Heating coil fin spacing 2,0 mm
Cooling coil fin spacing 2,5 mm
Suction section / Mixing box with damper
Damper open and weather louvre through clear cross-flow

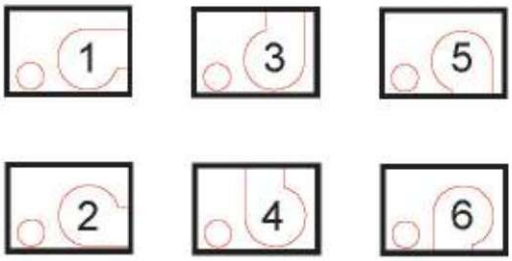
Missing pressure drops on demand

Dimensions DIWER 1512

V Belt driven fan section

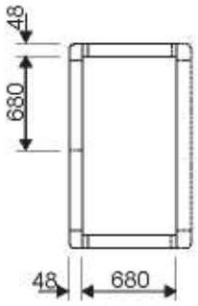


Fan outlet positions

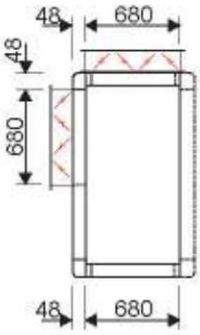


Fan type	Fan outlet	Motorsize 112	160	200	a/b
		Fan casing length L			
450	1-6	1220	1525		569
500	1,2 3-6	1525 1525	1525 1525	1525 1830	638
560	1,2 3-6	1525 1525	1525 1830	1830 1830	715
630	1-6	1525	1830	1830	800

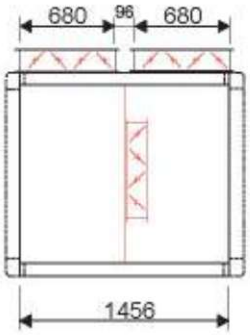
A Inlet section



M Mixing box

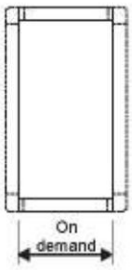


M2 Double mixing box

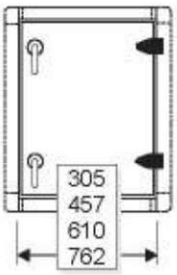


On request dampers of inlet and mixing plenum
with dimensions
680 or 780 mm instead of 455 mm (Attention! Adapt respective the section length)

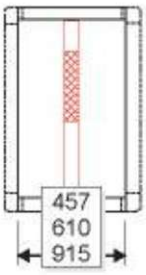
L Empty box



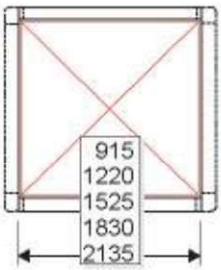
LB Empty box with door



P Diffusor section

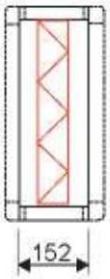


SD Sound attenuator

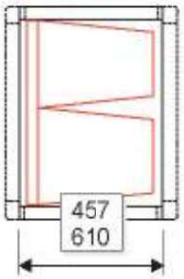


Dimensions DIWER 1512

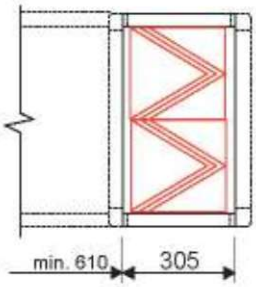
KF Panel filter section



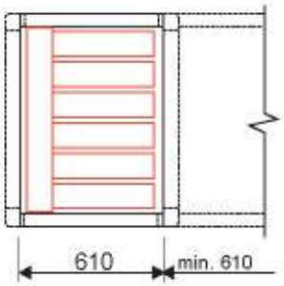
TF Bag filter section



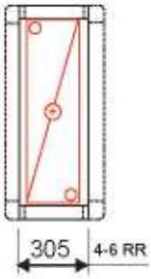
AF Absolute-filter section



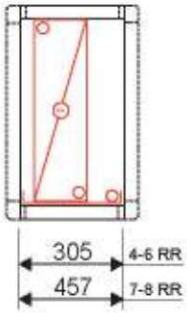
AKF Active carbon filter section



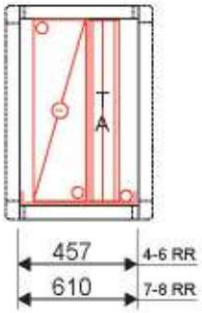
EH Heating coil



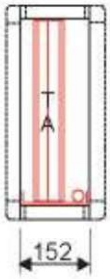
KH Cooling coil



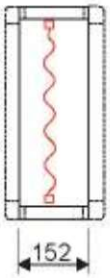
KHT Cooling coil with TA



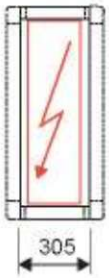
TA Droplet eliminator



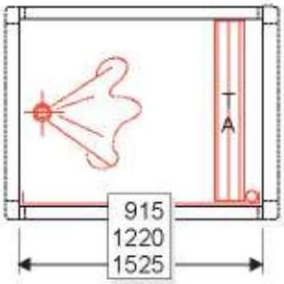
FS Anti frost frame



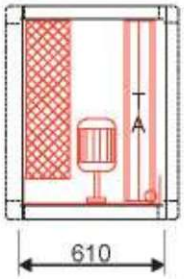
EE Electric heater



DB Steam humidifier



OB Honey comb-humidifier



Reserves of right for technical modifications. The indicated dimensions are not binding.
The flexible WEGER production permits device manufacturing "after measure".

Heat exchanger DIWER 1512

Heating coil

LTHW			90/70°C						80/60°C						70/50°C						60/40°C					
v	V		inlet temperature						inlet temperature						inlet temperature						inlet temperature					
m/s	m³/h	RR	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5
1,5	10510	2	31	33	36	39	41	43	25	28	31	33	35	38	20	23	25	28	30	33	15	17	20	22	24	27
		4	59	59	60	62	62	64	50	52	52	54	55	56	42	44	44	46	46	48	34	35	36	37	39	40
1,75	12270	2	27	30	33	36	37	40	23	26	27	30	32	35	17	20	22	25	28	30	12	14	17	20	23	25
		4	55	55	57	58	60	60	47	48	49	50	52	53	39	40	42	42	44	45	31	32	33	35	36	38
2	14020	2	24	27	30	32	35	38	19	22	25	28	31	34	15	18	21	23	26	29	10	12	15	18	21	24
		4	50	52	53	55	56	58	43	45	46	48	49	51	36	37	39	40	42	43	29	30	32	3	35	36
2,25	15770	2	22	24	27	30	33	36	17	20	23	25	29	31	12	15	18	21	24	27	8	11	14	16	20	22
		4	47	49	51	52	54	56	40	42	44	45	47	49	33	35	37	38	40	41	26	28	29	31	33	34
2,5	17520	2	20	22	25	28	31	34	15	18	21	24	27	30	11	14	16	20	22	25	6	10	12	15	19	21
		4	45	47	49	50	51	53	37	39	41	43	45	47	30	32	35	36	38	40	24	25	28	29	32	33
2,75	19270	2	17	21	24	26	30	33	13	16	19	22	25	29	9	12	15	18	22	24	5	8	12	14	17	21
		4	42	44	46	47	49	52	36	37	39	41	43	45	28	31	32	35	37	38	22	25	26	28	30	31
3	21030	2	16	18	22	25	28	31	12	14	18	21	25	28	8	11	14	17	21	24	4	7	10	13	17	20
		4	39	42	44	45	48	50	33	35	38	40	41	43	28	29	31	33	34	37	20	23	24	26	29	31
3,25	22780	2	14	18	20	24	27	30	10	14	17	20	23	26	6	10	13	16	19	23	3	6	9	13	16	19
		4	38	39	41	44	46	48	31	33	35	38	39	42	25	27	29	31	34	36	19	21	23	26	28	30
3,5	24530	2	13	15	19	23	26	29	8	12	16	19	22	26	5	9	12	15	19	22	1	5	8	12	15	19
		4	35	38	39	42	44	46	29	32	34	36	39	41	24	25	28	31	32	34	18	9	22	24	27	29

Cooling coil

LTCW			6/12°C				8/14°C				R22 5°C				R22 8°C			
v	V		inlet temperature				inlet temperature				inlet temperature				inlet temperature			
m/s	m³/h	RR	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%
1,5	10510	6	13,5	91	12,7	94	14,8	90	13,9	94	14,7	91	13,1	94	15,9	90	14,4	94
		8	11,1	97	10,7	99	12,9	97	12,4	99	12,2	97	11	99	13,9	97	12,8	99
1,75	12270	6	14,3	89	13,2	92	15,7	88	14,6	92	15,7	88	13,9	92	16,9	88	15,2	92
		8	12	95	11,3	98	13,6	95	12,9	97	13,3	95	12	97	14,7	95	13,4	97
2	14020	6	15,1	86	13,9	91	16,3	86	15,3	90	16,6	86	14,7	90	17,6	86	15,8	90
		8	12,8	94	12	96	14,2	93	13,4	96	14,1	93	12,7	96	15,5	93	14,1	96
2,25	15770	6	15,8	84	14,5	89	17	84	15,5	89	17,5	84	15,5	89	18,4	84	16,4	89
		8	13,4	92	12,4	95	14,7	92	14	95	15	92	13,4	95	16,1	92	14,6	95
2,5	17520	6	16,5	83	14,8	88	17,5	82	16,2	87	18,2	82	16	87	18,9	82	16,9	87
		8	13,9	90	13	94	15,4	90	14,4	93	15,7	90	14	93	16,7	90	15,1	93
2,75	19270	6	16,8	81	15,4	86	18,1	81	16,4	86	18,7	81	16,5	86	19,5	81	17,3	86
		8	14,4	89	13,5	93	15,8	89	14,7	92	16,3	89	14,5	92	17,3	89	15,6	92
3	21030	6	17,4	80	15,8	85	18,5	79	16,8	85	19,2	79	16,9	85	19,9	79	17,6	85
		8	15	88	13,8	92	16,4	87	15,2	91	16,9	87	15	91	17,7	87	15,9	91
3,25	22780	6	18	78	16,2	84	18,8	78	17,2	84	19,7	78	17,3	84	20,4	78	18	84
		8	15,6	96	14,2	91	16,7	86	15,4	90	17,4	86	15,4	90	18,3	86	16,4	90
3,5	24530	6	18,4	77	16,4	83	19,3	77	17,3	83	20,1	77	17,6	83	20,7	77	18,3	83
		8	16,1	85	14,6	90	17,1	85	15,8	89	17,9	85	15,8	89	18,6	85	16,6	89

Other calculations of heating or cooling coils on request

Pressure drops DIWER 1512

Pressure drops in Pa

Air velocity m/s	1,5	1,75	2	2,25	2,5	2,75	3	3,25	3,5
Air volume m^3/h	**10510**	**12270**	**14020**	**15770**	**17520**	**19270**	**21030**	**22780**	**24530**
Fan section	11	14	19	24	29	35	42	49	57
Panel filter section	72	74	76	79	82	85	88	92	96
Bag filter G 3/4	127	132	137	142	147	152	157	162	167
Bag filter F 5/6	146	150	154	158	163	167	172	177	182
Bag filter F 7/8/9	162	169	177	184	192	200	208	216	224
Heating coil 2 RR P2,0	29	37	46	55	65	76	87	99	112
Heating coil 4 RR P2,0	50	64	79	96	113	132	152	172	194
Electrical heater	18	24	30	37	44	52	60	69	78
Cooling coil 6 RR P2,5	73	93	113	134	157	181	207	232	259
Cooling coil 8 RR P2,5	94	119	146	174	204	235	267	300	335
Droplet eliminator	13	18	24	31	38	46	55	65	76
Air washer	43	56	70	86	102	120	139	159	180
Surface humidifier W10	23	26	31	36	41	48	56	65	76
Surface humidifier W20	30	36	43	51	61	72	86	102	122
Sound attenuator	14	19	25	32	40	48	57	67	78
Inlet plenum / empty box	10	14	19	24	29	35	42	49	57
Damper open	2	2	3	4	5	6	7	8	9
Weather louvre	12	17	22	28	35	42	50	59	68

Notes

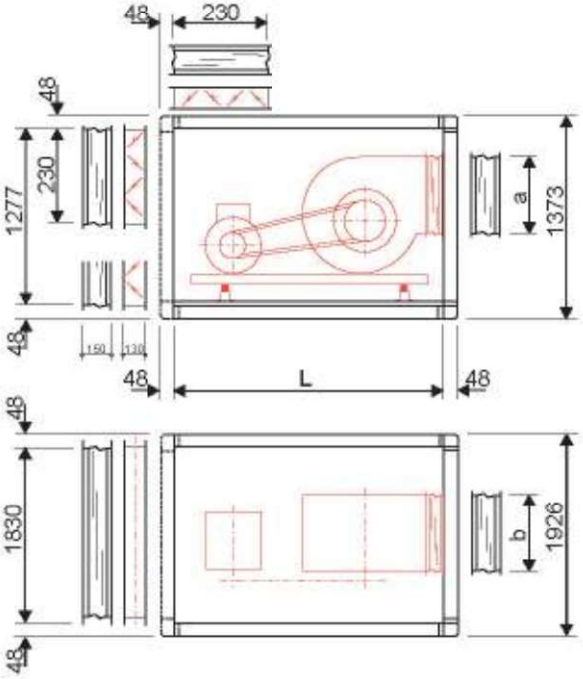
Quotation of the filter pressure drops calculated as mean value between inital and final pressure drop

Heating coil fin spacing 2,0 mm
Cooling coil fin spacing 2,5 mm
Suction section / Mixing box with damper
Damper open and weather louvre through clear cross-flow

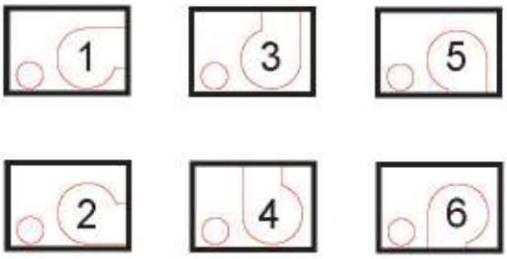
Missing pressure drops on demand

Dimensions DIWER 1812

V Belt driven fan section

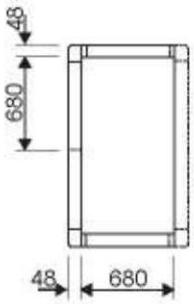


Fan outlet positions

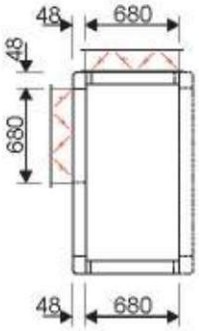


Fan type	Fan outlet	Motorsize 112	160	200	a/b
		Fan casing length L			
450	1-6	1220	1525		569
500	1,2	1525	1525	1525	638
	3-6	1525	1525	1830	
560	1,2	1525	1525	1830	715
	3-6	1525	1830	1830	
630	1-6	1525	1830	1830	800

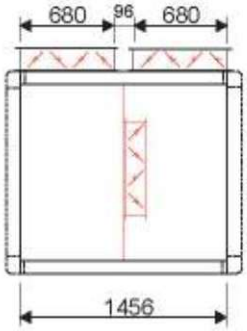
A Inlet section



M Mixing box

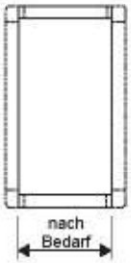


M2 Double mixing box

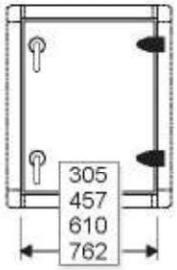


Dampers of inlet and mixing plenum
on request with dimensions
680 or 780 mm instead of 455mm (Attention! Adapt respective the section length).

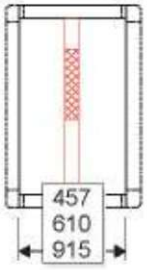
L Empty box



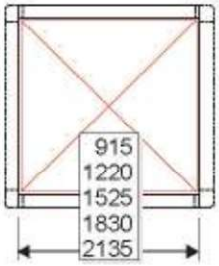
LB Empty box with door



P Diffusor section

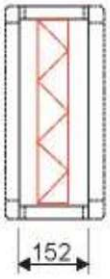


SD Sound attenuator

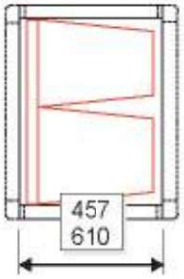


Dimensions DIWER 1812

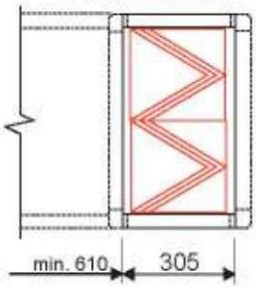
KF Panel filter section



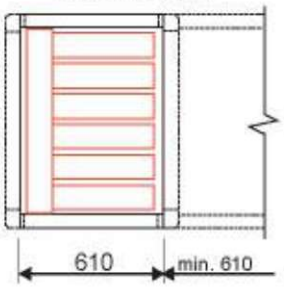
TF Bagfilter section



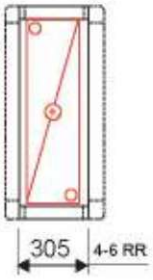
AF Absolute-filter section



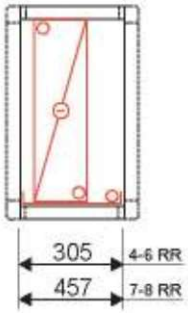
AKF Active carbon filter section



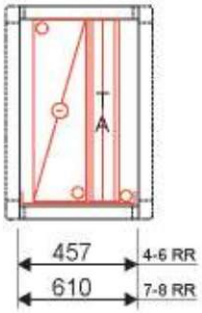
EH Heating coil



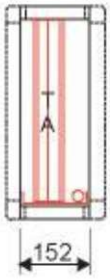
KH Cooling coil



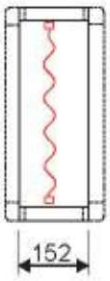
KHT Cooling coil with TA



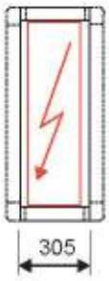
TA Droplet eliminator



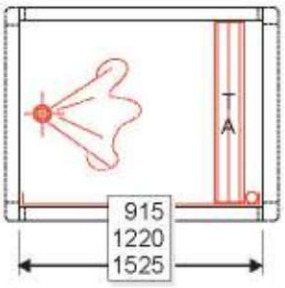
FS Anti frost frame



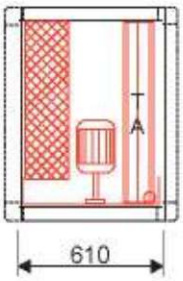
EE Electric heater



DB Steam humidifier



OB Honey comb humidifier



Reserve of right for technical modifications. The indicated dimensions are not binding.
The flexible WEGER production permits device manufacturing "after measure"

Heat exchanger DIWER 1812

Heating coil

LTHW			90/70°C						80/60°C						70/50°C						60/40°C					
v	V		inlet temperature						inlet temperature						inlet temperature						inlet temperature					
m/s	m³/h	RR	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5
1,5	12620	2	32	35	36	39	41	43	26	29	31	33	35	38	21	23	25	28	30	33	15	18	20	23	25	27
		4	59	60	62	62	63	65	50	52	53	54	55	57	42	44	45	46	47	48	34	36	36	38	39	40
1,75	14720	2	28	31	34	36	38	41	23	26	28	30	33	35	17	20	23	25	28	30	12	15	18	20	23	26
		4	55	56	58	58	60	62	47	48	50	50	52	54	39	40	42	43	44	46	32	32	34	35	37	38
2	16820	2	25	28	30	33	36	38	20	23	25	28	31	34	15	18	21	24	26	29	11	13	16	19	21	24
		4	52	53	55	55	57	59	43	45	47	48	50	52	36	38	40	41	42	44	29	30	32	34	35	36
2,25	18920	2	22	25	28	30	34	36	17	20	24	26	29	32	13	16	19	22	25	27	8	11	14	17	20	23
		4	48	49	51	53	54	56	41	43	44	46	47	49	34	35	37	39	41	42	27	28	30	31	33	34
2,5	21030	2	20	23	26	28	32	35	15	18	21	24	28	30	11	14	18	20	23	26	7	10	13	15	19	22
		4	45	47	49	51	53	53	39	41	41	43	46	47	31	33	35	36	38	40	25	26	28	30	32	33
2,75	23130	2	18	21	25	27	30	33	14	17	20	23	26	29	10	12	16	19	22	25	5	8	12	15	18	21
		4	43	44	46	48	50	52	36	37	39	42	43	45	29	31	33	35	37	39	22	25	27	28	30	32
3	25230	2	16	19	22	25	28	32	12	15	18	21	25	28	8	11	15	18	21	24	4	7	10	14	17	20
		4	40	42	44	46	48	50	34	35	38	40	42	43	28	30	31	33	35	38	21	23	25	27	29	31
3,25	27330	2	14	18	21	24	28	31	11	14	17	20	24	27	7	10	13	17	20	23	3	6	9	13	16	19
		4	38	40	43	44	46	49	31	34	36	38	40	42	28	28	29	32	34	36	19	21	24	26	28	30
3,5	29440	2	13	16	20	23	26	30	10	13	16	19	22	26	6	9	12	16	19	23	2	6	9	12	15	19
		4	35	38	40	43	44	47	30	32	34	36	39	41	24	26	28	31	33	35	18	21	22	24	27	29

Cooling coil

LTCW			6/12°C				8/14°C				R22 5°C				R22 8°C			
v	V		inlet temperature				inlet temperature				inlet temperature				inlet temperature			
m/s	m³/h	RR	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%
1,5	12620	6	13,2	91	12,3	94	14,8	91	13,9	94	14,7	91	13,1	94	15,8	91	14,3	94
		8	11,1	97	10,6	99	12,7	97	12,3	99	12,1	97	11	99	13,7	97	12,6	99
1,75	14720	6	14,2	89	13,1	93	15,5	88	14,5	92	15,6	88	13,9	92	16,7	88	15,1	92
		8	12	96	11,3	98	13,4	95	12,9	97	13,1	95	11,8	98	14,5	95	13,3	97
2	16820	6	15,1	87	13,6	91	16,2	86	15,1	91	16,6	86	14,7	91	17,6	86	15,8	90
		8	12,5	94	11,8	97	14,2	94	13,3	96	14,1	94	12,6	96	15,3	93	14	96
2,25	18920	6	15,7	85	14,3	89	16,9	84	15,5	89	7,3	84	15,3	89	18,2	84	16,3	89
		8	13,4	92	12,3	95	14,7	92	13,8	95	14,9	92	13,3	95	16,1	92	14,6	95
2,5	21030	6	16,3	83	14,7	88	17,5	83	15,9	88	17,9	83	15,8	88	18,8	83	16,7	88
		8	13,7	91	12,8	94	15,1	90	14,3	94	15,4	90	13,7	94	16,7	90	15	94
2,75	23130	6	16,8	82	15,2	87	17,9	81	16,4	86	18,6	81	16,3	86	19,4	81	17,2	86
		8	14,4	89	13,3	83	15,8	89	14,7	93	16,2	89	14,4	93	17,2	89	15,4	92
3	25230	6	17,4	80	15,7	86	18,5	80	16,7	85	19	80	16,7	85	19,8	80	17,6	85
		8	14,9	88	13,8	92	16,1	88	15	92	16,6	88	14,7	92	17,7	88	15,9	91
3,25	27330	6	17,8	79	16	85	18,7	79	17,1	84	19,5	78	17,2	84	20,2	78	17,9	84
		8	15,5	87	14,2	91	16,6	86	15,3	91	17,3	86	15,3	91	18,1	86	16,2	90
3,5	29440	6	18,1	78	16,4	84	19,2	77	17,6	83	19,9	77	17,4	83	20,7	77	18,2	83
		8	16	85	14,4	90	17,1	85	15,6	90	17,7	85	15,6	80	18,5	85	16,5	90

Other calculations of heating or cooling coil on request

Pressure drops DIWER 1812

Air velocity m/s	1,5	1,75	2	2,25	2,5	2,75	3	3,25	3,5
Air volume m³/h	12620	14720	16820	18920	21030	23130	25230	27330	29440
Fan section	11	14	19	24	29	35	42	49	57
Panel filter section	72	74	76	78	81	85	88	92	96
Bag filter G 3/4	127	132	137	142	147	152	157	162	167
Bag filter F 5/6	145	149	154	158	162	167	172	176	181
Bag filter F 7/8/9	161	169	176	184	191	199	207	215	223
Heating coil 2 RR P2,0	28	36	44	53	63	73	84	96	108
Heating coil 4 RR P2,0	48	62	77	92	109	127	146	166	187
Electrical heater	18	24	30	37	44	52	60	69	78
Cooling coil 6 RR P2,5	71	89	109	130	153	176	201	225	252
Cooling coil 8 RR P2,5	91	115	141	168	198	227	260	291	326
Droplet eliminator	13	18	24	31	38	46	55	65	76
Air washer	44	57	71	87	104	122	141	161	183
Surface humidfier W10	23	27	31	36	42	49	57	66	77
Surface humidfier W20	31	36	43	52	62	74	88	104	125
Sound attenuator	14	19	25	32	40	48	57	67	78
Inlet plenum/empty box	10	14	19	24	29	35	42	49	57
Damper open	2	2	3	4	5	6	7	8	9
Weather louvre	12	17	22	28	35	42	50	59	68

Notes

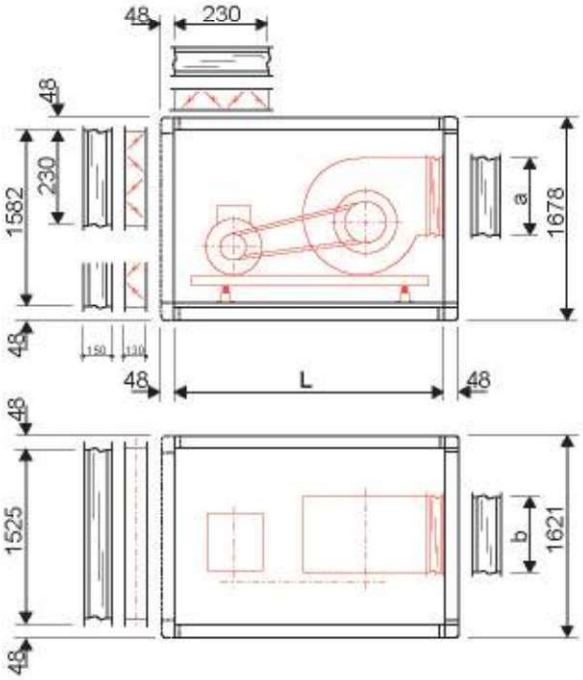
Quotation of the filter pressure drops calulated as mean value between initial and final pressure drop

Heating coil fin spacing 2,0 mm
Cooling coil fin spacing 2,5 mm
Suction section/Mixing box with damper
Damper open and weather louvre through clear cross-flow

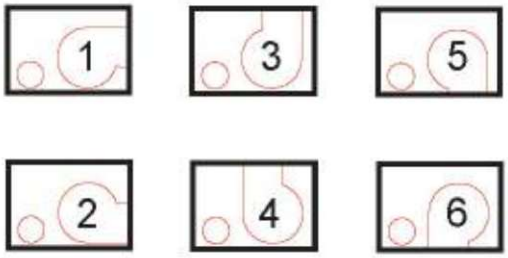
Missing pressure drops on request

Dimensions DIWER 1515

V Belt driven fan section

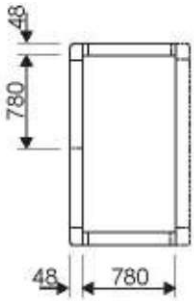


Fan outlet position

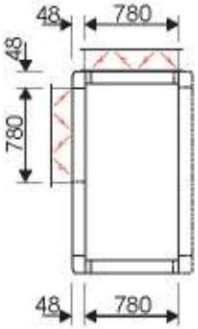


Fan type	Fan outlet	Motorsize 112	160	200	a/b
		Fan casing length L			
450	1-6	1220	1525		569
500	1,2 3-6	1525 1525	1525 1525	1525 1830	638
560	1,2 3-6	1525 1525	1525 1830	1830 1830	732 715
630	1,2 3-6	1525 1830	1830 1830	1830 1525	818 801

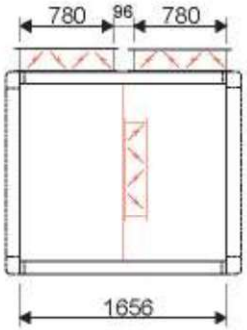
A Inlet section



M Mixing box

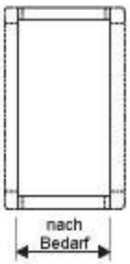


M2 Double mixing box

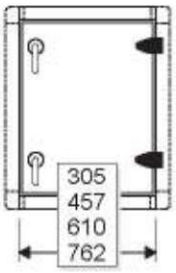


On request dampers of inlet and mixing plenum
with dimensions
680 or 780 mm instead of 455 mm (Attention! Adapt respective the section length)

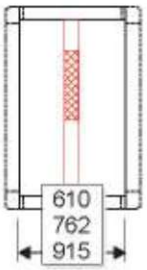
L Empty box



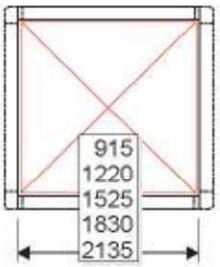
LB Empty box with door



P Diffusor section

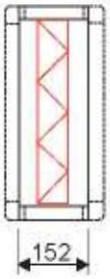


SD Sound attenuator

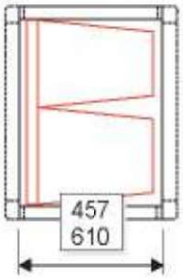


Dimensions DIWER 1515

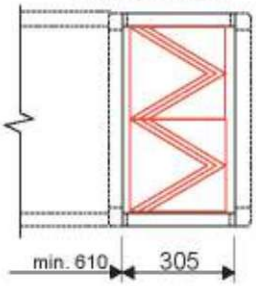
KF Panel filter section



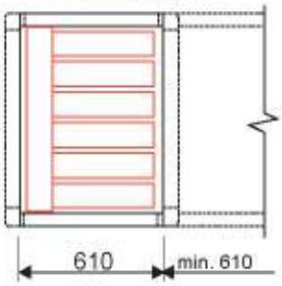
TF Bag filter section



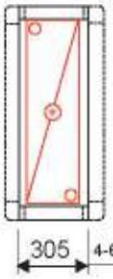
AF Absolute-filter section



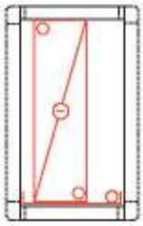
AKF Active carbon filter section



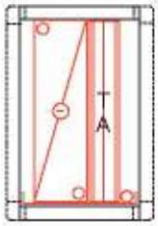
EH Heating coil



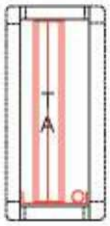
KH Cooling coil



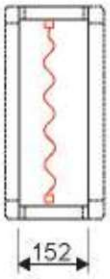
KHT Cooling coil with TA



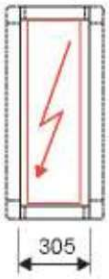
TA Droplet eliminator



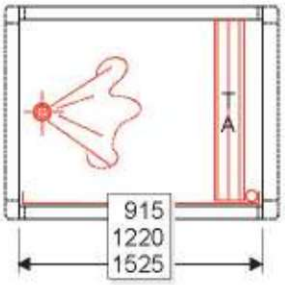
FS Anti frost frame



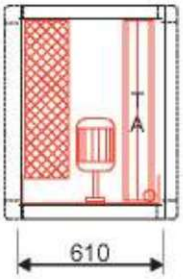
EE Electronic heater



DB Steam humidifyier



OB Honey comb-humidifyier



Reserves of right for technical modifications. The indicated dimensions are not binding.
The flexible WEGER production permits device manufacturing “after measure”.

Heat exchanger DIWER 1515

Heating coil

LTHW			90/70°C						80/60°C						70/50°C						60/40°C				
v	V		inlet temperature						inlet temperature						inlet temperature						inlet temperature				
m/s	m³/h	RR	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0
1,5	13140	2	31	33	36	38	41	43	25	28	30	33	35	38	20	23	25	27	30	33	15	17	20	22	24
		4	57	59	60	62	62	64	50	51	52	54	55	56	42	43	44	46	46	47	34	35	36	37	59
1,75	15331	2	27	30	33	36	38	40	23	26	27	30	32	35	17	20	22	25	27	30	12	15	17	20	23
		4	55	55	57	58	59	60	47	47	49	50	52	53	39	40	42	42	44	45	31	32	33	35	36
2	17520	2	24	24	30	32	35	38	19	22	25	28	31	34	15	18	21	23	26	28	10	13	16	18	21
		4	50	52	53	55	56	58	43	44	46	48	49	51	36	37	39	40	42	43	28	30	32	33	35
2,25	19710	2	22	24	27	30	33	36	17	20	23	25	29	31	12	15	18	21	24	27	8	11	14	17	20
		4	47	49	50	52	54	55	40	42	44	45	47	48	33	35	37	38	40	41	26	28	29	31	33
2,5	21900	2	20	22	25	28	31	34	15	18	21	24	28	30	11	13	17	20	23	25	6	9	12	15	19
		4	45	47	49	49	51	53	37	39	41	42	45	46	30	32	34	36	38	40	24	25	28	29	32
2,75	24090	2	17	20	24	26	30	32	13	16	20	22	26	29	9	12	15	18	22	25	5	8	11	14	17
		4	42	44	45	47	49	51	35	37	38	41	43	45	28	31	32	35	37	38	22	24	26	28	30
3	26280	2	16	18	22	25	28	31	12	14	18	21	24	28	8	11	14	17	20	24	4	7	10	13	17
		4	39	42	43	45	48	50	33	35	38	39	41	43	26	29	31	33	35	37	20	23	24	26	28
3,25	28470	2	14	18	20	24	27	30	10	13	17	20	23	27	6	10	13	16	19	23	3	6	9	12	16
		4	37	39	41	4	45	48	31	33	35	38	39	42	24	27	29	31	33	36	19	21	23	26	28
3,5	30660	2	13	15	19	23	26	29	8	12	16	19	22	26	5	9	12	15	19	22	2	5	9	12	15
		4	35	37	39	42	44	46	29	31	34	36	38	41	24	25	28	31	32	34	18	19	22	24	27

Cooling coil

LTCW			6/12°C				8/14°C				R22 5°C				R22 8°C			
v	V		inlet temperature				inlet temperature				inlet temperature				inlet temperature			
m/s	m³/h	RR	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%
1,5	13140	6	13,5	91	12,7	94	14,9	90	14,1	94	14,7	90	13,1	94	16,1	90	14,5	94
		8	11,1	97	10,7	99	12,9	97	12,4	99	12,4	97	11,2	99	13,9	97	12,8	99
1,75	15331	6	14,3	89	13,3	92	15,7	88	14,7	92	15,8	88	14	92	16,9	88	15,2	92
		8	12	95	11,3	98	13,6	95	13,1	97	13,4	95	12	97	14,7	95	13,4	97
2	17520	6	15,1	86	13,9	91	16,4	86	15,3	90	16,8	86	14,9	90	17,8	86	15,9	90
		8	12,6	94	12	96	14,2	93	13,6	96	14,1	93	12,7	96	15,5	93	14,1	96
2,25	19710	6	15,8	84	14,3	89	17,1	84	15,7	89	17,5	84	15,5	89	18,4	84	16,4	89
		8	13,4	92	12,4	95	14,7	92	14	95	15	92	13,4	95	16,1	91	14,6	94
2,5	21900	6	16,5	83	14,8	88	17,5	82	16,2	87	18,2	82	16	87	18,9	82	16,9	87
		8	13,9	90	13	94	15,4	90	14,4	83	15,7	90	14	93	16,7	90	15,1	93
2,75	24090	6	16,8	81	15,4	86	18,1	81	16,4	86	18,7	81	16,5	86	19,5	81	17,3	86
		8	14,4	89	13,5	93	15,8	89	14,8	92	16,4	88	14,5	92	17,3	89	15,6	92
3	26280	6	17,6	80	15,8	85	18,5	79	16,9	85	19,2	79	16,9	85	19,9	79	17,6	85
		8	15	88	13,8	91	16,1	87	15,2	91	16,9	87	15	91	17,7	87	15,9	91
3,25	28470	6	17,9	78	16,2	84	18,8	78	17,1	84	19,7	78	17,3	84	20,4	78	18	84
		8	15,3	86	14,2	90	16,7	86	15,4	90	17,4	86	15,4	90	18,3	86	16,4	90
3,5	30660	6	18,4	77	16,4	83	19,4	77	17,5	83	20,1	77	17,6	83	20,7	77	18,3	83
		8	15,9	85	14,6	90	17,1	85	15,8	89	17,9	85	15,8	89	18,7	85	16,7	89

Other calculations of heating or cooling on demand

Pressure drops DIWER 1515

Pressure drops in Pa

Air velocity m/s	1,5	1,75	2	2,25	2,5	2,75	3	3,25	3,5
Air volume m^3/h	**13140**	**15330**	**17520**	**19710**	**21900**	**24090**	**26280**	**28470**	**30660**
Fan section	11	14	19	24	29	35	42	49	57
Panel filter	72	74	77	80	83	87	90	95	99
Bag filter G 3/4	128	133	139	144	149	155	160	165	171
Bag filter F 5/6	147	151	155	160	165	170	175	180	185
Bag filter F 7/8/9	164	172	179	187	196	204	212	220	229
Heating coil 2 RR P2,0	29	37	46	55	66	76	88	100	112
Heating 4 RR P2,0	50	65	80	96	114	133	153	174	196
Electrical heater	18	24	30	37	44	52	60	69	78
Cooling coil 6 RR P2,5	74	93	113	135	158	183	208	234	261
Cooling coil 8 RR P2,5	94	120	147	175	205	236	269	302	337
Droplet eliminator	13	18	24	31	38	46	55	65	76
Air washer	44	57	72	88	105	123	142	163	184
Surface humidfyier W10	23	27	31	36	42	49	58	67	78
Surface humidifyier W20	31	37	44	52	62	74	89	106	126
Sound attenuator	14	19	25	32	40	48	57	67	78
Inlet plenum/empty box	10	14	19	24	29	35	42	49	57
Damper open	2	2	3	4	5	6	7	8	9
Weather louvre	12	17	22	28	35	42	50	59	68

Notes

Quotation of the filter pressure drops calculated as mean value between inital and final pressure drop

Heating coil fin spacing 2,0 mm
Cooling coil fin spacing 2,5 mm
Suction section / Mixing box with damper
Damper open and weather louvre through clear cross-flow

Missing pressure drops on demand

Pressure drops DIWER 2121

Pressure drops in Pa

Air velocity m/s	1,5	1,75	2	2,25	2,5	2,75	3	3,25	3,5
Air volume m³/h	**27560**	**30050**	**34342**	**38640**	**42930**	**47220**	**51510**	**55810**	**60100**
Fan section	11	14	19	24	29	35	42	49	57
Panel filter section	72	74	76	79	81	82	88	92	96
Bag filter G 3/4	126	132	137	142	147	152	157	162	167
Bag filter F 5/6	145	149	154	158	162	167	172	177	181
Bag filter F 7/8/9	161	169	176	184	191	199	207	215	223
Heating coil 2 RR P2,0	27	34	43	52	61	71	82	93	104
Heating coil 4 RR P2,0	47	60	74	90	106	123	142	161	182
Electrical heater	18	24	30	37	44	52	60	69	78
Cooling coil 6 RR P2,5	69	87	106	127	148	171	194	218	244
Cooling coil 8 RR P2,5	88	111	137	163	192	220	252	283	315
Droplet eliminator	13	18	24	31	38	46	55	65	76
Air washer	46	59	74	91	108	127	147	168	191
Surface humidifier W10	23	27	32	37	44	51	60	70	82
Surface humidfier W20	31	38	45	54	64	77	92	110	132
Sound attenuator	14	19	25	32	40	48	57	67	78
Inlet plenum / empty box	10	14	19	24	29	35	42	49	57
Damper open	2	2	3	4	5	6	7	8	9
Weather louvre	12	17	22	28	35	42	50	59	68

Notes

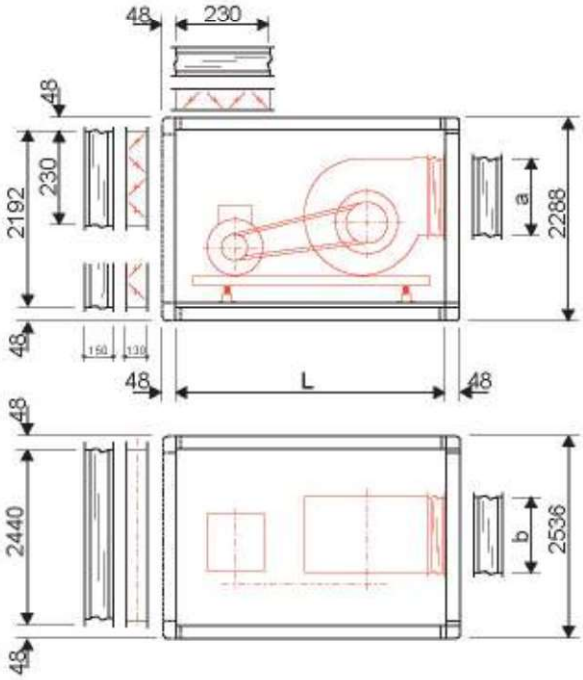
Quotion of the filter pressure drops calculated as mean value between initial and final pressure drop

Heating coil fin spacing 2,0 mm
Cooling coil fin spacing 2,5 mm
Suction section / Mixing box with damper
Damper open and weather louvre through clear cross-flow

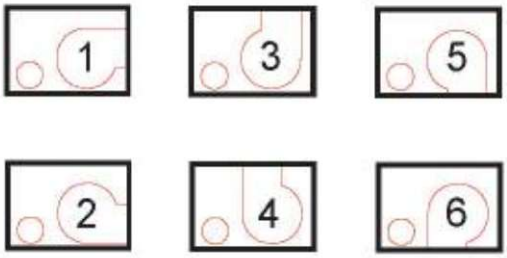
Missing pressure drops on demand

Dimensions DIWER 2521

V Belt driven fan section

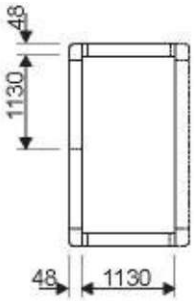


Fan outlet positions

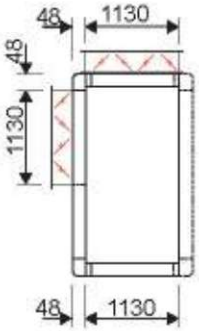


Fan type	Fan outlet	Motorsize 160	225	280	a/b
		Fan casing length L			
800	1,2 3-6	2135 2135	2135 2440		1024 1007
900	1,2 3-6	2135 2440	2135 2440	2440 2745	1147 1130
1000	1,2 3-6	2135 2440	2440 2745	2440 2745	1284 1267

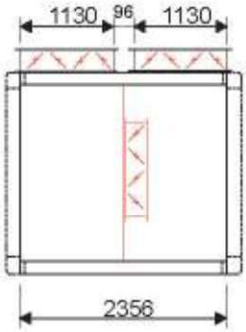
A Inlet section



M Mixing box

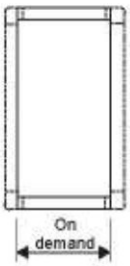


M2 Double mixing box

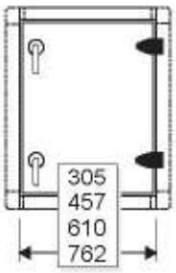


On request dampers of inlet and mixing plenum
with dimensions
1240 or 1465 mm instead of 1130 mm (Attention! Adapt respective the section length)

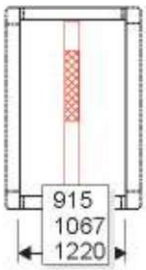
L Empty box



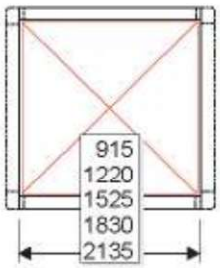
LB Empty box with door



P Diffusor section

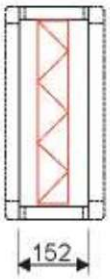


SD Sound attenuator

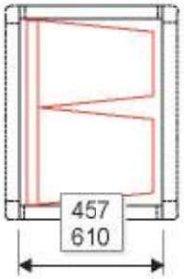


Dimensions DIWER 2521

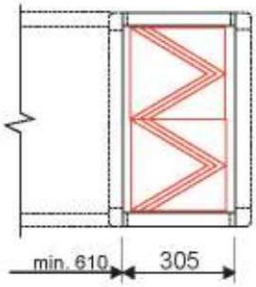
KF Panel filter section



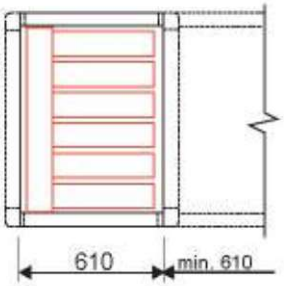
TF Bag filter section



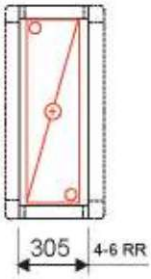
AF Absolute-filter section



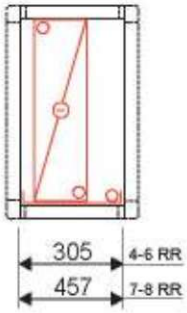
AKF Active carbon filter section



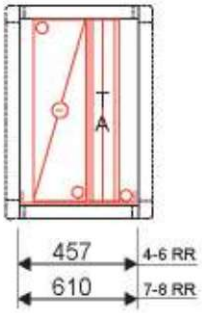
EH Heating coil



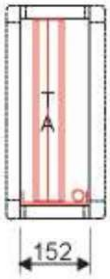
KH Cooling coil



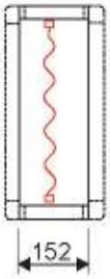
KHT Cooling coil with TA



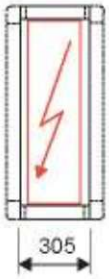
TA Droplet eliminator



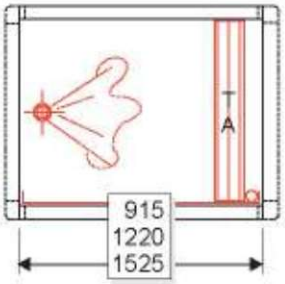
FS Anti frost frame



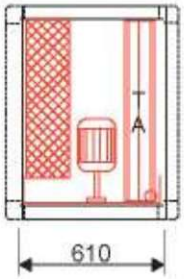
EE Electric heater



DB Steam humidifier



OB Honey comb-humidifier



Reserves of right for technical modifications. The indicated dimensions are not binding.
The flexible WEGER production permits device manufacturing "after measure".

Heat exchanger DIWER 2521

Heating coil

LTHW			90/70°C						80/60°C						70/50°C						60/40°C					
v	V		inlet temperature						inlet temperature						inlet temperature						inlet temperature					
m/s	m³/h	RR	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5
1,5	29440	2	33	35	38	40	43	44	28	30	31	34	37	39	21	24	26	29	31	33	16	18	20	23	26	28
		4	60	61	63	64	65	65	52	53	53	55	56	57	43	45	46	47	48	49	35	37	37	39	40	41
1,75	34340	2	29	32	34	36	39	41	24	26	28	31	34	37	18	21	24	26	28	31	13	16	18	21	23	26
		4	56	58	58	59	61	63	48	49	51	52	53	54	40	42	43	44	46	47	32	34	35	36	37	38
2	39250	2	26	29	31	34	37	39	21	24	27	29	31	34	16	18	21	24	27	30	11	14	17	19	22	25
		4	52	54	55	57	58	59	45	46	48	49	51	52	37	39	40	42	43	45	30	31	33	34	36	37
2,25	44160	2	23	26	28	31	35	38	18	21	25	27	30	32	14	17	19	22	25	28	9	12	15	18	21	23
		4	48	50	52	54	55	57	42	43	45	47	48	50	35	36	38	39	41	43	27	29	31	32	34	35
2,5	49060	2	21	23	27	29	32	35	16	19	22	25	28	31	12	15	18	21	24	27	8	11	13	16	19	22
		4	46	48	50	51	53	55	39	41	43	45	46	48	33	34	36	38	39	41	26	27	29	31	32	34
2,75	53970	2	19	21	25	28	31	34	15	18	21	23	26	29	10	13	16	19	22	25	6	9	12	15	19	21
		4	44	45	47	49	51	52	37	38	40	42	44	46	30	32	34	35	38	39	23	25	27	29	31	33
3	58870	2	17	20	23	26	29	32	13	16	19	22	25	28	8	12	15	18	22	24	5	8	11	14	17	21
		4	42	43	45	47	48	51	35	36	38	41	42	45	28	30	32	35	36	38	22	23	26	28	29	31
3,25	63780	2	15	18	22	25	28	31	11	14	18	21	24	27	8	11	14	17	20	23	4	7	10	13	17	20
		4	39	40	43	45	48	50	33	35	38	39	41	43	26	29	30	33	34	37	20	22	24	26	28	31
3,5	68690	2	14	18	20	24	27	30	10	13	17	20	23	26	6	10	13	16	19	23	3	6	9	13	16	19
		4	36	39	41	44	45	48	31	33	35	37	39	41	24	27	29	31	33	36	19	21	23	26	28	30

Cooling coil

LTCW			6/12°C				8/14°C				R22 5°C				R22 8°C			
v	V		inlet temperature				inlet temperature				inlet temperature				inet temperature			
m/s	m³/h	RR	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%
	29440	6	13	92	12,1	95	14,6	91	13,7	94	14,3	91	12,8	95	15,6	91	14,1	94
		8	10,8	98	10,4	99	12,7	97	12,1	99	11,9	98	10,8	99	13,4	97	12,4	99
1,75	34340	6	13,8	90	12,9	93	15,3	89	14,3	93	15,4	89	13,7	93	16,5	89	14,9	93
		8	11,7	96	10,9	98	13	96	12,7	98	12,9	96	11,6	98	14,3	96	13,2	98
2	39250	6	14,6	87	13,6	91	16	87	14,9	91	16,4	87	14,5	91	17,4	87	15,6	91
		8	12,3	94	11,6	97	13,9	94	13,3	96	13,8	94	12,4	97	15,1	94	13,8	96
2,25	44160	6	15,4	85	14,1	90	16,6	85	15,3	90	17,1	85	15,1	90	18	85	16,1	89
		8	13,1	93	12,2	96	14,5	92	13,6	95	14,7	92	13,1	95	15,9	92	14,4	95
2,5	49060	6	16	84	14,5	89	17,1	83	15,8	88	17,7	93	15,6	88	18,6	83	16,6	88
		8	13,7	91	12,6	94	15,1	91	14,2	94	15,4	91	13,7	94	16,5	91	14,9	94
2,75	53970	6	16,5	82	15	87	17,6	82	16,2	87	18,4	82	16,2	87	19,2	82	17,1	87
		8	14,1	90	13,1	93	15,6	89	14,4	93	15,9	89	14,2	93	17	89	15,3	93
3	58870	6	17,1	81	15,4	86	18,1	80	16,5	86	18,9	80	16,6	86	19,7	80	17,4	86
		8	14,7	89	13,5	92	16	88	14,8	92	16,5	88	14,7	92	17,5	88	15,7	92
3,25	63780	6	17,6	79	15,8	85	18,4	79	16,9	85	19,4	79	17	85	20,1	79	17,8	85
		8	15,2	87	13,8	91	16,4	87	15,2	91	17,1	87	15,1	91	18	87	16,1	91
3,5	68690	6	18	78	16,1	84	19	78	17,2	84	19,8	78	17,4	84	20,5	78	18,1	84
		8	15,8	86	14,2	90	16,9	86	15,4	90	17,5	86	15,5	90	18,3	86	16,4	90

Other calculations of heating or cooling coils on request

Pressure drops DIWER 2521

Pressure drops in Pa

Air velocity m/s	1,5	1,75	2	2,25	2,5	2,75	3	3,25	3,5
Air volume m^3/h	**29440**	**34340**	**39250**	**44160**	**49060**	**53970**	**58870**	**63780**	**68690**
Fan section	11	14	19	24	29	35	42	49	57
Panel filter section	72	74	76	79	81	82	88	92	96
Bag filter G 3/4	126	132	137	142	147	152	157	162	167
Bag filter F 5/6	145	149	154	158	162	167	172	177	181
Bag filter F 7/8/9	161	169	176	184	191	199	207	215	223
Heating coil 2 RR P2,0	26	34	42	50	59	69	79	90	102
Heating coil 4 RR P2,0	46	58	72	87	103	120	138	157	177
Electrical heater	18	24	30	37	44	52	60	69	78
Cooling coil 6 RR P2,5	67	85	103	123	145	166	189	213	237
Cooling coil 8 RR P2,5	86	109	133	159	186	215	245	276	309
Droplet eliminator	13	18	24	31	38	46	55	65	76
Air washer	46	59	74	91	108	127	147	168	191
Surface humidifier W10	23	27	32	37	44	51	60	70	82
Surface humidifier W20	31	38	45	54	64	77	92	110	132
Sound attenuator	14	19	25	32	40	48	57	67	78
Inlet plenum / empty box	10	14	19	24	29	35	42	49	57
Damper open	2	2	3	4	5	6	7	8	9
Weather louvre	12	17	22	28	35	42	50	59	68

Notes

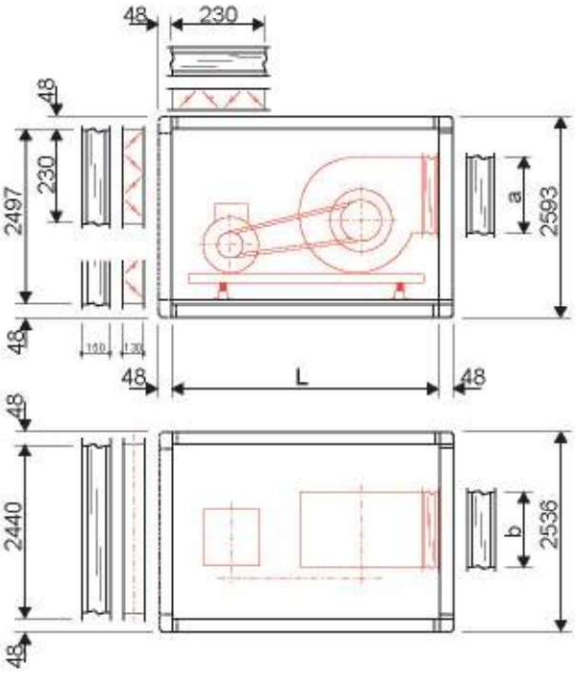
Quotation of the filter pressure drops calculated as mean value between inital and final pressure drop

Heating coil fin spacing 2,0 mm
Cooling coil fin spacing 2,5 mm
Suction section / Mixing box with damper
Damper open and weather louvre through clear cross-flow

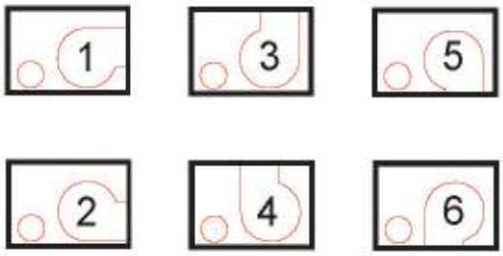
Missing pressure drops on demand

Dimensions DIWER 2525

V Belt driven fan section

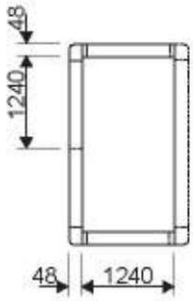


Fan outlet positions

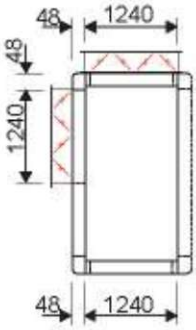


Fan type	Fan outlet	Motorsize 160	225	280	a/b
		Fan casing length L			
900	1,2	2135	2135	2440	1147
	3-6	2440	2440	2745	1130
1000	1,2	2135	2440	2440	1284
	3-6	2440	2745	2745	1267

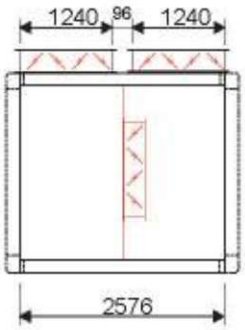
A Inlet section



M Mixing box

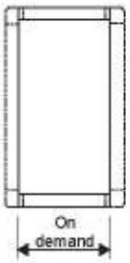


M2 Double mixing box

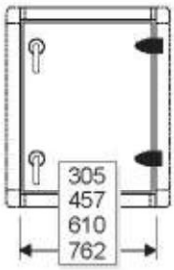


Dampers of inlet and mixing plenum can be enlarged on request.
(Attention! Adapt respective the section length)

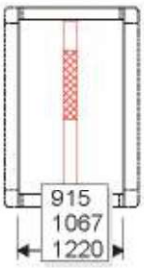
L Empty box



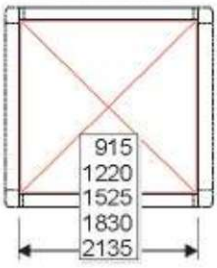
LB Empty box with door



P Diffusor section

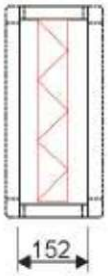


SD Sound attenuator

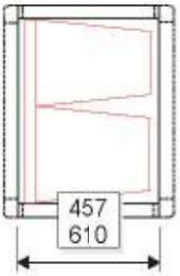


Dimensions DIWER 2525

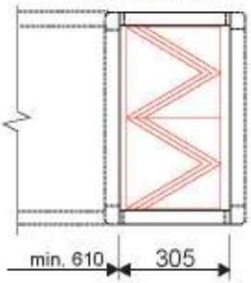
KF Panel filter section



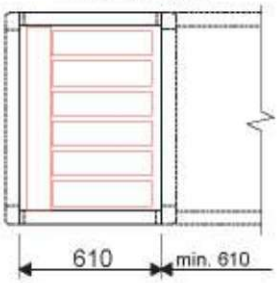
TF Bag filter section



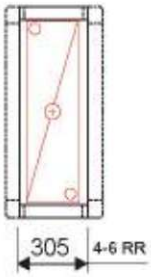
AF Absolute-filter section



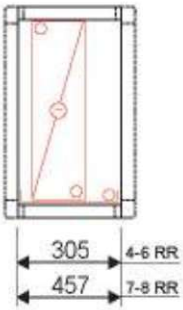
AKF Active carbon filter section



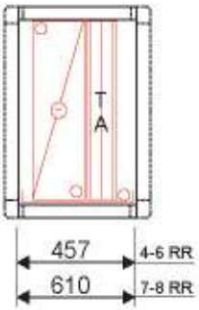
EH Heating coil



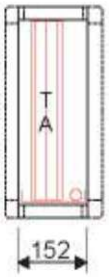
KH Cooling coil



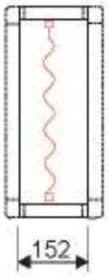
KHT Cooling coil with TA



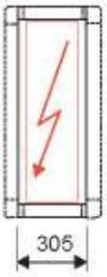
TA Droplet eliminator



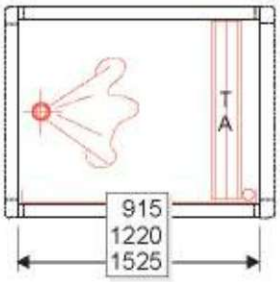
FS Anti frost frame



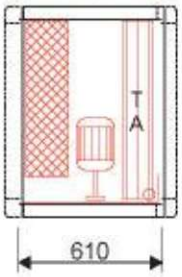
EE Electric heater



DB Steam humidifier



OB Honey comb-humidifier



Reserves of right for technical modifications. The indicated dimensions are not bindig.
The flexible WEGER production permits device manufacturing "after measure".

