Atlas Copco

Low pressure oil-free air compressors

ZE/ZA 2-6 (VSD)

22-500 kW/40-700 hp

جهان کمپرسور
Jahan Compressor

Atlas Copco

Providing continuous productivity at the lowest operational cost

As the cornerstone of many production processes, low pressure compressed air is essential to keep the production going. Atlas Copco's full range of low pressure oil-free air solutions offers a combination of high reliability and energy efficiency, providing a 100% certified supply of oil-free air for a broad spectrum of industrial applications.

Pneumatic Conveying

Exceptional reliability for industrial processing facilities

In activities such as fly ash or cement production, dense phase pneumatic conveying is used to transport goods. A reliable stream of low pressure 100% certified oil-free compressed air is essential to keep the production running smoothly. To maximize productivity in these often harsh and dusty environments, Atlas Copco's reliable ZE/ZA compressors incorporate the latest technologies in the most solid design.

Fermentation

Essential purity for pharmaceutical plants, breweries & chemical plants

Compressed air supplies oxygen to bacteria during fermentation to produce chemicals such as citric acid. The presence of even small oil traces will kill the bacteria and contaminate the end product. As the compressed air comes into direct contact with the process, air purity is vital. Atlas Copco's ZE/ZA oil-free air compressors are certified according to ISO 8573-1 CLASS 0 *(2001)*, which stands for zero risk of contamination, zero risk of damaged or unsafe products and zero risk of losses from operational downtime.

Glass Industry

High efficiency for glass blowing facilities

Mold cooling is one of the steps in the glass blowing process which requires high-quality low pressure oil-free air at the lowest operating cost. Atlas Copco ZE/ZA compressors provide a constant air flow with pressure ratings of up to 4 bar*(e)*. With the promise of low energy consumption and continuous operation, these compressors create opportunities to obtain a competitive advantage.

Flue Gas Desulphurization

Cost efficiency & reliability for coal-fired power plants

In coal-fired power plants, a continuous flow of low pressure air is used to remove sulphur dioxide from the exhaust flue gases. To guarantee uninterrupted pollution control and make sure these plants are up and running 24/7, the used compressed air solution needs to be highly reliable and energy-efficient. Atlas Copco's low pressure ZE/ZA compressors fulfill this demand by offering a constant air flow at minimal energy costs.

Keeping your production up and running

Especially in harsh and dusty environments, a reliable supply of compressed air is critical to ensure production continuity. Every ZE/ZA is designed, manufactured and tested to comply with ISO 9001 stipulations. The totally enclosed IP55 motor is built to ensure continuous operation and exceptional reliability in dusty and humid environments.

Driving down energy costs

Energy costs can amount to 80% of the Life Cycle Costs of a compressor. The generation of compressed air can account for more than 40% of a plant's total electricity costs. Fully compliant with ISO 14001 standards, the ZE/ZA range helps to reduce costs: the EFF1 motor and compression element with Teflon rotor coating and cooling jackets provide the highest air volume at the lowest energy consumption. The integrated Variable Speed Drive *(VSD)* technology offers approximately 35% extra energy savings by automatically tuning compressor flow to the precise air demand.

Protecting your reputation and production

In virtually any application, oil contamination of the air supply causes serious productivity issues and increases costs. As the first manufacturer to receive ISO 8573-1 CLASS 0 *(2001)* certification for its oil-free air compressors, Atlas Copco has set a new standard in air purity. Focusing on the protection of critical applications as well as today's increasing quality demands, Atlas Copco offers TÜV-certified 100% oil-free air.

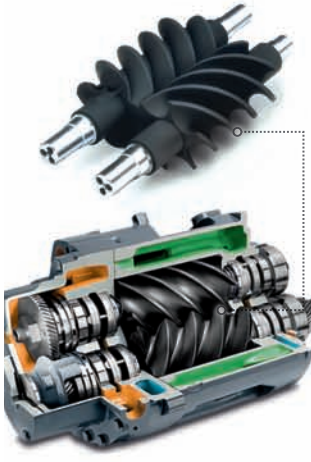
Assuring your peace of mind

Through continuous investment in our competent, committed and efficient service organization, Atlas Copco ensures superior customer value by maximizing productivity. With a presence in over 160 countries, we offer professional and timely service through interaction and involvement. Uptime is guaranteed by dedicated technicians and 24/7 availability.

Ready installation

Delivered ready for use, ZE/ZA compressors come as all-in-one packages including a powerful controller and integrated aftercooler. The compact design eliminates the need for extras and reduces installation to an absolute minimum, saving you time and money. Built for easy integration in your existing compressed air network, the ZE/ZA compressors are up and running in no time.

The preferred choice for total reliability and efficiency



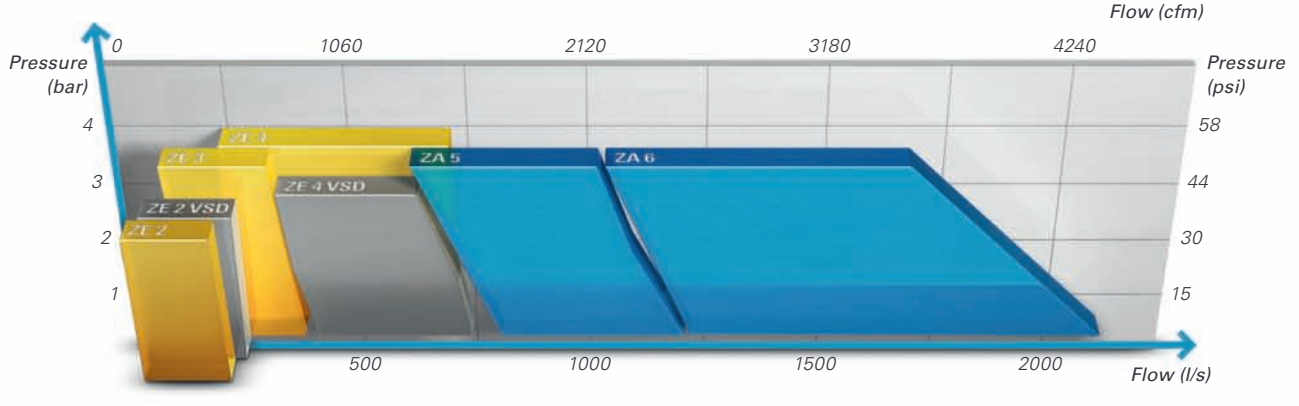
1 State-of-the-art screw compression element

- Unique Teflon coating results in increased efficiency, higher pressures up to 4 bar*(e)*/58 psi*(g)*, longer lifetime and protection against corrosion.
- Cooling jackets improve reliability and efficiency by ensuring rotor clearances are always kept to the absolute minimum.
- Efficient shaft sealing eliminates the risk of oil leakage, reduces wear, and guarantees 100% oil-free air.

