

WHY ARCTOS ... ? here our Arguments for your decision:

- **EXPERIENCED & GLOBAL. ARC Diode Lasers Since 2003.** Experience of 15 years in Showlasers and Showlaser Manufacturing. Top selling lasersystems & lasers for professionals since 2003 worldwide.
- **ORIGINAL IDEAS. Arctos EU Patents.** Made in Bavaria. 5 Pending Patents in DiodeLaser Technology.
- **INTELLIGENT CONCEPTS.** Sophisticated electronic- and thermic solutions for solidness & lifetime.

ARCTOS RGB and RGBY LASERSYSTEM OVERVIEW 2010

Arctos Series are unique bc of user-friendly and professional features. We offer 2 high-end RGB and RGBY showlasersystem-series in two configurations: equipped with diodes (semiconductor), DPSS and 100% Coherent® Taipan® OPSL sources (OPSL= Optical Pumped Semiconductor Laser).



ARCTOS-DIODE and **ARCTOS-Coherent (OPSL) Series.**
Designed for LASER Professionals. TOP Selling system for Professionals since 2003

"Arctos Diode" and "Arctos OPSL" – series technology provides an outstanding beam quality in the high-power range from 2W to >75W RGBY. Arctos original collimation system guarantees beam data < 0.7 mrd; 3 mm: ideal for graphic and open-air applications over great distances, mountain projections and sky beams. The huge laser energy density provides an extreme brightness. Arctos systems are designed for mobile operation under difficult ambiences. Our design is stable & solid combined with a smart t°-management + sealed optical units, based our shock-absorbing housings. Plug & Play, air-cooled, super-silent, brilliant colors, low power consumption and Arctos Experience & Pending patents in showlaser industry makes us to be always steps ahead. Our technical superiority has been rewarded with the ILDA Award 2009 and professional Coherent Integrator Status 2009.

ARCTOS technical FEATURES for "ARC Diode" and "ARC Coherent" Lasersystems:

Pure "snow" white balance: "Arctic White"

Coverage of the visible spectrum of laser light 450 nm to 640 nm (optional RED: 650-655nm) achieves pure white light corresponding to our specified output in watts. Arctos specifies the typical (max) and the 100% guaranteed output power after! Scanner. No unrealistic max current laser power specifications - only true measured values.

Digital Color Balance

Our microprocessor controlled laser sources are adjusted to pure white light through a RGB-Y sensor. Color balance can be actively adjusted in real-time. The active adjustment feature ensures in every performance range a true white balance in the most optimal way.

Active RGB Linearization

Our RGB linearization achieves a brilliant color representation of >16.7 million colors without any de-coloration during fading-in or-out.

5 Pending Patents

Arctos has the worldwide most extensive experience in diode showlaser manufacturing: our diode array patterns are pioneering and sophisticated

Geometric housing design

Compact and rational system design: incorporates more stability than every futuristic arched design.

Arctos solid + shock absorbing + mechanically levitated (frei-schwebend)

Arctos engineering is well known for its solid and "frame-art" housing structure (10-15mm thick solid metal). All optical components are mechanically & thermally separated from the housing. Vibrations and shocks are virtually eliminated by the frame – square structure & solid materials. The optical level of the system is mechanically levitated. It ensures no re-adjustment before operation.

Maintenance Free

Adjustment-free optical components; fog-; humidity- and dust-proof housing, shock-absorbing-levitated technology and processor operated electronic as well as separated optical and electrical components: all max user friendly designs

Long Lifetime

Exact compliance with technical specifications as well as top-quality laser sources, heavy-duty switching-mode power supplies (SMPS), individually fused current consumers, soft-start and additional line filters plus supplementary use of voltage converters in front of each Arctos laser diode guarantees an absolutely sound DC-power supply of the diodes at any rate. All installed laser sources have an average life span of >10.000 h. Arctos RGB systems show positive experience values since 2003: no lifetime problems.

Energy Saving

Low power consumption of less than <1,7kW (20W RGB) and max 600W (10WRGB) with maximum cooling provided.

Direct Access to Picture scaling; X-Y Size Offset, Flip and Color Balance

Arctos "Regatta Card" ensures that the output can be set very easily at the backside panel of the device. It can be scaled, inverted, reflected or the position of the output can be regulated. This is possible through a predefined control unit (LC Screen) at the back of the systems

Active Cooling

Our systems are provided with a processor controlled internal thermoelectric cooling of heat-generating components and an exceptional internal heat abstraction. Every laser is processor controlled and monitored, stabilized on 0.1°C. This assures a perfect performance under the temperature range from 5°C up to +39 °C.

Super Silent

Highest quality silent fans, active control system in combination with Arctos design and materials - guaranteed operation in ambiances where sound level is a significant factor.

