

## Opal X11® – Acoustic ceiling sail effectively reduces the noise level in your control room

The creative and practical solution for optimizing sound levels and lighting in your control room – aesthetic and effective! Design your **Work-Lounge** of tomorrow today!

**REQUEST A QUOTATION**



**Watch the video:** The first JST Acoustic ceiling sail is installed.

**PLAY NOW**

## Opal X11®: Convincing advantages of the new acoustic ceiling sail from JST

- **Low installation effort** and manageable costs
- Insulation material with absorption coefficient of  $\alpha_w$  0.98, i.e. **98 percent of speech sound is absorbed**
- **Flexible design options** according to individual specifications
- Integrated HCL lighting (Human Centric Lighting) **increases concentration and performance** by changing the color temperature
- Insertion of visual and acoustic **Alarm systems** (also Third Party Systems)
- Einfügung visueller und akustischer **Alarmsysteme** (auch Third Party Systeme)

## Good reasons that support the new JST ceiling sail for noise reduction:

Spacious and clearly structured premises with a clean atmosphere – the classic image of a modern control room. What problems does this reality bring with it? An unpleasant noise level and an uncomfortable working atmosphere. “Opal X11®” is a complete acoustic sail with innovative extras that offers an exciting alternative to the expensive acoustic ceiling in the control room. Even in already installed acoustic ceilings, the sound level can be reduced.

- **01 – Developed by experts**

The “Operator Acoustics Light – Opal X11®” was developed by the control room specialists in close cooperation with experts in room acoustics and lighting design. A ceiling sail that is spatially adapted to the operator’s console and is convincing in several respects.

- **02 – Optimal for shift work in control rooms thanks to integrated light source (HCL)**

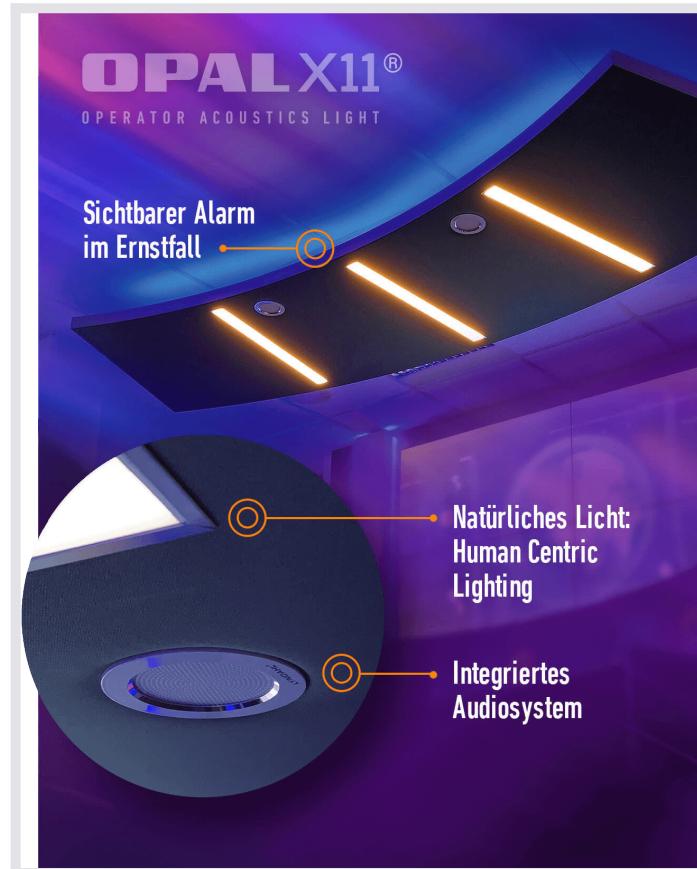
The Opal X11® ceiling sail with LED not only offers the advantage of effectively reducing the noise level. An integrated HCL light source (Human Centric Lighting), i.e. **lighting that takes into account the visual, emotional and biological effects of light, whose color values influence concentration and performance**, makes this system particularly unique for shift operation in control rooms.

- **03 – Coupled with myGUI® and AlarmLight**

Another benefit of the system: the Opal X11® ceiling sail with LED is coupled with the JST myGUI®. This means that **in the event of an event, the integrated AlarmLight** lights up or flashes according to the desired presetting. The operator is not only visually alerted to an event, but also via an integrated audio component.