2 Advanced element bearings

- Assuring constant reliability, the element bearings remain stable under varying load conditions.
- Durability is a given: two axial bearings limit internal leakage losses by maintaining small clearances between the rotor surfaces.
- The bearings adapt easily to changing loads, providing the flexibility and efficiency to make production processes run smoothly.

ZE / ZA range overview



3 Control and monitoring

- To keep a firm grip on costs, the advanced Elektronikon® system allows you to monitor overall system performance with service indications, malfunction alarms and safety shutdowns. The multi-language text display is easy to use.
- For extra flexibility, the Elektronikon can be integrated into existing process control systems.
- To increase efficiency and minimize downtime, two control algorithms *(Dynamic Pressure Limit Control and Dynamic Speed Limit Control)* tune setpoint pressure and operating speeds to element discharge temperature.

4 High-precision drive system

- Even in dusty and humid environments, the high-efficiency IP55 motor *(efficiency class EFF1)* offers assured operation.
- Transmission losses are low, noise and vibration levels are decreased and element lifetime is prolonged thanks to the AGMA Q13/DIN Class 5 gears in the main drive.
- Since no pulleys are used, the replacement of belts and misalignment of elements is avoided, while mechanical losses are limited.

5 Air-cooled aftercooler *(ZE only)*

- User-friendliness is increased and costs reduced thanks to easy installation and easy access for cleaning.
- The highly efficient cooling reduces energy consumption and dryer loads.

Water-cooled aftercooler *(ZA only)*

- Corrosion-resistant stainless steel tubing.
- The risk of leaks is eliminated thanks to highly reliable robot welding.
- Aluminium star insert increases heat transfer.
- Cooling water outside tubes guided by baffles:
  - no dead zones – limited fouling;
  - no degradation in cooler performance;
  - easy cleaning;
  - very long service intervals.

CLASS 0: the industry standard

Oil-free air is selected by industries where air quality is paramount for the end product and production process. These applications include food and beverage processing, pharmaceutical manufacturing and packaging, chemical and petrochemical processing, semiconductor and electronics manufacturing, the medical sector, automotive paint spraying, textile manufacturing and many more. In these critical environments, contamination by even the smallest quantities of oil can result in costly production downtime and product spoilage.

First in oil-free air technology

Over the past sixty years Atlas Copco has pioneered the development of oil-free air technology, resulting in a range of air compressors that provide 100% pure, clean air. Through continuous research and development, Atlas Copco achieved a new milestone, setting the standard for air purity as the first manufacturer to be awarded ISO 8573-1 CLASS 0 certification.

Eliminating any risk

As the industry leader committed to meeting the needs of the most demanding customers, Atlas Copco requested the renowned TÜV institute to type-test its range of oil-free compressors. Using the most rigorous testing methodologies available, all possible oil forms were measured across a range of temperatures and pressures. The TÜV found no traces of oil at all in the output air stream. Thus Atlas Copco is not only the first compressor manufacturer to receive CLASS 0 certification, but also exceeds ISO 8573-1 CLASS 0 specifications.

CLASS	Concentration total oil *(aerosol, liquid, vapor)* mg/m³
0	**As specified by the equipment user or supplier and more stringent than class 1**
1	< 0.01
2	< 0.1
3	< 1
4	< 5

Current ISO 8573-1 (2001) classes (the five main classes and the associated maximum concentration in total oil content).

CLASS 0 means:

Zero risk of contamination.

Zero risk of damaged or unsafe products.

Zero risk of losses from operational downtime.

Zero risk of damaging your company's hard-won professional reputation.

VSD: driving down energy costs

Energy consumption typically represents over 80% of a compressor's Life Cycle Cost. Looking continuously to innovate and reduce customer costs, Atlas Copco pioneered the Variable Speed Drive technology *(VSD)* in 1994. VSD stands for major energy savings, while protecting the environment for future generations. Stemming from our ongoing investments in research and development, Atlas Copco offers the widest range of integrated VSD compressors on the market.

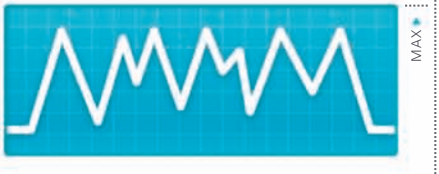
Varying air demand in 92% of all installations

In almost every production environment, air demand fluctuates depending on different factors *(time of the day, week or even month)*. Extensive measurements and studies of compressed air demand profiles show that 92% of all compressor installations have substantial variations in air demand. Only 8% of all installations have a more stable air demand. Tests prove that even in this case, VSD compressors save energy.

Profile 1

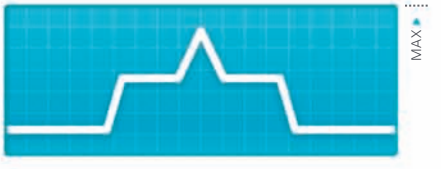
- 64% of all installations
- Factory working 24 hrs/day: low demand at night & high demand during the day

Profile 2



- 28% of all installations
- Factory working 2 shifts/day, no weekend work: erratically varying air demand

Profile 3



- 8% of all installations
- Factory working 2 shifts/day, no weekend work: typical 'fixed' speed application

Energy savings of up to 35%

Atlas Copco's VSD technology closely follows the air demand by automatically adjusting the motor speed. This results in large energy savings of up to 35%. The Life Cycle Cost of a compressor can be cut by an average of 22%. In addition, lowered system pressure with VSD minimizes energy use across your production dramatically.

Total compressor Life Cycle Cost

- *Energy*
- ***Energy savings with VSD***
- *Investment*
- *Maintenance*

Find out how much you can save

Atlas Copco can help you map the load/air demand profile of your current compressor installation and indicate potential energy savings with VSD compressors. **For more information, please contact your local Atlas Copco representative.**

Optimize your system

With the ZE/ZA, Atlas Copco provides an all-in-one standard package incorporating the latest technology in a built-to-last design. To further optimize your ZE/ZA's performance or to simply tailor it to your specific production environment, optional features are available.

