

OIL-FREE, WATER-INJECTED SCREW COMPRESSORS

Volumetric flow rate: 0.86 – 12.26 m³/min • 36 – 433 acfm



LENTO
WATER TECHNOLOGY

A stylized white icon of a screw compressor rotor with a blue wave-like line passing through it, set against a blue background.

INTELLIGENTE DRUCKLUFT MADE IN GERMANY

ALMiG Kompressoren GmbH

a name that guarantees top-grade technology in the compressed air sector. ALMiG has emerged from a company with a long tradition whose products in the compressed air industry have always stood for quality, innovation and consideration for its customers.

Today ALMiG is an extremely flexible company that can react fast to special customer requests. It stands by its customers as a competent partner, giving advice and practical support.

As one of the leading suppliers of advanced compressed air systems, our commitment to continuous research and development forms the basis for all our products. ALMiG compressors are all manufactured in accordance with

- IRIS
- ISO 9001: 2000
- ISO 14001: 2004

They meet the conditions for acceptance in compliance with:

- ISO 1217-3 annex C-1996
- ASME
- OSHA

and conform to the CE guidelines.

Compliance with the most stringent acceptance conditions, such as

- DET NORSKE VERITAS
- GERMANISCHER LLOYD
- BUREAU VERITAS
- LLOYD'S REGISTER OF SHIPPING
- ABS

is a matter of course for us.

Our motto is:

If you have stopped improving,
you have stopped being good!

Clean compressed air, economically produced:



■ 100 % oil-free compressed air by means of the unique water-injection technology

■ enormous potential energy savings by combining speed control with fixed speed

■ totally reliable thanks to the advanced basic components

■ flexible operating pressure, infinitely adjustable



INTELLIGENT WATER INJECTION TECHNOLOGY

LENTO -
super compressed air
quality owing to multiple-
stage treatment

- the injected water is „recovered“ by the integrated refrigerant dryer in the form of condensate (=water of the highest quality)
- the condensate/water „washes“ out the dust particles contained in the intake air
- furthermore, the germs, spores and bacteria sucked in are removed from the compressed air down to a value below the detection limit
- several reputable, independent institutes have confirmed this in various elaborate test series



ISO 9001



ISO 14001





The “LENTO concept” from ALMiG:

oil-free, direct drive and speed-controlled

Airend 1

single-stage, water-injected • the housing made from stainless alloy encompasses the two rotors for economical compression (male and female rotors) • minimal final compression temperatures below 60°C (hence close to the isotherm - i.e. economically efficient compression)

SCD motor 2

highly efficient drive motor • IP 55 protection class ISO H • compact, powerful and reliable in operation

Integrated refrigerant dryer 3

with triple tasking: produces fresh water for the permanent generation and circulation of the coolant required • for optimum biological and chemical water quality • provides dry compressed air on entering the compressed air network

Water circuit 4

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

SCD direct drive 5

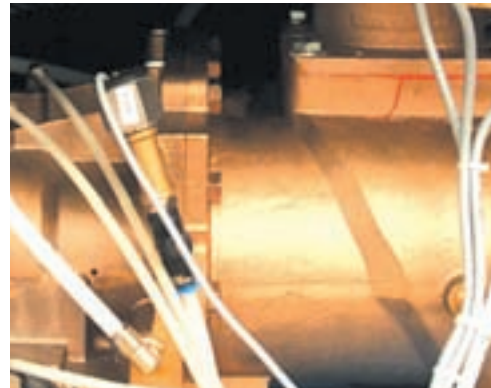
loss-free power transmission, optimal cost savings

SCD frequency converter 6

the integrated power pack, conforms to EMC ordinances, of course

Air Control 7

the compressor's intelligence; thinks, monitors and records



INTELLIGENT COMPRESSOR ARRANGEMENT



LENTO 15 - 30



INTELLIGENT TECHNOLOGY AT THE POINT OF DELIVERY!

The LENTO concept offers technological advantages with no compromises:

1

High quality, 100 % oil-free compressed air is demanded not only in the pharmaceuticals, food, electrical engineering and medical industries, but is very important in all applications where top grade products are manufactured

2

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 washed out by the water
- clean condensate (pure water) can be fed directly into the sewage system

- lowest temperatures during compression thanks to optimal heat removal via the water and hence extremely low energy consumption for compressed air production

3

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

- adjusting the volumetric flow rate exactly to the respective compressed air requirements
- avoids switching operations and the consequent costly no-load running periods
- energy-saving start-up, with no current peaks
- operating pressure can be selected freely in 0.1-bar (1.5 psig) stages.