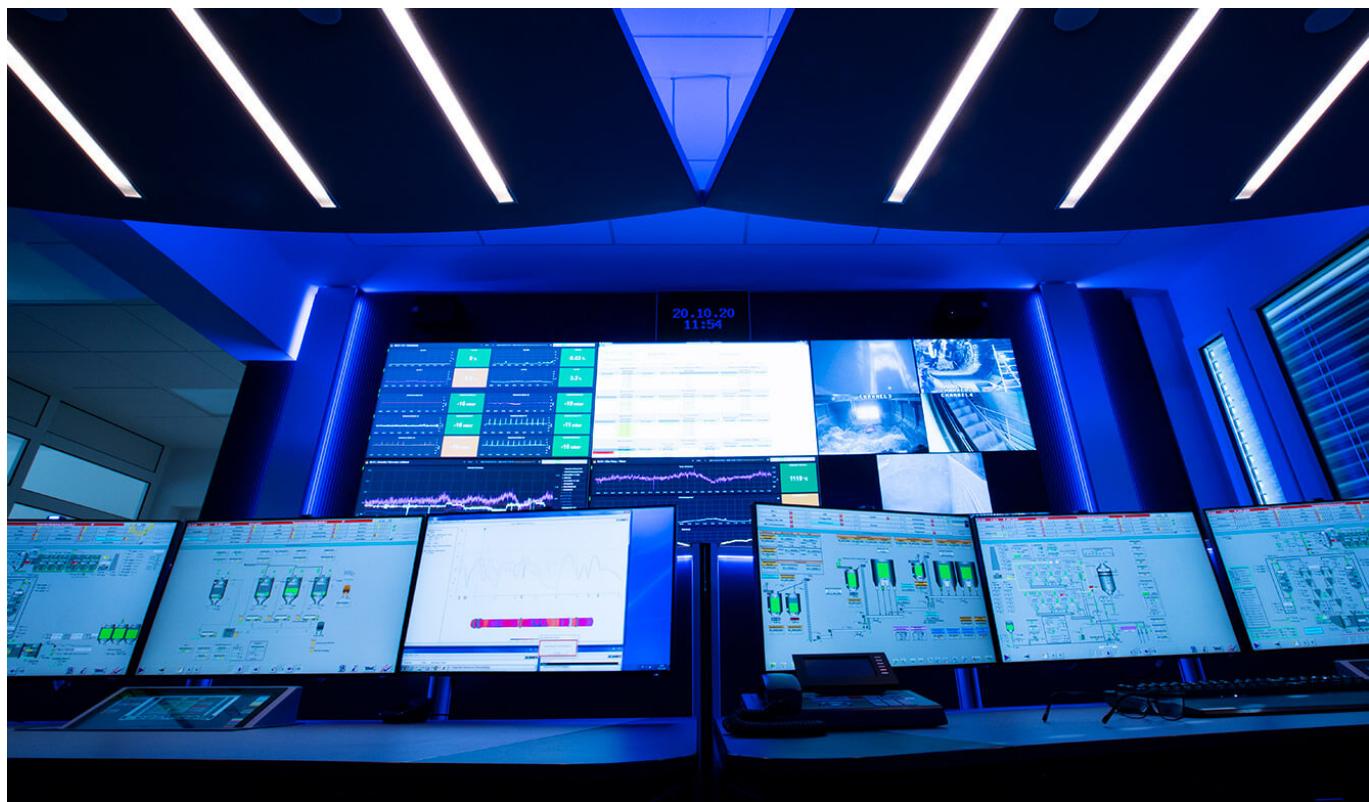
- **04 – Integrated audio system**

The Opal X11® ceiling sail adds significant value to the operator’s workplace. In addition to the sound absorption and the individually adjustable adjustment of the lighting, the element convinces with a further plus: **The integrated audio system can be controlled both via the myGUI® cabling and optionally via Bluetooth.**



**REQUEST A QUOTATION**

**Know what's coming:** Thanks to professional software, the efficiency of the Operator Acoustics Light can be determined before installation. In this way it is possible to determine in advance what improvements will be achieved in room acoustics, i.e. how high the absorption will be before and after the installation of the ceiling sail.



