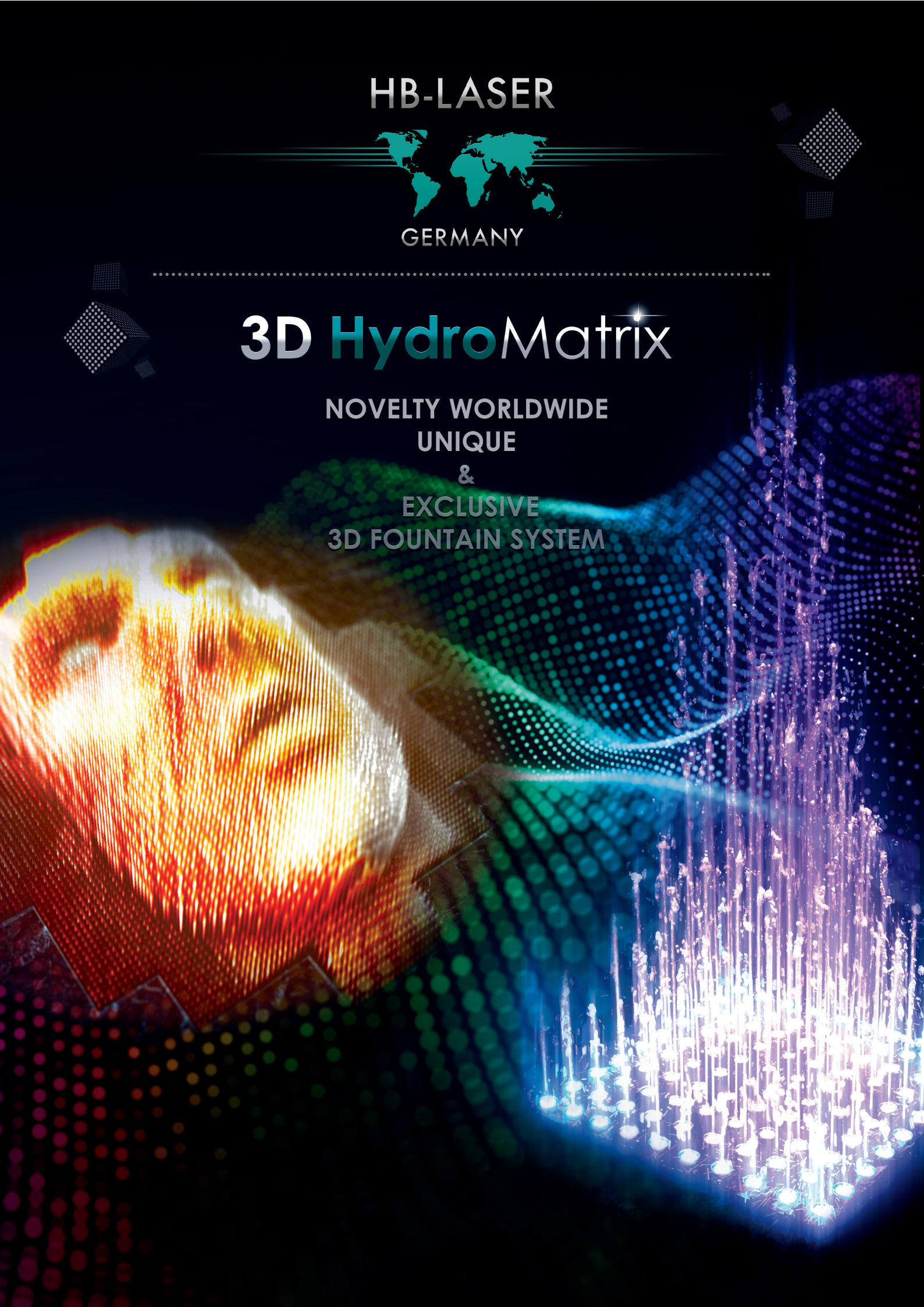
HB-LASER

GERMANY

3D HydroMatrix

NOVELTY WORLDWIDE
UNIQUE
&
EXCLUSIVE
3D FOUNTAIN SYSTEM



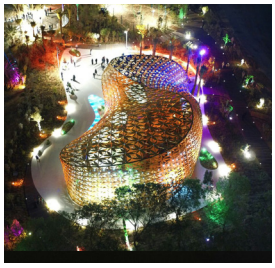
Competences

HB-Laser offers a wide range of products and services to provide comprehensive solutions to our customers. Besides DPSS, diode and OPSL laser systems, event services are also part of it. Each event is individual, dynamic and emotionally designed and realized - independent of the size.

For the multimedia sector reactive projection systems can be offered as well as interactive and customized solutions. Impressive fountains can integrate the element water into the show.

Software and sound solutions round off the product portfolio.

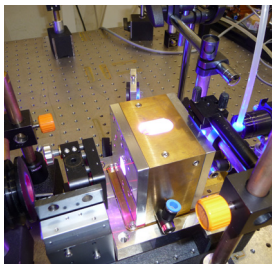
Industrial and B2B customers have the possibility at HB-Laser to find a comprehensive range of industrial laser systems, components and OEM products.



Turn Key
Multimedia
Installations

Musical Fountains
&
Water Screens

Rental Service
Multimedia
&
Laser Shows



Development
&
Repair Services

HB-LASER
GERMANY

Quality-management
certified according to
DIN ISO 9001:2015

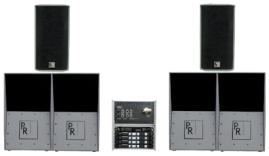
Service & Support

HB-Laser is specialized to offer customers a wide range of products and services for the show, event and entertainment industry.
This includes:

- Project planning
- Turnkey solutions
- Show production
- Laser systems
- Multimedia technology
- Research and development
- Customer training
- Laser safety training
- Installations
- Rental services
- Event planning
- Event services

Professional LightCube
Show Laser Systems

Interactive
Video Systems
IVS



Customized
Sound Systems

Industrial Lasers

Individually
Developed
Components

Laser Systems | Water Technics | Multimedia | Sound | Software | Event Service
OEM Products | Industrial Lasers | Components | Service

HB-LASER

GERMANY

Since 28 Years your Professional Partner Worldwide

Experts in
Multimedia Installations
Laser & Water Products
Showlaser & Event Service

www.hb-laser.com
www.3d-hydromatrix.de

Awarded

More than 30 national and international awards for products, installations and shows.

