

Oil-free, water-injected  
screw compressors

## LENTO Series

Capacity:  
0.86 – 8.27 m<sup>3</sup>/min



# Intelligence, Innovation, Reliability

*clean compressed air, economically produced:*

*100% oil-free compressed air*

*maximum flexibility through variable and fixed speed*

*enormous energy-saving potential*

*robust and quiet*

*safe in operation by proven design*

*clear, simple layout for ease of service*

*flexible operating pressure 5 – 10 bar, continuously variable*

## Maximum benefits for our customers:

This premise is the defining characteristic of everyone at ALMIG.

Our products benefit from the latest techniques in research and development and are manufactured according to ISO 9001: 2000 / ISO 14001: 2004 / IRIS.

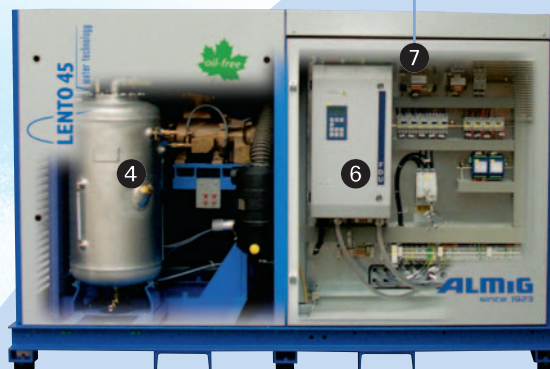
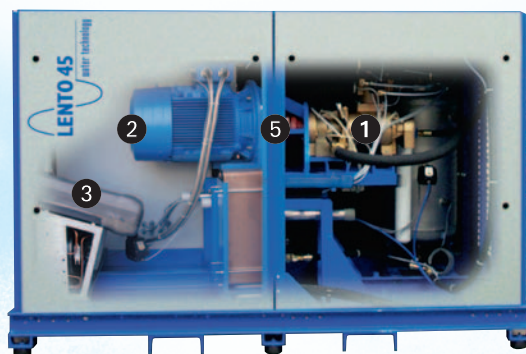
They fulfil all acceptance conditions according to ISO 1217 – 3 annex C – 1996 and agree with the CE-guidelines.

Even the most stringent conditions, such as DET NORSKE VERITAS, GERMANISCHER LLOYDS, BUREAU VERITAS LLOYD'S REGISTER OF SHIPPING, ABS among others, are for us from ALMIG a matter of course.



intelligent compressed air ... everywhere ■■■ intelligent compressed air ... everywhere ■■■ intelligent compressed air ... everywhere ■■■

# Construction, Technology, Highlights



## 1 Compressor

- single stage, water-injected airend
- bronze alloy stator
- plastic compound rotors
- lowest compression temperatures less than 60 °C
- computer-designed compressor with 35,000 hours between bearing change

## 2 SCD motor

- highly efficient drive motor
- IP 55 protection class F
- compact, powerful and safe in operation designed for maximum cooling

## 3 Integrated dryer with triple tasking

- a) producing fresh water for the permanent generation and circulation of the coolant required
- b) for optimum biological and chemical water quality
- c) provides dry compressed air at the input to the compressed air network

## 4 Water circuit

- closed water circuit with independent, integrated water feed
- multi-stage separation for dry compressed air

## 5 SCD direct drive

- loss-free power transmission
- optimum performance

## 6 SCD frequency converter

- fully integrated system
- conforms to EMC directives

## 7 Air Control

- the compressor's intelligence
- thinks, monitors and records

The "LENTO concept" from ALMIG: oil-free, direct drive and speed-controlled



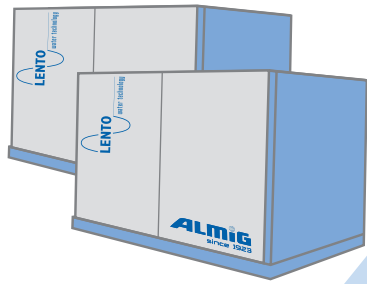
# Data, Facts, Analyses

	Type	Operating overpressure	Flow* to ISO 1217 (Appendix C-1996)		Motor-rated output	Length	Width	Height	Weight
		bar	min. (m <sup>3</sup> /min)	max. (m <sup>3</sup> /min)	kW	mm	mm	mm	kg
variable speed	LENTO 15	5 – 10	1.01	2.34	15	1880	850	1660	850
	LENTO 18	5 – 10	1.01	2.87	18.5	1880	850	1660	860
	LENTO 22	5 – 10	1.01	3.38	22	1880	850	1660	870
	LENTO 30	5 – 10	1.01	4.30	30	1880	850	1660	920
	LENTO 31	5 – 10	2.04	5.08	30	2300	1400	1560	1470
	LENTO 37	5 – 10	2.04	6.14	37	2300	1400	1560	1520
	LENTO 45	5 – 10	2.04	7.13	45	2300	1400	1560	1550
	LENTO 55	5 – 10	2.04	8.19	55	2300	1400	1560	1590
fixed speed	LENTO 18 D	5 – 7		2.68	18.5	1880	850	1660	840
	LENTO 22 D	5 – 10		2.68	22	1880	850	1660	850
	LENTO 31 D	5 – 8		4.90	30	2300	1400	1560	1450
	LENTO 37 D	5 – 10		4.90	37	2300	1400	1560	1500

