



DRY AIR GENERATORS



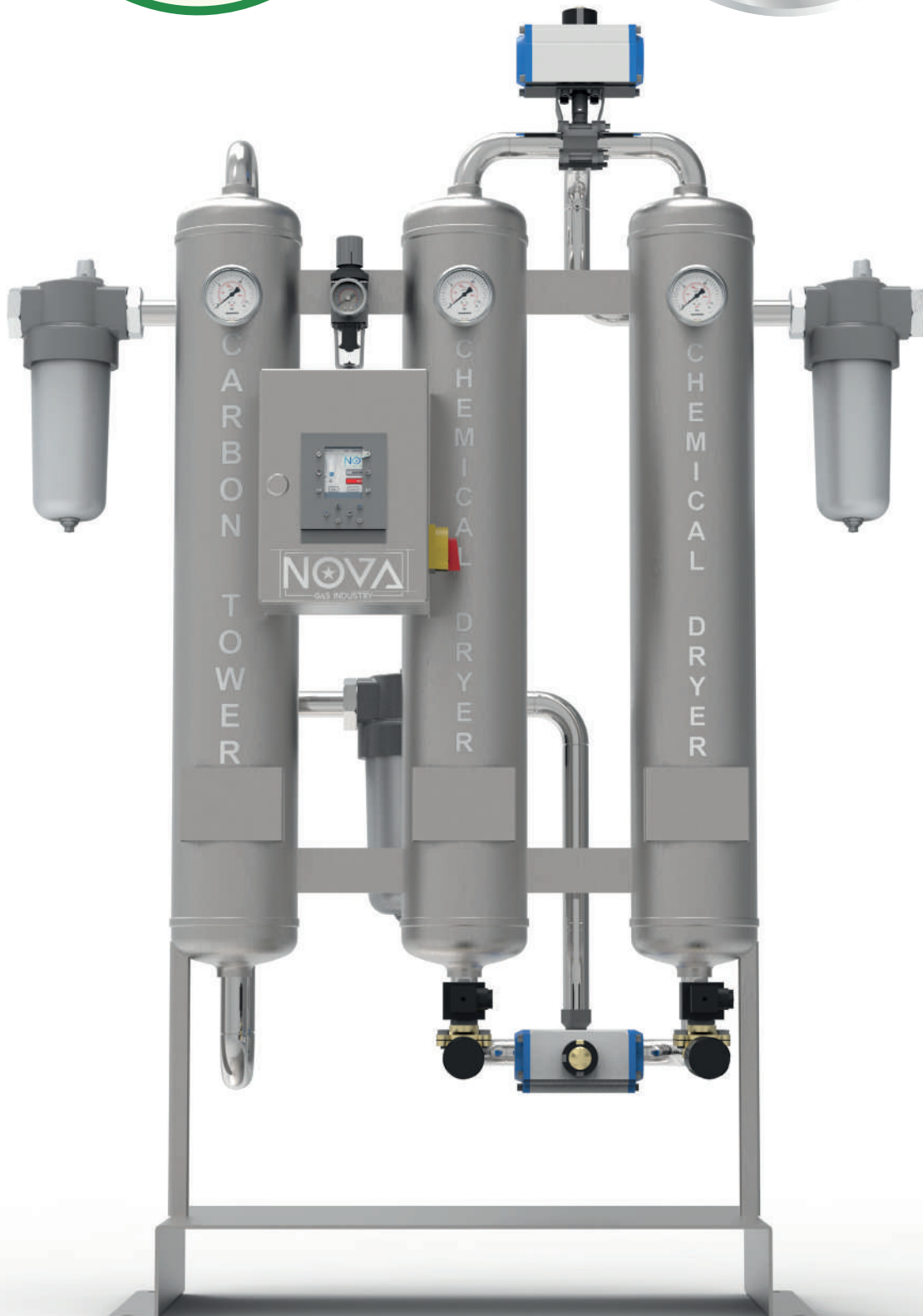
NOVA-AIR OIL-FREE DRY AIR
LASER CUTTING SYSTEMS CATALOG

**13
BARG**

**15
BARG**

**18
BARG**

**40
BARG**



DEWPOINT DEW POINT CONTROL PANEL: THE SYMBOL OF SAFETY IN LASER CUTTING SYSTEMS

Laser cutting technology stands out in industrial manufacturing for the high precision and efficiency it offers. However, ensuring the uninterrupted and high-quality operation of these systems depends not only on the performance of the laser sources but also on the control of environmental factors. At this juncture, the Dew Point Control Panel—developed to enhance the performance and safety of laser cutting systems—plays a critical role.



