

DALGAKIRAN

NEW



0,16-4,58
m³/min



11-37
kW

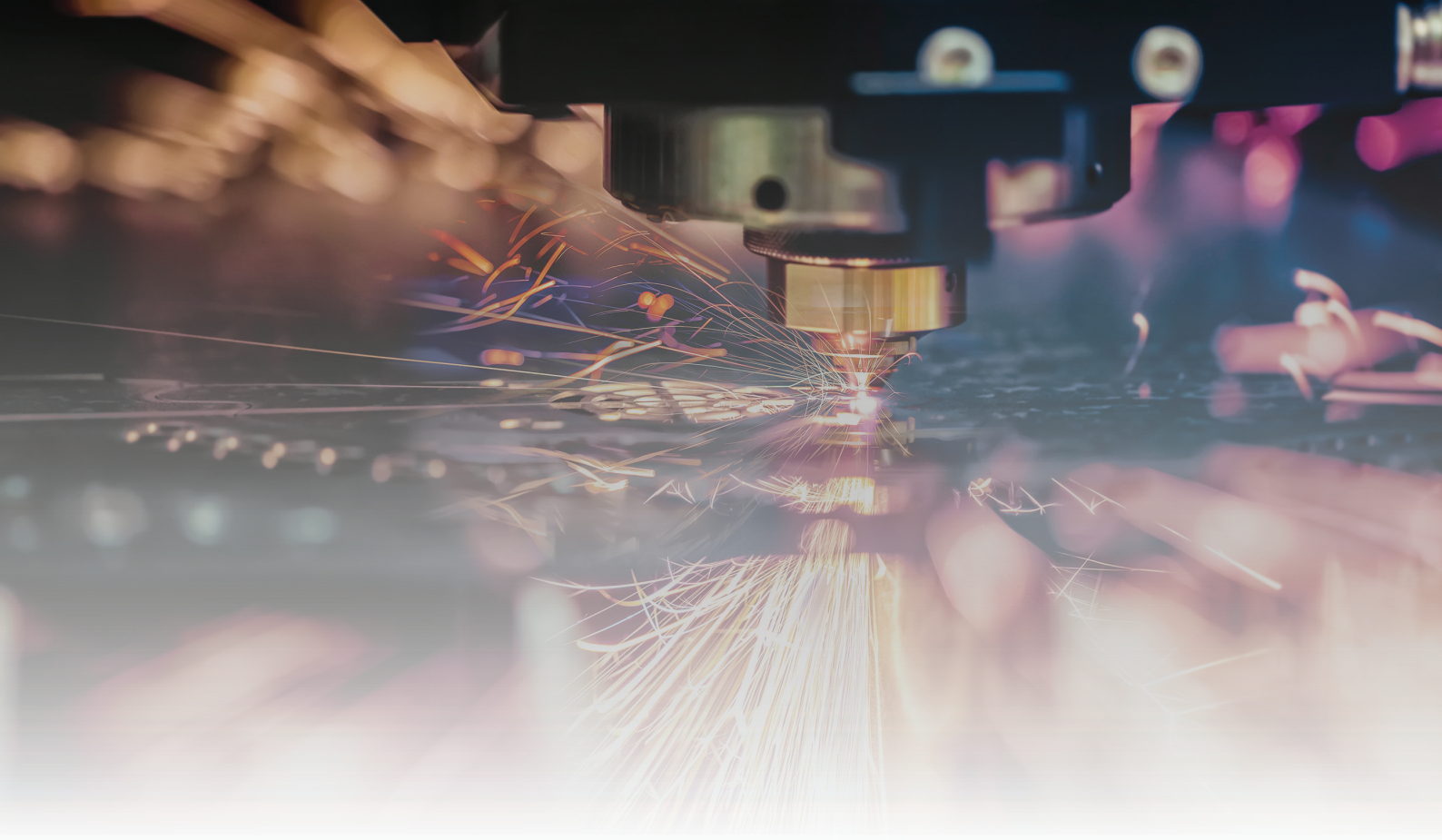


14,5-16-20
bar

LASER SERIES

*Oil Injected, Direct Coupled/Belt Driven, Variable/Fixed Speed
High-Pressure Rotary Screw Air Compressors*

Laser Series compressors deliver high-pressure, stable, and efficient air for laser cutting machines, ensuring superior performance under all conditions.