Scope of supply

Air circuit

- Air intake filter and silencer
- Flexible air intake
- Full load/no load regulator
- Outlet air silencer
- Discharge expansion joints
- Coated rotors
- AGMA class 13; DIN class 5 gears
- Outlet air flange
- Integral blow-off
- Check valve
- Safety valve

Oil circuit

- Supplied oil-filled
- Completely pre-piped oil circuit
- Built-in oil breather system

Cooling circuit

- Complete water circuit
- Single-point inlet and outlet connections
- Back-flush arrangement for cooler cleaning

Connections

- ANSI flanges
- DIN flanges

Electrical components

- IP55 water and dust-proof TEFC motor
- Pre-mounted electric motor
- Pre-mounted electric cubicle
- Elektronikon® control and monitoring system
- Built-in starter

Framework

- Sound-insulated enclosure
- Base frame with forklift slots

Mechanical approval

- ASME approval
- IEC approval

Additional features & options

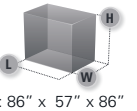
ADDITIONAL FEATURES	Air-cooled		Water-cooled		Air-cooled VSD		Water-cooled VSD
	ZE 2	ZE 3-4	ZA 2	ZA 5-6	ZE 4 VSD	ZE 2 VSD	ZA 2 VSD
GENERAL							
Water-cooled variant		□					
Stainless steel cooler			□	□			□
MOTOR							
PT1000 Thermal Protection *(≥90 kW motor)*					□		
Thermistors in windings *(<90 kW motor)*					□		

OPTIONS	Air-cooled		Water-cooled		Air-cooled VSD		Water-cooled VSD
	ZE 2	ZE 3-4	ZA 2	ZA 5-6	ZE 4 VSD	ZE 2 VSD	ZA 2 VSD
GENERAL							
Unload noise reduction		□					
Excluding full load/no load regulator	□	□	□	□		□	□
Heavy duty inlet filter				□			
Water-cooled variant *(stainless steel cooler)*		□					□
Automatic water shut-off			□	□			
Hot Air variant	□	□	□	□	□	□	□
Anchor pads	□	□	□	□	□	□	□
Teflon-free element	□		□			□	□
SPM bearing monitoring	□	□	□	□	□	□	□
IT network					□	□	□
MOTOR							
Anti-condensation heaters	□	□	□	□	□	□	□
PT1000 Thermal Protection *(≥90 kW motor)*	□	□	□	□			
Thermistors in windings *(<90 kW motor)*	□	□	□				
Excluding motor		□		□			
FRAMEWORK							
Canopy extension for high voltage motor				□			
Excluding canopy		□		□			
CERTIFICATES							
Performance test certificate	□	□	□	□	□	□	□
Witnessed performance test	□	□	□	□	□	□	□
OTHER OPTIONS							
Air booster	□		□			□	□
Nitrogen booster	□		□			□	□
Air-cooled version				□			

Technical specifications

ZE 2 air-cooled – 60 Hz and ZA 2 water-cooled – 60 Hz

			ZE 2 air-cooled 60 Hz					ZA 2 water-cooled – 60 Hz				
	Gear designation		**L**	**N**	**P**	**R**	**T**	**L**	**N**	**P**	**R**	**T**
	Unloaded power	**hp**	**11**	**12**	**13**	**134**	**14**	**11**	**12**	**13**	**134**	**14**
	Sound pressure level at max. 25.38 psi*(g)*	**dB*(A)***	**69**	**71**	**71**	**72**	**73**	**69**	**69**	**71**	**72**	**73**
	Sound pressure level at max. 50.75 psi*(g)*	**dB*(A)***	**69**	**72**	**73**	**75**	**77**	**69**	**72**	**73**	**74**	**76**
14.50 psi*(g)*	Free Air Delivery	cfm	157	215	322	419	553	156	213	320	416	549
		m³/h	267	365	548	712	939	264	362	543	707	932
	Outlet temperature	°F	203	211	226	245	283	192	200	217	238	277
	Shaft power	hp	16.5	21.7	33.1	45.5	66.8	16.1	21.3	32.5	44.7	65.4
	Motor size	hp	40	40	75	75	75	40	40	75	75	75
18.13 psi*(g)*	Free Air Delivery	cfm	155	213	320	417	550	153	211	317	413	545
		m³/h	264	362	544	708	935	243	339	518	679	902
	Outlet temperature	°F	218	226	240	256	288	207	215	231	249	284
	Shaft power	hp	18.1	23.7	35.8	48.7	70.4	17.7	23.2	35	47.7	68.9
	Motor size	hp	40	40	75	75	75	40	40	75	75	75
21.75 psi*(g)*	Free Air Delivery	cfm	154	211	318	415	548	151	208	314	410	542
		m³/h	261	359	541	705	931	257	354	534	697	922
	Outlet temperature	°F	233	241	253	267	295	220	230	245	262	292
	Shaft power	hp	19.8	25.9	38.6	52.0	74.3	19.3	25.2	37.7	51	72.8
	Motor size	hp	40	40	75	75	100	40	40	75	75	100
25.38 psi*(g)*	Free Air Delivery	cfm	152	210	316	413	545	149	206	312	408	539
		m³/h	258	356	537	701	926	253	350	530	693	917
	Outlet temperature	°F	246	255	267	279	304	234	244	259	274	302
	Shaft power	hp	21.6	28.0	41.4	55.5	78.6	21	27.3	40.5	54.2	76.8
	Motor size	hp	40	40	75	75	100	40	40	75	75	100
29.00 psi*(g)*	Free Air Delivery	cfm	151	208	314	410	543	147	204	310	405	537
		m³/h	256	354	534	697	922	250	347	526	688	912
	Outlet temperature	°F	260	270	281	291	313	247	258	273	287	313
	Shaft power	hp	23.5	30.3	44.4	59.1	83.0	22.7	29.4	43.3	57.7	81.0
	Motor size	hp	40	40	75	75	100	40	40	75	75	100
32.63 psi*(g)*	Free Air Delivery	cfm	149	206	313	409	541	145	202	307	402	534
		m³/h	253	351	531	694	918	246	343	522	684	907
	Outlet temperature	°F	274	285	295	304	324	259	272	287	300	324
	Shaft power	hp	25.3	32.6	47.5	62.9	87.6	24.5	31.6	46.1	61.2	85.3
	Motor size	hp	40	40	75	75	100	40	40	75	75	100
36.25 psi*(g)*	Free Air Delivery	cfm	148	205	311	407	538	143	200	305	400	531
		m³/h	251	348	528	691	915	243	339	518	679	902
	Outlet temperature	°F	289	300	310	317	335	272	286	301	314	335
	Shaft power	hp	27.4	35.0	50.7	66.6	92.3	26.3	33.8	49.1	64.8	89.7
	Motor size	hp	40	40	75	75	100	40	40	75	75	100
39.88 psi*(g)*	Free Air Delivery	cfm	146	204	309	405	536	141	198	302	397	528
		m³/h	249	346	525	688	911	240	336	514	675	897
	Outlet temperature	°F	304	317	326	332	348	285	301	316	328	347
	Shaft power	hp	29.5	37.5	53.9	70.5	97.1	28.0	36.0	52.0	68.0	94.0
	Motor size	hp	40	40	75	75	100	40	40	75	75	100
43.50 psi*(g)*	Free Air Delivery	cfm	145	201	308	403	534	139	194	300	395	525
		m³/h	246	341	523	684	908	236	330	510	671	892
	Outlet temperature	°F	331	340	343	349	362	335	340	332	342	360
	Shaft power	hp	31.9	40.3	57.3	74.6	101.9	30.0	39.0	55.0	72.0	99.0
	Motor size	hp	40	40	75	100	120	40	40	75	100	120
47.13 psi*(g)*	Free Air Delivery	cfm	143	199	306	401	532	136	191	298	392	523
		m³/h	243	338	520	681	904	232	325	506	666	888
	Outlet temperature	°F	360	360	363	367	378	357	358	348	357	374
	Shaft power	hp	34.2	42.6	60.6	78.7	107.0	32.0	41.0	58.0	76.0	104.0
	Motor size	hp	40	40	75	100	120	40	40	75	100	120
50.75 psi*(g)*	Free Air Delivery	cfm	142	197	305	400	530	134	189	296	390	520
		m³/h	241	335	518	679	901	228	321	502	662	883
	Outlet temperature	°F	387	385	384	387	397	380	375	365	374	389
	Shaft power	hp	36.3	43.9	64.1	82.9	112.1	34.0	43.0	61.0	80.0	108.0
	Motor size	hp	40	40	75	100	120	40	40	75	100	120

