



CHROMOPHARE® PRODUCTS

Care without compromise

The future of OR lighting is here.

Medical professionals know it's vital to create the optimal environment for today's complex procedures — and the foundation of that environment is brilliant lighting and the tools that help OR and critical care teams see more. With the CHROMOPHARE® family of lighting systems, cameras, and monitor mounts, surgical teams have more control than ever. Whether it's easy access or a seamless interface with other systems, BERCHTOLD has engineered innovative solutions using superior technology — guaranteed to perform reliably while providing a lifetime of value.



CHROMOPHARE® F Generation Surgical Lights

By combining proven reflector technology with the latest breakthroughs in LED lensing technology, CHROMOPHARE F Generation Surgical Lights enhance the OR experience like never before. BERCHTOLD's Precision Beam Technology™ focuses 650 beams of overlapping light into one homogenous column, creating ideal depth of field and superior shadow prevention. The light head boasts four color temperature settings and a full 360° of rotation, giving surgical teams an unprecedented level of control at every step. Just like any BERCHTOLD system, CHROMOPHARE F Generation Surgical Lights feature a futureproof design that's built to last.

Together, these innovations combine to provide surgical teams with an unmatched lighting solution — inspired by the best technology, designed for easy operation and constructed to deliver value for years to come.



SUPERIOR TECHNOLOGY:
Lighting Innovation

Precision Beam Technology

BERCHTOLD engineers developed a light engine that harnesses the power of 104 highly efficient LEDs and precisely reflects, multiplies and redistributes light onto the surgical field.

Homogenous Column of Light

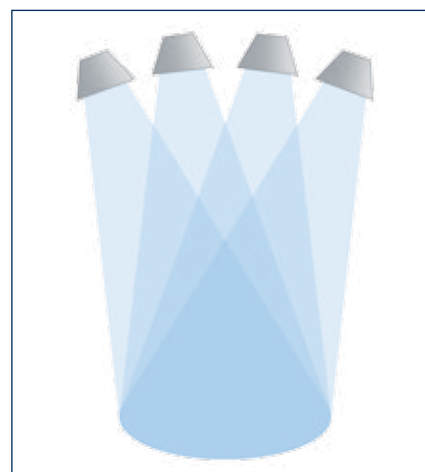
While traditional lighting systems are limited by number of LEDs, CHROMOPHARE F Generation Surgical Lighting produces 650 overlapping beams using proprietary lensing and a multi-faceted reflector.

Exceptional Shadow Control

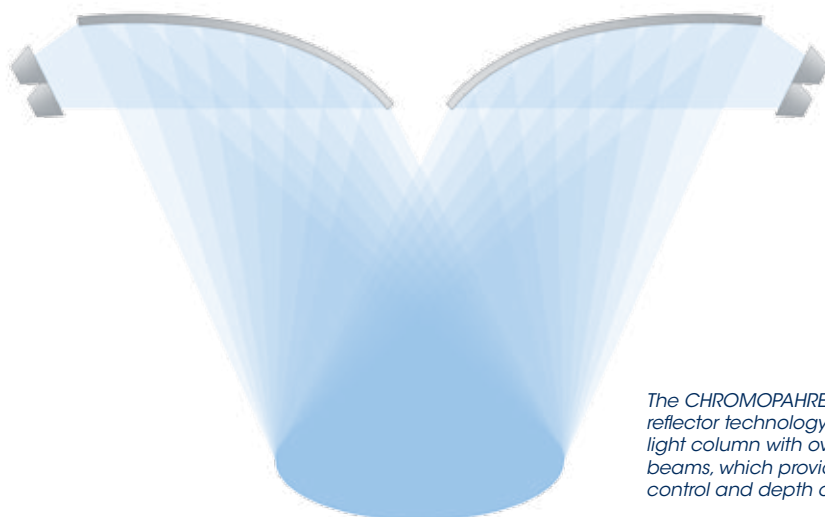
Array-based LED systems can create an easily disrupted pattern of light when the surgeon's head or hands interrupt the beams. That's why the CHROMOPHARE F Generation system instead uses a reflector to multiply and shape beams into one continuous column of light that reduces shadows.