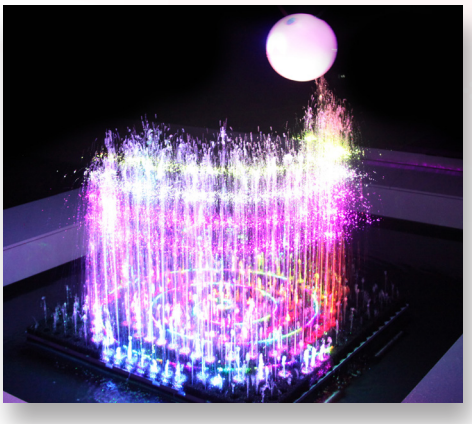
Certified Quality

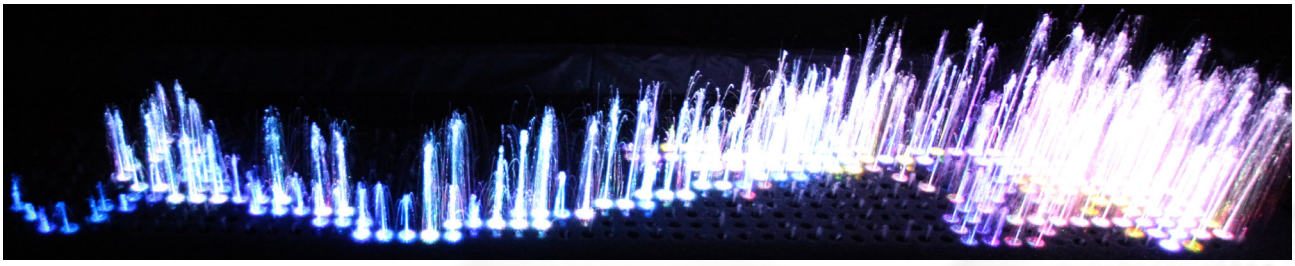
DIN ISO 9001:2015
Coherent, Jenoptik, Pangolin

3D HydroMatrix

Designed for :

- shopping malls
- hotel lobbies
- casinos
- amusement parks
- leisure baths
- wellness oasis
- airports
- etc.





Gefördert durch:

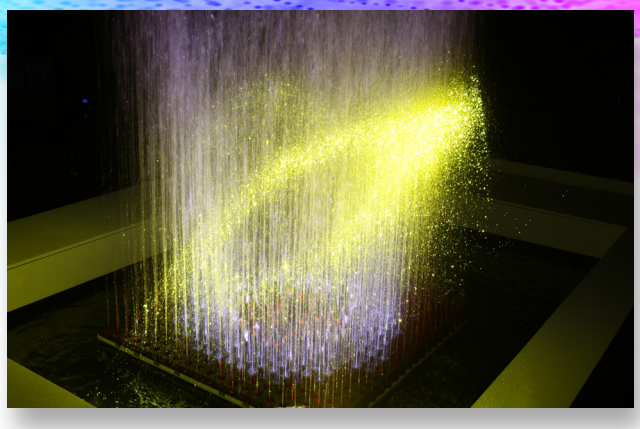
Bundesministerium
für Wirtschaft
und Energie

aufgrund eines Beschlusses
des Deutschen Bundestages

3D HydroMatrix

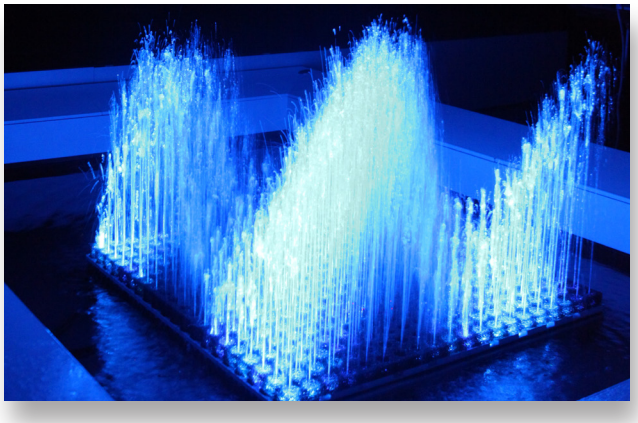
Water, light, motion and shape in perfect Harmony

Miniaturized, flexible and scalable design platform, designed for high-quality, exclusive attractions.
Made in Germany
Patent pending: 10 2016 106 227.8



Unique

3D HydroMatrix opens up new design possibilities which have never been seen before.
For the first time pixel accurate videos and pictures can be combined with a third dimension, by using the height of a water fountain. The minimal pitch between the LED water fountains allows to realize any 3D surface out of water.



Emotional

Water and light, combined as animated 3D sculptures.
Geometrical figures, numbers or letters as well animated 3D logos or flights through fantastic 3D landscapes made from water and light offer borderless options, as well sa new never seen bevore interactive posibilitys.

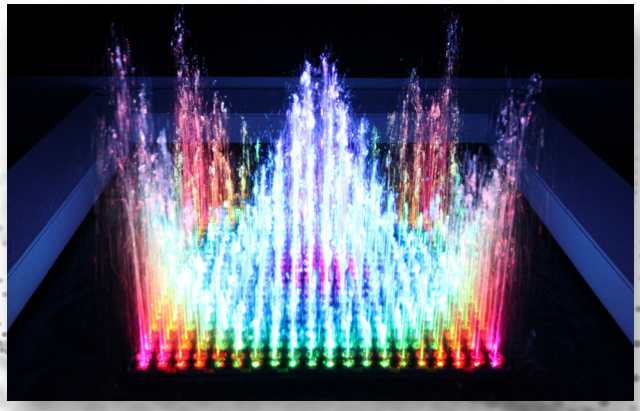
Smart

It is possible to realize any individual design through the flexible configuration as single- or in-line arrangement for example, as star or as area covering matrix.

