



# Centrifugal Fan

Series  
LP LR



 EuroVent

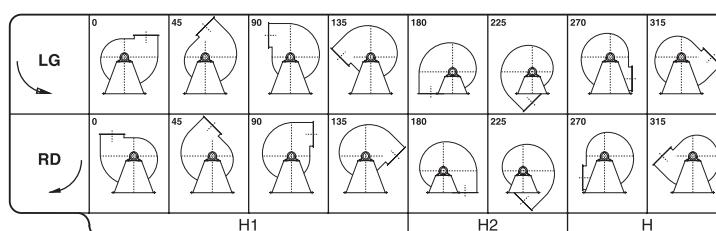


## Fans series LP-LR

### Symbols and measurement units used in the catalogue.

V m <sup>3</sup> /min	= Delivery in m <sup>3</sup> /min
V m <sup>3</sup> /h	= Delivery in m <sup>3</sup> /h
pt mmH <sub>2</sub> O	= Total pressure in mm H <sub>2</sub> O
pt Pa	= Total pressure in Pascal
pdmmH <sub>2</sub> O	= Dynamic pressure in mm H <sub>2</sub> O
pd Pa	= Dynamic pressure in Pascal
c <sub>2</sub>	= Speed in m/s on pressing throat
n	= Fan rounds
L <sub>p</sub>	= Noise level indicated in dB/A
P	= Power absorbed in kW
η	= Fan output

### Table of positions of discharge

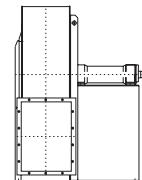


### Fans constructive executions in conformity with rules UNI EN ISO 13349 (2009).

#### EXECUTION 1

For belt drive. Wheel keyed overhung. Supports mounted on a base outside the air stream. Max air temperature 90 °C without cooling fan; 350 °C when fitted with cooling fan.

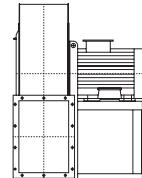
ESEC. 1



#### EXECUTION 4

For direct drive. Wheel keyed to motor shaft. Motor is supported by the base. Max air temperature 80 °C; when fitted with cooling fan 150 °C.

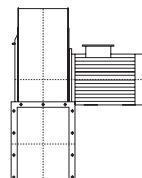
ESEC. 4



#### EXECUTION 5

For direct drive. Wheel keyed to motor shaft. Motor is supported by the case. Max air temperature 60 °C; when fitted with cooling fan 130 °C.

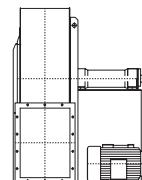
ESEC. 5



#### EXECUTION 9

For belt drive. Same as arrangement 1 with motor supported by the side wall of base. Max air temperature: 90 °C without cooling fan; 350 °C when fitted with cooling fan.

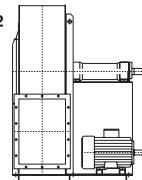
ESEC. 9



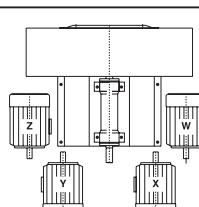
#### EXECUTION 12

For belt drive. Same as arrangement 1 with both fan and motor supported by the foundation frame. Max air temperature: 90 °C without cooling fan; 350 °C when fitted with cooling fan.

ESEC. 12



Plan for motor positioning belt drive.



## General concepts about centrifugal fans

The centrifugal fan essentially in a scroll in which a wheel rotates. The wheel's movement is caused by an external energy source, that is usually an electric motor. The main characteristics of a centrifugal fan are:

- a) delivery
- b) pressure
- c) efficiency
- d) rotation speed

### DELIVERY

It is indicated by the value of the fluid intaken through the fan in the time unit; normally this is stated by the ratio m<sup>3</sup>/sec., m<sup>3</sup>/min., or m<sup>3</sup>/h.

### PRESSURE

It is usually indicated by the ratio kgf/m<sup>2</sup> or Pa. The pressure generated through a fan is named TOTAL (pt); it is the sum of two different pressures: STATIC + DYNAMIC. The static pressure (p.s.) is the potential energy that wins the circuit resistance when the fluid is passing through the circuit. The dynamic pressure (pd) is the kinetic energy of the moving fluid and it depends on the medium exit speed of the air from the fan throat; the formula is:

$$pd = \frac{C^2}{2g} \cdot 1.226 \quad C = \frac{V}{A}$$

where:

- V = delivery m<sup>3</sup>/sec.
- A = throat surface m<sup>2</sup>
- c = medium speed of the air m/sec.
- g = acceleration of gravity (9,81 m/sec)
- 1,226 = air specific gravity kg/m<sup>3</sup> at 15°C and 760 mm Hg.

### ENERGY

It consists in the ratio between the energy supplied by the fan to the fluid and the energy used by the external source to put in operation the fan.

The formula is:

$$\eta = \frac{V \cdot pt}{6120 \cdot P}$$

where:

- V = delivery m<sup>3</sup>/min.
- pt = total pressure kgf/m<sup>2</sup>
- P = used energy by the fan indicated in kW
- $\eta$  = fan efficiency

### ROTATION SPEED

It is indicated by the number of roundes per minute: at this speed the wheel must rotate in order to get the required performances.

N.B. The following tables show the characteristics of an operating device at air 15°C, barometric pressure 760 mm Hg, specific gravity 1,226 kg/m<sup>3</sup>, test according to UNI EN ISO 5801:2009 (UNI 10531:1995) rules. If customer wishes get different performances with intermediary value in respect of the value shown in the tables or if he prefers a device operating with air suction at different temperature in respect of 15°C and with different specific gravity in respect of 1,226 we suggest to follow these rules the characteristics of fans change according to the variation in speed rotation and considering the specific gravity of the fluid intaken.

a) Variation of rotation speed (n) with air specific gravity constant.

1. The delivery (V) varies directly with rotations ratio:

$$V_1 = V \cdot \frac{n^1}{n}$$

2. The pressure varies with square number of rotations ratio:

$$pt_1 = pt \cdot \left( \frac{n^1}{n} \right)^2$$

3. The energy (P) varies with cube of rotations ratio:

$$P_1 = P \cdot \left( \frac{n^1}{n} \right)^3$$

b) Variations of specific gravity ( $\gamma$ ) of the air when rotation speed is constant.

1. The delivery (V) remains constant.

2. The pressure (pt) and the energy (P) vary directly with the ratio of specific gravities.

$$pt_1 = pt \cdot \frac{\gamma^1}{\gamma} \quad P_1 = P \cdot \frac{\gamma^1}{\gamma}$$

The specific gravity of the air at different temperatures is obtained through the formula:

$$\gamma = \frac{1,293 \cdot 273}{(273+t)} \text{ (kg/m}^3\text{)}$$

The air density depending on a change of the atmospheric pressure is given by the following formula:

$$\gamma = \frac{Pb \cdot 13.59}{29.27 \cdot (273+t)} \text{ (kg/m}^3\text{)}$$

where:

- $\gamma$  = specific gravity at °C
- 1,293 = specific gravity of the air at 0°C
- t = air temperature indicated in °C
- 273 = absolute zero
- Pb = atmospheric pressure mm Hg

This table shows directly the air specific gravity at different temperatures:

t°C	-20	-10	0	+10	+15	+20	+30	+40	+50	+60	+70	+80	+90	+100	+120	+140	+160	+180	+200	+220	+240	+260	+280	+300	+325	+350
$\gamma$	1,396	1,342	1,293	1,248	1,226	1,205	1,165	1,128	1,093	1,060	1,029	1,000	0,973	0,947	0,90	0,85	0,82	0,78	0,75	0,72	0,69	0,66	0,64	0,62	0,59	0,56

Atmospheric pressure depending on altitude above sea-level:

mt	0	500	1000	1500	2000	2500	3000	3500	4000	4500
Pb mm Hg	760	720	680	640	600	560	530	500	470	440



## Fans series LP-LR

### CHARACTERISTICS

The features listed in the diagrams are referred to air at the temperature of + 15°C and at the barometrical pressure of 760 mm. Hg with specific gravity 1,226 Kg/m<sup>3</sup>.

### NOISE LEVEL

The noise level values indicated are expressed in decibel scale A (dB/A) they are understood measured in a free range at the distance of **1.5 m** from the fan operating with the highest output capacity, connected to inlet and outlet pipe connections (rules UNI EN ISO 3740-3744-3746-13347).

### ORIENTATIONS

All the fans can be constructed with the delivery mouth in 16 different positions (8 in clockwise rotation RD and 8 in counterclockwise rotation LG) as indicated on the orientation tables. Please note that the direction of rotation is determined by looking at the fan from the transmission side. Some sizes of these fans are revolvable always considering the rotation direction. This information is indicated at the end of the various tables of the overall dimensions. Flange see DIN 24154-24158.

### ACCESSORIES (delivery on request)

- intaking and pressing counterflange;
- inspection door: to inspect and to clean the wheel and the scroll inside;
- discharge cap: it eliminates the condensate if any inside the fan and it is situated on the lowest part of the scroll,
- vibrating proof joints in intaking and pressing time: they are used to avoid the spreading of vibrations to the pipes;
- safety grate for intaking throat: it is used to avoid accidents when the fan is intaking from the room;
- regulation lock on delivery: it is used to regulate the fan delivery;
- regulator of the flow rate in intaking time: it is used to regulate the fan flow rate and it maintains high the efficiency level, also in regulating time.

### SPECIAL CONSTRUCTIONS

**Spark proof construction:** when explosive fluids are carried or when the plant is installed in dangerous environments, the parts that come into contact with the intaken fluid are constructed by material without iron content to avoid rubbing, motor on request is supplied in special construction.

**Corrosionproofing construction:** when corrosive fluids are carried, the parts that come into contact with the fluid are painted with special paints or they are constructed with special materials as austentic stainless steels (AISI 304-316 etc.).Constructions can be effected according to the customer's particular needs.