The consequent reduction in pressure saves you money!

4

The „Energy-Saving Duo“ is an unbeatable combination:

- the LENTO with “fixed speed” covers the base load for a compressor station
- the LENTO with “variable speed” takes care of any additional requirement

5

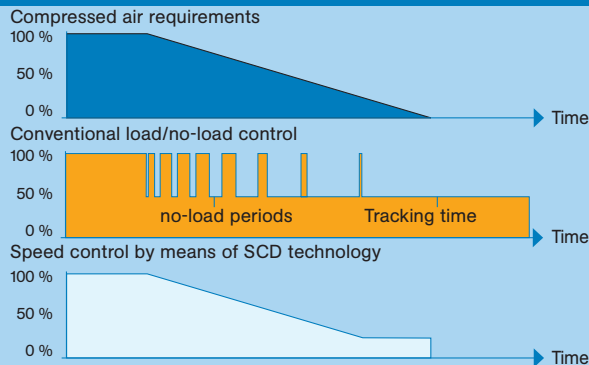
The integrated refrigerant dryer:

- ensures minimum compressed air outlet temperatures, i. e. a separate dryer is not required
- cuts out the costs for fresh water and water treatment

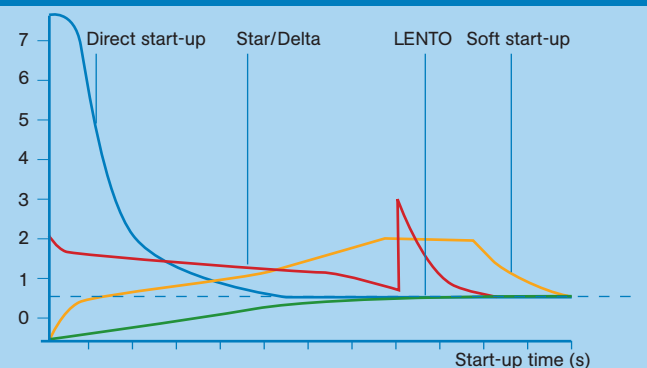
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Minimised service and maintenance costs compared with other oil-free compression systems

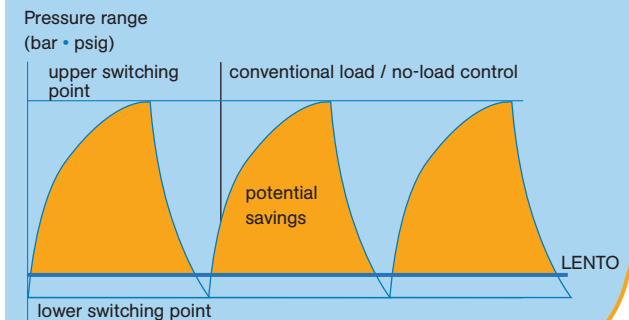
Adjusts volumetric flow rate exactly



Full-load current consumption, motor (A)



Prevents switching operations



FACTS AND FIGURES

50 Hz								
LENTO	Operating over-pressure	Vol. flow rate* according to ISO 1217 (annex C-1996)		Rated motor output	Length	Width	Height	Weight
		min.	max.					
	bar	m ³ /min	m ³ /min	kW	mm	mm	mm	kg
Speed-controlled								
15	5 - 10	0.96	2.13	15	1880	850	1660	850
18	5 - 10	0.96	2.68	18	1880	850	1660	860
22	5 - 10	0.96	3.16	22	1880	850	1660	870
30	5 - 10	0.96	4.14	30	1880	850	1660	920
31	5 - 10	1.97	4.75	30	2300	1400	1560	1470
37	5 - 10	1.97	5.82	37	2300	1400	1560	1520
45	5 - 10	1.97	6.83	45	2300	1400	1560	1550
55	5 - 10	1.97	8.15	55	2300	1400	1560	1590
46	5 - 13	2.27	8.34	45	2300	1400	1560	1700
56	5 - 13	2.27	9.95	55	2300	1400	1560	1750
75	5 - 13	2.27	11.01	75	2300	1400	1560	1800
85	5 - 13	2.27	12.26	85	2300	1400	1560	1850
Fixed speed								
18 D	5 - 7	2.68		18	1880	850	1660	840
22 D	5 - 10	2.53		22	1880	850	1660	850
31 D	5 - 8	4.84		30	2300	1400	1560	1450
37 D	5 - 10	4.72		37	2300	1400	1560	1500
38 D	5 - 9	5.73		37	2300	1400	1560	1500
46 D	5 - 13	5.59		45	2300	1400	1560	1500

60 Hz								
LENTO	Operating over-pressure	Vol. flow rate* according to ISO 1217 (annex C-1996)		Rated motor output	Length	Width	Height	Weight
		min.	max.					
	psig	acfm	acfm	HP	inch	inch	inch	lbs
Speed-controlled								
15 / 20	75 - 145	36	83	20	74	33.5	65.4	1875
18 / 25	75 - 145	36	103	25	74	33.5	65.4	1895
22 / 30	75 - 145	36	120	30	74	33.5	65.4	1920
30 / 40	75 - 145	36	153	40	74	33.5	65.4	2030
31 / 41	75 - 145	72	179	40	90.6	55.1	61.4	3240
37 / 50	75 - 145	72	220	50	90.6	55.1	61.4	3350
45 / 60	75 - 145	72	255	60	90.6	55.1	61.4	3420
55 / 75	75 - 145	72	304	75	90.6	55.1	61.4	3510
46 / 61	75 - 190	80	295	60	90.6	55.1	61.4	3750
56 / 76	75 - 190	80	351	75	90.6	55.1	61.4	3860
75 / 100	75 - 190	80	389	100	90.6	55.1	61.4	3970
85 / 110	75 - 190	80	433	110	90.6	55.1	61.4	4080
Fixed speed								
22 / 30 D	75 - 100	108		30	74	33.5	65.4	1870
37 / 50 D	75 - 100	201		50	90.6	55.1	61.4	3300
38 / 51 D	75 - 145	237		50	90.6	55.1	61.4	3300
46 / 61 D	75 - 190	233		60	90.6	55.1	61.4	3300

* V in relation to the operating overpressure: 8 bars at 50 Hz / 100 psig at 60 Hz

compressors are water-cooled as standard, optionally air-cooled, LENTO 46 - 85 (LENTO 46 / 61 - 85 / 110) water-cooled only available

INTELLIGENTE DRUCKLUFT MADE IN GERMANY

In line with the customer's needs

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 capable of offering solutions to all users of compressed air. That does not only apply to the consultation and installa-

tion phase of your new compressor(s), but naturally continues in all areas of service, maintenance and visualisation.
Challenge us!

Screw compressors	Piston compressors	Turbocompressors	Blower	Complete accessories	Control, regulate, monitor
<ul style="list-style-type: none"> constant speed 2.2 – 500 kW/5 – 13 bars variable speed-controlled and direct drive 2.2 – 355 kW/5 – 13 bars oil-free, with water injection 1.5 – 85 kW/5 – 13 bars 	<ul style="list-style-type: none"> oil-free, up to 10 bars 1.1 – 4 kW for normal pressure up to 10 bars 1.5 – 15 kW for medium pressure up to 15 bars 1.5 – 15 kW for high pressure up to 40 bars 2.2 – 45 kW as a booster for an input pressure up to 15 bars and an output pressure up to 40 bars 2.2 – 30 kW 	<ul style="list-style-type: none"> for oil-free compressed air 65 – 1000 kW two-stage up to 9 bars three-stage up to 10 bars 	<ul style="list-style-type: none"> at constant speed 1.5 – 55 kW 300 – 1000 mbars with speed control and direct drive 3 – 55 kW 300 – 1000 mbars 	<ul style="list-style-type: none"> refrigerant dryers 0.27 – 100 m³/min desiccant dryers 0.08 – 145 m³/min activated carbon adsorbers 0.08 – 145 m³/min filters, all particle sizes 0.5 – 225 m³/min complete condensate management up to 120 m³/min 	<ul style="list-style-type: none"> base load changeover controls consumption-related controls visualisation (we bring your compressed air to the PC) tele-monitoring (the hotline of your compressed air station)



Your expert advisor