# **Lento®**Oil-free Compressors







### **ALUP**

#### Driven by technology. Designed by experience.

ALUP Kompressoren has over 85 years of industrial experience. It is our ambition to offer compressed air solutions that ensure we are first in choice for our customers. To reach this goal we need continuous investment in our product development to make sure that we are always able to offer:

- High performance and excellent quality
- Integrated engineered solutions
- Full energy efficiency
- Total cost of ownership
- Environmental care

www.alup.com

# The power of our oil-free screw range

Lento 15-55 SCD oil-free compressors provide high-quality compressed air for a range of industrial applications. The continuous investment in product development has resulted in both economical and ecological compressors. The range is built focusing on three pillars to make them stand out.

#### Oil-free quality air

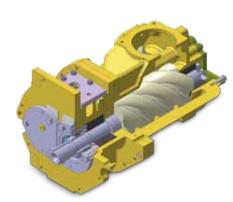
- Ultimate 100% oil free, clean air.
- The integrated air dryer enhances the air quality and protects your air network against corrosion.

#### **Energy efficiency**

- The most energy efficient compression due to low air discharge temperatures, optimized rotor profiles and no bearing losses.
- Integrated inverter technology assures a perfect match of air supply and air demand eliminating no load power losses.
- Direct driven no loss drive train.
- Graphic, full color screen controller with intelligent energy saving features.

#### **Ultimate reliability**

- Friction free hydrodynamic bearings lubricated by clean, filtered lubricant.
- Durable materials to exclude any risk of corrosion.
- Reduced rotor stresses due to soft start up process.









# When technology and ecology join forces

The Lento 15-55 SCD range combines the user benefits and compressor features that matter most. All integrated into one concept!

#### Premium performance

- Pressure rating up to 13 bar.
- Output from 306 to 504 m³/h 85 to 140 l/s
   180 to 296 cfm.
- Radial cooling fan (air-cooled versions only) and sound-absorbing cabinet for premium cooling and noise performance.

#### **Premium efficiency**

- Unique isotherm compression brings premium saving.
- Inverter driven technology provides up to 35% energy savings.
- Limited pressure band results in an overall reduced net pressure (1 bar extra pressure = 7% energy).
- 3.5" graphic full color controller with web visualization and intelligent saver cycles.
- · Friction free air end bearings.
- Direct driven power train to reduce energy losses.
- Built-in dryer to reduce downstream pressure drop.

#### **Premium quality**

- ISO 8573-1 **Class 0**\* certified quality air.
- Integrated dryer guaranteeing PDP < 3°C.
- Corrosion proof materials: aluminium bronze rotor housing, stainless steel rotor shaft, piping and separator vessel.
- Smooth start up with inverter driven technology.
- · Clean piping.

CLASS	Concentration total oil (aerosol, liquid, vapour) 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







#### **Energy audit**

To optimize your energy efficiency, you need to select the right compressor. Contact your local Alup Kompressoren representative and we will perform a simulation based on your parameters to help you get the perfect compressed air solution.

# One package - multiple benefits

Check out these innovative features of the Lento 15-55 SCD range and see how they provide you with maximized efficiency, excellent air quality and low noise levels.

#### **Direct drive set**

- IP55 induction motor directly coupled to the air end.
- No long-term losses.
- · Direct drive train for optimum efficiency.
- Flexible to meet pressure/flow requirement.



#### In-house designed element

- Highly efficient profile.
- Corrosion-proof parts.
- Hydrodynamic bearings.

#### **Integrated inverter**

- Optimum zone control to optimize energy cost.
- Forced cooling air flow over electronics and smooth start-up to guarantee longer lifetime.
- More than 30% potential savings.



#### **Graphic controller**

- All readings and controls from full color screen controller.
- · Data logging possibility.
- Web visualization.
- · Integrated sequencer.
- Standard on 15-30 units, optional on 30-55 units.





#### **Integrated dryer**

- Integrated into the package to reduce footprint, maintenance and installation cost.
- Designed to guarantee

   a constant pressure dew
   point of 3°C.
- All readings/control function from one point.



Air quality



#### **Sound insulated canopy**

Allows installation in most working environments without requiring a separate compressor room.

#### Radial fan & cooling system

- The cooling turbine is installed in an easily accessible sound insulated cabinet.
- Oversized cooler pack to enhance cooling performance.
- Maintaining a high cooling efficiency, the radial cooling turbine reduces the energy consumption.



# Alup Kompressoren sets modern industry standards





1992
FIRST WATER INJECTED SCREW COMPRESSOR INSTALLED

1993
FIRST AIR-COOLED PACKAGE

1998
INTRODUCTION INVERTER
DRIVEN TECHNOLOGY
IN LENTO









CHEMICALS & PLASTICS

**ELECTRONICS** 

# **OIL-FREE**

RANGE REWARDED BY CLASS ZERO ISO CERTIFICATION





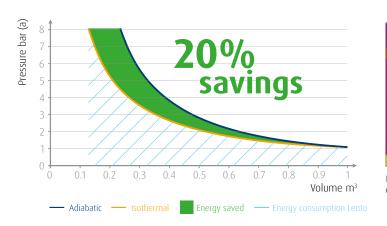
Class zero guarantees the ultimate air quality for all those applications that require perfectly clean air:

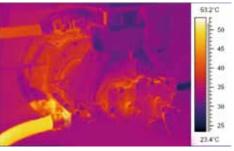
- Pharmaceuticals
- Food and beverages
- Textile industry
- Electronics

With our oil-free screw compressor range we meet your mandatory requirements to avoid oil traces in the output air according to ISO 8573-1.

## **ENERGY SAVINGS PUSHED TO THE LIMIT**

# Savings from the oil-free air end





Limited temperature increase of only 25° C inside compressor element

**Adiabatic compression:** All compression heat is transferred to the compressed air (~ dry screw technology) **Isothermal compression:** Constant temperature in compression chamber (~ Lento technology)

The Lento 15-55 SCD range offers nearly isothermal compression. Superior air end cooling results in more compressed air for lower energy consumption.

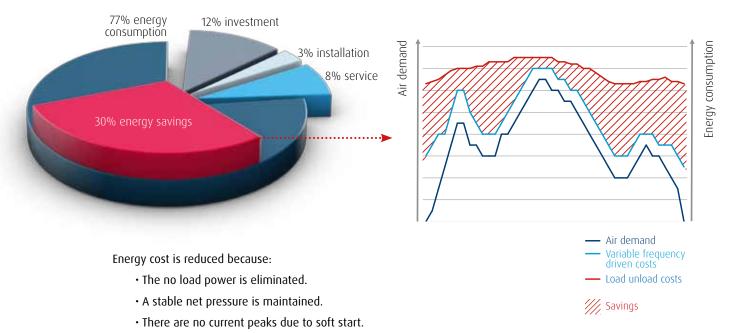


- Reduced installation costs:
  - o No filter maintenance costs.
  - o No pressure drop.
  - o No condensate treatment.
  - o No contamination.
- Reduced noise level even with multiple installations.
- Small footprint compared to conventional installation.
- Single central control point for multiple unites with integrated sequencer or wall-mounted controller.



# Savings from inverter technology

Energy costs represent about 70% of the total operating cost of your compressor over a 5-year period. That is why reducing the operating cost of a compressed air solution is a major focus. The Lento oil-free screw compressor can cut the energy bill of your compressor by up to 30%.



# Savings from the controller

- Instant pressure logging and communication limits the pressure band and reduces the average net pressure.
- Integrated saver cycles to limit energy consumption and optimize air quality.
- Integrated sequencer for 4 up to 6
   compressors limiting the energy consumption
   and equalizing running hours.
- Dual pressure band operation.



# **Options to optimize your operations**



A wide range of options enables you to get the most out of your Lento 15-55 SCD compressor.

#### **General options:**

- Booster pump
- Flanged inlet
- Anchor pads
- IT ancillaries

#### Air treatment

Dryer bypass for unbreakable production

#### **Protection**

- Water shut-off valve
- Main power isolator switch

For further information on how our options can optimize your operations, please contact your local representative.





# **Technical specifications**

Inverter version

	Max. working pressure	Reference working pressure	Fre	e Air Delive	ery	Motor	power	Noise level	Cooling air Volume	Wei	ght	Compressed air outlet diameter
Model	bar	bar	m³/h	I/s	cfm	kW	hp	dB(A)	m³/h	std (kg)	T (kg)	п
Lento 15 SCD	13	7	78-168	22-47	47-100	15	20	67	1080	650	700	
Lento 18 SCD	13	7	78-192	22-54	47-114	18	25	69	1440	650	700	1
Lento 22 SCD	13	7	78-240	22-66	47-140	22	30	70	10080	740	800	'
Lento 30 SCD	13	7	78-300	22-83	47-176	30	40	72	10040	740	810	
Lento 37 SCD	13	7	150-372	42-104	89-220	37	50	69	11880	1195	1306	11/2
Lento 55 SCD	13	7	150-556	42-155	90-328	55	75	72	16200	1195	1314	1 1/2

#### Fixed Speed version

	Max. working pressure	Reference working pressure	Fre	ee Air Delive	ery	Motor	power	Noise level	Cooling air volume	Weig	ht	Compressed air outlet diameter
Model	bar	bar	m³/h	I/s	cfm	kW	hp	dB(A)	m³/h	std (kg)	T (kg)	п
	7.5	7	306	84.9	180.1	30	40	68	11520		1320	- 11/2
Lento 30	10	9.5	246	69.3	144.8	30	40	68		1226		
	13	12.5	192	53.0	113.0	30	40	68				
	7.5	7	366	1.2	215.4	37	50	69				
Lento 37	10	9.5	312	86.4	183.6	37	50	69	11880	1298	1395	
	13	12.5	252	69.2	148.3	37	50	69				
	7.5	7	438	121.4	257.8	45	60	71	15840		1416	11/7
Lento 45	10	9.5	354	98.1	208.4	45	60	71		1321		
	13	12.5	294	82.2	173.0	45	60	71				
	7.5	7	504	139.1	296.6	55	75	72	16200 1			1 1/2
Lento 55	10	9.5	426	118.1	250.7	55	75	72		1378	1497	
	13	12.5	354	98.4	208.4	55	75	72				

#### Dimensions

Model	Length std mm	Width mm	Height mm		
Lento 30					
Lento 37	2435	965	1840		
Lento 40	2433	905	1840		
Lento 55					

Model	Length mm	Width mm	Height mm		
Lento 15 SCD					
Lento 18 SCD	1976	974	1500		
Lento 22 SCD		374			
Lento 30 SCD					
Lento 37 SCD	2435	965	1840		
Lento 55 SCD	2433	705	1040		



height



#### DRIVEN BY TECHNOLOGY DESIGNED BY EXPERIENCE