Reliable

Using 24V low voltage and only highest quality materials, safe and durable operation is guaranteed, even under challenging, sophisticated environmental conditions.

3D HydroMatrix includes all components necessary for operation.

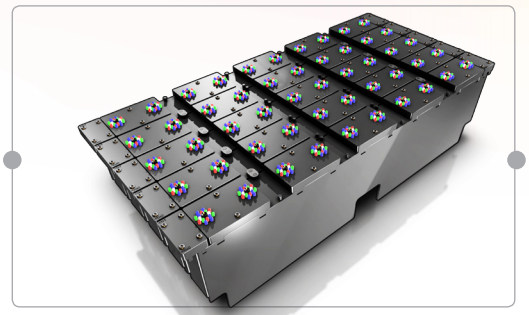


www.3d-hydromatrix.de

3D HydroMatrix

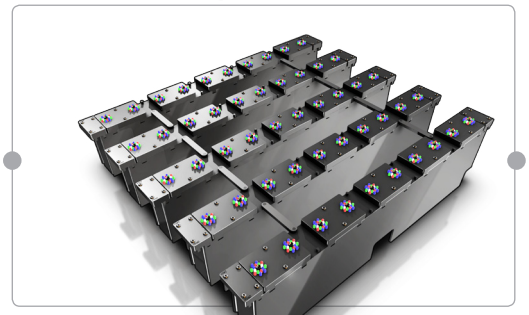
3D HydroMatrix HD

500 mm x 500 mm x 100 mm (L x W x H)
100 LED pixel RGBW (900 LED)
100 independent controllable fountain
from 1cm up to 1,5m height
pixel & fountain pitch 50mm
DMX RDM incl. auto adressing



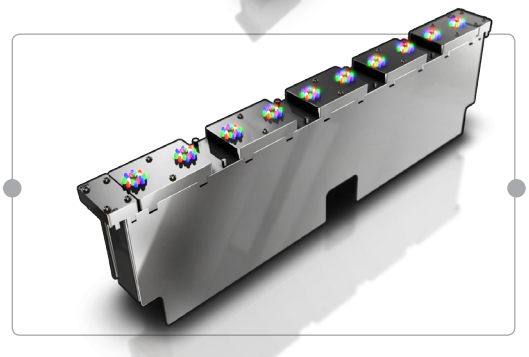
3D HydroMatrix SD

500 mm x 450 mm x 100 mm (L x W x H)
25 LED pixel RGBW (225 LED)
25 independent controllable fountain
from 1cm up to 1,5m height
pixel & fountain pitch 100mm
DMX RDM incl. auto adressing



3D HydroMatrix HD Single Module

500 mm x 50 mm x 100 mm (L x W x H)
10 LED pixel RGBW (90 LED)
10 independent controllable fountain
from 1cm up to 1,5m height
pixel & fountain pitch 50mm
DMX RDM incl. auto adressing



3D HydroMatrix Setup Examples

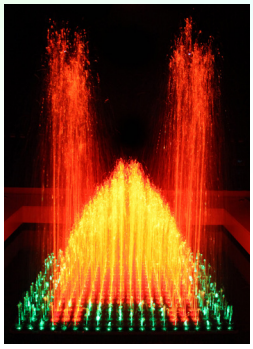
Single module in row-configuration
flexible configurable and expandable

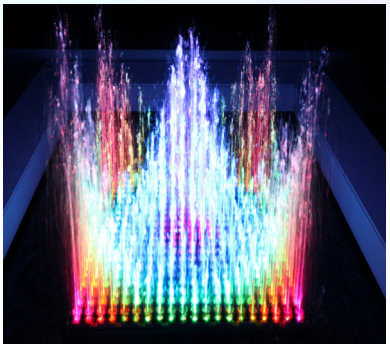
Single module in star configuration
flexible configurable and expandable