Superior Depth of Field

CHROMOPHARE F Generation Surgical Lighting utilizes a combination of LED and reflector technology, providing a more penetrating column of light far superior to array-based LED systems alone.



Conventional array based LED lighting.



The CHROMOPHARE F Generation utilizes reflector technology to create an intense light column with over 650 overlapping light beams, which provides excellent shadow control and depth of field.

SUPERIOR TECHNOLOGY: Color Selection

CHROMOPHARE F Generation Surgical Lighting allows for subtle color adjustments from 3600 to 5000 Kelvin (K) to support the surgical team's procedure requirements and to accommodate the surgeon's preference. In addition to 4500 and 5000 Kelvin typical of all-white LED surgical lights, the F Generation offers 3600 and 4000 Kelvin settings that may serve to reduce glare from bone or instrumentation during a surgical procedure.

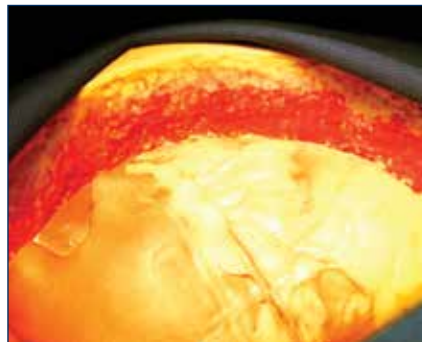
Four Color Options

All of us perceive light in slightly different ways — and surgeons are no exception. They demand the flexibility of choice, and multiple color temperature options grant them exactly that. Whether a clinical procedure calls for a warmer, yellowish light or one which mimics the noontime sun, the F Generation delivers. The surgeon can choose the correct temperature according to individual requirements and preferences, while maintaining 160,000 lux.



3600 K

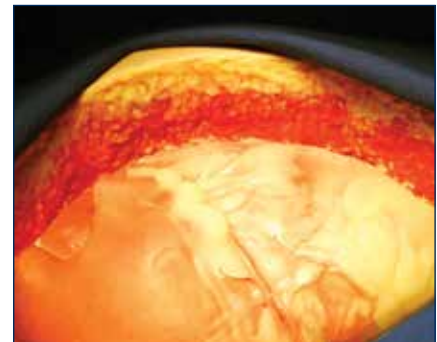
- Can reduce reflection and glare from surgical instruments
- Emulates a halogen hue familiar to many surgeons



3600 K

4000 K / 4500 K

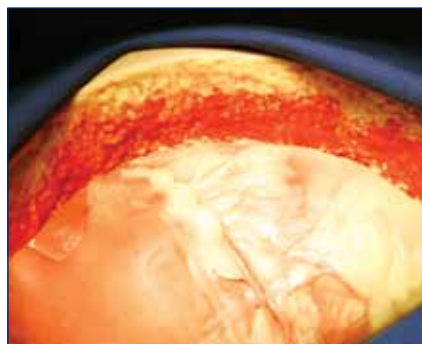
- Neutral setting that easily differentiates the various colors in the color spectrum
- May lead to visibility of perfusion



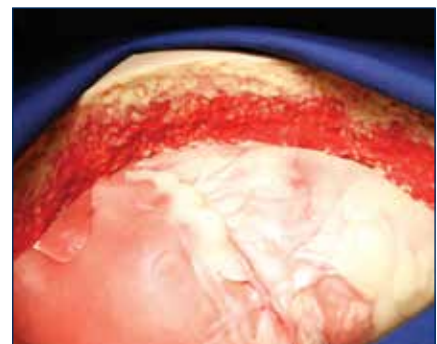
4000 K

5000 K

- Pairs easily with head lamps
- May be effective for deeper lying tissues



4500 K



5000 K

The F Generation clearly distinguishes tissue structures based on settings of 3,600-5,000 K

EASE OF USE:

Reliable and Ergonomic Design

The CHROMOPHARE F Generation is composed of sturdy yet lightweight materials to minimize weight while maximizing performance.