Heat exchanger DIWER 2525

Heating coil

LTHW			90/70°C						80/60°C						70/50°C						60/40°C					
v	V		inlet temperature						inlet temperature						inlet temperature						inlet temperature					
m/s	m³/h	RR	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5
1,5	33640	2	33	35	38	40	43	45	28	30	33	34	37	39	21	24	26	29	31	33	16	18	21	23	26	28
		4	60	61	63	63	65	65	53	53	53	55	56	57	43	45	46	47	48	49	35	37	37	39	40	41
1,75	39250	2	29	32	34	36	39	42	24	26	29	31	34	37	18	21	24	26	28	31	13	16	18	21	23	26
		4	56	58	58	59	61	63	48	49	51	52	53	55	40	42	43	44	46	47	32	34	36	36	38	38
2	44860	2	26	29	31	34	37	39	21	24	27	29	32	34	16	19	21	24	27	30	11	14	17	18	22	25
		4	52	54	55	57	58	60	45	46	48	49	51	52	37	39	40	42	43	45	30	32	33	34	36	37
2,25	50460	2	23	26	28	31	35	38	18	21	25	28	30	32	15	17	19	22	25	28	9	12	15	18	21	23
		4	48	50	52	54	55	57	42	43	45	47	48	50	35	36	38	39	41	43	27	29	31	32	34	36
2,5	56070	2	21	23	27	30	32	35	17	19	22	25	28	31	12	15	18	21	24	27	8	11	13	16	19	22
		4	46	48	50	51	53	55	39	41	43	45	46	48	33	34	36	38	39	41	26	27	29	31	32	34
2,75	61680	2	19	22	25	28	31	34	15	18	21	23	27	30	10	13	16	20	22	25	6	9	12	15	19	21
		4	44	45	47	49	51	52	37	38	40	42	44	46	30	32	34	35	38	39	23	25	27	29	31	33
3	67280	2	17	20	23	26	30	32	13	16	19	22	25	28	9	12	15	18	22	24	5	8	11	14	17	21
		4	42	43	45	47	48	51	35	36	38	41	42	45	28	30	32	35	36	38	22	23	26	28	29	31
3,25	72890	2	16	18	22	24	28	31	11	14	18	21	24	28	8	11	14	17	20	24	4	7	10	13	17	20
		4	39	40	43	45	48	50	33	35	38	39	41	43	26	29	30	33	34	37	20	22	24	26	28	31
3,5	78500	2	14	18	20	24	27	30	10	14	17	20	23	26	7	10	13	16	19	23	3	6	9	13	16	19
		4	36	39	41	44	45	48	30	33	35	37	39	42	24	27	29	31	33	36	19	21	23	26	28	30

Cooling coil

LTCW			6/12°C				8/14°C				R22 5°C				R22 8°C			
v	V		inlet temperature				inlet temperature				inlet temperature				inlet temperature			
m/s	m³/h	RR	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%
	33640	6	13	92	12,1	95	14,6	91	13,7	94	14,3	91	12,8	95	15,6	91	14,1	94
		8	10,8	98	10,4	99	12,4	98	12,1	99	11,9	98	10,8	99	13,4	97	12,4	99
1,75	39250	6	13,8	90	12,9	93	15,3	89	14,3	93	15,4	89	13,7	93	16,5	89	14,9	93
		8	11,7	96	10,9	98	13,2	96	12,7	98	12,8	96	11,6	98	14,3	96	13,2	98
2	44860	6	14,8	87	13,6	91	6	87	14,9	91	16,2	87	14,4	91	17,2	87	15,5	91
		8	12,5	94	11,6	97	13,9	94	13,3	97	13,8	94	12,4	97	15,1	94	13,8	96
2,25	50460	6	15,4	86	14,1	90	16,6	85	15,3	90	17,1	85	15,1	90	18	85	16,1	89
		8	13,1	93	12,2	96	14,5	92	13,6	95	14,5	92	13	95	15,9	92	14,4	95
2,5	56070	6	16	84	14,5	89	17,3	83	15,8	88	17,7	83	15,6	88	18,6	93	16,6	88
		8	13,7	91	12,6	95	15,1	91	14,2	94	15,4	91	13,7	94	16,5	91	14,9	94
2,75	61680	6	16,7	82	15	87	17,6	82	16,2	87	18,4	82	16,2	87	19,2	82	17,1	87
		8	14,3	90	13,1	93	15,6	90	14,4	93	15,9	90	14,2	93	17	89	15,3	93
3	67280	6	17,1	81	15,4	86	18,3	80	16,5	86	18,9	80	16,6	86	19,7	80	17,4	86
		8	14,9	88	13,5	92	16	88	14,8	92	16,5	88	14,7	92	17,5	88	15,7	92
3,25	72890	6	17,6	79	15,8	85	18,7	79	16,9	85	19,4	79	17	85	20,1	79	17,8	85
		8	15,2	87	14	91	16,4	87	15,2	91	17	87	15,1	91	17,9	87	16,1	91
3,5	78500	6	18	78	16,2	84	19	78	17,3	84	19,8	78	17,4	84	20,4	78	18	84
		8	15,8	86	14,4	90	16,9	86	15,4	90	17,5	86	15,4	90	18,3	86	16,4	90

Other calculations of heating or cooling coils on request

Pressure drops DIWER 2525

Pressure drops in Pa

Air velocity m/s	1,5	1,75	2	2,25	2,5	2,75	3	3,25	3,5
Air volume m^3/h	**33640**	**39250**	**44860**	**50460**	**56070**	**61680**	**67280**	**72890**	**78500**
Fan section	11	14	19	24	29	35	42	49	57
Panel filter section	72	74	76	79	81	82	88	92	96
Bag filter G 3/4	126	132	137	142	147	152	157	162	167
Bag filter F 5/6	145	149	154	158	162	167	172	177	181
Bag filter F 7/8/9	161	169	176	184	191	199	207	215	223
Heating coil 2 RR P2,0	26	33	41	50	59	69	79	90	101
Heating coil 4 RR P2,0	45	58	72	87	103	120	137	156	176
Electrical heater	18	24	30	37	44	52	60	69	78
Cooling coil 6 RR P2,5	67	84	103	123	144	165	188	212	335
Cooling coil 8 RR P2,5	85	108	132	159	185	214	234	274	307
Droplet eliminator	13	18	24	31	38	46	55	65	76
Air washer	46	59	74	91	108	127	147	168	191
Surface humidifier W10	23	27	32	37	44	51	60	70	82
Surface humidifier W20	31	38	45	54	64	77	92	110	132
Sound attenuator	14	19	25	32	40	48	57	67	78
Inlet plenum / empty box	10	14	19	24	29	35	42	49	57
Damper open	2	2	3	4	5	6	7	8	9
Weather louvre	12	17	22	28	35	42	50	59	68

Notes

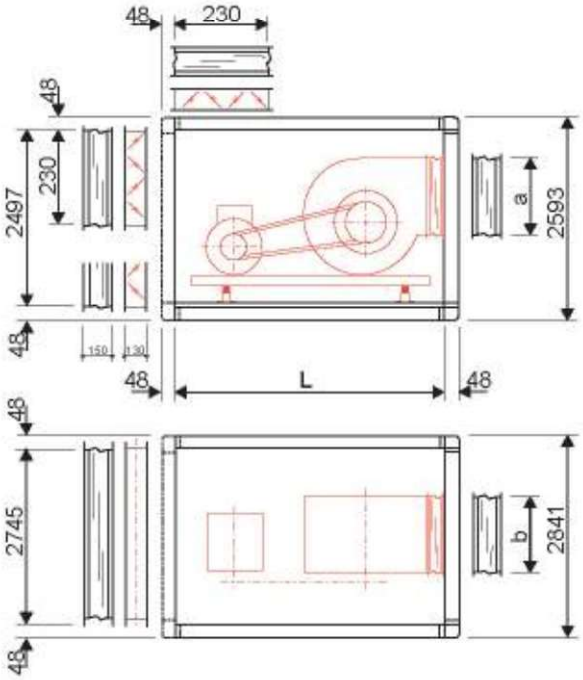
Quotation of the filter pressure drops calculated as mean value between initial and final pressure drop

Heating coil fin spacing 2,0 mm
Cooling coil fin spacing 2,5 mm
Suction section / Mixing box with damper
Damper open and weather louvre clear cross-flow

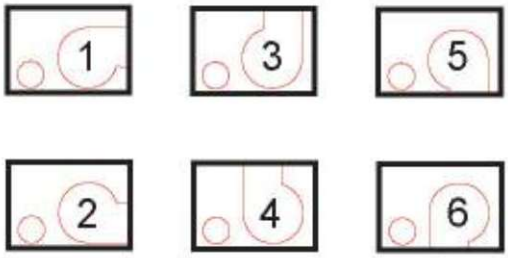
Missing pressure drops on demand

Dimensions DIWER 2825

V Belt driven fan section

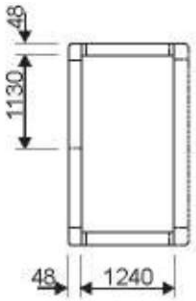


Fan outlet positions

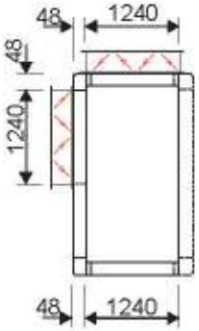


Fan type	Fan outlet	Motorsize 160	225	280	a/b
		Fan casing length L			
900	1,2 3-6	2135 2440	2135 2440	2440 2745	1147 1130
1000	1,2 3-6	2135 2440	2440 2745	2440 2745	1284 1267
1120	1,2 3-6	2440 2745	2440 2745	2745 3050	915 1421

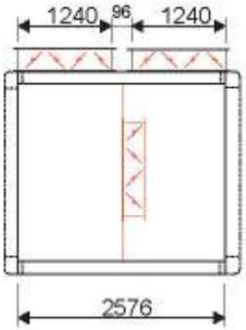
A Inlet section



M Mixing box

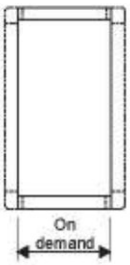


M2 Double mixing box

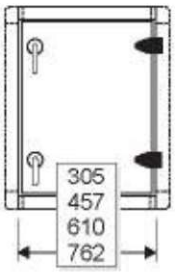


Dampers of inlet and mixing plenum can be enlarged on request.
(Attention! Adapt respective the section length)

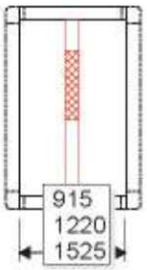
L Empty box



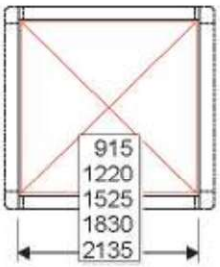
LB Empty box with door



P Diffusor section

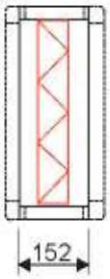


SD Sound attenuator

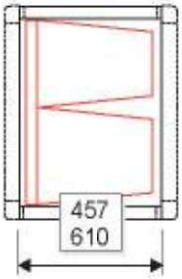


Dimensions DIWER 2825

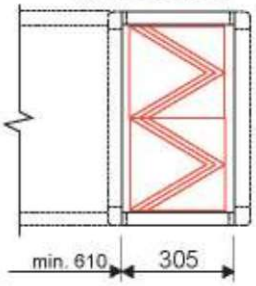
KF Panel filter section



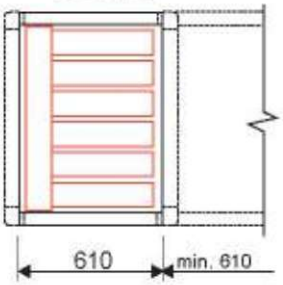
TF Bag filter section



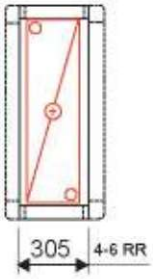
AF Absolute-filter section



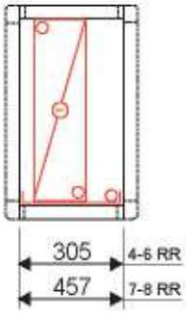
AKF Active carbon section



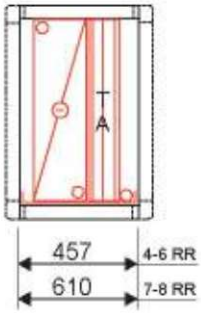
EH Heating coil



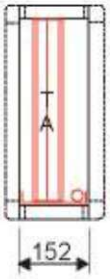
KH Cooling coil



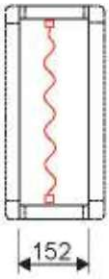
KHT Cooling coil with TA



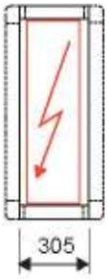
TA Droplet eliminator



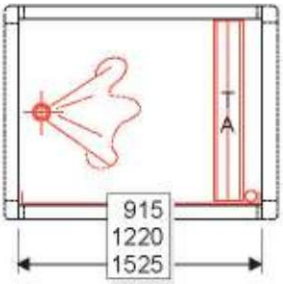
FS Anti frost frame



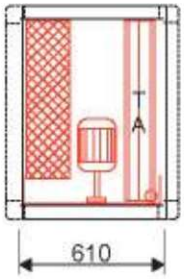
EE Electric heater



DB Steam humidifier



OB Honey comb-humidifier



Reserves of right for technical modifications. The indicated dimensions are not binding.
The flexible WEGER production permits manufacturing "after measure".

Heat exchanger DIWER 2825

Heating coil

LTHW			90/70°C						80/60°C						70/50°C						60/40°C					
v	V		inlet temperature						inlet temperature						inlet temperature						inlet temperature					
m/s	m³/h	RR	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5
1,5	37850	2	33	36	38	40	43	45	28	30	33	35	37	39	21	24	27	29	32	34	16	19	21	23	26	28
		4	60	61	63	64	65	66	53	53	55	55	56	58	44	45	46	47	48	49	36	37	38	39	40	41
1,75	44160	2	30	32	34	37	39	42	24	26	29	32	34	37	18	21	24	27	29	31	14	16	18	21	24	26
		4	56	58	59	59	61	63	48	49	51	52	53	55	41	42	43	44	46	47	32	34	36	37	58	39
2	50460	2	27	29	31	34	37	40	21	24	27	29	32	35	27	29	31	34	37	40	11	14	16	20	22	25
		4	53	54	55	57	59	60	45	47	48	50	51	52	53	54	55	57	59	60	30	32	33	35	36	37
2,25	56770	2	23	26	29	31	35	38	18	25	25	28	31	33	15	17	20	22	26	28	9	12	15	18	21	24
		4	50	50	52	54	56	57	42	44	45	47	49	50	35	37	38	40	41	43	28	29	31	33	34	36
2,5	63080	2	21	24	27	30	33	35	17	20	22	25	28	31	12	15	18	21	24	27	8	11	14	17	20	22
		4	46	48	50	52	53	55	40	41	43	45	47	48	33	35	36	38	39	41	26	27	29	31	32	34
2,75	69390	2	19	22	25	28	31	34	15	18	21	24	27	30	11	13	17	20	22	25	6	9	12	15	19	22
		4	45	46	47	49	51	52	37	39	40	42	45	46	30	42	34	36	38	39	24	25	28	29	32	33
3	75690	2	17	20	24	27	30	33	13	16	19	22	26	29	9	12	15	18	22	25	5	8	12	14	18	21
		4	42	44	45	47	49	51	35	37	38	41	43	45	28	30	32	35	37	38	22	25	26	28	30	32
3,25	82000	2	14	17	20	23	26	29	12	14	18	21	25	28	8	11	15	18	21	24	4	7	10	13	17	20
		4	36	39	40	42	44	46	33	35	38	39	41	43	27	29	31	33	35	37	20	23	24	26	29	31
3,5	88310	2	12	15	18	22	25	29	10	14	17	20	24	27	6	10	13	16	20	23	4	6	9	13	16	19
		4	34	37	38	41	43	45	31	33	35	38	59	42	25	27	29	32	34	36	19	21	23	26	28	30

Cooling coil

LTCW			6/12°C				8/14°C				R22 5°C				R22 8°C			
v	V		inlet temperature				inlet temperature				inlet temperature				inlet temperature			
m/s	m³/h	RR	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%
	37850	6	12,9	92	12,1	95	14,6	92	13,7	95	14,3	92	12,8	95	15,6	91	14,1	95
		8	10,8	98	10,4	99	12,4	98	12,1	99	11,9	98	10,7	99	13,4	97	12,4	99
1,75	44160	6	13,8	90	12,9	93	15,3	89	14,3	93	15,4	89	13,7	93	16,5	89	14,9	93
		8	11,7	96	10,9	98	13,2	96	12,7	98	12,7	96	11,5	98	14,3	96	13,1	98
2	50460	6	14,8	88	13,4	92	16	87	14,8	91	16,2	87	14,4	91	17,2	87	15,5	91
		8	12,5	95	11,4	97	13,9	94	13,1	97	13,6	94	12,2	97	15,1	94	13,8	97
2,25	56770	6	15,4	86	14,1	90	16,6	85	15,3	90	16,9	85	14,9	90	18	85	16,1	90
		8	13,1	93	12,2	96	14,4	93	13,6	95	14,5	93	13	96	15,6	93	14,2	95
2,5	63080	6	16	84	14,5	89	17,3	84	15,8	88	17,7	84	15,6	88	18,6	84	16,6	88
		8	13,7	91	12,6	95	15,1	91	14,1	94	15,2	91	13,5	94	16,1	97	14,7	94
2,75	69390	6	16,7	82	15	87	17,6	82	16,1	87	18,2	82	16,1	87	19	82	16,9	87
		8	14,3	90	13	94	15,6	90	14,4	93	15,9	90	14,2	93	16,8	90	15,2	93
3	75690	6	17,1	81	15,4	86	18,2	81	16,5	86	18,8	81	16,5	86	19,5	81	17,3	86
		8	14,9	89	13,5	92	16	88	14,8	92	16,4	88	14,5	92	17,3	88	15,6	92
3,25	82000	6	17,7	80	15,8	85	18,6	79	16,8	85	19,3	79	17	85	19,9	79	17,6	85
		8	15,5	87	14	91	16,6	87	15,2	91	16,9	87	15	91	17,7	87	15,9	91
3,5	88310	6	18	78	16,2	84	19	78	17,1	84	19,7	78	17,3	84	20,4	78	18	84
		8	15,9	86	14,3	90	17	86	15,4	90	17,4	86	15,4	90	18,3	86	16,4	90

Other calculations of heating or cooling coils on request

Pressure drops DIWER 2825

Pressure drops in Pa

Air velocity m/s	1,5	1,75	2	2,25	2,5	2,75	3	3,25	3,5
Air volume m^3/h	**37850**	**44160**	**50460**	**56770**	**63080**	**69390**	**75690**	**82000**	**88310**
Fan section	11	14	19	24	29	35	42	49	57
Panel filter section	72	74	76	79	81	82	88	92	96
Bag filter G 3/4	126	132	137	142	147	152	157	162	167
Bag filter F 5/6	145	149	154	158	162	167	172	177	181
Bag filter F 7/8/9	161	169	176	184	191	199	207	215	223
Heating coil 2 RR P2,0	26	33	41	49	58	67	77	88	99
Heating coil 4 RR P2,0	45	57	70	85	101	117	135	153	172
Electrical heater	18	24	30	37	44	52	60	69	78
Cooling coil 6 RR P2,5	65	83	101	121	141	163	185	207	232
Cooling coil 8 RR P2,5	84	106	130	156	183	210	240	270	300
Droplet eliminator	13	18	24	31	38	46	55	65	76
Air washer	46	59	74	91	108	127	147	168	191
Surface humidifier W10	23	27	32	37	44	51	60	70	82
Surface humidifier W20	31	38	45	54	64	77	92	110	132
Sound attenuator	14	19	25	32	40	48	57	67	78
Inlet plenum / empty box	10	14	19	24	29	35	42	49	57
Damper open	2	2	3	4	5	6	7	8	9
Weather louvre	12	17	22	28	35	42	50	59	68

Notes

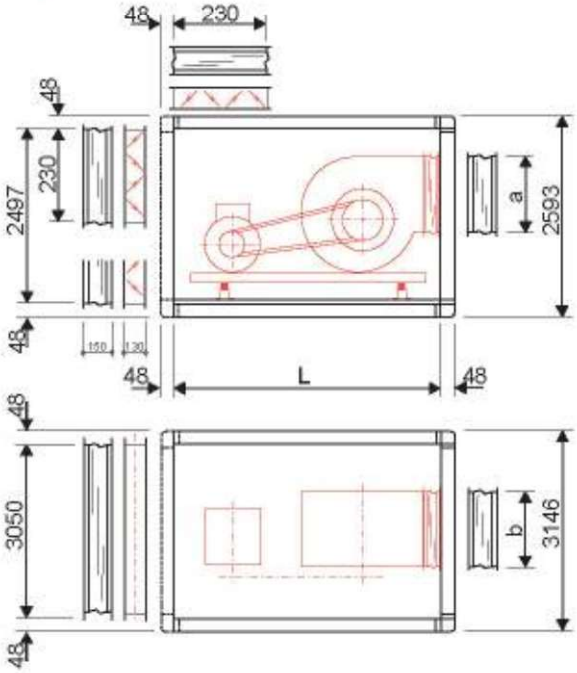
Quotation of the filter pressure drops calculated as mean value between initial and final pressure drop

Heating coil fin spacing 2,0 mm
Cooling coil fin spacing 2,5 mm
Suction section / Mixing box with damper
Damper open and weather louvre through clear cross-flow

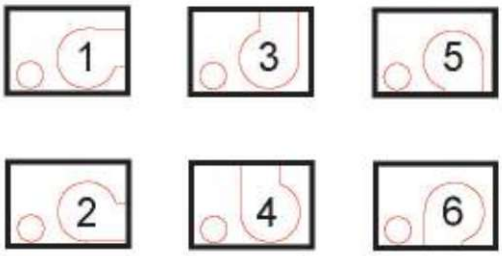
Missing pressure drops on demand

Dimensions DIWER 3125

V Belt driven fan section

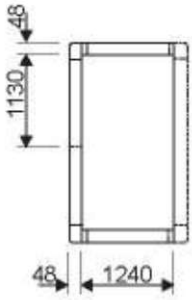


Fan outlet positions

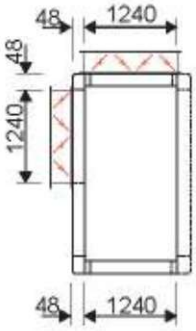


Fan type	Fan outlet	Motorsize 160	225	280	a/b
		Fan casing length L			
900	1,2 3-6	2135 2440	2135 2440	2440 2745	1147 1130
1000	1,2 3-6	2135 2440	2440 2745	2440 2745	1284 1267
1120	1,2 3-6	2440 2745	2440 2745	2745 3050	915 1421

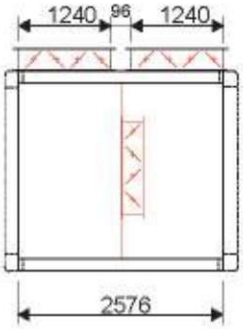
A Inlet section



M Mixing box

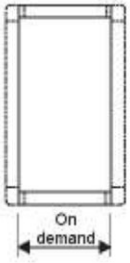


M2 Double mixing box

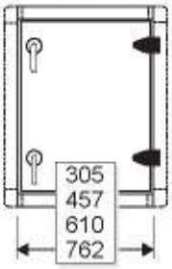


Dampers of inlet and mixing plenum can be enlarged on request.
(Attention! Adapt respective the section length)

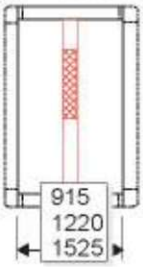
L Empty box



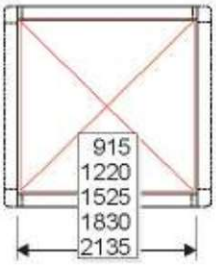
LB Empty box with door



P Diffusor section

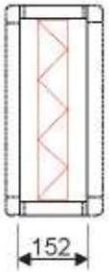


SD Sound attenuator

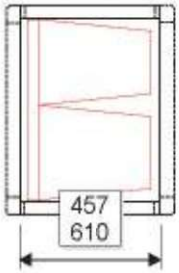


Dimensions DIWER 3125

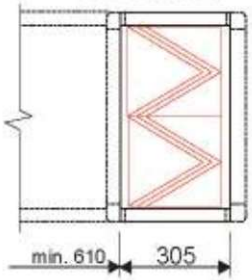
KF Panel filter section



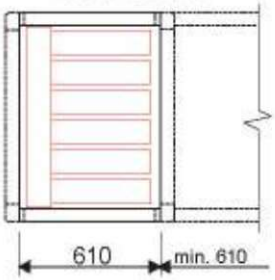
TF Bag filter section



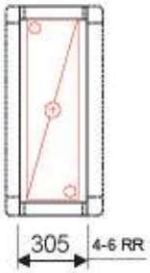
AF Absolute-filter section



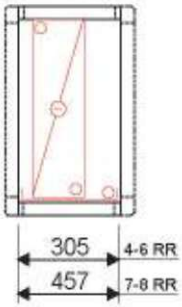
AKF Active carbon filter section



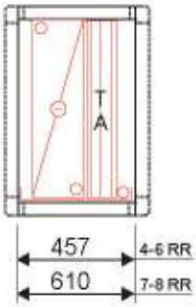
EH Heating coil



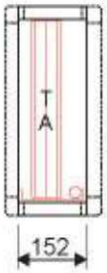
KH Cooling coil



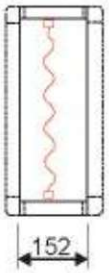
KHT Cooling coil with TA



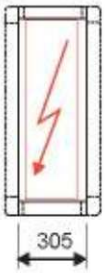
TA Droplet eliminator



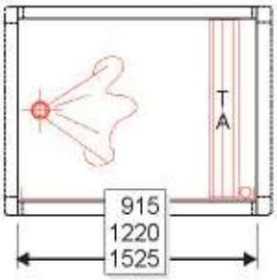
FS Anti frost frame



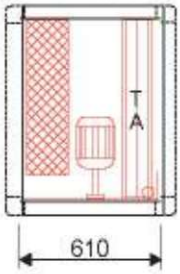
EE Electric heater



DB Steam humidifier



OB Honey comb-humidfier



Reserves of right for technical modifications. The indicated dimensions are not binding.
The flexible WEGER production permits device manufacturing “after measure”.

Heat exchanger DIWER 3125

Heating coil

LTHW			90/70°C						80/60°C						70/50°C						60/40°C					
v	V		inlet temperature						inlet temperature						inlet temperature						inlet temperature					
m/s	m³/h	RR	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5
1,5	42050	2	34	36	39	40	43	46	28	30	33	36	37	40	23	24	27	29	32	34	16	19	21	23	26	29
		4	60	62	63	64	66	66	53	54	55	56	57	58	45	45	47	48	49	50	37	37	38	39	41	42
1,75	49060	2	30	33	35	37	40	42	25	27	29	32	34	37	19	22	24	27	29	32	14	16	19	22	24	27
		4	56	58	60	61	61	63	49	50	51	53	53	55	41	42	43	45	46	48	33	34	36	37	38	39
2	56070	2	27	30	32	65	38	40	22	24	27	24	32	35	17	19	22	25	27	30	12	15	17	20	23	25
		4	54	54	56	57	59	61	46	47	49	50	51	53	38	39	41	42	44	45	30	32	33	35	36	37
2,25	63080	2	24	26	29	32	35	38	19	22	25	28	31	33	15	18	20	23	26	29	10	13	15	18	21	24
		4	50	52	52	54	56	57	42	44	45	47	49	50	35	37	38	40	41	43	28	29	31	33	34	36
2,5	70090	2	21	24	28	30	33	36	17	20	23	26	29	32	13	16	18	21	24	28	8	11	14	17	20	23
		4	46	48	50	52	53	55	40	41	43	45	47	49	33	35	37	38	40	42	26	28	29	31	33	35
2,75	77100	2	20	22	26	29	31	35	15	18	21	25	28	30	11	14	17	20	23	26	7	9	13	16	19	22
		4	45	46	47	49	52	54	37	39	42	43	45	46	31	33	34	36	38	40	24	26	28	30	32	33
3	84110	2	18	21	24	27	30	33	14	17	20	23	26	29	9	13	16	19	22	25	6	9	12	15	18	21
		4	42	44	45	47	50	51	35	37	39	41	43	45	29	31	33	35	37	39	23	25	26	29	30	32
3,25	91110	2	16	19	23	25	29	32	12	15	18	22	25	29	8	12	15	18	21	24	4	7	11	14	17	21
		4	40	42	43	45	48	50	33	35	38	40	41	44	27	29	31	33	35	37	20	23	25	27	29	31
3,5	98120	2	15	18	21	25	28	31	11	14	17	20	24	27	7	11	13	17	20	23	3	7	10	13	16	20
		4	37	39	42	44	46	48	32	33	36	38	40	42	26	27	30	32	34	36	19	22	23	26	28	30

Cooling coil

LTCW			6/12°C				8/14°C				R22 5°C				R22 8°C			
v	V		inlet temperature				inlet temperature				inlet temperature				inlet temperature			
m/s	m³/h	RR	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%
	42050	6	12,9	92	12,1	95	14,5	92	13,7	95	14,3	92	12,8	95	15,5	92	14,1	95
		8	10,8	98	10,4	99	12,4	98	12,1	99	11,8	98	10,7	99	13,4	98	12,4	99
1,75	49060	6	13,8	90	12,9	93	15,2	89	14,2	93	15,2	89	13,5	93	16,3	89	14,7	93
		8	11,7	96	10,9	98	13,2	96	12,7	98	12,7	96	11,5	98	14,1	96	13	98
2	56070	6	14,8	88	13,4	92	16	87	14,8	91	16,2	87	14,3	91	17,2	87	15,5	91
		8	12,5	95	11,5	97	13,9	94	13,1	97	13,6	94	12,2	97	14,9	94	13,6	97
2,25	63080	6	15,3	86	14,1	90	16,6	85	15,3	90	16,8	85	14,9	90	17,8	85	15,9	90
		8	13,1	93	12,2	96	14,4	93	13,6	96	14,5	93	12,9	96	15,6	93	14,2	95
2,5	70090	6	16	84	14,5	89	17,2	84	15,7	88	17,5	84	15,5	89	18,4	84	16,5	88
		8	13,6	92	12,6	95	15,1	91	14	94	15,2	91	13,5	94	16,3	91	14,7	94
2,75	77100	6	16,7	82	15	88	17,6	82	16,1	87	18,2	82	16	87	19	82	16,9	87
		8	14,5	90	13,2	94	15,5	90	14,4	93	15,7	90	14	93	16,7	90	15,1	93
3	84110	6	17,3	81	15,4	86	18,2	81	16,4	86	18,7	81	16,5	86	19,5	81	17,3	86
		8	15	89	13,5	93	16	89	14,8	92	16,4	89	14,5	92	17,3	89	15,6	92
3,25	91110	6	17,7	80	15,8	85	18,6	79	16,8	85	19,2	79	16,9	85	19,9	80	17,6	85
		8	15,6	87	14	92	16,5	87	15,2	91	16,9	87	15	91	17,7	87	15,9	91
3,5	98120	6	18,2	78	16,2	84	19	78	17,1	84	19,7	78	17,3	84	20,4	78	18	84
		8	16,1	86	14,3	91	17	86	15,6	90	17,3	86	15,3	90	18,2	86	16,3	90

Other calculations of heating or cooling coils on request

Pressure drops DIWER 3125

Pressure drops in Pa

Air velocity m/s	1,5	1,75	2	2,25	2,5	2,75	3	3,25	3,5
Air volume m^3/h	**42050**	**49060**	**56070**	**63080**	**70090**	**77100**	**84110**	**91110**	**98120**
Fan section	11	14	19	24	29	35	42	49	57
Panel filter section	72	74	76	79	81	82	88	92	96
Bag filter G 3/4	126	132	137	142	147	152	157	162	167
Bag filter F 5/6	145	149	154	158	162	167	172	177	181
Bag filter F 7/8/9	161	169	176	184	191	199	207	215	223
Heating coil 2 RR P2,0	25	32	40	48	57	66	76	87	98
Heating coil 4 RR P2,0	44	56	69	84	99	115	133	151	170
Electrical heater	18	24	30	37	44	52	60	69	78
Cooling coil 6 RR P2,5	64	82	100	119	139	160	182	205	228
Cooling coil 8 RR P2,5	82	105	128	153	180	208	236	266	297
Droplet eliminator	13	18	24	31	38	46	55	65	76
Air washer	46	59	74	91	108	127	147	168	191
Surface humidifier W10	23	27	32	37	44	51	60	70	82
Surface humidifier W20	31	38	45	54	64	77	92	110	132
Sound attenuator	14	19	25	32	40	48	57	67	78
Inlet plenum / empty box	10	14	19	24	29	35	42	49	57
Damper open	2	2	3	4	5	6	7	8	9
Weather louvre	12	17	22	28	35	42	50	59	68

Notes

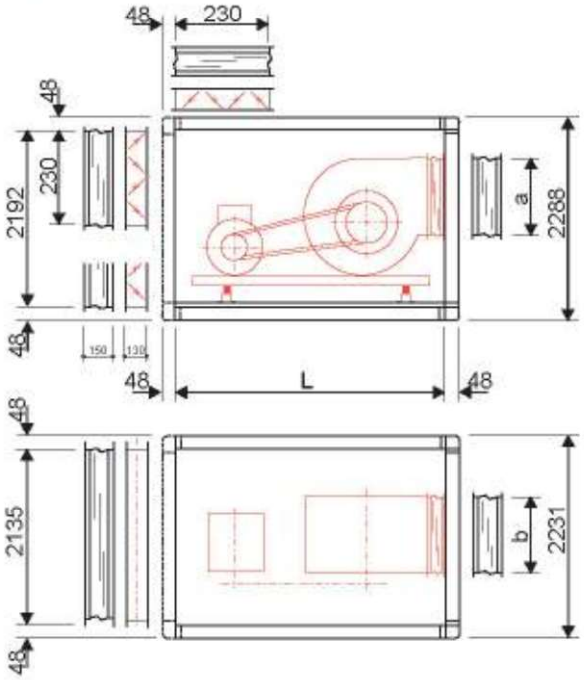
Quotation of the filter pressure drops calculated as mean value between initial and final pressure drop

Heating coil fin spacing 2,0 mm
Cooling coil fin spacing 2,5 mm
Suction section / Mixing box with damper
Damper open and weather louvre through clear cross-flow

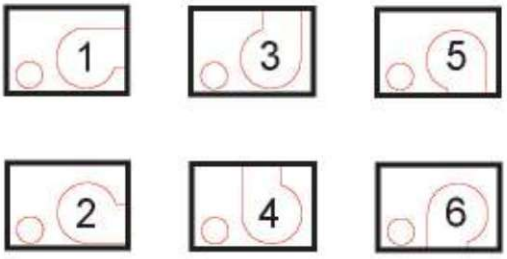
Missing pressure drops on demand

Dimensions DIWER 2121

V Belt driven fan section

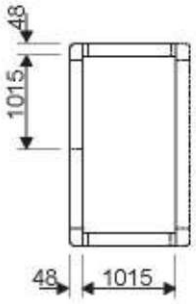


Fan outlet positions

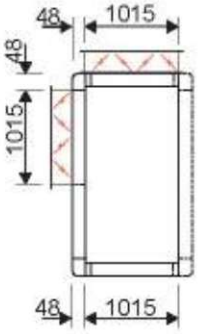


Fan type	Fan outlet	Motorsize 132	200	250	a/b
		Fan casing length L			
630	1,2 3-6	1525 1830	1830 2135		818 801
710	1,2 3-6	1830 1830	1830 2135		915 898
800	1,2 3-6		2135 2135	2135 **2440**	1024 1007
900	1,2 3-6		2135 2135	2440 2440	1147 1130

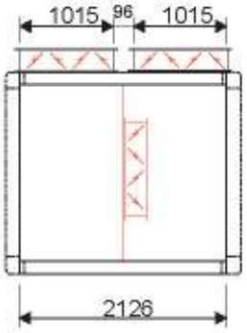
A Inlet section



M Mixing box

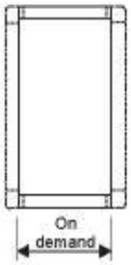


M2 Double mixing box

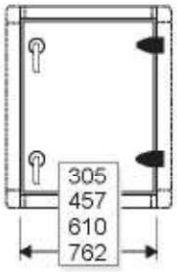


On request dampers of inlet and mixing plenum
with dimensions
1240 or 1465 mm instead of 1015 mm (Attention! Adapt respective the section length)

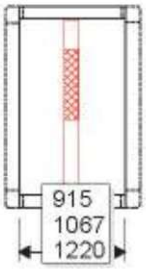
L Empty box



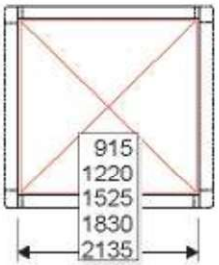
LB Empty box with door



P Diffusor section

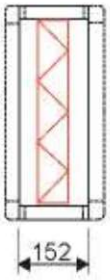


SD Sound attenuator

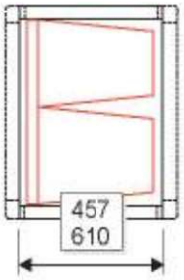


Dimensions DIWER 2121

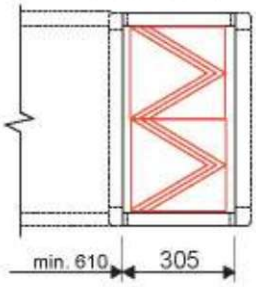
KF Panel filter section



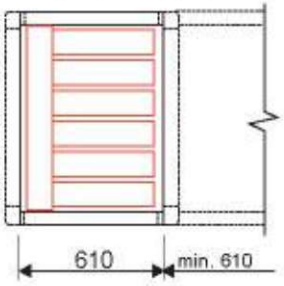
TF Bag filter section



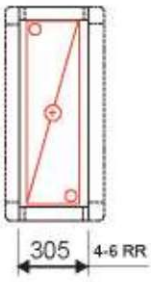
AF Absolute-filter section



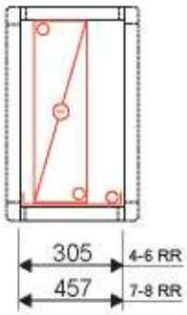
AKF Active carbon filter section



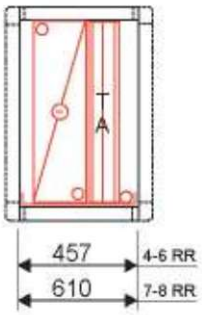
EH Heating coil



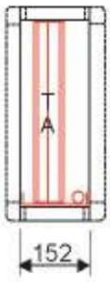
KH Cooling coil



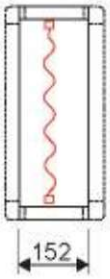
KHT Cooling coil with TA



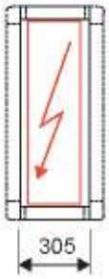
TA Droplet eliminator



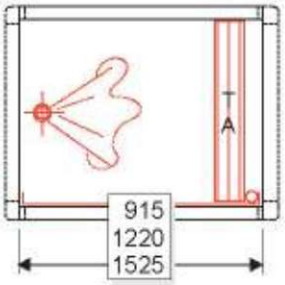
FS Anti frost frame



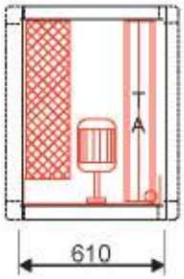
EE Electric heater



DB Steam humidifier



OB Honey comb-humidifier



Reserves of right for technical modifications. The indicated dimensions are not binding.
The flexible WEGER production permits device manufacturing "after measure".

Heat exchanger DIWER 2121

Heating coil

LTHW			90/70°C						80/60°C						70/50°C						60/40°C					
v	V		inlet temperature						inlet temperature						inlet temperature						inlet temperature					
m/s	m³/h	RR	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5
1,5	27560	2	32	35	38	40	43	44	28	29	31	34	36	39	21	23	26	28	31	33	15	18	20	23	26	28
		4	60	61	62	6	63	65	52	52	53	55	55	57	43	44	45	47	47	49	35	36	37	38	39	41
1,75	30050	2	29	31	34	36	38	41	24	26	28	31	34	36	18	21	23	26	28	31	13	15	18	21	23	26
		4	55	56	58	59	61	62	48	48	50	52	52	54	40	40	42	44	45	46	32	33	34	36	37	8
2	34342	2	23	28	31	34	36	39	21	23	26	29	31	34	16	18	21	24	27	29	11	14	17	19	22	24
		4	52	54	55	56	57	59	45	45	47	49	50	52	37	38	40	41	43	44	30	31	32	34	35	37
2,25	38640	2	22	25	28	31	35	37	18	21	24	27	29	32	14	16	19	22	25	28	9	12	15	17	21	23
		4	48	50	51	53	55	57	41	43	45	46	48	49	34	36	37	39	41	42	27	29	30	32	33	35
2,5	42930	2	20	23	26	29	32	35	16	19	22	25	28	31	12	14	18	21	23	26	8	10	13	16	19	22
		4	46	48	49	51	53	55	39	41	43	43	46	48	31	33	36	37	38	41	25	27	28	30	32	34
2,75	47220	2	18	21	25	28	31	33	15	18	20	23	26	30	10	13	16	19	22	25	6	9	12	15	19	21
		4	43	45	47	48	50	52	36	38	40	42	44	45	29	32	33	35	37	39	23	25	27	29	31	33
3	51510	2	16	20	23	26	29	32	12	16	19	22	25	28	8	11	15	18	21	24	5	8	11	14	17	21
		4	40	43	45	46	48	51	34	36	38	40	42	45	28	30	32	33	36	38	21	23	25	28	29	31
3,25	55810	2	15	18	21	24	28	31	11	14	18	21	24	27	7	11	14	17	20	23	3	7	10	13	17	20
		4	38	40	43	45	48	49	33	35	36	39	40	43	26	28	30	32	34	36	19	22	24	26	28	30
3,5	60100	2	13	17	20	23	27	30	10	13	16	20	23	26	6	9	13	16	19	23	2	6	9	12	16	19
		4	36	39	40	43	45	47	30	33	34	37	39	41	24	26	29	31	33	36	18	21	23	25	27	29

Cooling coil

LTCW			6/12°C				8/14°C				R22 5°C				R22 8°C			
v	V		inlet temperature				inlet temperature				inlet temperature				inlet temperature			
m/s	m³/h	RR	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%	32°C	40%	27°C	50%
	27560	6	13,2	92	12,3	95	14,6	91	13,9	94	14,3	91	12,8	94	15,8	91	14,3	94
		8	11,1	98	10,4	99	12,7	97	12,1	99	12,1	97	11	99	13,6	97	12,6	99
1,75	30050	6	13,9	89	12,9	93	15,5	89	14,5	92	15,6	89	13,9	93	16,7	89	15	92
		8	11,7	96	11,1	98	13,3	96	12,7	98	13,1	96	11,8	98	14,4	95	13,2	98
2	34342	6	14,8	87	13,6	91	16	87	15	91	16,4	87	14,5	91	17,4	87	15,6	91
		8	12,5	94	11,8	97	14	94	13,3	96	13,9	94	12,4	97	15,2	94	13,8	96
2,25	38640	6	15,4	85	14,1	90	16,7	85	15,5	89	17,1	85	15,2	89	18	85	16,1	89
		8	13,1	93	12,2	95	14,5	92	13,8	95	14,7	92	13,2	95	15,9	92	14,4	95
2,5	42930	6	16,1	83	14,7	88	17,3	83	15,9	88	17,9	83	15,8	88	18,7	83	16,7	88
		8	13,7	91	12,6	94	15,1	91	14,2	94	15,4	91	13,7	94	16,5	91	14,9	94
2,75	47220	6	16,6	82	15,1	87	17,9	82	16,3	87	18,4	81	16,2	87	19,2	82	17,1	87
		8	14,2	90	13,1	93	15,6	89	14,5	93	16,1	89	14,3	93	17	89	15,3	93
3	51510	6	17,2	80	15,4	86	18,3	80	16,7	86	18,9	80	16,7	86	19,7	80	17,5	86
		8	14,7	88	13,5	92	16,1	88	14,9	92	16,6	88	14,7	92	17,5	88	15,7	92
3,25	55810	6	17,6	79	15,8	85	18,7	79	17	85	19,5	79	17,1	84	20,1	79	17,8	84
		8	15,2	87	14	91	16,5	87	15,2	91	17,1	87	15,1	91	18	87	16,1	91
3,5	60100	6	18,1	78	16,2	84	19,1	78	17,3	84	19,9	78	17,4	84	20,5	78	18,1	84
		8	15,6	86	14,4	90	16,9	85	15,4	90	17,6	85	15,6	90	18,5	86	16,5	90

Other calculations of heating or cooling coils on request

WEGER

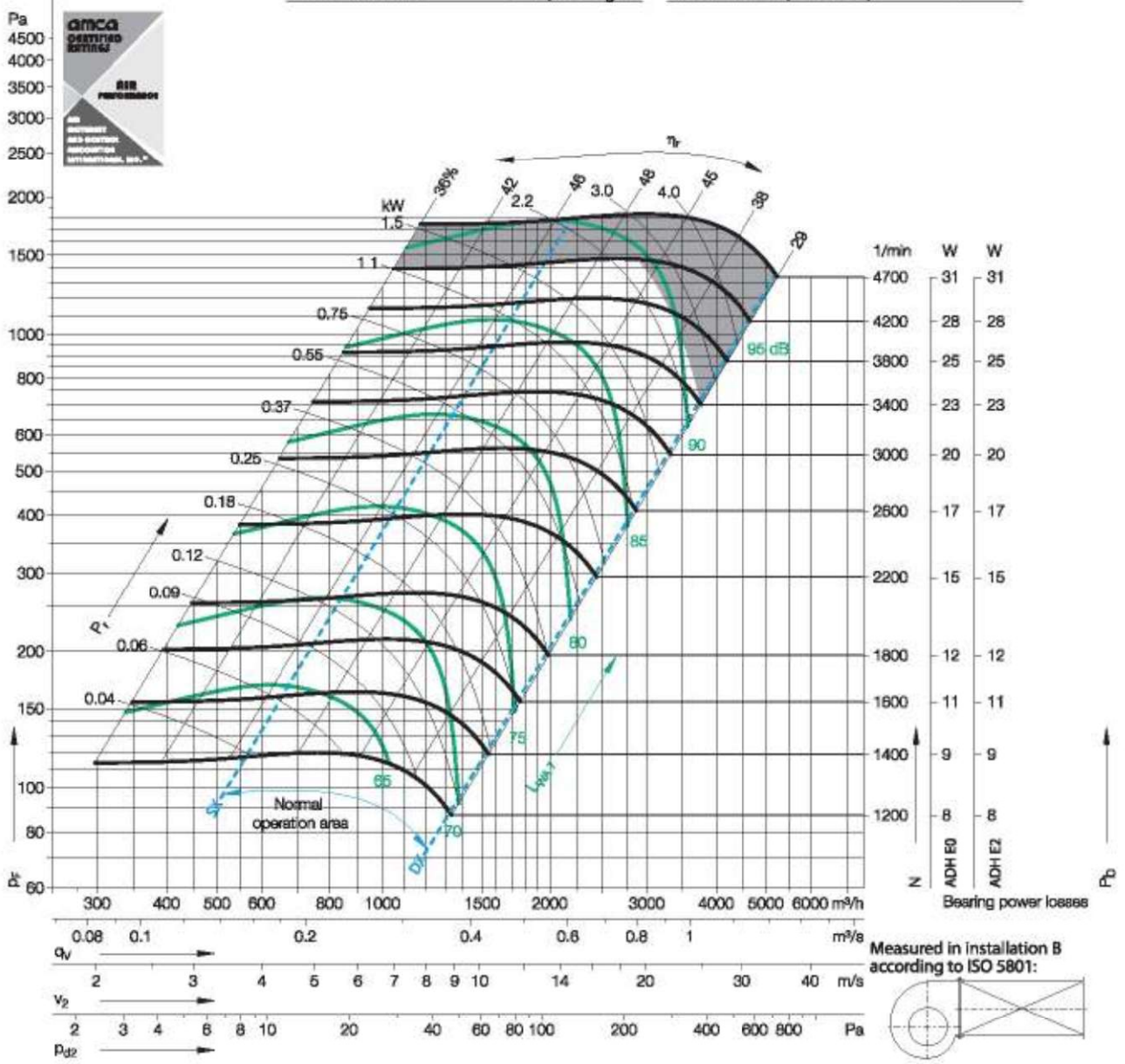
VOLTA EGYPT

Forward Curved Fan
Size 160

Please note coloured areal
- ☐ all types suitable
- ■ do not use in this area

Impeller Data			
Impeller diameter	D_1	160	mm
Number of blades	z	36	
Moment of Inertia	J	0,006	kgm^2

Impeller Data			
Impeller weight	m	1,1	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	



Relative sound power level for inlet side at octave centre

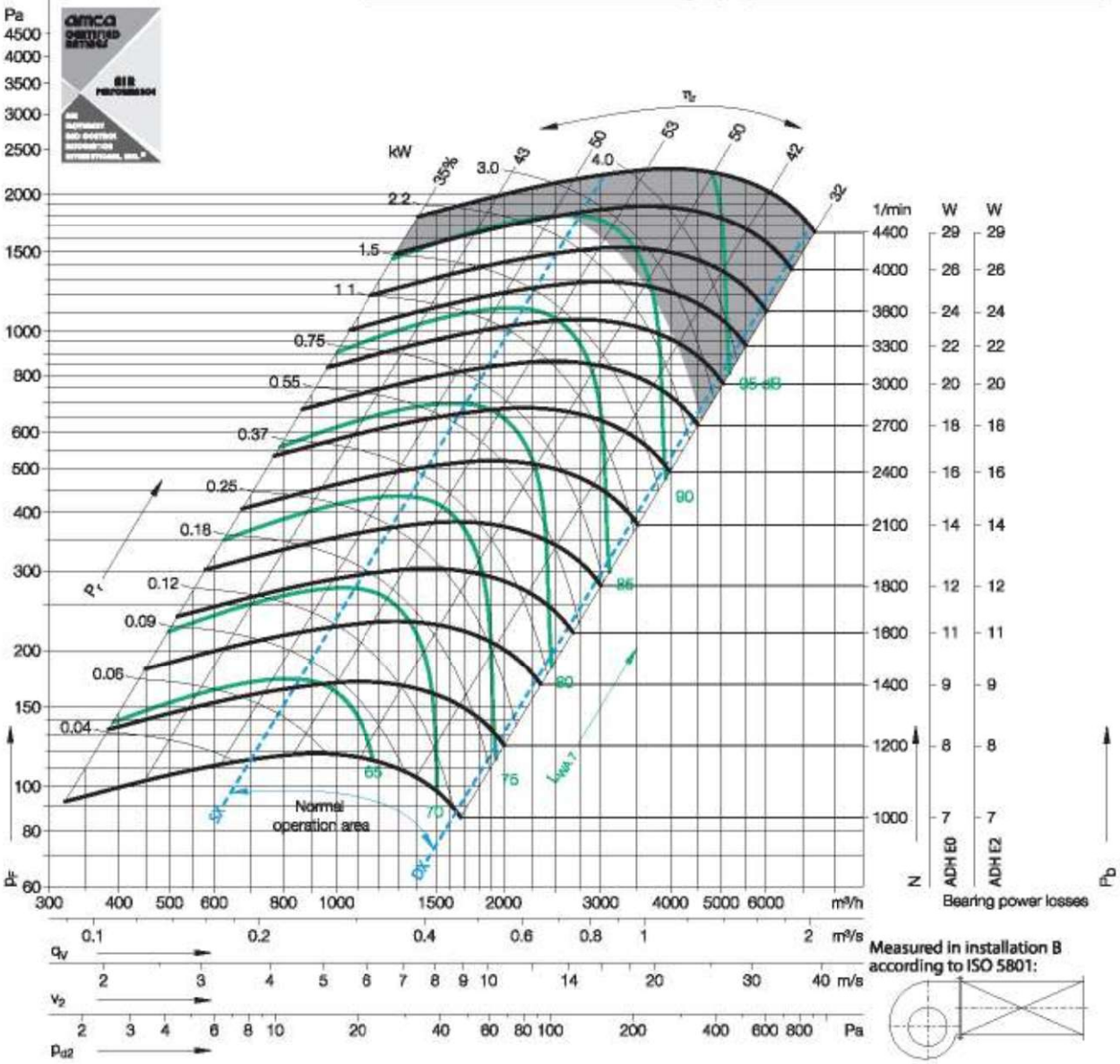
Relative sound power level for discharge side at octave cent

Forward Curved Fan
Size 180

Please note coloured area!
- ☐ all types suitable
- ■ do not use in this area

Impeller Data			
Impeller diameter	D_1	180	mm
Number of blades	z	40	
Moment of Inertia	J	0,010	kgm^2

Impeller Data			
Impeller weight	m	1,5	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	



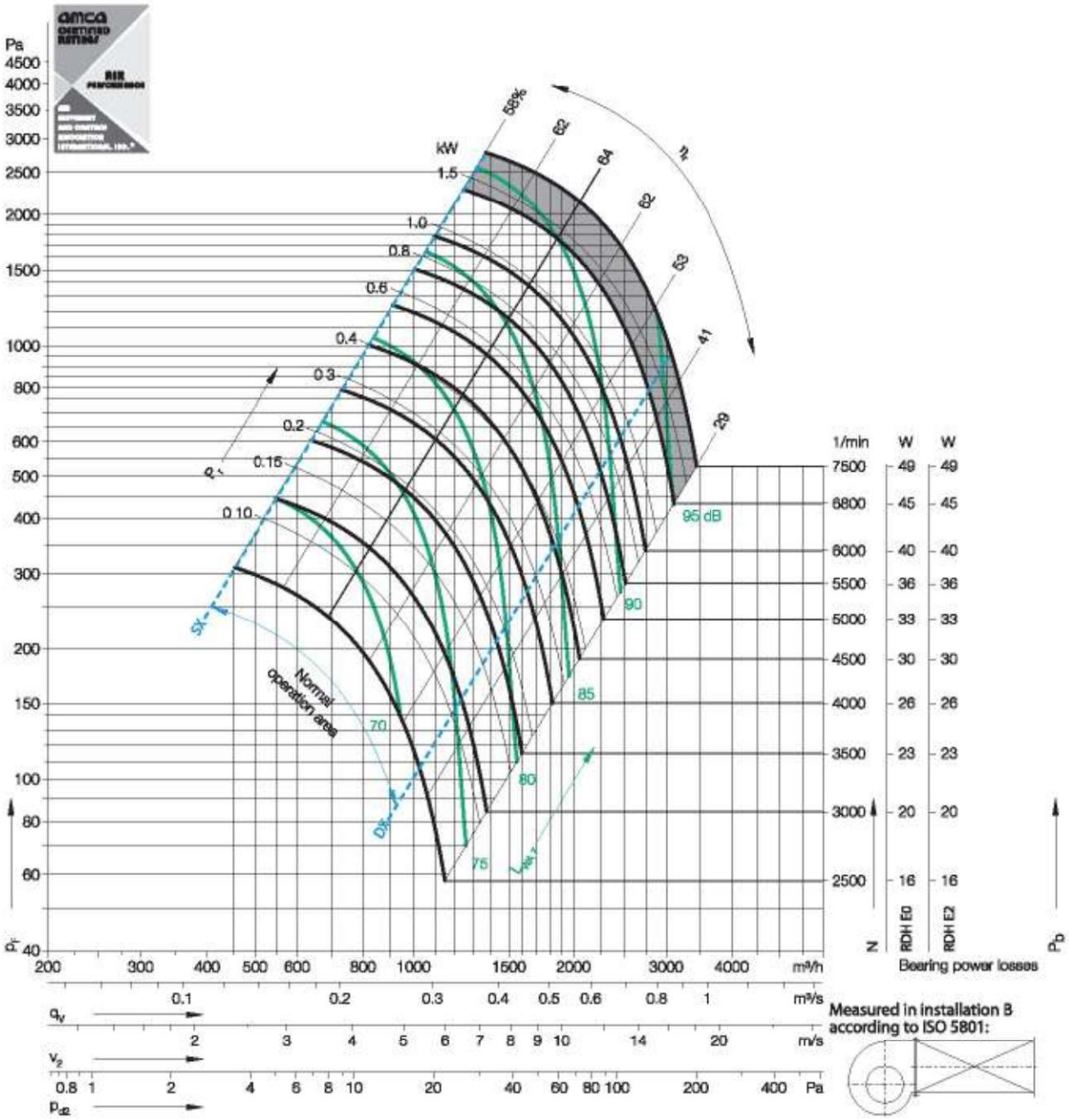
Measured in installation B according to ISO 5801:

Backward Curved Fan
Size 180

Please note coloured area!
- ☐ all types suitable
- ■ do not use in this area

Impeller Data			
Impeller diameter	D_r	180	mm
Number of blades	z	8	
Moment of Inertia	J	0,003	kgm^2

Impeller Data			
Impeller weight	m	0,62	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	

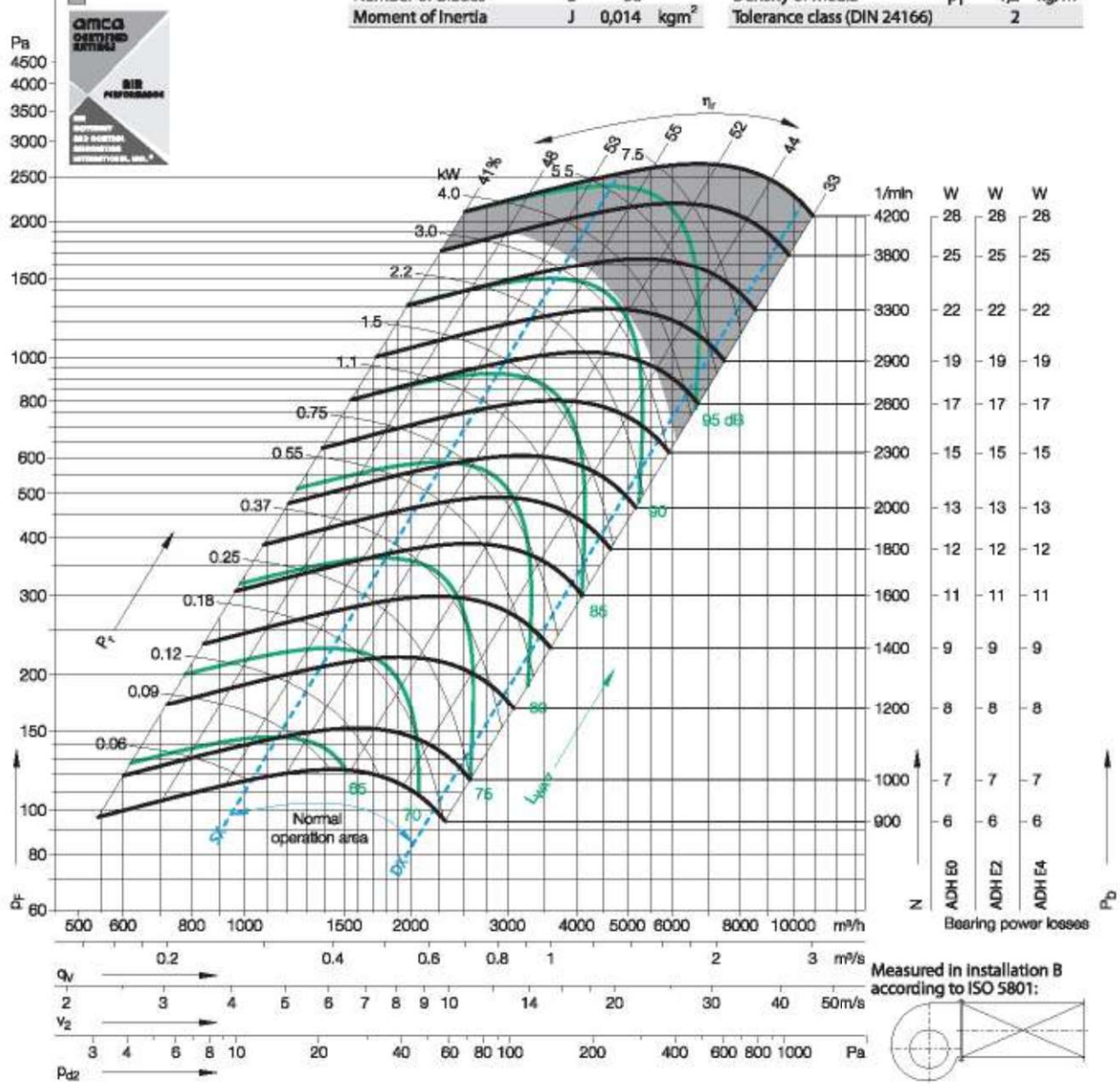


Forward Curved Fan
Size 200

Please note coloured areal
☐ all types suitable
■

Impeller Data			
Impeller diameter	D_r	200	mm
Number of blades	z	38	
Moment of Inertia	J	0,014	kgm^2

Impeller Data			
Impeller weight	m	1,6	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	



Backward Curved Fan
Size 200

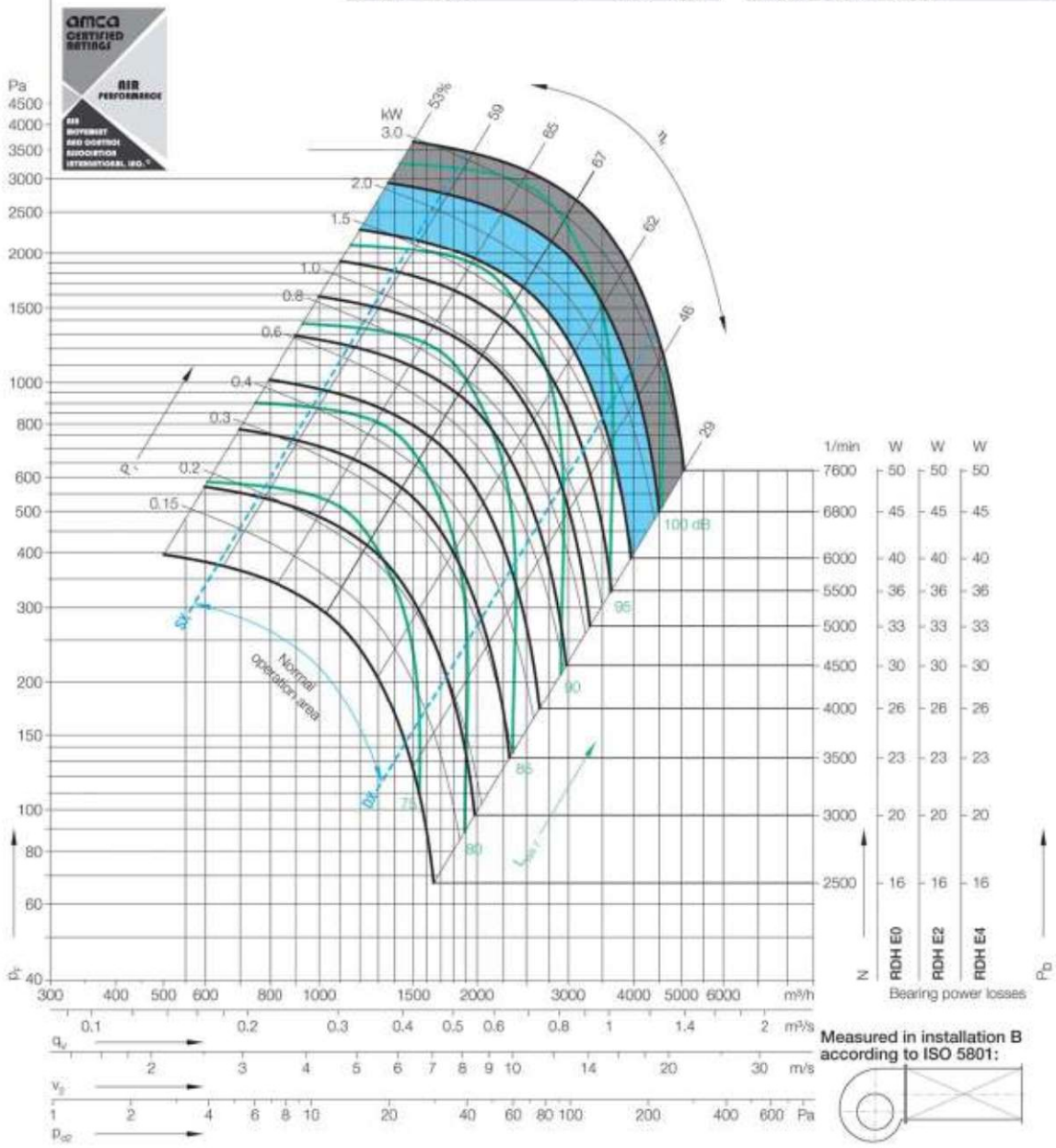
Please note coloured area!
- all types suitable
- RDH E4 only
- do not use in this area