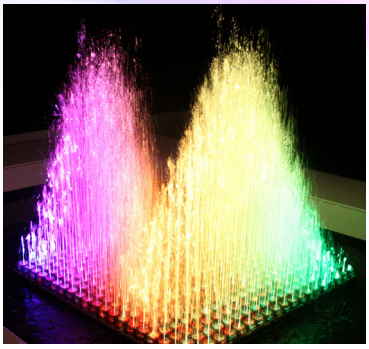
3D HydroMatrix Accessories

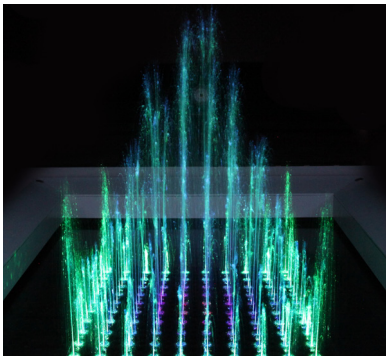
Powersupply, Cableset, Connectors

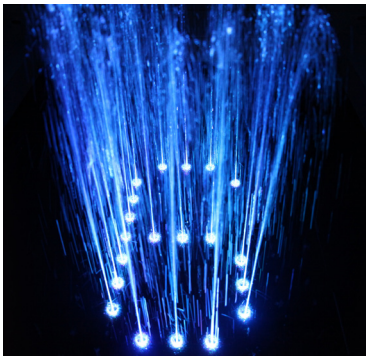
3D HydroMatrix

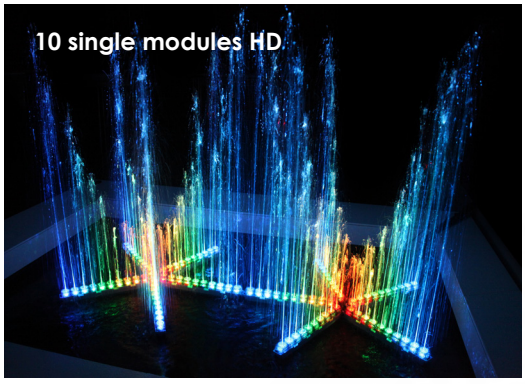


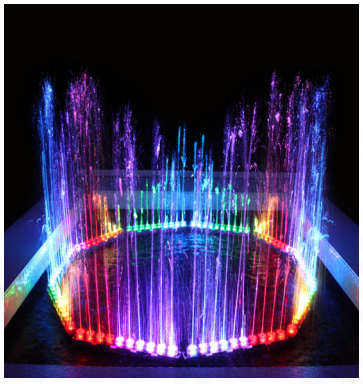


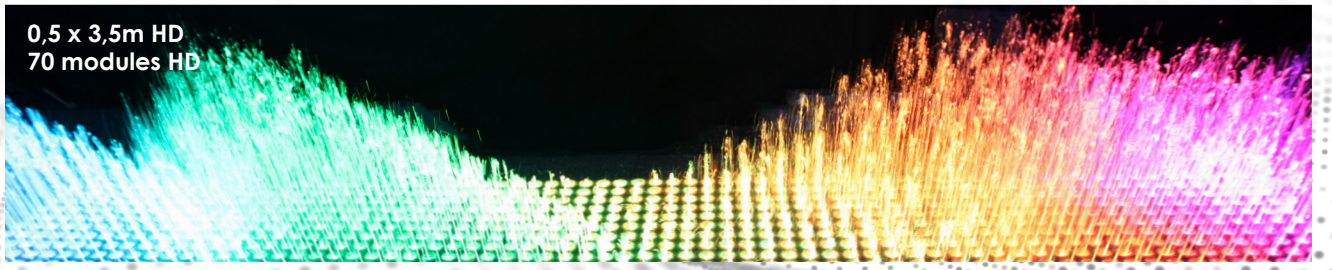












3D HydroMatrix

Programming Softwares we recommend

Syncronorm ...liquid inspiration

Software Depence

The Showdesign Suite

The Syncronorm Depence Software is a powerful multimedia control and visualization system for creating professional shows for the industry. Depence comes with an unique 3D visualization system which can simulate fountains, laser, video and lighting all in real-time accuracy. The Depence system allows to you design your shows and demonstrate to your clients with efficient and professional results.

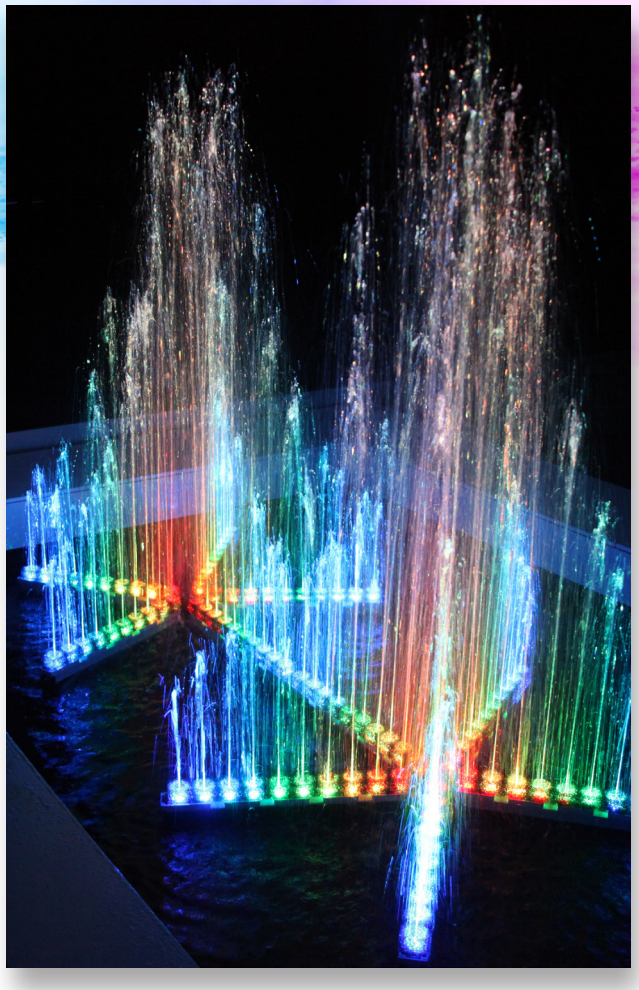
With one click, your whole project can be exported to one of our supported hardware devices