\*  $\dot{V}$  referred to operating overpressure of 7 bar water-cooled/air-cooled optionally

## LENTO, the system solution for:

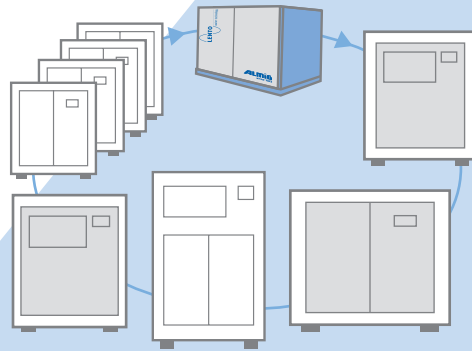
Application 1



LENTO, the oil-free compressed air provider as a free-standing system or as a multi-unit solution for economical, oil-free compressed air production in the medium output range.

The benefits for you: cost-effective, operationally safe with low maintenance compressed air production

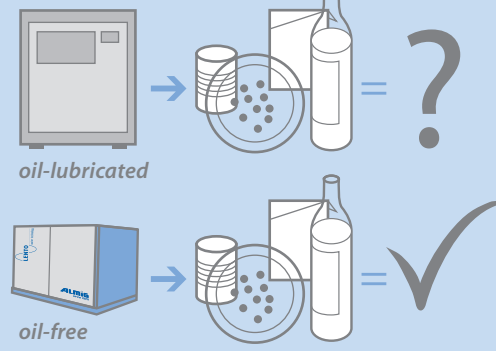
Application 2



LENTO, the oil-free, speed-controlled compressed air provider is best suited to take over in existing oil-free compressed air stations as the master "command" system.

The benefits for you: the entire station becomes more economical immediately, and peaks in consumption can be buffered by "governing".

Application 3



LENTO, the oil-free compressed air producer, as safe alternative to replace oil-lubricated with oil-free compressed air cost-effectively in critical sectors (such as foodstuffs, chemicals and pharmaceuticals).

The benefits for you: high security for your products (no oil present) and fewer waste disposal problems



# Intelligent technology at the point of delivery!

The LENTO concept offers technological advantages with no compromise:

**HIGHLIGHT**

High quality, 100% oil-free compressed air is demanded not only in pharmacy, foodstuffs, electrical engineering and medical industries, but is very important in all applications where products of highest quality are produced.

**HIGHLIGHT**

Only water, the most natural of all raw materials, is used in the compression process. The result is:

- clean, environmentally friendly compressed air with no oil; dirt and other dust particles drawn in are being cleaned by the water treatment system
- clean condensate (pure water) can be fed directly into the drains system
- lowest temperatures during compression through optimum heat transfer via the water and this with minimum energy consumption

**HIGHLIGHT**

The LENTO range of speed-controlled direct drive compressors provide optimum economy by:

- exactly matching the flow from the compressor to the compressed air requirements at any time
- avoidance of switching cycles and the consequent costly no-load periods
- energy-saving start-up, with no current surge
- freely selectable operating pressure from 5 – 10 bar in 0.1 bar increments

The reduced pressure produced saves you money!

**HIGHLIGHT**

The combination of the “energy-saving duo” is unbeatable:

- the LENTO with “fixed speed” covers the basic load for a compressor station
- the LENTO with “variable speed” takes up any additional requirement, e.g. peaks in consumption