Innovative solution for impressive acoustics and aesthetic appearance in the control room (here in the control center of Heidelberg Materials in Ennigerloh): Among the decisive advantages of the Opal X11® ceiling sail is the integrated HCL light source (Human Centric Lighting), a natural lighting that takes into account visual, emotional and biological effects of light. Their color values positively influence at the same time concentration and performance. A real upgrade for the operator workplace – especially in shift work.



A convincing answer to questions about reducing sound level in control rooms: The "Operator Acoustics Light – Opal X11®" (here in the control room of Heidelberg Materials in Ennigerloh) offers an efficient and at the same time economical alternative to costly acoustic ceilings. Developed in close cooperation with experts from the disciplines of room acoustics and lighting design, the ceiling sail not only allows flexible design options according to individual specifications, the insulating material used also reduces speech sound by up to 80 percent in addition.



Exciting attributes of the acoustic ceiling sail (here in the control center of Heidelberg Materials in Ennigerloh): The integrated audio system of the Opal X11® can be controlled via the JST user interface myGUI® as well as optionally via Bluetooth. The link with myGUI® also triggers the AlarmLight in the case of an event – either by lighting up or flashing, depending on the presetting. Malfunctions are thus perceived both auditorily and visually.



JST acoustic ceiling sail: Reduction of sound levels and innovative lighting solution – the Opal X11® ceiling sail offers an attractive alternative to the costly acoustic ceiling in the control room.



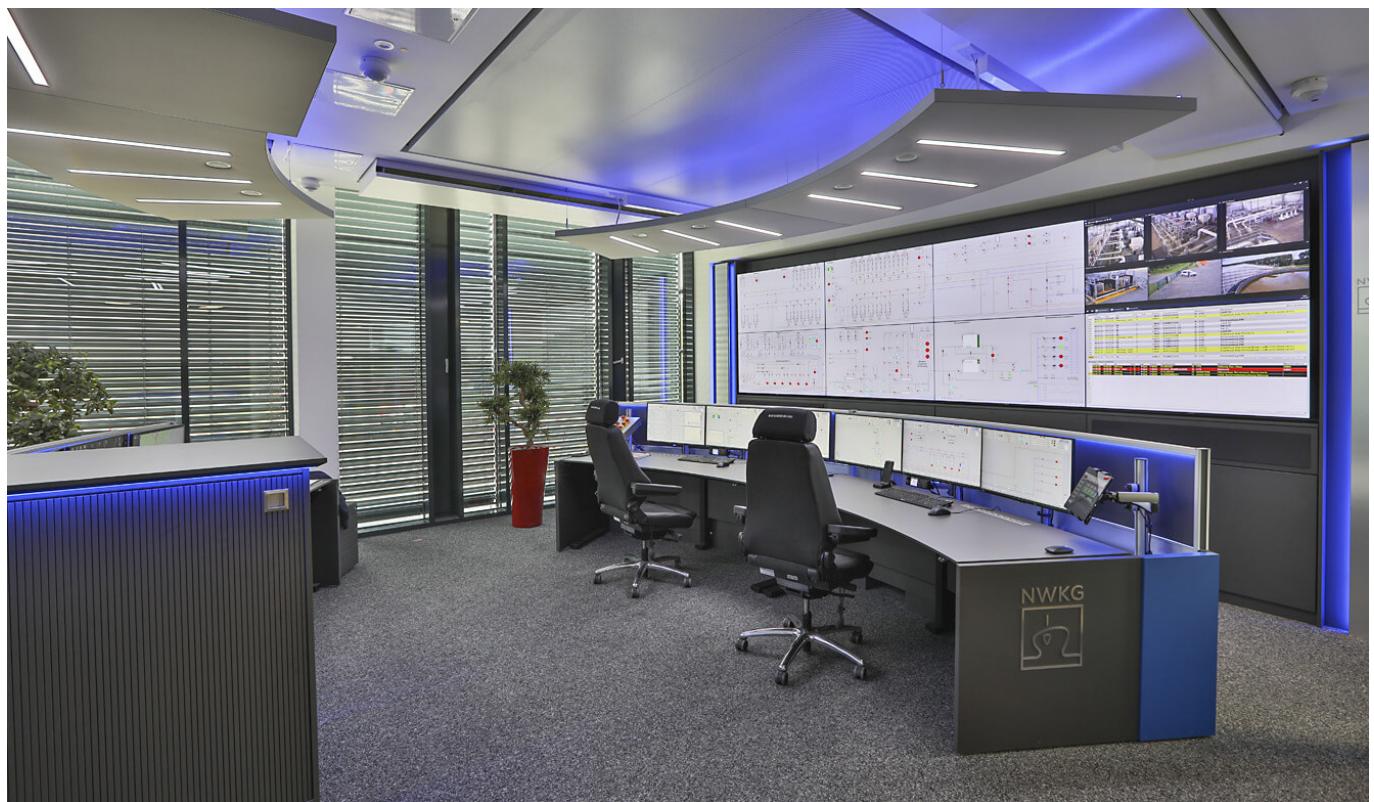
The visual design options offered by the “Operator Acoustics Light – Opal X11®” are particularly effective in the BASF control room in Schwarzheide: The ceiling sail was adapted to the semicircular shape of the Stratos Curve control room console.