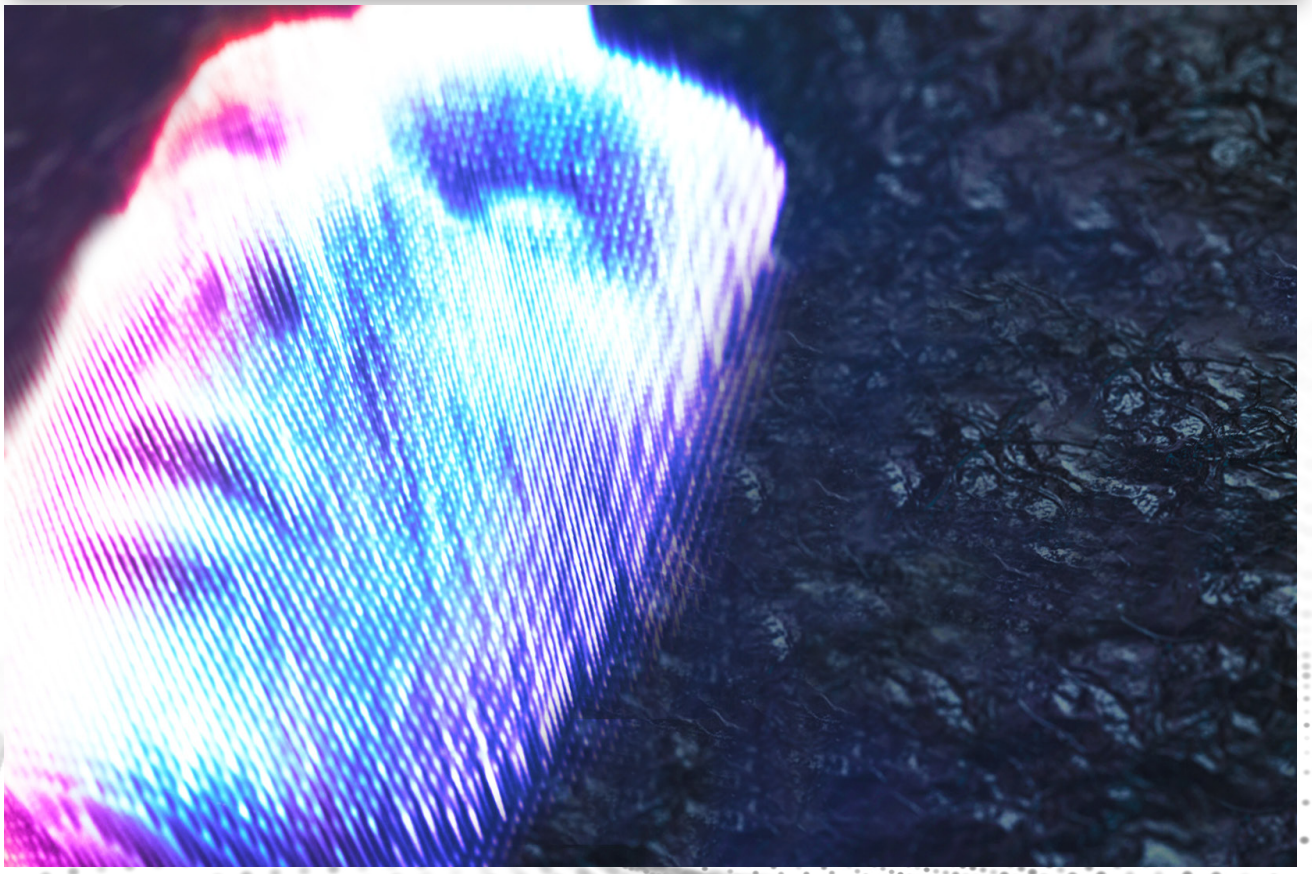
MADRIX
MUSIC MAKES THE LIGHT

MADRIX Software

The MADRIX Software
is the ultimate control tool for LED lighting.
Use pixel mapping at its best in 2D or 3D.

MADRIX is a software, and so much more.
It is a tool for generative content and premier LED lighting controller since 2005.
It is a quality piece of engineering made in Germany. It makes stunning LED lighting designs possible.

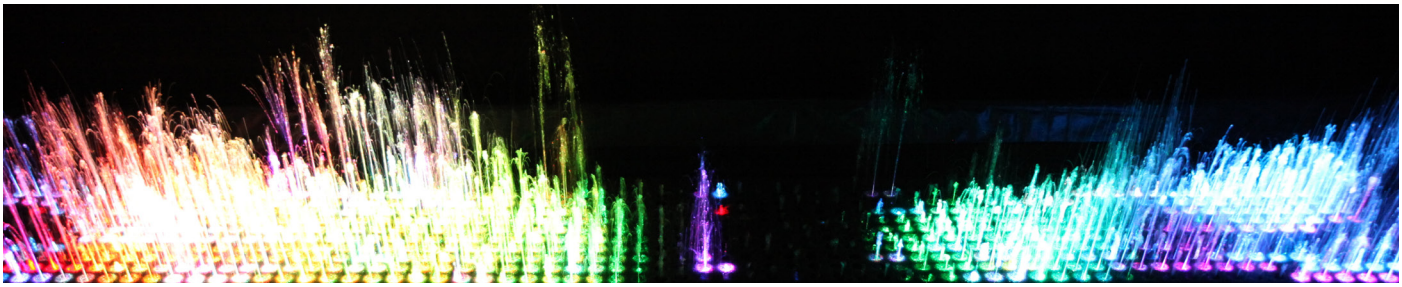




3D HydroMatrix

What is the **3D HydroMatrix** and what can it be used for?

The **3D HydroMatrix** was especially invented for usage within Shopping Malls, Hotel Lobby's, Casinos, Theme- and Waterparks and Spas. It is possible to create three dimensional, animated surfaces made from water and light, indoor. The 3D HydroMatrix opens up new and never been there possibilities for water sculpture designs you never seen before. It is the world´s first and unique fountains system that is capable of displaying 3D logos, graphics, pictures and objects. Not only suitable as an eye catcher in any location, the 3D HydroMatrix can, in addition, be used as an advertising medium by displaying for example the logo or a product of the advertising company.

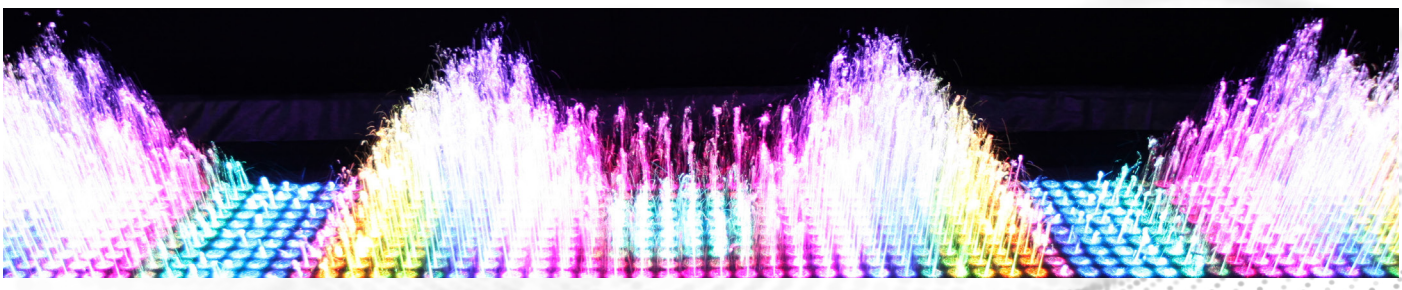


How can I use the **3D HydroMatrix** and which requirements have to be fulfilled?