Impeller Data

Impeller diameter	D_r	200	mm
Number of blades	z	8	
Moment of Inertia	J	0,006	kgm²

Impeller Data

Impeller weight	m	0,84	kg
Density of media	ρ_1	1,2	kg/m³
Tolerance class (DIN 24166)		2	



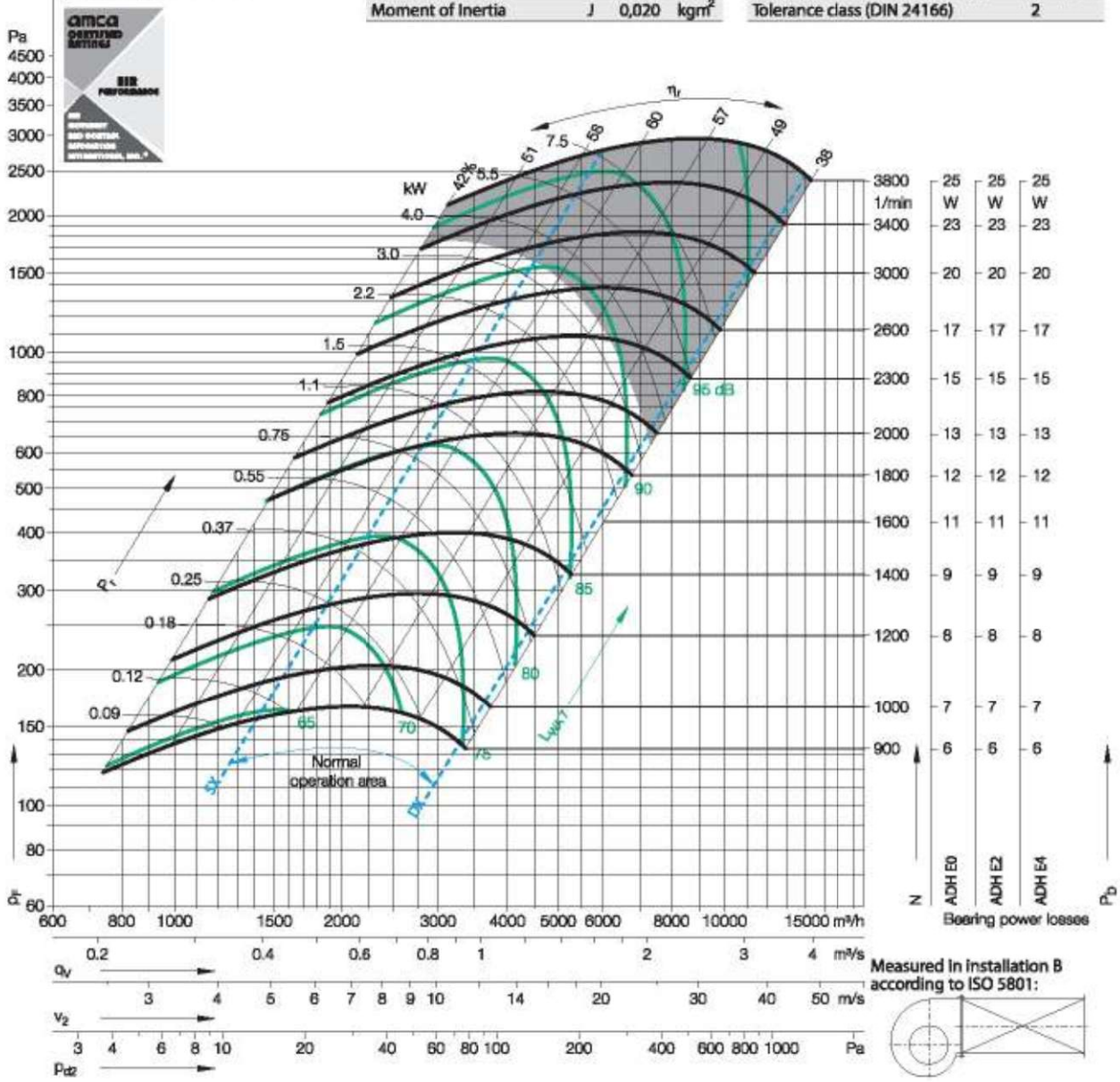
Measured in installation B according to ISO 5801:

Forward Curved Fan
Size 225

Please note coloured areal
- ☐ all types suitable
- ■ do not use in this area

Impeller Data			
Impeller diameter	D_r	225	mm
Number of blades	z	42	
Moment of Inertia	J	0,020	kgm^2

Impeller Data			
Impeller weight	m	1,8	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	



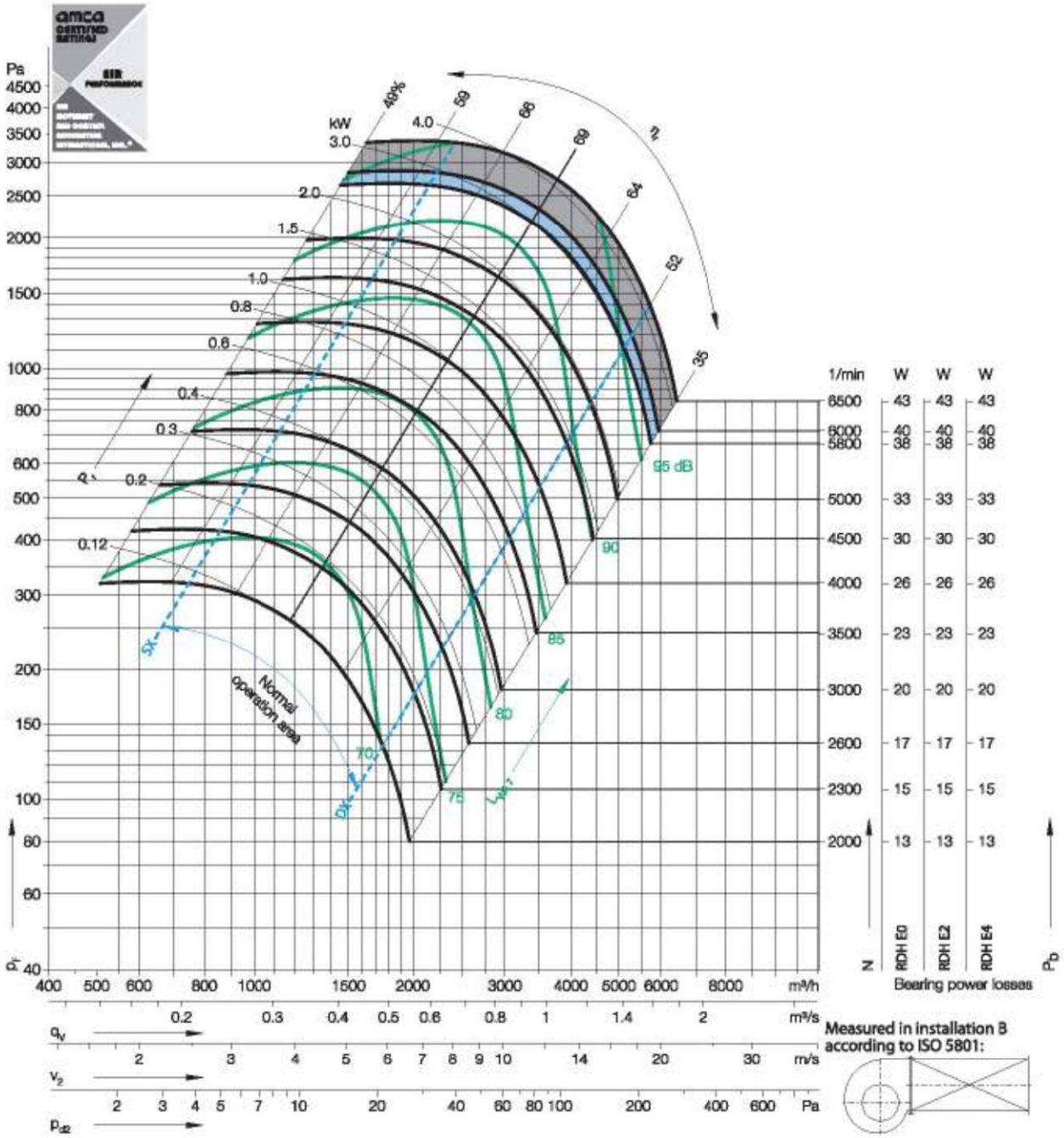
Measured in installation B according to ISO 5801:

Backward Curved Fan
Size 225

Please note coloured area!
- all types suitable
- RDH E4 only
- do not use in this area

Impeller Data			
Impeller diameter	D_1	225	mm
Number of blades	z	8	
Moment of Inertia	J	0,011	kgm^2

Impeller Data			
Impeller weight	m	1,3	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	



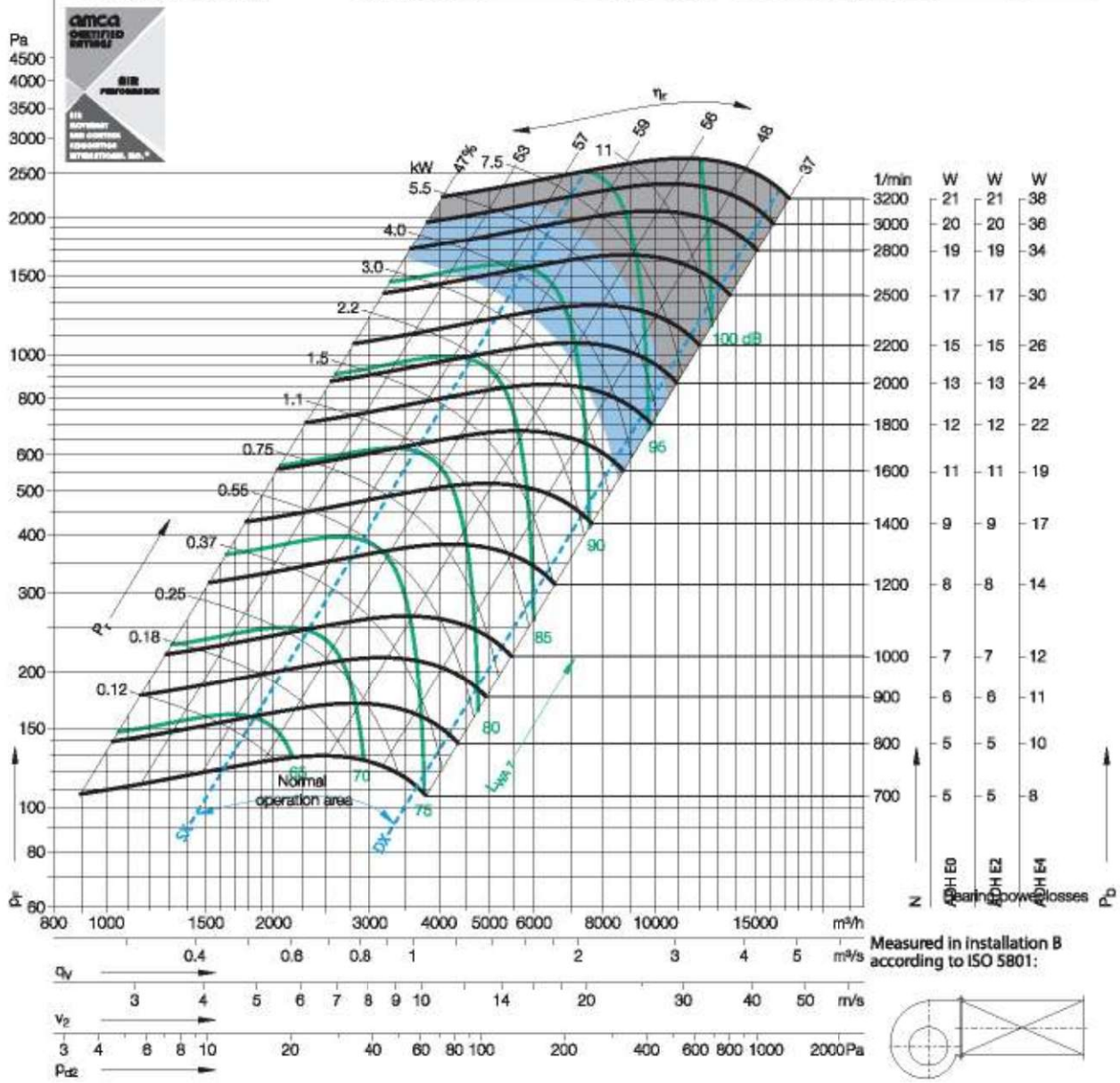
Measured in installation B according to ISO 5801:

Forward Curved Fan
Size 250

Please note coloured area!
- all types suitable
- ADH E4 only
- do not use in this area

Impeller Data			
Impeller diameter	D_1	250	mm
Number of blades	z	38	
Moment of Inertia	J	0,036	kgm^2

Impeller Data			
Impeller weight	m	2,7	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	



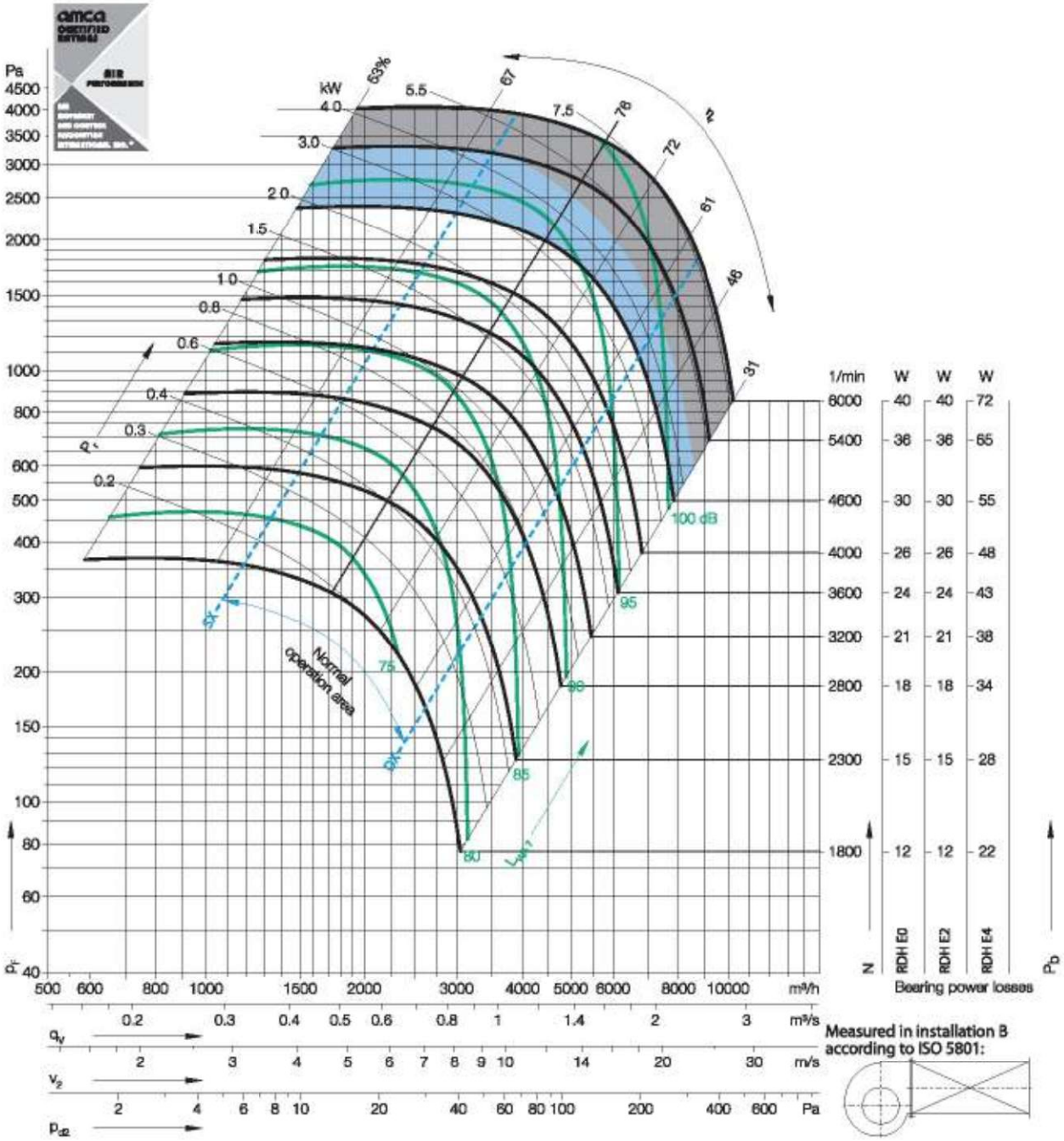
Measured in installation B according to ISO 5801:

Backward Curved Fan
Size 250

Please note coloured area!
- all types suitable
- RDH E4 only
- do not use in this area

Impeller Data			
Impeller diameter	D_1	250	mm
Number of blades	z	11	
Moment of Inertia	J	0,044	kgm²

Impeller Data			
Impeller weight	m	4,87	kg
Density of media	ρ_1	1,2	kg/m³
Tolerance class (DIN 24166)		2	



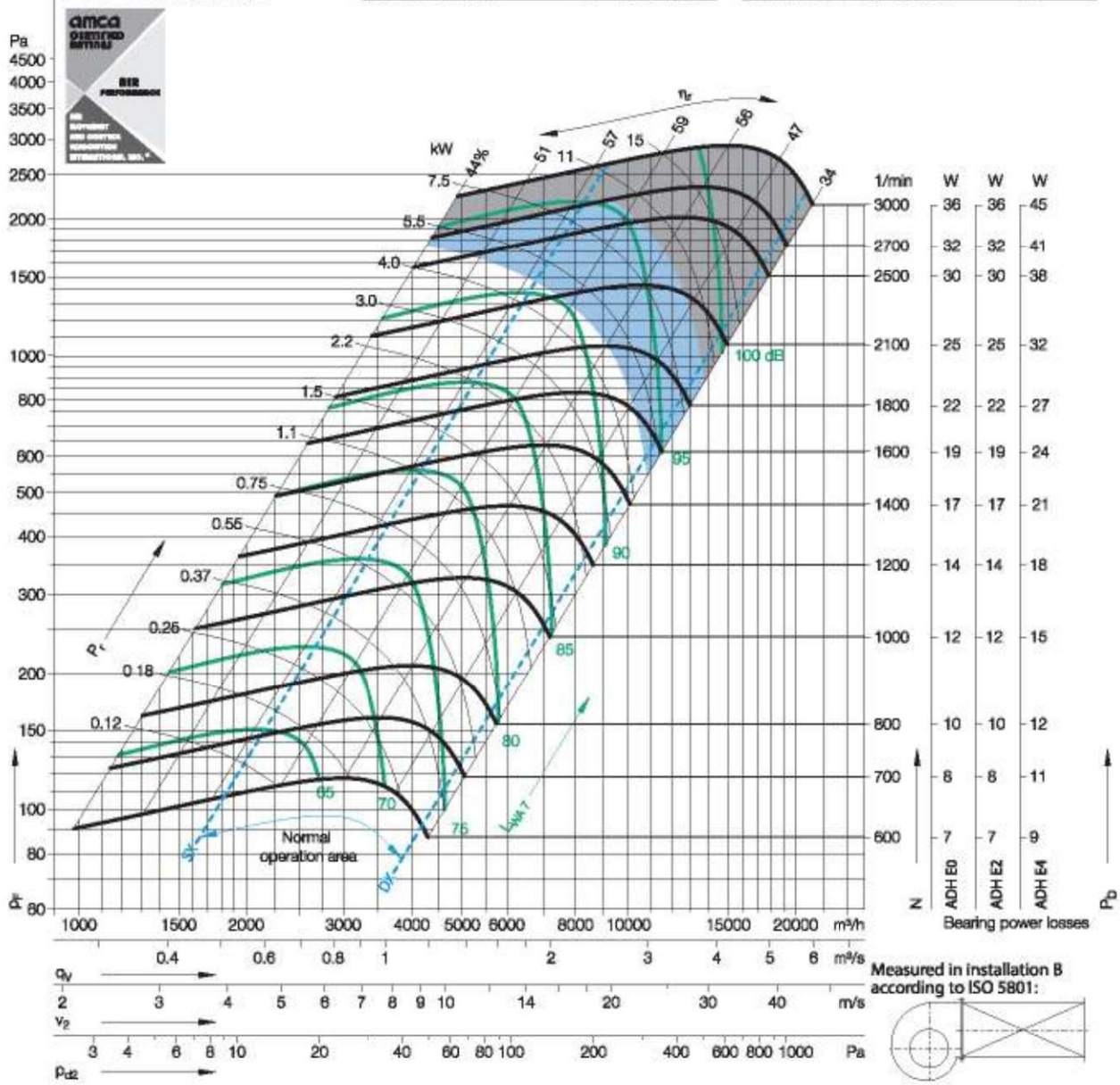
Measured in installation B according to ISO 5801:

Forward Curved Fan
Size 280

Please note coloured area!
- all types suitable
- ADH E4 only
- do not use in this area

Impeller Data			
Impeller diameter	D_r	280	mm
Number of blades	z	42	
Moment of Inertia	J	0,059	kgm^2

Impeller Data			
Impeller weight	m	3,5	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	



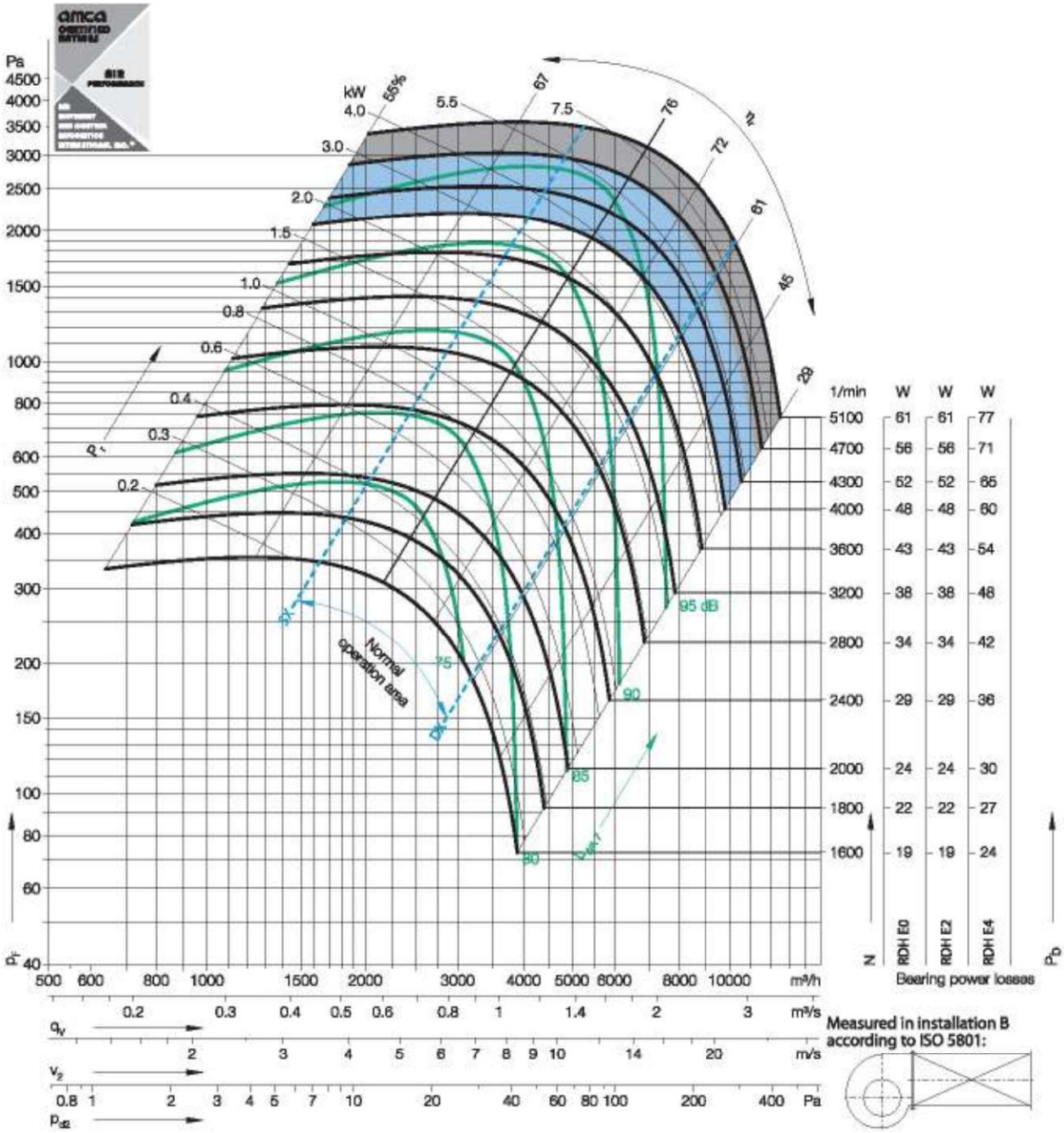
Measured in installation B according to ISO 5801:

Backward Curved Fan
Size 280

Please note coloured area!
- all types suitable
- RDH E4 only
- do not use in this area

Impeller Data			
Impeller diameter	D_r	280	mm
Number of blades	z	11	
Moment of Inertia	J	0,069	kgm^2

Impeller Data			
Impeller weight	m	5,89	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	



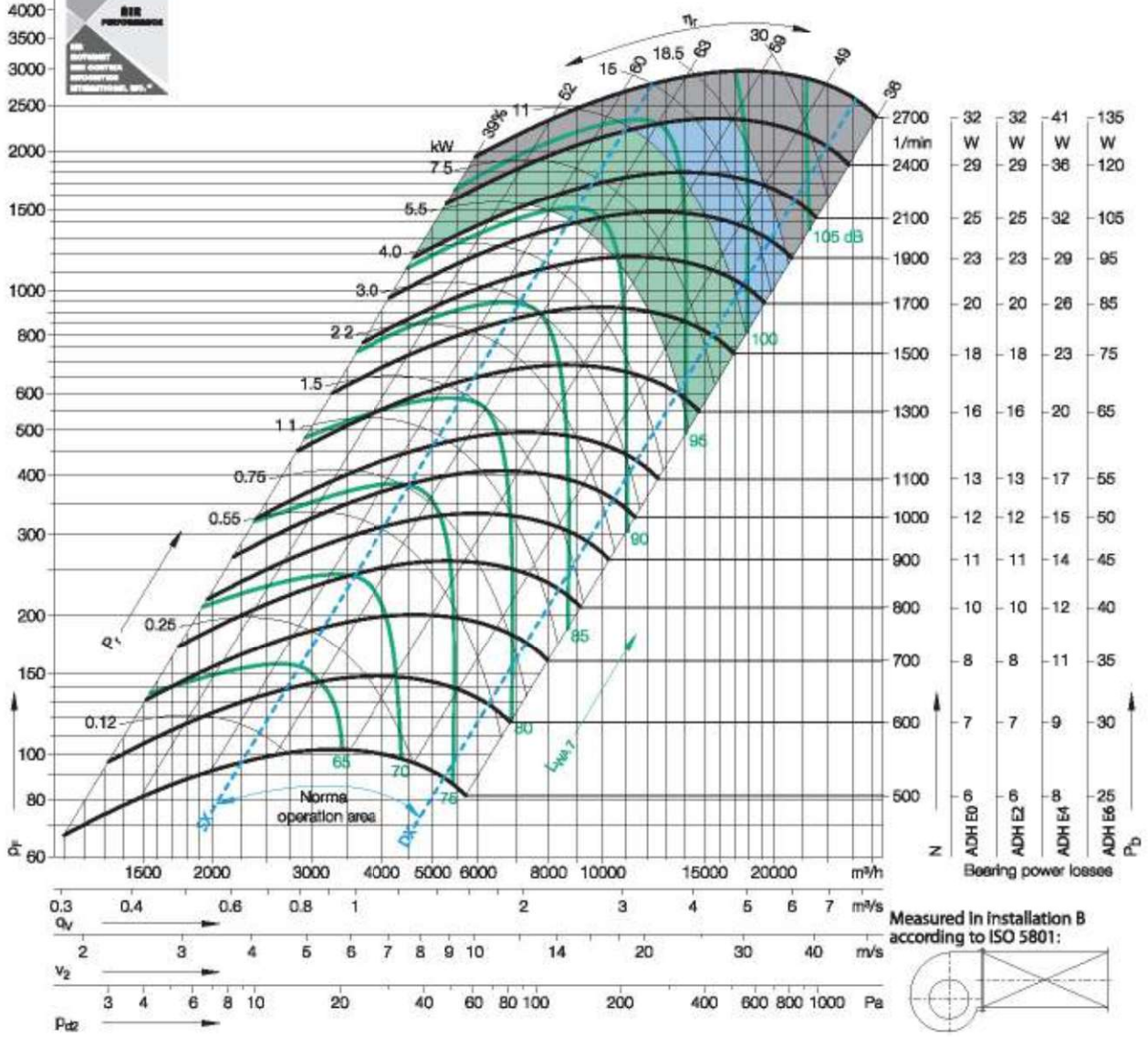
Measured in installation B according to ISO 5801:

Forward Curved Fan
Size 315

Please note coloured areal
- all types suitable
- ADH E4/E6 only

Impeller Data			
Impeller diameter	D_r	315	mm
Number of blades	z	38	
Moment of Inertia	J	0,100	kgm²

Impeller Data			
Impeller weight	m	4,6	kg
Density of media	ρ_1	1,2	kg/m³
Tolerance class (DIN 24166)		2	



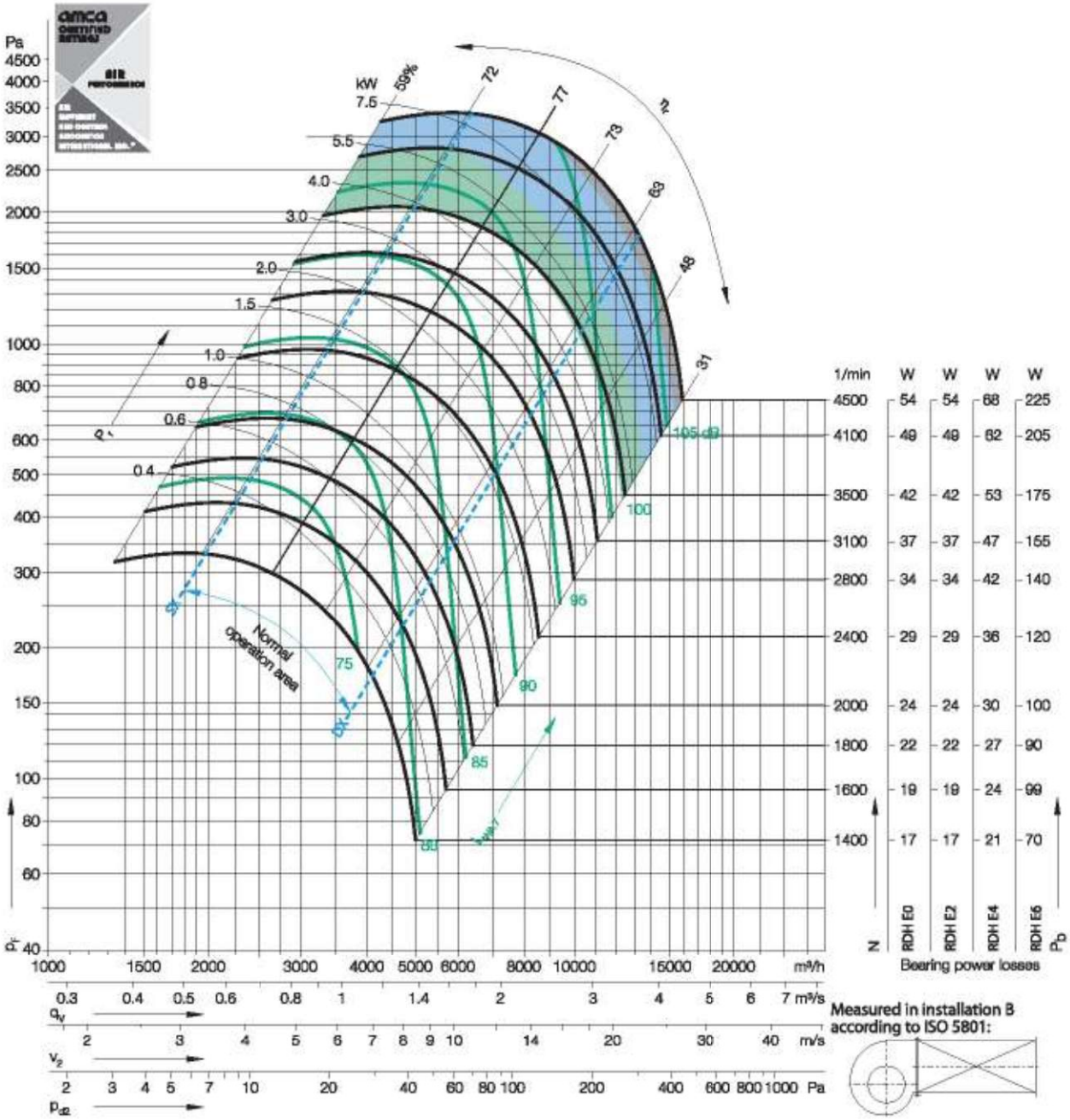
Measured in installation B according to ISO 5801:

Backward Curved Fan
Size 315

Please note coloured area!
- all types suitable
- RDH E4/E6 only
- RDH E6 only

Impeller Data			
Impeller diameter	D_1	315	mm
Number of blades	z	11	
Moment of Inertia	J	0,110	kgm^2

Impeller Data			
Impeller weight	m	7,14	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	

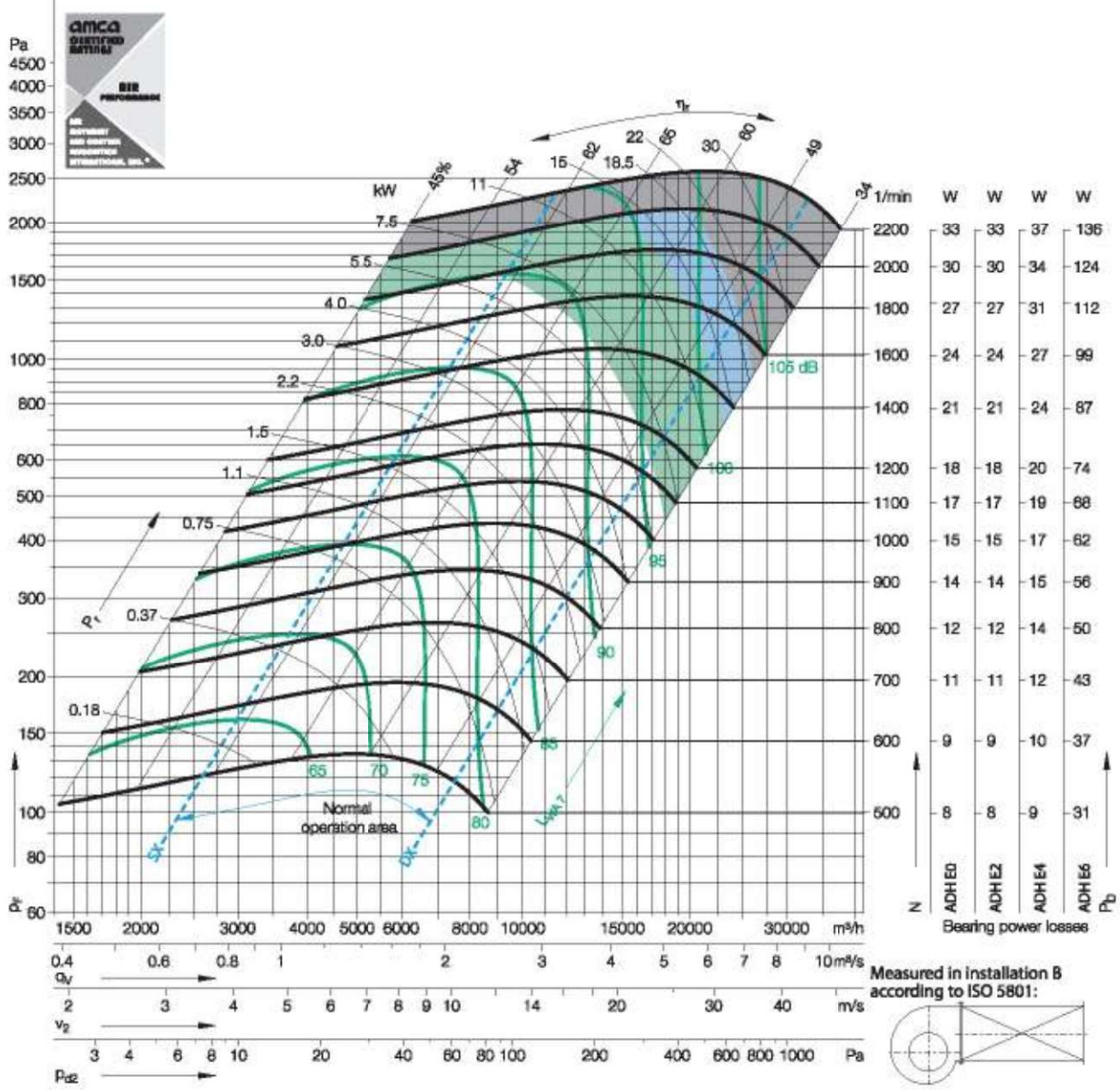


Forward Curved Fan
Size 355

Please note coloured area!
- all types suitable
- ADH E4/E6 only
- ADH E6 only
- do not use in this area

Impeller Data			
Impeller diameter	D_r	355	mm
Number of blades	z	42	
Moment of Inertia	J	0,150	kgm^2

Impeller Data			
Impeller weight	m	5,5	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	



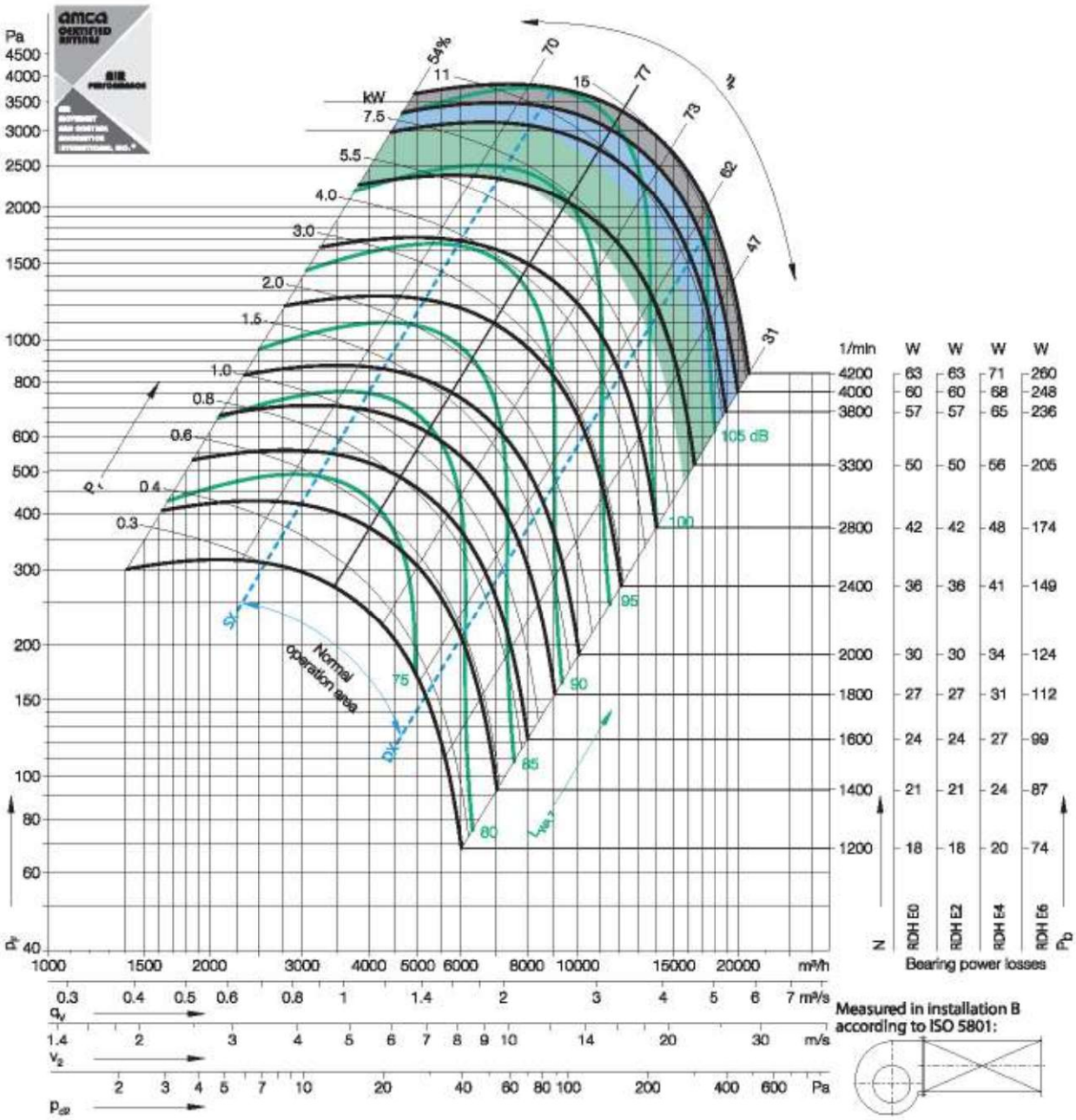
Measured in installation B according to ISO 5801:

Backward Curved Fan
Size 355

Please note coloured area!
- all types suitable
- RDH E4/E6 only
- RDH E6 only
- do not use in this area

Impeller Data			
Impeller diameter	D_1	355	mm
Number of blades	z	11	
Moment of Inertia	J	0,200	kgm²

Impeller Data			
Impeller weight	m	10,2	kg
Density of media	ρ_1	1,2	kg/m³
Tolerance class (DIN 24166)		1	

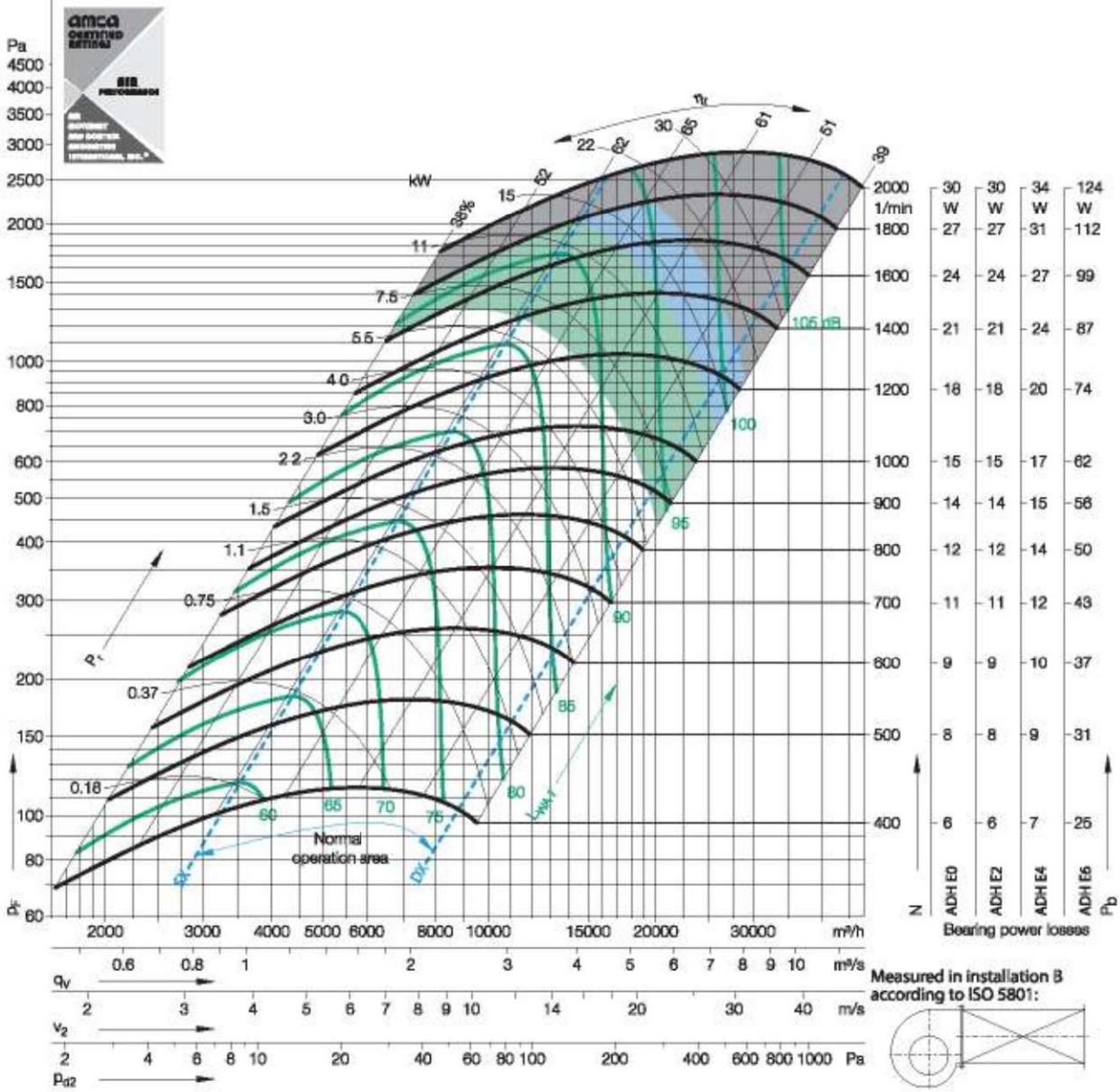


Forward Curved Fan
Size 400

Please note coloured area!
- all types suitable
- ADH E4/E6 only
- ADH E6 only
- do not use in this area

Impeller Data			
Impeller diameter	D_t	400	mm
Number of blades	z	38	
Moment of Inertia	J	0,310	kgm^2

Impeller Data			
Impeller weight	m	9	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	



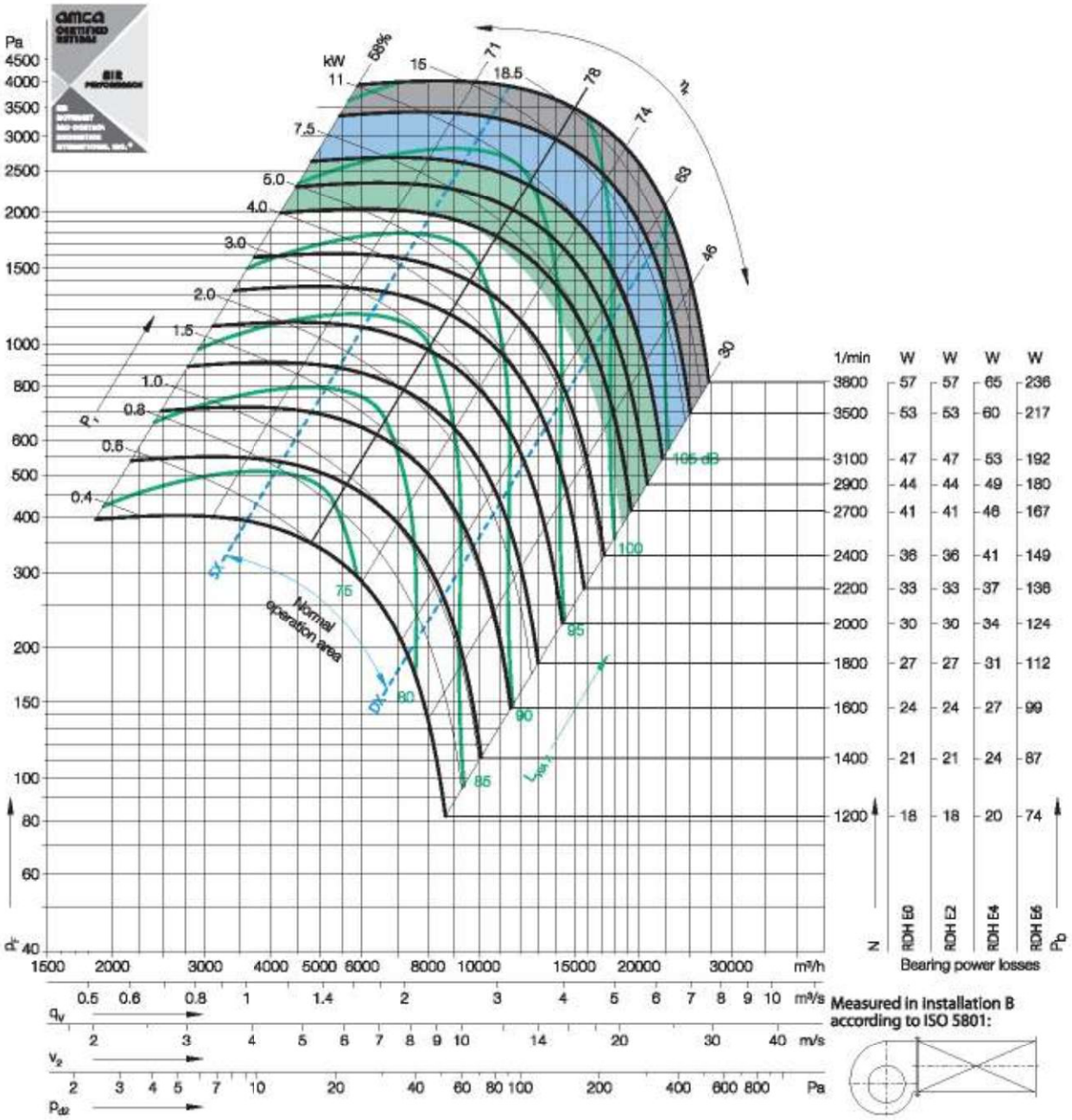
Measured in installation B according to ISO 5801:

Backward Curved Fan
Size 400

Please note coloured area!
- all types suitable
- RDH E4/E6 only
- RDH E6 only
- do not use in this area

Impeller Data			
Impeller diameter	D_f	400	mm
Number of blades	z	11	
Moment of Inertia	J	0,330	kgm^2

Impeller Data			
Impeller weight	m	12,7	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		1	



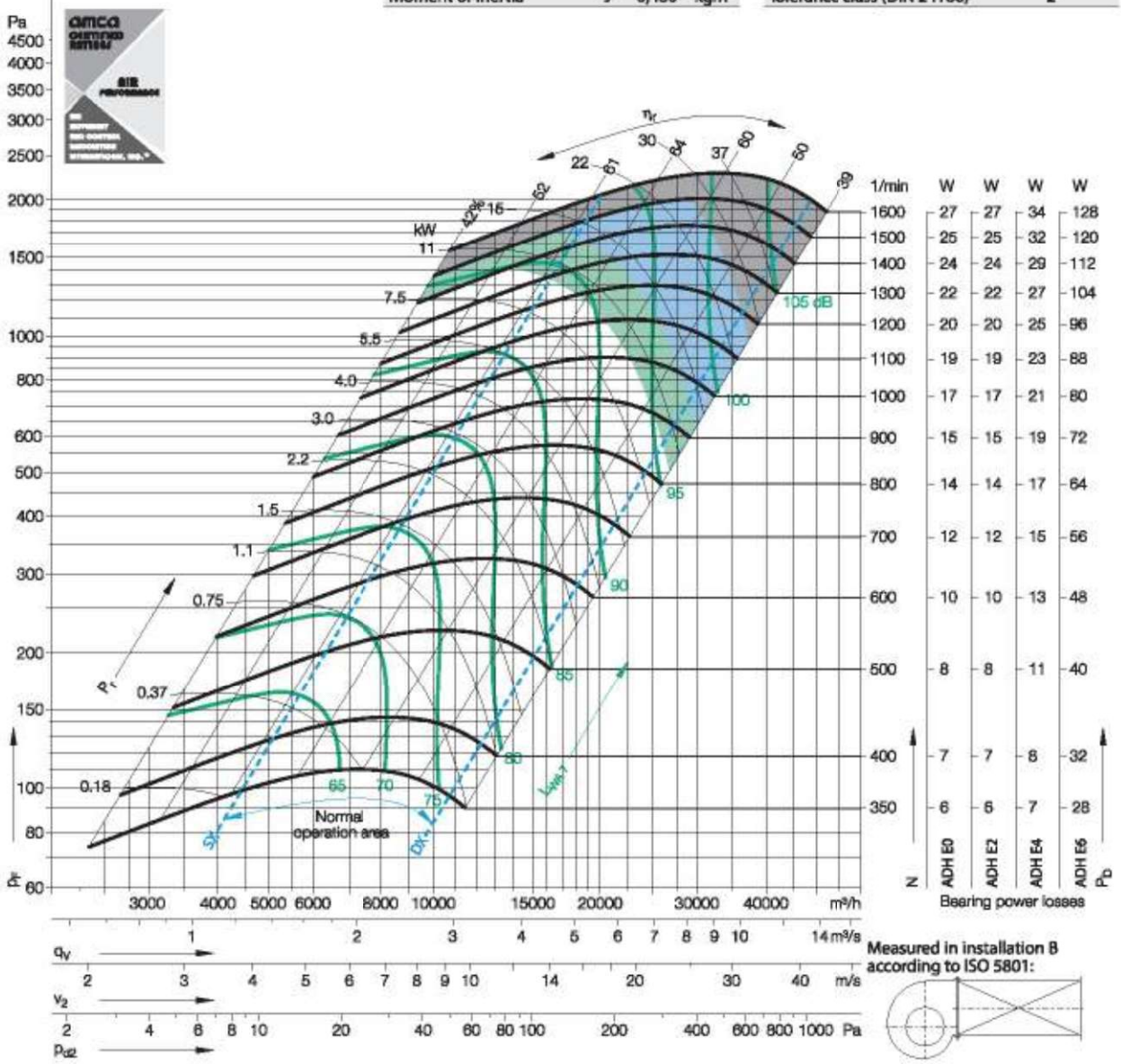
Measured in installation B according to ISO 5801:

Forward Curved Fan
Size 450

Please note coloured areal
- all types suitable
- ADH E4/E6 only

Impeller Data			
Impeller diameter	D_1	450	mm
Number of blades	z	42	
Moment of Inertia	J	0,480	kgm^2

Impeller Data			
Impeller weight	m	11	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	



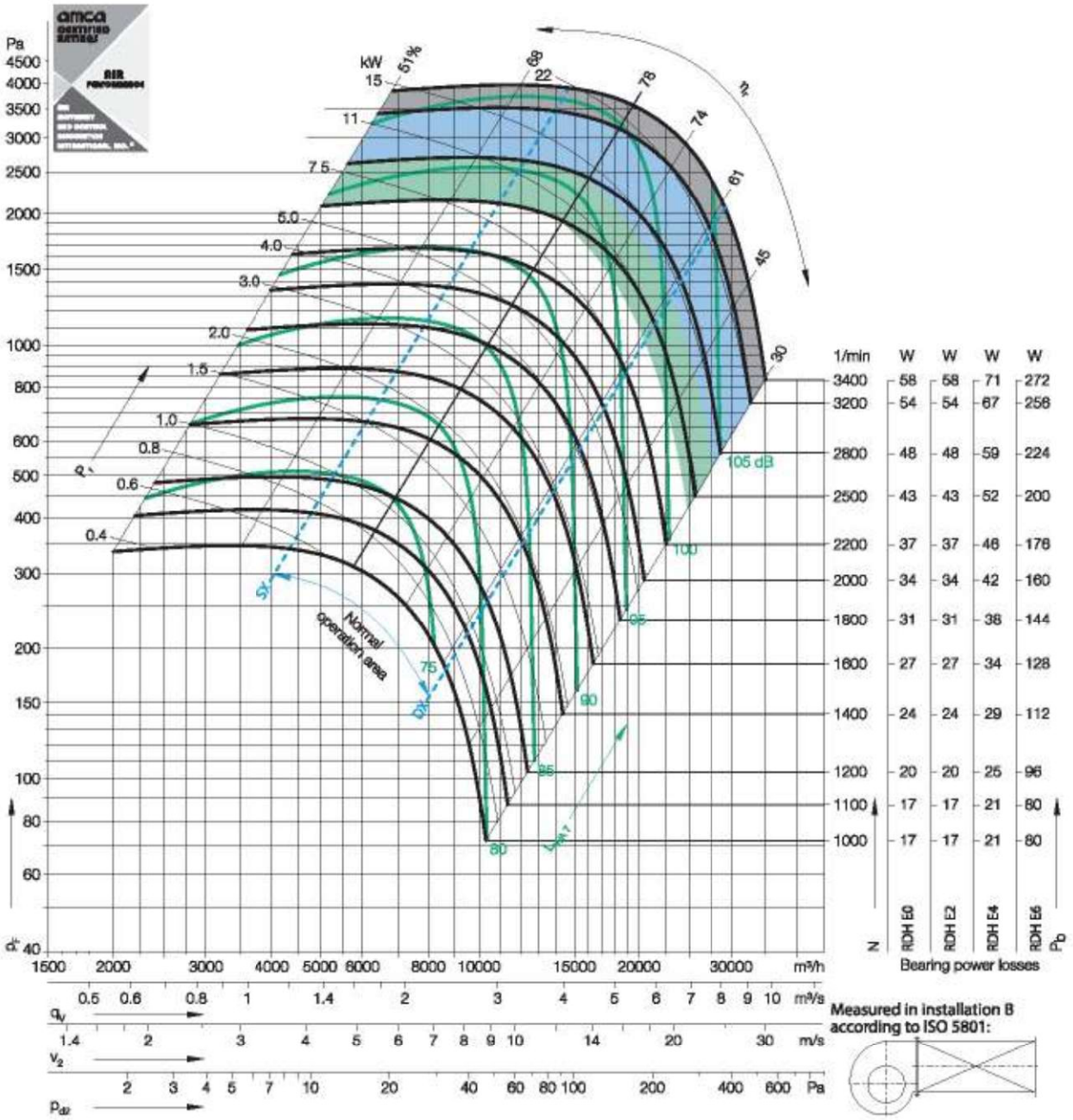
Measured in installation B according to ISO 5801:

Backward Curved Fan
Size 450

Please note coloured area!
- all types suitable
- RDH E4/E6 only
- RDH E6 only
- do not use in this area

Impeller Data			
Impeller diameter	D_1	450	mm
Number of blades	z	11	
Moment of Inertia	J	0,520	kgm^2

Impeller Data			
Impeller weight	m	17,6	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		1	



Measured in installation B according to ISO 5801:

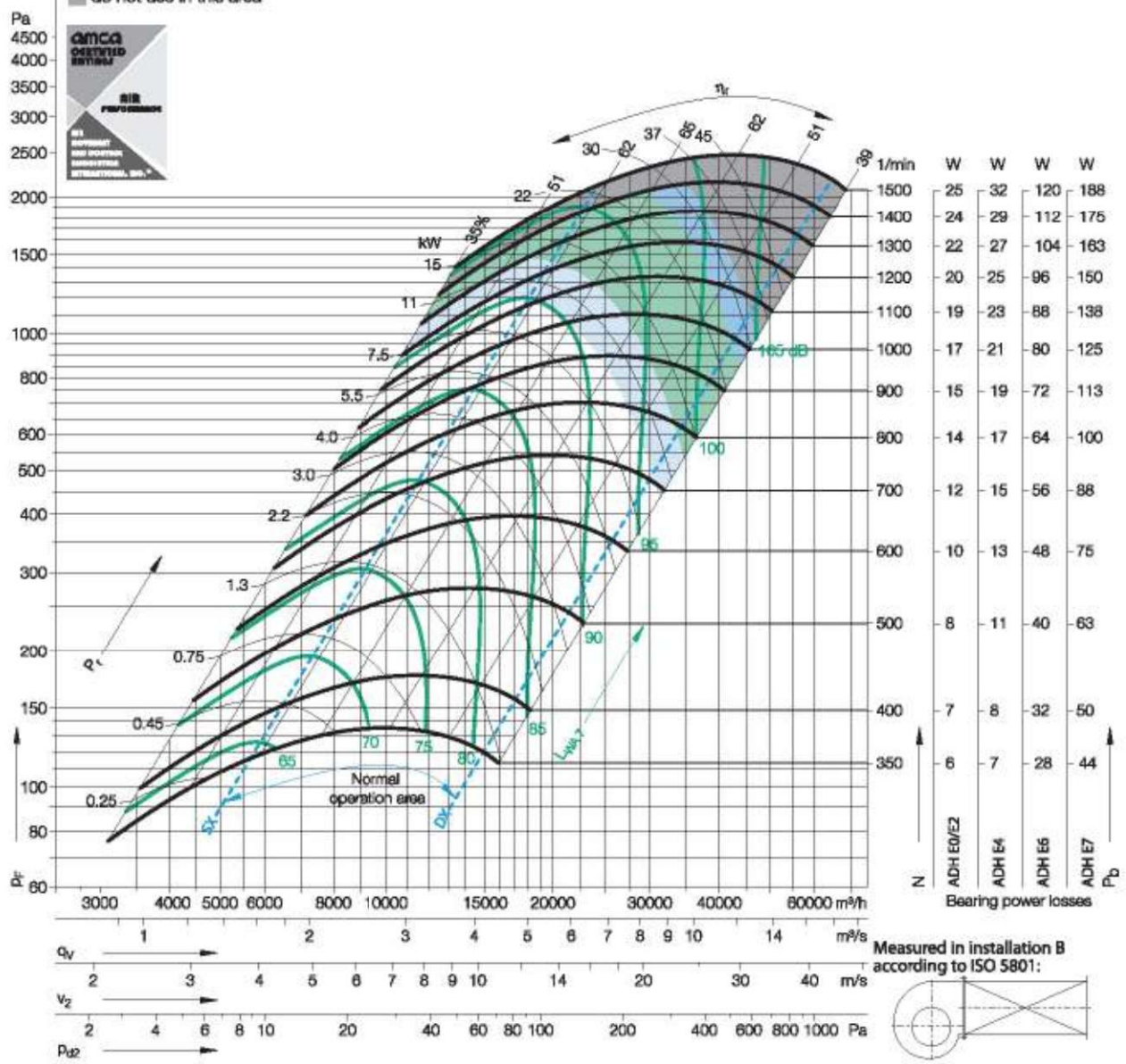
Forward Curved Fan
Size 500

Please note coloured area!