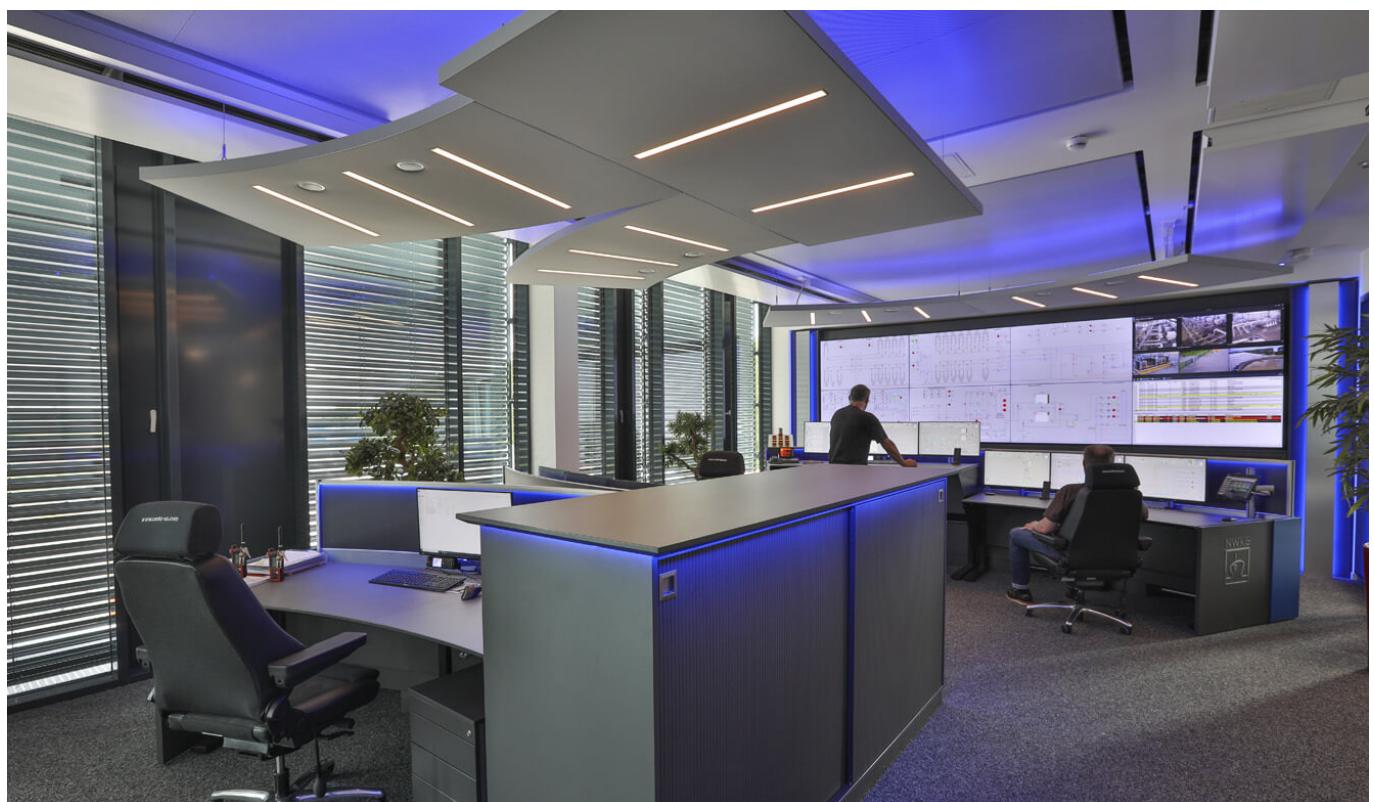
Glare-free light, sound absorption and a room-defining design element – the benefits of the acoustic ceiling sail are clearly evident at BASF in Schwarzheide.



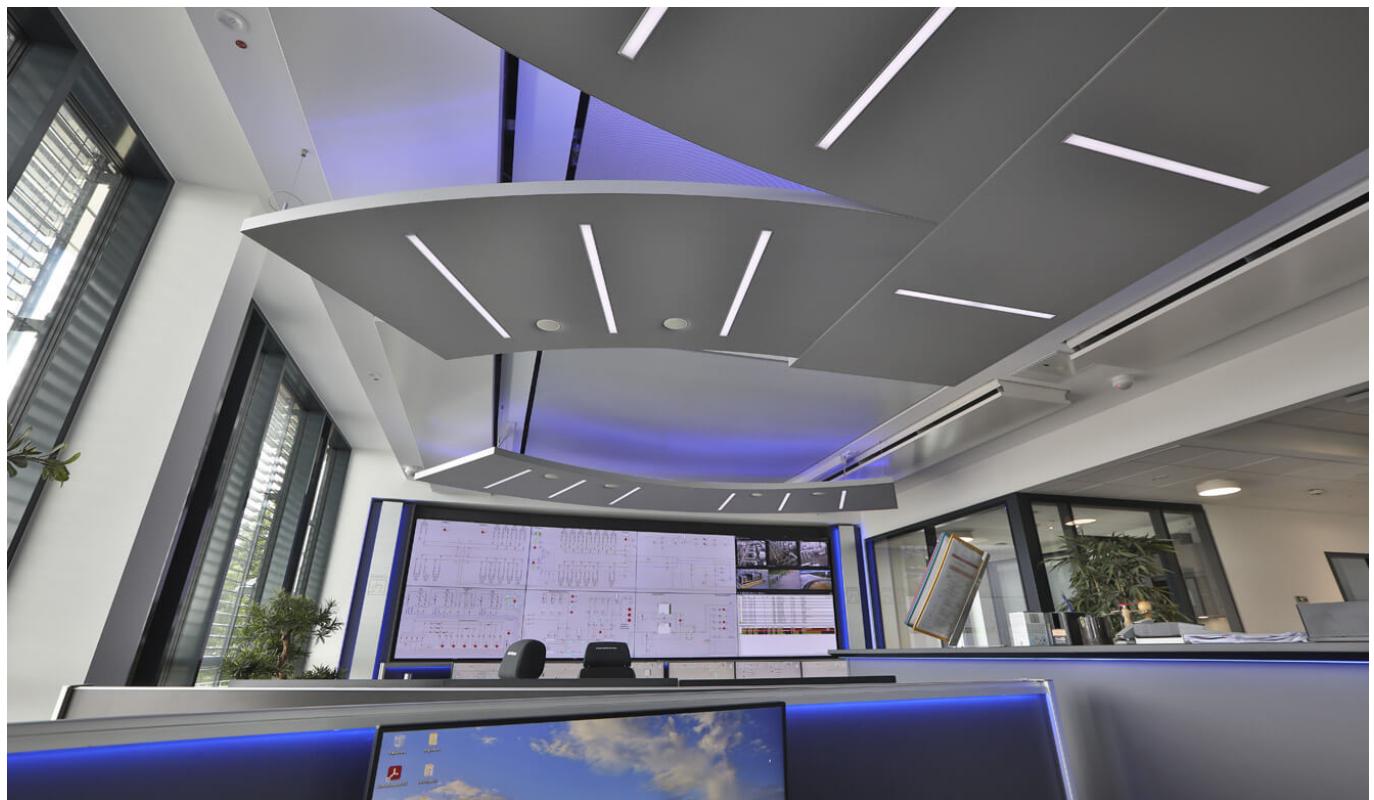
Aesthetics and creativity: The Opal X11® in the control room for the gas and steam turbine power plant at the BASF Schwarzheide GmbH site is another component that meets the high ergonomic standards.