### SOME VALUES OF AIR SPEED THAT MUST BE OBSERVED INSIDE THE IRON PIPES FOR SUCTION PLANTS, RELATING TO FOLLOWING MATERIALS:

Cereals dust	16–19 m/s
Varnish dust	15–18 m/s
Wooden shaving and sawdust	18–24 m/s
Dry dust of chemicals	17–20 m/s
Coal dust	20–25 m/s
Dust of plastic material working	18–23 m/s
Foundry fumes	15–18 m/s
Lapping sharpening and bufing wheels	20–25 m/s
Fumes of solvents for degreasing	12–17 m/s
Metallic shaving and dust	25–38 m/s
Rubber dust	17–20 m/s
Any toxic dust	15–25 m/s
Zinc oxide dust	18–21 m/s
Saw dust of marble	20–25 m/s
Hides buffing	18–23 m/s

### SOME DATA ABOUT THE NUMBER OF THE AIR CHANGINGS FORESEEN IN CIVIL, INDUSTRIAL AND AGRICULTURAL ENVIRONMENTS:

Enviroments No. changings/hour			
Hen - hutch	8	Hide drying processes	35
Bovine - swine breeding	10	Factories for rubber production	12
Hotel halls -rooms - corridors	4	Factories for alimentary pastes	6
Garages	8	Factories for chemicals production	15
Banks	6	Joineries	6
Bathrooms - showerbaths	6	Spinning - and weaving mills	5
Galvanic baths	25	Foundries	25
Carpenter shops - welding shops	12	Forge shops	25
Heating plants	60	Steam laundries	30
Churches	15	Rooms for electric furnaces	30
Coffee - houses - bars - restaurants	10	Rooms for furnace	20
Cinemas - theatres	15	Warehouses for perishable goods	15
Dye works	15	Warehouses for unperishable goods	5
Tanneries	18	Tobacco manufactures	12
		Grinding mills	20
		Shops	5
		Hospitals	6
		Gymnasiums	20
		Baker shops	15
		Swimming-pools	25
		Dance-halls	20
		Card-rooms	10
		Waiting-rooms	10
		Schools	6
		Metallurgical works	5
		Supermarkets	5
		Dyeing plants	30
		Printing shops	20
		Toilettes	30
		Technical departments	15

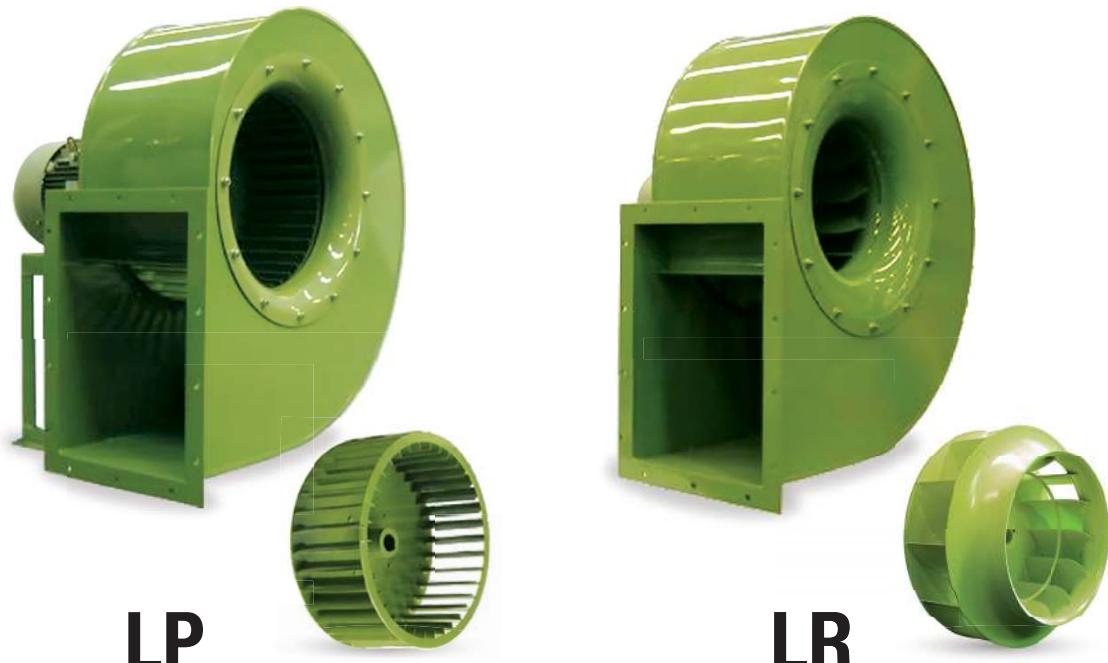
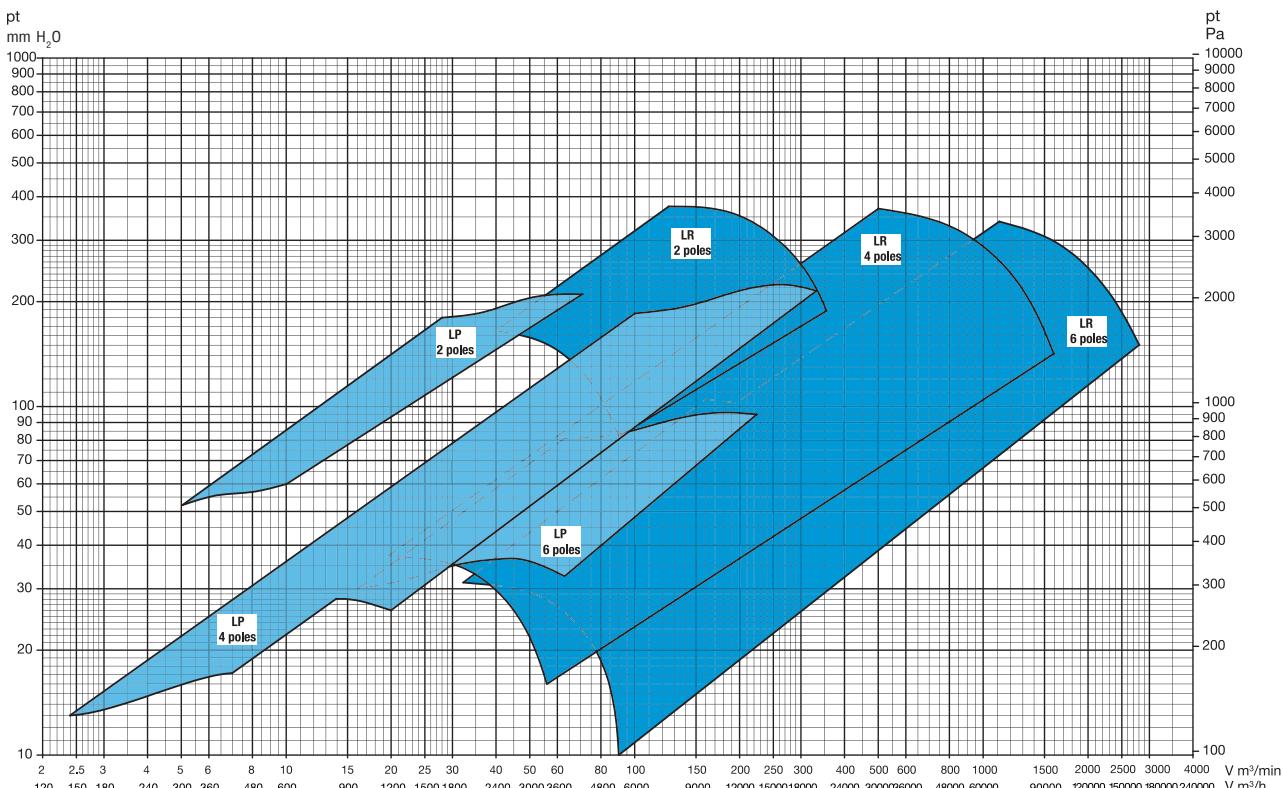


## series LP-LR SPECIFICATIONS

### USE:

For the removal of clean or slightly dusty air. They have high efficiency and reduced noise level, the fans of this series are largely used, in ventilation, conditioning, drying, cooling, mechanical draft, and toxic gas elimination plants. The temperature of the fluid transported must not exceed 80°C. For higher temperatures it is necessary to modify the construction of the fan.

### Operating range 2 - 4 - 6 Poles





## Fans series LP-LR

### LP SERIES SPECIFICATIONS

Type		kW ass.	kW inst.	n. min. <sup>-1</sup>	Lp dB/A	V = m <sup>3</sup> /min														
						3	4	5	6	7	8	9	10	12	14	16	18	20	22	25
Fan	Motor	Pt = mm H <sub>2</sub> O																		
LP 161/A	63 B2	0,24	0,25	2750	65			52	55	56	57	58	60							
LP 201/A	80 A2	0,7	0,75	2800	74											110	110	112	114	116
LP 201/B	80 B2	1	1,1	2830	75											110	110	112	114	116
LP 221/A	90 S2	1,4	1,5	2850	79													140	141	145
LP 221/B	90 L2	2	2,2	2850	80													140	141	145
LP 251/A	100 LA2	2,9	3	2900	83															
LP 251/B	112 M2	3,8	4	2900	84															
LP 161/B	63 A4	0,1	0,12	1360	55	13	15	16	17	17										
LP 201/C	71 A4	0,2	0,25	1360	58				25	25	26	26	27	28	28	28	27	26		
LP 221/C	71 B4	0,32	0,37	1360	59								32	33	34	36	37	38	39	39
LP 251/C	80 A4	0,5	0,55	1370	62										40	41	42	43	44	46
LP 281/A	80 B4	0,7	0,75	1380	66												51	52	53	55
LP 311/A	90 S4	1	1,1	1390	70															68
LP 311/B	90 L4	1,4	1,5	1400	71															68
LP 351/A	100 LA4	2,1	2,2	1420	73															
LP 351/B	100 LB4	2,8	3	1430	74															
LP 401/A	112 M4	3,9	4	1440	77															
LP 401/B	132 SA4	5,4	5,5	1440	78															
LP 401/C	132 MA4	7,4	7,5	1460	80															
LP 451/A	132 MA4	7,4	7,5	1460	80															
LP 451/B	132 MB4	8,8	9	1470	81															
LP 451/C	160 M4	10,5	11	1470	82															
LP 501/A	160 M4	10,5	11	1470	83															
LP 501/B	160 L4	14,5	15	1470	84															
LP 501/C	180 M4	18	18,5	1470	85															
LP 311/C	80 A6	0,35	0,37	930	61												30	30	31	32
LP 311/D	80 B6	0,5	0,55	930	62												30	30	31	32
LP 351/C	90 S6	0,7	0,75	930	63													39	39	
LP 351/D	90 L6	1	1,1	930	64														39	39
LP 401/D	100 LA6	1,4	1,5	950	67															
LP 401/E	112 M6	2	2,2	950	68															
LP 451/D	132 SA6	2,8	3	950	70															
LP 501/D	132 MA6	3,8	4	960	74															
LP 501/E	132 MB6	5,2	5,5	960	75															

Capacity tolerance ± 5 %

Noise level tolerance + 3 dB



V = m<sup>3</sup>/min

	28	31	35	40	45	50	56	63	71	80	90	100	112	125	140	160	180	200	225	250	280	315	335		
<b>Pt = mm H<sub>2</sub>O</b>																									
	120	120																							
	149	153	158																						
	149	153	158	163	163	162																			
	180	182	185	188	200	205	208																		
	180	182	185	188	200	205	208	210	210																
	38	36																							
	48	48	48	47																					
	57	60	61	62	62																				
	69	70	73	75	78	80																			
	69	70	73	75	78	80	82	82	82																
				90	91	93	95	97	100	105	108														
					90	91	93	95	97	100	105	108	110	110	108										
								120	122	125	130	135	140	140	145	145	148								
									120	122	125	130	135	140	145	145	148								
										120	122	125	130	135	140	145	145	148							
											150	150	152	155	160	170	175								
											150	150	152	155	160	170	175	180	175						
											150	150	152	155	160	170	175	180	175	170					
												185	185	190	195	200	210	215	220	225	225				
												185	185	190	195	200	210	215	220	225	225	220	215		
	34	35	36	36																					
	34	35	36	36	36	35	34	33																	
	40	41	42	43	44	45	47	48																	
	40	41	42	43	44	45	47	48																	
				51	51	52	53	55	57	60	61	61	61	61	60	59									
					51	51	52	53	55	57	60	61	61	61	60	59									
						65	65	66	67	68	71	73	75	76	76	76	74								
								80	80	81	83	86	90	92	94	96	96								
									80	80	81	83	86	90	92	94	96	96							
										80	80	81	83	86	90	92	94	96	96						

Pa (Pascal) = mm H<sub>2</sub>O × 9,807



## Fans series LP-LR

### SERIES LR SPECIFICATIONS

Type		kW ass.	kW inst.	n. min. <sup>-1</sup>	Lp dB/A	V = m <sup>3</sup> /min																
						22	25	28	32	36	40	45	50	56	63	71	80	90	100	112		
Fan	Motor	Pt = mm H <sub>2</sub> O																				
LR 352/A	90 L2	1,95	2,2	2850	77							165	162	159	150	140	125	106	82			
LR 351/B	100 LA2	2,7	3	2900	78							190	188	185	179	170	162	152	140	125		
LR 402/A	112 M2	3,8	4	2900	79										210	210	208	205	200	190	175	
LR 401/B	132 SA2	5,2	5,5	2900	82										230	230	225	220	215	200		
LR 452/A	132 SB2	7	7,5	2900	84												270	270	268	262		
LR 451/B	160 MR2	9,8	11	2930	85													300	298	292		
LR 502/A	160 M2	13	15	2935	88																350	
LR 501/B	160 L2	16	18,5	2935	89																	
LR 352/C	71 A4	0,22	0,25	1360	64	37	36	35	34	32	30	26	22	16								
LR 351/D	71 B4	0,3	0,37	1360	65	41	40	39	38	36	34	31	27	23	17							
LR 401/C	80 A4	0,52	0,55	1370	67				53	52	50	48	46	43	40	35	30	24				
LR 452/C	80 B4	0,68	0,75	1380	69							58	57	56	55	53	51	46	40	33	16	
LR 451/D	90 S4	1	1,1	1390	70							70	68	66	64	61	58	54	48	42		
LR 502/C	90 L4	1,35	1,5	1400	71										79	78	77	76	74	70	65	
LR 501/D	100 LA4	2	2,2	1420	72												88	87	85	83	80	76
LR 562/A	100 LB4	2,7	3	1430	73													100	100	99	98	
LR 561/B	112 M4	3,5	4	1430	73														112	110	108	
LR 632/A	132 SA4	5	5,5	1440	75																135	
LR 631/B	132 MA4	6,5	7,5	1450	76																	
LR 712/A	160 M4	10	11	1460	78																	
LR 711/B	160 L4	13	15	1460	79																	
LR 802/A	180 M4	17	18,5	1470	82																	
LR 801/B	180 L4	20	22	1470	83																	
LR 903/A	200 L4	27	30	1470	85																	
LR 902/B	225 S4	33	37	1475	86																	
LR 901/C	225 M4	42	45	1475	86																	
LR 1002/A	250 M4	52	55	1475	87																	
LR 1001/B	280 S4	68	75	1480	88																	

Capacity tolerance ± 5 %

Noise level tolerance + 3 dB



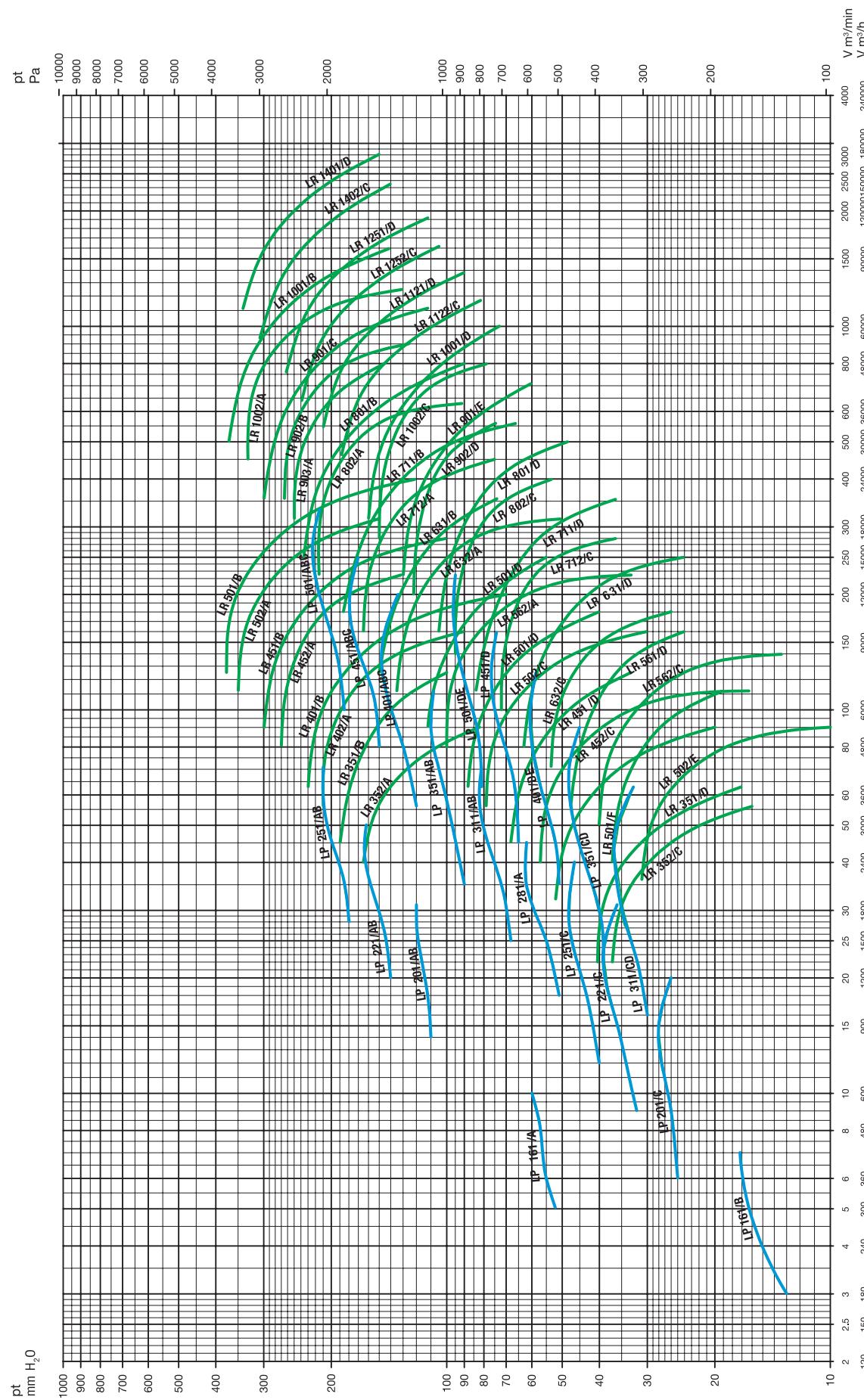
$V = m^3/min$

	125	140	160	180	200	225	250	280	315	355	400	450	500	560	630	710	800	900	1000	1120	1250	1400	1600
	Pt = mm H <sub>2</sub> O																						
100																							
160	140	90																					
185	165	140	110	70																			
255	248	235	210	180	130																		
282	275	260	238	215	190	158	100																
348	342	335	325	305	290	260	225	150															
380	377	368	360	347	335	310	280	250	205	120													
34																							
58	48	30																					
70	62	51	40																				
95	90	84	75	62	32																		
105	100	95	85	80	65	55																	
133	130	126	122	118	110	100	85	50															
150	148	142	138	132	123	115	105	95	74														
		165	165	163	160	156	150	140	120	105	75												
			180	180	177	172	165	160	145	130	115	97	65										
					215	215	214	210	205	200	192	170	150	90									
						235	230	228	220	210	200	185	170	145	118	90							
							250	250	248	242	232	220	205	180	145								
								265	263	260	255	250	235	215	180	125							
								300	295	290	285	270	260	240	215	185	155	110					
									330	330	325	320	315	300	275	245	200	130					
										370	365	355	345	330	310	290	260	230	195	140			

$$\text{Pa (Pascal)} = \text{mm H}_2\text{O} \times 9,807$$



## CHARACTERISTIC CURVE SERIES LP-LR



## LP SERIES OVERALL DIMENSIONS AND WEIGHTS

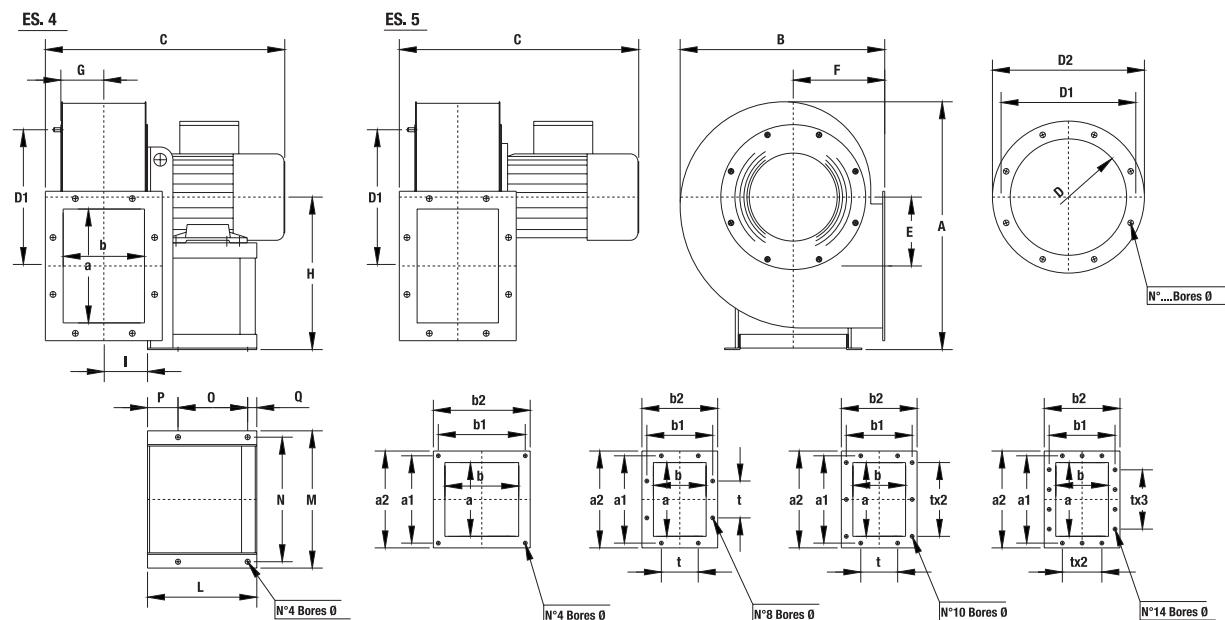
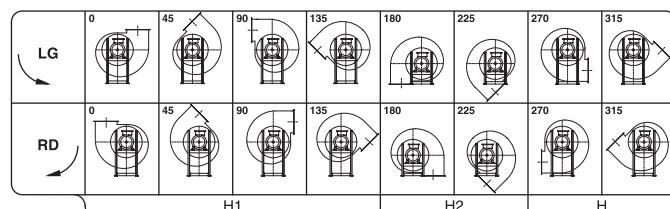


Table of discharge positions



The fan is revolvable

N.B.: For constructive reasons, the fans from size 451–501 follow an orientation with angles of 30° instead of 45°.

Type		Fan								Base								Inlet flange								Outlet flange								Weight	PP <sup>2</sup> GB <sup>2</sup>
Fan	Motor	A	B	C	E	F	G	H	H <sub>1</sub>	H <sub>2</sub>	I	L	M	N	O	P	Q	ø	D	D <sub>1</sub>	D <sub>2</sub>	N°	ø	a	b	a <sub>1</sub>	b <sub>1</sub>	a <sub>2</sub>	b <sub>2</sub>	t	N°	ø	Kg	Kg m <sup>2</sup>	
LP 161/A LP 161/B	63 B2 63 A4	330	275	310 310	110	125	48	200	200	125	50 50	150 150	196 196	175 175	85 85	50 50	15 15	10 10	145	160	180	4	8	90	90	115 115	115 115	133	—	4	8	8 9	0,01		
LP 201/A LP 201/B LP 201/C	80 A2 80 B2 71 A4	440	370	415 415	125	165	75	265	265	165	75 75	190 190	235 235	215 215	125 125	50 50	15 15	10 10	205	241	275	8	11,5	200	140	241 241	182 182	270	210	112	8	11,5	15 16 14	0,03	
LP 221/A LP 221/B LP 221/C	90 S2 90 L2 71 B4	490	405	475 475 415	135	180	85	300	300	180	85 85 85	190 190 235	215 215 215	125 125 125	50 50	15 15	10 10	229	265	299	8	11,5	224	160	265 265	200 200	294	230	112	8	11,5	19 20 17	0,07		
LP 251/A LP 251/B LP 251/C	100 LA2 112 M2 80 A4	530	450	560 560 460	145	200	95	315	315	200	95 95 190	260 260 235	332 332 215	300 300 125	35 35 50	25 25 15	12 12 10	255	292	325	8	11,5	250	180	292 292	219 219	320	250	112	10	11,5	25 27 22	0,10		
LP 281/A	80 B4	590	495	480	174	212	105	355	355	212	105 105	190 190	235 235	215 215	125 125	50 50	15 15	10 10	286	332	366	8	11,5	280	200	332 332	249 249	360	280	125	10	11,5	26	0,15	
LP 311/A LP 311/B LP 311/C LP 311/D	90 S4 90 L4 80 A6 80 B6	665	550	540 540 500 500	196	236	118	400	400	236	118 118 190 190	215 215 235 235	245 245 215 215	137 137 125 125	60 60 50 50	18 18 15 15	10 10	321	366	401	8	11,5	315	224	366 366	273 273	395	304	125	10	11,5	35 35 32 32	0,22		
LP 351/A LP 351/B LP 351/C LP 351/D	100 L4A 100 LB4 90 S6 90 L6	745	620	640 640 570 570	225	265	131	450	450	265	130 130 215 215	260 260 270 270	332 332 245 245	300 300 137 137	35 35 60 60	25 25 18 18	12 12 10 10	361	405	441	8	11,5	355	250	405 405	300 300	435	330	125	10	11,5	45 45 42 42	0,38		
LP 401/A LP 401/B LP 401/C LP 401/D LP 401/E	112 M4 132 SA4 132 MA4 100 LA6 112 M6	830	695	670 730 250	300	146	500	500	300	145 145 320 320 320	260 392 360 440 392	332 360 250 340 360	300 250 137 200 250	35 45 45 55 45	25 25 25 30 25	12 12 12 14 12	406	448	486	8	11,5	400	280	448 448	332 332	480	360	125	14	11,5	55 60 60 53 55	0,55			
LP 451/A LP 451/B LP 451/C LP 451/D LP 451/E	132 MA4 132 MB4 160 M4 160 S6 132 SA6	930	780	770 770 280	335	164	560	560	335	165 165 320 320 320	320 392 360 440 392	360 250 400 340 360	250 45 45	45 45 45 30 45	25 25 25 30 25	12 12 12 14 12	456	497	536	12	11,5	450	315	497 497	366 366	530	395	125	14	11,5	72 72 80 80 72	1			
LP 501/A LP 501/B LP 501/C LP 501/D LP 501/E	160 M4 160 L4 180 M4 180 S6 132 MB6	1040	850	940 940 315	355	184	630	630	355	166 166 425 425 320	425 440 400 500 392	440 400 340 450 360	300 250 200 250 250	35 45 45 45 45	30 30 30 35 35	14 14 14 14 12	506	551	586	12	11,5	500	355	551 551	405 405	580	435	125	14	11,5	102 102 119 95 95	1,9			

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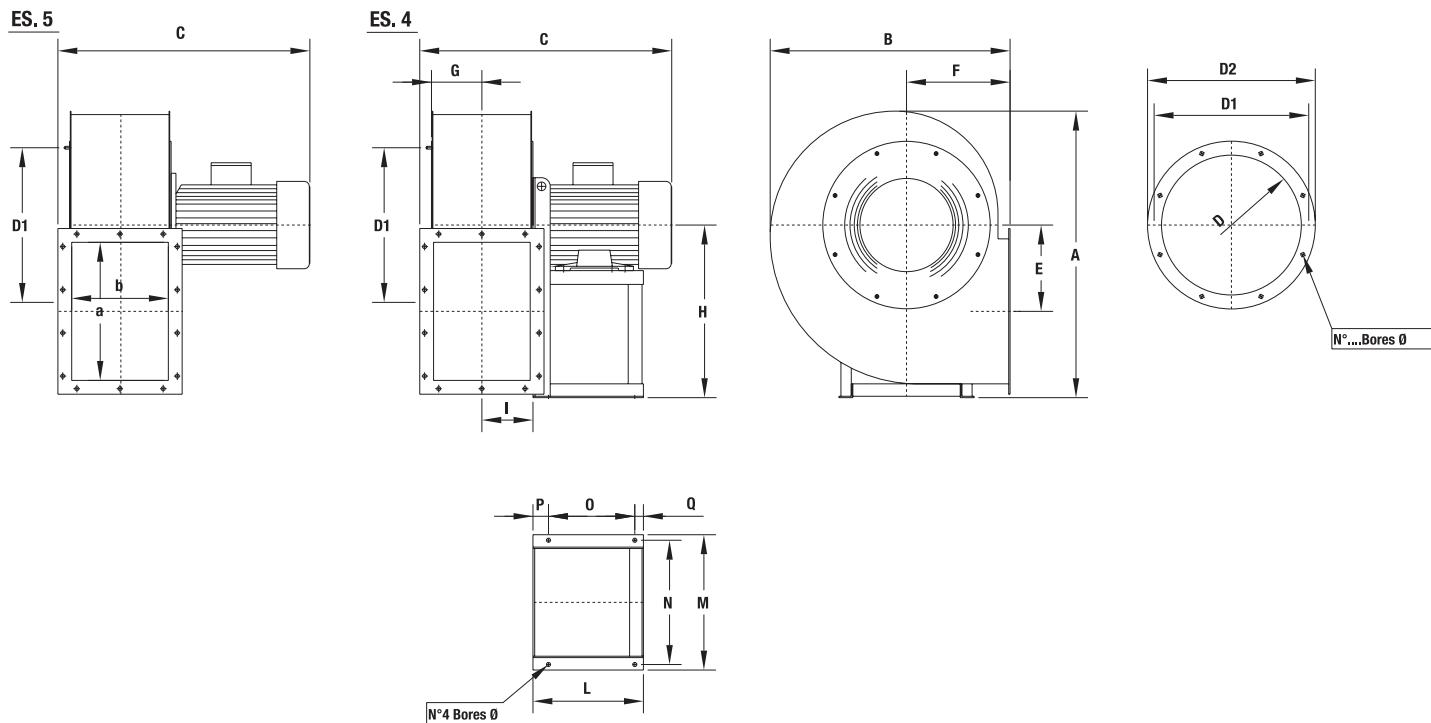
Fan weight in kg (without motor)



Fans series LP-LR

SERIES **LR**

## OVERALL DIMENSIONS AND WEIGHTS

**LR 352 – 801**

The fan is revolvable

N.B.: For constructive reasons, the fans from size 451÷501 follow an orientation with angles of 30° instead of 45°.

Type		Fan										Base								
Fan	Motor	A	B	C	E	F	G	H	H <sub>1</sub>	H <sub>2</sub>	I	L	M	N	N <sub>1</sub>	O	P	Q	R	S
LR 352/A	90 L2			575								215	270	245		137	60	18		
LR 351/B	100 LA2	740	620	640	225	265	130	450	450	265	132	260	332	300	–	200	35	25		
LR 352/C	71 A4			500								190	235	215		125	50	15		
LR 351/D	71 B4			500								190	235	215		125	50	15		
LR 402/A	112 M2			670								260	332	300		200	35	25		
LR 401/B	132 SA2	830	695	730	250	300	146	500	500	300	148	320	392	360	–	250	45	25		
LR 401/C	80 A4			560								190	235	215		125	50	15		
LR 452/A	132 SB2			765								320	392	360		250	45	25		
LR 451/B	160 MR2	930	780	905	280	335	164	560	560	335	166	425	440	400	–	340	55	30		
LR 452/C	80 B4			600								190	235	215		125	50	15		
LR 451/D	90 S4			635								215	270	245		137	60	18		
LR 502/A	160 M2			945								425	440	400		340	55	30		
LR 501/B	160 L2	1040	850	945	315	355	184	630	630	355	186	425	440	400	–	340	55	30		
LR 502/C	90 L4			675								215	270	245		137	60	18		
LR 501/D	100 LA4			745								260	332	300		200	35	25		
LR 502/E	80 A6			635								190	235	215		125	50	15		
LR 501/F	80 B6			635								190	235	215		125	50	15		
LR 562/A	100 LB4			800	355	400	207	710	560	400	208	260	332	300	–	200	35	25		
LR 561/B	112 M4	1170	955	800								260	332	300		200	35	25		
LR 562/C	90 S6			730								215	270	245		137	60	18		
LR 561/D	90 L6			730								215	270	245		137	60	18		
LR 632/A	132 SA4			910	400	450	233	800	630	450	235	320	392	360	–	250	45			
LR 631/B	132 MA4	1320	1075	910								320	392	360		250	45	25		
LR 632/C	100 LA6			850								260	332	300		200	35	25		
LR 631/D	112 M6			850								260	332	300		200	35	25		
LR 712/A	160 M4			1100	450	500	258	900	710	500	260	425	440	400		340		30		
LR 711/B	160 L4	1490	1200	1100								425	440	400		340		30		
LR 712/C	132 SA6			970								320	392	360		340		25		
LR 711/D	132 MA6			970								320	392	360		250		25		
LR 802/A	180 M4			1240	500	560	286	1000	800	560	283	470	930	930		370		35		
LR 801/B	180 L4	1650	1340	1240								470	930	930		370		35		
LR 802/C	132 MB6			1030								320	930	930		250		25		
LR 801/D	160 M6			1165								425	930	930		340		30		

The above data are unbinding



**SERIES LR** OVERALL DIMENSIONS AND WEIGHTS

ES. 4

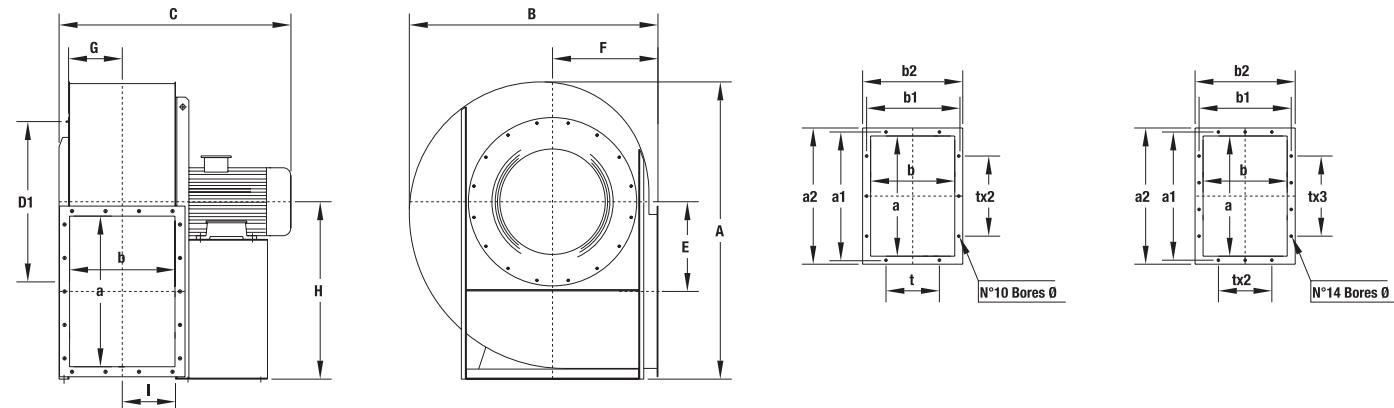
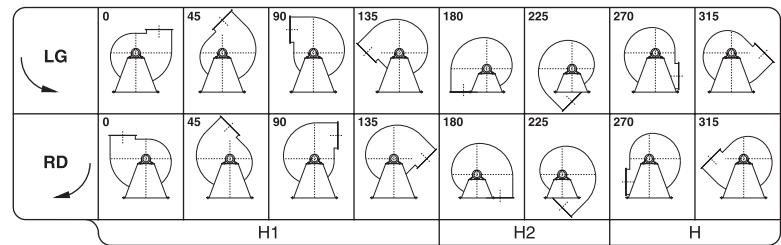


Table of discharge positions



				Inlet flange				Outlet flange								Weight	PD <sup>2</sup> GD <sup>2</sup>			
	T	U	V	ø	D	D <sub>1</sub>	D <sub>2</sub>	N°	ø	a	b	a <sub>1</sub>	b <sub>1</sub>	a <sub>2</sub>	b <sub>2</sub>	t	N°	ø	Kg	Kg m <sup>2</sup>
	-	-	-	10 12 10 10	361	405	441	8	11,5	355	250	405	300	435	330	125	10	11,5	54 57 51 51	0,5 0,6 0,5 0,6
	-	-	-	12 12 10	405	448	485	8	11,5	400	280	448	332	480	360	125	14	11,5	62 67 60	0,95 1,25 1,25
	-	-	-	12 14 10 10	455	497	535	12	11,5	450	315	497	366	530	395	125	14	11,5	78 91 72 76	1,7 2,2 1,7 2,2
	-	-	-	14 14 10 12 10 10	506	551	585	12	11,5	500	355	551	405	580	435	125	14	11,5	112 114 95 98 92 93	2,9 3,3 2,9 3,3 2,9 3,3
	-	-	-	12 12 10 10	566	629	666	16	11,5	560	400	629	464	660	500	160	14	14	115 118 110 112	4,2 4,6 4,2 4,6
	-	-	-	12	636	698	736	16	11,5	630	450	698	513	730	550	160	14	14	147 149 133 137	5,4 6,2 5,4 6,2
	590 590 580 580	25	985 985 880 880	14 14 12 12	716	775	816	16	11,5	710	500	775	567	810	600	160	16	14	229 232 215 219	8,8 10,2 8,8 10,2
	661 661 641 641	30	1096 1096 946 1051	17	806	861	906	16	11,5	800	560	871	639	920	680	200	14	14	287 292 262 282	16,5 20 16,5 20

Fan weight in kg (without motor)

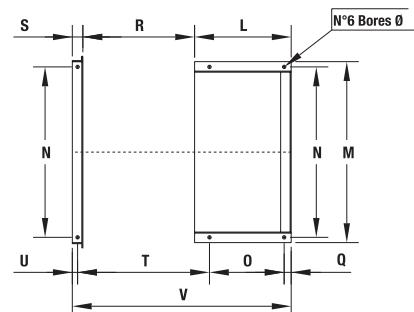
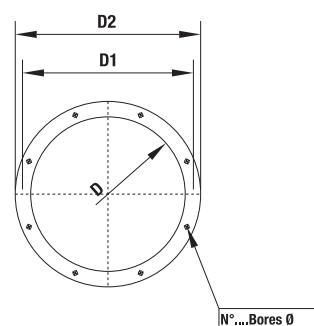
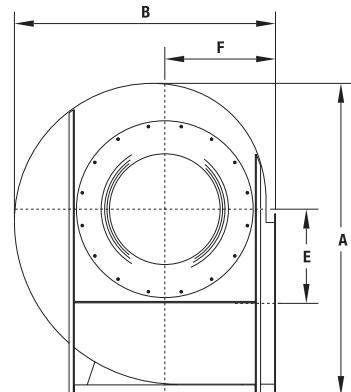
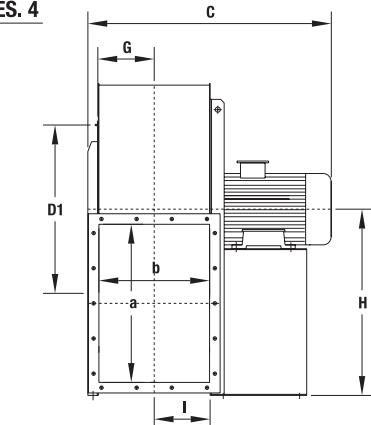


Fans series LP-LR

SERIES **LR**

## OVERALL DIMENSIONS AND WEIGHTS

ES. 4

**LR 903 – 1401**

The fan is not revolvable

Type		Fan											Base						
Fan	Motor	A	B	C	E	F	G	H	H <sub>1</sub>	H <sub>2</sub>	I	L	M	N	O	Q	R	S	
LR 903/A	200 L4			1310								500			385	40			
LR 902/B	225 S4			1390								550			425	40			
LR 901/C	225 M4	1780	1490	1390	535	630	322	1060	900	630	318	550	1030	970	425	40	636	60	
LR 902/D	160 L6			1235								425			340	30			
LR 901/E	180 L6			1310								470			370	35			
LR 1002/A	250 M4			1470								600			460	45			
LR 1001/B	280 S4		1980	1670	1600		610	710	362	1180	1000	710	360	690	1130	1060	550	45	
LR 1002/C	200 LR6			1390								500			385	40	716	60	
LR 1001/D	200 L6			1390								500			385	40			
LR 1122/C	225 M6	2220	1880	1570	690	800	407	1320	1120	800	404	550	1270	1200	425	40	808	70	
LR 1121/D	250 M6											600			460	45			
LR 1252/C	280 M6	2470	2110	1810	775	830	462	1500	1250	830	454	690	1400	1320	550	45	908	80	
LR 1251/D	315 S6			1960								800			670	40			
LR 1402/C	315 MA6	2740	2300	2060	860	950	507	*	1650	*	1320	950	504	800	1580	1500	670	40	1008
LR 1401/D	315 MB6																		80

The above date are unbinding



**SERIES LR** OVERALL DIMENSIONS AND WEIGHTS

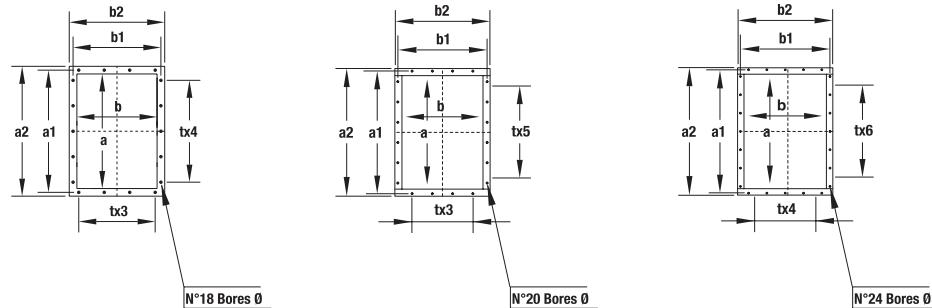
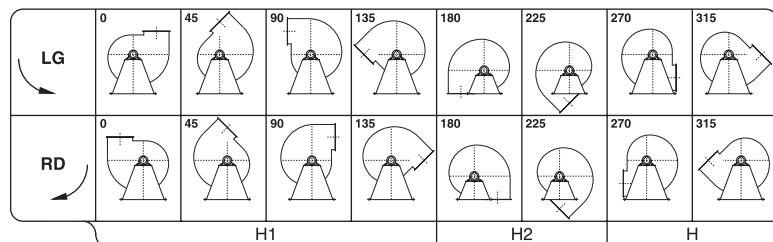


Table of discharge positions



\* LR 1401 - RD/LG 90-135 H1 = 1120

\* LR 1401 - RD/LG 315 H = 1500

				Inlet flange					Outlet flange									Weight	PD <sup>2</sup> GD <sup>2</sup>	
	T	U	V	ø	D	D <sub>1</sub>	D <sub>2</sub>	N°	ø	a	b	a <sub>1</sub>	b <sub>1</sub>	a <sub>2</sub>	b <sub>2</sub>	t	N°	ø	Kg	Kg m <sup>2</sup>
741			1196																405	30
			1246																418	33
	30		1246	19	908	958	1008	16	14	900	630	968	708	1020	750	200	18	14	429	38
			1121																378	33
			1166																390	38
841			1376																575	51
			1466																590	60
	30		1276	19	1008	1067	1108	24	14	1000	710	1077	785	1120	830	200	18	14	560	51
			1276																570	60
928			1428																680	110
	35		1478	21	1128	1200	1248	24	14	1120	800	1210	881	1260	940	200	20	18	775	112
1043			1678																895	160
	40		1788	24	1260	1337	1380	24	14	1250	900	1347	978	1390	1040	200	24	18	985	166
1138			1888	24	1420	1491	1540	24	16	1400	1000	1501	1087	1560	1160	200	24	18	1280	260
																			1370	265

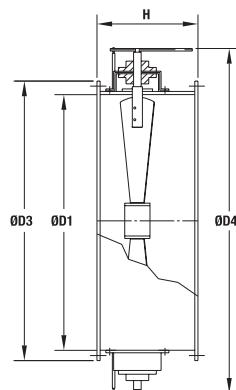
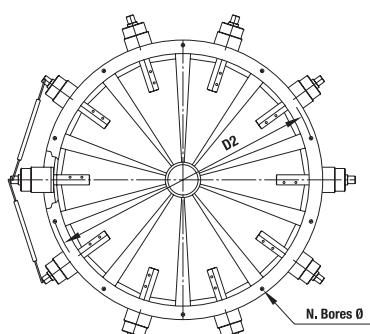
Fan weight in kg (without motor)



## Accessories

### Circular flow regulators

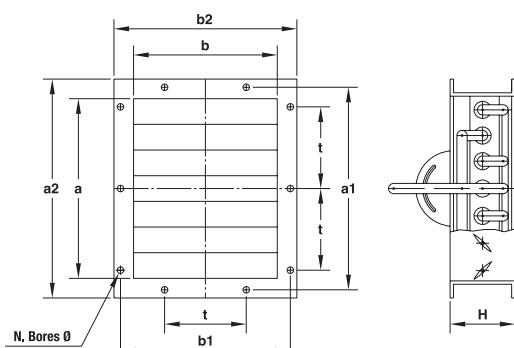
#### OVERALL DIMENSIONS in mm



Type	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	D <sub>4</sub>	H	n°	Bores Ø	Weight kg
280	280	332	366	450	280	8	11,5	24
315	321	366	400	570	280			30
355	361	405	440	610	280			33
400 *	406	448	485	650	315			36
450	456	497	535	700	315			40
500	506	551	585	820	355			53
560	568	629	666	880	355			60
630	638	698	736	990	355			68
710	718	775	816	1070	355	16	14	75
800	808	861	906	1160	400			85
900	908	958	1006	1260	400			100
1000	1008	1067	1107	1360	400			130
1120	1130	1200	1248	1480	450			160
1250	1260	1337	1380	1610	450			180
1400	1420	1491	1540	1760	450			210
1600	1610	1663	1730	1960	500			230
1800	1810	1880	1950	2200	500	32	18	280
2000	2010	2073	2130	2380	500			340

### Rectangular flow regulators, outflow end

#### OVERALL DIMENSIONS in mm



Type	a	b	a <sub>1</sub>	b <sub>1</sub>	a <sub>2</sub>	b <sub>2</sub>	H	t	n°	Bores Ø	Weight kg
90 x 63	90	63	112	90	150	123	130	-	4	9	2,2
100 x 71	100	71	125	100	160	131	130	-			2,5
112 x 80	112	80	140	112	172	140	130	-			2,7
125 x 90	125	90	165	130	185	150	130	-			3
140 x 100	140	100	182	141	210	170	130	-			3,3
160 x 112	160	112	200	153	230	182	130	-			3,8
180 x 125	180	125	219	167	250	195	130	-			4,5
200 x 140	200	140	241	182	270	210	130	-			5,3
224 x 160	224	160	265	200	294	230	130	-	112	11,5	6,5
250 x 180	250	180	292	219	320	250	130	-			7,5
280 x 200	280	200	332	249	360	280	130	-			8,5
315 x 224	315	224	366	273	395	304	130	-			9,6
355 x 250	355	250	405	300	435	330	130	-			11
400 x 280	400	280	448	332	484	368	130	-			13
450 x 315	450	315	497	366	533	402	130	-			18
500 x 355	500	355	551	405	587	441	150	-			21
560 x 400	560	400	629	464	669	504	150	-	125	14	26
630 x 450	630	450	698	513	738	553	180	-			30
710 x 500	710	500	775	567	815	607	180	-			34
800 x 560	800	560	871	639	921	689	200	-			42
900 x 630	900	630	968	708	1018	758	200	-			48
1000 x 710	1000	710	1077	785	1127	835	200	-			65
1120 x 800	1120	800	1210	881	1270	941	220	-			80
1250 x 900	1250	900	1347	978	1407	1038	220	-			95
1400 x 1000	1400	1000	1501	1087	1560	1160	250	-	200	18	110
1600 x 1120	1600	1120	1683	1220	1760	1280	250	-			150
1800 x 1250	1800	1250	1876	1357	1960	1410	280	-			200
2000 x 1400	2000	1400	2093	1511	2180	1580	280	-			280

External **flow regulator** designed for dusty air, sturdy construction, for industrial use.

Layout 1 = max. temperature 120°C.

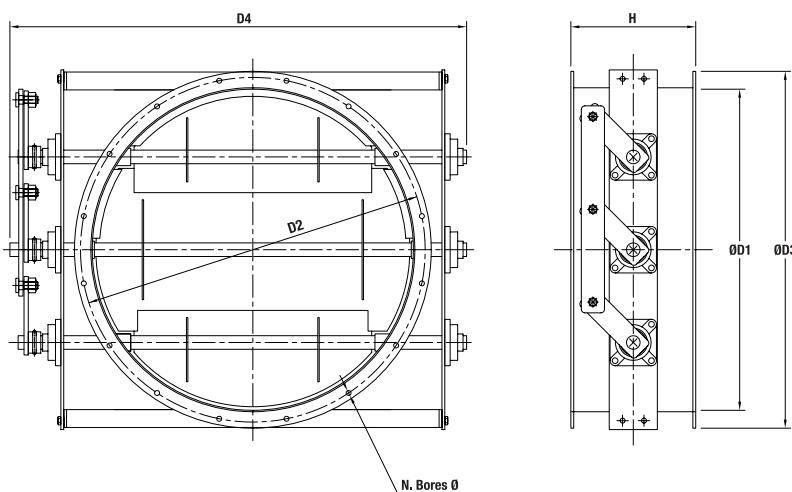
Layout 2 = from 120 to 350°C. + pressure ≥ 700 mm H<sub>2</sub>O.



## Accessories

### Louver flow regulators

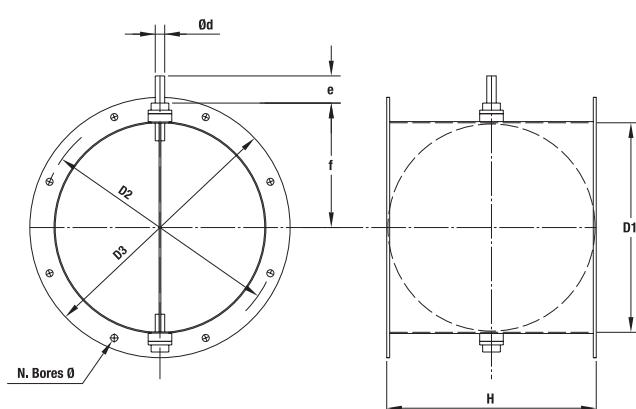
OVERALL DIMENSIONS in mm



Type	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	D <sub>4</sub>	H	Weight kg
315	315	366	400	640	280	21
355	355	405	440	680	280	23
400 *	400	448	485	720	315	29
450	450	497	535	770	315	32
500	500	551	585	820	355	60
560	560	629	666	900	355	75
630	630	698	736	1040	355	80
710	710	775	816	1130	355	86
800	800	861	906	1220	400	93
900	900	958	1006	1320	400	110
1000	1000	1067	1107	1420	400	126
1120	1120	1200	1248	1560	450	160
1250	1250	1337	1380	1690	450	192
1400	1400	1491	1540	1860	450	260
1600	1600	1663	1730	2050	500	320

### Butterfly flow regulators

OVERALL DIMENSIONS in mm



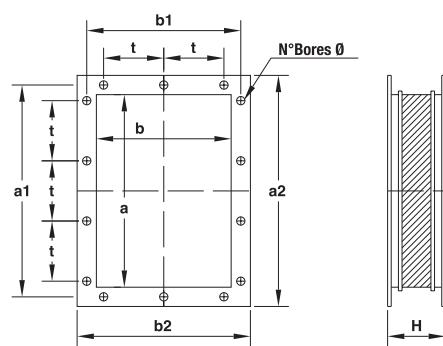
Type	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	d	e	f	H	n°...Bores Ø	Weight kg
140	140	182	215	14	30	110	140	8 - 11,5	2,8
160	160	200	235	14	30	120	160	8 - 11,5	3,2
180	180	219	255	14	30	130	180	8 - 11,5	4
200	200	241	275	16	30	140	200	8 - 11,5	4,8
224	224	265	299	16	30	150	224	8 - 11,5	5,5
250	250	292	325	16	45	165	250	8 - 11,5	6,5
280	280	332	366	16	45	180	280	8 - 11,5	8,5
315	315	366	401	16	45	195	315	8 - 11,5	10,5
355	355	405	441	16	45	215	355	8 - 11,5	13,5
400 *	400	448	486	16	45	240	400	12 - 11,5	18
450	450	497	535	20	60	280	450	12 - 11,5	23
500	500	551	585	20	60	305	500	12 - 11,5	29
560	560	629	666	20	60	335	560	16 - 11,5	36
630	630	698	736	20	60	370	630	16 - 13	47
710	710	775	816	20	60	410	710	16 - 13	61
800	800	861	906	30	70	455	800	16 - 13	80
900	900	958	1006	30	70	505	900	16 - 13	100
1000	1000	1067	1107	30	70	555	1000	24 - 14	155
1120	1120	1200	1248	30	70	615	1120	24 - 14	190



## Fans series LP-LR

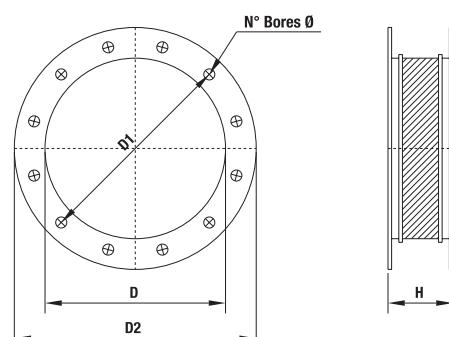
### Accessories

#### Vibration-damping couplings outflow-end



Series	mm								Bores		Weight kg
	a	b	a <sub>1</sub>	b <sub>1</sub>	a <sub>2</sub>	b <sub>2</sub>	t	H	n°	Ø	
90 x 63	90	63	112	90	150	123	-	140	4	11	1
100 x 71	100	71	125	100	160	131	-	140	4	11	1,1
112 x 80	112	80	140	112	172	140	-	140	4	11	1,3
125 x 90	125	90	165	130	185	150	100	140	6	11	1,6
140 x 100	140	100	182	141	210	170	112	140	6	12	2,1
160 x 112	160	112	200	153	230	182	112	140	6	12	2,6
180 x 125	180	125	219	167	250	195	112	140	6	12	3,2
200 x 140	200	140	241	182	270	210	112	140	8	12	3,9
224 x 160	224	160	265	200	294	230	112	140	8	12	4,6
250 x 180	250	180	292	219	320	250	112	140	10	12	5,5
280 x 200	280	200	332	249	360	280	125	140	10	12	7
315 x 224	315	224	366	273	395	304	125	140	10	12	8,2
355 x 250	355	250	405	300	435	330	125	140	10	12	10
400 x 280	400	280	448	332	480	360	125	140	14	12	11,2
450 x 315	450	315	497	366	530	395	125	140	14	12	13
500 x 355	500	355	551	405	580	435	125	160	14	14,5	14,5
560 x 400	560	400	629	464	660	500	160	160	14	14	18
630 x 450	630	450	698	513	730	550	160	160	14	14	19,5
710 x 500	710	500	775	567	810	600	160	160	16	14	22
800 x 560	800	560	871	639	930	690	200	160	14	14	31
900 x 630	900	630	968	708	1030	760	200	160	18	14	37
1000 x 710	1000	710	1077	785	1130	830	200	200	18	14	45
1120 x 800	1120	800	1210	881	1270	940	200	200	20	18	56
1250 x 900	1250	900	1347	978	1400	1040	200	200	24	18	65
1400 x 1000	1400	1000	1501	1087	1550	1160	200	200	24	18	80
1600 x 1120	1600	1120	1683	1220	1760	1280	200	200	28	22	100
1800 x 1250	1800	1250	1876	1357	1960	1410	200	200	32	22	130
2000 x 1400	2000	1400	2093	1511	2180	1580	200	200	34	22	165

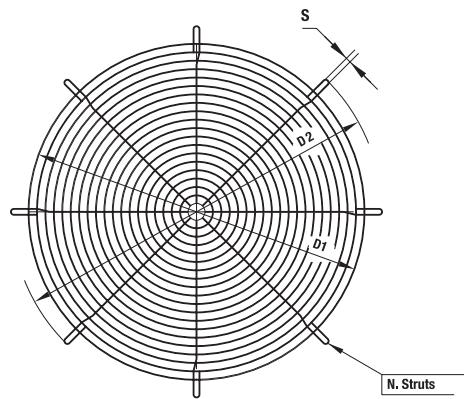
#### Vibration-damping couplings intake-end



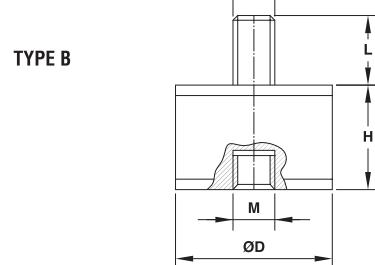
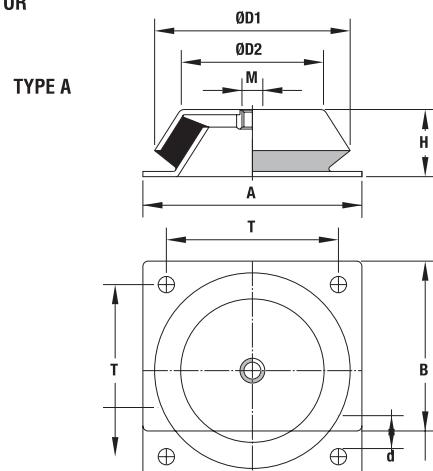
Series	mm				Bores		Weight kg
	D	D <sub>1</sub>	D <sub>2</sub>	H	n°	Ø	
140	140	182	215	140	8	11,5	3
160	160	200	235	140	8	11,5	3,2
180	180	219	255	140	8	11,5	3,5
200	200	241	275	140	8	11,5	3,8
224	224	265	299	140	8	11,5	4,2
250	250	292	325	140	8	11,5	5
280	280	332	366	140	8	11,5	6,8
315	315	366	401	140	8	11,5	7,5
355	355	405	440	140	8	11,5	9
400 *	400	448	485	140	12	11,5	10
450	450	497	535	140	12	11,5	11,5
500	500	551	585	160	12	11,5	13
560	560	629	666	160	16	11,5	16
630	630	698	736	160	16	13	17,5
710	710	775	816	160	16	13	20
800	800	861	906	160	16	13	22
900	900	958	1006	160	16	13	25
1000	1000	1067	1107	200	24	14	28
1120	1120	1200	1248	200	24	14	42
1250	1250	1337	1380	200	24	14	46
1400	1400	1491	1540	200	24	16	52
1600	1600	1663	1730	200	24	16	62
1800	1810	1880	1950	200	32	18	85
2000	2010	2073	2130	200	32	18	110

## Accessories

### Protection Net



### ISOLATOR



Dn	(mm)	(mm)	(mm)	
125				
140	140	220	12	4
160				
180				
200	212	285	12	4
224				
250				
280	312	385	12	4
315				
355	357	430	12	4
400	408	470	12	4
450	450	528	12	4
500	500	580	16	4
560	562	650	16	4
630	620	720	16	8
710	710	800	16	8
800	795	895	16	8
900	890	990	16	8
1000	990	1130	18	8
1120	1115	1250	18	8
1250	1245	1400	20	8
1400	1405	1560	20	8
1600	1595	1750	20	8
1800	1795	1950	20	8
2000	1995	2150	20	8

Type	A	B	H	M	T	d	D1	D2
MOD 58540	108	108	40	12	88	9	101	75
MOD 33629	168	168	50	16	132	13	136	125
MOD 58541	200	200	70	20	165	13	192	170

Type	D	H	M	L
B_D3020	30	20	8	20
B_D3030	30	30	8	20
B_D4030	40	30	8	23
B_D4040	40	40	8	23
B_D5020	50	20	10	28
B_D5030	50	30	10	28
B_D5045	50	45	10	28
B_D7045	70	45	10	30
B_D7540	75	40	12	37
B_D7555	75	55	12	37
B_D10040	100	40	16	45
B_D10055	100	55	16	45
B_D10075	100	75	16	45

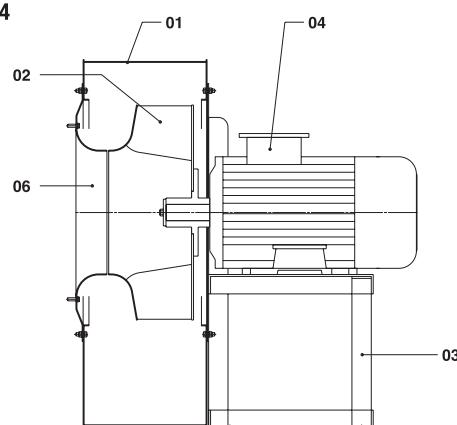
(Quote = mm)



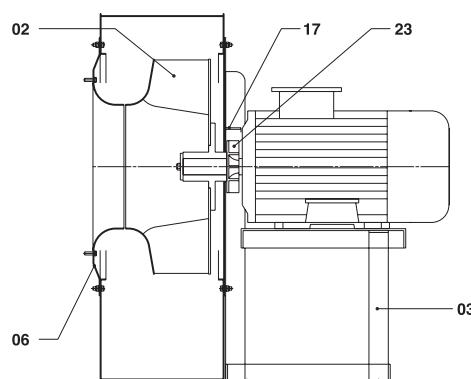
Fans series LP-LR

## SECTION

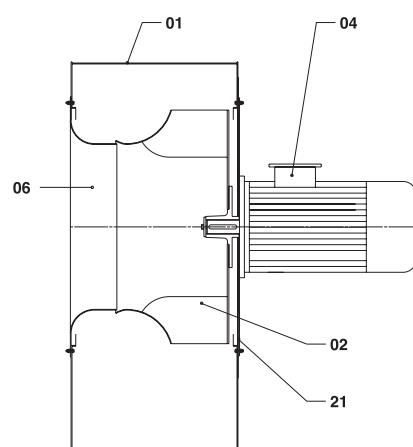
Esec. 4



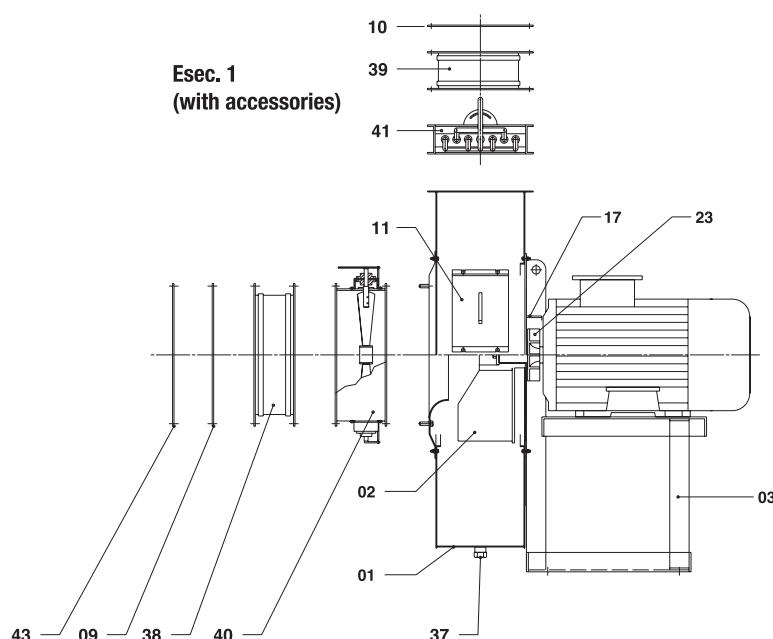
Esec. 4 (with fan)



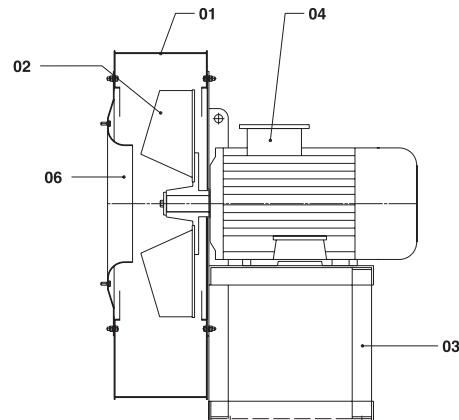
Esec. 5



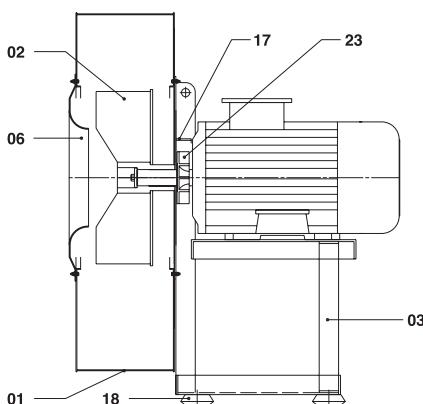
Esec. 1  
(with accessories)



Esec. 4



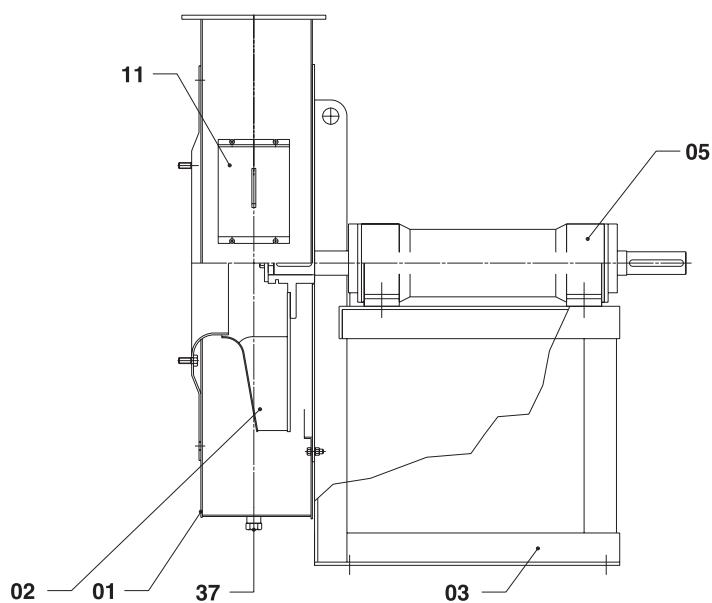
Esec. 4 (with fan)



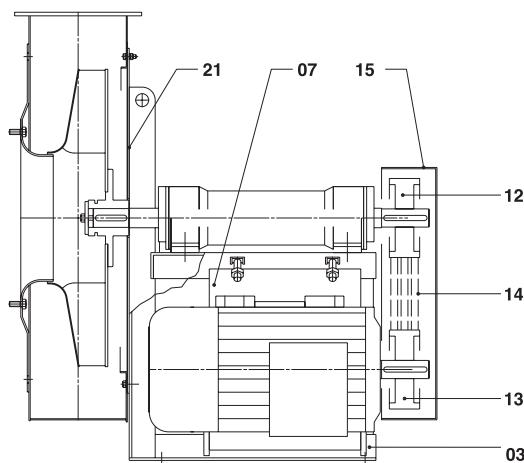


## SECTION

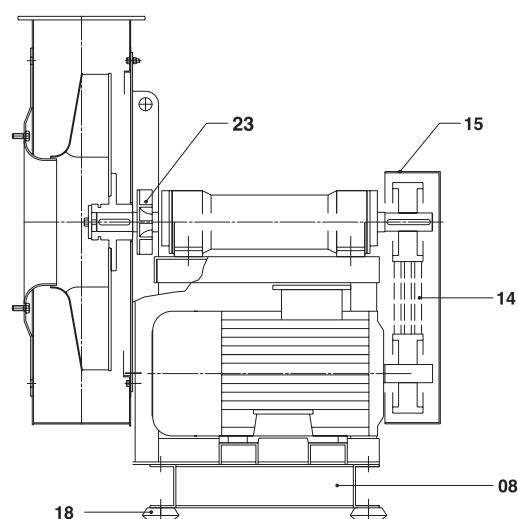
Esec. 1



Esec. 9



Esec. 12



## SPARE PARTS

- 01 - CASE
- 02 - IMPELLER
- 03 - BASE
- 04 - MOTOR
- 05 - SUPPORT
- 06 - NOZZLE
- 07 - TURNING BASE
- \* 09 - SUCKING COUNTERFLANGE
- \* 10 - PRESSING COUNTERFLANGE
- \* 11 - INSPECTION DOOR
- 15 - BELT PROTECTION CASE
- 16 - CONNECTIVE PIPE
- 17 - COOLING FAN PROTECTION
- \* 18 - SHOCK ISOLATING MOUNTINGS
- 19 - GREASE PROTECTION RING
- 22 - KEY
- 23 - COOLING FAN
- 24 - LUBRIFICATOR
- 25 - BEARING
- 26 - SHAFT
- 27 - CASE
- 28 - CAP
- 29 - PROTECTION RING
- 30 - COVER
- 31 - HOUSING
- 32 - FIXING COLLARS
- 33 - LOCKING COMPASS
- 34 - RING NUT
- 35 - SECURITY WASHER
- 36 - SEMI-ELASTIC JOINT
- \* 37 - DISCHARGE CAP
- \* 38 - SUCKING FLEXIBLE JOINT
- \* 39 - PRESSING FLEXIBLE JOINT
- \* 40 - CIRCULAR FLOW REGULATOR
- \* 41 - RECTANGULAR FLOW REGULATOR
- \* 43 - PROTECTION NET

