



40 BAR OIL-FREE PET COMPRESSORS



ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
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Телефоны: +7 (495) 7774788, 7489626, (925) 5007155, 54, 65
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Oil-Free Reciprocating Air Compressors

(from 1 bar up to 40 bar)

Innovation

R&D

**First and Only
Manufacturer
in Turkey!**

Quality

Entrepreneurship

Oil-Free, High Pressure, Multi-Staged, Water Cooled, V-Type Reciprocating Air Compressor with High Free Air Delivery



■ *The design is applicable for use in many different industries including food & beverage, electronics, medical, chemical and pharmaceutical.*

■ *The design and manufacturing can be tailor-made based on your compressed air requirements.*



LYPS 200

General Specifications

- ✓ V-Type with 1,2 or 3 stages.
- ✓ 100% Oil-Free (according to ISO 8573-1).
- ✓ Water cooled cylinders and exchangers.
- ✓ Low energy costs and high efficiency: Control your daily working hours and free air delivery via microprocessor control unit.
- ✓ High pressure air receiver, high pressure air dryer, air filters, cooling tower are included in the package as standard accessories. Inverter, chiller and remote control system are available as options.
- ✓ Air bags are used for minimizing vibration and noise levels. Water collected at the separators are discharged using automatic drainage system.
- ✓ Test system designed specially for Lupamat is used for measuring and recording of all performance and capacity data during quality controls.
- ✓ 30 different sensors are installed for precise measuring of data.
- ✓ Long wearing material and design allowing continuous running at full-load for more than 4000 hours.

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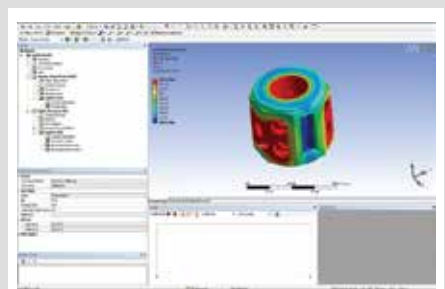
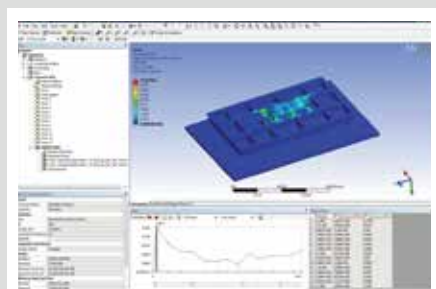
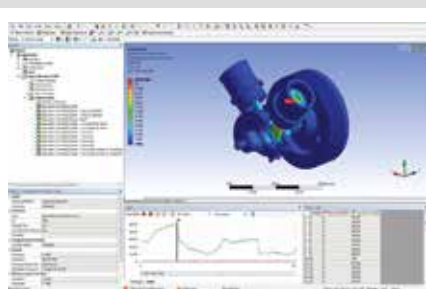
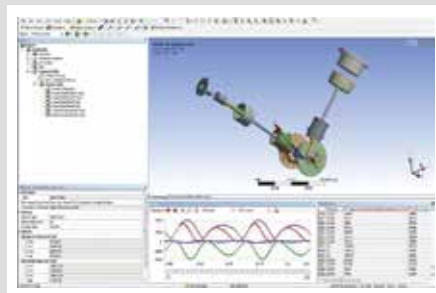