Dalgakıran's new LASER Series compressors are specifically engineered for laser cutting machines, providing clean, dry, and stable compressed air with high-pressure options of 14.5–16–20 bar. The variable-speed INVERSYS PLUS PM LASER and fixed-speed TIDY LASER models feature a compact design, energy-efficient motor architecture, and high-durability components, enhancing cut quality while reducing operating costs.

With a new-generation screw block, high-pressure-resistant cooling system, advanced filtration, and a user-friendly control panel, the LASER Series delivers a complete solution for laser cutting processes—reliable, long-lasting, and maximized for efficiency.

General Advantages

- No external compressor is required to boost the pressure.
- One of the products in its class that takes up the least footprint.
- Compact design has the compressed air widget and compressor in a single place meets your expectations and demands at the optimal level.
- For 20 bar pressure options, it is offered with a high-pressure-rated dryer.
- High-quality components for a long service life and low maintenance costs.
- Tank-mounted versions are available both with a dryer and without a dryer.

INVERSYS PLUS^{PM} LASER SERIES

Oil Injected, Direct Coupled, Variable Speed
Rotary Screw Air Compressors

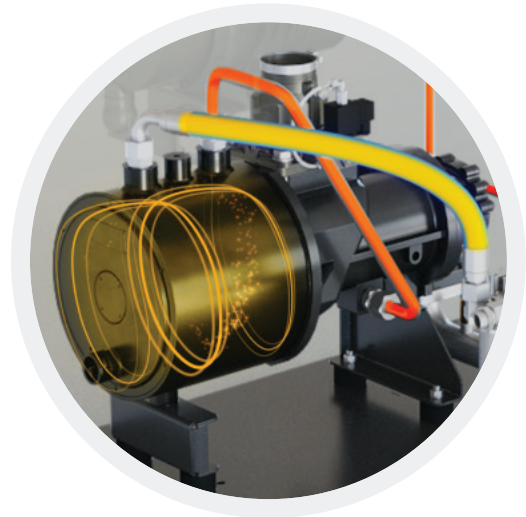
PM
Technologies
by smartpower



Advantages

- It saves up to 55% energy.*
- It operates at constant output pressure value.
- It provides effective and energy efficient compressed air production even in case of highly variable compressed air requirements.
- Long component life cycle thanks to soft start.
- It has the feature of protecting against the adverse effects of peak currents.

* When compared with compressors without an inverter for applications with variable requirements



General Features

- IE5 high efficiency-class IPM electric motor
- Operating with low noise level
- Soft start with variable speed power transmission

Air & Oil Separator

- Effective separator elements keep the amount of oil in the outlet air low (1-3 mg/m³) for high quality compressed air
- Easy-to-detach spin-on type separator

Electric Motor

- IE5 Ultra Premium energy efficient Internal Permanent Magnet (IPM) electric motor
- Compact design
- Low noise levels
- F-class insulation
- Optimum oil cooling at all speeds for high efficiency
- Grease-free lubricated motor bearings