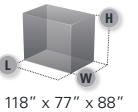


Dimensions *(L x W x H)*: 86" x 57" x 86"

Technical specifications

ZE 3 air-cooled – 60 Hz

	Gear designation		A	B	C	D	E	F	G	H	I	J	K
	Unloaded power	**hp**	**23**	**26**	**28**	**30**	**32**	**34**	**36**	**38**	**40**	**43**	**46**
	Sound pressure level at max. 25.38 psi(g)	**dB(A)**	**74**	**74**	**74**	**74**	**74**	**74**	**74**	**74**	**75**	**75**	**75**
	Sound pressure level at max. 50.75 psi(g)	**dB(A)**	**76**	**76**	**76**	**76**	**76**	**76**	**76**	**76**	**77**	**78**	
14.50 psi(g)	Free Air Delivery	cfm	373	421	462	508	559	597	639	684	734	789	850
		m³/h	634	716	785	863	950	1015	1085	1162	1247	1341	1445
	Outlet temperature	°F	217	219	221	223	225	226	228	230	232	234	237
	Shaft power	hp	37.8	42.0	45.7	49.9	54.7	58.5	62.6	67.2	72.4	78.3	85.0
	Motor size	hp	50	50	60	75	75	125	125	125	125	200	200
18.13 psi(g)	Free Air Delivery	cfm	371	419	460	505	556	594	635	680	730	785	846
		m³/h	630	712	781	858	945	1009	1079	1156	1240	1334	1437
	Outlet temperature	°F	239	241	241	243	244	246	246	248	250	252	253
	Shaft power	hp	39.1	43.3	47.1	51.4	56.3	60.1	64.2	68.9	74.2	80.1	86.9
	Motor size	hp	50	50	60	75	75	125	125	125	125	200	200
21.75 psi(g)	Free Air Delivery	cfm	367	415	456	501	552	589	630	675	725	779	840
		m³/h	624	705	774	851	937	1001	1071	1147	1232	1324	1427
	Outlet temperature	°F	262	261	262	264	266	266	266	268	270	271	275
	Shaft power	hp	41.2	45.7	49.6	54.0	59.2	63.1	67.4	72.3	77.7	83.9	90.9
	Motor size	hp	50	50	60	75	75	125	125	125	125	200	200
25.38 psi(g)	Free Air Delivery	cfm	363	411	451	496	547	584	625	670	719	774	834
		m³/h	617	698	766	843	929	993	1062	1138	1222	1314	1417
	Outlet temperature	°F	284	282	282	280	280	282	282	284	286	289	295
	Shaft power	hp	44.0	48.7	52.9	57.6	63.0	67.2	71.8	76.9	82.6	89.0	96.4
	Motor size	hp	50	50	60	75	75	125	125	125	125	200	200
29.00 psi(g)	Free Air Delivery	cfm	359	406	446	491	542	579	620	664	713	768	828
		m³/h	610	690	759	835	920	984	1053	1129	1212	1304	1406
	Outlet temperature	°F	307	307	306	304	302	300	300	300	304	309	315
	Shaft power	hp	47.2	52.3	56.7	61.8	67.6	72.0	76.9	82.3	88.4	95.2	103.0
	Motor size	hp	50	50	60	75	75	125	125	125	125	200	200
32.63 psi(g)	Free Air Delivery	cfm	355	402	442	487	537	574	615	659	708	762	
		m³/h	604	684	751	827	913	976	1045	1120	1203	1295	
	Outlet temperature	°F	327	324	322	322	322	324	324	325	329	333	
	Shaft power	hp	50.8	56.3	61.0	66.5	72.7	77.4	82.6	88.4	94.9	102.1	
	Motor size	hp	60	60	75	75	75	125	125	125	125	200	
36.25 psi(g)	Free Air Delivery	cfm	352	399	439	483	533	570	610	655	703	757	
		m³/h	598	678	745	821	906	969	1037	1112	1195	1286	
	Outlet temperature	°F	356	351	347	345	343	343	343	345	349	352	
	Shaft power	hp	54.7	60.5	65.6	71.4	78.1	83.1	88.6	94.8	101.7	109.5	
	Motor size	hp	60	60	75	75	125	125	125	125	125	200	
39.88 psi(g)	Free Air Delivery	cfm	350	396	436	480	530	566	607	651	699	752	
		m³/h	594	673	740	815	900	962	1031	1105	1188	1278	
	Outlet temperature	°F	374	370	369	365	363	363	361	363	365	370	
	Shaft power	hp	58.5	64.8	70.2	76.4	83.5	88.9	94.8	101.3	108.6	116.9	
	Motor size	hp	60	75	75	125	125	125	125	125	125	200	
43.50 psi(g)	Free Air Delivery	cfm	354	402	442	487	537	575	616	660	709	763	
		m³/h	602	683	751	827	913	976	1046	1122	1205	1296	
	Outlet temperature	°F	383	382	381	381	381	380	380	380	381	381	
	Shaft power	hp	62.3	68.9	74.7	81.2	88.7	94.3	100.6	107.5	115.2	123.9	
	Motor size	hp	75	75	75	125	125	125	125	125	125	200	
47.13 psi(g)	Free Air Delivery	cfm	352	399	439	484	535	572	613	657	706	761	
		m³/h	598	679	747	823	908	972	1041	1117	1200	1292	
	Outlet temperature	°F	401	400	400	399	399	398	398	398	398	399	
	Shaft power	hp	65.6	72.5	78.6	85.4	93.3	99.2	105.7	112.9	120.9	129.9	
	Motor size	hp	75	75	125	125	125	125	125	125	125	200	
50.75 psi(g)	Free Air Delivery	cfm	349	397	437	481	532	569	610	654	703	756	
		m³/h	594	674	742	818	904	967	1036	1112	1195	1285	
	Outlet temperature	°F	419	418	417	416	416	415	415	415	415	415	
	Shaft power	hp	68.2	75.4	81.7	88.7	96.8	102.9	109.6	117.0	125.2	134.5	
	Motor size	hp	75	75	125	125	125	125	125	125	125	200	
54.38 psi(g)	Free Air Delivery	cfm	345	393	433	478	528	566	606	651	700		
		m³/h	587	667	735	812	897	961	1030	1106	1189		
	Outlet temperature	°F	436	435	434	433	432	432	432	431	431		
	Shaft power	hp	71.6	79.1	85.6	92.9	101.3	107.6	114.6	122.3	130.8		
	Motor size	hp	75	75	125	125	125	125	125	125	125		
58.00 psi(g)	Free Air Delivery	cfm	339	387	427	472	523	561	602	647	696		
		m³/h	576	657	725	802	889	953	1022	1099	1183		
	Outlet temperature	°F	452	451	450	449	449	448	448	447	447		
	Shaft power	hp	75.6	83.6	90.4	98.1	107.0	113.6	120.9	129.0	137.9		
	Motor size	hp	125	125	125	125	125	125	125	200	200		