- all types suitable
- ADH E4/E6/E7 only
- ADH E6/E7 only
- ADH E7 only
- do not use in this area

Impeller Data			
Impeller diameter	D_1	500	mm
Number of blades	z	38	
Moment of Inertia	J	0,900	kgm^2

Impeller Data			
Impeller weight	m	18	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	

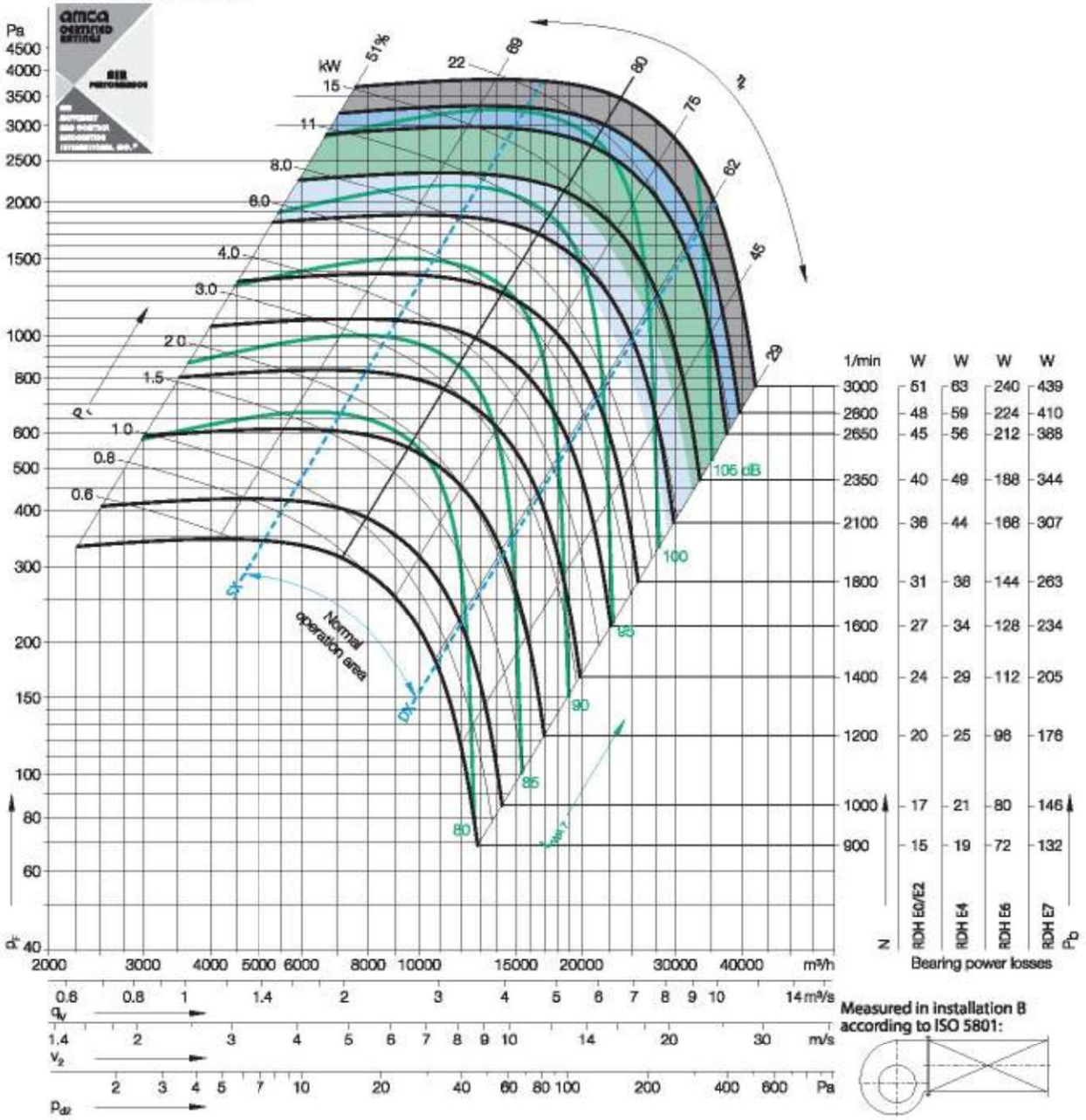


Backward Curved Fan
Size 500

Please note coloured area!
- all types suitable
- RDH E4/E6/E7 only
- RDH E6/E7 only
- RDH E7 only
- do not use in this area

Impeller Data			
Impeller diameter	D_f	500	mm
Number of blades	z	11	
Moment of Inertia	J	0,890	kgm^2

Impeller Data			
Impeller weight	m	23,5	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		1	



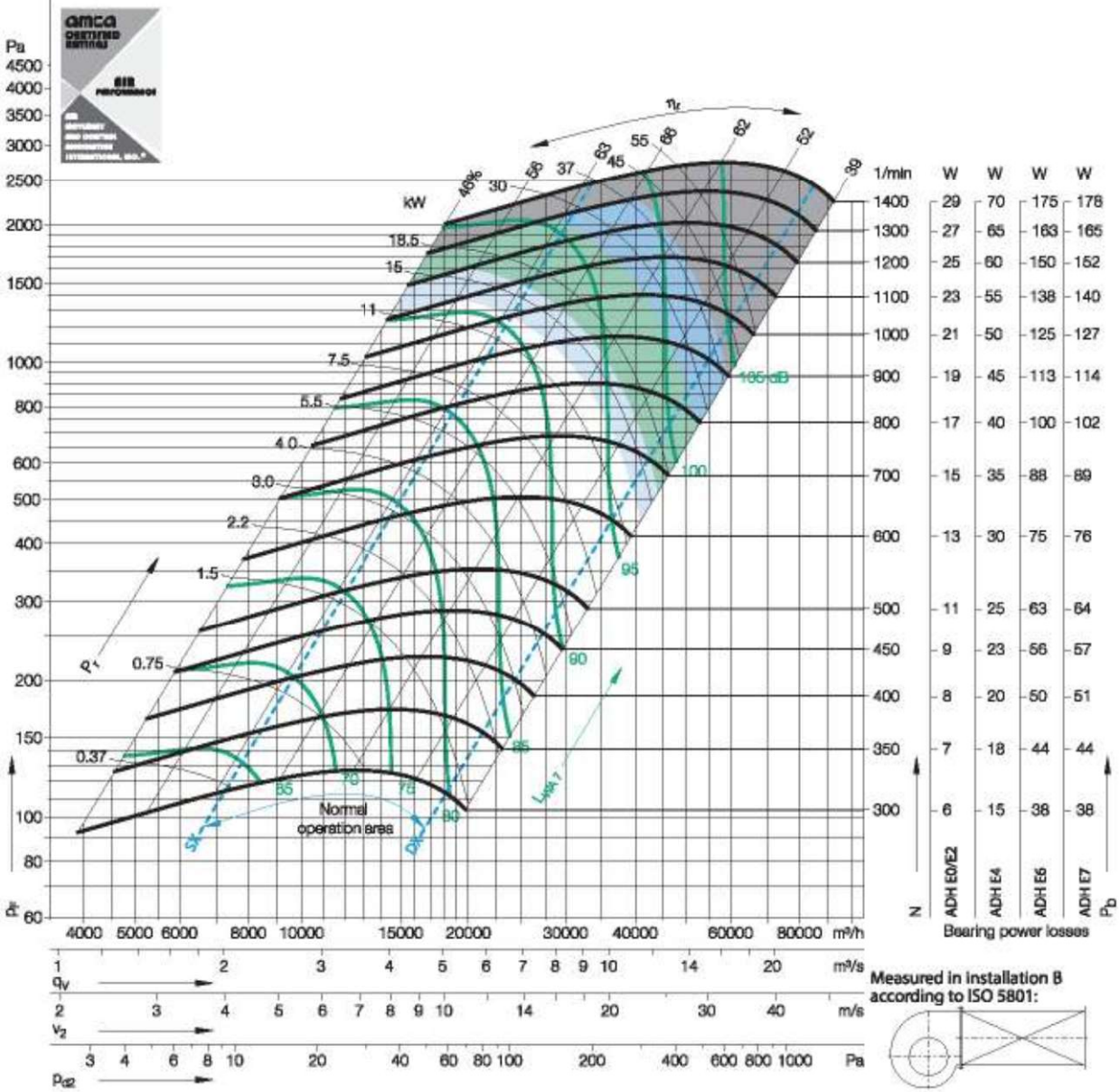
Measured in installation B according to ISO 5801:

Forward Curved Fan
Size 560

Please note coloured area!
- all types suitable
- ADH E4/E6/E7 only
- ADH E6/E7 only
- ADH E7 only
- do not use in this area

Impeller Data			
Impeller diameter	D_1	560	mm
Number of blades	z	42	
Moment of Inertia	J	1,560	kgm²

Impeller Data			
Impeller weight	m	24	kg
Density of media	ρ_1	1,2	kg/m³
Tolerance class (DIN 24166)		2	



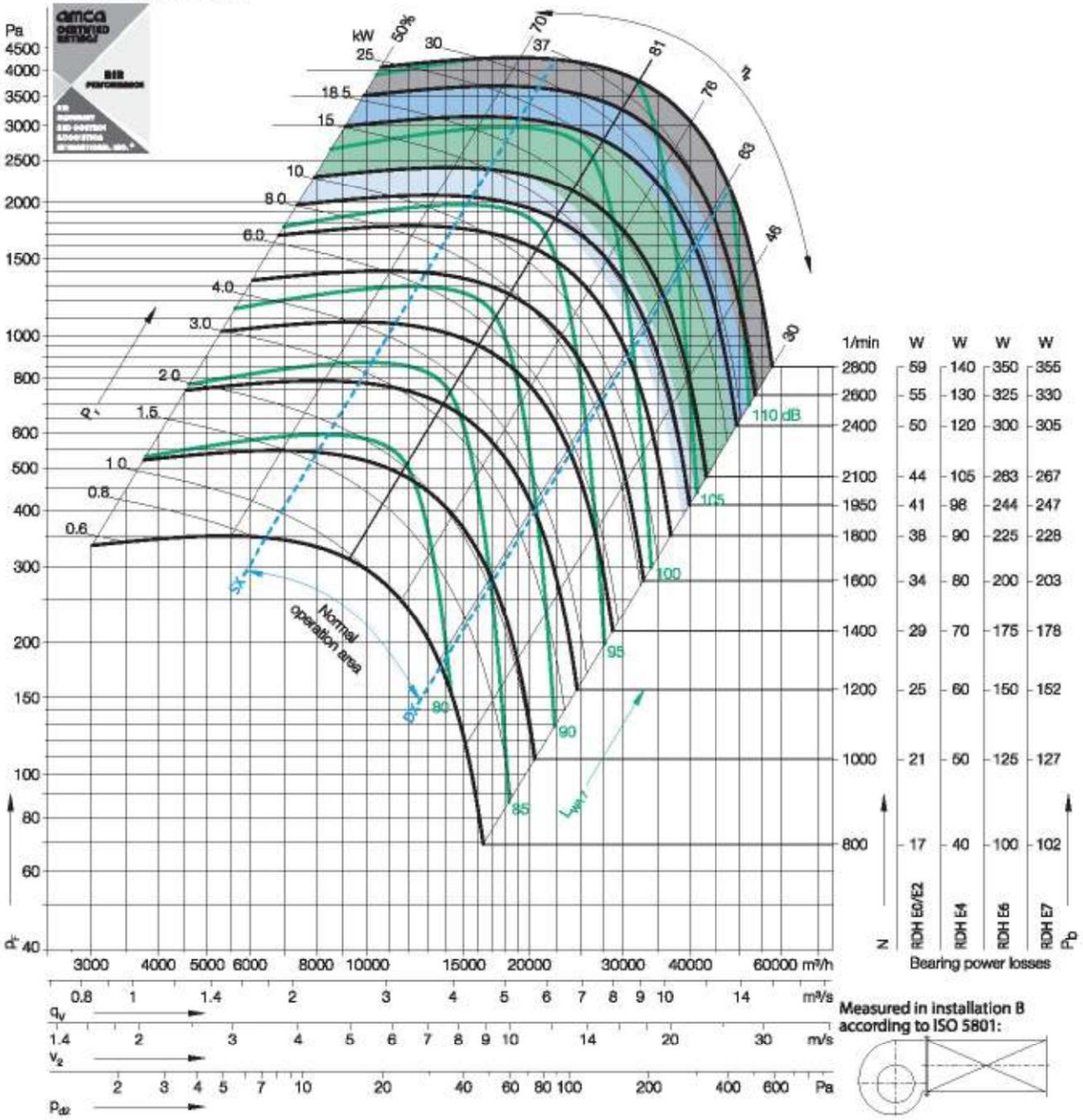
Measured in installation B according to ISO 5801:

Backward Curved Fan
Size 560

Please note coloured area!
- all types suitable
- RDH E4/E6/E7 only
- RDH E6/E7 only
- RDH E7 only
- do not use in this area

Impeller Data			
Impeller diameter	D_r	560	mm
Number of blades	z	11	
Moment of Inertia	J	1,410	kgm^2

Impeller Data			
Impeller weight	m	28,8	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		1	

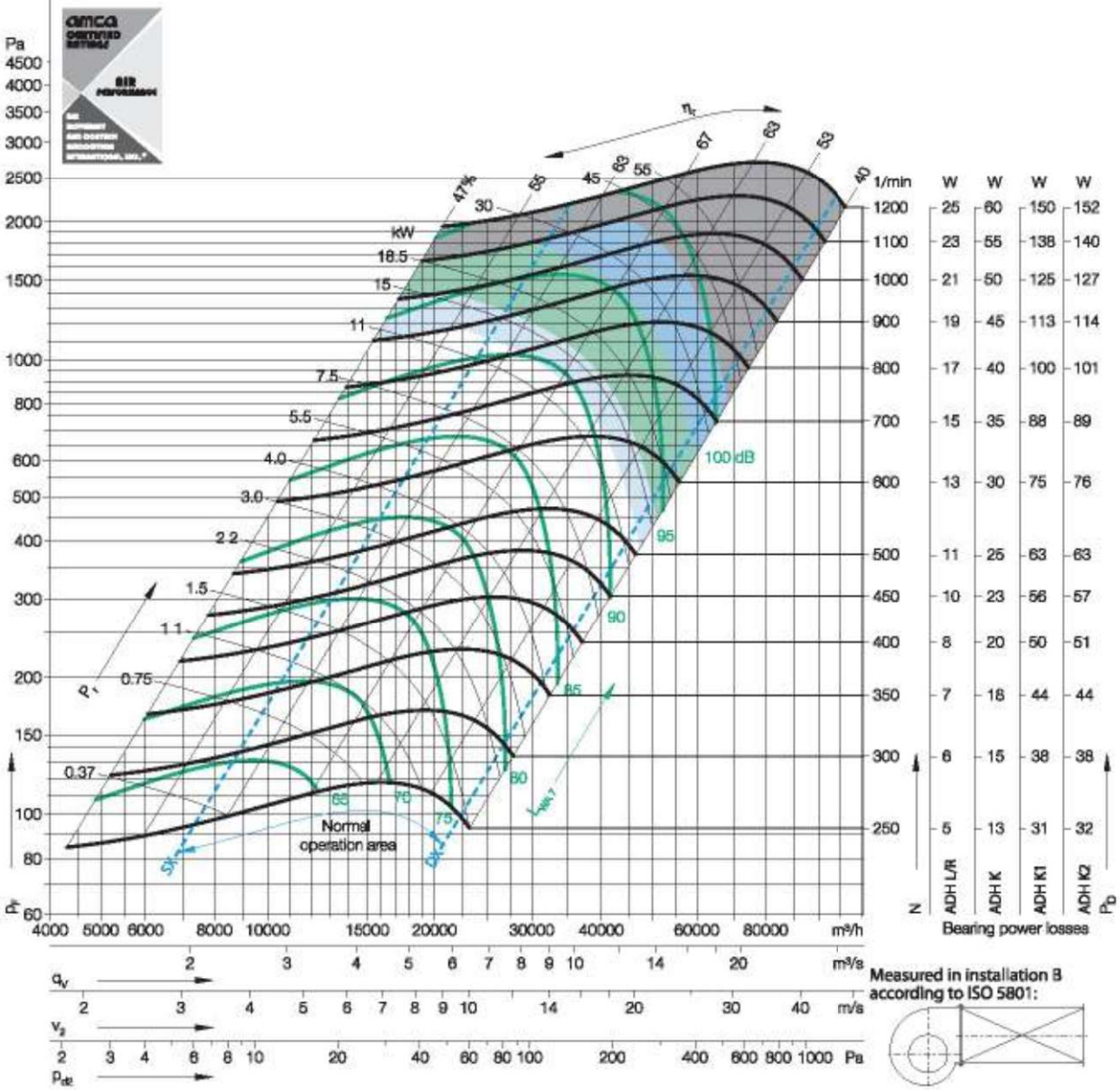


Forward Curved Fan
Size 630

Please note coloured area!
- all types suitable
- ADH K/K1/K2 only
- ADH K1/K2 only
- ADH K2 only
- do not use in this area

Impeller Data			
Impeller diameter	D_r	630	mm
Number of blades	z	38	
Moment of Inertia	J	2,590	kgm^2

Impeller Data			
Impeller weight	m	32	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	



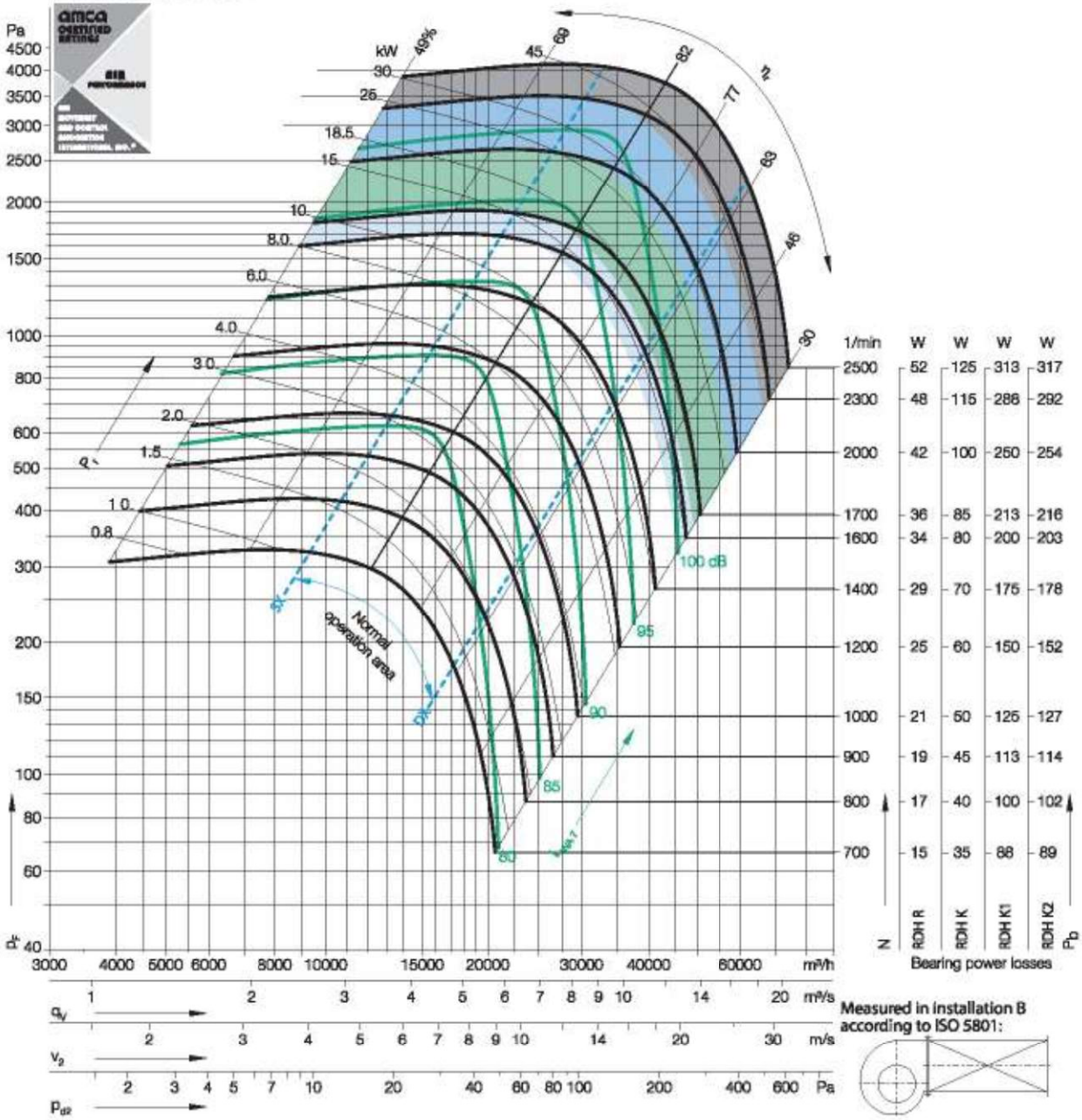
Measured in installation B according to ISO 5801:

Backward Curved Fan
Size 630

Please note coloured area!
- all types suitable
- RDH K/K1/K2 only
- RDH K1/K2 only
- RDH K2 only
- do not use in this area

Impeller Data			
Impeller diameter	D_1	630	mm
Number of blades	z	11	
Moment of Inertia	J	2,320	kgm^2

Impeller Data			
Impeller weight	m	36,7	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		1	



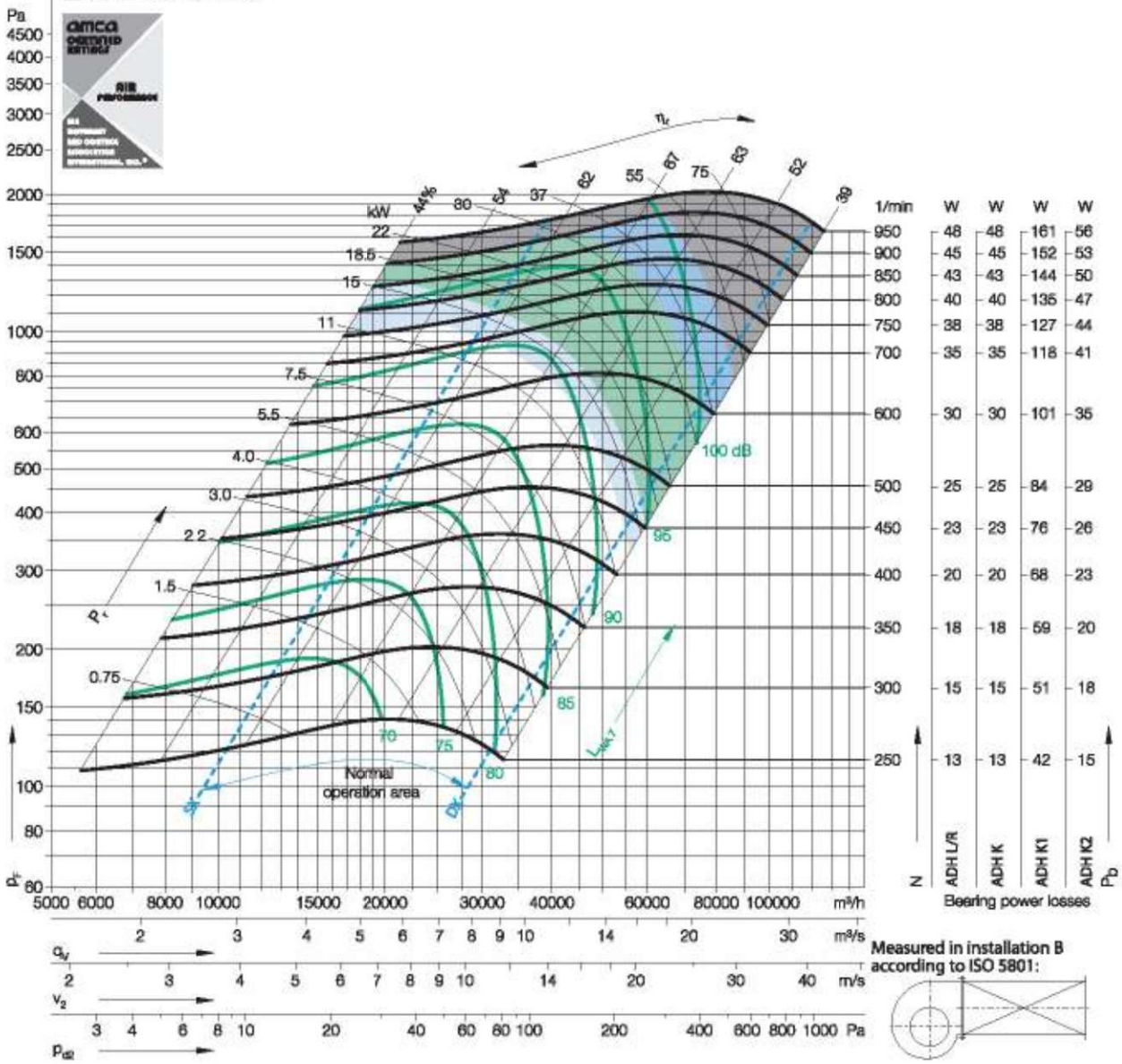
Forward Curved Fan
Size 710

Please note coloured area!

- all types suitable
- ADH K/K1/K2 only
- ADH K1/K2 only
- ADH K2 only
- do not use in this area

Impeller Data			
Impeller diameter	D_r	710	mm
Number of blades	z	42	
Moment of Inertia	J	3,970	kgm^2

Impeller Data			
Impeller weight	m	40	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	



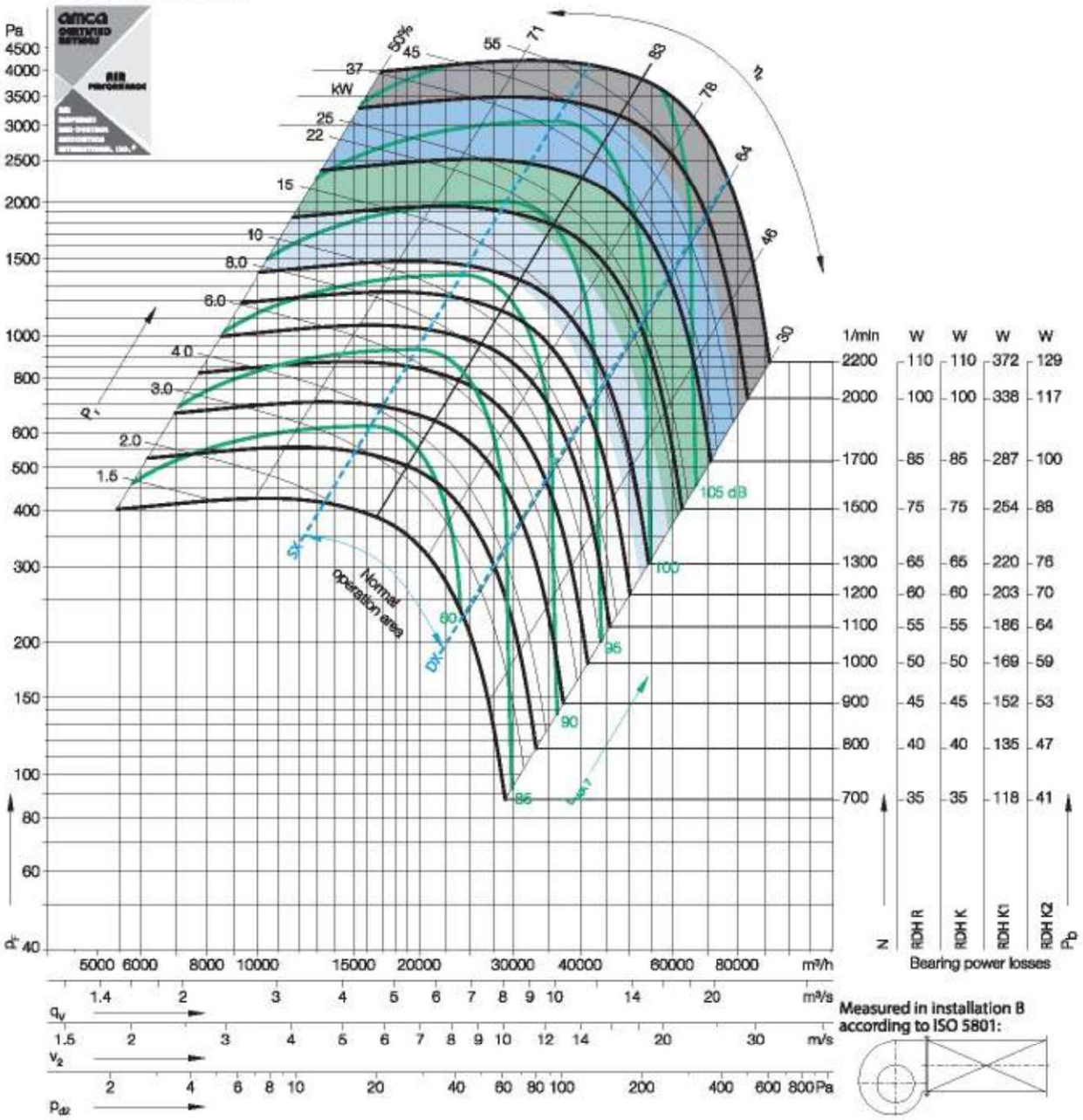
Measured in installation B according to ISO 5801:

Backward Curved Fan
Size 710

Please note coloured area!
- all types suitable
- RDH K/K1/K2 only
- RDH K1/K2 only
- RDH K2 only
- do not use in this area

Impeller Data			
Impeller diameter	D_1	710	mm
Number of blades	z	11	
Moment of Inertia	J	4,940	kgm^2

Impeller Data			
Impeller weight	m	60	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		1	

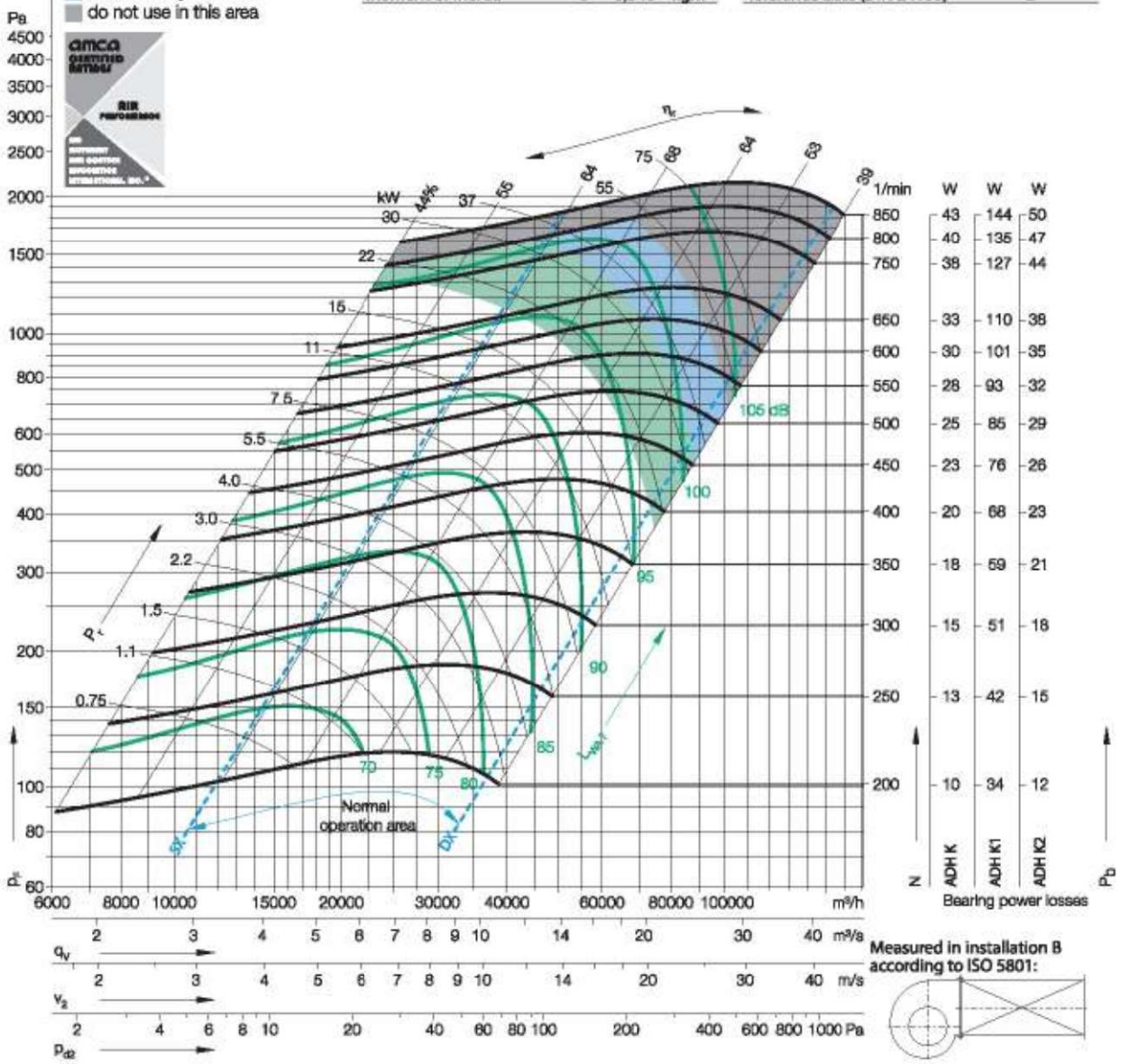


Forward Curved Fan
Size 800

Please note coloured area!
- all types suitable
- ADH K1/K2 only
- ADH K2 only
- do not use in this area

Impeller Data			
Impeller diameter	D_t	800	mm
Number of blades	z	38	
Moment of Inertia	J	8,340	kgm²

Impeller Data			
Impeller weight	m	63	kg
Density of media	ρ_1	1,2	kg/m³
Tolerance class (DIN 24166)		2	

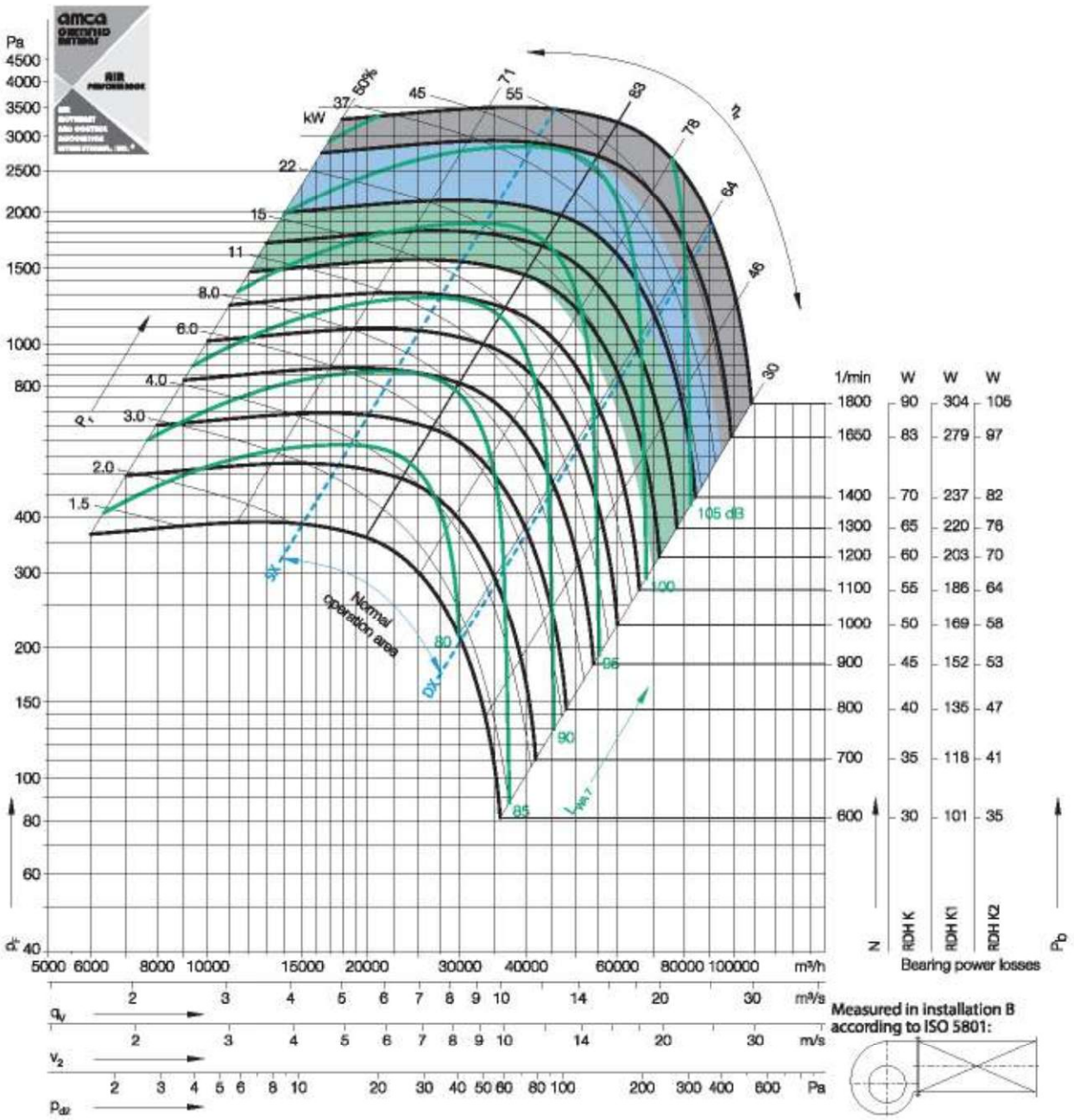


Backward Curved Fan
Size 800

Please note coloured area!
- all types suitable
- RDH K1/K2 only
- RDH K2 only
- do not use in this area

Impeller Data			
Impeller diameter	D_f	800	mm
Number of blades	z	11	
Moment of Inertia	J	8,250	kgm^2

Impeller Data			
Impeller weight	m	86	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		1	

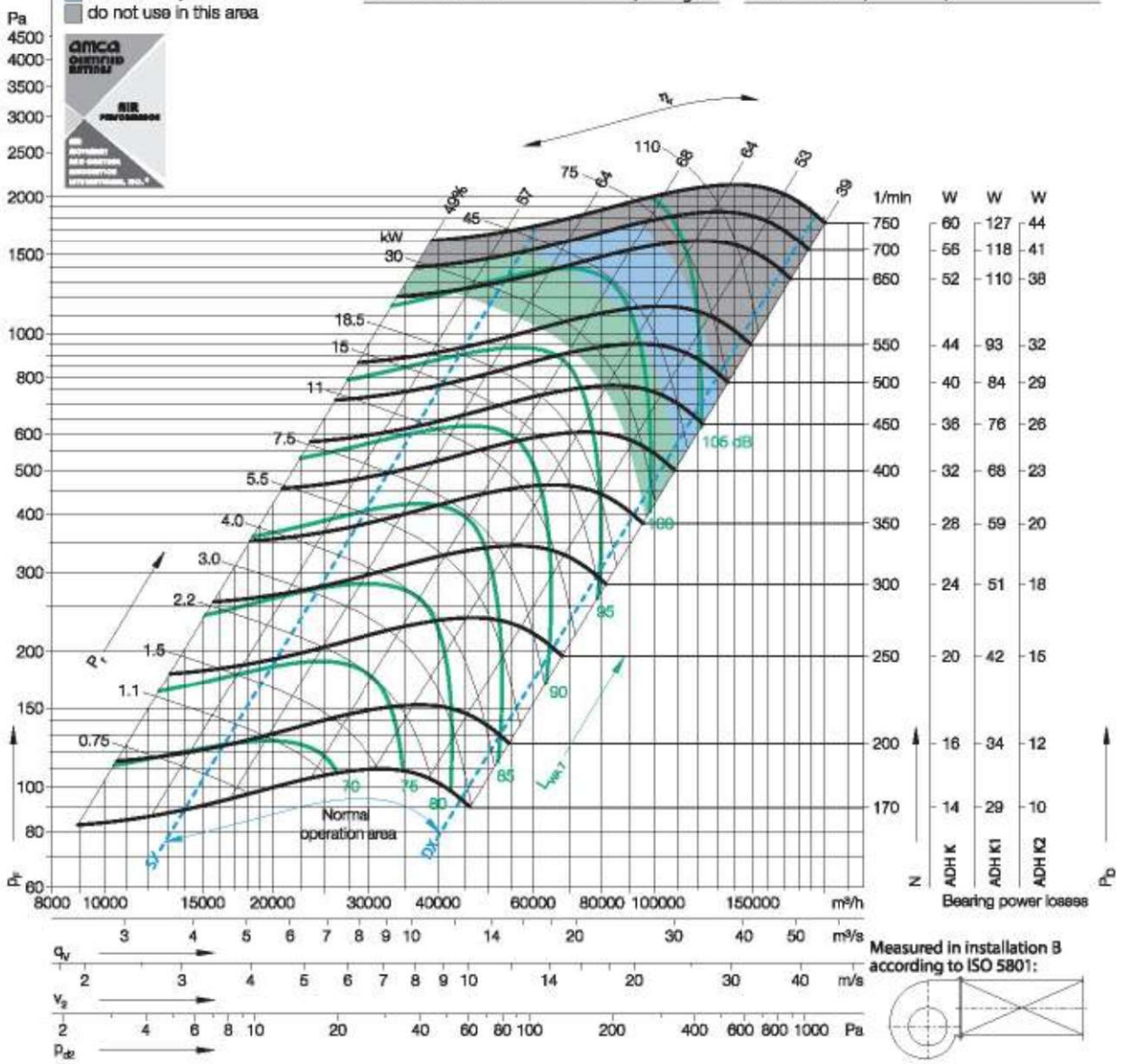


Forward Curved Fan
Size 900

Please note coloured area!
- all types suitable
- ADH K1/K2 only
- ADH K2 only
- do not use in this area

Impeller Data			
Impeller diameter	D_r	900	mm
Number of blades	z	42	
Moment of Inertia	J	12,60	kgm²

Impeller Data			
Impeller weight	m	73	kg
Density of media	ρ_1	1,2	kg/m³
Tolerance class (DIN 24166)		2	

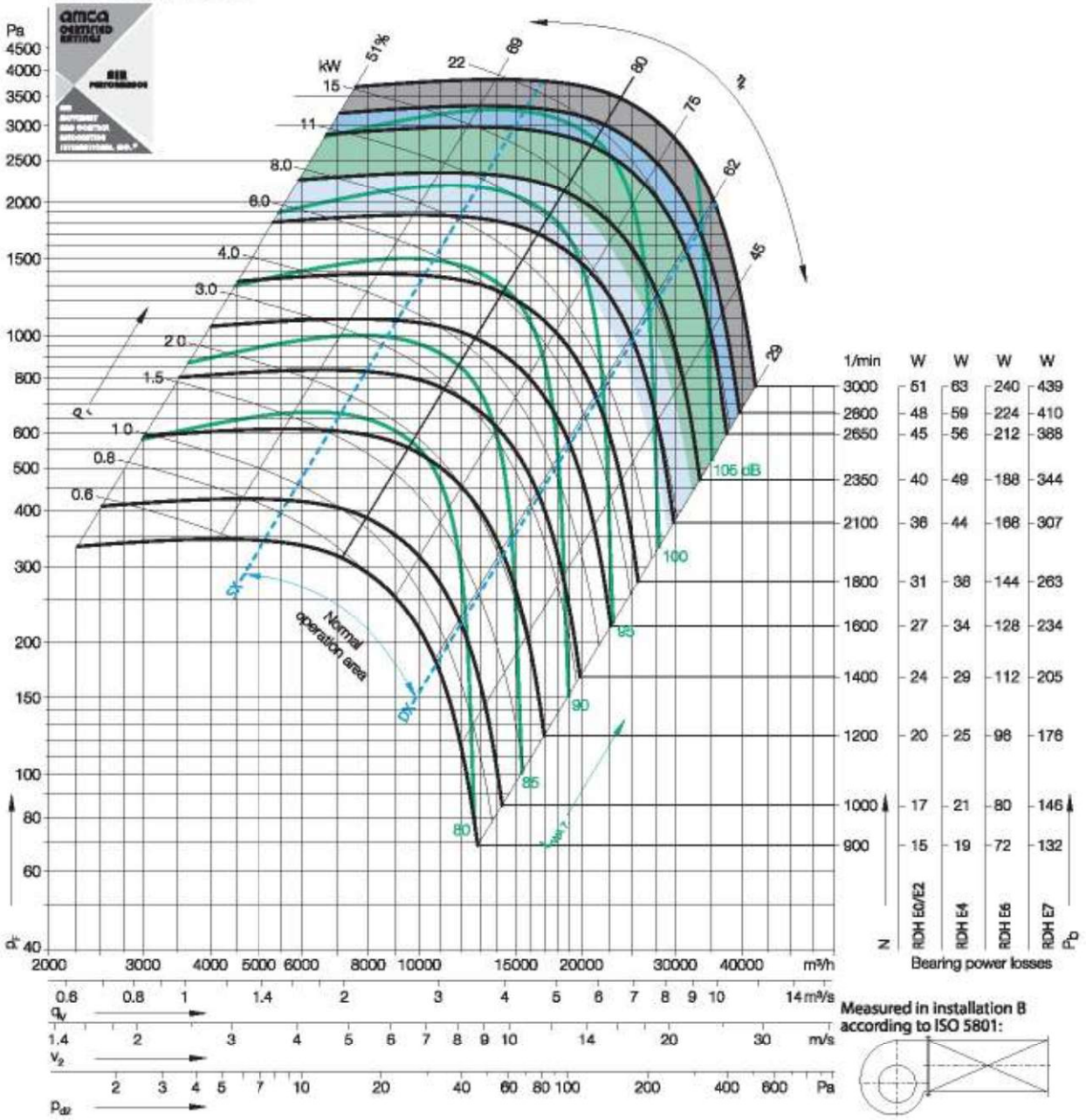


Backward Curved Fan
Size 500

Please note coloured area!
- all types suitable
- RDH E4/E6/E7 only
- RDH E6/E7 only
- RDH E7 only
- do not use in this area

Impeller Data			
Impeller diameter	D_f	500	mm
Number of blades	z	11	
Moment of Inertia	J	0,890	kgm^2

Impeller Data			
Impeller weight	m	23,5	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		1	



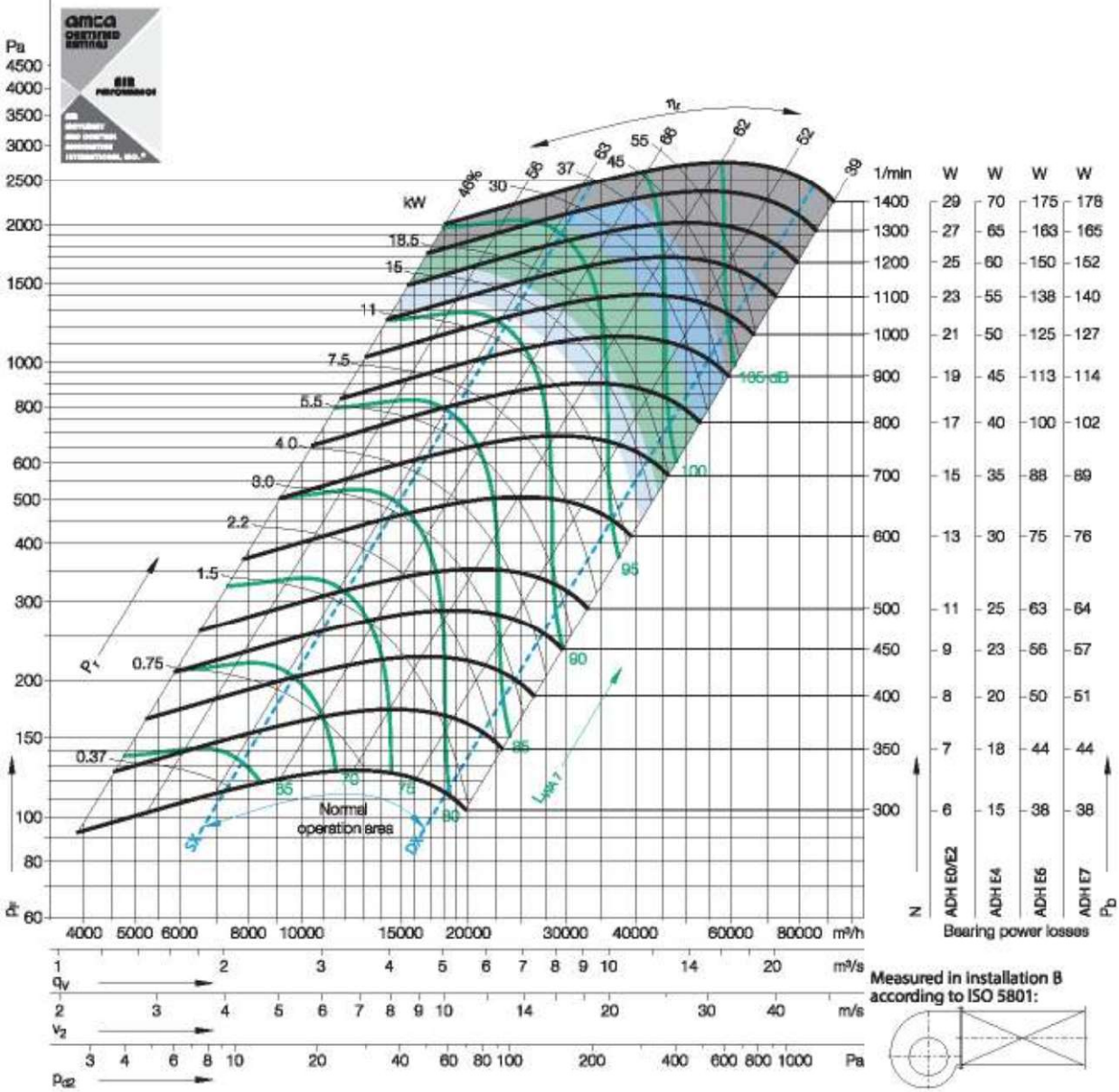
Measured in installation B according to ISO 5801:

Forward Curved Fan
Size 560

Please note coloured area!
- all types suitable
- ADH E4/E6/E7 only
- ADH E6/E7 only
- ADH E7 only
- do not use in this area

Impeller Data			
Impeller diameter	D_1	560	mm
Number of blades	z	42	
Moment of Inertia	J	1,560	kgm²

Impeller Data			
Impeller weight	m	24	kg
Density of media	ρ_1	1,2	kg/m³
Tolerance class (DIN 24166)		2	



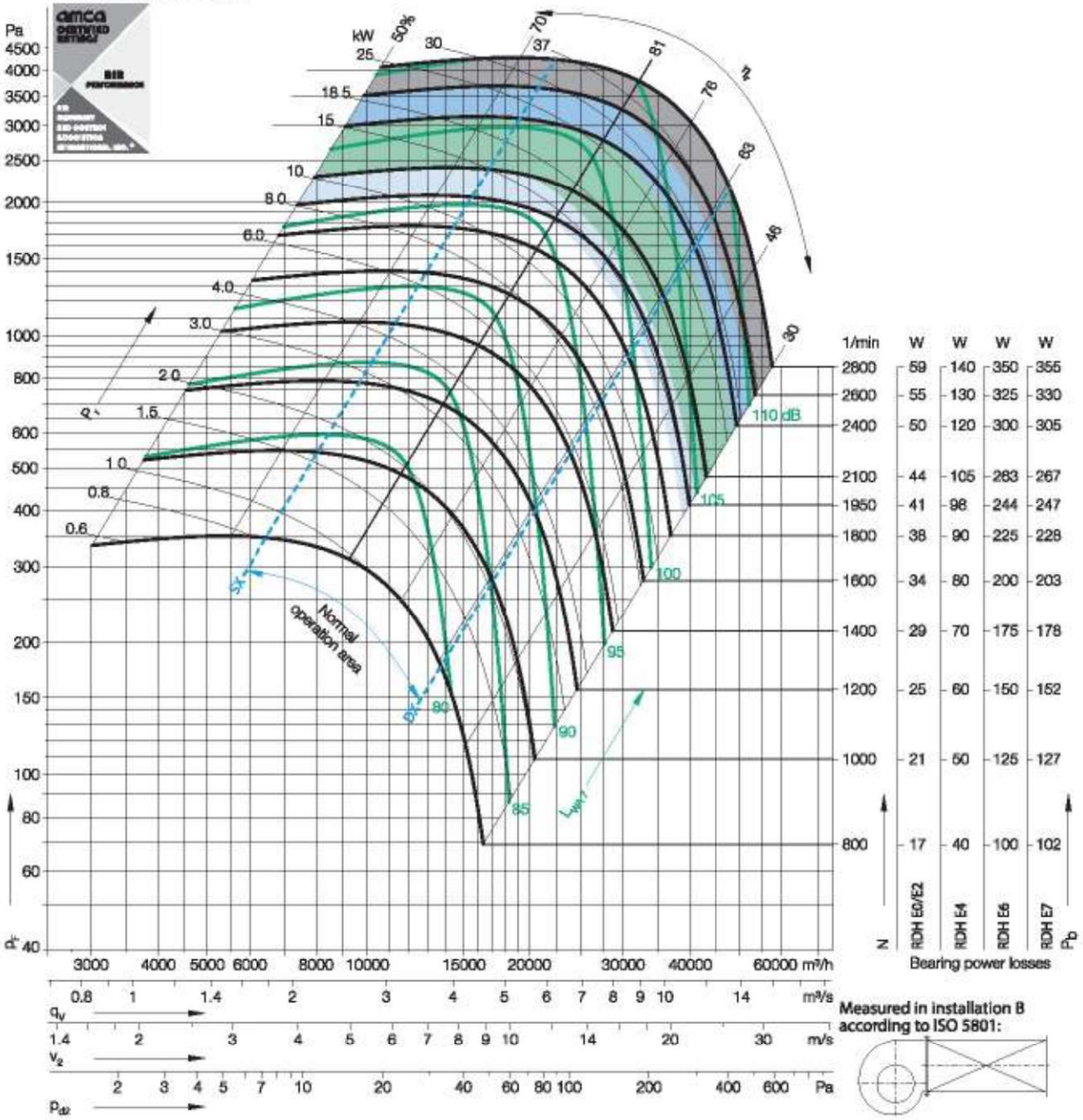
Measured in installation B according to ISO 5801:

Backward Curved Fan
Size 560

Please note coloured area!
- all types suitable
- RDH E4/E6/E7 only
- RDH E6/E7 only
- RDH E7 only
- do not use in this area

Impeller Data			
Impeller diameter	D_r	560	mm
Number of blades	z	11	
Moment of Inertia	J	1,410	kgm^2

Impeller Data			
Impeller weight	m	28,8	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		1	

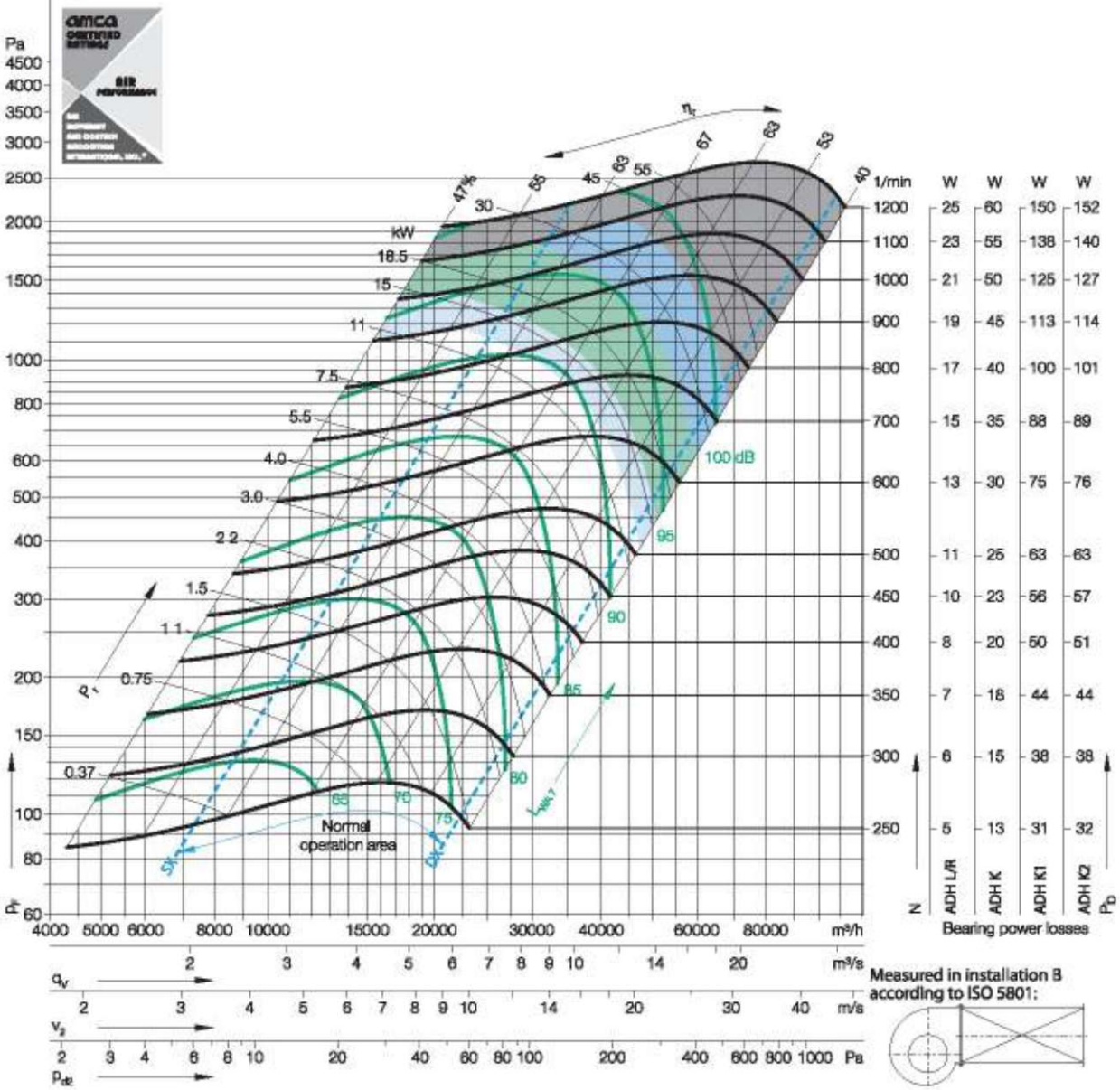


Forward Curved Fan
Size 630

Please note coloured area!
- all types suitable
- ADH K/K1/K2 only
- ADH K1/K2 only
- ADH K2 only
- do not use in this area

Impeller Data			
Impeller diameter	D_r	630	mm
Number of blades	z	38	
Moment of Inertia	J	2,590	kgm^2

Impeller Data			
Impeller weight	m	32	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	



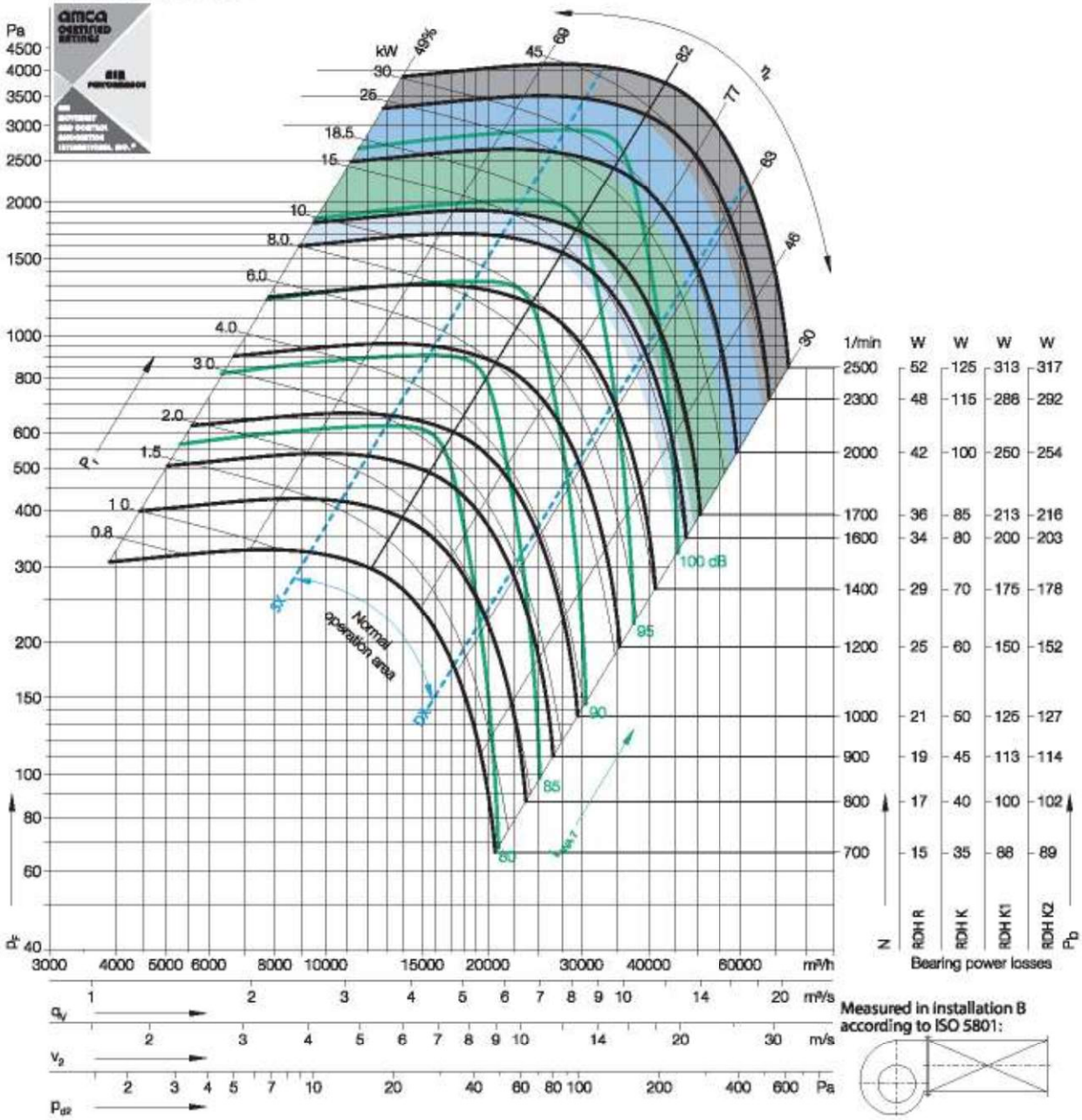
Measured in installation B according to ISO 5801:

Backward Curved Fan
Size 630

Please note coloured area!
- all types suitable
- RDH K/K1/K2 only
- RDH K1/K2 only
- RDH K2 only
- do not use in this area

Impeller Data			
Impeller diameter	D_1	630	mm
Number of blades	z	11	
Moment of Inertia	J	2,320	kgm^2

Impeller Data			
Impeller weight	m	36,7	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		1	



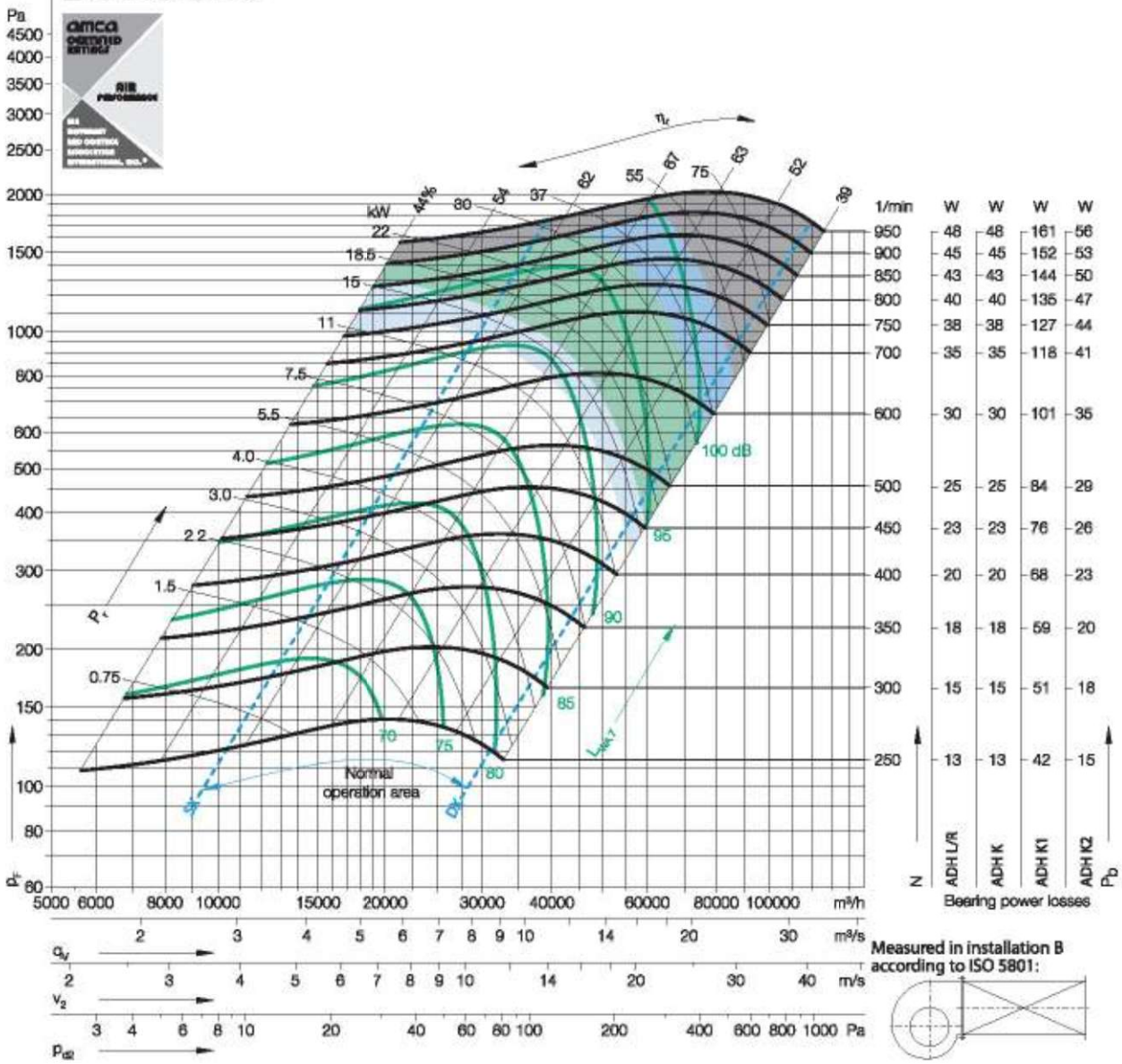
Forward Curved Fan
Size 710

Please note coloured area!