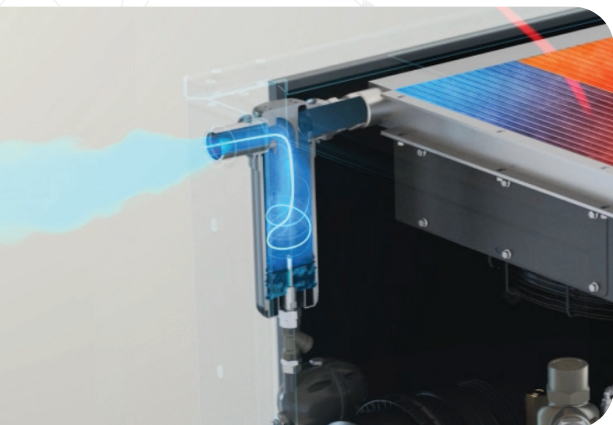
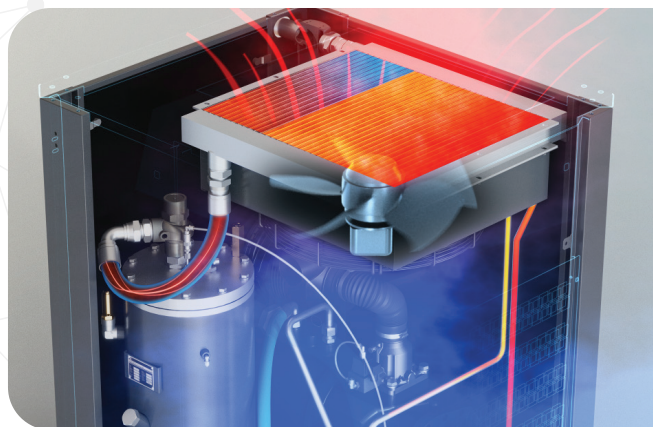
Intake System

- Air circulation inside the cabin with negative pressurized cabin and sealed cover structure
- Fresh air intake thanks to hot air evacuated at a point away from the suction
- Low noise level thanks to intake blinds



Cooling System

- Temperature controlled axial fan (15 kW and below)
- Optimum working temperature thanks to inverter controlled fans, provides additional energy efficiency (18 kW and above)
- High-pressure-resistant cooler



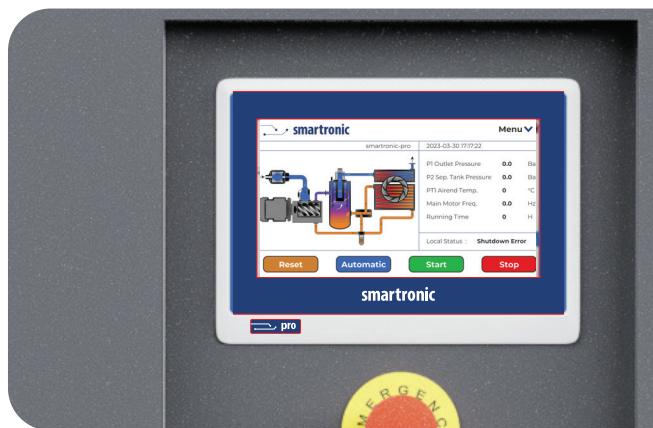
Water Separator

- Separation performance is >%99 even in very hot and humid conditions
- Compact, integrated and unique design (18 kW and above)
- High energy efficiency with minimal pressure loss (18 kW and above)



Controller

- User-friendly display interface with 7" LED display
- Group operation of up to 4 compressors
- Possibility to choose Master/Slave compressor
- Ability to connect to customer DCS system via ModbusTCP
- Compact construction with integrated driver and controller
- Weekly scheduler for starting/stopping the machine at 2 different time intervals can be individually set for each day of the week
- Dual PID feature can run simultaneous PID for temperature and pressure
- Pressure PID ensures energy-efficient operation by maintaining the pressure at the desired level
- Temperature PID controls the fan speed to maintain the screw block's most efficient operating temperature
- All inverter and compressor control data are managed from a single point
- Ability to determine co-aging times of the system with selectable parameters
- Built-in phase sensor



TIDY LASER SERIES

Oil Injected, Belt Driven, Fixed Speed
Rotary Screw Air Compressors



General Features

- Next gen screw block and motor
- Electronic control
- Easy installation and rapid commissioning thanks to its compact design.
- Operating pressure up to 20 bar
- Dryer & tank mounted option (22 kW and below)



Advantages

- Blind cover allows you to place it up against the wall. Convenient placement makes for easy servicing, maintenance, and access. (22 kW and below)
- Optimized intake chamber and insulated cold air intake increase energy efficiency. (30 kW and above)



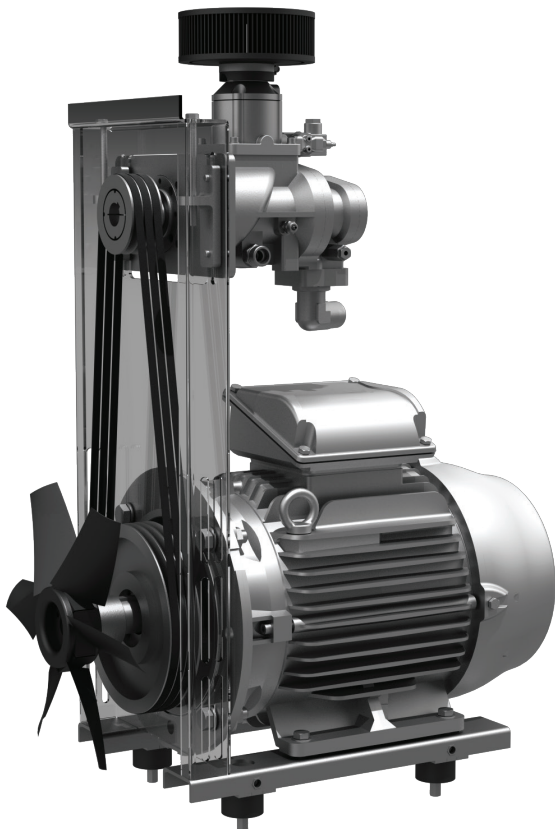
Screw Block

- Durable screw block provides high-capacity air and is specially selected for each model's capacity requirement
- Operated in high ambient temperatures and offers superior reliability
- Air production with less loss thanks to new rotor profiles
- Next gen bearing design which increased load-bearing capacity
- Low maintenance and replacement costs



Main Motor and Drive System

- IE3 efficiency-class electric motor
- Star/delta motor starter
- Belt-pulley drive system
- Easy-to-use belt tensioner
- Pulley bushing for easy servicing





Cooling System

- Minimum footprint with quiet and effective axial fan coupled directly to the main motor (22 kW and below)
- Temperature-controlled additional axial fan (30 kW and above)
- High-pressure-resistant cooler

Oil Separator

- Longer lasting separators keep maintenance costs down
- Effective separator elements keep the amount of oil in the outlet air low (1-3 mg/m³) for high quality compressed air
- Spin-on separator: easy to replace, assemble, and disassemble

Controller

- Without the need for an external main controller, ability to co-aged work synchronized with Master/Slave for up to two compressors
- Internal ModBus communication
- User-friendly on-screen interface
- Alarm log records last 20 alarms
- Maintenance warnings and log records



Air Filter

- Two-stage filtration (initial filtration/precision filtration) (18 kW and above)
- 99.9% efficiency in particle separation down to 3 microns
- Low pressure loss
- Easy maintenance and long service life

- High-quality components such as electrical materials selected in accordance with IEC and CE standards and a high efficiency, less energy consuming screw block offered as standard.

Model	Pressure		Capacity*				Motor	Connection	Dimensions [Length x Width x Height] (mm)		Weight (kg)		Air Receiver	Noise dB (A)
			Minimum		Maximum				Base Mounted	Tank + Dryer	Base Mounted	Tank + Dryer		
	bar	psi	m ³ /min	cfm	m ³ /min	cfm	kW/HP							
INVERSYS PLUS ^{PM} LASER 11	16	232	0,16	6	0,87	31	11/15	G3/4"	835 x 730 x 1200	1890 (16 bar) / 1950 (20 bar) x 730 x 1700	210	376 (16 bar) / 417 (20 bar)	500L	74
	20	290	0,38	13	0,78	28								
INVERSYS PLUS ^{PM} LASER 15	16	232	0,28	10	1,38	49	15/20	G3/4"	835 x 730 x 1200	2010 (16 bar) / 2000 (20 bar) x 700 (16 bar) / 1000 (20 bar) x 2066 (16 bar) / 1950 (20 bar)	236	618 (16 bar) / 657 (20 bar)	500L	75
	20	290	0,48	17	1,31	46								
INVERSYS PLUS ^{PM} LASER 18	16	232	1,38	49	2,05	72	18,5/25	G1"	870 x 905 x 1400	2010 x 700 x 2066	350	729	500L	74
	20	290	-	-	-	-								
INVERSYS PLUS ^{PM} LASER 22	16	232	1,04	37	2,39	84	22/30	G1"	870 x 905 x 1400	2010 x 700 x 2066	358	732	500L	75
	20	290	-	-	-	-								
INVERSYS PLUS ^{PM} LASER 30	16	232	0,70	25	3,18	112	30/40	G1 1/2"	1030 x 935 x 1400	-	468	-	-	74
	20	290	0,90	32	2,54	90								
INVERSYS PLUS ^{PM} LASER 37	16	232	0,88	31	3,90	138	37/50	G1 1/2"	1030 x 935 x 1400	-	475	-	-	73
	20	290	0,82	29	3,19	113								

- Unit performances measured in reference conditions which are 1 bar absolute air pressure, %0 relative humidity, 20°C inlet air temperature, 71°C thermostatic valve set temperature and use of Smartoil.

- Dalgakiran reserves its rights to make changes in its products and specifications without prior notice.

* Refers to free air delivery measured according to ISO 1217:2009, Annex E standard.

Model	Pressure		Capacity*		Motor	Connection	Dimensions [Length x Width x Height] (mm)		Weight (kg)		Air Receiver
	bar	psi	m ³ /min	cfm			Base Mounted	Tank + Dryer	Base Mounted	Tank + Dryer	
TIDY LASER 15	14,5	210	0,99	35	11/15	G3/4"	962 x 732 x 1200	1880 x 732 x 1700	295	470 (14,5-16 bar) / 495 (20 bar)	250L
	16	232	0,79	27,9							
	20	290	0,55	19,4							
TIDY LASER 20	14,5	210	1,48	52,3	15/20	G3/4"	962 x 732 x 1200	1880 x 732 x 1700	315	490 (14,5-16 bar) / 515 (20 bar)	250L
	16	232	1,38	48,7							
	20	290	1,02	36							
TIDY LASER 25	14,5	210	1,76	62,2	18,5/25	G3/4"	1039 x 948 x 1462	2135 x 1200 x 2010	425	835	500L (14,5-16 bar) - 2x250L (20 bar)
	16	232	1,63	57,6							
	20	290	1,17	41,3							
TIDY LASER 30	14,5	210	2,31	81,6	22/30	G3/4"	1039 x 948 x 1462	2135 x 1200 x 2010	465	900	500L (14,5-16 bar) - 2x250L (20 bar)
	16	232	2,15	76							
	20	290	1,66	59							
TIDY LASER 40	14,5	210	3,51	124	30/40	G1 1/4"	1135 x 1035 x 1600	-	665	-	-
	16	232	3,22	114							
	20	290	2,51	89							
TIDY LASER 50	14,5	210	4,58	162	37/50	G1 1/4"	1135 x 1035 x 1600	-	725	-	-
	16	232	4,23	149							
	20	290	3,34	118							

- Unit performances measured in reference conditions which are 1 bar absolute air pressure, %0 relative humidity, 20°C inlet air temperature, 71°C thermostatic valve set temperature and use of Smartoil.

- Dalgakiran reserves its rights to make changes in its products and specifications without prior notice.

* Refers to free air delivery measured according to ISO 1217:2009, Annex C standard.

DALGAKIRAN