Modern and ergonomic workstation design in the high-availability NWKG control room: A precisely coordinated acoustic ceiling sail was installed for each work area in favor of optimal lighting and sound absorption.



Even with existing acoustic ceilings, the Opal X11® can demonstrably achieve additional sound minimization. The color values of the integrated HCL light source (Human Centric Lighting) have a positive influence on concentration and performance.



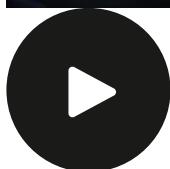
Selbst bei bereits vorhandenen Akustikdecken kann durch das Opal X11® Deckensegel nachweislich eine zusätzliche Schallminimierung erzielt werden. Die Farbwerte der integrierten HCL Lichtquelle (Human Centric Lighting) haben positiven Einfluss auf Konzentrations- und Leistungsfähigkeit.



Den Schallpegel minimieren

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## Upgrade für Licht und Akustik mit dem OPAL Deckensegel



Jungmann Systemtechnik

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## Überblick: Lösungen und Schwerpunkte



Would you like to learn more about the Opal X11® acoustic sail?



I would like a callback for a non-binding consultation from the control room specialists at JST!

+49 4161 54044-0

Schedule a telephone consultation appointment. The consultation is free of charge and without obligation.

I would like to visit the Europe-wide unique control room simulator!

**SCHEDULING A “TEST DRIVE”**

Visiting the control room simulator is free of charge. We ask for registration and reservation of dates.



I would like to receive "The great practical book of control rooms" from JST!

**REQUEST FREE OF CHARGE**

The practice manual is **free of charge** for JST customers.

## Chosen by leading companies and institutions



s.Oliver®

**HZB** Helmholtz  
Zentrum Berlin

GLOBAL TECH I

**plusnet**  
Ein Unternehmen der QSC AG

**SGL GROUP**  
THE CARBON COMPANY

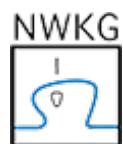
## What clients report about their experience with JST – Jungmann Systemtechnik®



"It was JST technology that gave us the opportunity to consolidate tasks from all the control technologies, allowing us to transition into a more relaxed working environment."

Plant management Ennigerloh cement plant / Consultant JST / Technical department Ennigerloh / Electronics technician

**TO THE PROJECT**



"We have set up highly available technology here. That is of great importance to us."

Project Manager // Team

**TO THE PROJECT**

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“Great products, great service and at every point of our cooperation we met a very friendly team from JST.”

Managing Director

**TO THE PROJECT**



„High flexibility, reliable performance, no more annoying chair moving – that was already a great experience!“

E&I Engineering BASF SE // Consultant JST

**TO THE PROJECT**



## SWM MAGDEBURG

"JST was able to offer us the best overall package in terms of furniture, technology and customer service – an equal acquisition."

Head of dispatching/gas/water/heat/waste water network management

**TO THE PROJECT**



"With today's technologies and control room solutions, optimal workplaces can be created. Companies should seize this opportunity, because the control room is at the forefront of the whole thing."

Sales Manager IT and Automation of PROBAT-Werke von Gimborn Maschinenfabrik GmbH

**TO THE PROJECT**

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**This might interest you too:  
Professional control center planning with the following components**



## PixelDetection® – the operator's eye

Shorten your reaction times! With PixelDetection® you receive the right alarm at exactly the right moment and always keep an overview. Proven for many years and repeatedly awarded, PixelDetection® is also called the "artificial eye of the operator".

### More about PixelDetection

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## JST myLogin® – the operator's login

JST myLogin® is a revolutionary solution that allows you to log on and off centrally and quickly at all operator workstations with your company ID card. The login/logout process only takes a few moments. If desired, your personal arrangement of the screen contents can also be saved.