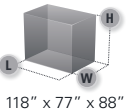


Dimensions *(L x W x H)*: 118" x 77" x 88"

Technical specifications

ZE 4 air-cooled – 60 Hz

	Gear designation		A	B	C	D	E	F	G	H	I	J	K
	Unloaded power	**hp**	**35**	**39**	**41**	**46**	**49**	**51**	**53**	**57**	**61**	**64**	**70**
	Sound pressure level at max. 25.38 psi(g)	**dB(A)**		**76**	**76**	**76**	**76**	**77**	**77**	**77**	**77**	**77**	**77**
	Sound pressure level at max. 50.75 psi(g)	**dB(A)**	**79**	**79**	**79**	**79**	**79**	**79**	**79**	**79**	**79**		
14.50 psi(g)	Free Air Delivery	cfm		908	975	1087	1170	1214	1261	1362	1473	1533	1665
		m³/h		1544	1657	1847	1988	2063	2142	2313	2502	2605	2828
	Outlet temperature	°F		230	230	232	234	235	235	237	237	239	239
	Shaft power	hp		70.0	75.8	85.7	93.3	97.4	101.8	111.3	122.1	128.0	141.2
	Motor size	hp		125	125	125	125	125	125	125	125	200	200
18.13 psi(g)	Free Air Delivery	cfm		901	967	1079	1162	1206	1253	1353	1464	1524	1655
		m³/h		1530	1644	1833	1974	2049	2128	2299	2488	2590	2813
	Outlet temperature	°F		248	250	250	252	252	252	253	255	257	259
	Shaft power	hp		78.7	85.1	95.9	104.1	108.6	113.3	123.6	135.2	141.6	155.8
	Motor size	hp		125	125	125	125	125	125	200	200	200	200
21.75 psi(g)	Free Air Delivery	cfm		893	960	1071	1154	1198	1244	1344	1455	1516	1646
		m³/h		1518	1631	1819	1960	2035	2114	2284	2473	2575	2797
	Outlet temperature	°F		268	268	268	270	270	270	273	277	280	284
	Shaft power	hp		87.4	94.3	106.0	114.9	119.7	124.8	135.9	148.4	155.2	170.3
	Motor size	hp		125	125	125	125	125	200	200	200	200	200
25.38 psi(g)	Free Air Delivery	cfm		886	953	1064	1146	1190	1237	1337	1447	1507	1638
		m³/h		1506	1619	1807	1947	2023	2101	2271	2459	2561	2783
	Outlet temperature	°F		291	289	291	291	291	293	297	298	302	306
	Shaft power	hp		96.3	103.7	116.3	125.8	131.0	136.5	148.3	161.7	169.1	185.2
	Motor size	hp		125	125	125	200	200	200	200	200	200	200
29.00 psi(g)	Free Air Delivery	cfm		880	947	1057	1140	1184	1230	1330	1441	1501	1631
		m³/h		1496	1609	1797	1937	2012	2090	2260	2448	2549	2771
	Outlet temperature	°F		309	309	309	309	311	311	315	316	324	329
	Shaft power	hp		105.1	113.0	126.6	136.8	142.3	148.1	160.8	175.1	182.9	200.1
	Motor size	hp		125	125	200	200	200	200	200	200	300	300
32.63 psi(g)	Free Air Delivery	cfm	786	876	942	1052	1135	1179	1225	1325	1435		
		m³/h	1335	1487	1600	1788	1928	2003	2081	2250	2438		
	Outlet temperature	°F	334	333	331	331	331	331	331	334	338		
	Shaft power	hp	102.2	113.9	122.6	137.3	148.4	154.4	160.7	174.5	190.0		
	Motor size	hp	125	125	125	200	200	200	200	200	200		
36.25 psi(g)	Free Air Delivery	cfm	781	871	938	1048	1130	1174	1221	1320	1431		
		m³/h	1328	1480	1593	1781	1920	1995	2074	2243	2431		
	Outlet temperature	°F	356	354	352	352	351	351	351	354	358		
	Shaft power	hp	110.1	122.7	132.1	147.9	159.9	166.4	173.3	188.2	205.0		
	Motor size	hp	125	125	200	200	200	200	200	200	300		
39.88 psi(g)	Free Air Delivery	cfm	778	868	934	1045	1127	1171	1217	1317	1427		
		m³/h	1322	1475	1587	1775	1914	1989	2068	2237	2425		
	Outlet temperature	°F	379	378	376	374	374	376	376	378	379		
	Shaft power	hp	118.1	131.6	141.6	158.7	171.5	178.5	185.8	201.9	219.8		
	Motor size	hp	125	200	200	200	200	200	200	300	300		
43.50 psi(g)	Free Air Delivery	cfm	775	865	931	1041	1124	1168	1214	1314	1424		
		m³/h	1316	1469	1581	1769	1909	1984	2062	2232	2419		
	Outlet temperature	°F	398	398	398	399	395	395	396	397	399		
	Shaft power	hp	119.9	133.5	143.7	161.0	174.1	181.1	188.6	204.8	223.1		
	Motor size	hp	125	150	150	200	200	200	200	250	300		
47.13 psi(g)	Free Air Delivery	cfm	771	861	927	1038	1120	1164	1210	1310	1420		
		m³/h	1310	1463	1575	1763	1903	1978	2056	2226	2413		
	Outlet temperature	°F	417	417	417	417	413	413	414	415	417		
	Shaft power	hp	126.6	141.0	151.8	170.0	183.8	191.3	199.2	216.4	235.7		
	Motor size	hp	150	150	200	200	200	200	250	250	300		
50.75 psi(g)	Free Air Delivery	cfm	766	856	922	1033	1115	1159	1205	1305	1415		
		m³/h	1302	1455	1567	1755	1894	1969	2048	2217	2404		
	Outlet temperature	°F	435	435	435	435	430	430	431	432	434		
	Shaft power	hp	133.1	148.4	159.7	179.0	193.5	201.4	209.7	227.8	248.1		
	Motor size	hp	150	200	200	200	200	250	250	250	300		
54.38 psi(g)	Free Air Delivery	cfm	760	849	915	1026	1108	1152	1198	1297	1407		
		m³/h	1291	1443	1555	1742	1882	1957	2035	2204	2391		
	Outlet temperature	°F	452	452	452	452	447	447	448	449	451		
	Shaft power	hp	139.7	155.6	167.6	187.8	203.1	211.3	220.1	239.1	260.4		
	Motor size	hp	150	200	200	200	250	250	250	250	300		
58.00 psi(g)	Free Air Delivery	cfm	750	840	905	1015	1097	1140	1186	1285	1395		
		m³/h	1275	1426	1538	1724	1863	1937	2015	2184	2370		
	Outlet temperature	°F	469	469	469	468	463	463	464	465	467		
	Shaft power	hp	146.1	162.8	175.3	196.5	212.5	221.1	230.3	250.2	272.6		
	Motor size	hp	150	200	200	200	250	250	250	300	300		



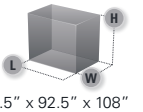
Dimensions *(L x W x H)*: 118" x 77" x 88"

Technical specifications

ZA 5 water-cooled – 60 Hz

	Gear designation		B	C	D	E	F
	Unloaded power	**hp**	**62**	**69**	**77**	**83**	**90**
	Sound pressure level at max. 25.38 psi(g)	**dB(A)**	**70**	**70**	**71**	**71**	**71**
	Sound pressure level at max. 50.75 psi(g)	**dB(A)**	**73**	**73**	**75**		
14.50 psi(g)	Free Air Delivery	cfm	1903	2080	2283	2437	2608
		m³/h	3233	3533	3879	4141	4432
	Outlet temperature	°F	203	205	207	208	210
	Shaft power	hp	140.5	155.8	173.9	187.7	203.4
	Motor size	hp	200*	200*	200*	200*	250*
18.13 psi(g)	Free Air Delivery	cfm	1898	2074	2278	2432	2604
		m³/h	3224	3524	3871	4132	4424
	Outlet temperature	°F	225	226	228	230	232
	Shaft power	hp	156.8	173.6	193.4	208.6	225.7
	Motor size	hp	200*	200*	200*	250*	250*
21.75 psi(g)	Free Air Delivery	cfm	1889	2067	2271	2426	2598
		m³/h	3210	3511	3859	4121	4414
	Outlet temperature	°F	246	248	248	250	252
	Shaft power	hp	173.0	191.3	212.9	229.4	248.0
	Motor size	hp	200*	200*	250	250	300*
25.38 psi(g)	Free Air Delivery	cfm	1879	2058	2263	2419	2591
		m³/h	3193	3496	3845	4109	4403
	Outlet temperature	°F	268	268	268	270	271
	Shaft power	hp	189.8	209.8	233.3	251.3	271.5
	Motor size	hp	200*	250	250	300*	300*
29.00 psi(g)	Free Air Delivery	cfm	1869	2049	2255	2411	2585
		m³/h	3176	3480	3831	4096	4391
	Outlet temperature	°F	288	288	288	288	289
	Shaft power	hp	206.6	228.2	253.7	273.1	295.0
	Motor size	hp	250	250	300*	300*	422*
32.63 psi(g)	Free Air Delivery	cfm	1860	2040	2247		
		m³/h	3160	3466	3818		
	Outlet temperature	°F	306	306	306		
	Shaft power	hp	223.6	247.2	275.0		
	Motor size	hp	250	300*	300*		
36.25 psi(g)	Free Air Delivery	cfm	1852	2032	2239		
		m³/h	3146	3452	3805		
	Outlet temperature	°F	324	324	324		
	Shaft power	hp	240.6	266.1	296.3		
	Motor size	hp		300*	350*		
39.88 psi(g)	Free Air Delivery	cfm	1844	2025	2233		
		m³/h	3134	3440	3793		
	Outlet temperature	°F	342	340	340		
	Shaft power	hp	257.5	284.8	316.9		
	Motor size	hp	300	300*	350*		
43.50 psi(g)	Free Air Delivery	cfm	1810	1991	2199		
		m³/h	3076	3382	3736		
	Outlet temperature	°F	378	381	385		
	Shaft power	hp	272.2	300.6	334.1		
	Motor size	hp	300	350	350*		
47.13 psi(g)	Free Air Delivery	cfm	1801	1980	2187		
		m³/h	3060	3365	3716		
	Outlet temperature	°F	396	398	403		
	Shaft power	hp	286.8	316.5	351.4		
	Motor size	hp	300	350	483		
50.75 psi(g)	Free Air Delivery	cfm	1791	1970	2175		
		m³/h	3043	3346	3695		
	Outlet temperature	°F	413	415	421		
	Shaft power	hp	301.4	332.3	368.6		
	Motor size	hp	350	350	483		
54.38 psi(g)	Free Air Delivery	cfm	1767	1941	2133		
		m³/h	3002	3298	3624		
	Outlet temperature	°F	429	432	437		
	Shaft power	hp	318.1	349.9	387.3		
	Motor size	hp	350	483	483		
58.00 psi(g)	Free Air Delivery	cfm	1743	1913	2091		
		m³/h	2961	3251	3552		
	Outlet temperature	°F	445	447	453		
	Shaft power	hp	334.7	367.5	406.0		
	Motor size	hp	350	483	483		