USB Ready

designed to be controlled by an USB connection port if necessary. (Optionally)

DMX

The DMX option enables to access and engineer prefabricated animations or effects saved on a memory card by DMX live (any quantity available depending on the memory card). (Optionally)

Ethernet Ready

-systems are configured to integrate the QM 2000 output card to ensure a complete control over TCP/IP network. Up to 30 systems can be synchronized, programmed and controlled by any common Window laptop. (Optionally, on request)

Standard ILDA Input

The ILDA input is based on a 25 pin ILDA standard connection which can be accessed by any common lasershow software.

Digital Remote

Optionally Arctos digital remote provides access to adjust and monitor the Driver settings, laser temperature and more, operations if necessary can be adjusted by qualified personnel

Plug & Play

As simple & as logic to operate as a video projector. This is primarily beneficial when mobile and flexible applications are required.

Microprocessor controlled

Arctos internal microprocessors control and monitor the entire thermoelectric cooling and ventilating as well as the diodes. Therefore a continuous, exact and stable operation mode can be provided which is also beneficial for the lifespan of the system.

ESD Protected Stabilized Switching Power Supplies

Special broad-range combinatorial circuits (developed only for Arctos systems) switched mode power supplies are applied within the (required voltage input 90 - 260 V) to provide the laser with an absolutely sound voltage (no voltage peaks). Voltage converters in front of each diode additionally grant a further voltage smoothing and protect from peak voltage. Due to the system redundancy each laser source as well as any other power supplied component is equipped with a single fused high-quality heavy-duty power supply unit (PSU). This offers extra protection from complete system failure. Furthermore it also avoids „crosstalk“ between the individual systems.

High Speed Scanning up to 80.000 pps ILDA standard

Arctos scanning systems comply with the highest industrial standards worldwide. Scanning speeds up to 80.000 pps allow a precise and jitter-free display of the graphics.

ARC-Modular construction

Our laser sources correspond the highest standards, are also used in industrial and medical sector. Our Lasersystems can be modular equipped with diodes, DPSS and OPS-laser as well as the recent Taipan® OPSL sources from Coherent®. (OPSL= Optical Pumped Semiconductor Laser):
The OPSL technology provides an outstanding beam quality ranging from 5 W to 34 W.
Beam data from 0.7 mrad with a diameter of 4 mm are perfect for graphic and open-air applications with great distances e.g. mountain projections and sky-beams.

ARCTOS is certificated Integrator of Coherent: Arctos OPS Laser DRIVER : DLP40-T.**Dynamic Zone Safety**

Each system is equipped with a dynamic scanner-safety (MO1) specially developed for Arctos systems. This electronic safety device provides protection from defects as well as operator and programming errors. This widely exceeds the required DIN EN 60825-1 and BVG B2 regulations.

..and **most famous touring references worldwide 2009-2010:**

PinkFloyd - Roger Waters

Madonna

Rihanna

Black Eyed Peas

Metallica

Queen

Coldplay

Take That

Spice Girls

MTV

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**Overview. Some essential FACTS:
We make the difference with ARC-DIODE Multicolor Systems:**

ARCTOS SOLID DIODE LASER PATTERN. INTELLIGENT t°-MANAGEMENT

A guarantor of the best diode-overlay pattern. 5 Pending patents and industrial designs by Arctos. Intelligent temperature solutions to avoid hotspots of separate laser modules. Arctos red- or blue based diode modules generate virtually no heat: a homogeneous system, the minimal produced heat from the laser diodes is much lower than the provided t°-transition via heat sinks.

Laser Source RGBY STABILITY

An important aspect is the stability of the single lasermodules and diodes: Arctos has developed special design reflection holders and module inlays, with a determining change of the stability to the base plate. No de-alignment.

TOP DIVERGENCE

Divergence is one of the most important aspects for a laser of higher output. No sense to advertise for high laserpower if the divergence factor becomes thereby worse. To realise 1mrad or 0,35mrad with optical telescopes – it requires special changes in laser diode combining systems (diode pattern). Arctos could prove this always on shows and exhibitions with excellence. No other diode-based RGBY system could hold us up by our long progress & innovation.

LASER DIODES – the FUTURE

The aim is an affordable device which is small, customer- friendly and hardly de-adjustable in the rough mobile show business. We have reached this by years of experience. Also it is irrational to fall back to a technology which requires more voltage, is bigger and generates more heat (T°). - why one should walk back to a technology of the past?-...

RATIONAL DESIGN. STRONG FRAMING

A guarantor of size - compactness. Rational mechanical separation and positioning of the TEC-cooling units does not cause any thermal & mechanical spanning. Rational metal design and strong framing of the ARC- system housing guarantees max stability.

ARCTOS GEOMETRICS

ARC represents an innovative system which has proved itself in many years of stable design and clear concept. For every customer, having a little bit technical know-how, - it is obvious that geometrical systems incorporate more stability than futuristic-form with arched lids and decorated designs - though it might be interesting for the eye – however unfriendly& impractical in handling. We have incorporated every strong "+” argument in our Designs:

ARCTOS BASIC SYSTEM DESIGNS:

