

LBP, LBP Ex - Bag dust collector with pulse jet cleaning.



LBP



LBP Ex

LBP bag dust collectors designed for continuous operation in process and general dust extraction applications with free flowing dust. This new dust collector range offers few filter bags lengths and on-line high efficiency pulse jet cleaning.

Description

All LBP Ex, LBP units have generously sized integral pre-separation chambers to increase their dust load capacity whilst reducing the load on the filter bags. Maintenance is from the top, within handrails if specified. A range of space saving integral fans from 5,5 kW to 18,5 kW may be specified, with optional air silencers. Larger units may be served by floor mounted high efficiency Combifab fans.

Options

- Hopper in the pyramid or trough version.
- Dust can be collected in a bin (50L or 100L with wheels), big-bag outlet.
- Discharge can be also via counter balanced valve,
- Range of integral fans from 5,5 kW to 18,5 kW with optional silencers with weather cowl,
- Ground mounted *Combifab* fans for higher airflow volumes,
- ATEX certified explosion relief panels when handling combustible dusts (St1, St2 or St3),
- Heat tracing and insulation for non-ATEX units up to 200°C. For ATEX units, up to 60°C.
- *Insight Control Panel* for monitoring and control, Insight Ready (connectivity module to connect to Nederman's cloud based filtration knowledge center, Insight Analytics).



Dust collector type	Maximum overpressure [Pa]	Maximum negative pressure [Pa]	Operation temperature [°C]	P _{red}
Standard version	2000	6000	Min. -20. ... Max. +60	0,25 bar
Atex version		5000		

Combustible dust properties	Data	
K _{ST}	Max. 200 bar m s ⁻¹	200 - 300 bar m s ⁻¹
Explosion class	St 1	St 2

Specification

- 3 mm steel, painted C2-M/C3-L.
- Bolted assembly.
- Weatherproof for exposed locations,
- On-line cleaning with high efficiency diaphragm valves.
- Large integral preseparation chamber.
- Standard legs calculated in accordance to Eurocode 3s.a.:
 - wind loads (EN 1991-1-4 zone 2),
 - earthquake (0,08x g horizontal acceleration).

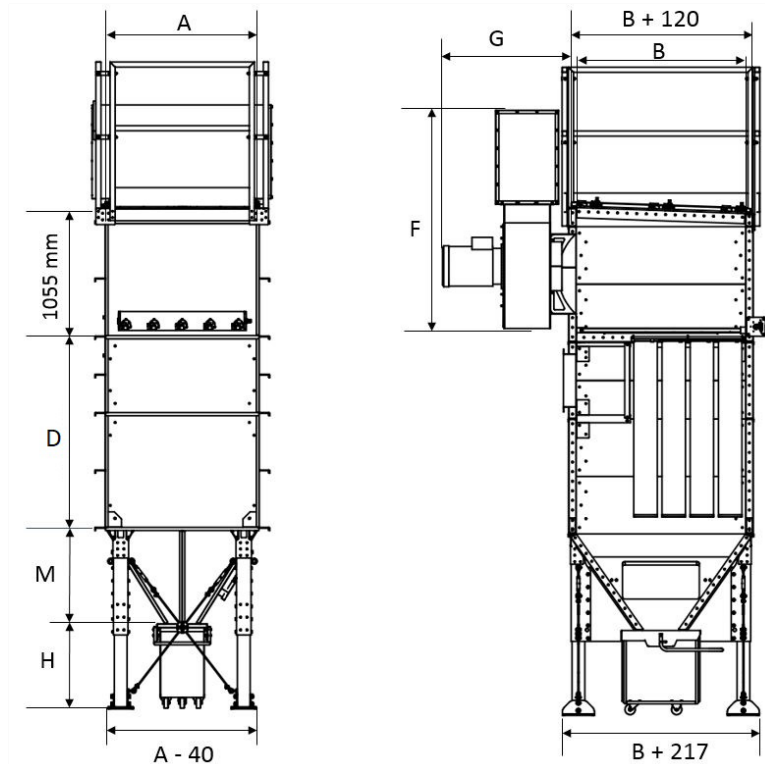
Product marking of LBP Ex

CE  II 1(3)/- D Ex h IIIB T135°C Da(Dc)/-

Requirements:

- Compressed air requirements: Normal operating pressure for cleaning air - 6 bar (max. 7 bar) dry and oil free.
The noise level pic of jet cleaning system is 61 [Db] measured 1,5m from tank filed at pressure 6,5Bar
- Electrical requirements for Fan: 400V, 3 phase, 50Hz and 480V, 3 phase, 60Hz,
Other voltages available by request.

Dimensions & weights



Fan motor power [kW]	F [mm]	G [mm]	Weight excl silencer and weather cowls [kg]	Noise level dB(A)**	
				with silencer	without silencer
5,5	1685	729	92	79	85
7.5 (S)*	1685	729	97	81	85
7.5 (L)*	1850	893	147	82	85
11	1850	998	179	84	87
15	1850	998	192	84	90
18,5	1850	998	210	85	94

* - two quantities of the fan with an engine power 7,5 kW

** - Measuring surface sound pressure level in 1 m distance for an open outlet or silencer at the outlet [dB(A)]. Applies to all fans with a frequency of 50 Hz.

Length mm of the dust collector	Screw conveyor length mm	
	1320 mm width	2200 mm width
900	N/A	N/A
1200	N/A	N/A
1800	1170	N/A
2100	1320	N/A
2400	N/A	1470
2700	N/A	1806
3000	2220	2088
3300	N/A	2370
3600	N/A	2670
3900	N/A	3006
4200	N/A	3270
4500	N/A	3570
4800	N/A	3870

A (length mm of the chamber)	B (width mm of the LBP)	D (height mm of the dirty air chamber)	M		H (height mm of accessories)
			Height mm of the hopper	Type	
900	1320	2400 - for filter bag 2440 mm 2100 - for filter bag 2030 mm 1500 - for filter bag 1320 mm	755**	pyramidal	400 - 50L bin with wheels 665 - 100L bin with wheels 315 - screw coneyor 300 - rotary valve NRS(Z)3 350 - JAUDT 1860 - NRS(Z) 3 + big bag + pallet
1200				pyramidal	
1800				pyramidal, trough	
2100				pyramidal, trough	
3000				pyramidal, trough	
1200	2200		1384**	pyramidal	
1800*				pyramidal	
2100*				pyramidal	
2400				pyramidal, trough	
2700				trough	
3000*				pyramidal, trough	
3300*				pyramidal, trough	
3600				pyramidal, trough	
3900*				pyramidal, trough	
4200*				pyramidal, trough	
4500*				pyramidal, trough	
4800				pyramidal, trough	

*If 50L or 100L bin add 650 mm for transition.

**If screw conveyor add 100 mm of transition for hopper height.

NOTE! Units without hoppers or where the hopper will be made locally or by others, no ATEX marking is available and will need to be certified locally.

A (length mm of the chamber)	CAC [kg]		DAC [kg]						HOPPER [kg]				HANDRAILS [kg]	
			1320 bag filter		2030 bag filter		2440 bag filter							
	1320 width mm	2200 width mm	1320 width mm	2200 width mm	1320 width mm	2200 width mm	1320 width mm	2200 width mm	1320 width mm - pyramidal	2200 width mm - pyramidal	1320 width mm - trough	2200 width mm - trough		
900	578	N/A	329	N/A	497	N/A	540	N/A	360	N/A	N/A	N/A	30	
1200	628	829	360	460	544	650	594	710	390	570	N/A	N/A	30	
1800	1036	1242	448	546	620	772	789	862	615	660	577		60	
2100	1086	1357	481	579	713	819	789	916	645	685	570		60	
2400	N/A	1472	N/A	612	N/A	866	N/A	950	N/A	1010	N/A	710	60	
2700	N/A	1770	N/A	665	N/A	941	N/A	1068	N/A	N/A	N/A	850	90	
3000	859	1885	600	698	836	988	1050	1122	900	1100	757	1057	90	
3300	N/A	2000	N/A	731	N/A	1035	N/A	1156	N/A	1125	N/A	1082	90	
3600	N/A	2115	N/A	764	N/A	1082	N/A	1210		N/A	1450	N/A	1110	90
3900	N/A	2413	N/A	817	N/A	1157	N/A	1328		N/A	1215	N/A	1312	120
4200	N/A	2528	N/A	850	N/A	1204	N/A	1362	N/A	1240	N/A	1274	120	
4500	N/A	2643	N/A	883	N/A	1251	N/A	1416	N/A	1565	N/A	1362	120	
4800	N/A	2623	N/A	916	N/A	1298	N/A	1470		N/A	1760	N/A	1390	150

ACCESSORIES	kg	Qty
Bin 50/100L	23	1 pcs
Bag filter + cage	5,5	1 pcs
Ladder	102	1 pcs

Filter area vs dust collector type

Dust collector length (mm)	Dust collector type*	1320 width				2200 width				Compressed air consumption** [m³/h]
		Quantity of filter bags	Filter area m²			Quantity of filter bags	Filter area m²			
			1320 filter bag length	2030 filter bag length	2440 filter bag length		1320 filter bag length	2030 filter bag length	2440 filter bag length	
900	LBP 5-25: 5x5	25	13	20	24	N/A	N/A	N/A	N/A	32,4
1200	LBP 7-35: 7x5	35	18	28	33	N/A	N/A	N/A	N/A	
1800	LBP 10-50: 10x5	50	25	40	47,5	N/A	N/A	N/A	N/A	
2100	LBP 12-60: 12x5	60	30	48	57	N/A	N/A	N/A	N/A	
1200	LBP 7-70: 7x10	N/A	N/A	N/A	N/A	70	35	56	67	
3000	LBP 17-85: 17x5	85	43	68	81	N/A	N/A	N/A	N/A	
1800	LBP 10-100: 10x10	N/A	N/A	N/A	N/A	100	50	80	95	
2100	LBP 12-120: 12x10	N/A	N/A	N/A	N/A	120	N/A	96	114	
2400	LBP 14-140: 14x10	N/A	N/A	N/A	N/A	140	N/A	N/A	133	
2700	LBP 15-150: 15x10	N/A	N/A	N/A	N/A	150	N/A	N/A	143	
3000	LBP 17-170: 17x10	N/A	N/A	N/A	N/A	170	N/A	N/A	162	
3300	LBP 19-190: 19x10	N/A	N/A	N/A	N/A	190	N/A	N/A	181	
3600	LBP 21-210: 21x10	N/A	N/A	N/A	N/A	210	N/A	N/A	200	
3900	LBP 22-220: 22x10	N/A	N/A	N/A	N/A	220	N/A	N/A	209	
4200	LBP 24-240: 24x10	N/A	N/A	N/A	N/A	240	N/A	N/A	228	
4500	LBP 26-260: 26x10	N/A	N/A	N/A	N/A	260	N/A	N/A	247	
4800	LBP 28-280: 28x10	N/A	N/A	N/A	N/A	280	N/A	N/A	266	

*Example: 7x5=35,

7 - number of rows/quantity of diaphragm valves,
5 - number of cartridges per row.

Example of nomenclature of model **LBP 7-35**: explanation: L-large, B- bag, P-pulse 7-number of valves, 35-number of bags in dust collector.

**At continuous cleaning pulse each 10 seconds.

Figure 2. Air flow range for 4.0 to 7.5 S kW

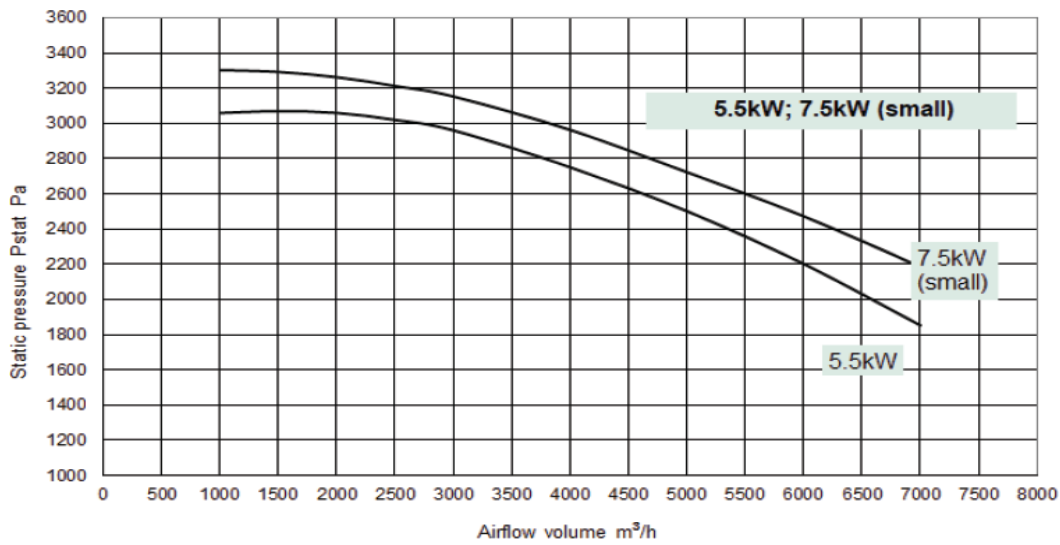
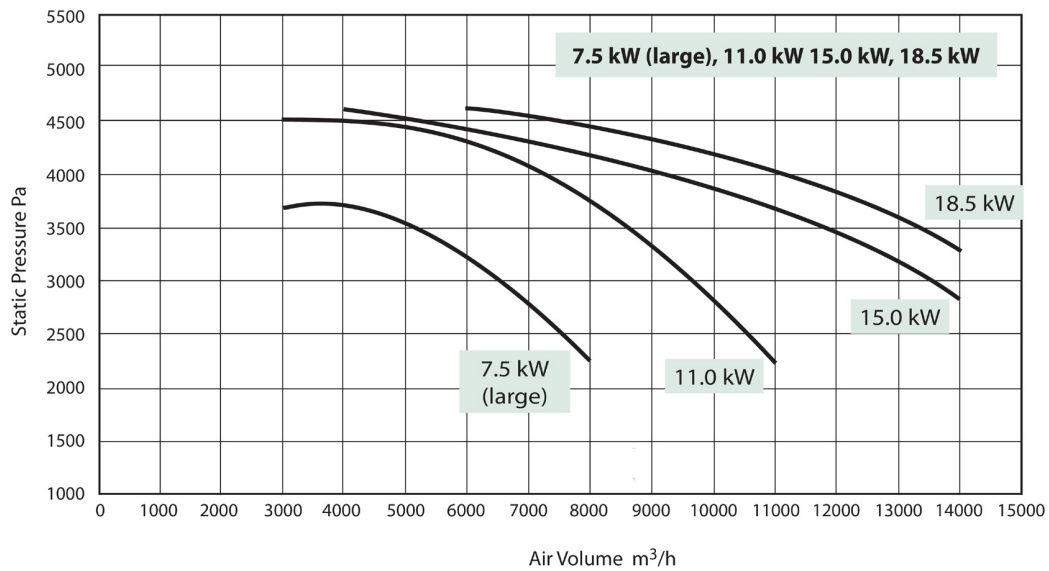
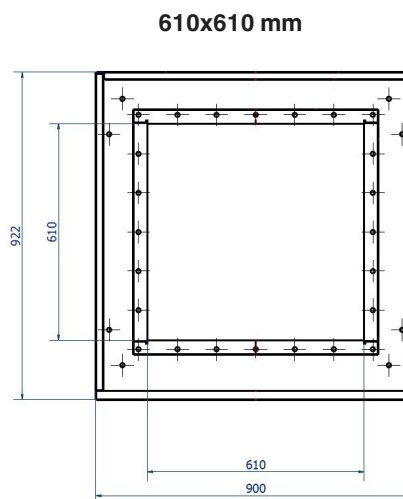
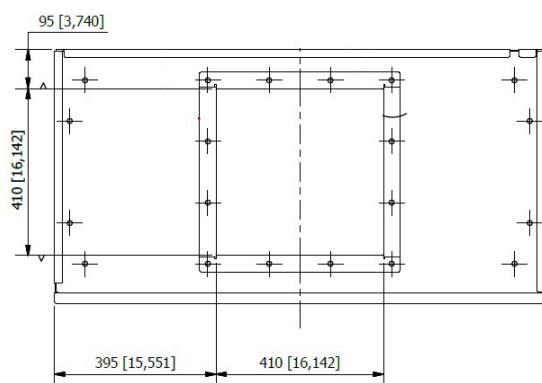
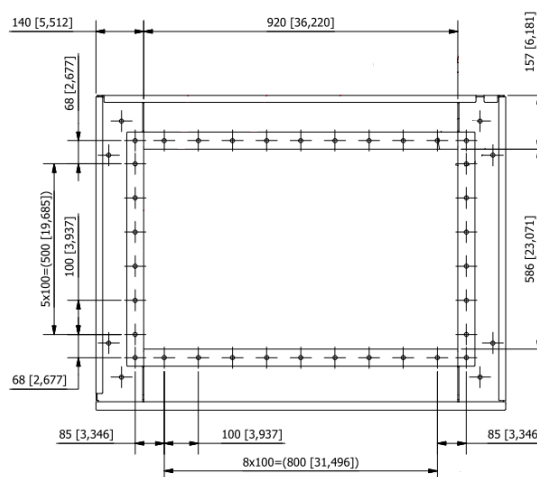


Figure 3. Air flow range for 7.5 L to 11,5 kW

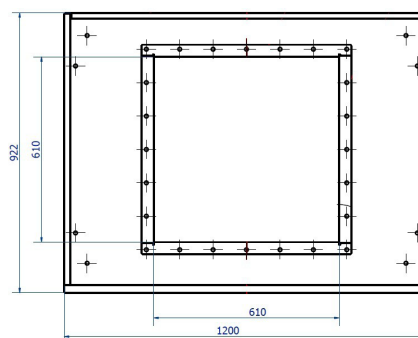
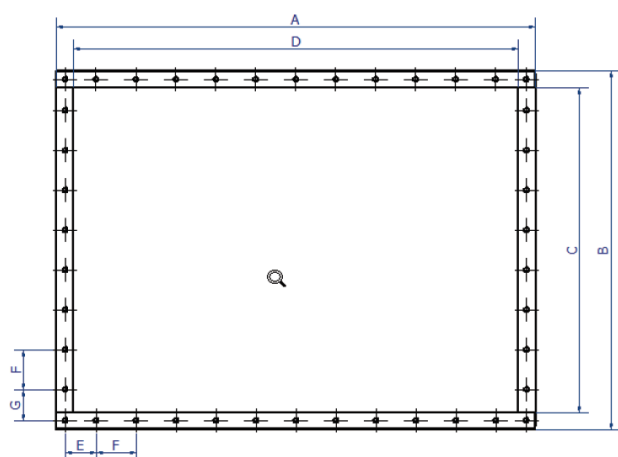


