

Industrial piston compressors

0.7-60 hp / 0.5-44.7 kW

Atlas Copco piston compressors

Proven durability

Atlas Copco introduced the first piston compressor in 1904. Since then, we have continuously advanced the technology. Today, Atlas Copco piston compressors and boosters offer you the powerful combination of reliability, flexibility and low operating costs.

RELIABILITY

- Dependable flow of compressed air directly to the point of use.
- High quality materials for premium performance and long life.
- Limited number of working parts ensures performance in extreme conditions.

LOW OPERATING COSTS

- Simple maintenance thanks to easily accessible parts.
- One-bearing motor reduces mechanical friction on the compressors.

FLEXIBILITY

- Very wide range of working pressures with a maximum of 300 bar (4353 psi).
- Compact installation.
- Available in oil-free as well as lubricated versions.
- Stand-alone use or easy integration in your process.



* For lubricated models; 16,000 hours for oil-free models

** For most models

A complete & flexible range

Count on Atlas Copco piston technology to drive your production reliably and efficiently. We can meet your exact requirements with the broadest compressor portfolio, whether you work in a large industrial plant, a smaller workshop, a clean technology lab or if you need higher pressures. We even offer customized piston solutions for industries with specific demands (transportation, snow making, etc.) as well as for our OEM customers.

OIL-FREE



LFx: Single-stage one-cylinder oil-free reciprocating compressor with a maximum working pressure of 10 bar (145 psi).



LFxD: Single-stage oil-free reciprocating compressor with integrated dryers and a maximum working pressure of 10 bar (145 psi).



LF: Single-stage two-cylinder oil-free reciprocating compressor with a maximum working pressure of 10 bar (145 psi).



LZ: Elektronikon® Mk5 Touch controlled single-stage oil-free reciprocating compressor, silenced, with a maximum working pressure of 10 bar (145 psi).

LUBRICATED



LE: Single-stage reciprocating compressor with a maximum pressure of 10 bar (145 psi).

LT: 2-stage or 3-stage (40 bar version) reciprocating compressor with a maximum pressure of 15, 20, 30 or 40 bar (218, 290, 435 or 580 psi).

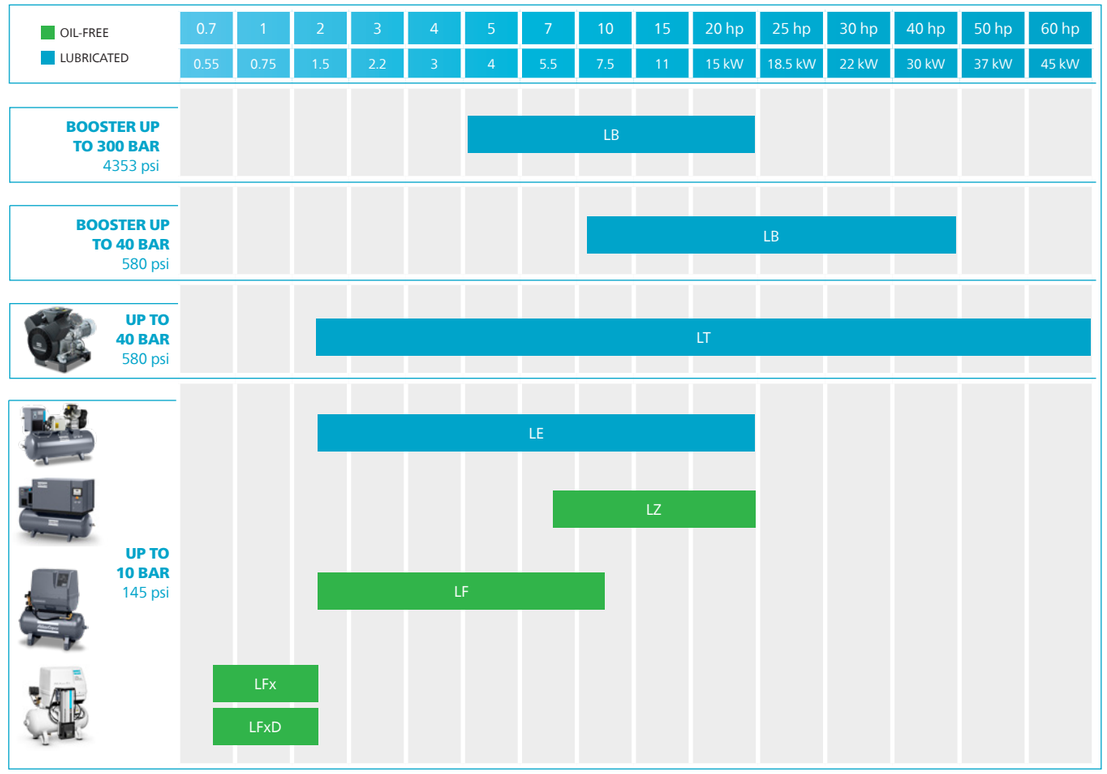
BOOSTERS



LB 40: Single-stage lubricated air and nitrogen booster for pressures up to 40 bar (580 psi).