Hygienic

- Smooth, seamless surfaces and no hard-to-reach corners
- Less sensitive to harsh cleaning agents in comparison to plastic
- Optimum laminar flow (SWKI Class 5)
- Protection from dust and water (IP 53)

Low Maintenance

- Lightweight system reduces potential for drift
- Robust and resilient materials
- Anti-reflective, medical-grade safety glass

Streamline Workflow

- Flexible positioning saves time during and after surgical procedures
- Rail around the light for unlimited access outside the sterile field
- Ideal for ergonomic gripping and easy cleaning

Eliminate Light Lock Up

- Unrestricted rotation offers greater freedom of movement
- Infinite positioning capabilities
- Prevent improper orientation and positioning
- Multiple connection points with 360° of rotation



EASE OF USE: Intuitive Control

The interactive touch panel controls allow for optimum interaction between the surgical staff and the lighting system.

- Real time, visual feedback
- Available in wall and light mount configurations
- Quick and easy access to key functions



Light Handle Control

The F Generation features an integrated light handle for easy, sterile positioning and focus adjustments if necessary. As the surgeon adjusts, audible beeps indicate a tighter or more open spot without diverting his or her attention from the surgical site.



Widen or narrow focus by turning handle.

LIFETIME VALUE:

Durable Construction

CHROMOPHARE systems are built to last using premium materials and innovative technology that maximizes reliability and performance for years to come.

Futureproof

Simplify future upgrades and modifications with a CHROMOPHARE universal suspension, making light head replacements quick and cost-effective with little to no OR downtime.

Long-lasting

With an average LED lifetime of 40,000 hours, this cutting-edge design ensures minimal maintenance and years of reliable use. At an energy consumption level of 95 W, the F Generation requires less energy to power than a 100 W light bulb.



LIFETIME VALUE:

CHROMOPHARE F Generation Technical Data

SURGICAL LIGHTS	F 628	F 528
Diameter (incl. rail)	29.53 in (75 cm)	25.6 in (65 cm)
LEDs	104	88
Composite reflector facets	442	220
Overlapping beams	650	396
Central illuminance	160,000 lux	125,000 lux
Average life time	40,000 hrs	40,000 hrs
Color select [Kelvin]	3600, 4000, 4500, 5000	3600, 4000, 4500, 5000
Color rendering index Ra	96	96
Power consumption	95 W	85 W
Ingress protection, dust and water	IP 53	IP 53
Laminar flow compliance (SWKI Class5)	422	409
Keypad control	Standard	Standard
Guidelite™	Standard	Standard
Interactive touch panel controls	Optional	Optional
Endolite®	Optional	Optional

Mobile Lighting Solutions

BERCHTOLD's mobile lighting solutions give surgical teams the bright, shadow-free light they expect — all in a compact profile. Whether it's supplemental light, emergency/overflow use or backup for the entire OR, these innovative mobile lights combine the latest BERCHTOLD technology with a highly maneuverable design.

- Easy movement and positioning
- Wheel locks prevent unintended movement
- Compact profile for easy storage
- Durable powder-coated steel stand built for duration
- Compatible with ChromoVision® in-light cameras
- 6-hour battery backup (optional)

LIGHT MODELS AVAILABLE IN MOBILE FORMAT:

LED SURGICAL LIGHTS

F 628 F 528

HALOGEN SURGICAL LIGHTS

E 650 E 550

LED EXAM LIGHTS

F 300

A new class of exam lighting: CHROMOPHARE F 300

With a 4500 K color temperature and 55,000 lux of intensity, CHROMOPHARE F 300 Exam Lighting provides bright, shadow-resistant illumination for a variety of settings and procedures. Thanks to its highly efficient design, heat is nearly eliminated, creating a more comfortable working environment for medical teams.



LIFETIME VALUE:

Exam Room Illumination

Low Cost Operation

- More light than D 300 halogen model
- Fraction of traditional energy usage
- D 300 to F 300 upgrade packages available

Multiple Configuration Options

- Variety of exam space lighting options
- Ceiling, wall, or mobile configurations
- Can be mounted with the TELETOM™ Equipment management system

Lasting Value

The F 300 offers medical teams a 30,000-hour element service life, eliminating inconvenient bulb replacement. Its futureproof design and easy-to-upgrade suspension system also ensures minimal maintenance and hassle-free adjustments during retrofitting.