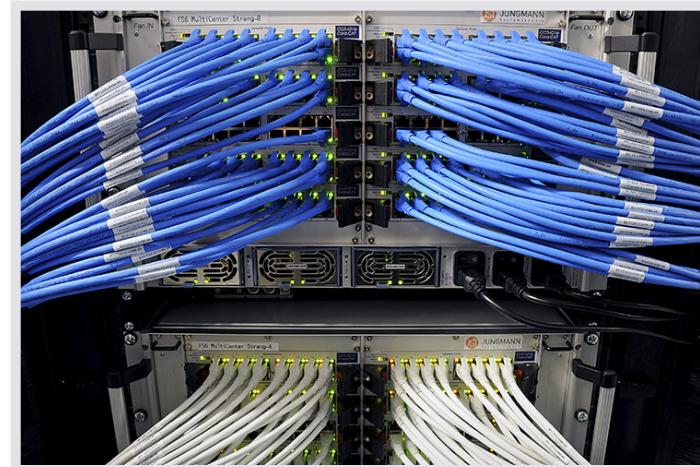
### More about myLogin®



## CockpitView – the operator's dashboard

Create dashboards with content from different computers on different networks! CockpitView offers you the perfect overview of your most important applications at a glance. With CockpitView you stay in control and can reduce monitors at the workstation or even the large screen system.

[More about CockpitView](#)



## MultiConsoling® – the command center of the control room

MultiConsoling® is the highly available control center to connect all signals of your systems with the monitors at the operator station and on the monitor walls. The transmission takes place in real time and no

software is required on your computers.

[More about MultiConsoling®](#)

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### **myGUI® – User interface for large screen system, workstation & infrastructure**

The intuitive myGUI® user interface in the 3D layout of your control room offers highest ease of use of your MultiConsoling® system. With one click you can operate workstations, monitor walls and infrastructure – always absolutely safe and outstanding in stressful situations.

[More about myGUI](#)

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## Control room furniture: ergonomic operator consoles, Recaro operator chair, AllMedia Conference System

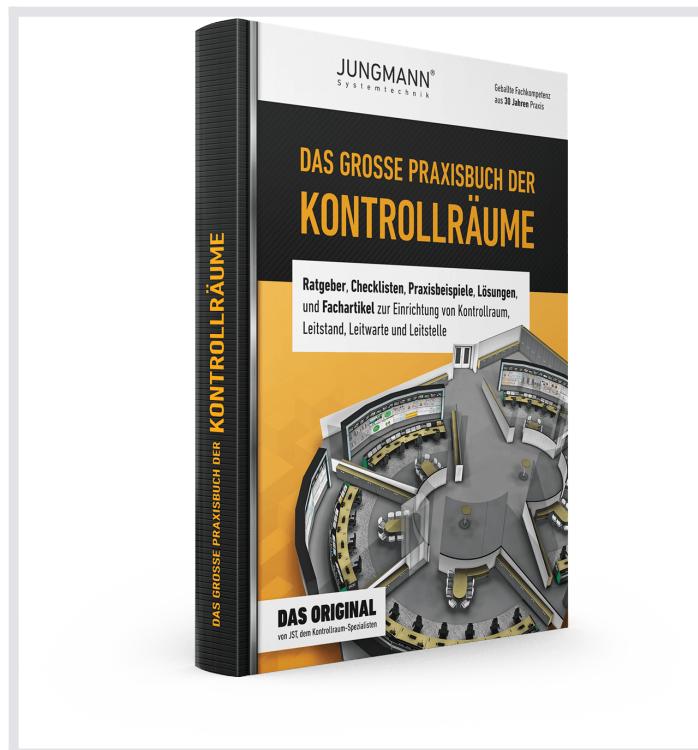
Furniture and technology are available from JST from one source. The height-adjustable and highly stable Stratos operator consoles and matching surrounding furniture form the ergonomic basis for your control room.

[More about the control room furniture](#)

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## THE GREAT PRACTICAL BOOK OF CONTROL ROOMS



Guidebooks, checklists, practical examples, solutions and technical articles for the installation of control rooms, control stations and control centers

**REQUEST FREE OF CHARGE**

<https://www.jungmann.de/>

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The great practical book of control rooms is free of charge for JST customers and interested parties.