LB 300: Two or three-staged air & nitrogen booster for pressures up to 300 bar (4353 psi).

Your Atlas Copco piston compressor: an easy choice



Oil-free piston compressors

LZ, LF, LFx & LFxD series

When you need absolutely clean air, “technically oil-free” won’t do. Oil-injected compression, even filtered, cannot guarantee that all oil vapors, aerosols and other contaminants are removed from the air. Atlas Copco pioneered the oil-free air technology that removes any risk of contamination by oil. What is more, we also set a new standard in air quality as the first manufacturer to be certified ISO 8573-1 Class 0. With no less than four clean air piston series (the LZ, LF, LFx and LFxD), we have the right oil-free compressor for you.

Flexibility

- Full range with different power (0.7-20 hp), pressure (4-10 bar) and power supply (230/400/460V) options.
- Pack and full feature, base and tank mounted versions are available.

Quality air

- ISO 8573-1 Class 0 pump produces TÜV-certified 100% clean air.
- Dryer and dust particle filters come included as standard in the full feature and pack versions.

Reliability

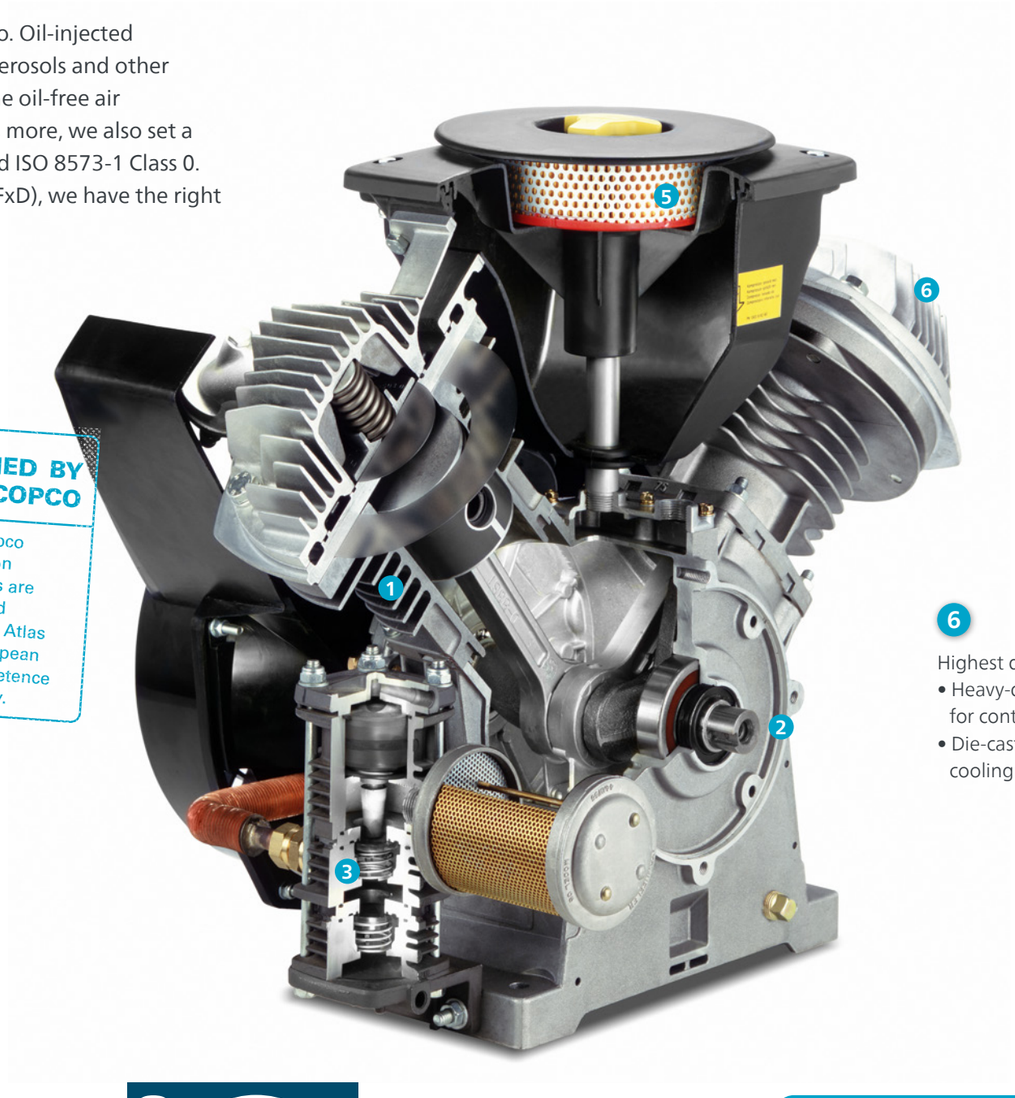
- Patented stainless steel inlet/outlet pump valves.
- Long lifetime of 16,000 hours.
- Elimination of oil changes ensures minimal service requirements.
- Extremely low maintenance costs.