HOW DOES THE DEW POINT CONTROL PANEL WORK?

The dew point control panel continuously monitors ambient conditions via sensors integrated into the system. Operating through three fundamental functions, this system preemptively eliminates potential hazards.

01

Dew Point Detection

The Smart Dew Control Panel activates when it detects a risk of dew formation in the environment. This detection is achieved through high-precision sensors.

02

Immediate Response

When dew formation is detected, the panel's control mechanism automatically cuts off the cutting air supply to the laser system. This step prevents damage to the laser optics.

03

Discharge Process

The intelligent control system safely exhausts the existing cutting air to the outside, allowing the environment to dry and restoring safe operating conditions.

01

OIL-FREE AIR TECHNOLOGY 100% OIL-FREE AIR (CLASS 0)

Prevents even the smallest oil particles from adhering to laser lenses and mirrors. While standard air dryers remove moisture from compressed air, Nova-Air Activated Carbon Towers (Oil Vapor Removal Towers) purify the air at the molecular level. By preventing lens contamination, scratches, and pollution of the optical path, they maintain the laser's focusing performance at the highest level.

02

MICRO, ACTIVATED CARBON & PARTICULATE FILTERS

Dual-stage inlet and outlet filtration ensures superior compressed air purity while protecting the molecular sieve. Micro, activated carbon, and particulate filters work together as a three-stage filtration system, delivering consistently clean, oil-free, and particle-free air to the laser optics for maximum performance and extended component life.

03

CONSTANT PRESSURE DEW POINT

Reduces the pressure dew point of compressed air to -20°C or -40°C . This means that water vapor is removed at the molecular level. In a system where micro-condensation is eliminated, laser lenses remain crystal clear at all times. This stability prevents focus shift even during long-term operation, ensuring consistently precise and high-quality cutting performance.

04

MOLECULAR FILTRATION AGAINST OIL VAPORS USING ACTIVATED CARBON

Oil and moisture can be removed by standard filters; however, oil vapor (gaseous oil) easily passes through them. As the compressed air flows through the tower, oil vapor molecules are physically adsorbed onto the porous surface of the activated carbon. The result is completely dry, oil-free air, keeping your laser lenses cool, crystal clear, and operating at peak optical performance.

05

5,000 HOURS OF UNINTERRUPTED PROTECTION FOR YOUR LASER OPTICS

Our Activated Alumina and Activated Carbon Tower systems are designed for high-capacity performance, delivering up to 5,000 hours of continuous operation. Throughout their service life, they maintain a stable pressure dew point of -20°C or -40°C , ensuring consistent air quality and reliable protection for your laser system.

06

SENSOR & CONTROL TECHNOLOGY

Automatic Moisture and Pressure Regulation eliminates the need for manual intervention in laser cutting processes, ensuring your system operates at peak efficiency at all times. Designed to adapt to changing operating conditions, this technology protects your laser optics and maintains maximum cutting quality.

07

MAXIMUM PRECISION WITH DYNAMIC PRESSURE BALANCING

Beyond protecting your laser optics, our advanced control system compensates for air pressure fluctuations, maintaining constant pressure with ± 0.5 bar precision. This ensures stable airflow to the laser cutting head for maximum cutting accuracy, reliable performance, and consistent production quality.

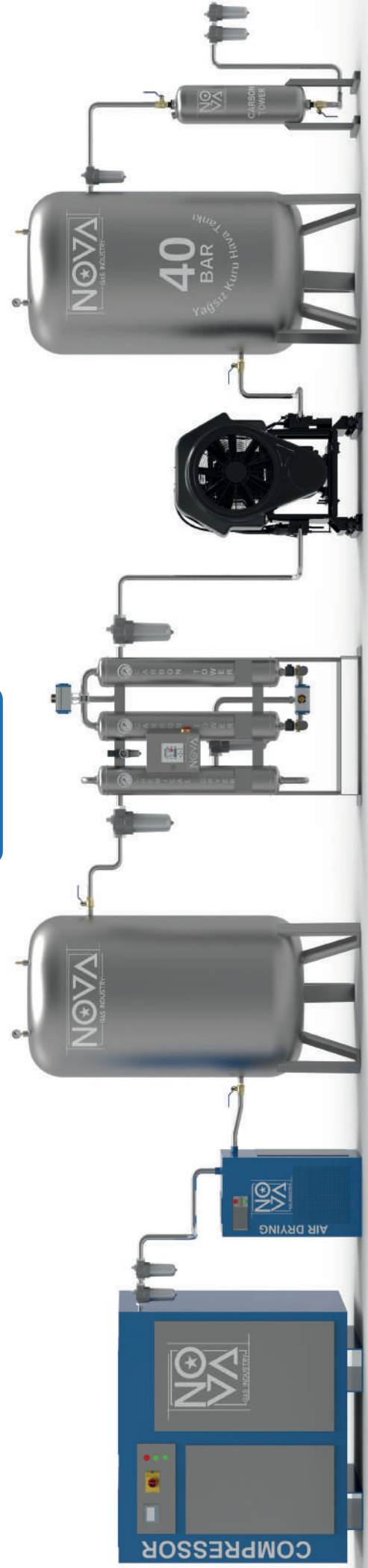
08

TOUCHSCREEN CONTROL PANEL

The advanced control unit offers exceptional ease of operation with an intuitive touchscreen interface. All process parameters are displayed clearly for simple monitoring and control. With extensive interface options, it provides transparent system monitoring and seamless integration into existing automation and control infrastructures.

40 BAR DRY AIR LASER SYSTEM

NOVA
AIR



18 BAR DRY AIR LASER SYSTEM



16 BAR DRY AIR LASER SYSTEM



Laser Cutting Systems

Compressed Air Quality Meeting ISO 8573-1 Class 1.2.1 Standards

Maximum Particle Size	0,001 mg/m ³
Dew Point	-40 °C
Maximum Oil Vapor Quantity	0,003 mg/m ³

TECHNICAL SPECIFICATIONS OF DRY AIR LASER SYSTEMS

40 Barg Oil-Free Dry Air Systems

MODEL	CAPACITY m ³ /Hour	DESICCANT AIR DRYER m ³ /Hour	ELECTRICITY CONSUMPTION kWh	NOVA GAS 40 BARG BOOSTER	KURA AIR TANK 40 BARG/ LITER
NOVA GAS Air 1	138	150	22,5	108 m ³ /Saat	1000
NOVA GAS Air 2	198	200	33	170 m ³ / Saat	1000
NOVA GAS Air 3	288	300	45	240 m ³ / Saat	2000
NOVA GAS Air 4	318	350	55,5	300 m ³ / Saat	2000
NOVA GAS Air 5	426	450	67	330 m ³ /	2000

18 Barg Oil-Free Dry Air Systems

MODEL	CAPACITY m ³ /Hour	DESICCANT AIR DRYER m ³ /Hour	ELECTRICITY CONSUMPTION kWh	NOVA GAS OIL FREE BOOSTER	KURA AIR TANK 24 BARG/ LITER
NOVA GAS Air 6	138	150	15	2	1000
NOVA GAS Air 7	198	200	22	3	1000
NOVA GAS Air 8	288	300	30	4	2000
NOVA GAS Air 9	318	350	37	6	2000
NOVA GAS Air 10	426	450	45	7	2000

15 Barg Oil-Free Dry Air Systems

MODEL	CAPACITY m ³ /Hour	DESICCANT AIR DRYER m ³ /Hour	ELECTRICITY CONSUMPTION kWh	KURA AIR TANK 16 BARG/LITER
NOVA GAS Air 11	95	110	15	16 barg/Liter
NOVA GAS Air 12	145	150	22	1000
NOVA GAS Air 13	175	200	30	2000
NOVA GAS Air 14	215	250	37	2000
NOVA GAS Air 15	255	275	45	2000

**NOVA
AIR**

**Right Capacity, Right Technology
Advanced Laser Solutions**



A Clean Future Sustainable Production

OUR ADVANTAGES AND VALUES

Professional Experience: Since our inception, thousands of successful system installations worldwide.

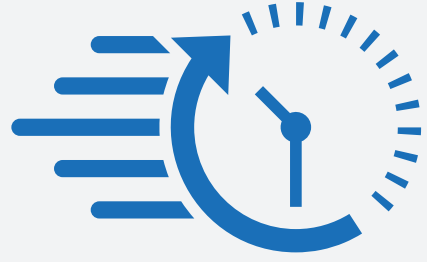
An Engineering Marvel: High-tech systems developed and manufactured to the highest standards.

Reliable and Flexible: Modular technology infrastructure scalable according to changing needs.

Maximum Efficiency: Sustainable growth through low operating costs and high production quality.

We provide our customers with much faster and results-oriented service through our international sales and extensive service network. We invite you to discover this exclusive world where we offer on-site gas generation technologies.

You can share your current gas consumption data so that we can calculate the system capacity best suited to your needs.



FASTER CUTTING



LOW MAINTENANCE COST



THE END OF LENS, GLASS & FIBER CABLE PROBLEMS!



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