- all types suitable
- ADH K/K1/K2 only
- ADH K1/K2 only
- ADH K2 only
- do not use in this area

Impeller Data			
Impeller diameter	D_r	710	mm
Number of blades	z	42	
Moment of Inertia	J	3,970	kgm^2

Impeller Data			
Impeller weight	m	40	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	



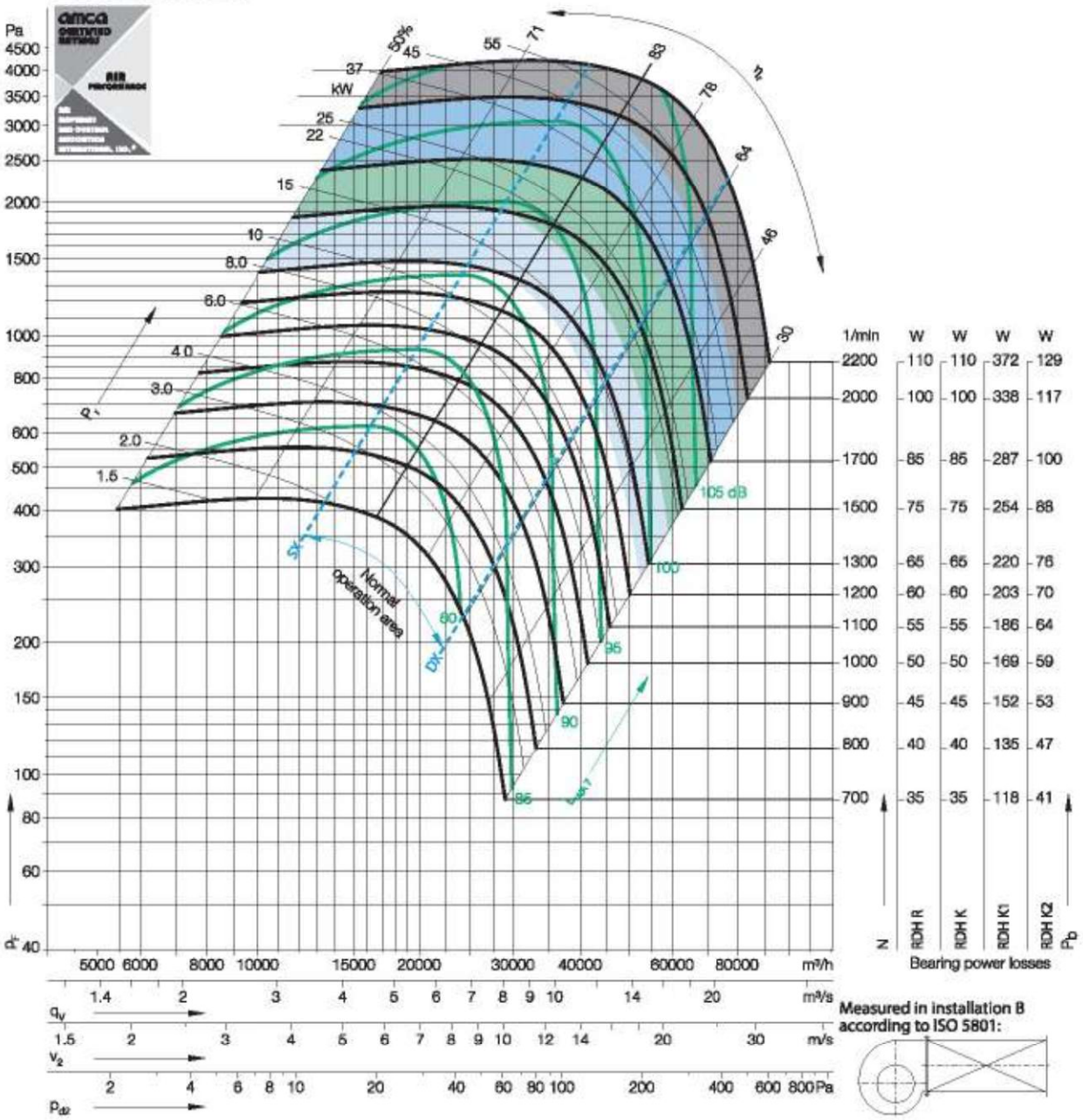
Measured in installation B according to ISO 5801:

Backward Curved Fan
Size 710

Please note coloured area!
- all types suitable
- RDH K/K1/K2 only
- RDH K1/K2 only
- RDH K2 only
- do not use in this area

Impeller Data			
Impeller diameter	D_1	710	mm
Number of blades	z	11	
Moment of Inertia	J	4,940	kgm^2

Impeller Data			
Impeller weight	m	60	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		1	

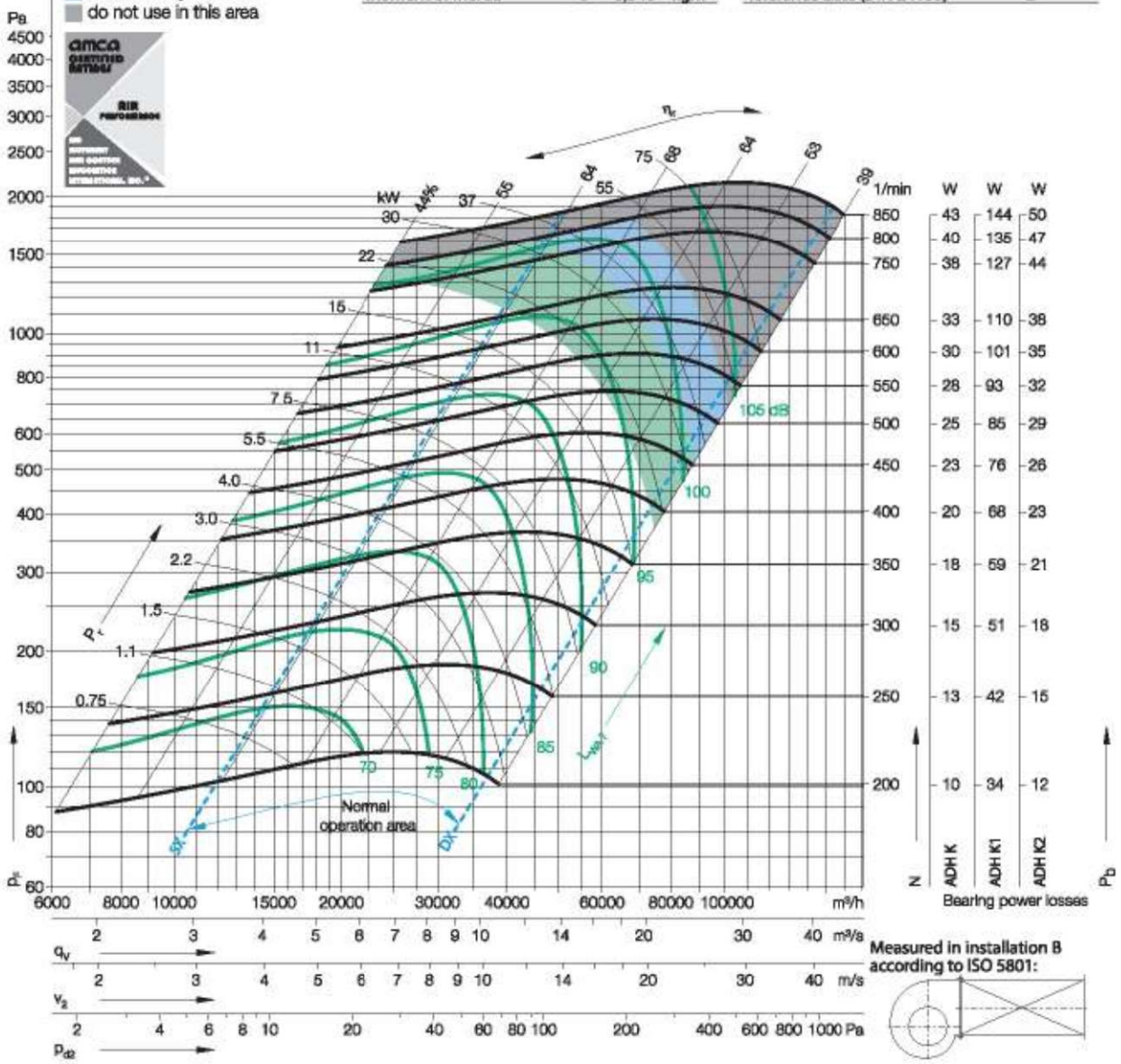


Forward Curved Fan
Size 800

Please note coloured area!
- all types suitable
- ADH K1/K2 only
- ADH K2 only
- do not use in this area

Impeller Data			
Impeller diameter	D_t	800	mm
Number of blades	z	38	
Moment of Inertia	J	8,340	kgm²

Impeller Data			
Impeller weight	m	63	kg
Density of media	ρ_1	1,2	kg/m³
Tolerance class (DIN 24166)		2	

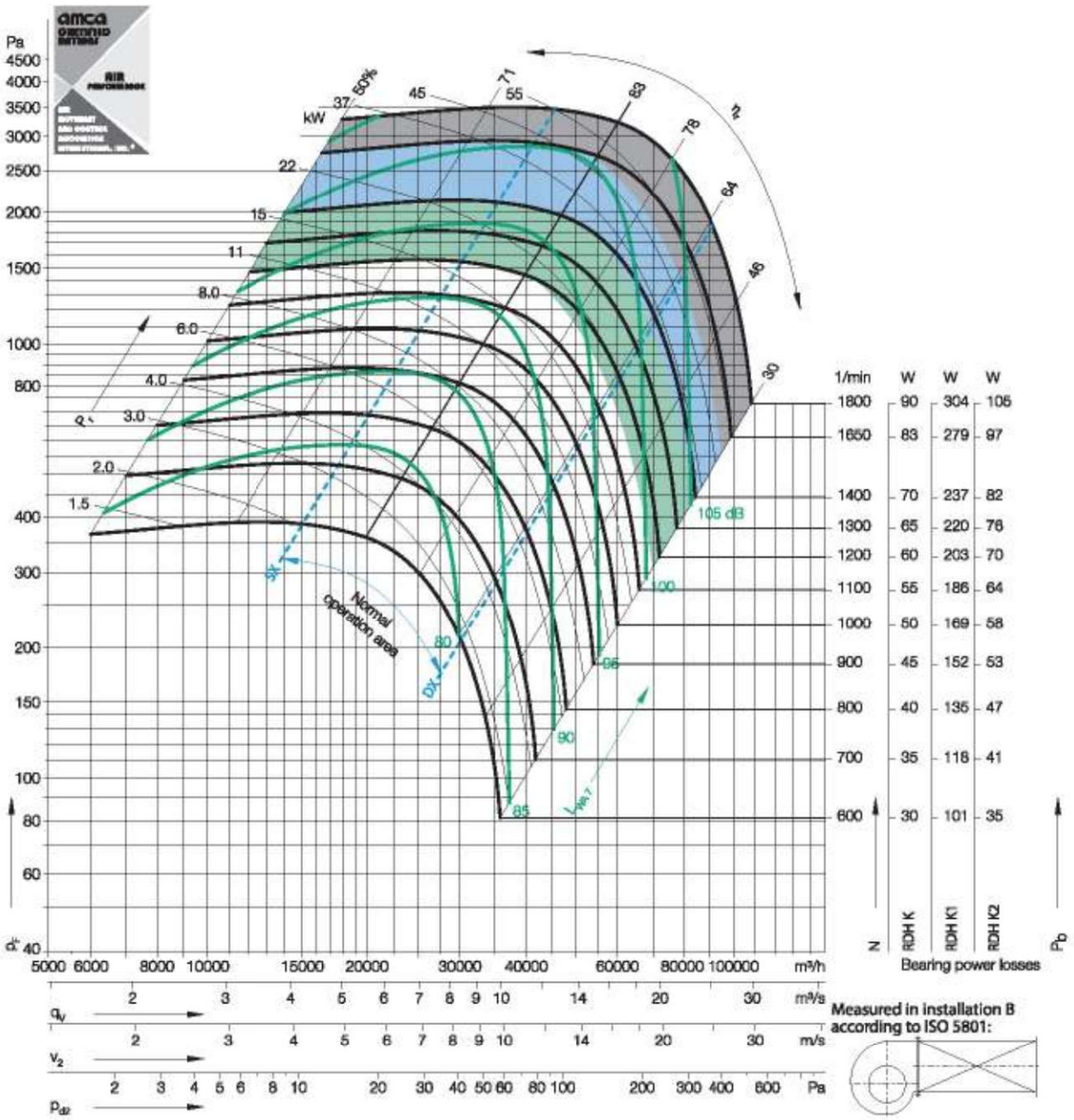


Backward Curved Fan
Size 800

Please note coloured area!
- all types suitable
- RDH K1/K2 only
- RDH K2 only
- do not use in this area

Impeller Data			
Impeller diameter	D_f	800	mm
Number of blades	z	11	
Moment of Inertia	J	8,250	kgm^2

Impeller Data			
Impeller weight	m	86	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		1	

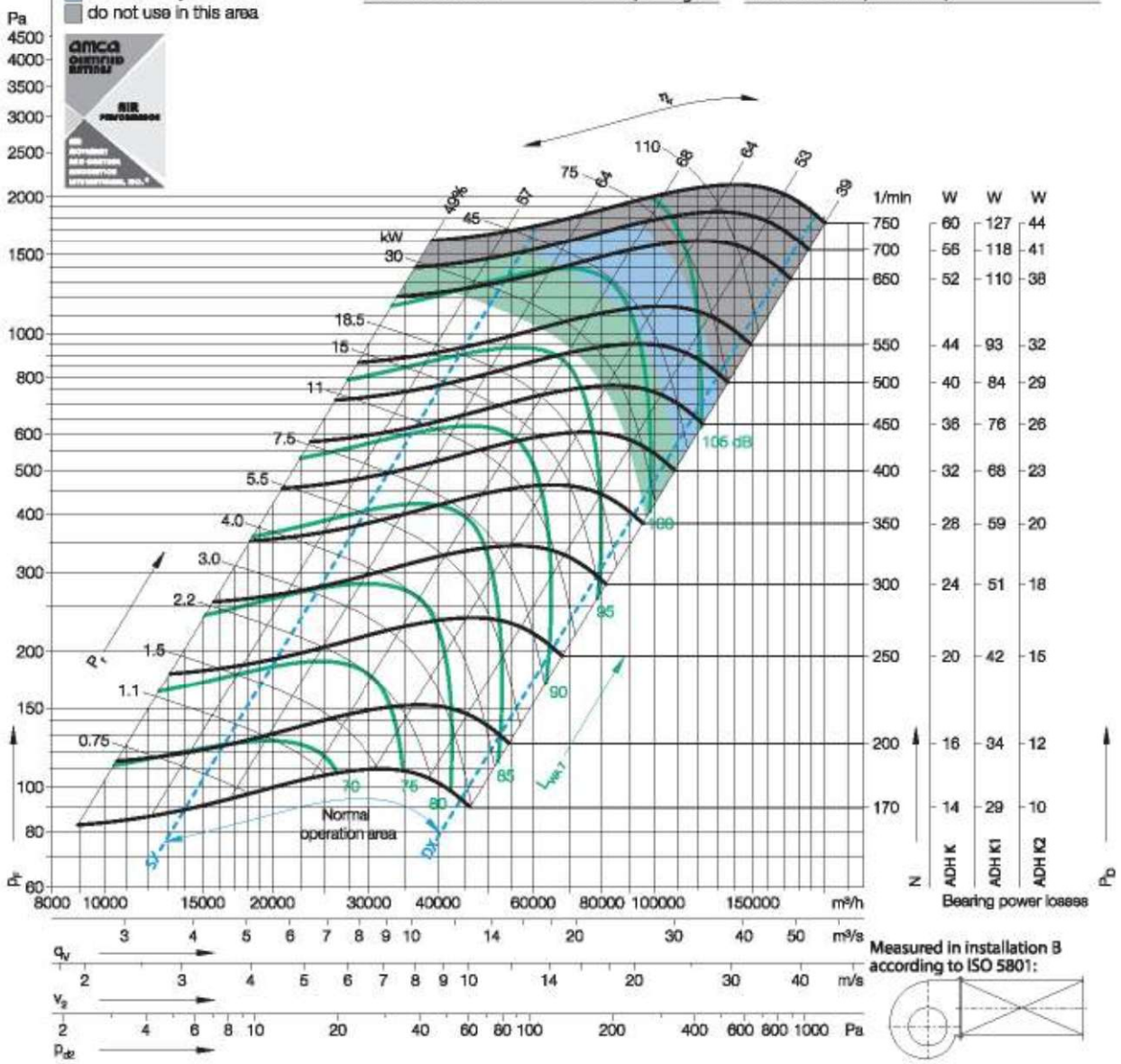


Forward Curved Fan
Size 900

Please note coloured area!
- all types suitable
- ADH K1/K2 only
- ADH K2 only
- do not use in this area

Impeller Data			
Impeller diameter	D_r	900	mm
Number of blades	z	42	
Moment of Inertia	J	12,60	kgm²

Impeller Data			
Impeller weight	m	73	kg
Density of media	ρ_1	1,2	kg/m³
Tolerance class (DIN 24166)		2	



WEGER

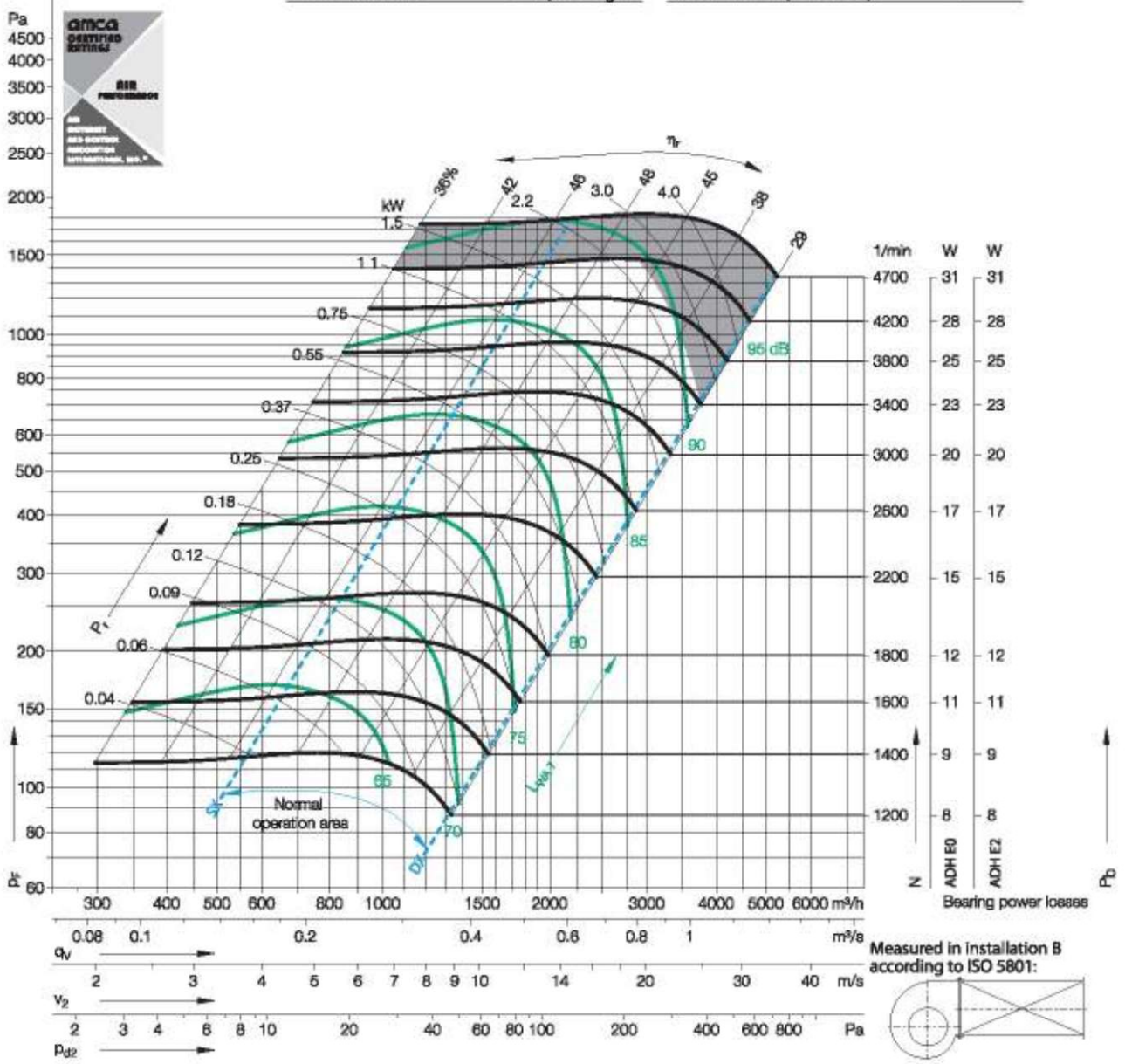
VOLTA EGYPT

Forward Curved Fan
Size 160

Please note coloured areal
- ☐ all types suitable
- ■ do not use in this area

Impeller Data			
Impeller diameter	D_1	160	mm
Number of blades	z	36	
Moment of Inertia	J	0,006	kgm^2

Impeller Data			
Impeller weight	m	1,1	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	



Relative sound power level for inlet side at octave centre

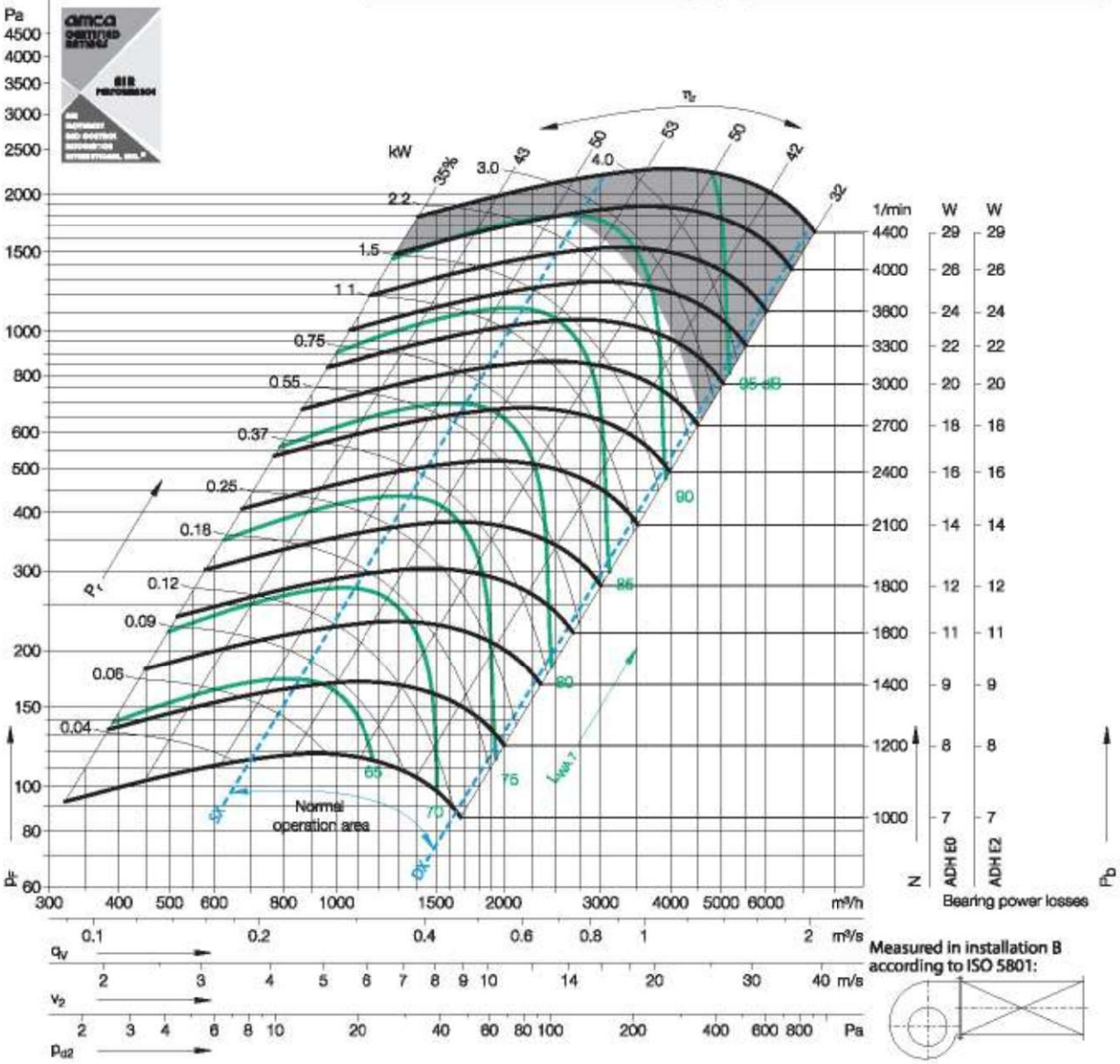
Relative sound power level for discharge side at octave cent

Forward Curved Fan
Size 180

Please note coloured area!
- ☐ all types suitable
- ■ do not use in this area

Impeller Data			
Impeller diameter	D_1	180	mm
Number of blades	z	40	
Moment of Inertia	J	0,010	kgm^2

Impeller Data			
Impeller weight	m	1,5	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	



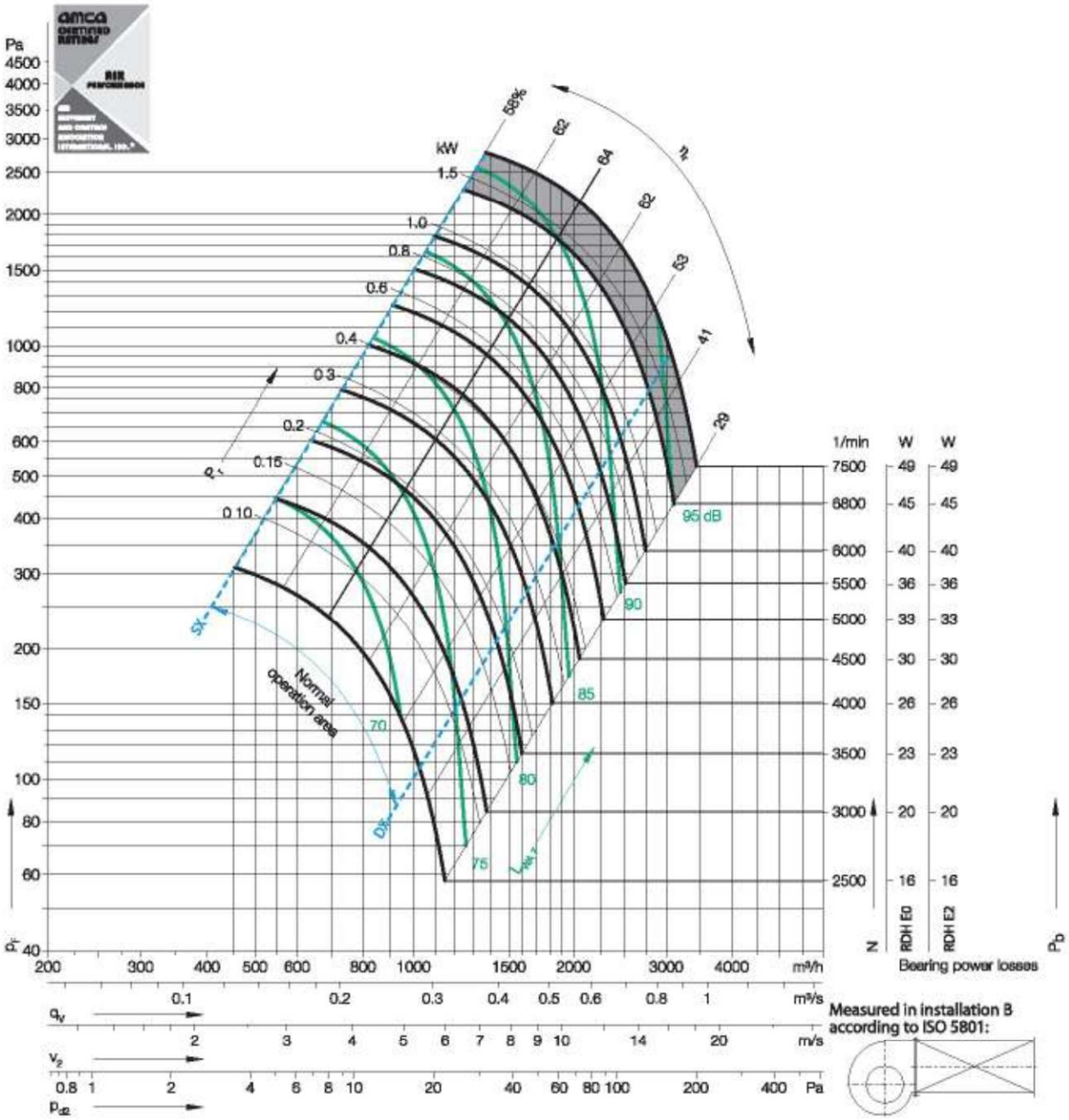
Measured in installation B according to ISO 5801:

Backward Curved Fan
Size 180

Please note coloured area!
- ☐ all types suitable
- ■ do not use in this area

Impeller Data			
Impeller diameter	D_r	180	mm
Number of blades	z	8	
Moment of Inertia	J	0,003	kgm^2

Impeller Data			
Impeller weight	m	0,62	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	

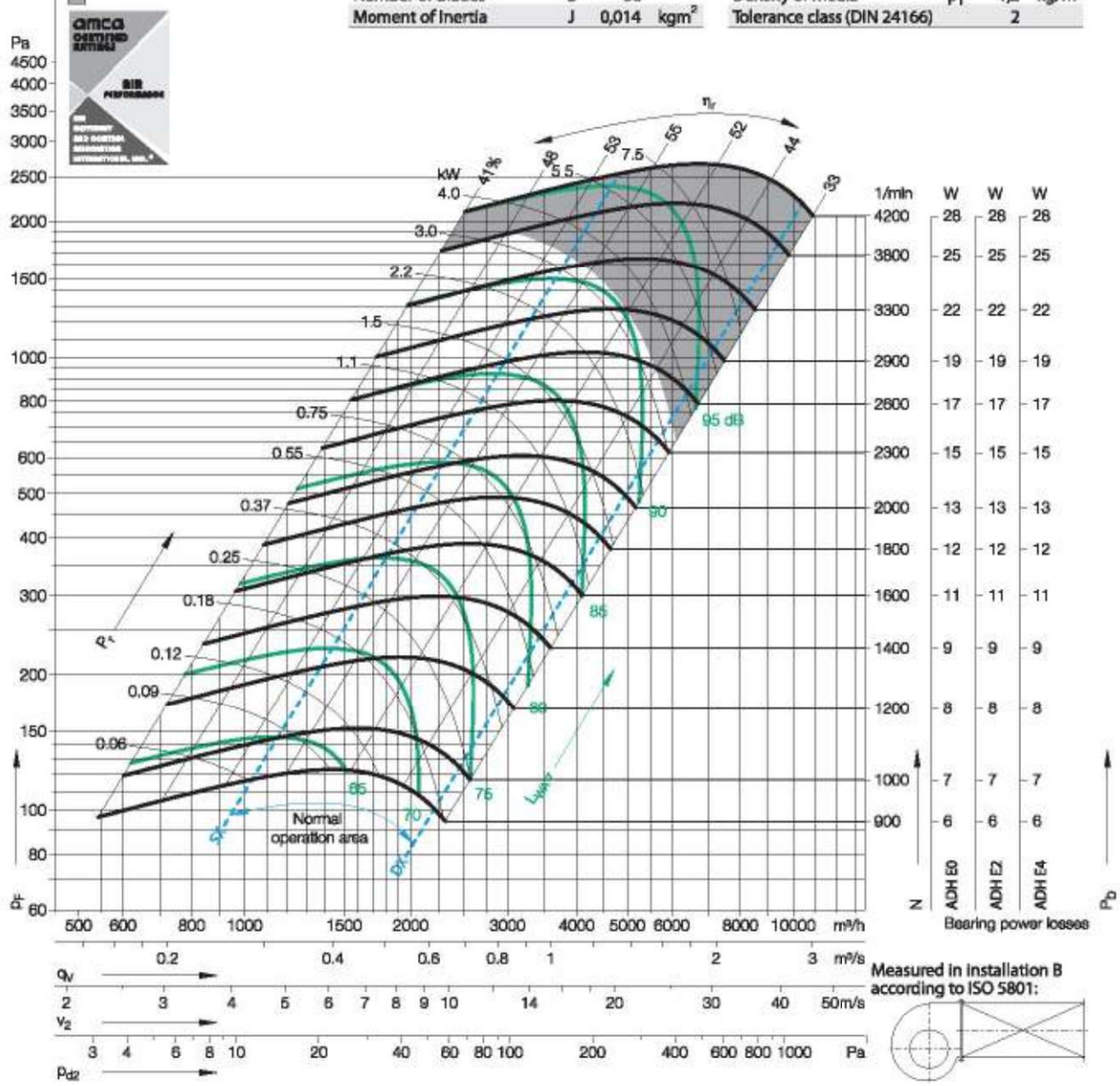


Forward Curved Fan
Size 200

Please note coloured areal
☐ all types suitable
■

Impeller Data			
Impeller diameter	D_r	200	mm
Number of blades	z	38	
Moment of Inertia	J	0,014	kgm^2

Impeller Data			
Impeller weight	m	1,6	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	



Backward Curved Fan
Size 200

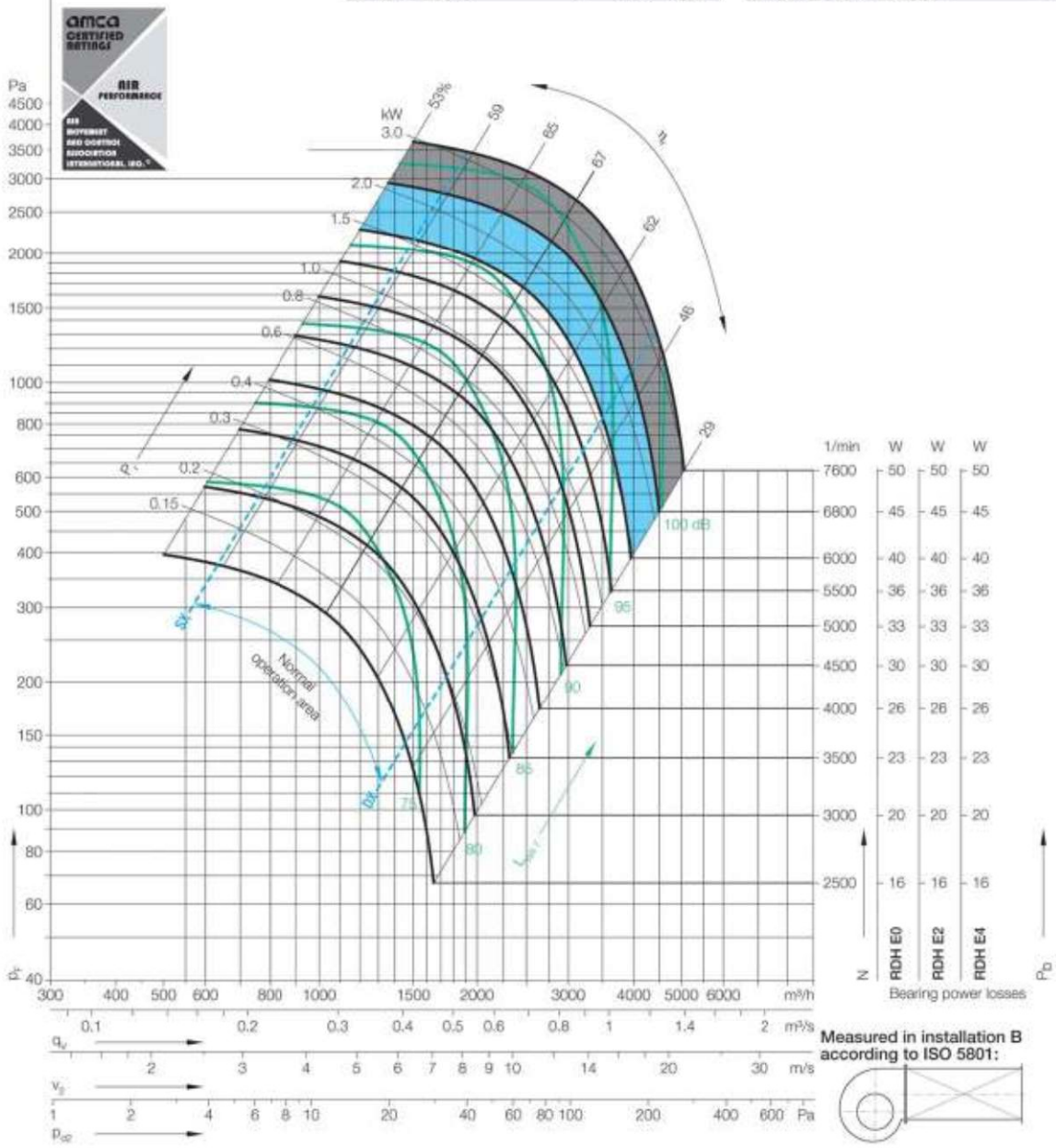
Please note coloured area!
- all types suitable
- RDH E4 only
- do not use in this area

Impeller Data

Impeller diameter	D_r	200	mm
Number of blades	z	8	
Moment of Inertia	J	0,006	kgm²

Impeller Data

Impeller weight	m	0,84	kg
Density of media	ρ_1	1,2	kg/m³
Tolerance class (DIN 24166)		2	



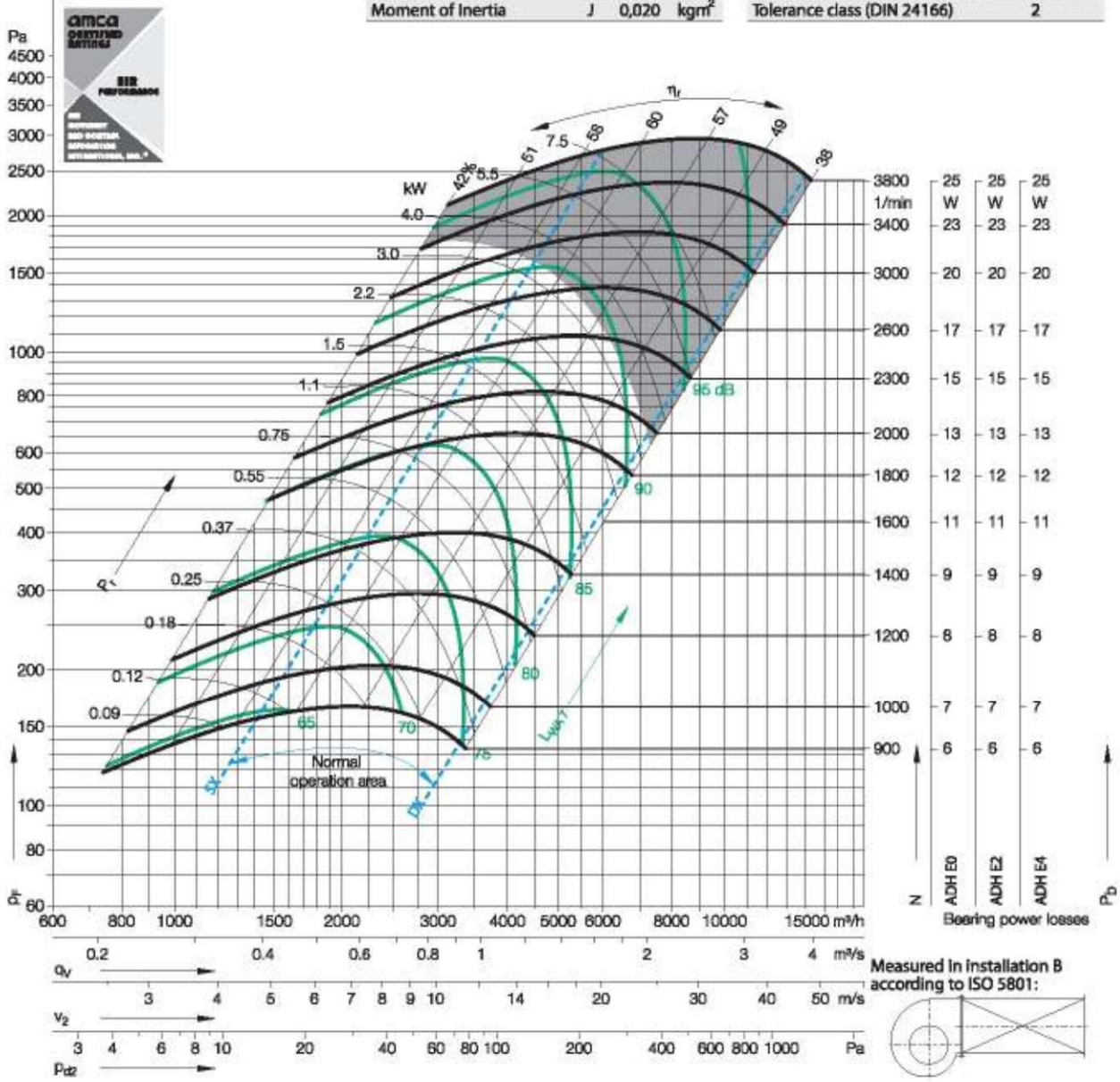
Measured in installation B according to ISO 5801:

Forward Curved Fan
Size 225

Please note coloured areal
- ☐ all types suitable
- ■ do not use in this area

Impeller Data			
Impeller diameter	D_r	225	mm
Number of blades	z	42	
Moment of Inertia	J	0,020	kgm^2

Impeller Data			
Impeller weight	m	1,8	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	



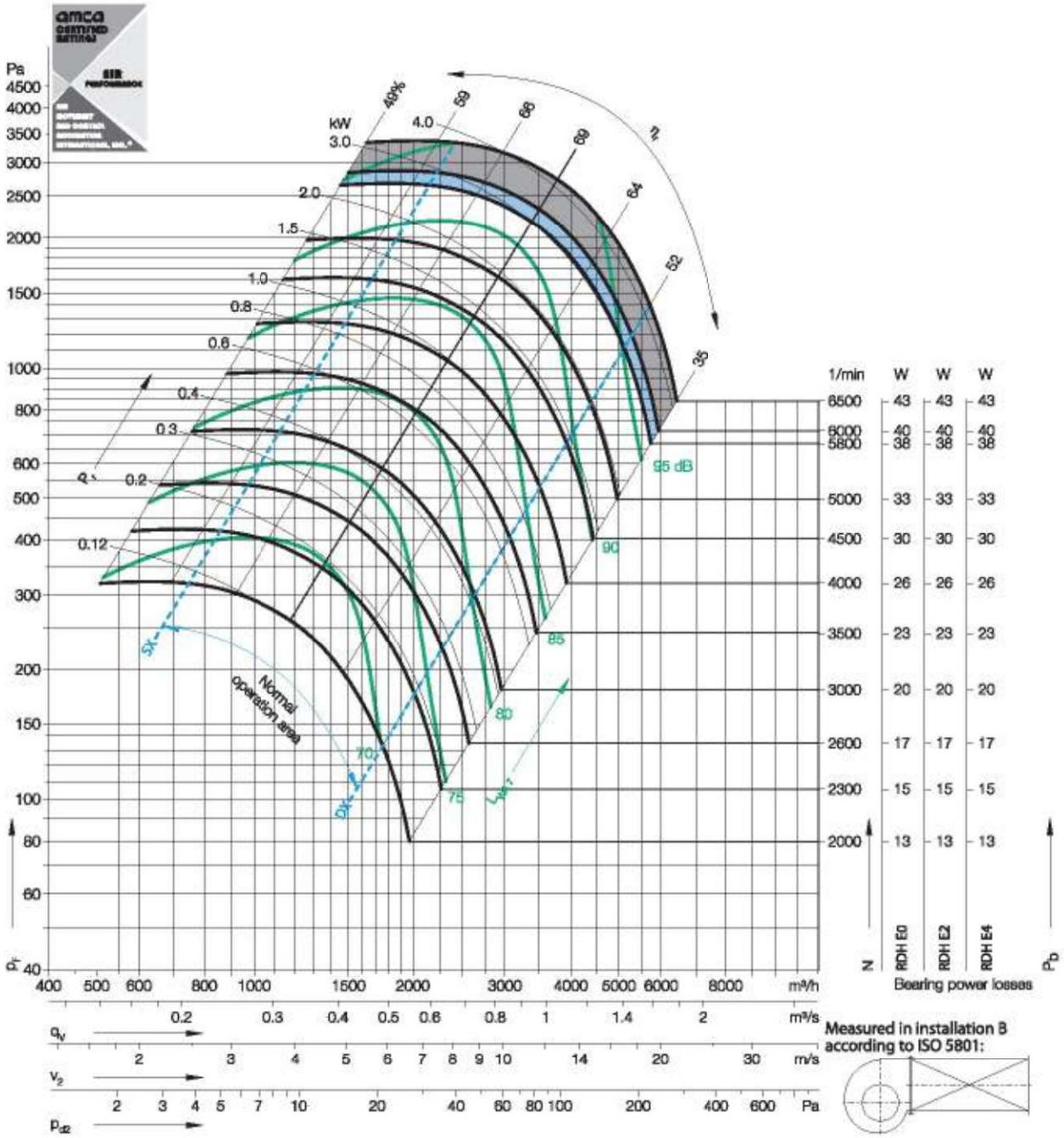
Measured in installation B according to ISO 5801:

Backward Curved Fan
Size 225

Please note coloured area!
- all types suitable
- RDH E4 only
- do not use in this area

Impeller Data			
Impeller diameter	D_1	225	mm
Number of blades	z	8	
Moment of Inertia	J	0,011	kgm^2

Impeller Data			
Impeller weight	m	1,3	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	



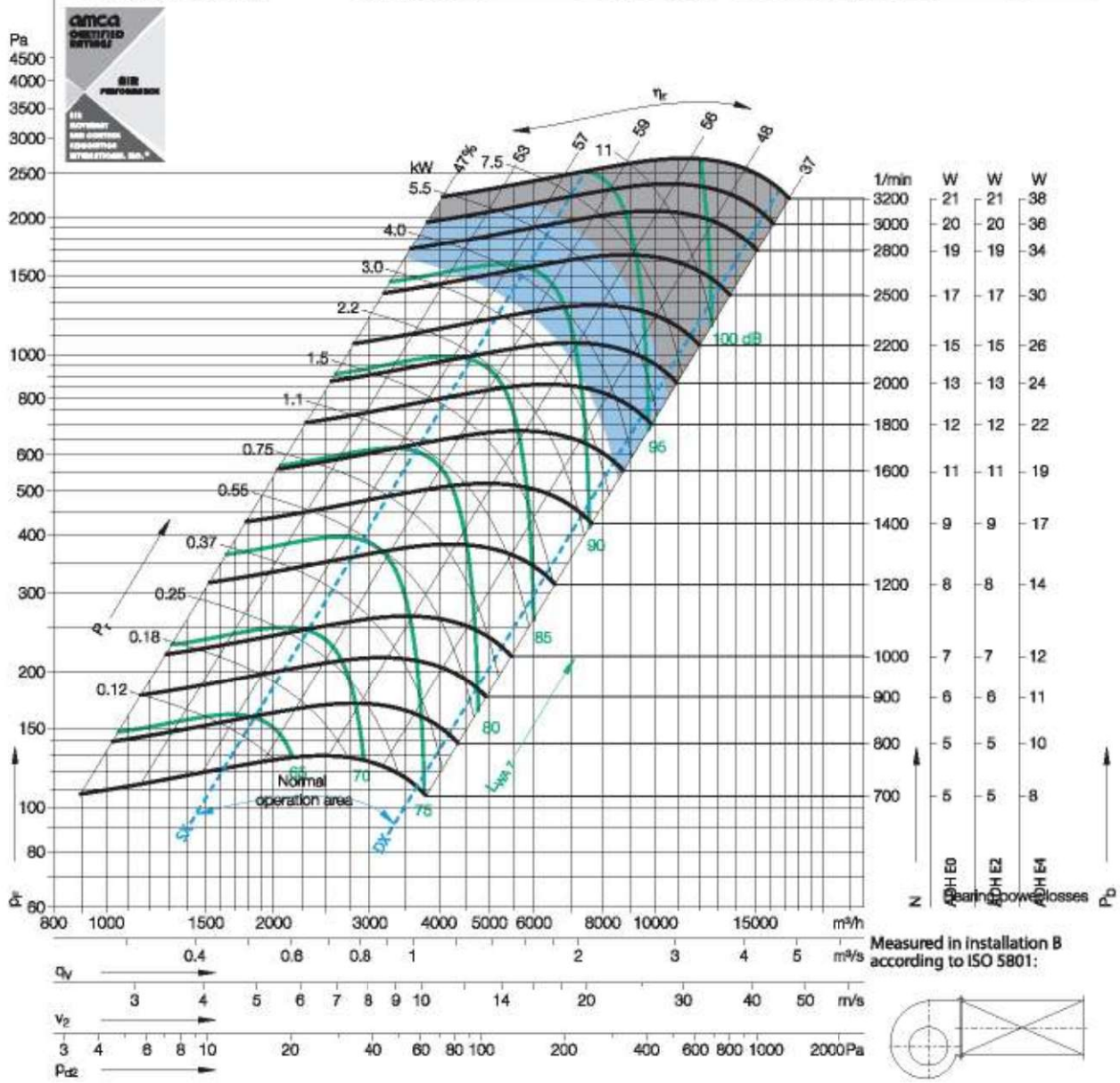
Measured in installation B according to ISO 5801:

Forward Curved Fan
Size 250

Please note coloured area!
- all types suitable
- ADH E4 only
- do not use in this area

Impeller Data			
Impeller diameter	D_1	250	mm
Number of blades	z	38	
Moment of Inertia	J	0,036	kgm^2

Impeller Data			
Impeller weight	m	2,7	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	



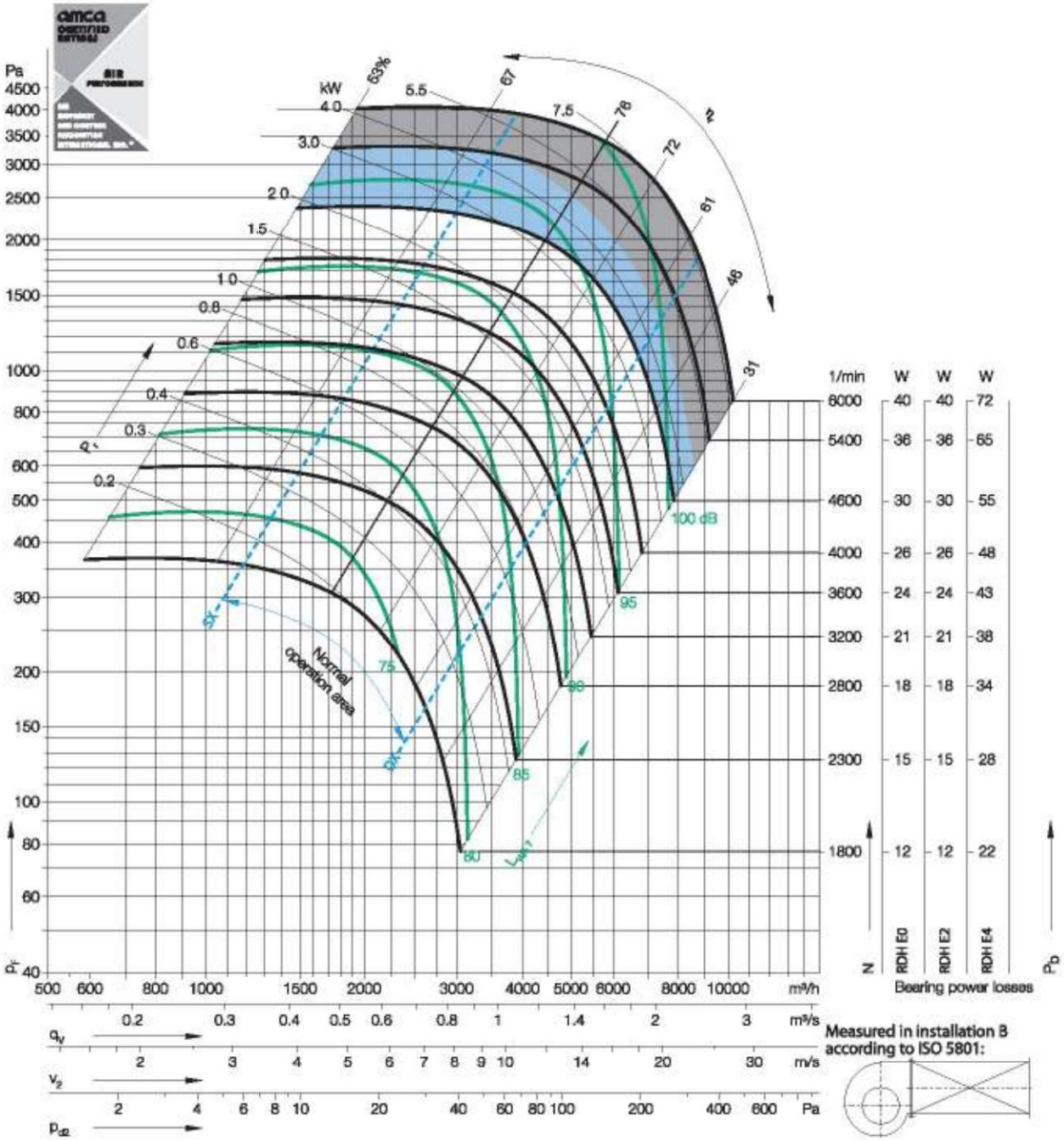
Measured in installation B according to ISO 5801:

Backward Curved Fan
Size 250

Please note coloured area!
- all types suitable
- RDH E4 only
- do not use in this area

Impeller Data			
Impeller diameter	D_1	250	mm
Number of blades	z	11	
Moment of Inertia	J	0,044	kgm²

Impeller Data			
Impeller weight	m	4,87	kg
Density of media	ρ_1	1,2	kg/m³
Tolerance class (DIN 24166)		2	