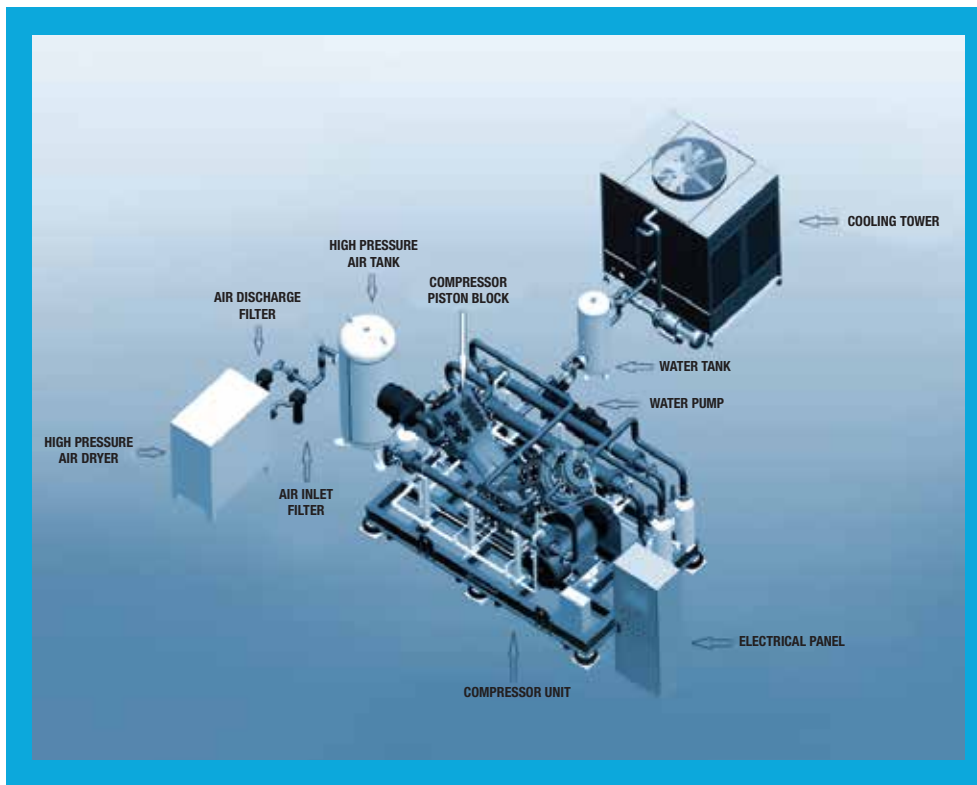
Manufacturing

All phases of manufacturing process, from casting to machining of the parts, take place at our own facilities allowing traceability.



Body, cranks, and cylinders are processed at machining centers using CNC boring machines and CNC lathes.





Turkey's leading compressor manufacturer since 1968.

Complete System

Our extensive package of high pressure oil-free system includes:

- ✓ Compressor Unit
- ✓ Microprocessor Control Unit
- ✓ High Pressure Air Dryer
- ✓ High Pressure Air Filters
- ✓ High Pressure Air Receiver
- ✓ Cooling Tower
- ✓ Water Cooling Tank
- ✓ Circulation Pump
- ✓ Electrical Panel

Optional Features:

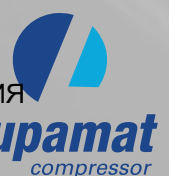
- ✓ Frequency Control Unit (Inverter)
- ✓ Chiller
- ✓ Remote Control System

- ✓ Heat Exchanger

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Specifications



100% OIL-FREE

Compressor Unit

- **V-type with 3 stages.**
- Body and stage cylinders are made of cast iron grade EN GJL-250, they are stress relieved and precisely machined.
- **Crankshaft is manufactured in single piece cast in ductile iron of EN GJS 600-3 quality and stress relieved. Working surfaces of the ball-bearings and connecting rods, after having been machined, are grinded.**
- Connecting rods consist of two parts and are made of ductile iron grade EN GJS 600-3, which were machined, after having been stress relieved. Working surfaces of the connecting rods on the crankshaft are covered with a special metal alloy. These parts are then machined according to the crankshaft diameter.
- **All stage cylinders are hydro-statically tested before assembling.**
- Air pipes between the stages are tested and x-rayed after the completion of welding processes and then subjected to hydro-static tests.
- **Linear movements of first and second stage piston shafts are provided with sliding contact bearing type pistons.**
- First and second stage pistons and sliding contact bearing type pistons are made of special alloyed aluminum material and are machined, after having been stress relieved.
- **First, second and third stage pistons are made of PTFE material specially designed for Lupamat and have a long lifespan.**
- Suction and discharge valves used in all stages are specially designed and manufactured for Lupamat.
- **Both ends of the crankshaft are supported with bearings.**
- Certain mechanical parts are automatically lubricated by the oil pump, driven by the crankshaft, without contaminating the oil-free air discharged from the compressor.
- **Oil scrapers and pressure seal packages used on the first and second stages prevent oil contamination of the air.**
- Compressed air discharged from the stage cylinders first passes through the water cooled exchanger and then to the next stage after being cooled down to the correct temperature. Water collected at the separators behind the exchanger is automatically drained. Separators are equipped with safety valve.
- **Bare unit casting, molding, machining processes are made by DIRINLER Group of Companies.**
- Valves, piston rings, oil and pressure scraper packing are designed and produced by HOERBIGER company.
- **Each part is designed by using ANSYS CAD program. Strength and thermal calculations are made for selection of the most appropriate material and design.**
- Compressed air discharged from first, second and third stage cylinders are controlled by temperature and pressure sensors.
- **Stage cylinders are cooled down by the closed circle water circulation of the cooling tower.**
- 40 bar air receiver is manufactured in accordance with the CE regulations and standards. The receivers are first x-rayed, assessed and then subjected to hydro-static pressure test.
- **Compressor is equipped with microprocessor specifically designed for Lupamat. Compressor's operation mode, pressure and temperature values, water temperature and flow rates, maintenance schedules, troubles, PTC failures, etc. can be followed over the LCD screen.**
- Compressor unit and the other equipments are all manufactured in accordance with CE regulations and Standards, and are CE certified.