Capturing every move with total confidence: ChromoVision® in-light cameras

Image capture has become increasingly more important in the surgical environment, allowing the clinical staff to follow the surgeon's progress without breaking the sterile field. Whether for training or improved workflow purposes, a reliable image capture system is a truly indispensable resource in today's ORs. BERCHTOLD's ChromoVision in-light cameras are designed to help surgical teams streamline workflows, reduce disruptions and capture images using the latest high-quality HD cameras.



Full HD Wireless

BERCHTOLD's Full HD Wireless camera is the first wireless in-light camera for the OR to offer native HD signal quality, and reduces image degradation experienced by wired systems as cabling passes through suspension components. The 2-megapixel in-light camera sends a crystal-clear image directly to the receiver in the camera control unit (CCU). The result is a native 1920 x 1080i image consistent with the best HD endoscopic cameras available. Standard outputs on the CCU include one DVI and two HD-SDI ports, allowing customers to connect to monitors directly, or to integration systems present in the OR.

Easy to Implement

The ChromoVision HD Wireless system is compatible with any CHROMOPHARE LED light. Customers may also move camera handles from room to room if so desired.

Camera Ready

Wireless transmission means no additional cables or components are required from camera to control unit. All F Generation lights come camera ready for use with the Full HD Wireless camera system. There are no additional fees for camera installation, unlike wired systems.

IR Remote

The intuitive user interface is supported by an optional IR remote control, giving users the ability to adjust power, focus and zoom settings with simple point-and-click functionality.

Secure Transmission

The Full HD Wireless product is designed with proprietary SolidLink 256-bit encryption. Images are transmitted securely from the camera to the receiver over 802.11n band.

Wired Camera

BERCHTOLD also offers a wired in-light camera that can be used to capture images of the surgical field. These images can be sourced by an integration system or transmitted to a monitor directly in HD format.

HD WIRELESS TECHNICAL DATA

Resolution: 1920 x 1080i

Connection ports:
DVI; HD-SDI x 2

Aspect ratio capability:
16 x 9

CAMERA CONTROL UNIT*

Height: 3.85 in

Width: 17.4 in

Depth: 15 in

*same for wired and wireless

HD WIRED TECHNICAL DATA

Resolution: 720 x 576i

Connection ports:
SD-SDI x 2

Aspect ratio capability:
16 x 9

Supporting your team from every angle: ChromoView™ mounting solutions

Surgical teams need the best technology available to ensure the most positive patient outcomes. That's the thinking behind ChromoView from BERCHTOLD. So when it comes to selecting monitor mounting solutions, our single, dual, and large flat panel mounts truly deliver with superior maneuverability and effortless positioning.

Combined with a flexible suspension providing a wide range of motion, ChromoView products also feature a counterbalanced bracket design that reduces potential for monitor drift. Backed by BERCHTOLD innovation and engineered for maximum functionality, including the patented Soft Stop® technology, ChromoView helps you get the most out of your investment.



Visualization Made Easy

- Combine with lights, booms, and other equipment in multiple configurations
- Customizable arm lengths for extended reach where needed
- Certified for most major third-party monitors including NDS, BARCO, PANASONIC, SONY, OLYMPUS
- Successful installation with multiple video bundles including the latest in fiber-optic technology
- Bracket box hides excess cabling, signal conversion modules
- Compatible with BERCHTOLD and other vendor sterilizable or consumable handle covers
- Supports standard VESA patterns 75 x 75 mm and 100 x 100 mm
- 330 degree rotation
- UL Listed

Single Flat Panel (SFP) Monitor Arms

- Supports one flat panel display up to 26 in

Dual Flat Panel (DFP) Monitor Arms

- Supports up to 2 flat panel displays up to 26 in each
- Custom option may support one display larger than 26 in
- Expands and collapses to fit both the monitor(s) and the room

SFP TECHNICAL DATA

Monitor: 1 x up to 26 in

Net payload capacity:
13.2 to 26.4 lbs (6-12 kg)

Standard bracket width:
31.9 in (810 mm) max

VESA patterns supported:
75 x 75 mm ; 100 x 100 mm

Regulatory: UL Listed

Power: 24v

Net Payload capacity defined as any equipment/accessory added after shipment received from BERCHTOLD.

DFP TECHNICAL DATA

Monitors: 2 x up to 26 in each

Net payload capacity:
33 to 51.7 lbs (15-23 kg)

Standard bracket width:
41.5 in (1054 mm) to
55.1 in (1400 mm)

VESA patterns supported:
75 x 75 mm ; 100 x 100 mm

Regulatory: UL Listed

Power: 24v

Net Payload capacity defined as any equipment/accessory added after shipment received from BERCHTOLD.

Large Flat Panel Monitor Arms

As the need for larger monitors and enhanced visualization in the OR increases, BERCHTOLD continues to expand its portfolio, offering several large flat panel mounting products to meet this growing need. Through countless installations with industry-leading imaging vendors, our expert Design Consultants make even the most complex hybrid projects come to life. For those customers wishing to mount three or more smaller monitors rather than just one large format, multiple monitor bank combinations are available.



Physiological and Vitals Monitor Mounts

BERCHTOLD offers many physiological and vitals monitor mounting options that support most models in both the OR and ICU. If the customer wishes to separate the collection of vitals from the visualization of that data, then utilizing CHROMOPHARE suspension is optimal. Other commonly used configurations include smaller monitor arms in conjunction with the TELETOM equipment management product.



Supplementary Product Options

Video/Power Arm: Boom Functionality, Smaller Footprint

Engineered to provide electrical and video connectivity, BERCHTOLD's Video/Power Arm gives planners the ability to create a clean ceiling design while allowing for easy upgrades in the future.

- Video and power support for almost any equipment in the OR
- Can be combined with lights and flat panels as well as the supplementary product options
- Compact service head
- Compatible with all major video cable bundles
- Convenient and easy-to-use cord management system prevents "pull" damage to connectors
- Smooth rotating handle design, and lightweight service head make unit extremely easy to position and use
- (2) 20amp Circuits
- (3) Duplex power outlets
- (3) Standard video plate cutouts
- 100/120/127v AC



Radiation Protection

BERCHTOLD offers Radiation Protection Shields for optimal safety while minimizing the risk of injury. Various mounting options give personnel the freedom to maneuver shields easily in and out of position as necessary.

- Enhanced maneuverability
- Easy and simple operation
- Transparent acrylic shield
- Unimpeded view
- Rounded, shatter-proof edges
- Sterile cover accessories also available



Documentation Stations

Customized CHROMOPHARE suspension options enable clients to mount small form factor PC, keyboard, and other equipment combinations used for documentation purposes during surgical procedures. This is particularly useful for anesthesia applications.

External Camera Enclosure

For customers wishing to mount their own camera external to the surgical light, BERCHTOLD offers a sturdy, yet maneuverable enclosure that protects the device while providing multiple viewing angles.

- Comprehensive imaging of surgical suite and clinician workflow
- Scratch resistant, transparent, polycarbonate dome
- Protects camera, cabling, and connection points from contamination or damage
- Enclosure handle comes with sterilizable cover



HIGH CAPACITY/COMPATIBLE WITH:

- Sony BRC-Z700
- Sony BRC-H700
- Sony BRC-300/300P
- Sony EV1-H100S
- BRC-Z330
- Clear View HD 20

MEDIUM CAPACITY/COMPATIBLE WITH:

- Sony EVI-D70
- VC-C50iR

Neurological Applications

BERCHTOLD provides innovative and dependable mounting solutions for sophisticated brain monitoring equipment. Easily maneuver neuro cameras and monitors into position without impeding workflow.