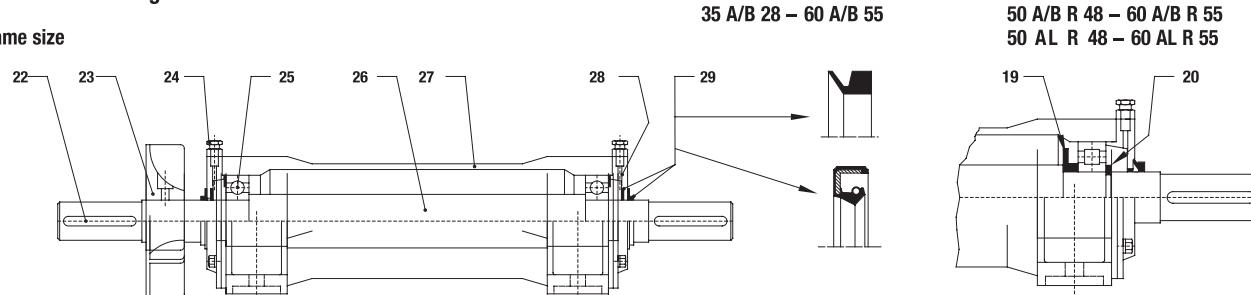


Fans series LP-LR

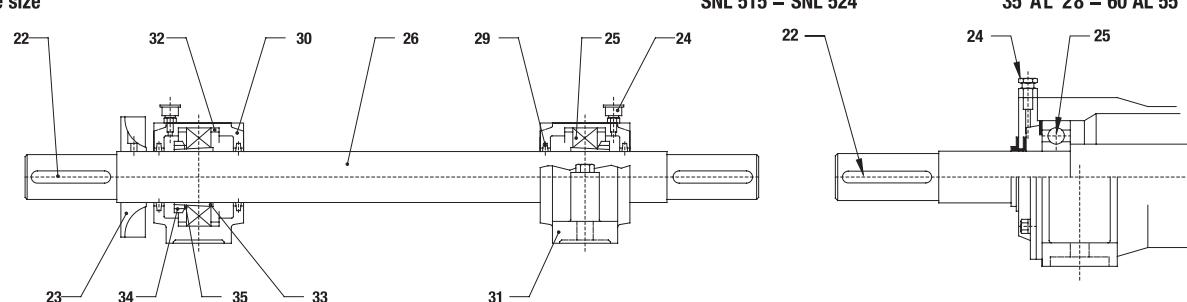
## SECTION

### Monoblock housing

Frame size



Frame size



## SPARE PARTS

01 - CASE	22 - KEY
02 - IMPELLER	23 - COOLING FAN
03 - BASE	24 - LUBRICATOR
04 - MOTOR	25 - BEARING
05 - SUPPORT	26 - SHAFT
06 - NOZZLE	27 - SUPPORT HOUSING
07 - TURNING BASE	28 - CAP
08 - BEDPLATE	29 - PROTECTION RING
09 - SUCKING COUNTERFLANGE	30 - COVER
10 - PRESSING COUNTERFLANGE	31 - HOUSING
11 - INSPECTION DOOR	32 - FIXING COLLARS
12 - FAN PULLEY	33 - LOCKING COMPASS
13 - MOTOR PULLEY	34 - RING NUT
14 - FAN BELTS	35 - SECURITY WASHER
15 - BELT PROTECTION CASE	37 - DISCHARGE CAP
17 - COOLING FAN PROTECTION	38 - SUCKING FLEXIBLE JOINT
18 - SHOCK ISOLATING MOUNTINGS	39 - PRESSING FLEXIBLE JOINT
19 - GREASE PROTECTION RING	40 - CIRCULAR FLOW REGULATOR
20 - SEEGER RING	41 - RECTANGULAR FLOW REGULATOR
21 - BASE PLATE	43 - PROTECTION NET

## Inquiry for Eurovent Blower

Subject : \_\_\_\_\_ Data : \_\_\_\_\_  
 From : \_\_\_\_\_  
 Company \_\_\_\_\_  
 Contact \_\_\_\_\_  
 Tel : \_\_\_\_\_  
 Fax : \_\_\_\_\_ E-mail : \_\_\_\_\_

### Fan Specification

Technical Data Information	
Model	$\text{m}^3/\text{min}$
Air volume	mm Wg
Static pressure	mm Wg
Total pressure	°C
Service Temperature	rpm
Fan speed	KW
Motor	%
Efficiency	
Colour (Standard Green)	
Qty .	Set
Construction	
Type	<input type="checkbox"/> Centrifugal <input type="checkbox"/> Axial <input type="checkbox"/> Propeller <input type="checkbox"/> recommended by vendor
Power Transmission	<input type="checkbox"/> Direct <input type="checkbox"/> Belt <input type="checkbox"/> recommended by vendor
Position (see table 1)	
Accessory	<input type="checkbox"/> Inlet Damper <input type="checkbox"/> Outlet Damper <input type="checkbox"/> Filter <input type="checkbox"/> Expansion joint <input type="checkbox"/> Inspection Hole <input type="checkbox"/> Drain with plug
Application	
if replace for old blower please give original information.	

**\*\* Do not use direct drive for hot air fan**

This information above is for guideline only , fan supplier should re-check and select the proper solutions.

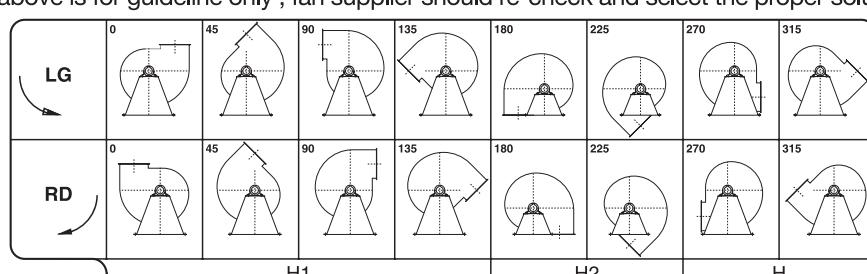
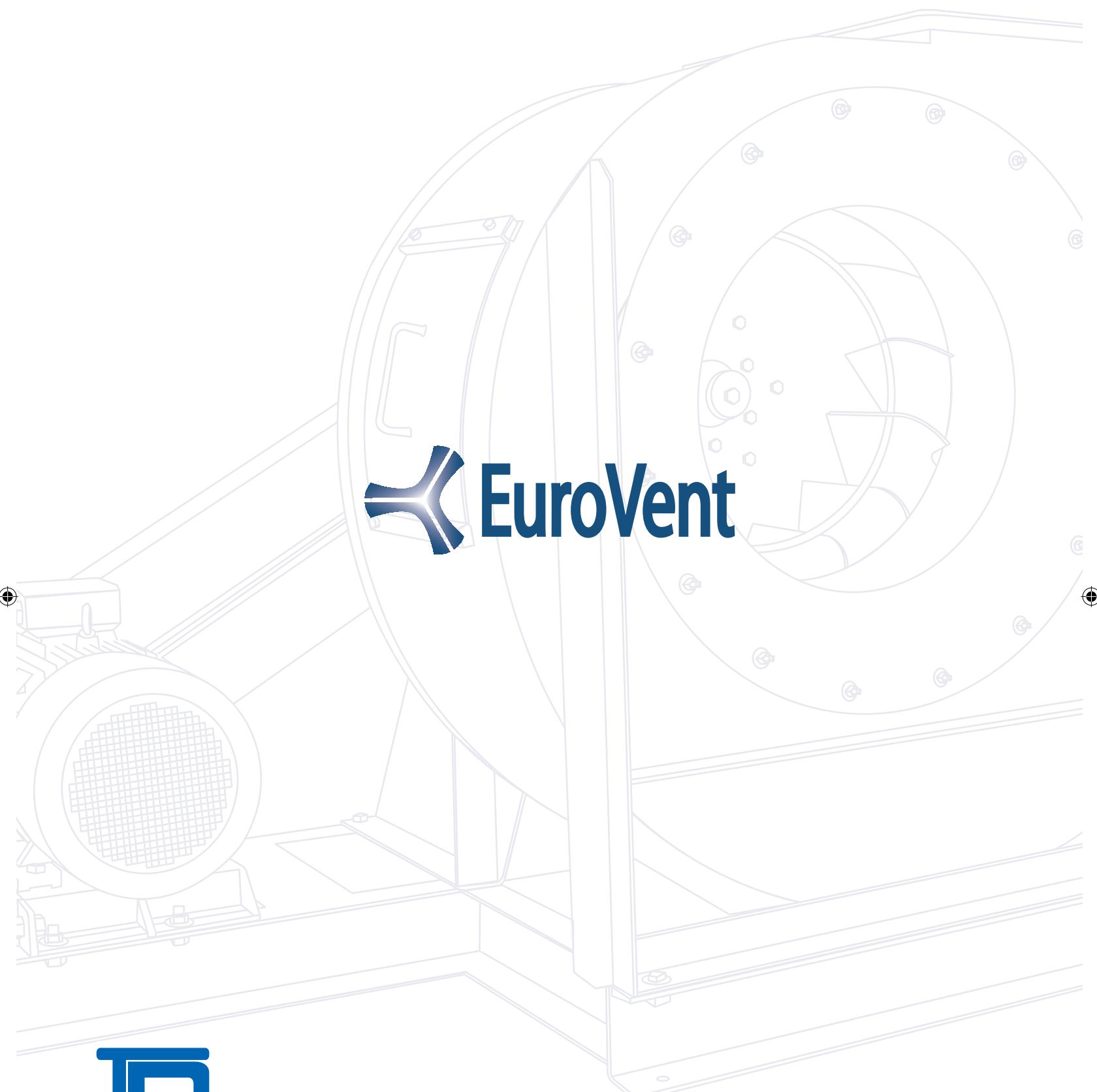


Table 1 Show position

Please send to

E-mail : info@euroventblower.com

Checked by	Approve by



EUROVENT CO.,LTD

18/5 Moo 13 Soi Watmainongpa-ong Petchkasem Rd.  
Omnoi Krathumban Samutsakorn 74130 Thailand.  
Tel : +66(2) 813 8118 +66(2) 115 5000  
Fax : +66(2) 811 0808 +66(2) 115 5555  
E-mail : info@euroventblower.com  
[www.euroventblower.com](http://www.euroventblower.com) [www.tngroup.co.th](http://www.tngroup.co.th)