## Was möchten Sie als Nächstes tun?

Ich möchte

- das kostenfreie Praxisbuch der Kontrollräume anfordern
- einen Rückruf für eine unverbindliche Beratung
- den Kontrollraum-Simulator in Buxtehude besuchen
- mehr über Kontrollräume auf dem ko:mon Kongress erfahren

## FAQ

Warum fördert ein akustisches Deckensegel die Arbeitsatmosphäre im Kontrollraum?

Ist die Arbeitsumgebung gut gestaltet, trägt sie deutlich dazu bei, dass die Mitarbeiter im Kontrollraum ungestört und konzentriert arbeiten und kommunizieren können. Leider lässt gerade die Akustik aufgrund der architektonischen Gegebenheiten im Kontrollraum zu wünschen. Hohe Decken, eine moderne Einrichtung mit glatten Flächen tragen außerdem dazu bei. Oft ist es außerdem nicht möglich, eine Akustikdecke zu installieren – mal abgesehen von den enormen Kosten, die dadurch entstehen können.

Eine abgestimmte Raumakustik fördert die Produktivität, die Arbeitszufriedenheit und das Wohlbefinden in der Leitstelle. Sie ist ein wichtiger Faktor für Motivation und die zielgerichtete Reaktion bei Alarm-Events. Störende und laute Geräusche hemmen die Konzentration und die Leistungsfähigkeit und können sogar Einfluss auf die Gesundheit von Mitarbeiter haben. Und die Gesundheit Ihrer Mitarbeiter ist es, auf die wir bei JST ein besonderes Augenmerk haben. Wichtig ist es daher, dass eine Raumakustik geschaffen wird, die sowohl die Kommunikation miteinander als auch die Konzentration auf die Arbeit gewährleistet. Gute Raumakustik und ein anspruchsvolles Raumdesign schließen sich nicht aus. Unser neues Opal X11<sup>®</sup> Deckensegel integriert sich flexibel in ein bestehendes Raumkonzept oder setzt auf Wunsch auch einen optischen Effekt. Das Deckensegel mit LED für Kontrollräume bietet einzigartige eine gute Schallabsorption und wertet jeden Arbeitsplatz enorm auf.

Was ist Human Centric Lighting und was hat es für Auswirkungen?

Unser akustisches Deckensegel Opal X11<sup>®</sup> ist mit einem Human Centric Lighting (HCL) ausgestattet. Unter HCL versteht man ein Beleuchtungskonzept für Innenräume, das auf den Menschen bzw. deren Biorhythmus ausgerichtet ist. So hat neben der Helligkeit auch die emotionale und die nicht-visuelle Wirkung des Lichts Einfluss auf den Menschen. Mit HCL können wir die Anpassung der Beleuchtung entsprechend dem natürlichen Verlauf des Tageslichts simulieren, was sich gerade im Schichtbetrieb positiv auf die Mitarbeiter auswirkt. Wesentlich ist hierbei neben der Beleuchtungsstärke vor allem die sich verändernde Farbtemperatur des Lichtes. Beim Human Centric Lighting passen wir das Farbspektrum des Lichtes wie beim natürlichen Licht über den Tag hinweg von hohen Blauanteilen in den Morgenstunden bis zum gänzlichen Fehlen von Blauanteilen in den Abendstunden an. Das sich verändernde Licht wirkt so über die Augen unmittelbar auf die Synchronisation der biologischen Uhr und die Ausschüttung des Schlafhormons Melatonin aus der Zirbeldrüse. Während der Schicht sind die Mitarbeiter also aufgrund des kühlen Lichts wach und leistungsfähig. Gegen Ende der Schicht wird die natürliche Melatonin Ausschüttung angeregt und der Mitarbeiter ist in der Lage schneller in den Schlaf zu gelangen und sich zu erholen.

Woher weiß ich, ob das Akustikpaneel Opal X11<sup>®</sup> letztendlich den gewünschten Effekt hat und die Raumakustik in unserem Kontrollraum sich wirklich verbessert?

Wir verstehen Ihre Bedenken. Darum kann mittels professioneller Software der Wirkungsgrad unserer Akustikpaneele bereits im Voraus berechnet werden. So kaufen Sie bei uns nicht die „Katze im Sack“, sondern wissen genau, wie sich die Raumakustik im Detail nach der Montage des Schallabsorbers in Ihrem Kontrollraum oder Leitstand verbessern wird.