Microprocessor Control Unit

- Daily working hours and air flow values can be controlled.
- Following features can be monitored via the microprocessor:
 - Suction and discharge pressure values
 - Pressure and temperature values of the water and oil circulating in the system
 - Clogging of the intake filter
 - Inlet and outlet air temperature
 - Ambient conditions (temperature, humidity, ambient pressure, etc.)
 - Water flow switches
- Warning and failures that occur during functioning of the machine can be seen on the PLC and can be recorded.
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High Pressure Air Dryer and Line Filters

- Air Dryer Working Pressure: 40 bar
- Dew Point: +3°C
- Microprocessor control system of the dryer is designed to protect itself and warns the end user in several cases such as increased ambient temperature, maintenance period, malfunction caused by the compressor.
- Exchangers are custom designed for the air dryer.
- Maximum particle removal of the high pressure filters is 0,01 micron.

Other Equipments

<ul style="list-style-type: none"> ■ High Pressure Air Receiver <ul style="list-style-type: none"> - Working Pressure: 40 bar - Testing Pressure: 60 bar - Material: P265GH - Volume: 890 lt 	<ul style="list-style-type: none"> ■ Cooling Tower: <ul style="list-style-type: none"> - Closed circuit with double fan - Capacity: 327 kW - Water Flow: 57m3/h 	<ul style="list-style-type: none"> ■ Cooling Tank: <ul style="list-style-type: none"> - Capacity: 200 lt - Max. Pressure: 6 bar ■ Electrical Control Panel ■ Circulation Pump: <ul style="list-style-type: none"> -Power: 7,5kW 	
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Lupamat Oil-Free, Water Cooled, Reciprocating Air Compressor Range

Compressor Models	Max. Working Pressure			Capacity, FAD*			Number of Stages	Motor Power	
	bar(g)			m³/hr				kW	hp
Single Staged									
LYPS 132	3			1705			1	132	180
LYPS 160	3			2240			1	160	220
LYPS 200	3			2740			1	200	270
Double Staged									
LYPS 90	8	10	-	871	871	-	2	90	125
LYPS 110	8	-	13	1142	-	871	2	110	150
LYPS 132	-	10	13	-	1142	1142	2	132	180
LYPS 160	8	10	-	1414	1414	-	2	160	220
LYPS 185	-	-	13	-	-	1414	2	185	250
Triple Staged									
LYPS 110	40			587			3	110	150
LYPS 132	40			707			3	132	180
LYPS 160	40			871			3	160	220
LYPS 185	40			995			3	185	250
LYPS 200	40			1142			3	200	270

* FAD: Free Air Delivery

* FAD is measured according to ISO 1217, Rev. 3, Annex C-1996

*Lupamat Makina San. A.Ş. reserves the right to change all information given on this brochure without prior notice.

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Industrial Compressed Air Equipments

- ✓ *Reciprocating Air Compressors*
- ✓ *Screw Air Compressors*
- ✓ *Booster Compressors*
- ✓ *Compressed Air Receivers*
- ✓ *Compressed Air Dryers*
- ✓ *Adsorption Air Dryers*
- ✓ *Compressed Air Line Filters*
- ✓ *Oil-free Screw Air Compressors*
- ✓ *Oil-free Reciprocating Air Compressors*
- ✓ *Air System Design and Installation*
- ✓ *Oil-free Scroll Compressors*

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