** DOL-starter*



Dimensions *(L x W x H)*: 153.5" x 92.5" x 108"

Technical specifications

ZA 6 water-cooled – 60 Hz

	Gear designation		A	B	C	D	E	F	G	N	H	I
	Unloaded power	**hp**	**92**	**102**	**110**	**123**	**133**	**144**	**157**	**164**	**172**	**180**
	Sound pressure level at max. 25.38 psi(g)	**dB(A)**		**73**	**73**	**73**	**73**	**76**	**76**	**76**	**76**	**76**
	Sound pressure level at max. 50.75 psi(g)	**dB(A)**	**75**	**77**	**77**	**77**	**79**	**79**	**80**	**80**		
14.50 psi(g)	Free Air Delivery	cfm		2744	2944	3268	3502	3753	4022	4163	4309	4460
		m³/h		4663	5001	5552	5950	6377	6833	7073	7321	7578
	Outlet temperature	°F		199	201	203	203	205	207	207	208	208
	Shaft power	hp		194.1	211.6	241.8	265.2	291.8	322.1	338.8	356.8	376.2
	Motor size	hp		200*	250*	250*	300*	300*	350*	350*	483*	483*
18.13 psi(g)	Free Air Delivery	cfm		2739	2939	3262	3495	3743	4007	4145	4287	4433
		m³/h		4654	4993	5543	5938	6359	6807	7042	7283	7532
	Outlet temperature	°F		223	223	225	225	226	228	228	228	228
	Shaft power	hp		219.5	238.0	270.0	294.5	322.2	353.6	370.9	389.5	409.4
	Motor size	hp		300*	250*	300*	350*	350*	483*	483*	483*	483*
21.75 psi(g)	Free Air Delivery	cfm		2734	2935	3257	3488	3733	3991	4126	4264	4406
		m³/h		4646	4986	5534	5927	6342	6782	7010	7245	7486
	Outlet temperature	°F		246	244	244	246	248	248	248	250	250
	Shaft power	hp		244.8	264.5	298.1	323.8	352.6	385.2	403.0	422.1	442.6
	Motor size	hp		300*	300*	350*	350*	483*	483*	483*	483*	483*
25.38 psi(g)	Free Air Delivery	cfm		2730	2930	3252	3481	3723	3976	4108	4242	4379
		m³/h		4637	4978	5525	5915	6325	6756	6979	7207	7440
	Outlet temperature	°F		266	266	266	266	266	268	268	270	270
	Shaft power	hp		271.8	292.7	328.3	355.4	385.8	419.9	438.6	458.5	479.8
	Motor size	hp		300*	300*	350*	483*	483*	483*	483*	483*	
29.00 psi(g)	Free Air Delivery	cfm		2725	2926	3247	3474	3713	3961	4089	4220	4352
		m³/h		4629	4971	5517	5903	6308	6730	6948	7169	7394
	Outlet temperature	°F		286	286	284	284	286	286	286	288	288
	Shaft power	hp		298.8	321.0	358.6	387.1	418.9	454.6	474.1	494.9	517.1
	Motor size	hp		350*	350*	483*	483*	483*	483*	700	600**	600**
32.63 psi(g)	Free Air Delivery	cfm	2435	2720	2921	3242	3468	3703	3947	4071		
		m³/h	4137	4621	4963	5508	5891	6291	6705	6917		
	Outlet temperature	°F	307	306	304	304	304	304	304	304		
	Shaft power	hp	290.1	321.0	344.1	383.3	412.9	445.9	482.8	503.0		
	Motor size	hp	300*	350*	483	483*	483*	483*	700	700		
36.25 psi(g)	Free Air Delivery	cfm	2429	2715	2917	3236	3460	3692	3932	4053		
		m³/h	4126	4613	4956	5499	5879	6274	6680	6886		
	Outlet temperature	°F	325	324	322	322	320	320	320	320		
	Shaft power	hp	310.9	343.2	367.3	408.0	438.7	472.9	511.0	531.8		
	Motor size	hp	350*	350*	483	483*	483*	700	700	700		
39.88 psi(g)	Free Air Delivery	cfm	2422	2710	2912	3231	3453	3682	3917	4035		
		m³/h	4115	4604	4948	5490	5867	6256	6654	6855		
	Outlet temperature	°F	343	342	340	338	338	336	336	336		
	Shaft power	hp	337.0	371.1	396.5	439.4	471.7	507.6	547.5	569.3		
	Motor size	hp	350*	483	483	483*	617	700	700	700		
43.50 psi(g)	Free Air Delivery	cfm	2415	2705	2908	3226	3446	3672	3901	4016		
		m³/h	4104	4596	4941	5481	5856	6239	6628	6824		
	Outlet temperature	°F	373	374	374	376	377	379	382	383		
	Shaft power	hp	355.2	392.2	419.9	466.6	501.9	541.1	584.9	608.8		
	Motor size	hp	422	422	476	601*	601	700	700	700		
47.13 psi(g)	Free Air Delivery	cfm	2409	2700	2904	3221	3440	3662	3886	3998		
		m³/h	4092	4588	4933	5473	5844	6222	6602	6792		
	Outlet temperature	°F	390	391	391	393	394	396	398	400		
	Shaft power	hp	375.7	414.5	443.5	492.4	529.4	570.4	616.2	641.2		
	Motor size	hp	422	476	476	601	601	700	700	700		
50.75 psi(g)	Free Air Delivery	cfm	2402	2695	2900	3216	3433	3652	3871	3978		
		m³/h	4081	4580	4926	5465	5833	6205	6576	6759		
	Outlet temperature	°F	407	407	408	409	411	412	415	416		
	Shaft power	hp	396.2	436.9	467.2	518.3	556.9	599.7	647.5	673.6		
	Motor size	hp	422	476	601	601	601	700	700	700		
54.38 psi(g)	Free Air Delivery	cfm	2395	2691	2896	3212	3427	3642	3855			
		m³/h	4069	4572	4920	5457	5822	6188	6550			
	Outlet temperature	°F	423	423	424	425	426	428	430			
	Shaft power	hp	416.7	459.2	490.9	544.4	584.7	629.5	679.4			
	Motor size	hp	476	476	601	601	700	700	700			
58.00 psi(g)	Free Air Delivery	cfm	2388	2686	2892	3207	3420	3632				
		m³/h	4057	4564	4913	5449	5811	6172				
	Outlet temperature	°F	438	438	439	440	441	443				
	Shaft power	hp	437.2	481.6	514.7	570.5	612.5	659.2				
	Motor size	hp	476	601	601	601	700	700				