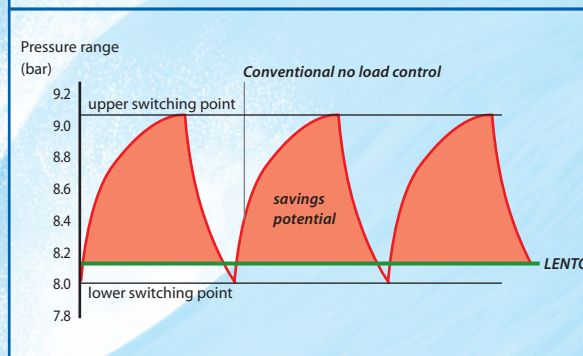
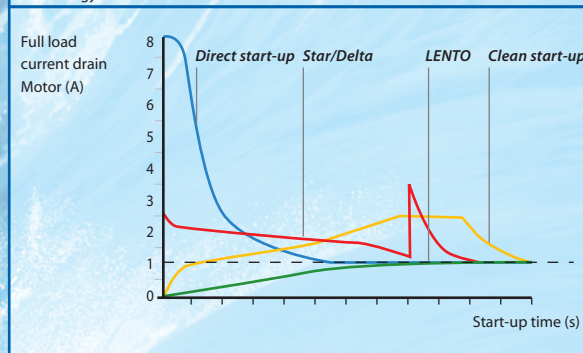
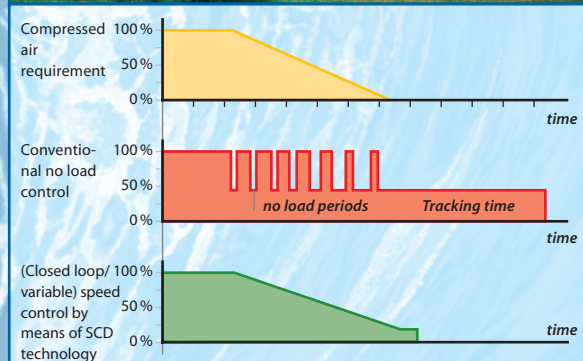
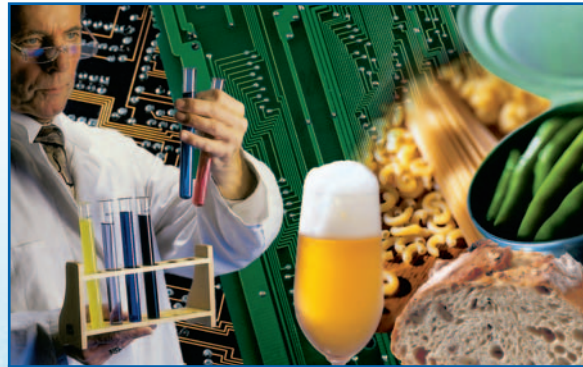
**HIGHLIGHT**

The integrated dryer:

- ensures minimum compressed air output temperatures, i.e. a separate dryer may not be required
- reduces costs and simplifies installation as no additional water is required

**HIGHLIGHT**

Minimised service and maintenance costs compared with other oil-free compression systems with fewer service items



# Products, Concepts, Solutions

## Built on the needs of the customer

With our innovative system concepts we offer customised solutions for almost all applications.

Our endeavour lies not only in supplying compressors, we offer ourselves as a

competent system provider, who is able to offer solutions to all users of compressed air.

That does not only apply to the consultation and installation phase of your new compressor(s), but naturally continues in all areas of service, maintenance and visualisation.

**Challenge us!**



**Screw compressors**

- constant speed  
2.2 – 500 kW/  
5 – 13 bar
- variable speed  
controlled and  
direct drive  
3 – 315 kW/  
5 – 13 bar
- oil-free, with  
water injection  
15 – 55 kW/  
5 – 10 bar



**Piston compressors**

- oil-free,  
up to 10 bar  
1.1 – 12 kW
- for normal  
pressure up  
to 10 bar  
1.5 – 15 kW
- for medium  
pressure up  
to 15 bar  
1.5 – 15 kW
- for high pressure  
up to 40 bar  
2.2 – 45 kW
- as a booster for an  
input pressure up  
to 15 bar and an  
output pressure  
up to 40 bar  
2.2 – 30 kW



**Blower**

- at constant speed  
1.5 – 55 kW  
300 – 1000 mbar
- with speed  
regulator and  
direct drive  
3.0 – 55 kW  
300 – 1000 mbar



**Turbo compressors**

- oil-free,  
up to 9 bar  
65 – 370 kW



**Complete accessories**

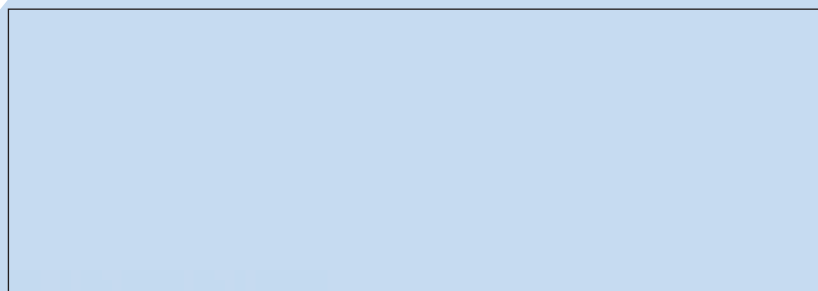
- refrigeration  
dryers  
0.27 – 100 m<sup>3</sup>/min
- desiccant dryers  
0.08 – 145 m<sup>3</sup>/min
- activated carbon  
adsorbers  
0.08 – 145 m<sup>3</sup>/min
- filters,  
all particle sizes  
0.5 – 225 m<sup>3</sup>/min
- complete  
condensate  
management up to  
120 m<sup>3</sup>/min



**Control, regulate, monitor**

- lead-lag control
- consumption-  
dependant  
control
- visualisation  
(we bring your  
compressed air  
to the PC)
- tele-monitoring  
(the hotline of  
your compressed  
air station)

Your specialist



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since 1923

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