One of the basic, and the most important, requirement is that it is necessary to have the possibility to install a water basin. In this case we assume that a water basin is already given or that it is concerned during the planning phase.
The great „detail" about the **3D HydroMatrix** is, that the basin only needs to be 100mm deep. Through the little water depth of only 80mm for operation, the system can be used in public buildings without needing surveillance by a supervisor.
As the **3D HydroMatrix** works on 24V basis, trouble free and safe operation in Public Pools and Wellness Oasis´, even with persons standing inside the water, are guaranteed.
Of course, the water basin needs a water treatment system, like any other fountain system as well, perfectly conceptualized for the particular application.
No additional installations are necessary, as all components necessary for operation of the **3D HydroMatrix**modules are integrated inside the modules. Only cables for power and data feed in need to be lead from external into the water basin. Up to now, the implementation of matrix fountain systems was reserved for open air installations, but there it is only conditionally possible to recognize three dimensional surfaces, caused by the big distance between the single fountains of such an outdoor fountain matrix. Actual pumps and LED fittings don´t allow a small pitch between each other due to their design size.

The **3D HydroMatrix**is completely different as it offers a ridiculously small pitch of only 50mm between its single nozzles, as a result of the 50mm crown diameter of the water pillar. Through this "optically closed and animated surfaces" made from water can be created. Each single fountain can be illuminated by red, green, blue and white LEDs, producing an even more plastically impression. Therefore, for the first time in history, it is possible to create fascinating worlds of water and light indoors. In addition, interactive control can be realized easily and spectators can be involved in a unique and impressive way.
The **3D HydroMatrix** was especially developed for applications within Shopping Malls, Hotel Lobbies, Casinos, Theme- and Waterparks and Spas.

By using HB-Laser´s **3D HydroMatrix** you will provide an eye catcher to your customers from any perspective.



3D HydroMatrix

Auto Calibration

All **3D HydroMatrix** modules are factory precalibrated to a maximum height of 1.5m. Depending on your wishes and for large matrix areas auto calibration is possible (additional calibration hardware is necessary).

Why only 1.5m height?

The maximum height of 1.5m guarantees a perfect visibility for side views. For capturing the full three dimensionality it is necessary not to produce a closed water wall within the field of vision and to allow a top view onto the surface.
Full dynamic even at low heights. By having the intelligence for each pump integrated inside the modules it is possible to save the calibration charts through calibration. An external calibration via DMX is not necessary. Through this, the full dynamic of the single DMX channels is preserved at any calibration height.

Auto Addressing

No more trouble with annoying, manual DMX addressing. The modules of the **3D HydroMatrix** can be connected in any arrangement. By using the additional software, DMX addresses assigned automatically at the single push of a button.

100% Waterproof

All electrical parts are sealed with high-quality epoxy resin and therefore 100% waterproof. In addition every plug connector is also sealed and is built in with silicon seals.

Run Dry Safety

Even if the water level lowers below the minimum necessary for operation, this is not a problem. The 3D HydroMatrix modules are equipped with a water level sensor, shutting down the pumps immediately before running dry.

Can I make the 3D HydroMatrix accessible?

The modules of the **3D HydroMatrix** are built on ten metal supports. This is a solid basis for additional structures on top of it. The accessible area can be designed and manufactured tailored to our customers´ requirements.

Can the 3D HydroMatrix be used outdoor?

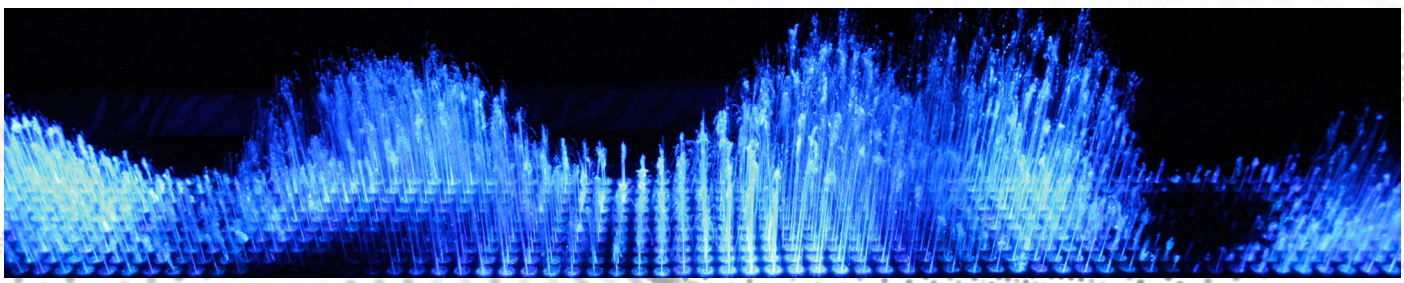
Yes! HB-Laser´s **3D HydroMatrix** is UV resistant and can be used outdoor, only needing to ensure matching water quality.

What about chlorine?

The **3D HydroMatrix** is only made from highest quality materials and therefore perfectly suitable for applications inside chlorine water.

How many 3D HydroMatrix modules do I need to achieve an impressive result?

Depending on the desired result and application already a single module with five (SD) or ten (HD) nozzles can do a great job. Implementing it in your home or within your company you´ll have a room fountain with single controllable nozzles, for astonishing and calming effects.
Depending on the size of the water basin, any desired design can be achieved and it is not necessary to arrange the modules as a matrix. It is also possible to arrange the single HD or SD modules as a star, circle, square, line or wave and many more different designs, it will always result in an impressive and eye catching installation. Of course the matrix arrangement is the supreme discipline and offers astonishing, breathtaking and never been there possibilities for three dimensional displays of water surfaces and animations. A combination of a matrix arrangement and single modules as geometrical figures are the basis for a unique and successful installation.



3D HydroMatrix

Become a partner now!

We offer you a unique product and extensive support in marketing, sales and after-sales!