** DOL-starter*

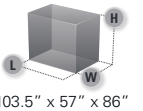
*** Medium voltage*

Dimensions *(L x W x H)*: 153.5″ x 92.5″ x 108″

Technical specifications
ZE 2 VSD, ZA 2 VSD & ZA 4 VSD

ZE 2 VSD – 2 bar*(e)*				
		Minimum		Maximum
Free Air Delivery	l/s	90.3	l/s	281
	cfm	191.33	cfm	595.4
	m³/h	325.08	m³/h	1012
Shaft power requirement	kW	21.1	kW	69.4
Max. working pressure	bar(e)	2		
Unloaded power	kW	11.5		
Noise level	dB(A)	76		

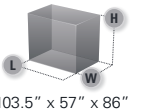
ZE 2 VSD – 3.5 bar*(e)*				
		Minimum		Maximum
Free Air Delivery	l/s	87	l/s	275
	cfm	183	cfm	582
	m³/h	311	m³/h	989
Shaft power requirement	kW	31.8	kW	92.3
Max. working pressure	bar(e)	3.5		
Unloaded power	kW	12		
Noise level	dB(A)	78		



Dimensions *(L x W x H)*: 103.5″ x 57″ x 86″

ZA 2 VSD – 2 bar*(e)*				
		Minimum		Maximum
Free Air Delivery	l/s	93	l/s	278
	cfm	197.06	cfm	589
	m³/h	334.8	m³/h	1001
Shaft power requirement	kW	21.2	kW	68.2
Max. working pressure	bar(e)	2		
Unloaded power	kW	11.5		
Noise level	dB(A)	76		

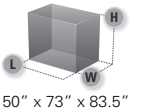
ZA 2 VSD – 3.5 bar*(e)*				
		Minimum		Maximum
Free Air Delivery	l/s	87	l/s	270
	cfm	184	cfm	572
	m³/h	313	m³/h	972
Shaft power requirement	kW	31.5	kW	90.2
Max. working pressure	bar(e)	3.5		
Unloaded power	kW	12		
Noise level	dB(A)	78		



Dimensions *(L x W x H)*: 103.5″ x 57″ x 86″

ZE 4 VSD – 2 bar*(e)*				
		Minimum		Maximum
Free Air Delivery	l/s	228	l/s	855
	cfm	483	cfm	1813
	m³/h	821	m³/h	653
Shaft power requirement	kW	46.0	kW	159
Max. working pressure	bar(e)	2.5		
Unloaded power	kW	21		
Noise level	dB(A)	75		

ZE 4 VSD – 3.5 bar*(e)*				
		Minimum		Maximum
Free Air Delivery	l/s	218	l/s	812
	cfm	462	cfm	1721
	m³/h	785	m³/h	2923
Shaft power requirement	kW	72.0	kW	236
Max. working pressure	bar(e)	3.5		
Unloaded power	kW	21		
Noise level	dB(A)	77		



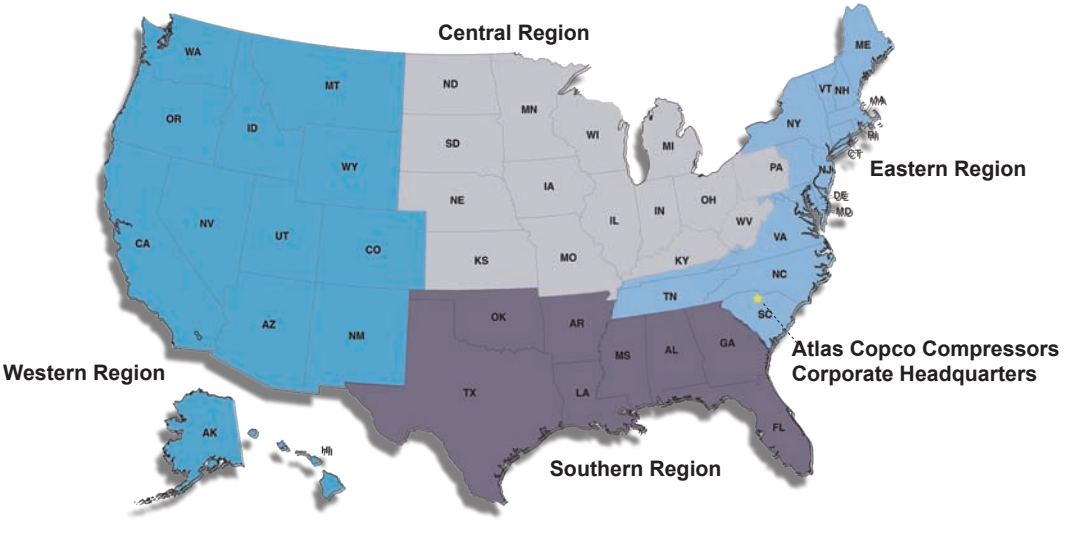
Dimensions *(L x W x H)*: 150″ x 73″ x 83.5″

Atlas Copco has a focus on exceeding customer needs with a culture built on ongoing interaction, long-term relationships, and a commitment to understanding each customer's process and objectives. As a result, every compressed air solution we create helps a customer operate with greater efficiency, economy, and productivity.

To better serve our customers, we have operations where our customers do business. Our Eastern, Central, Southern and Western regions each have their own direct Atlas Copco sales and service team, plus we have a nationwide network of Atlas Copco customer centers and authorized contracted independent distributors. We have four manufacturing facilities in the USA, including one in Wisconsin, two in Texas, and our state of the art manufacturing facility, distribution center, parts warehouse, and corporate offices in Rock Hill, South Carolina.

Satisfying customer needs with ground-breaking integrated compressed air technology, quality air accessories and 24/7 service support enhanced with remote monitoring tools positions Atlas Copco as a leading global compressor manufacturer. Our unwavering commitment is to be First in Mind – First in Choice® for all your compressed air requirements.

We are committed to your superior productivity through interaction and innovation.



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Danger: Compressed air should never be supplied as breathing air unless air is properly purified for breathing. Atlas Copco assumes no responsibility or liability related to the purchaser's/user's breathing system.

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