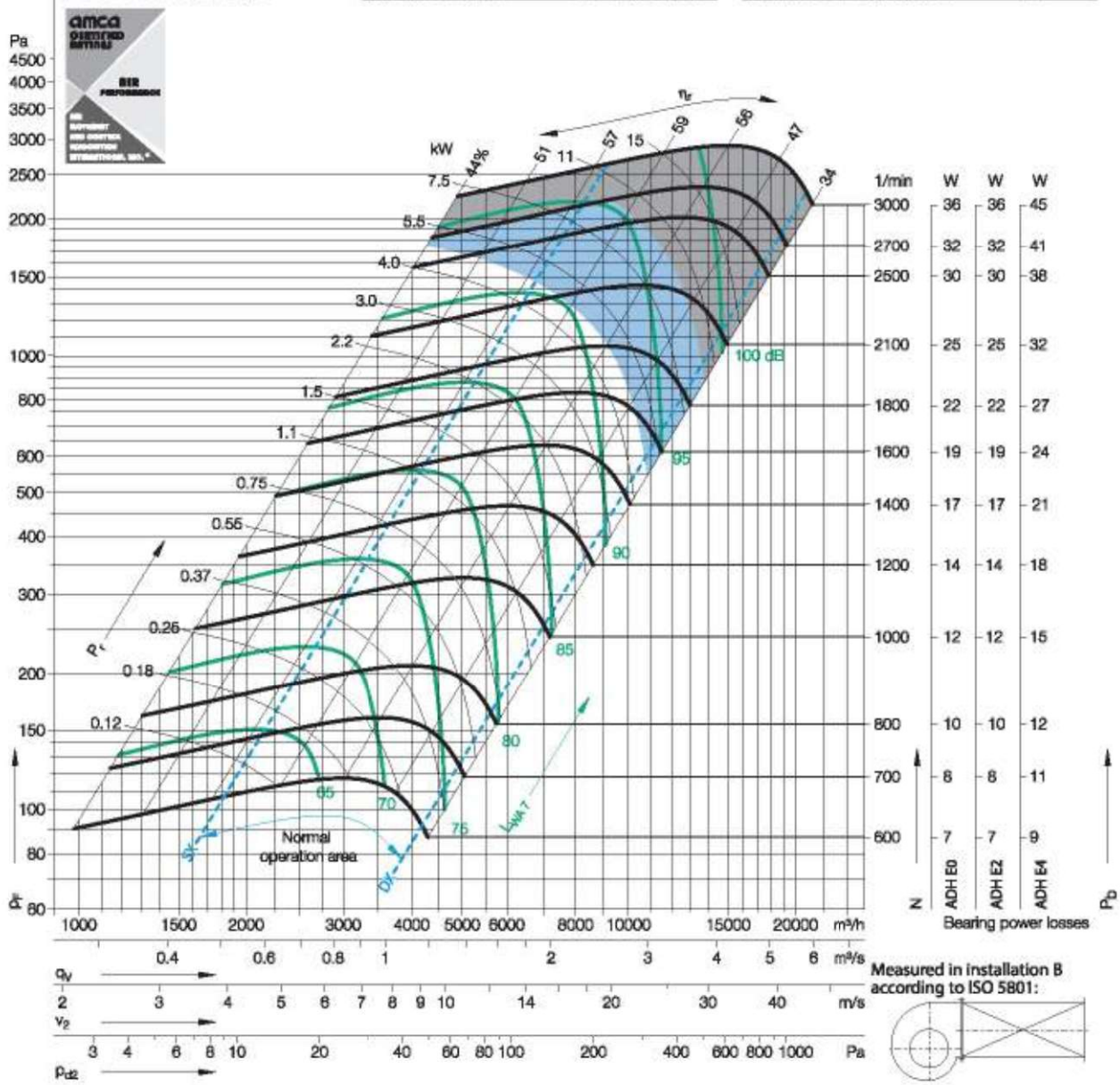
Measured in installation B according to ISO 5801:

Forward Curved Fan
Size 280

Please note coloured area!
- all types suitable
- ADH E4 only
- do not use in this area

Impeller Data			
Impeller diameter	D_r	280	mm
Number of blades	z	42	
Moment of Inertia	J	0,059	kgm^2

Impeller Data			
Impeller weight	m	3,5	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	



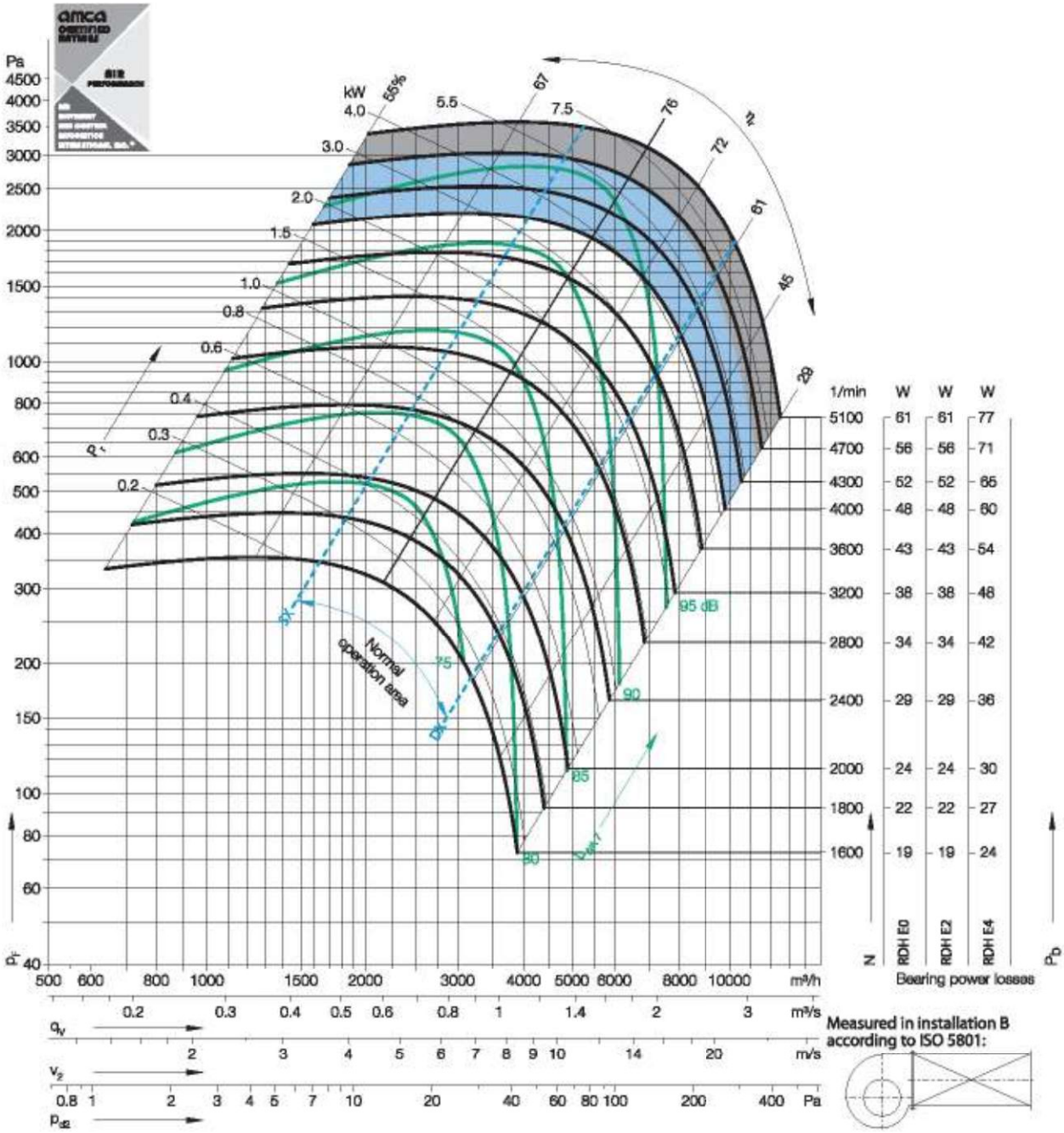
Measured in installation B according to ISO 5801:

Backward Curved Fan
Size 280

Please note coloured area!
- all types suitable
- RDH E4 only
- do not use in this area

Impeller Data			
Impeller diameter	D_r	280	mm
Number of blades	z	11	
Moment of Inertia	J	0,069	kgm^2

Impeller Data			
Impeller weight	m	5,89	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	



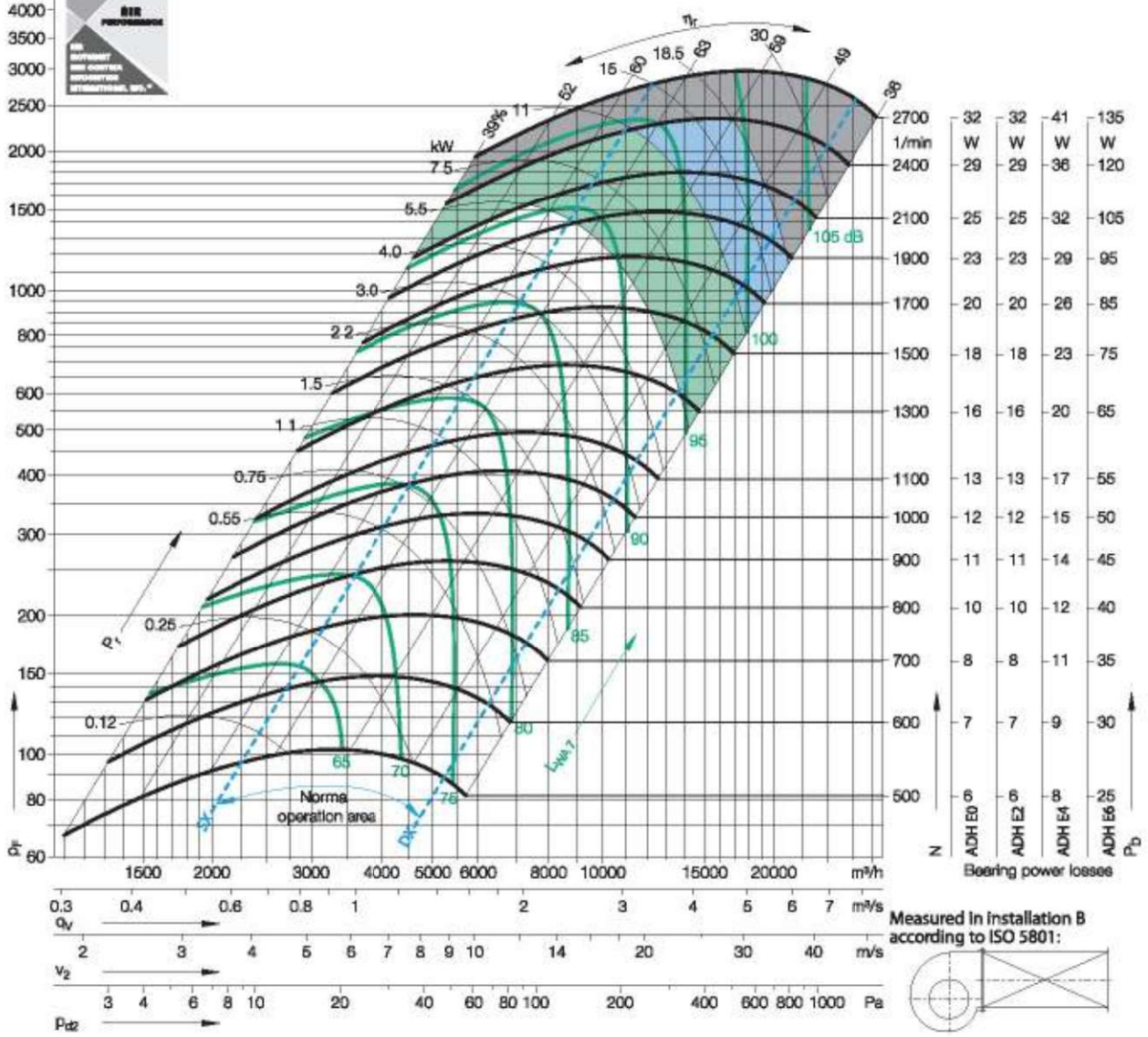
Measured in installation B according to ISO 5801:

Forward Curved Fan
Size 315

Please note coloured areal
- all types suitable
- ADH E4/E6 only

Impeller Data			
Impeller diameter	D_r	315	mm
Number of blades	z	38	
Moment of Inertia	J	0,100	kgm²

Impeller Data			
Impeller weight	m	4,6	kg
Density of media	ρ_1	1,2	kg/m³
Tolerance class (DIN 24166)		2	



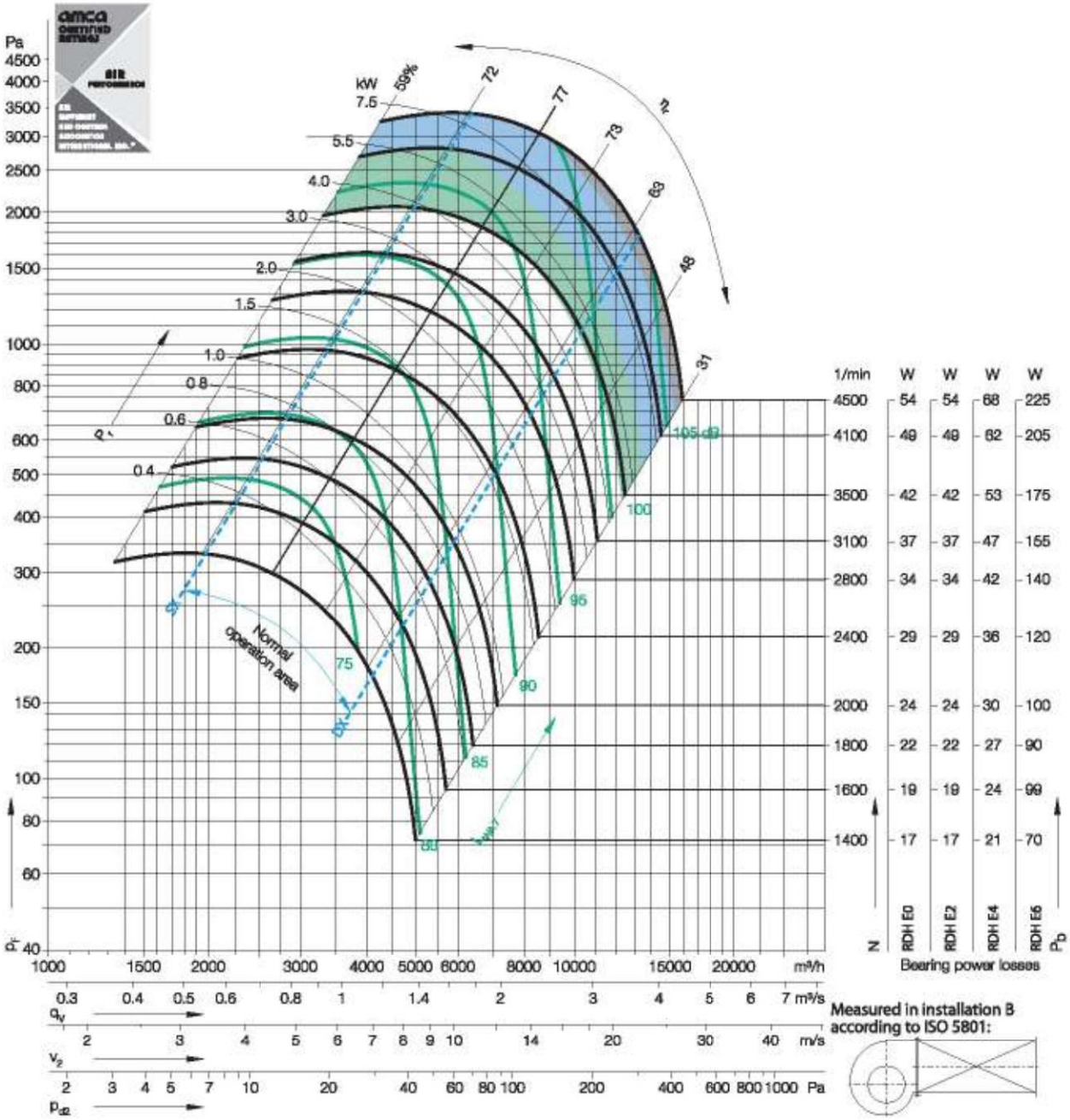
Measured in installation B according to ISO 5801:

Backward Curved Fan
Size 315

Please note coloured area!
- all types suitable
- RDH E4/E6 only
- RDH E6 only

Impeller Data			
Impeller diameter	D_1	315	mm
Number of blades	z	11	
Moment of Inertia	J	0,110	kgm^2

Impeller Data			
Impeller weight	m	7,14	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	

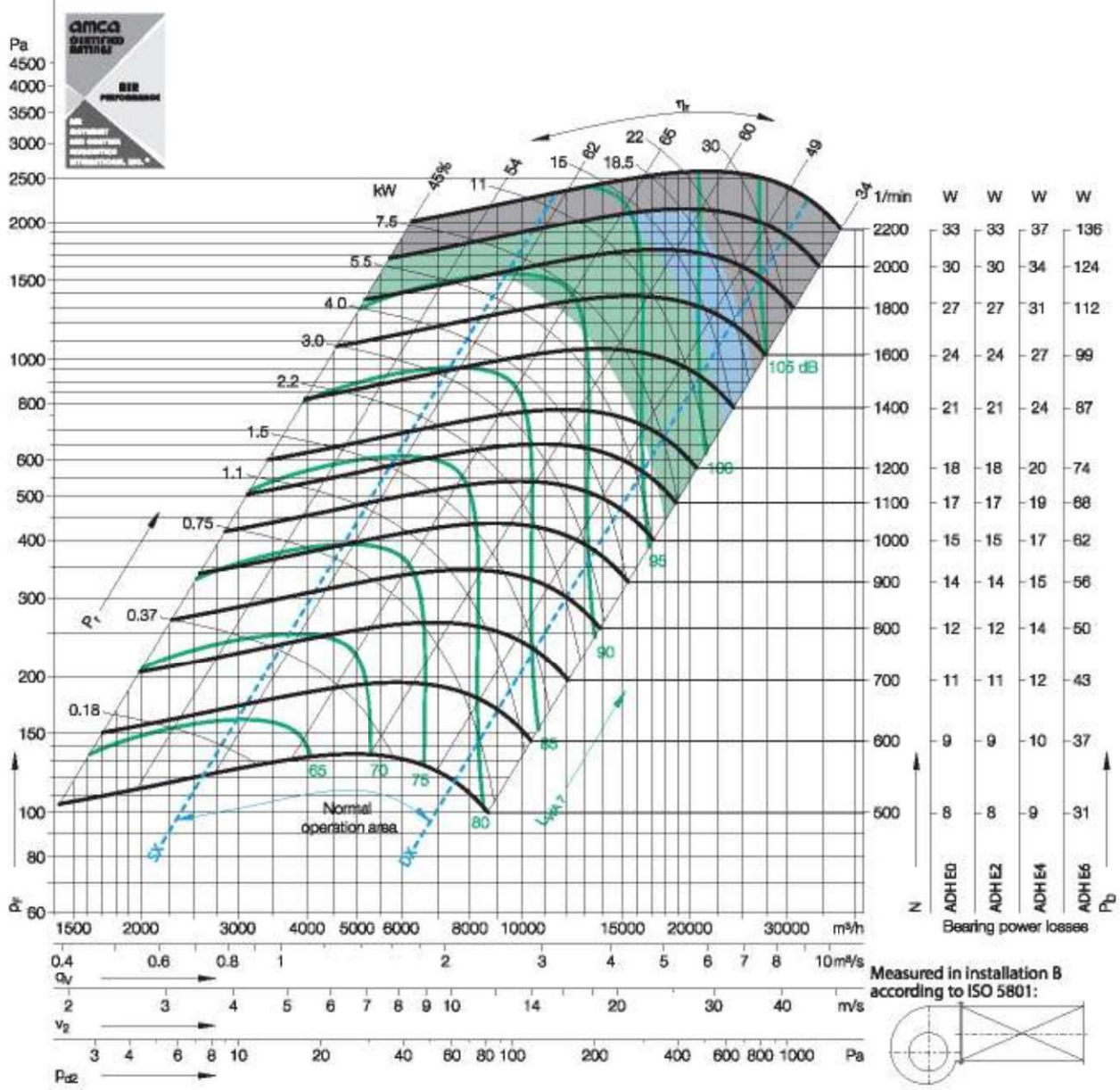


Forward Curved Fan
Size 355

Please note coloured area!
- all types suitable
- ADH E4/E6 only
- ADH E6 only
- do not use in this area

Impeller Data			
Impeller diameter	D_r	355	mm
Number of blades	z	42	
Moment of Inertia	J	0,150	kgm^2

Impeller Data			
Impeller weight	m	5,5	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	



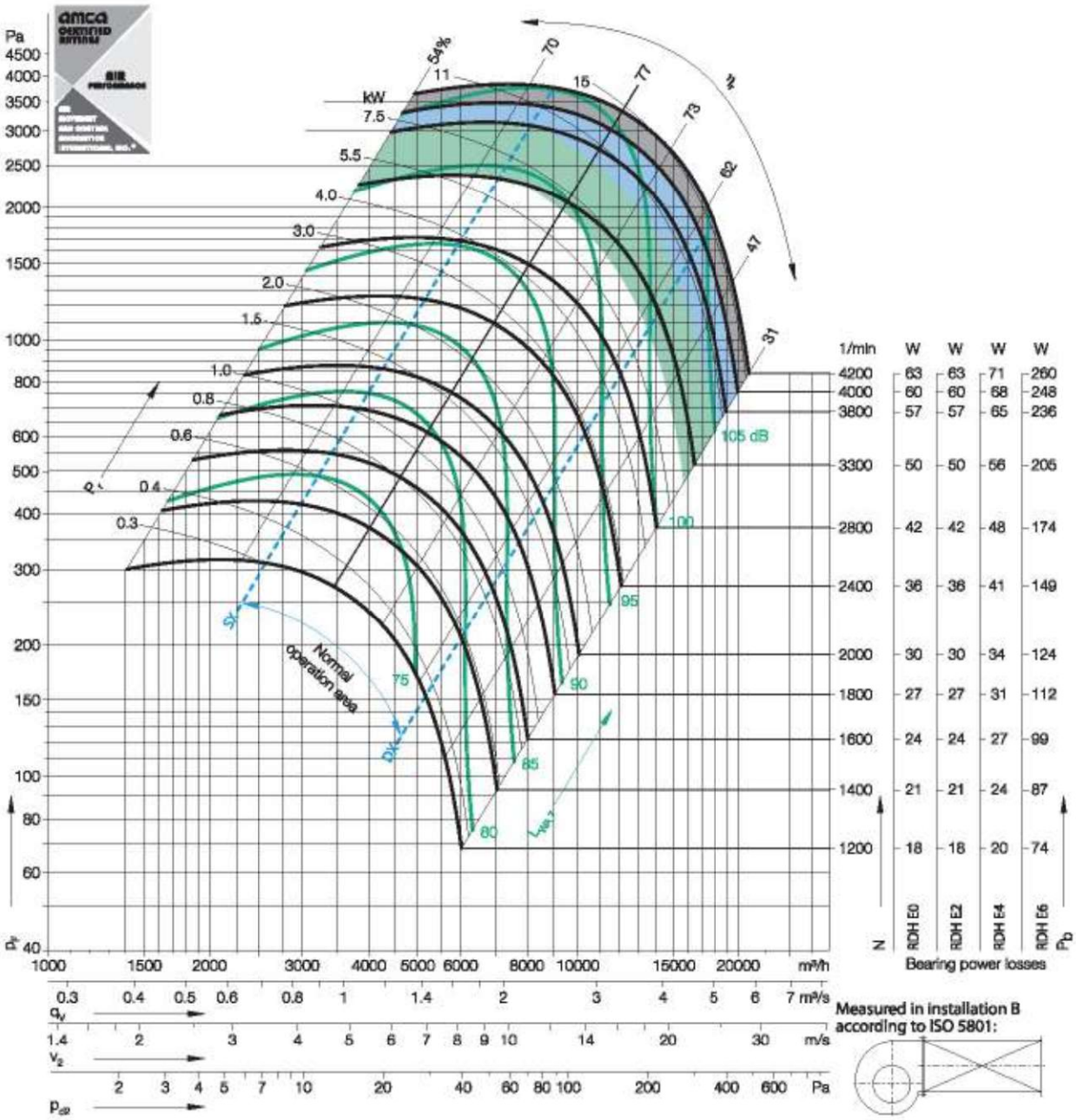
Measured in installation B according to ISO 5801:

Backward Curved Fan
Size 355

Please note coloured area!
- all types suitable
- RDH E4/E6 only
- RDH E6 only
- do not use in this area

Impeller Data			
Impeller diameter	D_1	355	mm
Number of blades	z	11	
Moment of Inertia	J	0,200	kgm²

Impeller Data			
Impeller weight	m	10,2	kg
Density of media	ρ_1	1,2	kg/m³
Tolerance class (DIN 24166)		1	

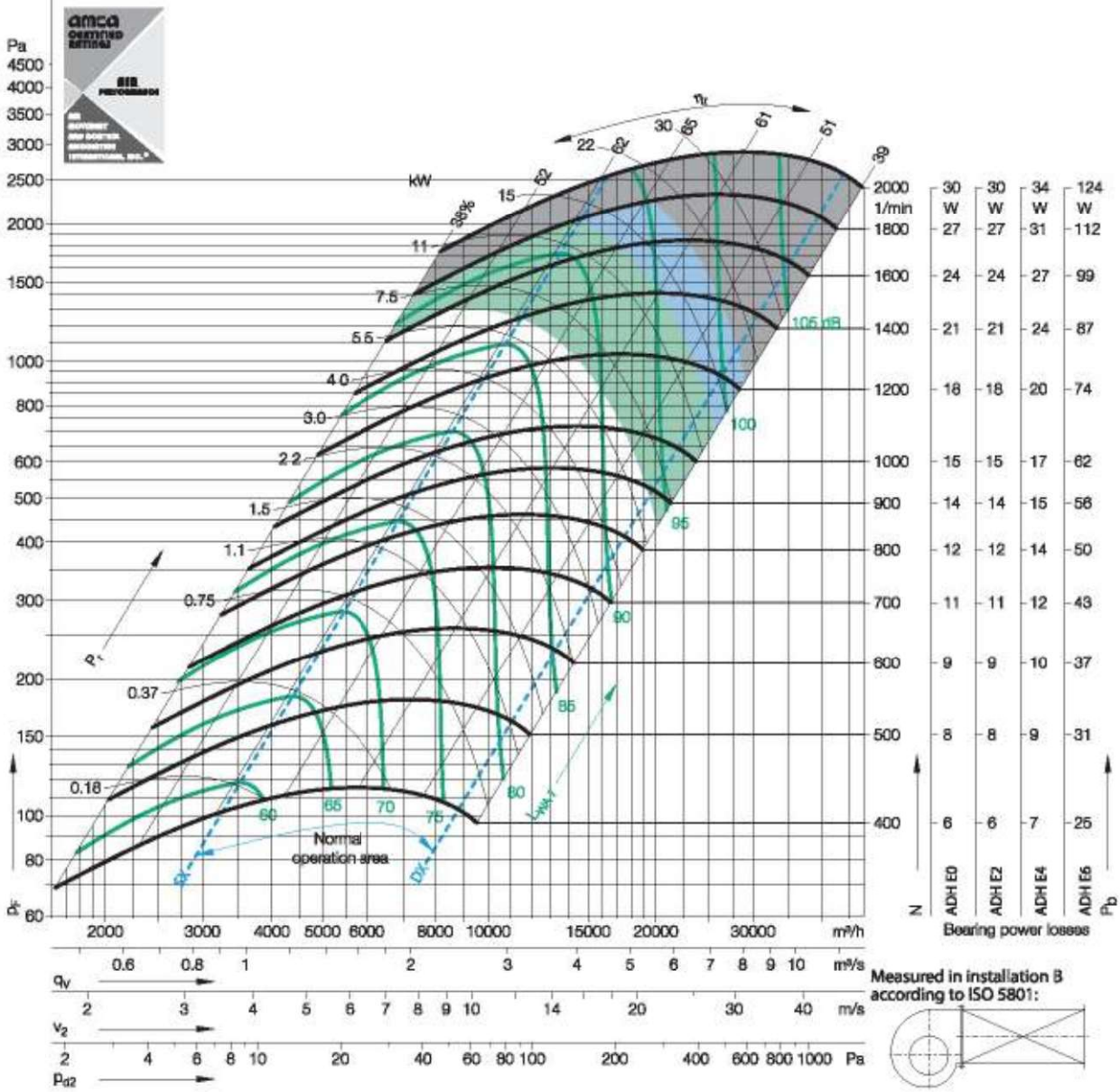


Forward Curved Fan
Size 400

Please note coloured area!
- all types suitable
- ADH E4/E6 only
- ADH E6 only
- do not use in this area

Impeller Data			
Impeller diameter	D_t	400	mm
Number of blades	z	38	
Moment of Inertia	J	0,310	kgm^2

Impeller Data			
Impeller weight	m	9	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	



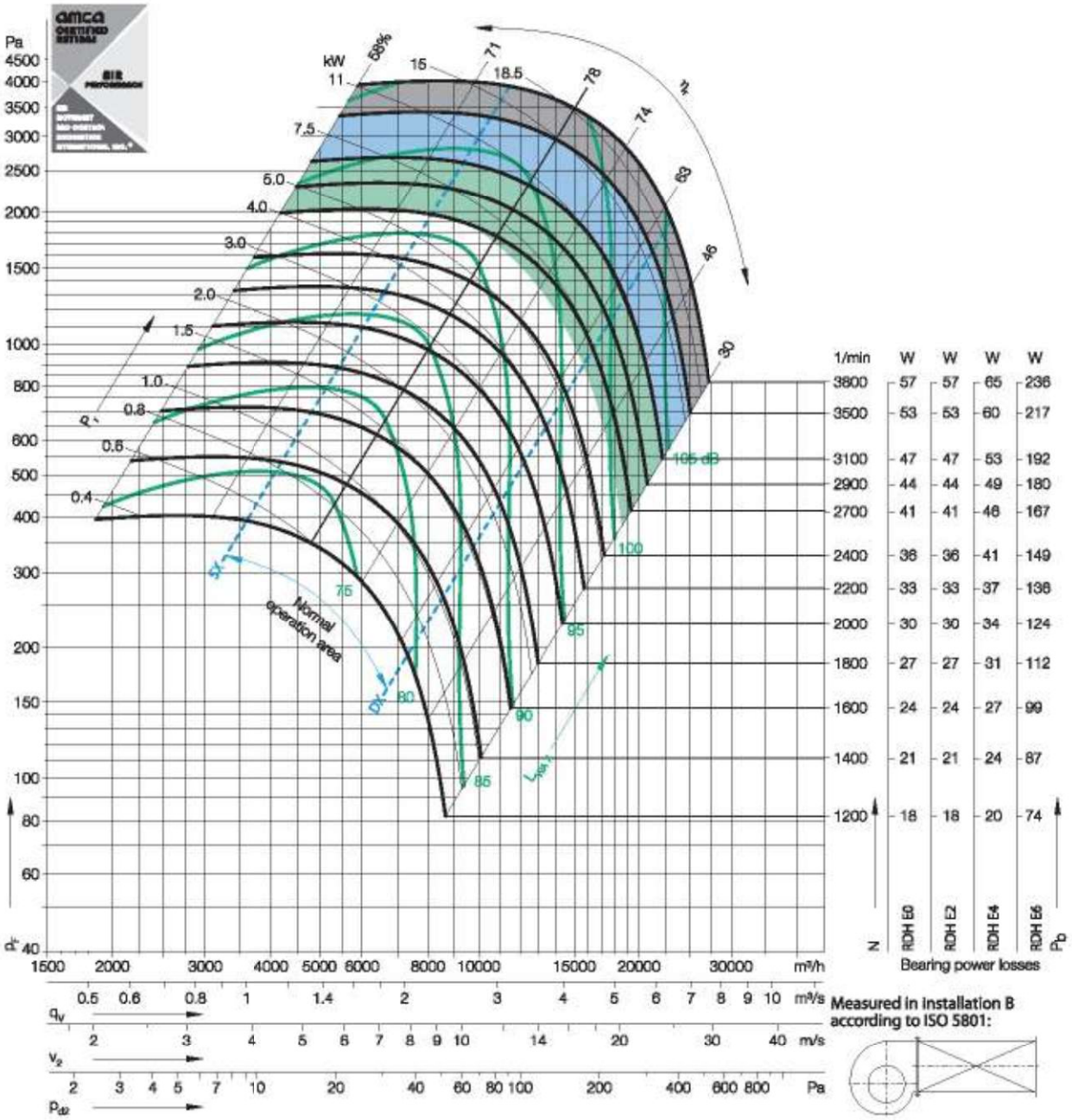
Measured in installation B according to ISO 5801:

Backward Curved Fan
Size 400

Please note coloured area!
- all types suitable
- RDH E4/E6 only
- RDH E6 only
- do not use in this area

Impeller Data			
Impeller diameter	D_f	400	mm
Number of blades	z	11	
Moment of Inertia	J	0,330	kgm^2

Impeller Data			
Impeller weight	m	12,7	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		1	



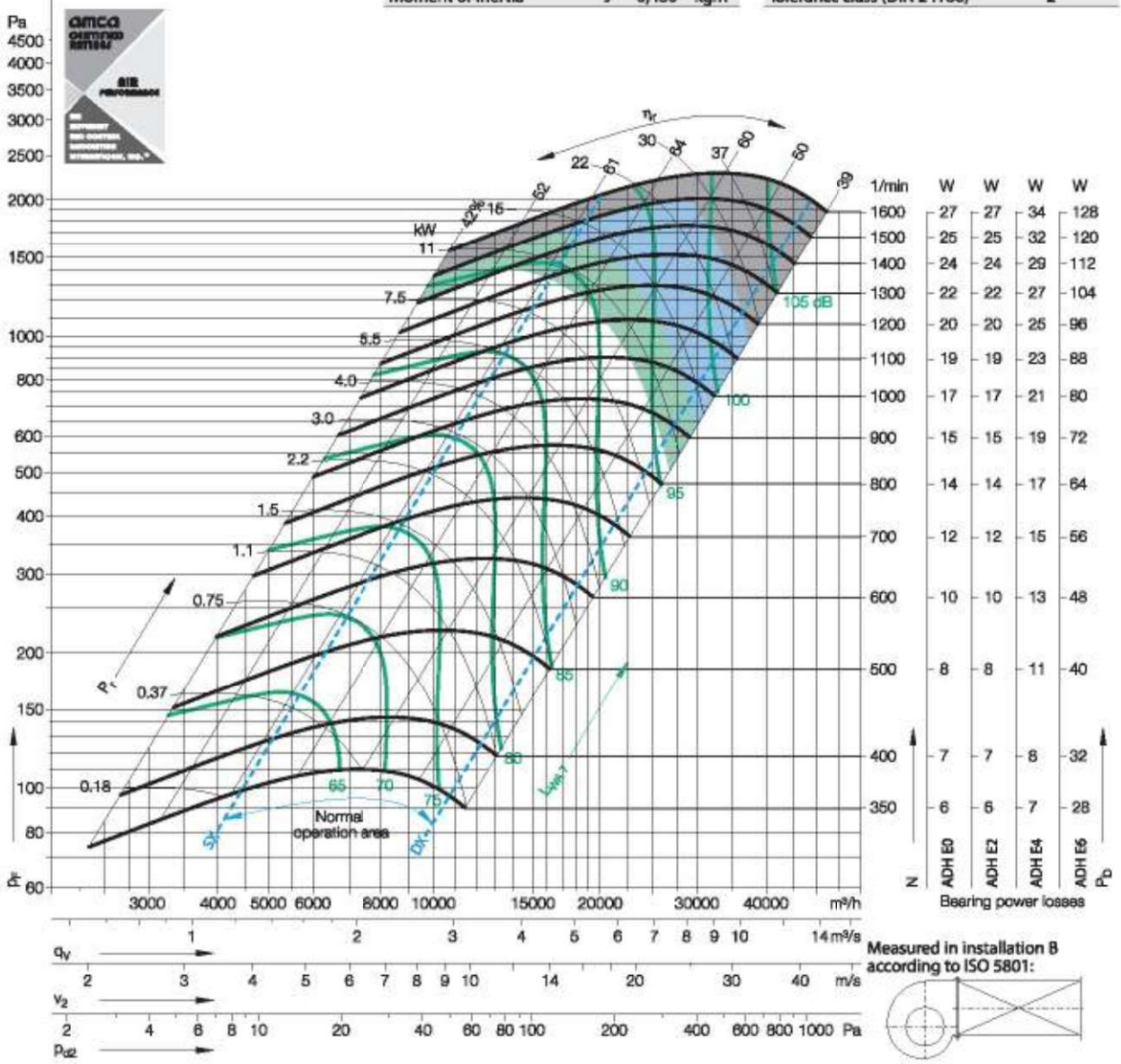
Measured in installation B according to ISO 5801:

Forward Curved Fan
Size 450

Please note coloured areal
- all types suitable
- ADH E4/E6 only

Impeller Data			
Impeller diameter	D_1	450	mm
Number of blades	z	42	
Moment of Inertia	J	0,480	kgm^2

Impeller Data			
Impeller weight	m	11	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	



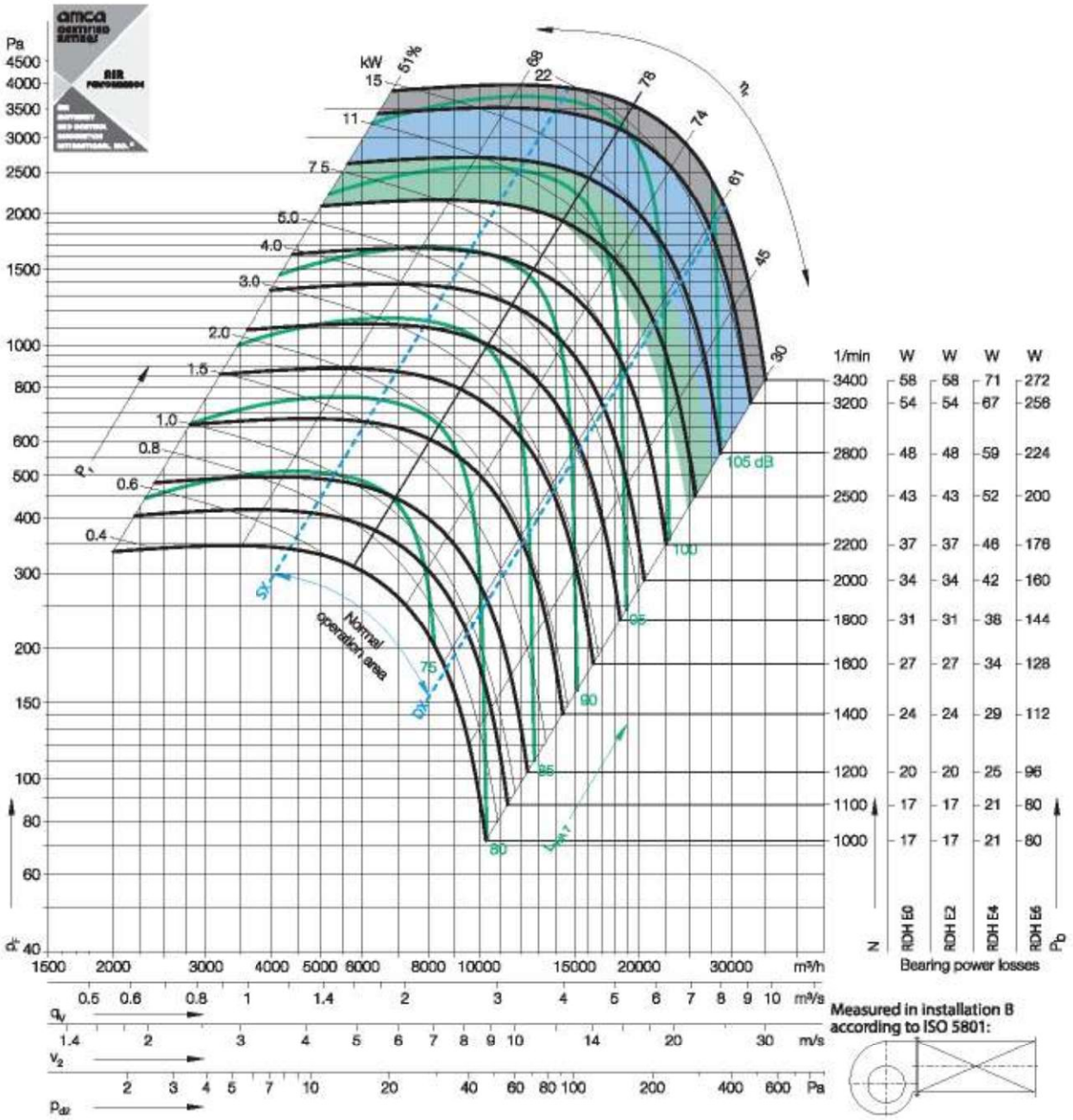
Measured in installation B according to ISO 5801:

Backward Curved Fan
Size 450

Please note coloured area!
- all types suitable
- RDH E4/E6 only
- RDH E6 only
- do not use in this area

Impeller Data			
Impeller diameter	D_1	450	mm
Number of blades	z	11	
Moment of Inertia	J	0,520	kgm^2

Impeller Data			
Impeller weight	m	17,6	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		1	



Measured in installation B according to ISO 5801:

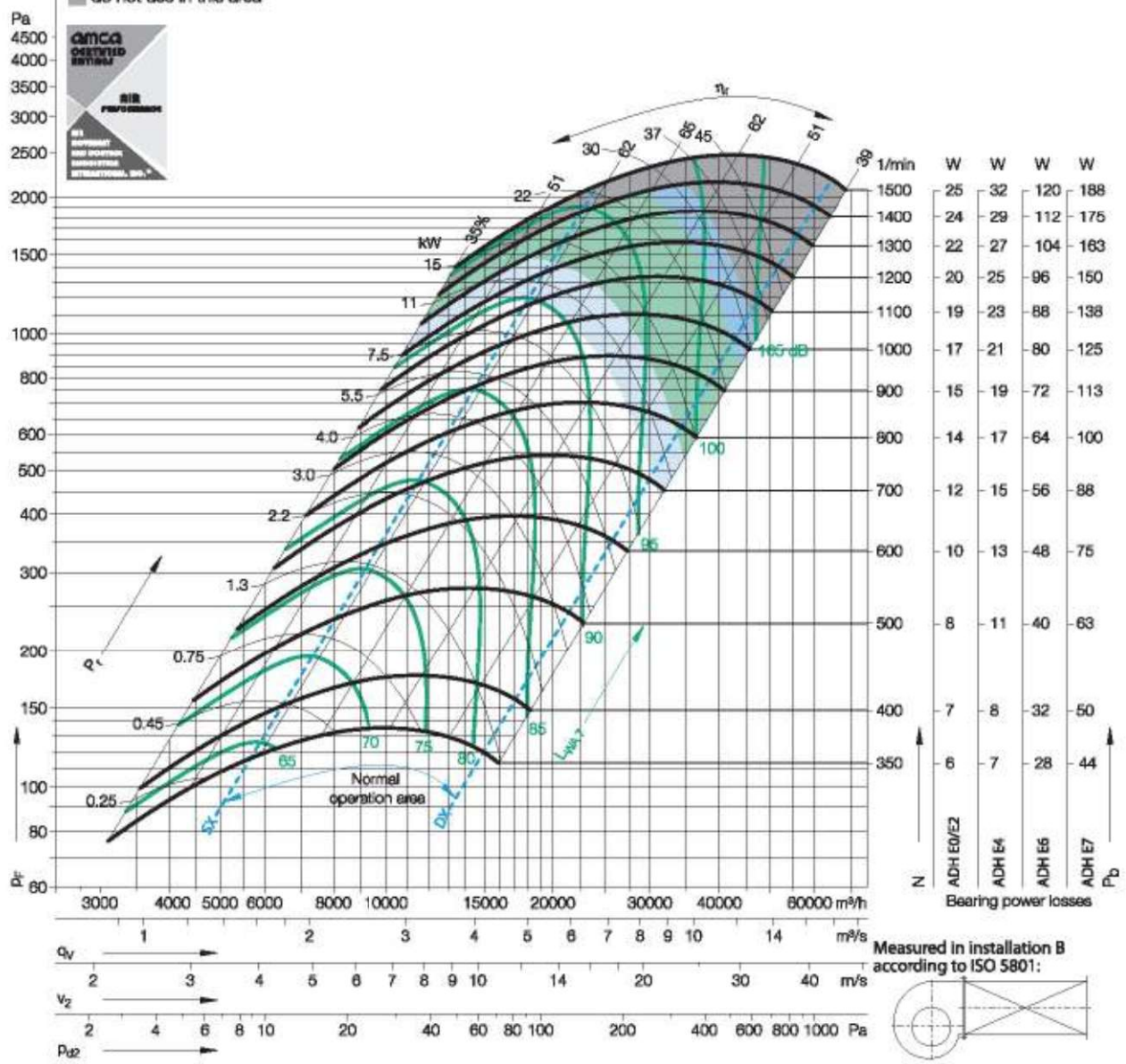
Forward Curved Fan
Size 500

Please note coloured area!

- all types suitable
- ADH E4/E6/E7 only
- ADH E6/E7 only
- ADH E7 only
- do not use in this area

Impeller Data			
Impeller diameter	D_1	500	mm
Number of blades	z	38	
Moment of Inertia	J	0,900	kgm^2

Impeller Data			
Impeller weight	m	18	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	

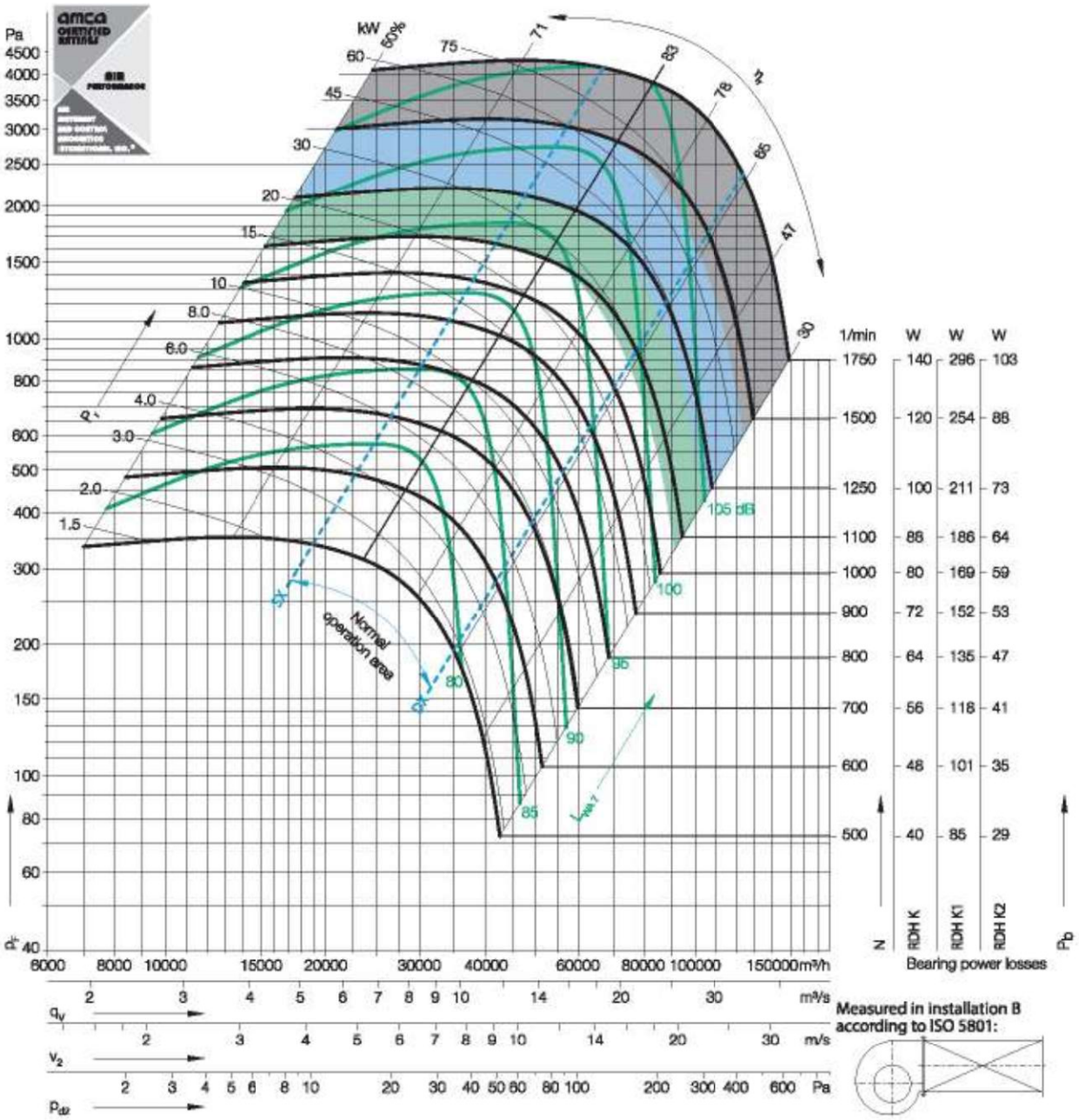


Backward Curved Fan
Size 900

Please note coloured area!
- all types suitable
- RDH K1/K2 only
- RDH K2 only
- do not use in this area

Impeller Data			
Impeller diameter	D_t	900	mm
Number of blades	z	11	
Moment of Inertia	J	12,80	kgm^2

Impeller Data			
Impeller weight	m	102	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		1	



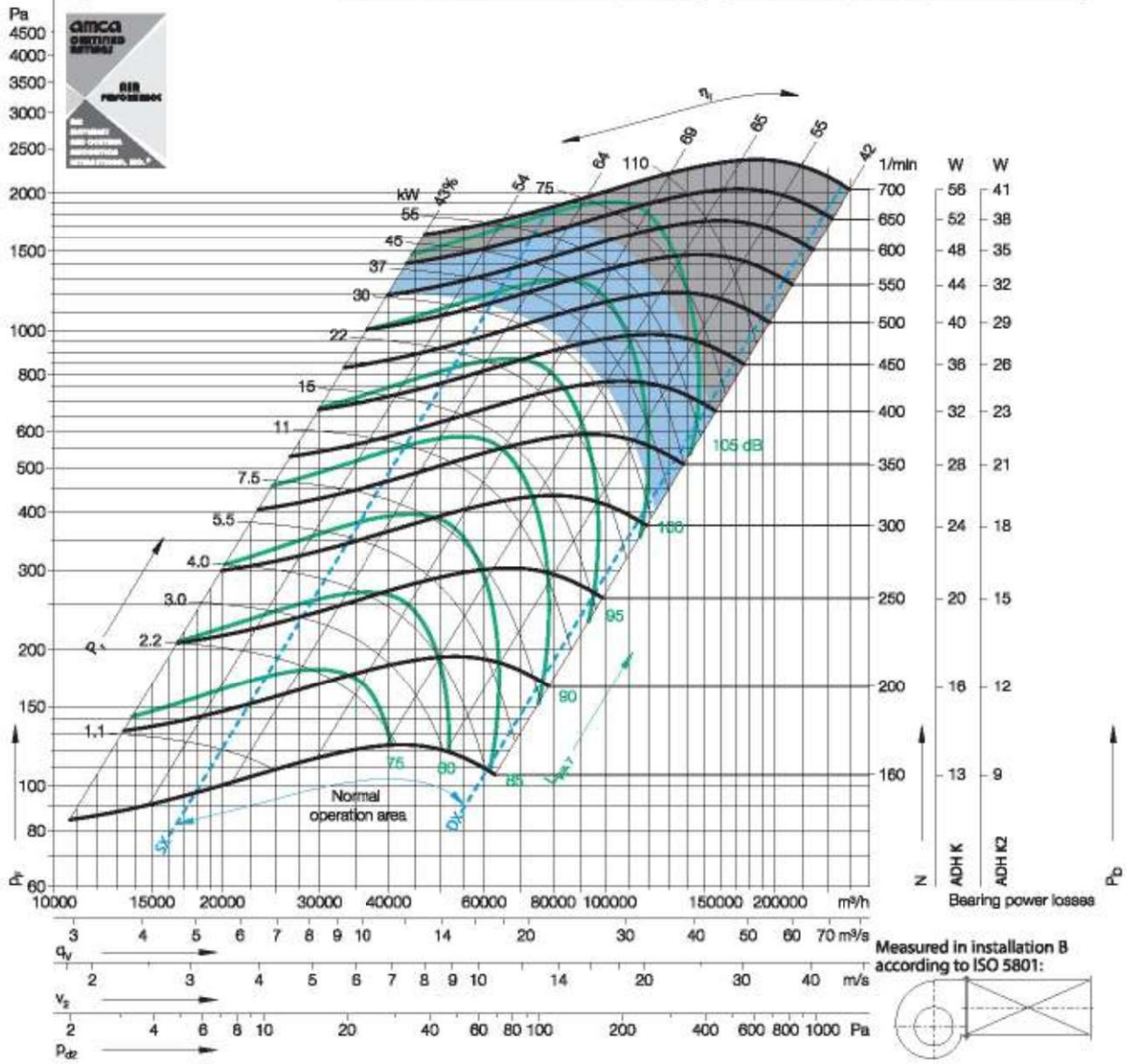
Measured in installation B according to ISO 5801:

Forward Curved Fan
Size 1000

Please note coloured area!
- all types suitable
- ADH K2 only
- do not use in this area

Impeller Data			
Impeller diameter	D_1	1000	mm
Number of blades	z	46	
Moment of Inertia	J	18,70	kgm^2

Impeller Data			
Impeller weight	m	89	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		2	

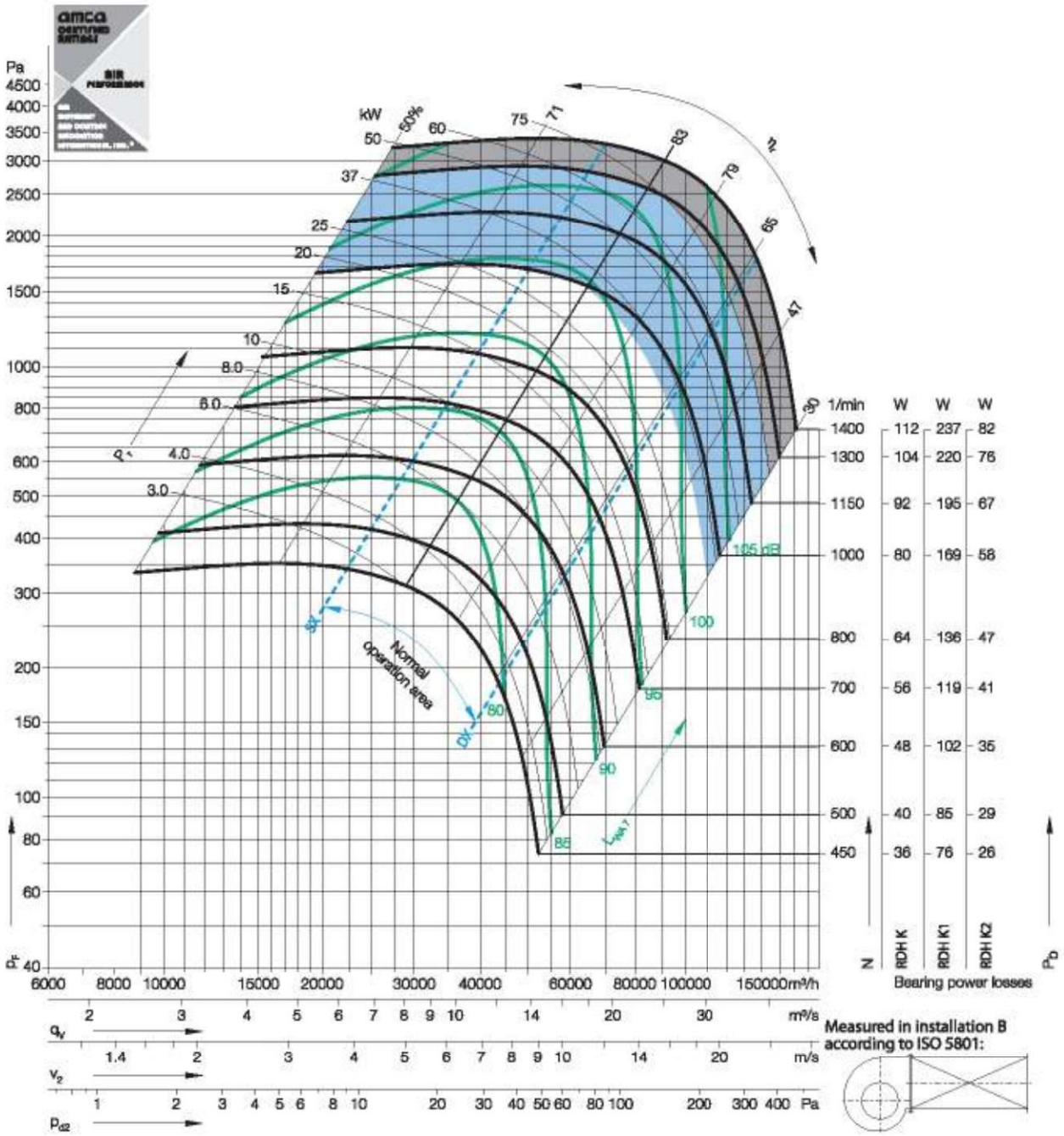


Backward Curved Fan
Size 1000

Please note coloured area!
- ☐ all types suitable
- RDH K2 only
- do not use in this area

Impeller Data			
Impeller diameter	D_1	1000	mm
Number of blades	z	11	
Moment of Inertia	J	24,80	kgm^2

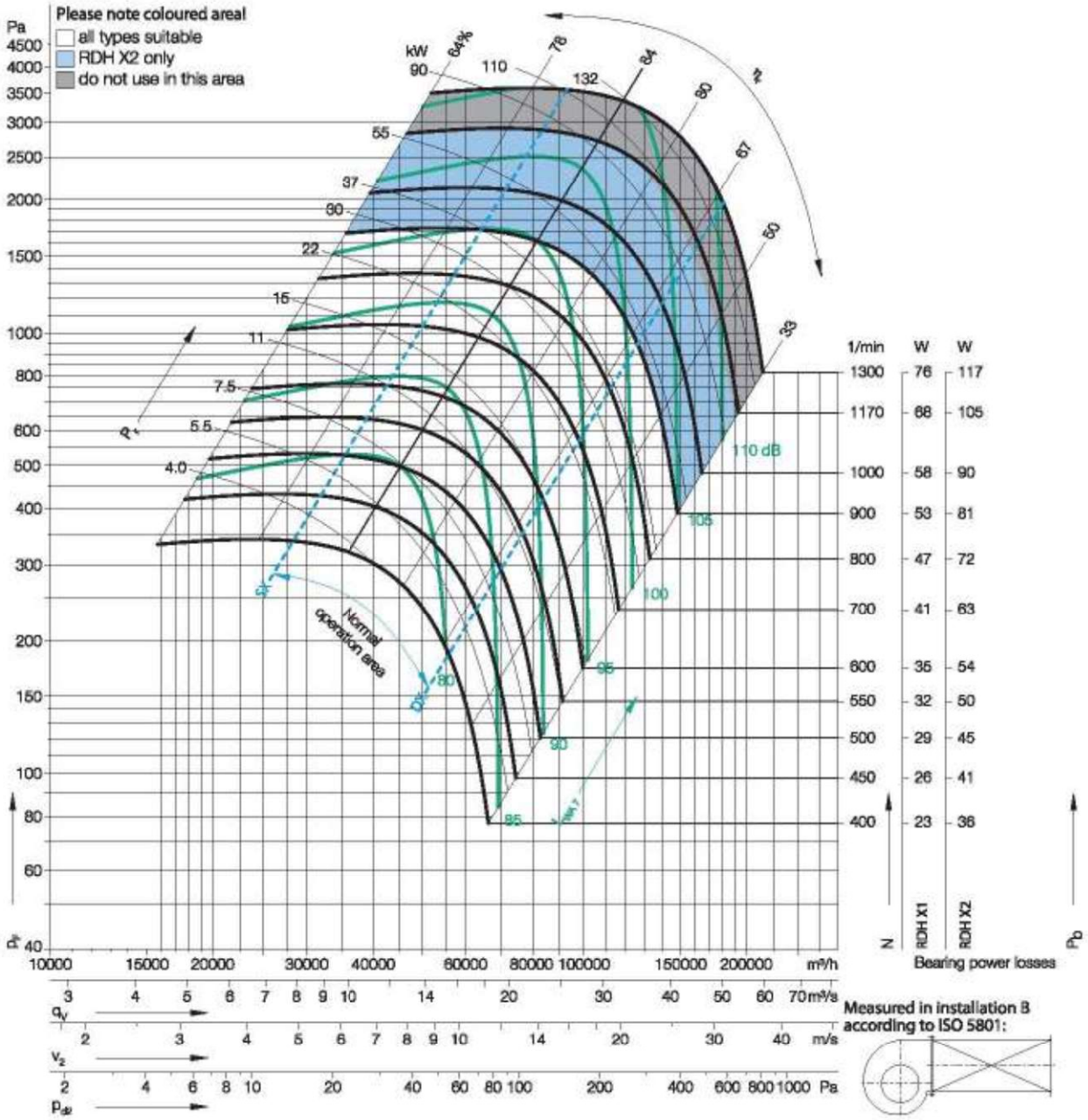
Impeller Data			
Impeller weight	m	146	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		1	



Backward Curved Fan
Size 1120

Impeller Data			
Impeller diameter	D_1	1120	mm
Number of blades	z	11	
Moment of Inertia	J	41,00	kgm²