Class 0

- First in ISO 8573-1 (2010) Class zero.
- Top air purity for critical environments.
- Complies with international regulations.
- Lower total cost of ownership.

DESIGNED BY ATLAS COPCO

All Atlas Copco oil-free piston compressors are designed and developed in Atlas Copco’s European Piston Competence Center in Italy.



ISO CLASS 0

1

Automotive style **cylinders** made of high silicium aluminum alloy with low tolerance finishing for extremely low clearance and minimized friction.

2

Direct drive eliminates transmission losses.

3

Industrial **unloader valve**:
- Designed to withstand extreme conditions and high working pressures.
- The unloader valve reduces starting torque for a longer compressor and motor lifetime as well as limited strain on the electricity net.

4

Single electrical connection for easy, plug-and-play installation.

5

A wide range of **air treatment devices** is available to meet air purity levels as required by ISO 8573-1 2010.

6

Highest quality **components**:
- Heavy-duty sealed-for-life ball bearings selected for continuous duty and long lifetime.
- Die-cast aluminum crankcase and finned cylinderheads with high cooling characteristics, for long lifetime and efficient operation.



THE LZ: THE PREMIUM OIL-FREE AIR SOLUTION

The Atlas Copco LZ adds low noise and extensive controls to the traditional piston benefits of robustness, low maintenance and energy efficiency. Simply the most complete oil-free piston compressor on the market today, the LZ meets all your compressed air needs.

Lubricated piston compressors
LE & LT series



An Atlas Copco LE/LT compressor is your high-performance industrial air solution. The 10-bar LE and the 15/20/30 or 40-bar LT generate quality air at the lowest operating temperatures in the industry and with minimal oil carryover. Their proven design and quality materials deliver premium operation and an extra long life.

Premium reliability

- A unique, robust design and quality materials ensure an extended product life.
- The fan designed for optimal cooling of the air flow also balances the compressor for reduced vibration.

Low running costs

- Use of highly durable components for improved performance.
- Start-stop system instead of load-unload.

Easy maintenance

- All components and service points are easily accessible.



COMPACT

The LE/LT compressor block is directly coupled to the motor and is built with lightweight materials. This provides excellent cooling and smooth integration in small spaces.

Medium and high pressure boosters
LB series

When you need the best in booster performance and reliability, the Atlas Copco LB delivers. The LB is the ideal solution for any air or nitrogen application where higher pressures are required. Its piston technology with blocks specifically designed for medium and high pressure offers industry-leading efficiency and performance.



Quiet

- Silent from the core: optimal balancing and use of special vibration dampers.
- Block separated from the motor and gas collector to minimize vibration.



Increased efficiency

- Energy efficient IE3 motors.
- Low current start-up with star delta start.
- Plug and play with pre-programmed controller.
- Easy operation.

Optimal performance

- Innovative oil lubrication system with oil ring and crankshaft channels ensures better lubrication of the cast iron cylinders.
- No oil carryover with oil breathing system.
- Efficient cooling of the unit and the compressed gas by fan, flywheel inter- and aftercoolers.

Supreme reliability

- No nitrogen purity losses.
- Oil-level switch for early alerts.
- Inlet and outlet safety valve protection.
- Steel valve plates with innovative zinc-based microsphate coating for additional protection.

ONE STOP SHOP SOLUTION

Atlas Copco boosters are an ideal fit with our screw compressors or nitrogen generators. Atlas Copco can provide you with a plug and play all-in-one nitrogen skid for on-site N_2 generation. Both the LB 40 and LB 300 easily fit on our skids for direct use or bottling.



















OEM applications

Versatile & sustainable solutions

Tailored to perform non-stop in a wide variety of environments, Atlas Copco's piston compressors are the premium OEM air solution. What is more, our dedicated European Piston Competence Center allows us to maintain a collaborative relationship with our OEM customers, working on both current projects and long term solutions.

PERFORMANCE & FLEXIBILITY
It all starts with what we know best: our core piston technology and the proven reliability of our LFx, LE, LT and LF. Next, we optimize their performance within your original equipment by developing a tailored solution together. Our working relationship extends beyond yes/no answers to basic choices such as belt or direct driven, extreme temperatures, clean or harsh environments, single units or custom duplex built, ... The customization possibilities are almost endless.

GLOBAL SERVICE
Atlas Copco is a truly global organization with support available 24/7 in more than 150 countries.

INDUSTRY-SPECIFIC SOLUTIONS
- Transportation
- Snow making
- Solar fields
- Printing
- Box folding
- Beer production
- … and many more

Options

Tailor your Atlas Copco piston compressor

✔ = standard
O = optional

	LFx & LFxD	LF	LZ	LE	LT	LB (40 bar)	LB (300 bar)
Heavy duty filter		O		O	O		
Interstage drain					O		✔
Timer drain	O	O	O	O	O		✔
CD dryer*	✔	O		O	O		
Hour meter**	O	O	✔	O	O	✔	✔
Hood	✔	O	✔	O	O		✔
Oil level switch				O	O	✔	
Auto restart	O	O	✔	O	O		
HP filter						O	O
HP vessels/bottles					O	O	O
Aftercooler***						✔	O

* Only DOL 230/50 and 400/50.
** Maximum 15 bar.
*** Aftercooler standard only on BMC version.

Technical specifications

OIL-FREE: LZ SERIES

Available for different supplies and models: BM, TM and FF

Compressor type	Max. working pressure		FAD @ 50 Hz			FAD @ 60 Hz			Installed motor power		Noise level
	bar	psig	l/s	m³/min	cfm	l/s	m³/min	cfm	kW	hp	dB(A)
LZ 7-10	10	145	11	0.66	23.3	12	0.72	25.4	5.5	7.5	72
LZ 10-10	10	145	15.5	0.93	32.8	18.2	1.1	38.9	7.5	10	74
LZ 15	10	145	22	1.32	46.6	24	1.44	50.8	11	15	75
LZ 20	10	145	31	1.86	65.6	36.4	2.2	77.8	15	20	77

Unit performance measured according to ISO 1217, Ed.4, Annex C-2009.
Mean noise level measured according to ISO 2151/Pneurop/Cagi PN8NTC2 test code; tolerance 3 dB(A).
BM: Base mounted, TM: Tank mounted, FF: Full Feature

OIL-FREE: LF SERIES

Available for different supplies and models: B, PP, BM, TM and FF

Compressor type	Max. working pressure		FAD @ 50 Hz			FAD @ 60 Hz			Installed motor power		Noise level
	bar	psig	l/s	m³/min	cfm	l/s	m³/min	cfm	kW	hp	dB(A)
LF 2	10	145	3.1	0.19	6.57	3.5	0.21	7.42	1.5	2	82
LF 3	10	145	4	0.24	8.48	5.5	0.33	11.65	2.2	3	83
LF 5	10	145	8.2	0.49	17.37	11.1	0.67	23.52	4	5	83
LF 7	10	145	11	0.66	23.31	18.4	1.1	38.99	5.5	7	84
LF 10	10	145	15.5	0.93	32.84	24.2	1.45	51.28	7.5	10	86

Comes with a choice of refrigerant, desiccant or membrane dryer technology and appropriate filters.
B: Block, PP: Power Pack, BM: Base mounted, TM: Tank mounted, FF: Full Feature