Outlet dimensions

920x586 mm



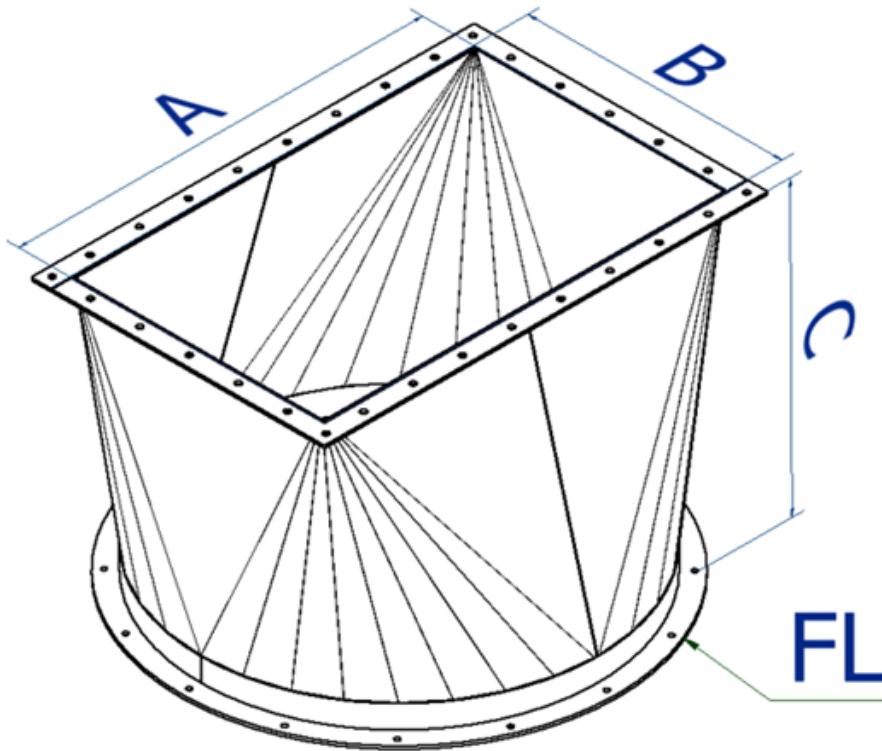
**No module panel mounted
with 100 mm duct flange**



Type	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]
Inlet dimension	900	600	516	814	77	100	78
	1200	600	516	1114	77	100	78
Outlet dimension	900	900	816	814	77	100	78
	1200	900	816	1114	77	100	78

Inlet / Outlet Description, T=2mm welded FL

Item no.	Flange type	A [mm]	B [mm]	C [mm]
73009093	FL 700	610	610	300
73009094	FL 450	410	410	250
73009095	FL 1200	1114	816	880
73009096	FL 1000	1114	516	1000
73009097	FL 1000	816	814	400
73009098	FL 800	920	586	450
73009099	FL 800	814	516	600



Accessories

Figure	Description	Figure	Description
A blue, box-shaped fan unit with a circular outlet on the side.	Integral fan (NF)	A metal frame with a horizontal rail and a vertical support.	Toeboard with rail
A blue and grey fan unit with a circular outlet on the side.	External fan (Combifab)	A vertical metal ladder with rungs and a safety cage.	Access ladder
A blue, rectangular silencer unit with a weather cowl on top.	Silencer with weather cowls		
A blue screw conveyor unit with a long, angled hopper.	Screw conveyor (PSK, PSR)		
A metal rotary valve unit with a hopper on top and a motor on the side.	Rotary valve (NRS3, NRSZ3)	A metal frame with a circular gate and a motor.	Ladder blockade
A grey dust collecting bin with a handle and a lid.	Dust collecting bin 50L or 100L (available with wheels)	-	Explosion detection sensor
-	Big bag	-	Differential pressure indicator
A metal double flap valve unit with a hopper on top and two flaps.	Double flap valve	-	Trace heating system and thermal insulation
A metal explosion panel with a hopper on top.	Explosion panel	-	Controler system for complete dust extraction installation - according with the special requirements of customer
A grey secondary filter unit with a hopper on top.	Secondary filter H13		