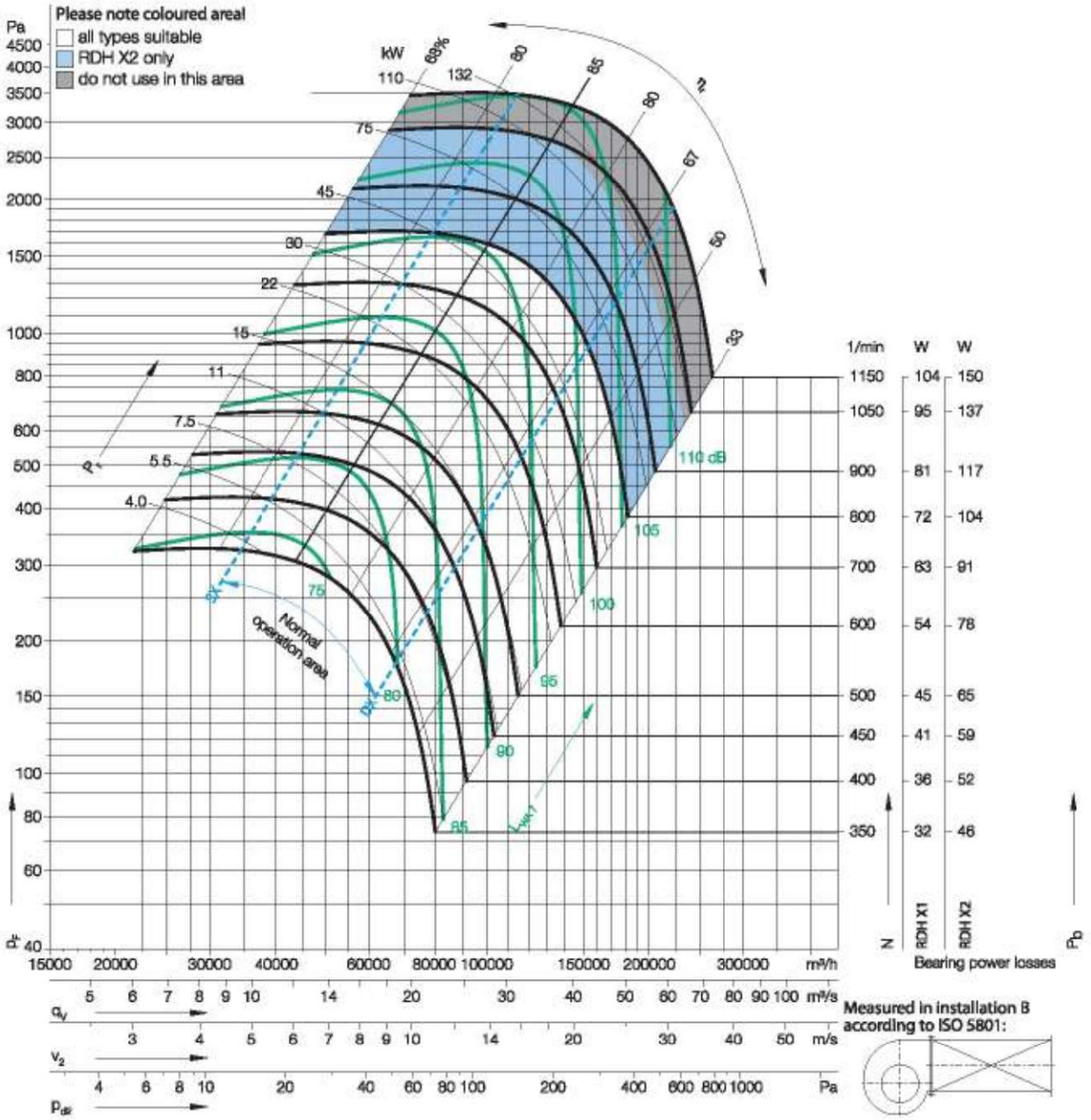
Impeller Data			
Impeller weight	m	250	kg
Density of media	ρ_1	1,2	kg/m³
Tolerance class (DIN 24166)		1	



Backward Curved Fan
Size 1250

Impeller Data			
Impeller diameter	D_1	1250	mm
Number of blades	z	11	
Moment of Inertia	J	69,00	kgm^2

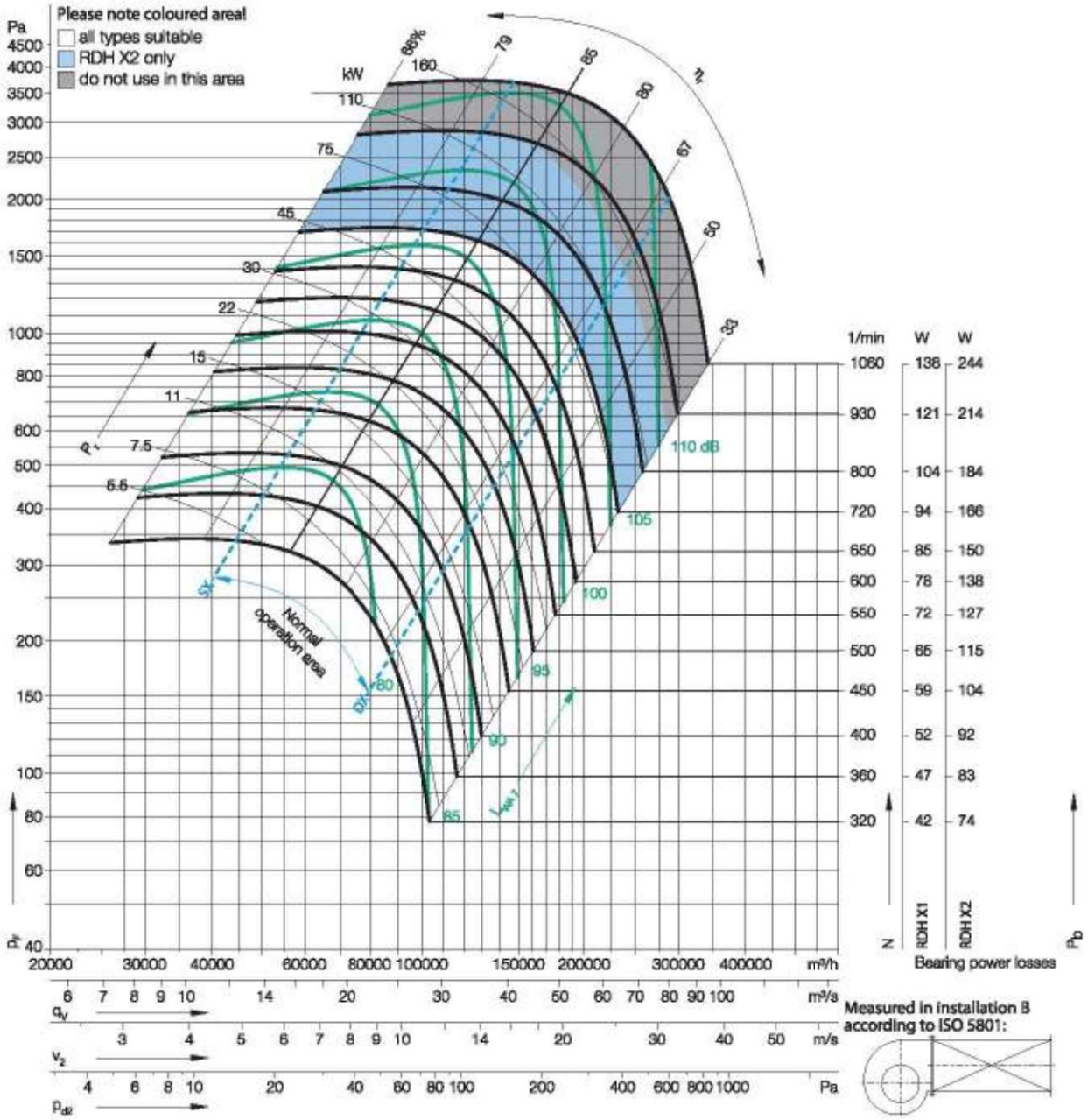
Impeller Data			
Impeller weight	m	325	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		1	



Backward Curved Fan
Size 1400

Impeller Data			
Impeller diameter	D_1	1400	mm
Number of blades	z	11	
Moment of Inertia	J	114,0	kgm^2

Impeller Data			
Impeller weight	m	416	kg
Density of media	ρ_1	1,2	kg/m^3
Tolerance class (DIN 24166)		1	



WEGER

VOLTA EGYPT

Weights

	V		A	M	M2	LB		P		SD		KF	TF		AF	AKF	EH		KH		KHT		TA	FS	EE	DB		OB
	Weights without fan-motor																Weights without coils											
	Length	kg	kg	kg	kg	Length	kg	Length	kg	Length	kg	kg	Length	kg	kg	kg	Length	kg	Length	kg	Length	kg	kg	kg	kg	Length	kg	kg
64	762 915	55 65	34	37	49	305 457 610 762	30 36 44 50	152 305 457	25 32 39	610 915 1220 1525	65 89 112 134	28	457 610 762	35 42 50	40	84	152 305	25 32	305 457	34 42	457 610	48 58	31	25	33	915 1220 1525	74 93 111	58
66	915	75	37	40	55	305 457 610 762	33 40 48 56	305 457 610	35 43 52	610 915 1220 1525	75 105 132 156	30	457 610	45 53	57	108	152 305	26 35	305 457	37 46	457 610	53 63	34	27	36	915 1220 1525	83 104 123	64
96	915 1220	88 113	42	46	70	305 457 610 762	37 47 56 66	305 457 610	40 51 60	610 915 1220 1525	97 134 172 204	34	457 610	55 64	76	148	152 305	29 40	305 457	43 55	457 610	65 76	39	30	41	915 1220 1525	99 128 152	76
126	915 1220	102 130	58	64	89	305 457 610 762	41 52 63 74	305 457 610	44 56 68	610 915 1220 1525	118 163 208 248	40	457 610	62 73	89	183	152 305	34 45	305 457	49 63	457 610	75 90	46	35	47	915 1220 1525	117 150 178	90
99	915 1220 1525	105 138 161	66	73	119	305 457 610 762	41 53 63 75	305 457 610	44 57 68	610 915 1220 1525	119 165 215 255	40	457 610	65 75	96	183	152 305	33 44	305 457	47 62	457 610	75 87	47	35	47	915 1220 1525	115 152 179	90
129	915 1220 1525	120 156 183	75	82	132	305 457 610 762	64 58 71 83	457 610 762	62 76 89	610 915 1220 1525	146 200 259 308	46	457 610	75 88	125	251	152 305	37 50	305 457	54 69	457 610	85 102	53	39	54	915 1220 1525	132 173 205	106
1212	1220 1525 1830	180 210 247	95	104	177	305 457 610 762	51 65 79 93	457 610 762	70 85 100	915 1220 1525 1830	238 307 365 420	52	457 610	85 99	147	318	152 305	41 35	305 457	59 76	457 610	97 115	61	44	61	915 1220 1525	149 195 230	125
1512	1220 1525 1830	204 237 279	119	131	224	305 457 610 762	56 71 86 102	457 610 915	76 92 135	915 1220 1525 1830	284 364 432 509	58	457 610	98 113	183	386	305	62	305 457	65 85	457 610	110 129	69	48	68	915 1220 1525	171 222 261	139
1812	1220 1525 1830	224 260 306	130	143	244	305 457 610 762	60 77 94 112	457 610 915	83 99 147	915 1220 1525 1830	326 415 493 581	64	457 610	107 127	204	454	305	67	305 457	72 93	457 610	123 145	77	52	75	915 1220 1525	190 244 287	158
1515	1220 1525 1830	229 265 312	131	144	282	305 457 610 762	60 77 95 112	610 762 915	83 102 148	915 1220 1525 1830	327 419 497 586	64	457 610	111 129	218	455	305	67	305 457	69 90	457 610	122 144	78	53	75	915 1220 1525	188 244 286	162
1815	1525 1830 2135	290 340 396	172	189	309	305 457 610 762	65 83 102 121	610 762 915	110 130 164	915 1220 1525 1830	381 479 569 670	71	457 610	123 142	256	552	305	73	305 457	76 99	457 610	136 160	86	57	83	915 1220 1525	213 268 314	179
1818	1525 1830 2135 2440	326 374 436 498	205	225	373	305 457 610 762	69 89 110 130	610 915 1220	118 178 234	915 1220 1525 1830	444 558 669 780	79	457 610	134 155	285	650	305	77	305 457	81 105	457 610	148 174	96	63	90	915 1220 1525	232 291 346	200
2118	1525 1830 2135 2440	358 410 469 528	226	248	404	305 457 610 762	73 95 120 142	610 915 1220	129 194 254	915 1220 1525 1830	504 632 758 884	87	457 610	150 176	336	750	305	82	305 457	88 115	457 610	165 196	106	68	97	915 1220 1525	255 319 380	221
2518	1525 1830 2135 2440	385 441 502 565	240	264	429	305 457 610 762	78 103 127 151	610 915 1220	137 205 268	915 1220 1525 1830	561 702 842 982	94	457 610	163 187	366	847	305	88	305 457	95 126	457 610	188 219	122	75	108	915 1220 1525	282 349 415	249
2121	1525 1830 2135 2440	390 454 510 581	261	288	489	305 457 610 762	78 103 127 151	915 1067 1220	207 239 271	915 1220 1525 1830	562 703 842 989	94	457 610	169 193	379	847	305	87	305 457	93 123	457 610	190 220	126	76	111	915 1220 1525	285 352 417	254
2521	2135 2440 2745	545 618 694	310	341	570	305 457 610 762	82 110 135 161	915 1067 1220	218 252 286	915 1220 1525 1830	625 782 936 1098	101	457 610	181 206	417	945	305	92	305 457	99 133	457 610	205 237	135	81	117	915 1220 1525	304 376 445	277
2525	2135 2440 2745	587 666 745	366	403	670	305 457 610 762	88 116 151 177	915 1067 1220	232 273 312	915 1220 1525 1830	690 868 1031 1209	111	457 610	196 231	472	1111	305	98	305 457	105 139	457 610	219 261	146	87	127	915 1220 1525	325 408 474	312
2825	2135 2440 2745 3050	631 706 786 866	386	425	705	305 457 610 762	94 122 161 189	915 1220 1525	246 326 389	915 1220 1525 1830	762 954 1132 1332	122	457 610	216 255	540	1241	305	106	305 457	113 149	457 610	236 283	158	93	137	915 1220 1525	350 434 503	337
3125	2135 2440 2745 3050	667 753 839 925	415	456	746	305 457 610 762	98 130 168 199	915 1220 1525	258 345 413	915 1220 1525 1830	832 1044 1240 1451	130	457 610	230 299	578	1368	305	111	305 457	119 158	457 610	255 302	170	99	145	915 1220 1525	372 465 539	366

V ⟶ Outlet run fan section
X ⟶ Inlet section
M ⟶ Mixing box
M2 ⟶ Double Mixing box
LB ⟶ Empty box with door
P ⟶ Diffuser Section
SD ⟶ Sound attenuator
KF ⟶ Panel filter Section
TF ⟶ Bagfilter Section
AF ⟶ Absolute filter section

V ⟶ Outdrive fan section
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KF ⟶ Panel filter Section
TF ⟶ Bagfilter Section
AF ⟶ Absolute filter section

Fan - Motor Section

Fan Motor assembly weight in KG

Motor / Fan	Frame Size	71	80	90	100	112	132	160	180	200	225	250
	HP up to	1/2	1	2	4	5 1/2	10	20	30	40	60	75
160		21	23	30								
180		23	25	32	39	51						
200		24	26	33	40	53						
225		26	28	35	43	55						
250		27	29	37	45	57						
280			34	40	48	60	84					
315				45	53	65	89					
355				51	59	71	95	145				
400					65	77	101	150	183			
450						86	110	159	192			
500						113	137	187	220	286		
560						142	166	215	248	314	369	
630							191	241	274	340	395	
710							301	351	384	450	505	
800								389	422	488	543	648
900								476	509	575	630	735
1000								538	571	637	692	796
1120									1070	1136	1191	1296

WEGER

VOLTA EGYPT

Standard coils

Weights Of Coils In KG

DIWER	T - L	1R R	2R R	3R R	4R R	5R R	6R R	7R R	8R R
64	6-4 20	12	15	15	17	21	23	24	25
66	9-4 20	15	18	20	23	30	32	35	38
96	9-7 20	19	23	27	31	40	44	48	52
126	9-1 020	23	28	34	39	51	56	62	67
99	14-71 0	27	33	39	45	58	64	71	77
129	14-10 20	31	39	48	56	72	81	89	97
1212	19-99 0	40	51	63	74	94	105	116	127
1512	19-12 90	46	60	74	88	113	127	141	155
1812	19-15 85	51	68	85	102	131	148	165	182
1515	24-12 80	51	69	87	105	133	151	169	187
1815	24-15 60	57	79	100	122	155	177	198	220
1818	29-15 60	68	94	119	145	184	209	235	261
2118	29-18 65	75	105	135	165	210	240	270	300
2518	29-21 70	82	116	151	186	236	271	306	340
2121	34-18 65	108	143	178	214	265	300	335	371
2521	34-21 70	115	156	197	237	295	336	370	417
2525	39-21 70	124	170	217	263	328	375	422	468
2825	39-24 75	132	185	238	290	362	415	468	521
3125	39-27 80	141	199	258	317	397	455	514	573

The Indicated weights are only vaild for coils made of Cu -Al with frames of galvanized sheet metal, Geometry 60X30, fin spacing 2,00 mm.

Heat exchanger

Connections of the standard heat exchanger in inches

DIWER	T - L	1RR	2RR	3RR	4RR	5RR	6RR	7RR	8RR
64	6-420	3/4	3/4	3/4	3/4	1	1	1	1
66	9-420	1	1	1	1	1	1	1	1
96	9-720	1	1	1	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
126	9-1020	1	1	1	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
99	14-710	1	1	1 1/2	1 1/2	1 1/2	1 1/2	2	2
129	14-1020	1	1 1/2	1 1/2	2	2	2	2	2
1212	19-990	1 1/2	1 1/2	2	2	2	2 1/2	2 1/2	2 1/2
1512	19-1290	1 1/2	2	2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
1812	19-1585	1 1/2	2	2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
1515	24-1280	1 1/2	2	2	2 1/2	3	3	3	3
1815	24-1560	2	2	2 1/2	3	3	3	3	3
1818	29-1560	2	2 1/2	2 1/2	3	3	3	3	4
2118	29-1865	2	2 1/2	3	3	3	3	4	4
2518	29-2170	2 1/2	2 1/2	3	3	3	3	4	4
2121	34-1865	2 1/2	2 1/2	3	3	4	4	4	4
2521	34-2170	2 1/2	3	3	4	4	4	4	4
2525	39-2170	2 1/2	3	3	4	4	4	4	4
2825	39-2475	3	3	3	4	4	4	4	4
3125	39-2780	3	3	4	4	4	4	4	4

Filter Information

Filter - class	Average arrestance against synthetic dust in %	Average efficiency against atmospheric dust in %
G1	Am<65	
G2	65<=Am<80	
G3	80<=Am<90	
G4	90<=Am	
F5		40<=Em<60
F6		60<=Em<80
F7		80<=Em<90
F8		90<=Em<95
F9		95<=Em

Coarse dust filter

Application (minimum requirement) for coarse dust filters with different arrestances of synthetic dust according to ASHRAE-standard 52/76		
50-74 %	75-84 %	>85 %
In general	*In general*	*In general*
- ineffective against smoke and particles	- limited separation of pollen	- separation of pollen
which cause spots (soot, fog of oil, etc)	- minimal effect on smoke and particles	- minimal effect on smoke and particles
	which cause spots (soot, fog of oil, etc)	which cause spots (soot, fog of oil, etc)
		- units with dehumidification
Special application	*Special application*	*Special application*
- supply air handling units with small	- simple air handling units in windows,	- special cooling units
requirements on the purity of air	fan and heat exchanges units	- prefilter for air protection facilities
- air handling units in windows	- stations of transformation for supply air,	- prefilter before fine filters
	garages, factory halls and generally for	
	rooms with small requirements on the	
	purity of air	
	- as prefilter before fine filters	

Fine dust filter

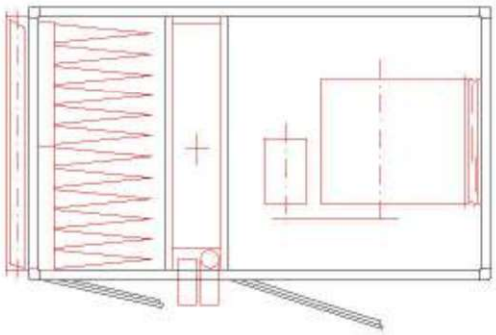
Application (minimum requirement) for fine dust filter with different discoloration arrestance of atmospheric air according to ASHRAE-standard 52/76		
40-69 %	70-89 %	90-98 %
In general	*In general*	*In general*
- separation of pollen	- effective against all types of dust including	- very effetive against particles which cause
- minimal effect on smoke and particles	particles which cause spots (soot, fog of	spots (soot, fog of oil, etc)
which cause spots (soot, fog of oil, etc)	oil , etc)	- very effective against germs
	- partially effective against nicotine smoke	
	- in the upper area of arrestance only	
	partially effecitve against germs	
Special application	*Special application*	*Special application*
- supply air - and part air handling units for	- part- and complete air handling units for	Air handling units for:
schools, kitchens, archives and fine -	laboratries,hospitals,offices,theatprs and	- "Clean rooms " according to Federal
mechanical workshops	slaughterhouses	Standard 209 A
- cooling of rooms for lifts	- telephone centers, workshops, radio- and	-laboratories (also for radiology and
- heating of churches and gymnasiums	TV-studios, PC-rooms	pharmaceutical industry)
with warm air	- color spraying boxes	- workshops for electronic parts
- air conditioning of restaurants and halls		- anterooms of operating and sterilization rooms
- food shops		

Filter

AHU Type	W inside	H inside	1/1	1/2	Air volume until 2,7 m/s face velocity m3/h	Filter class G1+G2	Filter area Filter class G3+G4	F5	F6/7/9
64	610	474	-	1	1800	0,8	1,3	2,0	3,3
66	610	667	1	-	3600	1,6	2,6	4,0	6,5
96	915	667	1	1	5400	2,4	3,9	6,0	9,8
126	1220	667	2	-	7200	3,2	5,2	8,0	13,0
99	915	972	1	2	8100	3,2	5,2	8,0	13,1
129	1220	972	2	2	10800	4,8	7,8	12,0	19,6
1212	1220	1277	4	-	14400	6,4	10,4	16,0	26,0
1512	1525	1277	4	2	18000	8,0	13,0	20,0	32,6
1812	1830	1277	6	-	21600	9,6	15,6	24,0	39,0
1515	1525	1582	4	4	22500	9,6	15,6	24,0	39,2
1815	1830	1582	6	3	27000	12,0	19,5	30,0	49,9
1818	1830	1887	9	-	32400	14,4	23,4	36,0	58,5
2118	2135	1887	9	3	37800	16,8	27,3	42,0	68,4
2518	2440	1887	12	-	43200	19,2	31,2	48,0	78,0
2121	2135	2192	9	6	44100	19,2	31,2	48,0	78,3
2521	2440	2192	12	4	50400	22.4	36.4	56	91.2
2525	2536	2610	16	-	57600	25.6	41.6	64	104
2825	2921	2610	16	4	64800	28.8	46.8	72	117.2
3125	3226	2610	20	-	72000	32	52	80	130

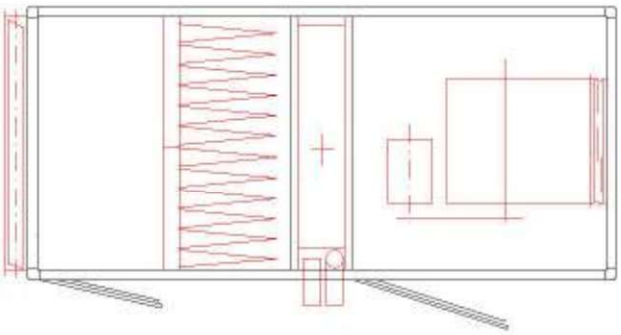
Example 1

Filter changing on clean air side

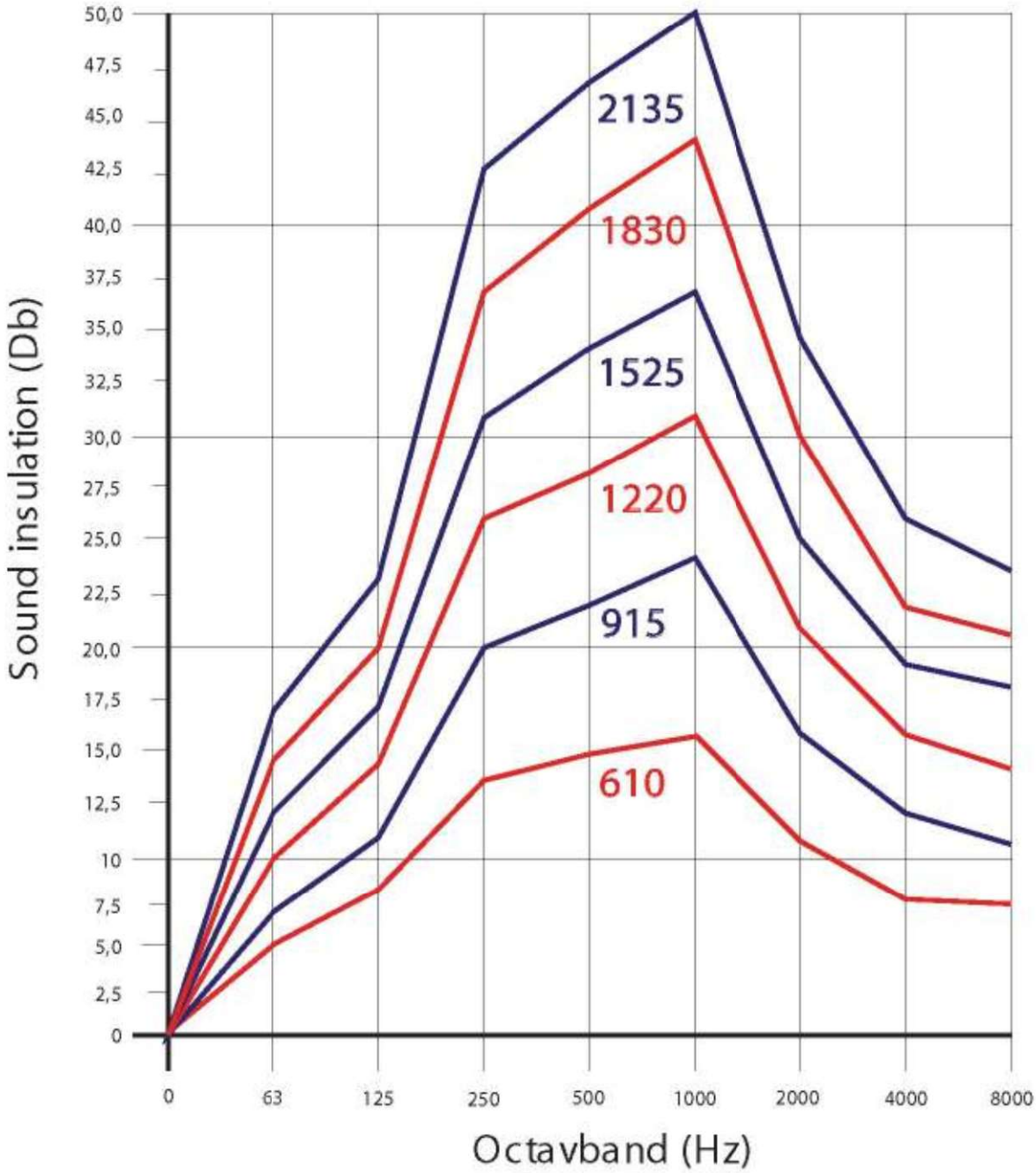


Example 2

Filter changing on dust air side



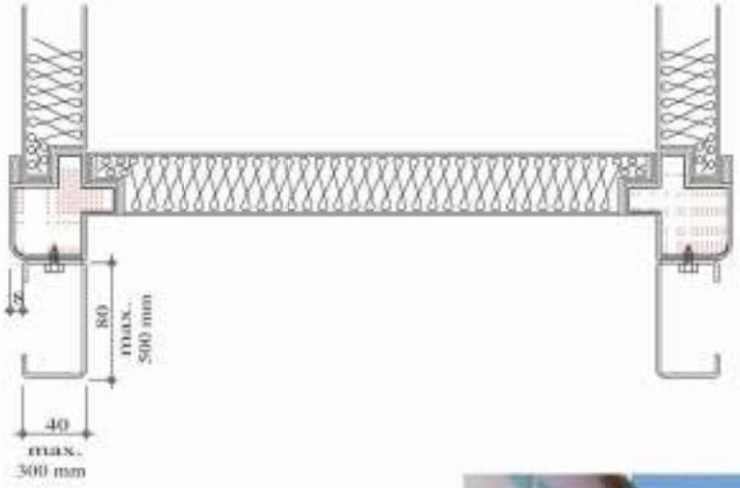
Sound Attentuator



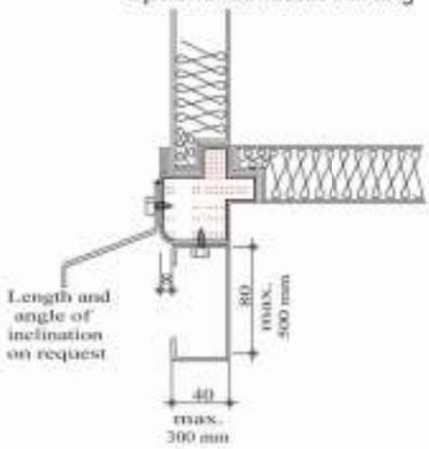
The numbers under the lines in the diagram indicate the length of the sound attentuator splitter.

Unit mounting Frames

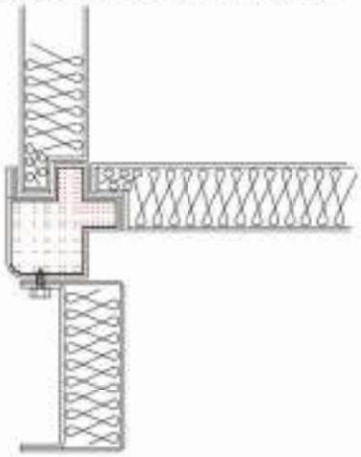
Standard unit mountng frame:



Optional deflector skirting



Optional double skin insulated:

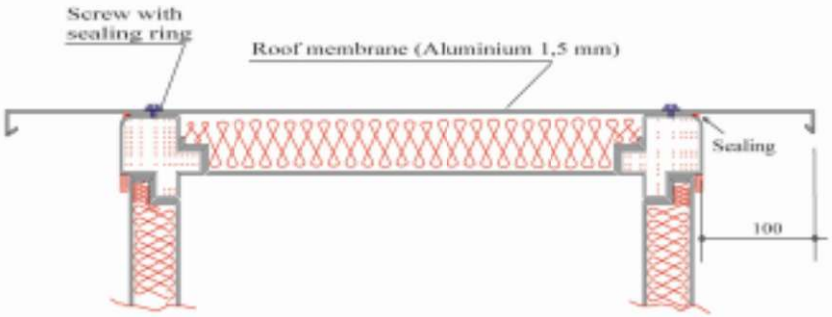


The different baseframes can as lobe combinate d. For example base frame in sulated, 300 mm hight, supporting panel 100 mm width with dropper nose (see example on the next page).

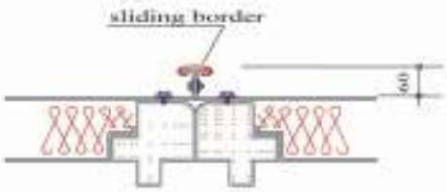
Weather proof casing option

Roof desgins

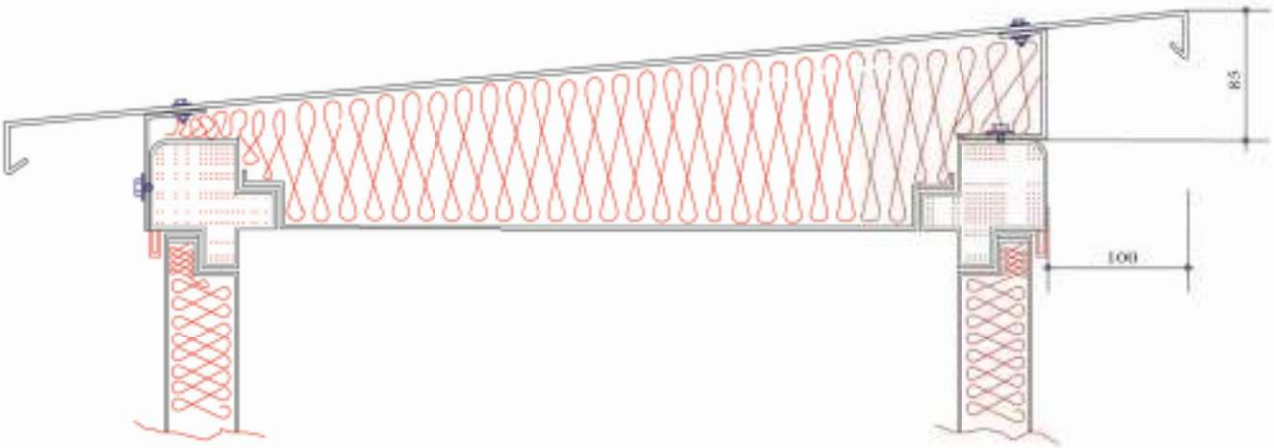
1. Standard weatherproof roof



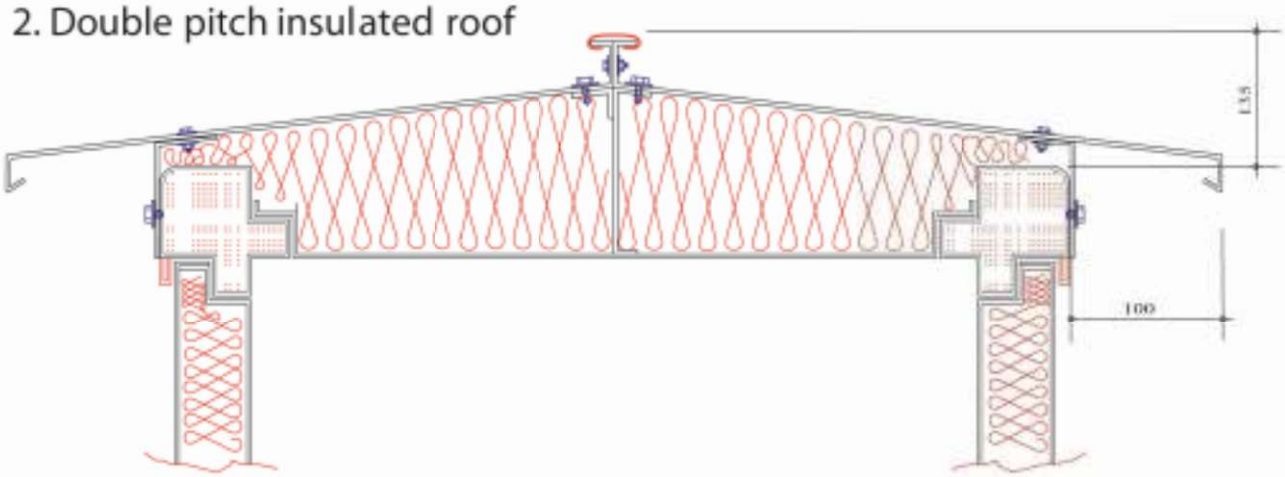
Detail:
Roof joint-
connection



2. Single pitch insulated roof

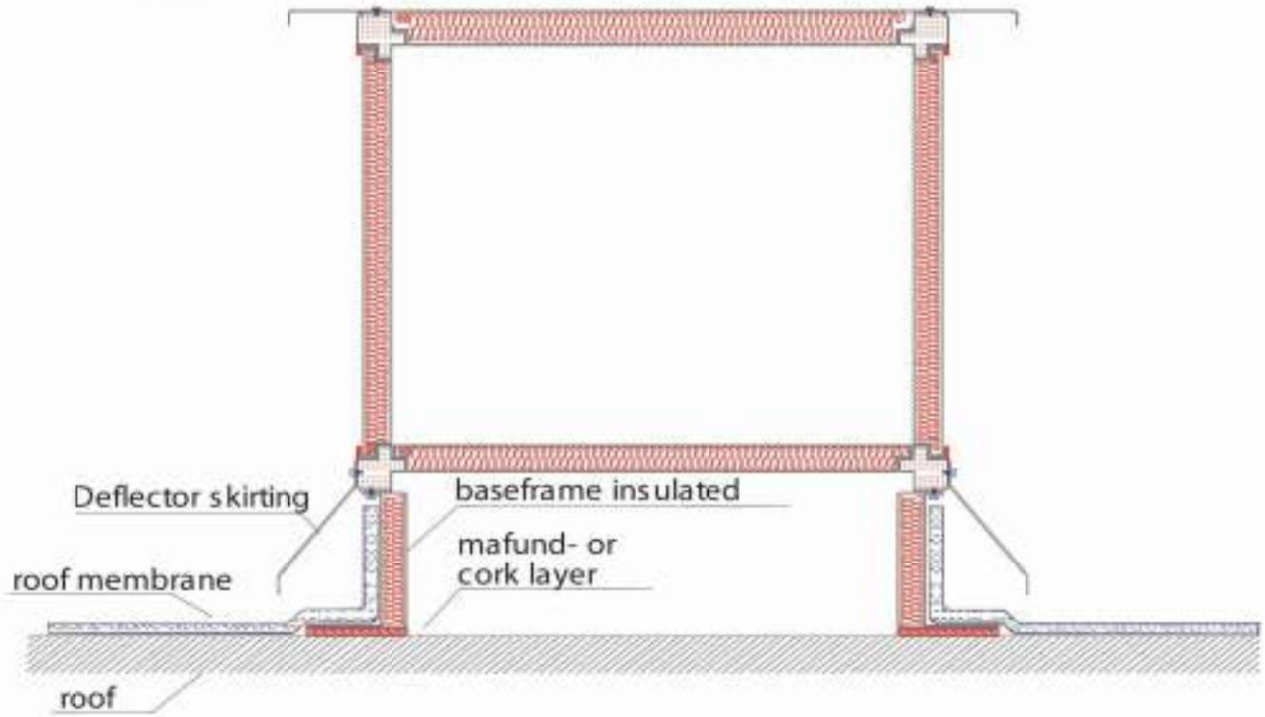


2. Double pitch insulated roof



Weather proof casing option

Cut by a weather proof unit with standard flat roof



WEGER

VOLTA EGYPT

Energy recovery

Different systems of heat recovery

the Weger DIWER range of Air Handlings Unit is available with a number of alternative heat recovery systems.The basics principle of the heat recovery systems is to take energy from the exhaust air and to transfer this energy to the fresh air.
We are able to offer all conventional heat recovery systems and can provide assistance and technical documentation to enable the customer to select the most suitable and efficient system for his application, Typical heat recovery systems are as follows:

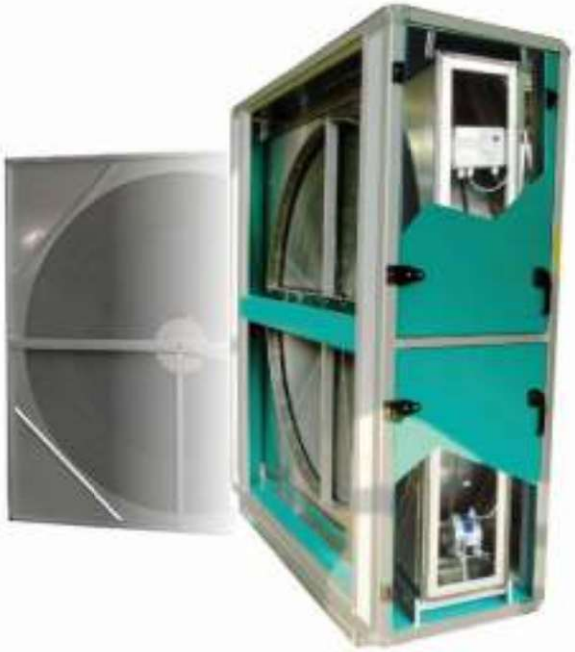
1. Plate Heat Exchanger:

In to the plate heat exchanger two air streams exchange their energy through thin plates, which prevent the mixing of air streams. Normally the plates are made of aluminium, but also other material are available . The efficiency of the energy recovery system depends on the thermal conductivity of separators,heat exchanger material and the surface area available. Weger can offer a number of heat exchanger sizes, depending on the efficiency and air pressure drop requirements.

2. Run Around
Coils: A run around coil energy system comprises two or more coils, connected together with a system of pipework. the circuil generally reguires a water solution and a circulating pump.
the water solution is used to transfer the energy from the cold extract coil to the warm fresh air coil.

3.Heat Pipe:
The two air flows (supply, and exhaust air) must be located together. The most common medium used is a refrigerant type gas.
Which evaporayes in the warm fresh air section and then condenses in the cold exhaust air section giving up the cold energy to the fresh air

4. Heat Wheel:
In the heat wheel section two different air streams will flow through a wheel which contains an energy storing aluminium media. When the wheel rotates it transfers the collected cold energy to the hot supply air or vice versa. The wheel can be complete with a hygrosopic coat allowing the transfer of moisture or latent energy from the warm humid exhaust air to the cold dry fresh.



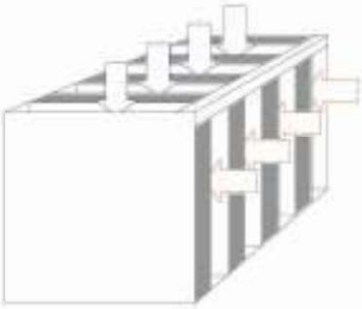
Through the use of energy recovery systems there is potential to save energy as well as protecting the environment with reduced Co2 emmision.

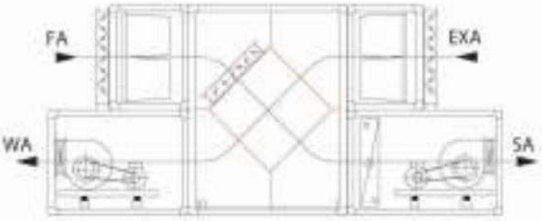
Energy recovery

Plate heat exchanger

Function:

In the plate heat exchanger cold exhaust air and warm supply air are led past seperately by aluminium plates small varying together. The mixture of the two air flows and the transmission of pollution, smells, bacteria are not possible.





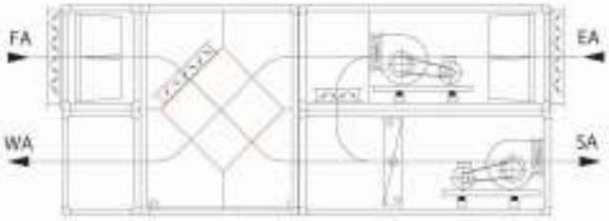


Plate heat exchanger are available in different executions

1. Without bypass.
2. With integrated bypass with damper:
   It could occure that at deep temperatures in the supply airside, the condensate, which is formed in the exhaust air, freezes. Therefore we recommend the use of plate heat exchangers with bypass. So the cold supply air can pass through the bypass section, defrost with warm exhaust air and the normal heat recovery can be recreated faster or in warm climates.
   With low fresh air rates where part of the return air is driven back & mixed with the fresh air .

Materials of plate heat exchangers:

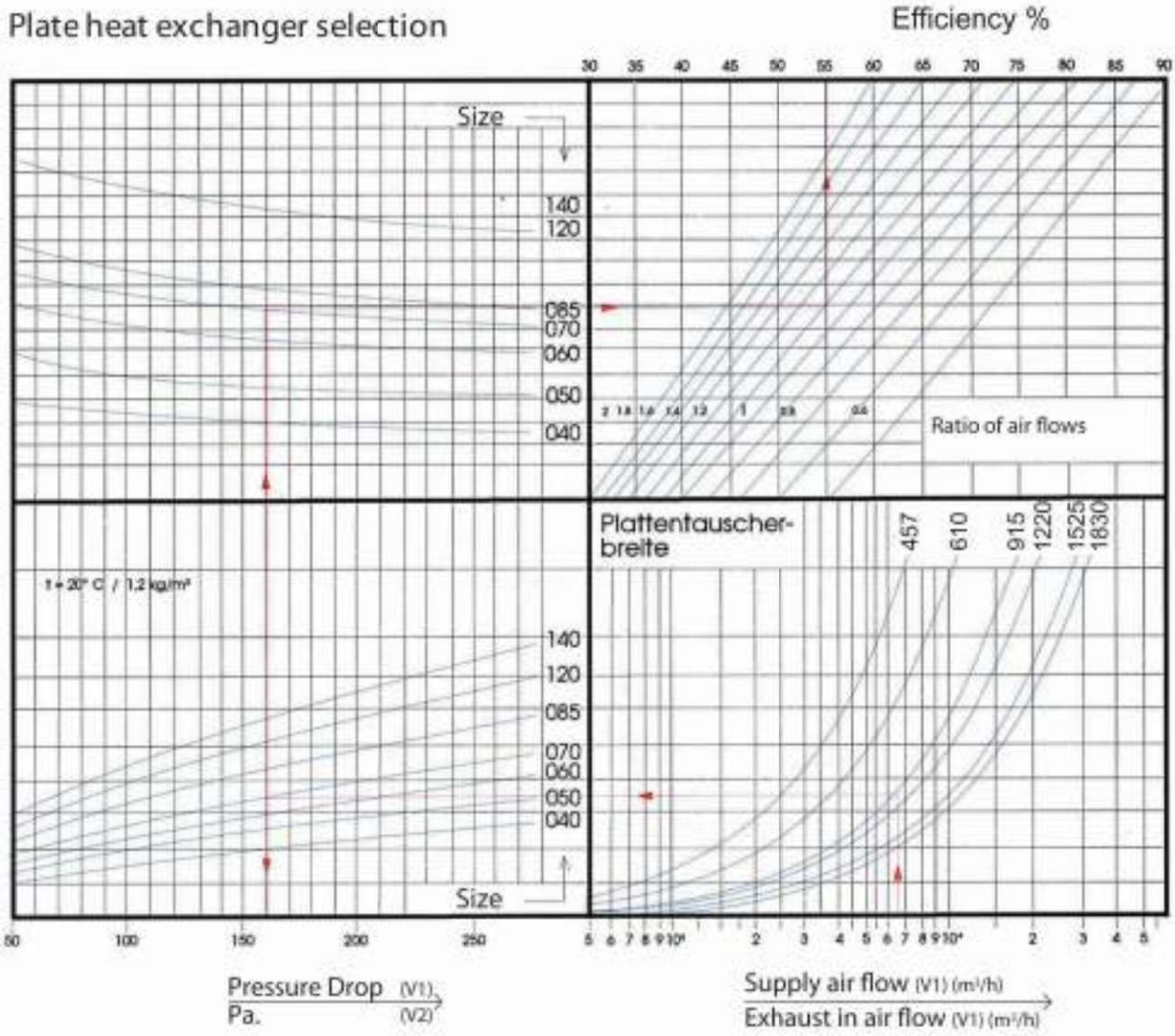
-Aluminium
-Aluminium with epoxy resin coating
-Stainless steel V2A
-Stainless steel V4A

The plate heat exchangers in the executions aluminium coated and stainless steel are suitable for the use in air handling units for swimming pools.

Example of AHU one on the top of the other with energy recovery

Energy recovery

Plate heat exchanger selection



Width of the plate heat exchanger (mm)

AHU's Sizes	64	66	96	126	99	129	1212	1512	1812	1515	1815
On the top	610	610	915	1220	915	1220	1220	1525	1830	1525	1830
Side by side	457	610	610	610	915	915	1220	1220	1220	1525	1525

Minimum lenght (mm)

Exchanger Size	40	50	60	70	85	120	140
Diagonal air flow	762	915	1067	1220	1373	1983	2135
Cross air flow	610	762	762	915	1220	1525	1525

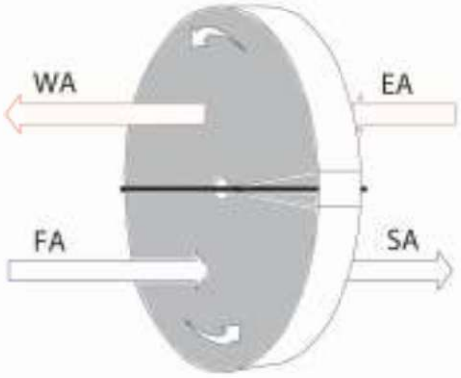
Important!! In case of plate heat exchangers with diagonal air flow you have to secure that the minimum component length does not exceed the overall height of the two device .

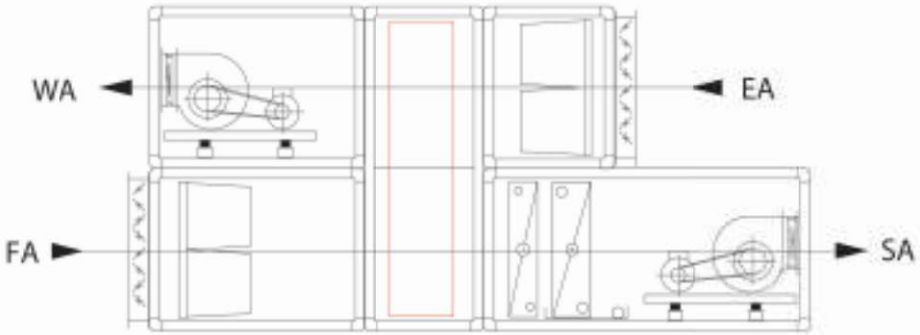
Energy recovery

Heat wheel

Function:

The energy of the exhausted air is transfered to the supply air by a turning storage mass. With this energy recovery system warm/cold and also humidity can be transfered .





Heatwheel executions

1. Sorbtion-regenerator

Due to a coating of the storage mass with this heat wheel also hmidity can be transfered .
The area of application of this types of heatwheels are: air handling units with humidification and cooling e.g. in

2. Condensation-regenerator

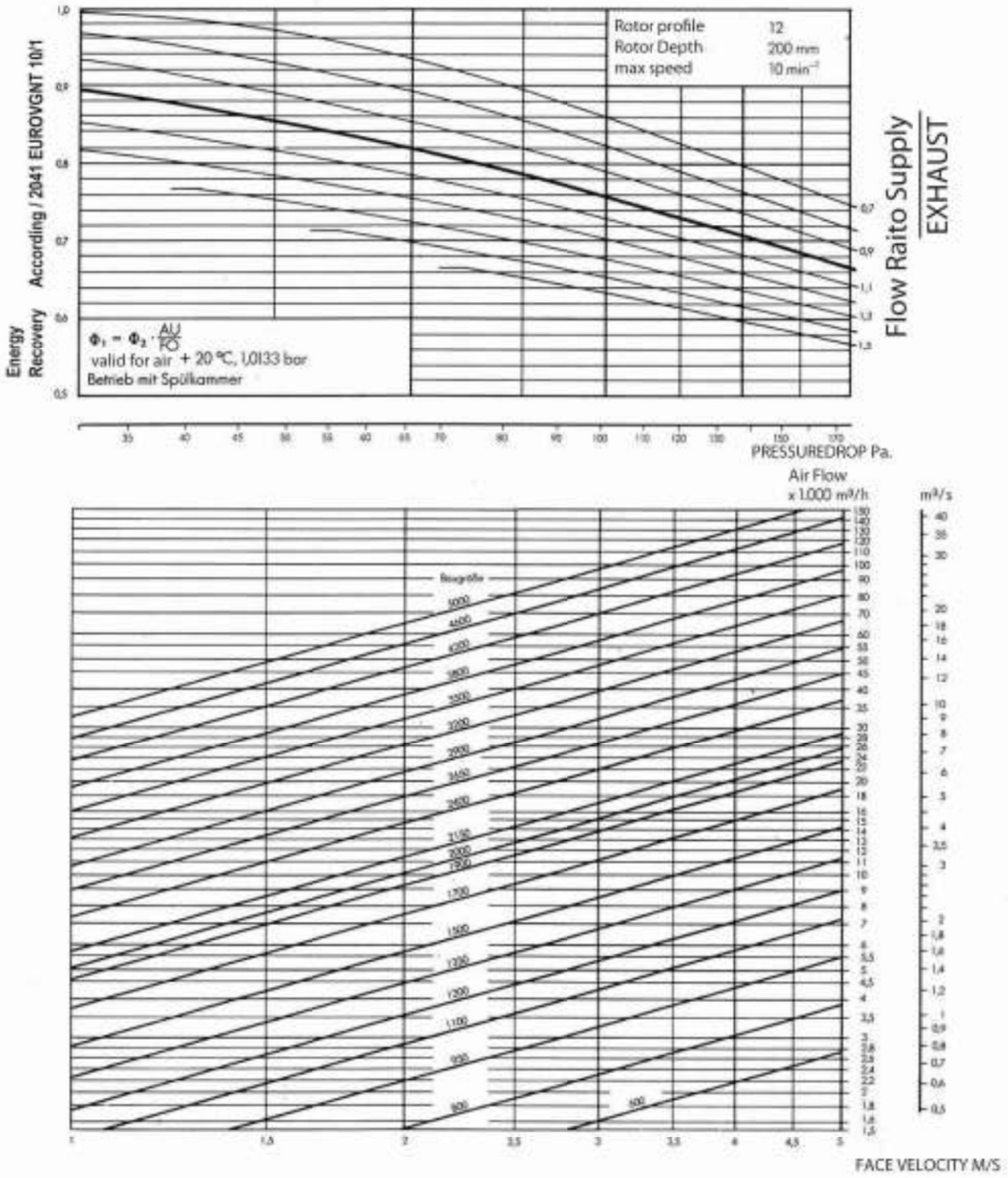
At this kind of heatwheel a humidifaction of the supply air takes place only at falling below the dew point of the exhausted air.
The area of application of this type of heat wheels are: simple ventilation systems without humidification and cooling.

3. Regenerator for industry-employment

This kind of heatwheels are condensation regenerators, developed for the employment in plants with increased dirt waste in the exhausted air. They are available with cleaning equipment.
Typical operation areas are: large-scale catering establishments and industrial halls.

Energy recovery

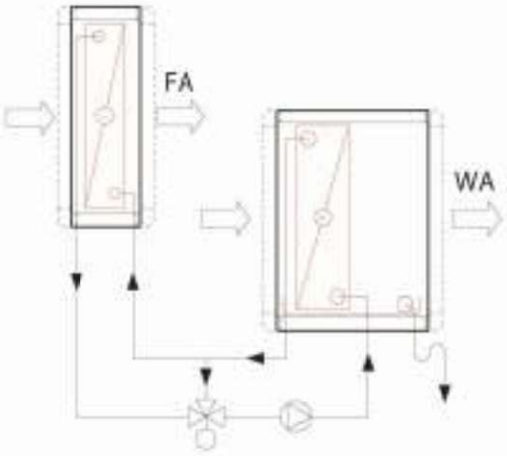
Quick selection heat wheel

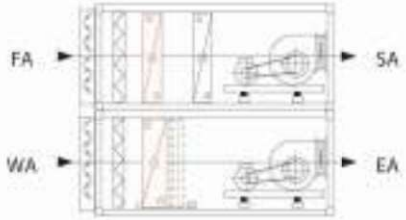


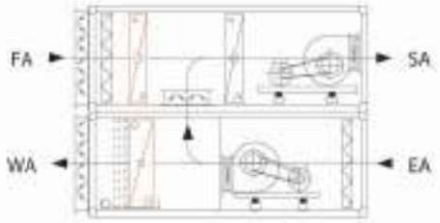
Energy recovery

Run around coil - System

Function:
The transfer of energy takes place by means of buffer fluid (water/gycol-mixture). This carrier medium is constantly moved with a circulation pump in the forced circulation between the heat exchanger in the exhaust and supply air. The fluid in the circuit takes up energy from the exhaust air when flowing through the surface of the coil and deliver these to the coil in the supply air.



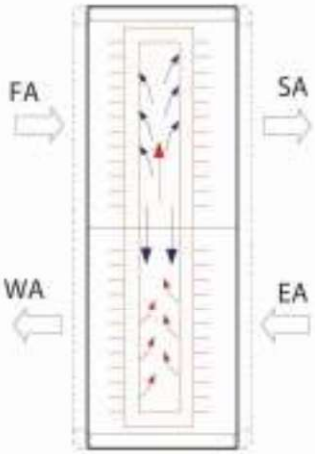


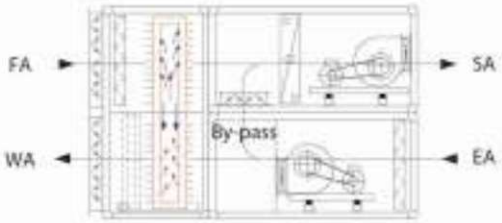


Calculation of RAC-system on demand

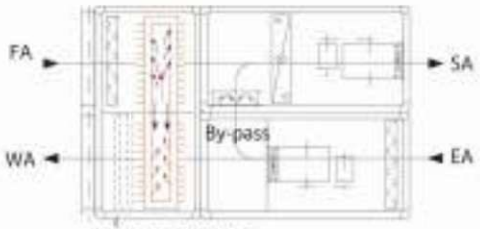
Heatpipe

Function:
The transfer of energy takes place via a refrigerant in the evaporation system. The energy from the warm air is led back in the closed system by means of carrier medium to the cold side of the plant. It is to be noted that the level of the warm side lies below the cold side.





AHU one on the top of the other



AHU side by side

Calculation of heatpipes on demand

WEGER

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Air Tight Volume Control damper

Multi leaf damper

For changes of air volumes
in ventilation systems

- in standard execution
- air Tight according to DIN 1946 T4
  and DIN EN 1751

Description

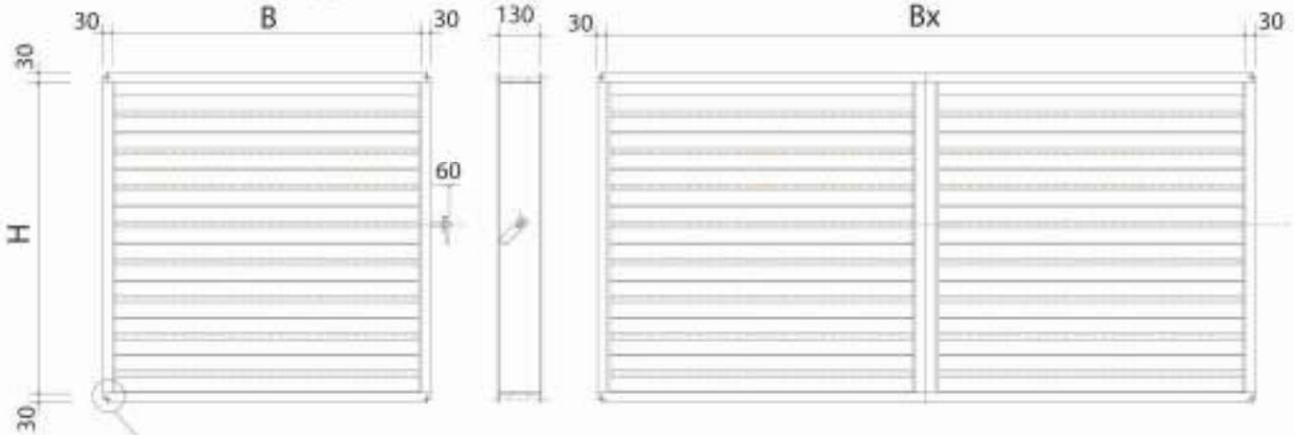
Opposite acting and aerodynamically shaped damper blades made of extruded aluminium profiles with lip seal, mounted in a frame made of extruded aluminium profiles with 30 mm flange. Blade acting with plastic gear wheels housed inside the hollow frame profile.
The plastic gear wheels are proteced against dirt and dust carried by the air stream inside the damper, and also protected against dirt or mechanically damage from outside.
Additive Damper air tight according to DIN 1946
By inserting an additional sealing at the damper blade storage the damper will be air tigth according to DIN
1946 sheet 4. It is possible also without large expenditure to convert dampers of the standard version into air tight dampers.

Advantages:

The new developed WEGER-multi-leaf damper has the following features:

- Frame and blades made of aluminium, for - thereby high firmness with reduced weight.
- Very precise blade control by maintenance-free plastic gear wheels.
- Easily exchangeable sealing lip at the aluminium blades.
- The damper corresponds through inserts of an additional sealing at the end of the blades to the requirements of DIN 1946 part 4.
- Drive gear wheels are integrated in the side frame, thus outside of the air stream and protected against contamination. The damper is applicable also in very dust air treatments (e.g.: exhaust air from spray paintings, kitchens, etc.).
- Damper is easily detachable.

Multi leaf damper Dimensions



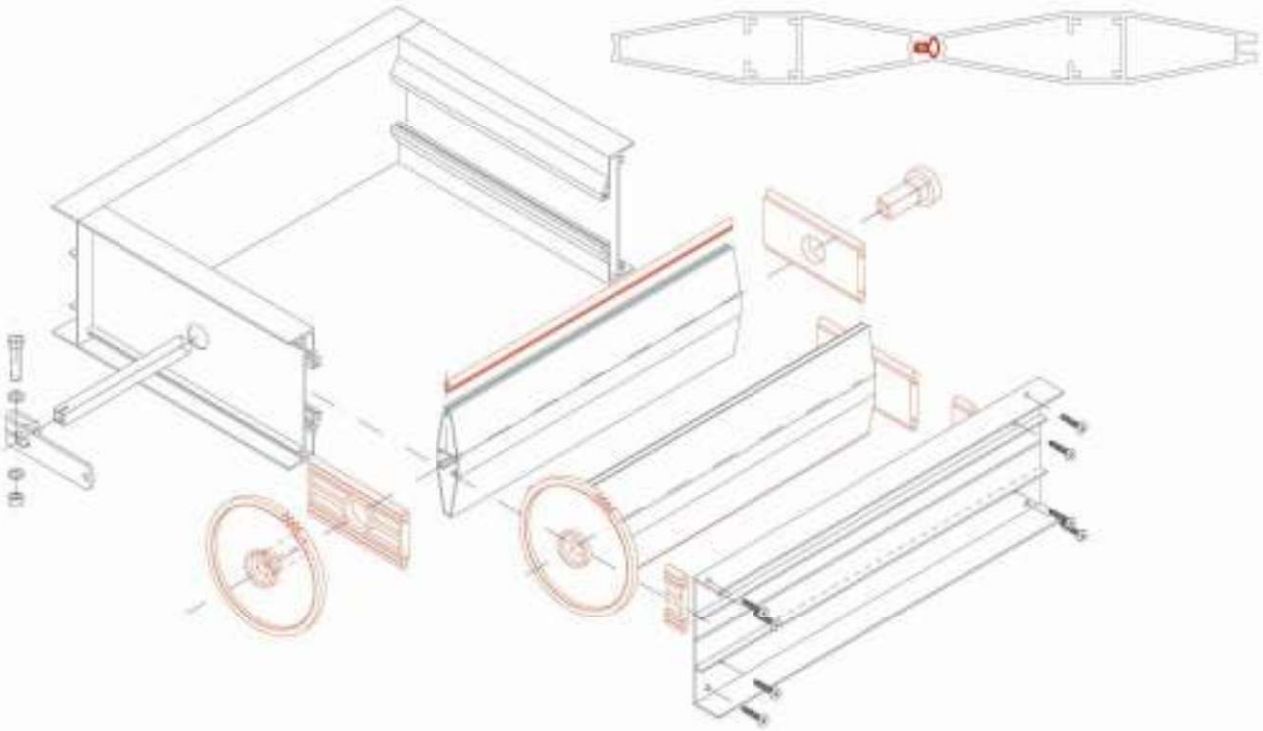
B upto max 1872 mm and 900 Pa difference of pressure, over that dampers are divided in + the width (Bx)

H dampers are divided in height from dimensions of 1248 mm upwards

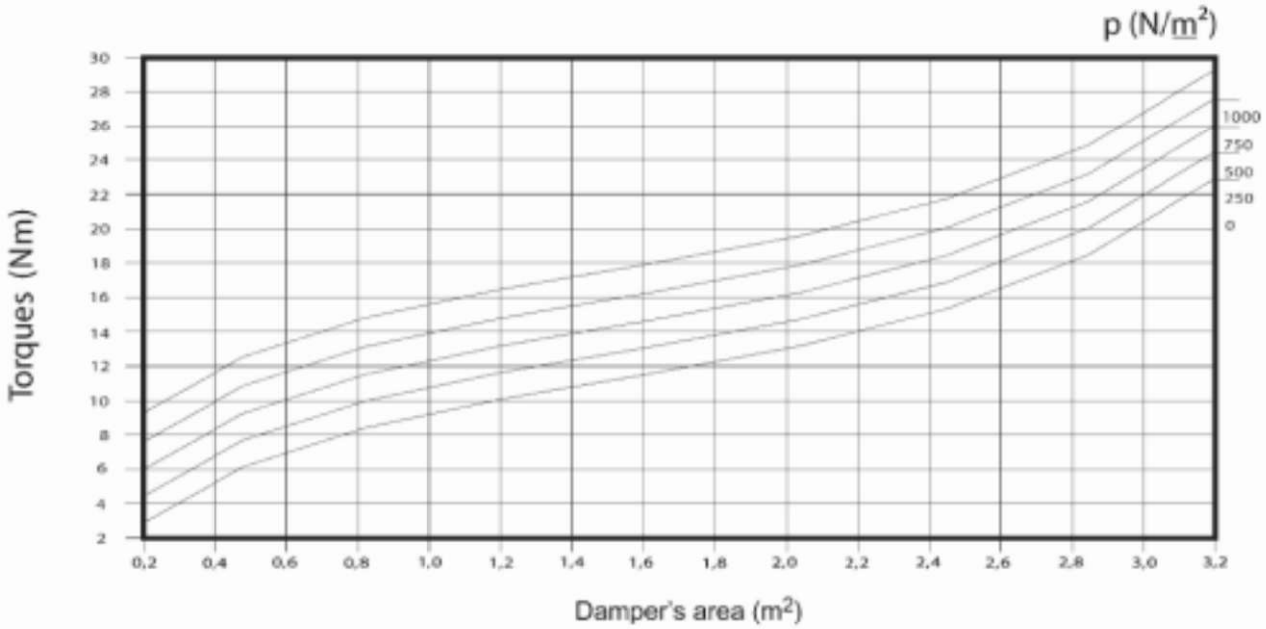
Linkage for damper (standard)

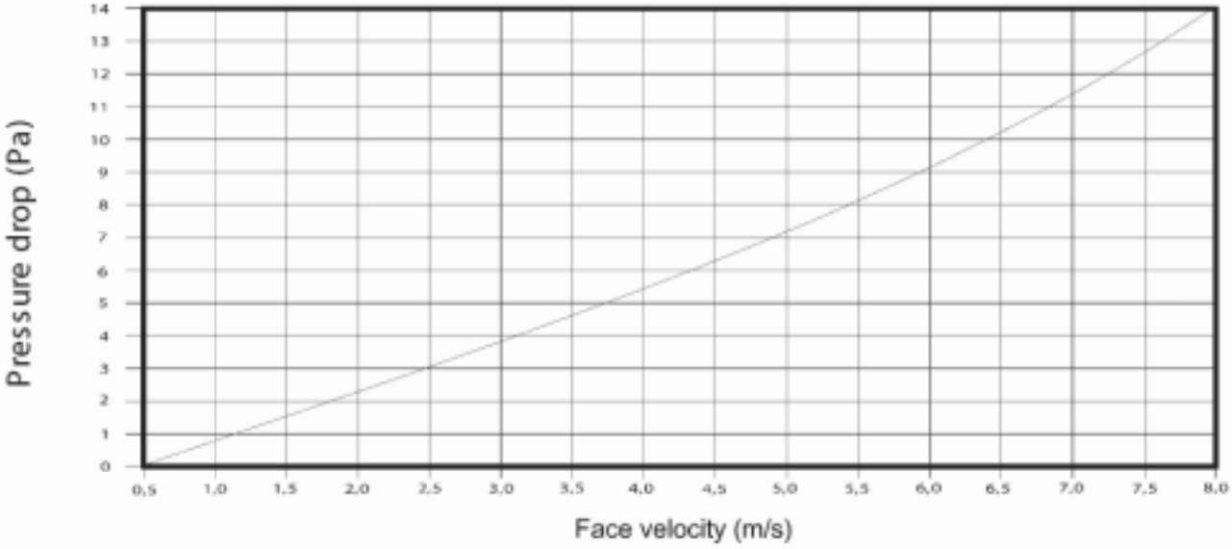
As desired linkages with other dimensions are also available.

We also provide the fixing devices for mounting the actuator.



Multi leaf damper Torques / pressure drops weights





H \ B	300	400	500	600	700	800	900	1000	1100	1200	1400	1600	1800
200	2,4	2,8	3,2	3,6	4,0	4,3	4,7	5,1	5,5	5,9	6,7	7,5	8,2
250	3,0	3,5	4,1	4,6	5,1	5,6	6,2	6,7	7,2	7,7	8,8	9,8	10,9
300	3,2	3,8	4,3	4,8	5,3	5,9	6,4	6,9	7,4	7,9	9,0	10,0	11,1
350	3,8	4,5	5,2	5,8	6,5	7,1	7,8	8,4	9,1	9,8	11,1	12,4	13,7
400	4,0	4,7	5,4	6,0	6,7	7,3	8,0	8,7	9,3	10,0	1,3	12,6	13,9
500	4,9	5,7	6,5	7,3	8,0	8,8	9,6	10,4	11,2	12,0	13,6	15,2	16,8
600	5,7	6,6	7,5	8,5	9,4	10,3	11,3	12,2	13,1	14,1	15,9	17,8	19,6
700	6,5	7,6	8,6	9,7	10,8	11,8	12,9	14,0	15,0	16,1	18,2	20,4	22,5
800	7,3	8,5	9,7	10,9	12,1	13,3	14,5	15,7	16,9	18,1	20,5	22,9	25,3
900	7,8	9,0	10,2	11,4	12,6	13,8	15,0	16,2	17,4	18,6	21,0	23,4	25,8
1000	8,6	9,9	11,3	12,6	13,9	15,3	16,6	17,9	19,3	20,6	23,3	25,9	28,6
1100	9,4	10,9	12,3	13,8	15,3	16,8	18,2	19,7	21,2	22,6	25,6	28,5	31,5
1200	10,2	11,8	13,4	15,0	16,6	18,3	19,9	21,5	23,1	24,7	27,9	31,1	34,3
1400	11,9	13,7	15,6	17,5	19,4	21,2	23,1	25,0	26,9	28,7	32,5	36,3	40,0
1600	13,5	15,6	16,8	19,9	22,1	24,2	26,4	28,5	30,7	32,8	37,1	41,4	45,7
1800	15,1	17,6	20,0	22,4	24,8	27,2	29,6	32,1	34,5	36,9	41,7	46,6	51,4

Damper Weight (Kg)

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Assembly,Service and Maintenance Handbook for WEGER Air Handling Units

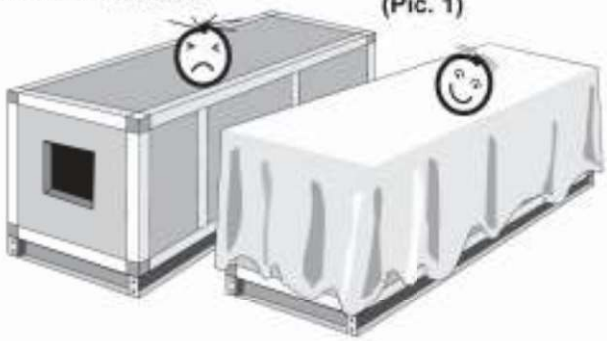
Contents

Receipt & off-loading

1. Receipt

All instructions at the Air Handling Units and in the following handbook are to respect.
The Air Handling Units are to check on arrival in respect of completeness and damages. In the event of any damage being noted, a claim must be made on return. Only by compliance with this procedure is it possible for the responsible Transport Manager to submit an insurance claim. Any damage must be noted on the delivery documentation dated and signed in the presence of the delivery driver. Claims in respect of obvious transport damage or incompleteness of delivery cannot be accepted in retrospect. In the event of any complaints, please notify the relevant WEGER office immediately.
During the works on the building site the Air Handling Units must be protected against dirt, damages or influence of the weather.
It is advisable to take care, that the Air Handling Units are at least protected by a roof.
Units which are not in operation for a longer period can sustain defects at fan, motors, pumps,...To avoid especially defects at the bearings, the rotors of these parts are to be turned manually for some rounds each 10-12 days. If units are not in operation for more then 12 months, the grease of the gearings must be changed. Also other parts, as V-belts must be reflext, or eventually changed. Please contact the relevant WEGER office for details in this case.

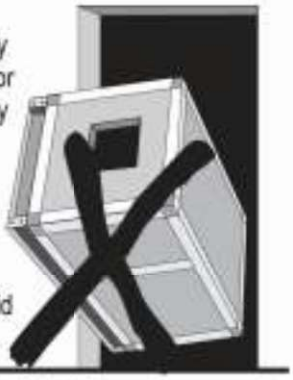
(Pic. 1)



2. Off-loading / Move to the site

The WEGER Air Handling Units are supplied in individual modules or as complete units in
According with the relevant contractual drawings. Any necessary use uf force during unloading or movement of the units must only applied via the base frame.

During the transport don´t rotate the Air Handling Units.(Pic.2)
Don´t tilt any fan module, to avoid impingement or damages at the spring isolators.

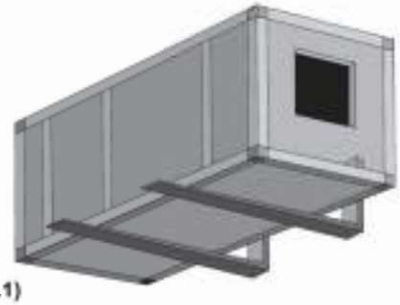


(Pic. 2)

Attention!
Never lift the units by the heat exchange connections, flexible connectors, dampers or by any other projections.

2.1 Off-loading withfork lift trucks (Pic. 2.1)

The fork lift must only be applied against the unit base frame and not against the WEGER Air Handling Unit aluminium frame. The lift point should be as near as possible to the unit centre. In the case of larger units use several fork lift trucks.

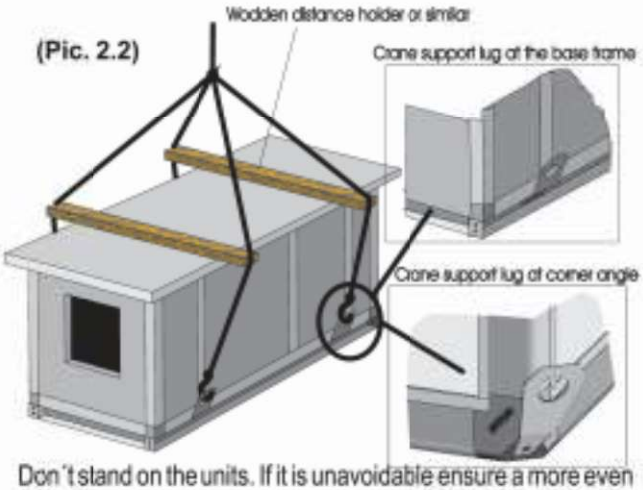


(Pic. 2.1)

2.2 Off-loading with crane (Pic.2.2)

The Off-loading or the transport with crane it is advisable for roof-mounting units. Please use only suitable ropes and other lifting gears. Use battens to prevent damages to the top and sides of the units. (Pic. 2.2)
Use the intended crane support lugs for transport of the units.

(Pic. 2.2)



Don´t stand on the units. If it is unavoidable ensure a more even Weight distribution by the use of bars.

Never lift the units by the heat exchange connections or by any other projections!

Erection & assembly

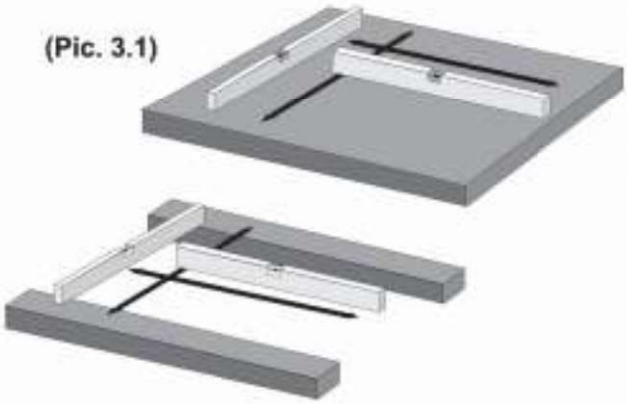
3. Erection

Space requirements:

There must be adequate space at the installation site to carry out effective maintenance and to dismantle any of the unit modules is necesarry. On the service side of the unit a working area comprising the width of the unit plus 300 mm is required. On the rear side of the unit an access gangway of 600 mm is necessary for assembly purposes.The foundations must be leveled,no slope or uneveness at all.(Pic. 3.1) Complete reinforced foundations are suitable or strip foundations may also be used. In the case of strip foundations, concrete or steel supports are permissible. For steel support constructionsthere must be an adequate strength to match the unit size..

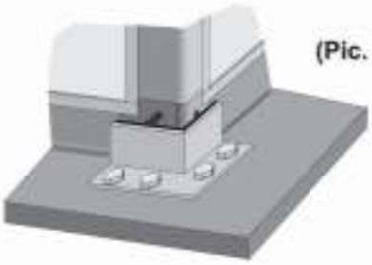
In respect of free-standing units without base feet, the load bearing points should not exceed a distance of 1,500 mm.

(Pic. 3.1)



To minimise noise transmission, depending on the site location, additional insulation material as such as cork slabbing, Mafund slabbing or Sylomer strip insulation may be used as an underlay. To obtain the maximum noise transmission absorption, the selected materials must withstand the unherent load carrying characteristics. The manufactures of suitable products in this context, list the applicational requirements for these materials. The load carrying capacities may be noted from the data sheets.

For safety reasons free standing units must be bolted to the fondation. Direct fixing should be avoided to prevent noise transmissions. Particularly in the case of installations utilising an acoustic underlay, fixing points using angle supports around the centre of the units, will prevent the units from movement in any direction.(Pic. 3.2)



(Pic. 3.2)

Attention !

An unleveled foundation can be cause doors and shutters jamming and other faults in the unit may occure.From these resulting errors, WEGER can't be hold responsable.

4. Assembly

For the assembly/disassembly are to consider all points under "4. Assembly" of this manual which apply to the respective components. The assembly/disassembly is to be accomplished only by authorized technical personnel with consideration of the working reliability regulation.

4.1 Preparation for the assembly of the units

Air Handling Units or parts of those, which have been manufactured as indipendent modules must not be used in a stacked configuration.

To garantee a optimal airtight between several modules, should be attached to the inner edge of the module flanges the sealing strip, before srew up the modules.(Pic. 4.1)

(Pic. 4.1)

In the case of roof mounted units should also be applied the supplied sealing paste after the assembly of the modules. Only by a careful application of the sealant, will the longer air tightness of the units be maintained.

Assembly

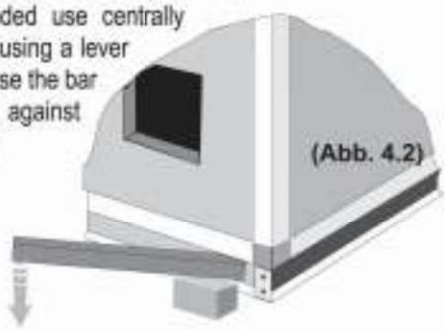
4.2 Adjustment of single componets

- The unit modules must be precisely aligned and the front sides of the modules must be exactly parallel to each other.
- To connect several units refer to picture in the opposite.

Attention !

- To position the units exactly never move them or use force at the heat exchangre connections, or any other projections.
- Never try to move the units with blows or strokes at the case.. Units laying on ta foundation can only be push with the hands.

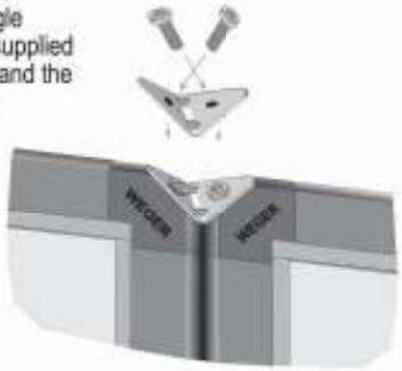
To move the unit on the desired position, it is recommended use centrally positioned bars using a lever action. In this case the bar must only bear against the base frame. (Pic. 4.2)



4.3 Connection of several modules

4.3.1 Connection of the angle support

Connect the several modules at the angle supports with the supplied assembly-corners and the screws M10 x 20.



4.3.2 Connection of the modules at the base frame

Connect the several modules at the base frame either with the supplied screws M8 x 30 or M10 x 30.

Dismantling af the panels

Lever off the jam-strip with a mortise chisel.
After the removing of the jam-strip the panel is ease to take out.

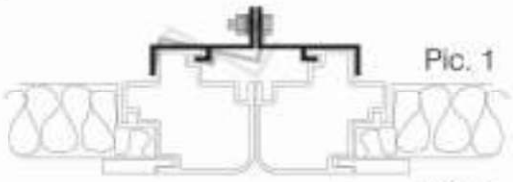
Don't damage the jam-strips !

4.3.3 Connection of the roof-mounted units

The connection of roof-mountd units follows in3 steps:
a) Sealing the unit flanges between the several modules
b) Connection with the srews (see sketch)
c) Assembly of the sliding stripe (see sketch)

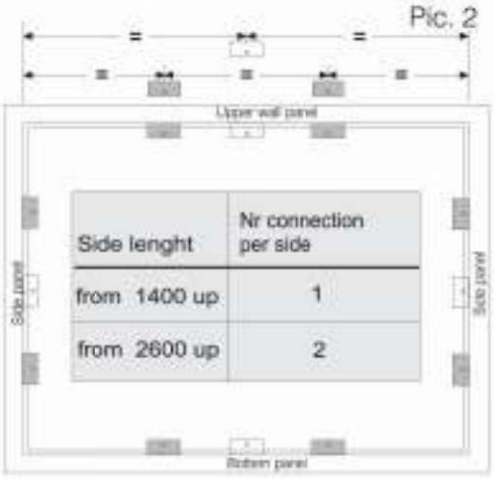
4.3.4 Connection of the modules "inside"

Larger units have inside reinforced metal angles for connection. At the bottom these already are mounted. At the side panels and the upper wall panels two of the loosely supplied connections are latched on the WEGER Aluminium casing frame and screwed on. Pic.1.
Number and position of the connection for each side please see pic. 2.



Pic. 1

Pic. 2



Side lenght	Nr connection per side
from 1400 up	1
from 2600 up	2

Assembly

4.4 Adjustment of the doors

If service doors don't close properly it is necessary to adjust them through the lever or the hinge. So it can be changed the contact pressure onto the doors.

4.4.1
Adjustment at the lever

With the set screw the clamping shoe can be adjusted at the lever. Thus the contact pressure onto the doors can be changed.

Fig. 4.4.1

4.4.2
Adjustment at the hinge

1. Lock screw loosen.
2. By adjusting (turn) the eccentric hinge storage the contact pressure of the door will be increased or loosened.
3. Lock screw tighten.

Fig. 4.4.2
Eccéntric hinge storage

4.5 Pre-mounted units, unit sections or panels

If with the units or unit sections instead of the jam-strips only approx. 30 mm long plastic wedging hurry are installed, it means that the appropriate panels are only pre-mounted, and the original jam-strips are provided loosely.

This one practices in the following cases:

- The customer orders units or unit sections in the pre-mounted condition, since these are larger than the bringing in opening, dismantle these locally, brings in these and installs these again on the right position.
- If divisions of several sections are no longer accessible after the assembling, the individual components must be bolted among themselves however from the inside, then the surrounding panels are only pre-mounted, so that these can be dismantled simply, the inside reinforced metal angles for connection can be mounted and the panels fixed again with the correct jam-strips.
- Pre-mounted panels must be dismantled in every case, in order to examine the correct tightness and/or the presence of the sealing. If no seal should be installed, then it can be found to the accessories and must be attached before the panel will be final assembled. After it is guaranteed that the seal sits correctly, the panels will be fixed with the provided jam-strips.

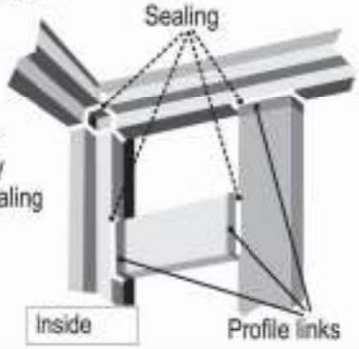
We refer to on the fact that pre-mounted units and/or unit sections can be dismantled and reinstalled only by particularly trained technical personal.

At the disassembly and the assembly of pre-mounted units and/or unit sections the following points must be particularly considered:

All components must be marked during the disassembly in such a way that these are installed at the reassembly at the original position.

If no sealing should be integrated in the panels with pre-mounted units and/or unit sections, then this is to be installed before the final panel assembly in the gasket grooves in the WEGER Aluminium profile, planned for it.

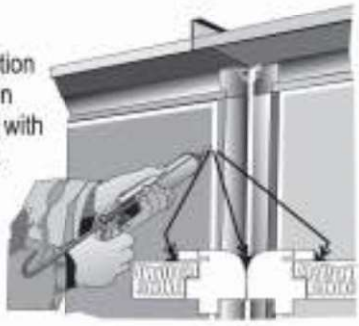
At all sections on the fan pressure side the transitions from profile links must be sealed hermetically inside to the profiles with sealing compound.



Attention!
All sections with cooling radiators, air moisturizers of any kind or other special fittings with those condensate or other liquids can appear are to be sealed carefully from the inside.

All panels must be fixed with the provided jam-strips

With units and/or unit section in weatherproof execution all panels must be sealed with the provided transparent sealing compound.



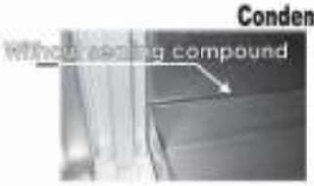
Is condition **pre-mounted**

Must condition **Ready for use**

doors

Door-seal in the scope of supply

Condensate drain tray



Sealing compound in the scope of supply

Panels

For damages, which arise by incorrect, and/or incomplete assembly of pre-mounted units and/our unit sections, the company WEGER cannot be made liable.

Connections & Operatings

5. Connections and operatings

All electrical, hydraulic and air handling connections of the unit must be carried out by suitable qualified and experienced tradesmen.

5.1 Heat exchange connections

Before make the coil connections the circulary system must be thoroughly flushed through..

To avoid damaging the coil connections it is essential to grip the union in a pipe wrench whilst applying counter pressure to tighen the joint **(Pic. 5.1).**

Completly stress-free connections are essential. The pipework of the heat exchangers should be arranged to facilitate easy removal of the unit for any required maintenance purposes.

(Pic. 5.1)

Suitable sealants for screw connections are:

-In respect of steam heater coils use special steam-resistant sealants

-In water-backed heat exchangers containing glycol mixtures use Teflon tape.

The connection of the heat exchangers should be carried out in accordance with the instruction on the units.

The heat exchanger works on the principle of cross counter flow. In respect of pre-heater coils where there is risk of freezing up, direkt current operation is available on request.

For air venting or draining operations additional nozzle ends are incorporated in the heat exchanger connections. Additional valves can be incorporated at selected points.

5.2 Condensate drain

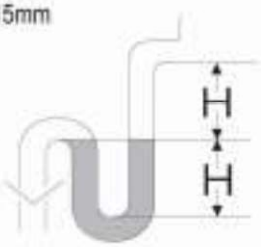
On each of the condensate drain-tank heads a free-flow syphon must be fitted. The effective syphon height H must be the maximum internal static pressure in the unit in mm w.g.+ 15 mm. **(Pic. 5.2)**

Example : P total pressure = 1196 Pa(see Datasheet)
P dynamic pressure= 2x83Pa(see Datasheet)

P total - P dynamic= P static = 1030 Pa
1mm w.g. = 9.81 Pa

H = 1030 / 9,81 + 15mm
= **120mm**

(Pic. 5.2)



5.3 Duct connections

The air handling connections must be made symetrically and stress-free. To avoid noise trassmissions the fitting of an intermediate flexible connection between the ducting and the module flange is reccommended. This should be unstressed when initially positioned.

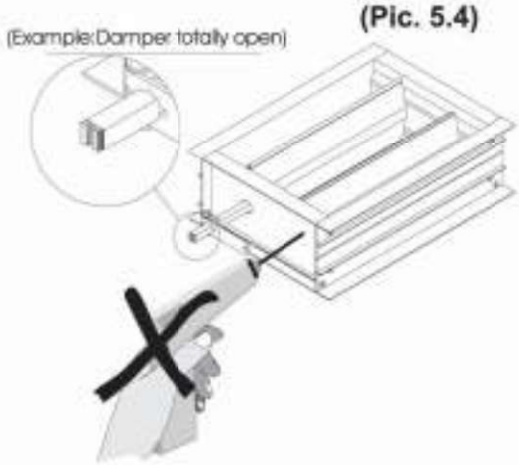
5.4 Multi leaf damper

The mark on the damper axle show the position op the damper blades.in the closed position the mark on the damper axle is parallel to the damper frame **(Pic. 5.4)**

Don´t drill in the damper. A damage on the cog wheels is possible and the functionality of the the damper is not garanted.

Mark on the damper axle shows blade position

(Pic. 5.4)



Adapter H for damper actuator

Through the adapter H it can be moved the Weger dampers (bypass and circulating air) with commercial damper actuators within the air handling units or air ducts. The maximally transferable torque is until 20 Nm. The adapter (with the actuator) is fastened with screws on the partition plate on the side panel of the damper. The flange of the damper is thereby excluded over one gear wheel, thus the adapter gear wheel be touched down directly.

The assembly of the actuator is to be made certain, that the function of the damper will not impair with its electrical cables.

Adapters onto a damper can also be installed at a later time. An additional cut-out on the appropriate flange of the damper is to make.

More technical details on request.

Connections & Operatings

5.5 Electrical connections

The electrical works are to be accomplished considering the international, national and local regulations. For the current supply to electrical parts inside the units (e.g. fan motors, electrical actuators, lighting,...) holes must be bored into the panel walls. Here are PG screw connections or metric screw connections to be used in suitable places. The cable entries must executed hermetically.

5.5.1 Motor connection

In respect of safety measures against overload, short circuit, high or low voltage, a fault connection or phase failure impeding the coolig effect, excessively high ambient temperature eg warm from external sources, excessive braking of the rotor. Frequent switching and abnormal start up and stop procedures, only by using full motor protection can the motor windings be protected and this is therefore particularly recommended. Use thermal protection devices to protect the motor which comprise a complete motor protection control system. Only in this manner is the manufacturer´s guaratee secured.

In instances where a motor protection cut out is fitted the correct power rating for setting may be noted from the product name plate. In the case of explosion protected motors VDE regulations 0105 und 0171 should be complied with.
Singlespeed motors until and including 4 kW are planed for direct starting. Motors over 4 kW are supplied for with star-delta starter.
Multispeed motors over 4 kW must start in the lowest velocity.

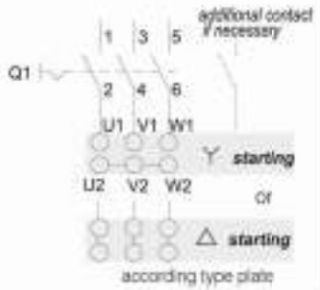
Before the commissioning procedure of the plant or after longer down- or storage times it is advisable to examine the insulation resistance of the motor winding. At an ambient temperature of 25°C this should be higher than 5 Mega Ohms. If the indicated value does not result in the case of the measurement, the reason lies in the fact of humidity in the windings. Drying the windings should be implemented in a competent workshop furnished for it.
The connection of the motors is to be accomplished with special care and considering the following wiring diagrams. After the connection of the motor a test run must take place and all motor data (power input of each phase, number of revolutions, etc.) are taken up. For the execution of the test run the references from chapter 6 are to be considered.

Attention !
Damaged or defective motors must be sent back at own expense thereby the manufacturer can determine the cause of the damage. With damages to the motors by wrong connection we reject any warranty claims. The same applies also to thermo contacts like Clixon and/or PTC resistors, which were destroyed by wrong connection.

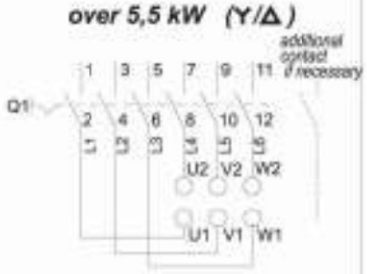
Security switch (connection diagram)

Singlespeed motors

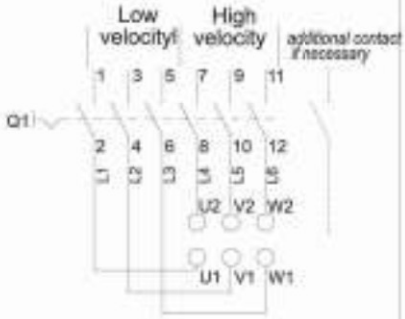
Upto and including 4 kW



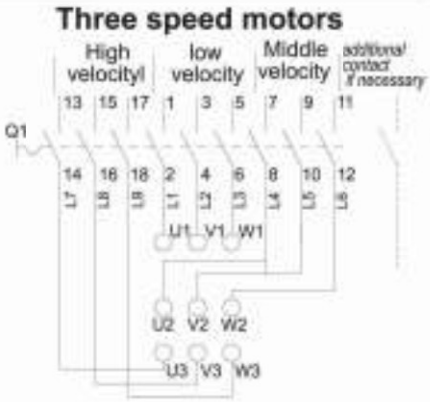
over 5,5 kW (Y/Δ)



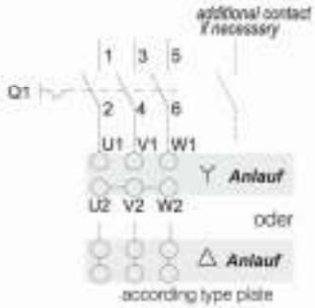
Double speed motors



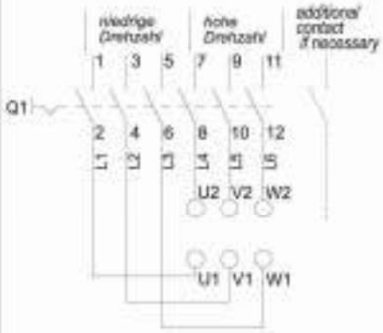
Three speed motors



Inverter drive without bypass



Inverter drive with bypass

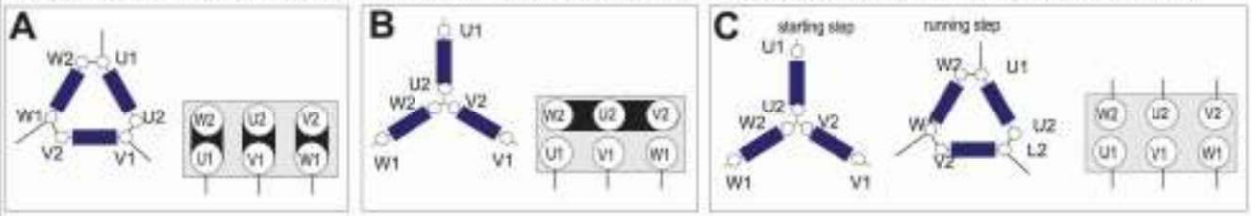


VOLTA EGYPT

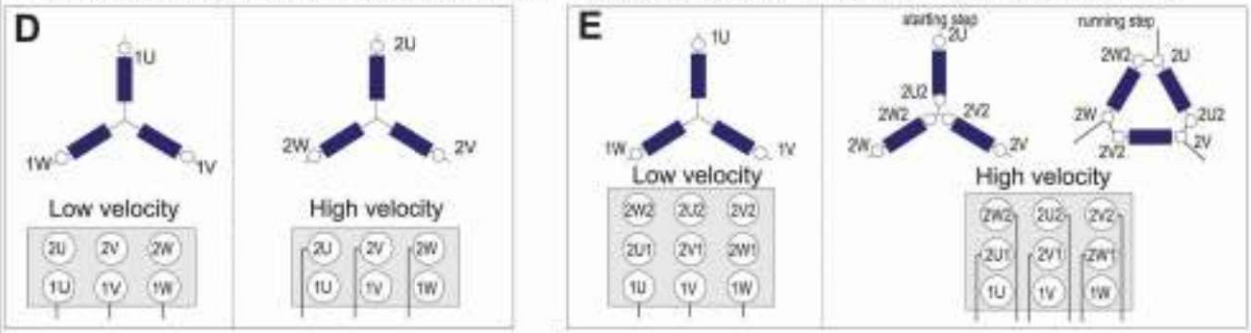
WEGER

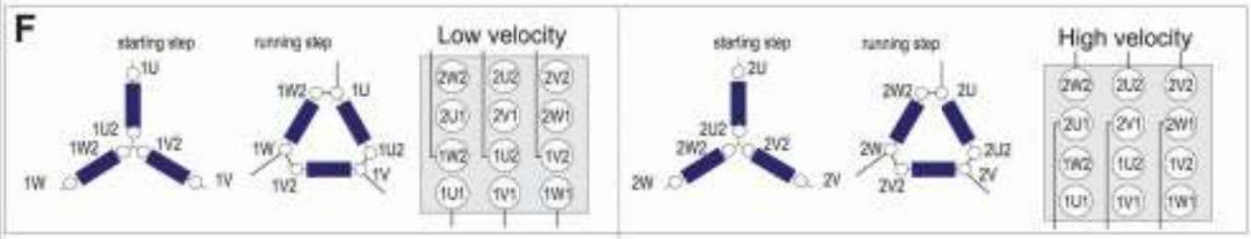
Connection / Motorconnection

Single speed motor 2 poles (3000 1/min) 6 poles (1000 1/min) 4 poles (1500 1/min) 8 poles (750 1/min)

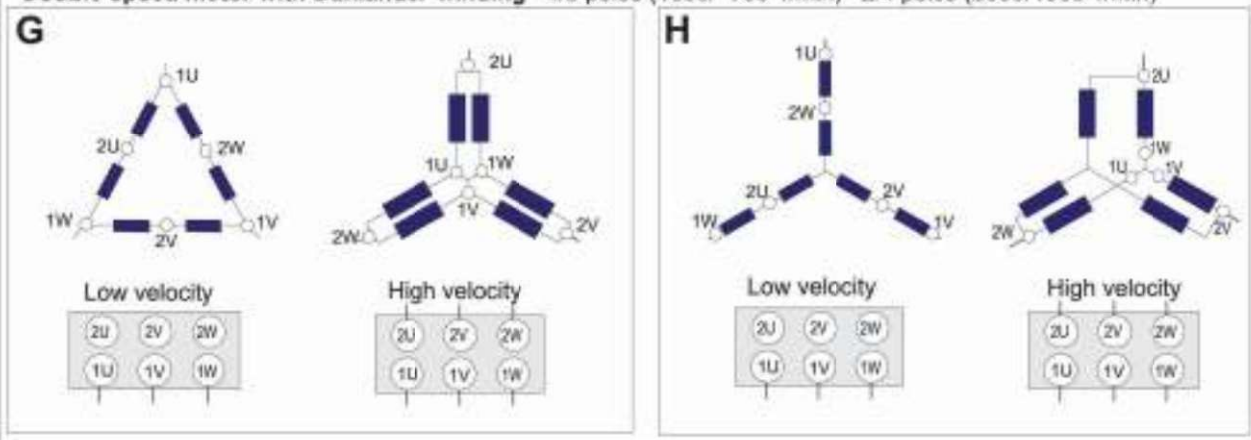


Double speed motors with 2 seperate windings 4/6 poles (1500/1000 1/min) 6/8 poles (1000/ 750 1/min)

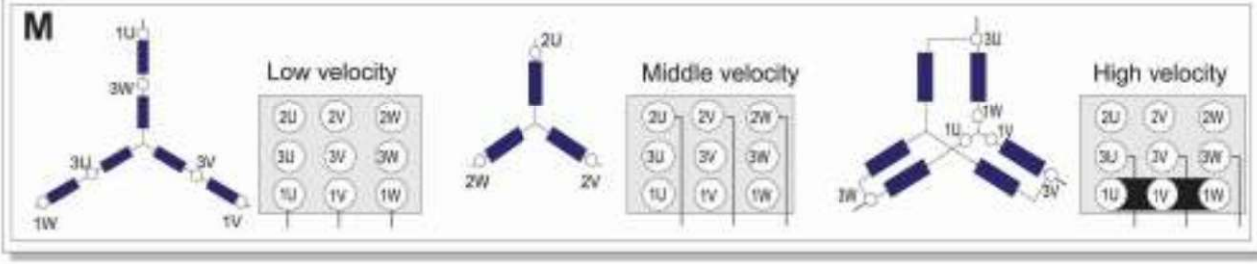




Double speed motor with Dahlander-winding 4/8 poles (1500/ 750 1/min) 2/4 poles (3000/1500 1/min)



Three speed motors, Dahlander-winding and seperate Winding 4/6/8 poles (1500/1000/ 750 1/min) 2/4/6 poles (3000/1500/1000 1/min)



Commissioning procedure

6.) Commissioning procedure

The commissioning procedure of air handling units with the EX marking by authorized specialists may take place only, if it is determined that the entire plant into which the unit is merged, corresponds to all the regulations of the EEC machine guidelines. All under point 6 described applicable defaults in this manual for the respective components of the whole units are to be considered for start-up. It is to be made certain in particular before start-up and also with each maintenance that all conductive parts are connected.

The air handling units may be operated only within the context of fixed design data. The maximum number of fan revolutions and the maximum number of motor revolutions may not be exceeded. The EX classification of the equipment for intended use is to be taken from the type identification plate.

The operator of the air handling unit is responsible for the avoidance of personal injuries, damages to property and environmental damage. Each units is to be released thoroughly from building deaf and other dirt deposits. Each unit is thoroughly examined by us before the dispatch; nevertheless the following points are to be examined again before start-up:

- Check that the fan revolves freely by turning the impeller manually
- Check the tension of the fan belt and the alignment of the belt pulleys
- Check that the fixing screws on the belt pulleys are tight
- Check the free move of the spring isolators
- Check the right turning of the motor, the right connection and the power consumption
- Check the service doors on the fan pressure side, that the are equipped and saved with the catching safety device.
- Check the blade position of the dampers
- The function of protective grounding must be examined by third on the building site.
- Check that all doors are closed
- that all spring isolators can move freely and that any transport packing (red colour marked) has been removed before the commissioning procedure.

6.1 Heat exchanger

-Check that the heat exchanger, other connections and any valves are leak-proof .

-Check that on the condensate drain is assemblied a syphon

Operating medium FREON

When direct condensers or air cooled condensers are fitted the system must be filled with refrigerant. In this case the instalation and pipework must be carried out by a refrigeration engineer.

Operating medium WATER

In general heating and cooling batteries are filled with water with standard additives to protect against frost and corrosion:

- open the air vent
- open the water supply valve a little, so that the heater battery fills slowly. This avoids thermal stress.
- As soon the heater battery is full close the air vent.
- Open the water valve fully and switch on the fan.
- the entire pipe system must be completely vented.

Operating medium STEAM

- Open the air vent and drain valve on the condensate drain
- Open the steam valve a little until steam penetrates through the condensate drain valve and air vent.
- Close the condensate drain valve and air vent and open the steam valve fully.
- Vent regularly during operations

Attention !

If the installation is occasionally on a standby, condensate must not be allowed to remain in the pipes on account of freezing and corrosion risk. To prevent over-heating of the modules when the fan is at rest, when using air heaters with a flow temperature exceeding 90 °C, or if saturated steam is used in the air heaters, the heat flow must be effectively counter balanced. In these instances the fan must be controlled to over run for a period of 3 to 5 minutes.

The same regulation applies to an system working with electrical air heaters.

Filters

- Each frame mounted filter cell must be fitted with 4 springs
- Fitting supplementary filter inserts
- Check that the filter type is correctly supplied
- If roll filters are used check that the filter unit drivemotor and the switch control are working correctly
- Tube manometers are to be filled with indicator liquid of the indicated density

Surface humidifier

- Check the right assembly of the syphon on the condensate drain connection
- The pump must not be dry run, otherwise there is a risk of overheating
- Check, that the humidifier and seperator are assemblied in the air flow direction

Function

Surface humidifiers supply depending upon attitude and efficiency more or less humidity to the flowing through air. For this a pad consisting of strongly hygroscopic material, is sprinkled with water. Air flowing through the pad takes up thereby humidity and cause also a drop of the air temperature. The drop of temperature is to be adjusted by pre- or reheating of the air.

Adjustment

From the customer side are to be make a few attitudes at the surface humidifier before final commissioning procedure:

1.Adjust ball valve at surface humidifiers for water level of 55- 65 mm. In any case the suction must be effectively vented and any air bubbles removed.

Commissioning procedure

2. Check that the pump suction filter basket, spry pipes, washer jets are correctly seated. Check the washer sieve and clean as necesarry. Fill the tank and syphon with clean water and adjust the float valve so that closure occurs 20 - 30 mm below the overflow. Then check the pump direction if rotation is correct. Measure the absorbed power and check, that this matches the data quoted on the datasheet.
No guarantee claims can be acknowledged in respect of pumps or pump motors which have been damaged by dry running.
Check the tightness of the seals of the air washer or humidifiers between the other units. If necesarry apply further sealant.

Important
The overflow is to be provided with a siphon. The same applies depending upon way of application also to the drain tray discharge. Siphons are to be implemented in such a way that the difference pressure between plant and discharge is balanced.

Waterqualiy for humidifiers and air washers
In respect of humidifier and air washers supply water, water quality is a prime concern. The excent of carbonate hardness in the supply water is decisive in the need to consider water treatment measures. In accordance with the inherent degree of hardness in the water and the operational priority of the air conditioning installation, appropriate water treatment can then be select. To ensure a reasonable level of operational reliability the quality of the supply water should be within the followings parameters.

Appearance	clear,colorless, sedimentfree
pH-Value	7...8,5
Conductivity	max. 800 µS/cm
total hardness	max. 4 D.H
Carbonate hardness	max. 4 D.H
Total salt content	max. 600 g/m³
Chloride content	max. 150 g/m³
Sulphate	max. 290 g/m³
Iron content	max. 0,05 g/m³
Manganese content	max. 0,1 g/m³
Aggressive carbonic acid	0 g/m³
KMnO4 usage	max. 20 g/m³

Respect the leaded water qualitiy, otherwise there is no garantee about the function of the humidifiers and air washers!

The recommended water treatment programme is dependent on the supply water degree of hardness and the operational priority of the installation as suggested in the following table:

Oper.prior.of the instal.:	minimum			medium			maximum		
Total water hardness °D.H.	0-10	10-20	20-40	0-10	10-20	20-40	0-10	10-20	20-40
Untreated water	x			x					
Dosing treatment		x			x				x
Base exchange process			x			x		x	
Decarbonisation									x
Sediment Removal	x	x	x	x	x	x	x	x	
Preiodic Decalcification	x			x					

Conversion factors for grades of hardness in various countries:
1 D.H. = 1,780 F.H. (France-Grade of hardness)
1 D.H. = 1,250 GB.H. (Britain-Grade of hardness)
(D.H = German-Grade of hardness)

6.2 Test run

Following the completion of all preparatory work the unit is started up for a test run.

Attention !
To conduct a test run which involves the measurement of motor and air volume performance the unit must be coupled to the completed installation.

After switching on check following things:

- Is the direction of the rotation correct
- Is the measured running power consumption on all phases comparing with the power data in the name plate
- If the running power consumption is too high, there is probabibly a faulty connection and the unit must be switched off immediately
- Measure the air volume output and the pressure differential
- If the measured air volume output is not corresponding with the quoted performance data of the unit following situations can occured:

a) The air volume is too low
Air volume can be increase by changing or adjusting the belt drive pulleys..

Atttention !
Only increase the fan speed to a level at which the motor power rating is not exceeded.

B) The air volume is too high
Change the belt drive pulleys or reduce the fan rpm, or reduce the air volume by the use of dampers.

Attention !
Is the air volume too high a motor damage through overload can result.

It is imperative to communicate all changes the relevant WEGER offices!

Intended use - maintenance

6.3 Intended use

The air handling units supplied by WEGER may be used only for the treatment by air. Among them fall filtering, heating, cooling, moistening, dehumidifying and transporting of air. Every other use excludes WEGER expressly.
To the use of a WEGER air handling units with EX marking the following conditions apply to the operator:

- Adherence to the working reliability regulation
- Adherence to the valid personnel protection
- Adherence to the valid national regulations to the industrial safety and to the explosion prevention,
- Intended use of the air handling unit according to the defaults of the directive 94/9/EG
- To the intended use it belongs also that all work for the maintenance of the plant one accomplishes by authorized technical personnel. Later inserted parts must again be evaluated in accordance with the directive 94/9/EG.
- Adherence to the surface temperatures at special fittings which with hot media fed ground, in accordance with the temperature class corresponding for the equipment (e.g. heat exchangers, steam humidifier, etc..)

7. Maintenance

Maintenance is to be accomplished only with switched off machine of authorized technical personnel with consideration of the working reliability regulation. It is to it to pay attention that at the time of the works no danger of explosion exists.
At maintenance works on the air handling units and the entire plant the maintenance handbooks always are to consider.
WEGER Air handling units have been designed to minimise maintenance and are mostly maintenance free. Indicated maintenance intervals are approximated values and are adapted depending upon area of application and condition of air. During disregard to the operating and maintenance handbook any guarantee on the part of the company Weger at the customers expires.
As long as units are under warranty, works and/or changes at the equipment may take place only with arrangement of the company Weger.

Attention!
Before opening the service doors the plant must be switched off. The totally stop of the fan impeller is to be waited for. With maintenance work the unit is to be separated from all energy sources and to safe against restarting. Safety devices, which were dismounted for maintenance purposes, must be remounted before switching on again the unit. For damages at the air handling unit, which results from inappropriate maintenance, we do not take over adhesion.

7.1 Fan/Motor

7.1.1 Fan

-Check for soiling, damage, corrosion and tendency to bind and clean as necessary.
-Check the air thighness of any flexible connectors
-Check the function of the spring isolators
-Bearing test. Check that the fan bearing is not unduly noisy by sounding it, by using a metal bar as a conductor
If there is any irregolar noise or clanging renew both bearing. Fan bearings are greased for life but larger units require annual lubrification. In the case of extreme running conditions lubricate in accordance with followings reccomandations:
SKF 28, MOBILUX 3 and similar.

Lubrication intervals in differnt ambient conditons:

Ambient -conditions	Temperature	CLubrication-intervals
clean	<= 50 50...70 70...100 >= 100	6-12 month 2-4 month 2-6 month 1 week
dusty	<= 70 70...100 >= 100	1-4 weeks 1-2 weeks 1-7 days
Extr. humidity		weekly

Attention!
Maximum number of revolutions and maximum number of motor revolutions may not be exceeded.

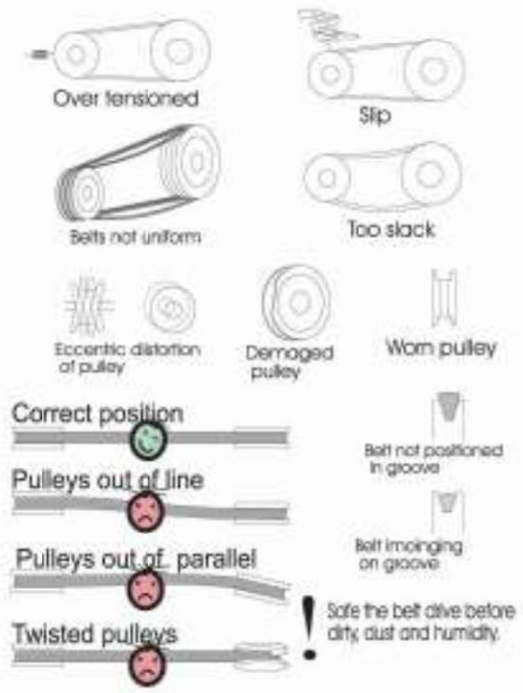
7.1.2 Motor

Check the state of cleanliness of the motor and clean if necessary. Check the noise level of the motor bearing by listening to it with a metal conductor. If there is a irregularity or undue clanging , then the bearing should be changed. Motor bearings in respect of size from 63 to 200 normally have enclosed bearings which will run for several years without attention. In respect of size from 225 upwards these are fitted with grease nipples for regular attention. With regard to the quantity of lubrificant grease, the type and lubrification intervals, please refer to the manufacturer's instructions.

7.1.3 Belt drive

The belt drive is a reliable and low maintenace component providing that unfavourable working conditions which may reduce the working life and result in reduced efficiency, are avoided (look following pictures).Check the belt drive in respect of dirt and deposits, damage, wear, tension and uniformity. Belt which are split or have frayed edges and other damages must be replaced.

Examples of wrong belt drives:



Maintenance

7.1.3.1 Tensioning of the drive belt

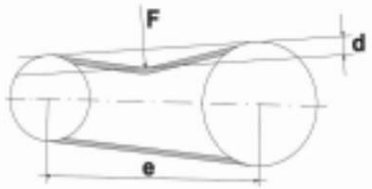
The tensioning of the drive belt is achieved by moving the motor in relation to the fan. Depending on the size involved the motor may be moved:
a) by a rocker action
b) by a slide on rails

The adjustment is carried out firstly by loosening the lock nut and finally by turning the adjustment screw. It is important to maintain the precise alignment of the pulleys. This should be checked accurately with a ruler following each adjustment. In the case of pulleys with varied withs the gap on both sides must be equal.

Direction of adjustment :

A belt tensioning meter may be used for an optimal adjustment. The correct tensioning of the V-belt depends from the belts type, number and profile, pulley diamere and distance and required power. For exaxt tensioning data see technical datasheet or instructions inside the Air Handling UNIT. For estimation can be used following formula.

Belt cross section	Power F/kp
SPZ	1,8 ... 2,6
SPA	2,6 ... 3,8
SPB	5,1 ... 7,5



d = e x 0,016

d = Deflection
e = Axle distance
F = Power

Attention !
Damage to the motr and fan bearings can result from the belt being over tightenend. In the event of the belt adjustment being too slack, undue wear and poor efficiency may result.

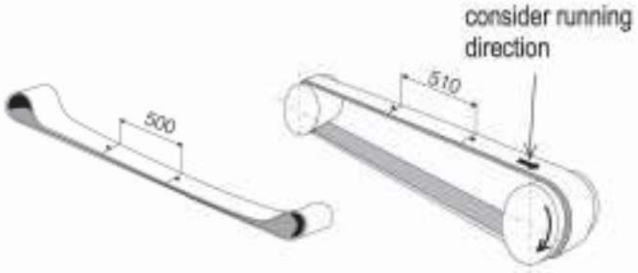
Belt replacement
To change the belt, the belt tensioning device is slackened off until the worn belt can be removed.
Before the replacement is fitted clean the pulleys and check them for damage and wear.Never use tools or force on the pulley edges as invisible damage can significantly reduce the life of these items. If multi-pulleys are in use all drive belts must be replaced simultaneously.Check that the number of belts matches the numbere of pulley grooves.

7.1.4 Flat-belt drive

For a flawless function of the flat-belt drive must
- be the pulleys clean
-be the pulleys parallel

7.1.4.1 Mounting and tensioning of the Flat-belt drive

Put up a measure -mark on the flat-belt on a distance of 500 mm. Mounting the flat-belt and stretch the belt till the measure-mark enlarged how desired (p.e.for 2% 500 mm --> 510 mm).
After the tensioning control the right alignment of the pulleys.



7.1.4.2 Dismantling and re-mounting of the belt

Control the measure -mark and measure the actual axle distance before ease off the belt. These information ar important for the re-mounting of the belt. Disregard can bring bearing-damages.

7.1.4.3 Care

D'ont clean syntetic coated flat-belts with belt-spray or belt-resin. Dirty belts can be cleaned with warm water additioning normal detergent

Maintenance

7.2 Filters

7.2.1 Plate-filters

Check the degree of soiling of the filter by pressure differential measurement at intervals of 14 days to 1 month. If the pressure differential reading as shown in the datasheet has reached which indicates a substantial soiling of the filter it must be cleaned or exchanged.

7.2.2 Bag-filters

Check the degree of filter soiling utilising differential pressure measurement. If the pressure differential reading has reached the level quoted in the datasheet, cleaning or replacement is necesarry.
Bag filters of classe G3 and G4 may be cleaned repeatedly.. Bag filters of classes F 5 upto F9 can´t be cleaned. They must be replaced.

Cleaning

Synthetic filter should be replaced after 2-3 cleaning cycles. For the cleaning dismantling the dirty filter and clean them on the polluted side with a vacuum cleaner.
If dust particles are not adequately removed by this method wet washing (35 °C) may be untertaken. If necesarry, add cleaning agents to the water and finally rinse out. Allow the cleaned filter to drip-dry, they can after be re-positioned in a damp condition and brought immediately into use.

Important !
Before re-positioning, the filters, thoroughly clean the filter chamber and check the filter and filter frame for airthightness.

7.2.3 Absolute-filters

Check the filter pressure loss with a manometer and if necesarry change the filter modules. Check the filter airthightness and that is firmly fastened, the filter must be evently tensioned. In the case of two stage assembly gradually thighten systematically in a circular movement.

7.2.4 Autoroll-filters

Precise maintenance instructions are included with the products. These filters works automatically and can be monitored by recording instrumentation. A warning signal indicates the end of the filter roll which then requires changing. Half yearly, check the oil level in the gears. Oil the chain drive and wheels and check for wear. In respect of gears, chain drive and wheels lubricate in accordance with the manufactures' instruction..

7.2.5 Carbon-filters

Change the filters when the saturation is reached.Not the filter filter pressure is changing, but the weight of the carbon-filters. Check the weight of the filters monthly. After a weight-increasing abaut 10-20 % the filter lost the effect and is to change.

7.3 Heat exchanger

7.3.1 Operating medium water, water/glycol, steam

Heat exchanger don't require any special attention apart from occasional cleaning. Depending on the amount of oerational usage and filter servicing, check the coil segments in respect of dust and deposits, roughly once per 3-monthly period and clean as necesarry.Also check, that the pipework is waterthight.
On each occasion that re-filling is untertaken, check that the unit is effectively vented. **(look 6.1)**

Cleaning

The cleaning is carried out with the unit intact using a powerful vacuum cleaner on the dust contaminated side. If the unit is very dirty, it will need to removed and wet cleaned. Zinc plated steel heat exchangers may be cleaned with a steam jet or the segments washed through with a powerful water jet and finally blown out with an air line.
If required soft cleaning brushes may be used ensuring that the heat exchanger segments are not damaged.
Any points corroded or rusted should be cleaned off and coated with a zinc based protective spray.

7.3.2 Operating medium Freon

Apply similar measures as above, in addition check that the evaporator is not iced up.Check that the pipework and the pipework-junction re leakproof by the use of a leak spray.

General parts

Droplet seperator

Check the cleanliness of the droplet seperator module and the blades annually. If the blades are dirty, remove and clean them. Contamination can result in damage through water droplets in the system and to a reduction in the system's performance. Ensure that the blades are correctly repositioned and that they are not distorted.

Condensate tank

The condensate tank, the condensate drain and the syphon should be checked in respect of sediment and other deposits and cleaned as required.

Frost protection

Check that the frost protection is working before the commencement of each winter period. Ensure that the frost stat. is working within the correct temperature range.

7.3.3 Electrical heater

Check the heater in respect of any dirt accumulation, the ignition, any build up of corrosion and if required clean the heating elements. Check the safety controls and the air handling components.

7.4 Humidifier

7.4.1 Surface humidifier

Pumps

The maintenance of the accelerator pump and motor must be carried out in accordance with the manufacturers instruction.
In general notes:

-Never run the pump when is not water backed
-Ingress of sediment into the pump must be avoided.

The pump should be operated for approximately two minutes every two days to avoid possible jamming. The installation of an autoliatic actuator for this purpose is recommended.

Surface humidifier in general

Any surface humidifier modules which are strongly encrusted with calcium deposits should be replaced. In the case of lightly contaminted components, with the air handling unit at rest, add a suitable decalcifying agent to the circulation water and operaate the pump until the deposits are dissolved. Thoroughly wash off and flush through the system following this operation.

7.4.2 Steam humidifier

Maintain in line with the manufacturers' direction.

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7.4.3 Air washer

Maintain in line with the manufacturers' direction.

7.5 Sound attuentator

Sound attuentator modules are basically maintenance free. Within the frame work of wider maintenance programmes check for any dust deposits and clean with a vacuum cleaner as necessary.

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7.6 Multi leaf dampers

WEGER-air regulating dampers are virtually maintenance free. Check for dirt and deposits, for any damage or signs of corrosion, clean with high pressure air or with a steam jet. Check the easy movement and correct operation of the dampers. If there is any tendency to jam lubricate the cog wheel gearings with a silico spray.

7.7 Weather-proof grill

Check for dirt deposits, damage and corrosion and remove any leafy matter or waste paperetc. Which may have been drawn in. Relieve any tendency to slick.

7.8 Energy recovery components

7.8.1 Plate type heat exchanger

Plate type heat exchangers are of high grade aluminium construction. They are corrosion-resistant and don't contain any drive maechanisms or moving oarts. Their service life is virtually unlimited and maintenance is limited to cleaning operations. Clean the condensate drain, check the syphon and top up as necessary. The plate type heat exchanger matrix is normally selfcleaning.If a bypass damper is fitted maintain as suggested in para 6.7.

7.8.2 Cool loop system

The maintenance of the cool loop system is identically with the maintenance of the heat exchangers (look 6.1).

7.8.3 Rotational heat exchanger

Control of the drive units is in accordance with the manufacturer's specification. The construction of the matrix is such that it is virtually completely self-cleaning. The heat wheel may be cleaned with pressurised air, water or steam jet and domestic household detergents as necessary. The sealing sliding on the perimeter of the heat wheel should be pressed slightly against the wheel surface. Adjust if necessary.

7.8.4 Heat pipe

Heat pipe components hgave no drive mechanisms or moving parts and maintenance is therefore restricted to cleaning operations, cleaning of the condensate drain, checking the syphon and filling as required.
If a droplet seperator is fitted maintain as suggested in para 7.3.2. "General components".
If a bypass damper is fitted maintain as suggested in para 7.6.

Please bear in mind that only by conducting a thorough maintence programme

7.9 Maintenance plan

Component	System compontent	Activity			Maintain				
		Check	Clean	Maintain	Weekly	Monthly	3 Monthly	6 Monthly	Annually
Fan-Motor	General considers	●	●		●				
	Flexible connenction	●				●			
	Spring isolators	●						●	
	Fan-bearing	●		●		●			
	Motor-bearing	●		●		●			
	Belt drive	●				●			
	Belt-tensioning	●		●	●	●			
	Power consumption, Measurements	●				●			
	Weather-proof grills	●				●			
Filters	Plate-filters	●	●	●	●				
	Bag-filters	●	●	●	●				
	Absolute-filters	●	●	●	●				
	Autoroll-filters	●		●		●			
	Carbon-filters	●	●	●	●				
Heat exchangers	Fins	●	●				●		
	Condensate-tank/drain	●	●			●			
	Droplet seperator	●	●				●		
Electrical heater	Electrical heater	●	●				●		
Humidifier	Pumps	●					●		
	Water connections	●				●			
	Descaling and cleaning		●						●
	Water tank	●	●			●			
	Honeycomb	●	●	●		●			
	Spray nozzles	●	●			●			
Sound attentuators	Sound attentuators splitters		●						●
Energy recovery	Plate type heat exchanger	●	●						●
	Rotational heat exchanger	●	●	●		●			●
	Heat pipe	●	●						●
	Cool loop system	●	●						●
Multi leaf damper	Damper	●	●					●	
Weather proof grill	Weather proof grill	●	●					●	