LUBRICATED: LE SERIES

Compressor type	Max. working pressure		FAD @ 50 Hz			FAD @ 60 Hz			Installed motor power		Noise level dB(A)	
	bar	psig	l/s	m³/min	cfm	l/s	m³/min	cfm	kW	hp	Unsilenced	Base-mounted, silenced
LE 2-10	10	145	3.4	0.2	7.2	3.9	0.23	8.3	1.5	2	78/80	63/65
LE 3-10	10	145	4.4	0.26	9.3	5.1	0.31	10.8	2.2	3	79/81	64/66
LE 5-10	10	145	8.4	0.5	17.8	9.7	0.58	20.6	4	5.5	79/81	64/66
LE 7-10	10	145	11.7	0.7	24.8	13.6	0.82	28.2	5.5	7.5	80/82	68/70
LE 10-10	10	145	15.7	0.94	33.3	18.2	1.04	38.6	7.5	10	81/81	68/69
LE 15-10	10	145	23.9	1.43	50.7	28.7	1.7	60.8	11	15	89/90	78/78
LE 20-10	10	145	31.7	1.90	67.2	37.2	2.26	78.8	15	20	88/89	76/78

Comes with a choice of refrigerant, desiccant or membrane dryer technology and appropriate filters.

LUBRICATED: LT SERIES

Compressor type	Max. working pressure		FAD @ 50 Hz			FAD @ 60 Hz			Installed motor power		Noise level dB(A)	
	bar	psig	l/s	m³/min	cfm	l/s	m³/min	cfm	kW	hp	Unsilenced	Base-mounted, silenced
LT 2	20	290	2.1	0.13	4.5	2.7	0.16	5.7	2	1.5	78	63
LT 3	30	435	2.5	0.15	5.3	3.1	0.19	6.6	3	2.2	79	64
LT 5	30	435	4.4	0.26	9.3	5.5	0.33	11.7	5.5	4	79	64
LT 7	30	435	6.4	0.38	13.6	8	0.48	17	7.5	5.5	80	68
LT 10	30	435	8.5	0.51	18	10.2	0.61	21.6	10	7.5	80	68
LT 15	30	435	9.3	0.56	19.7	11.1	0.67	23.5	15	11	85	76
LT 20	30	435	17	1.02	36	19.7	1.18	41.7	20	15	86	80
LT 25	40	580	21	1.26	44.5	25	1.5	53	25	18.5	90	-
LT 30	40	580	28	1.68	59.3	33	1.98	69.9	30	22	90	-
LT 40	40	580	33	1.98	70	39	2.34	82.6	40	30	91	-
LT 50	40	580	40	2.4	84.7	49	2.94	103.8	50	37	94	-
LT 60	40	580	50	3	106	61	3.66	129.3	60	45	94	-

Comes with a choice of refrigerant, desiccant or membrane dryer technology and appropriate filters.

OIL-FREE: LFx SERIES

Compressor type	Max. working pressure		FAD @ 50 Hz			FAD @ 60 Hz			Installed motor power		Noise level
	bar	psig	l/s	m³/min	cfm	l/s	m³/min	cfm	kW	hp	dB(A)
LFx 0.7	10	145	1.02	3.6	2.16	1.35	4.8	2.86	0.55	0.7	64
LFx 1.0	10	145	1.38	4.8	2.92	1.46	5.2	3.09	0.75	1	64
LFx 1.5	10	145	2.07	7.5	4.38	2.39	8.6	5.06	1.1	1.5	67
LFx 2.0	10	145	2.53	9.1	5.36	-	-	-	1.5	2	67

Comes with a choice of refrigerant, desiccant or membrane dryer technology and appropriate filters.
Available with 24.5 and 90lt vessels or as Powerbox.

OIL-FREE: LFxD SERIES

Compressor type	Max. working pressure		FAD @ 50 Hz			FAD @ 60 Hz			Installed motor power		Noise level
	bar	psig	l/s	m³/h	cfm	l/s	m³/h	cfm	kW	hp	dB(A)
LFxD 0.7	10	145	1.02	3.6	2.16	1.35	0.08	2.86	0.55	0.7	61
LFxD 1.0	10	145	1.38	4.8	2.92	1.46	0.09	3.09	0.75	1	62
LFxD 1.5	10	145	2.07	7.5	4.39	2.39	0.14	5.06	1.1	1.5	63
LFxD 2.0	10	145	2.53	9.1	5.36	3.08	0.18	6.53	1.5	2	64

Comes with a choice of refrigerant, desiccant or membrane dryer technology and appropriate filters.

LB 40 BOOSTER

Type	Max. inlet pressure		Max. outlet pressure		FAD @ 50 Hz/60 Hz			Motor power		Motor speed	Dimensions (L x W x H in mm)		Weight (kg)	
	bar	psig	bar	psig	l/s	m³/h	cfm	hp	kW	rpm	BM	BMC	BM	BMC
LB 10	5	72.5	25	362.6	28.5	103	60.4	10	7.5	829	1760x751x1044	1660x790x1070	310	365
	10	145	40	580	34.7*	125*	73.5*	10	7.5	603	1760x751x1044	1660x790x1070	310	365
LB 15	5	72.5	25	362.6	35.3	127	74.8	15	10	888	1760x751x1044	1660x790x1070	350	405
	10	145	40	580	48.5	175	102.8	15	10	842	1760x751x1044	1660x790x1070	350	405
LB 20	5	72.5	25	362.6	49.8	179	105.5	20	15	1184	1760x751x1044	1710x790x1070	360	455
	10	145	40	580	63.8	230	135.2	20	15	802	1760x751x1044	1710x790x1070	360	455
LB 25	5	72.5	25	362.6	64.2	231	136.0	25	18.5	1205	NA	1760x830x1070	NA	485
	10	145	40	580	77.5	279	164.2	25	18.5	1003	NA	1760x830x1070	NA	485
LB 30	10	145	40	580	94.2	339	199.6	30	22	1173	NA	1760x830x1070	NA	525
LB 40	10	145	40	580	124.8	449	264.4	40	30	1564	NA	1760x830x1070	NA	575

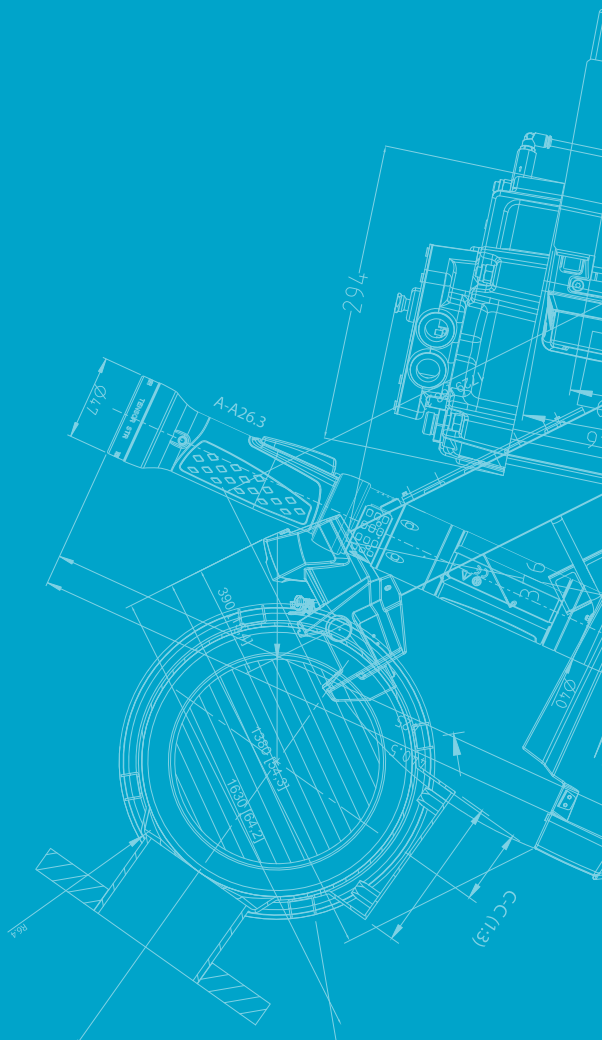
* 30 l/s - 108 m³/h - 63.6 cfm for 60 Hz

LB 300 BOOSTER

Type	Max. inlet pressure		Max. outlet pressure		FAD @ 50 Hz		Number of stages	Speed	Noise pressure level	Power		Dimensions
	bar	psig	bar	psig	l/s	cfm		rpm	dB(A)	kW	hp	(L x W x H in mm)
LB 5-300*	-	72-160	-	4350	-	12.5	2	1150	70	3.5	5	1480x830x1520
LB 7-300	5-11	72-160	300	4350	475	17.1	2	1230	70	5.5	7	1480x830x1520
LB 10-300	7-10	100-145	300	4350	645	23.5	2	850	71	7.5	10	1480x830x1520
LB 15-300	7-10	100-145	300	4350	750	26.5	2	1140	73	11	15	1480x830x1520
LB 20-300**	2-4	-	300	-	830	-	3	1530	75	15	20	1480x830x1520

* Only for North America.
** Not available for North America.

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LLOYD'S REGISTER · LRQA
ISO 9001 • ISO 14001
OHSAS 18001

Atlas Copco

atlascopco.com