Contact us! - We are looking forward for any requests and will be happy to send you the details of our partner program.

Direct contact:
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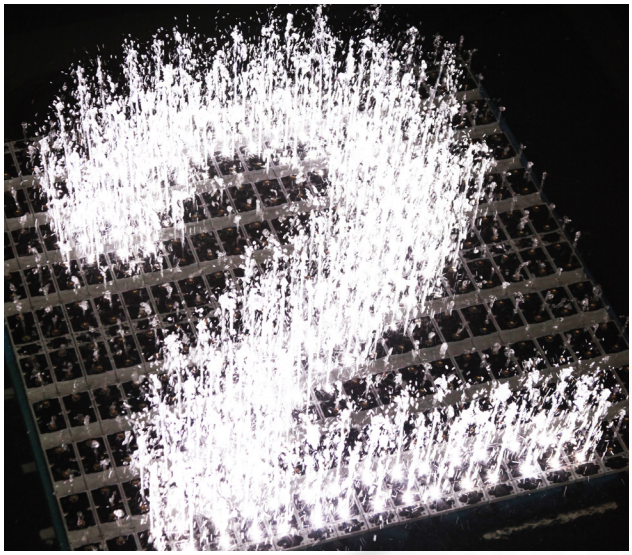
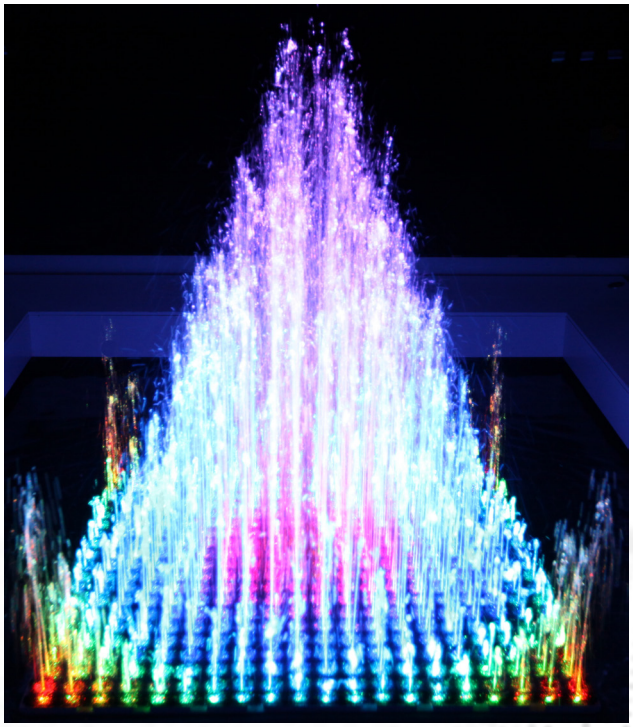




3D HydroMatrix

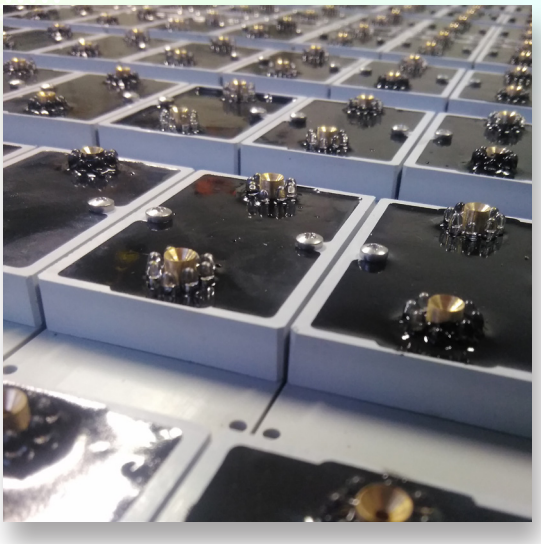
Certified Quality

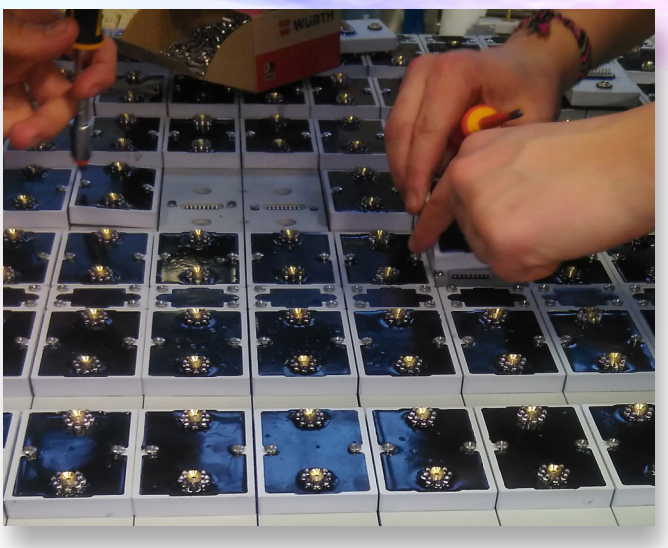
DIN ISO 9001:2015

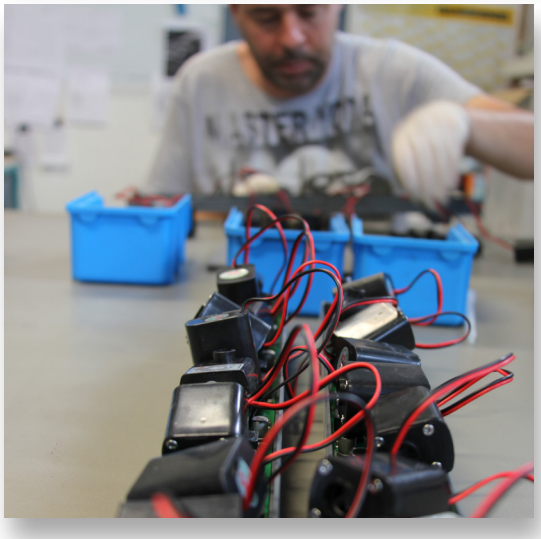
Gefördert durch:

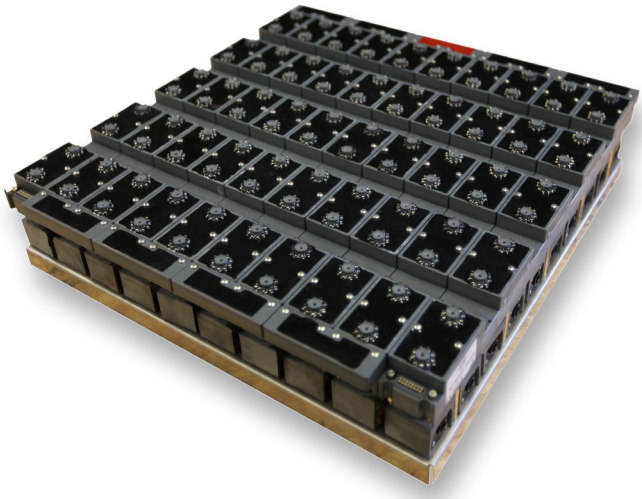
Bundesministerium
für Wirtschaft
und Energie

aufgrund eines Beschlusses
des Deutschen Bundestages









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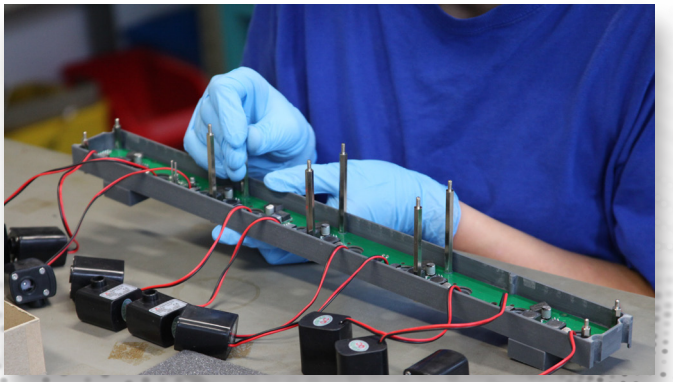
QUALITÄTSMANAGEMENT



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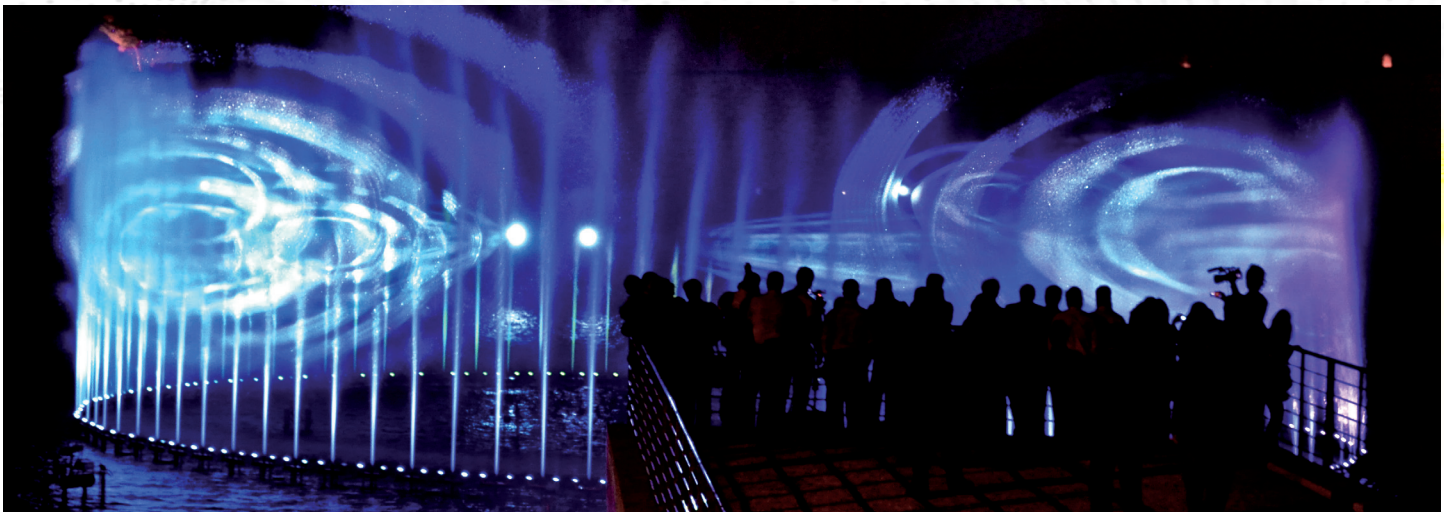

HDM Museum

Teheran, Iran

Installed technology:

- 5 x LightCube RGB 20W
- 2 x PinScans IP68
- TITAN mulimedia controller
- 60 hazers & fog machines
- 15 IP68 flamers, 15m
- 1 x Neptun HydroShield 20x50m
- IP67 video projector
- 30kW sound system
- 10kW delay towers
- 14 x 1kW moving head IP67
- 30m fountain ring structure, nozzles with individual control, incl. IP68 LED lighting

Photo: Christian Bauer

Photo: Christian Bauer

Photo: Christian Bauer

Al Noor Island

Sharjah, UAE

Installed technology:

- LED pixel mapping & lighting
- IP68 3D video mapping custom implementation
- fiber flower field custom implementation
- IP67 sound system custom implementation
- control solutions
- IP68 projection techniques
- custom made IP68 laser
- custom made IP67 cooling system

Photo: Christian Bauer

HB-LASER

GERMANY

Since 28 Years your Professional Partner Worldwide

Experts in
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Laser & Water Products
Showlaser Event Service

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www.3d-hydromatrix.de

Awarded

More than 30 national and international awards for products, installations and shows.

Certified Quality

DIN ISO 9001:2015
Coherent, Jenoptik, Pangolin

Laser & Multimedia-systems, special-effects, turnkey solutions
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