- Flexible navigation camera positioning
- Multiple monitor angles possible
- Easy and simple operation

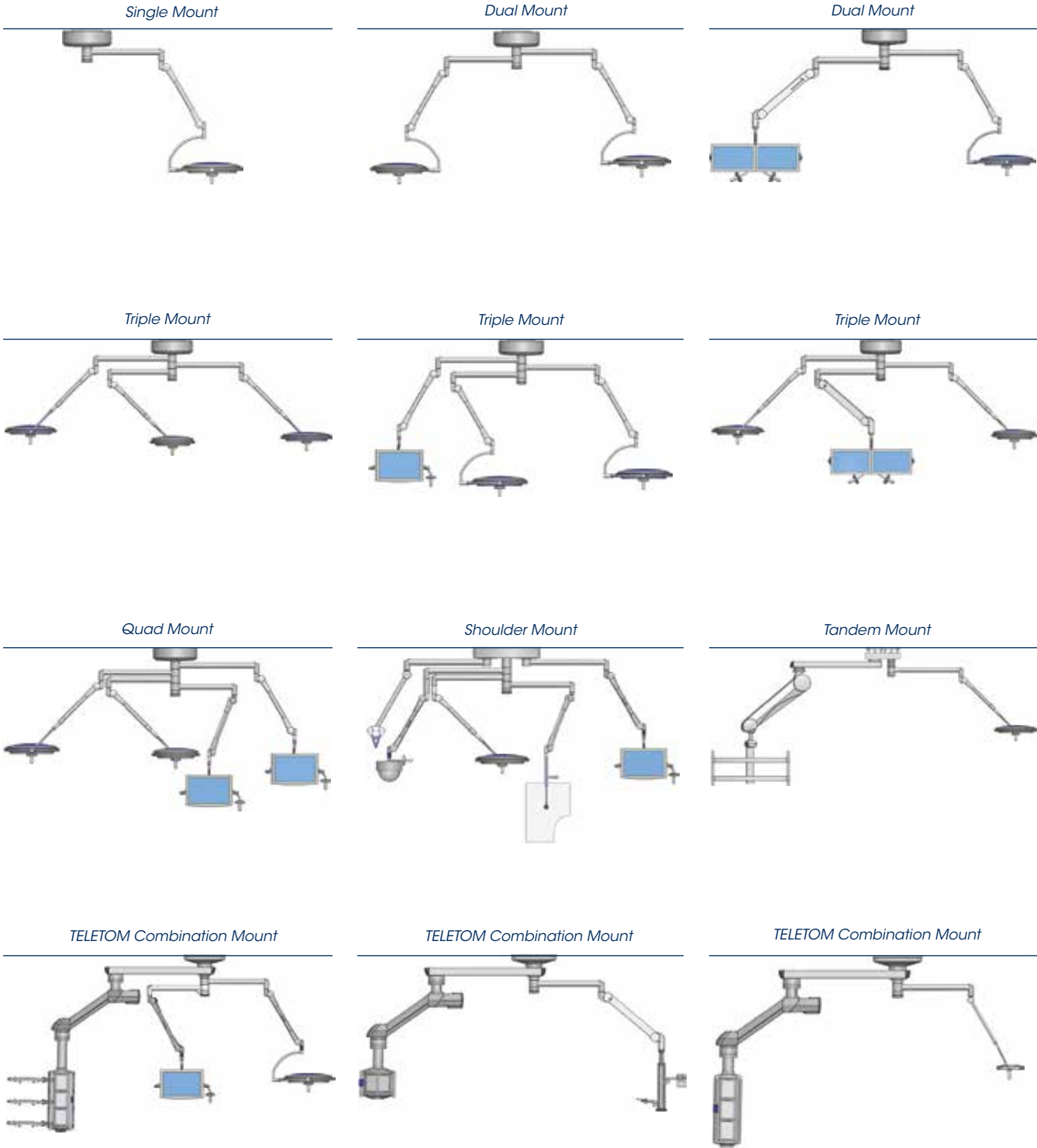
A commitment to customized solutions

With CHROMOPHARE, ChromoVision and ChromoView, BERCHTOLD is once again raising the bar with today's surgical, critical care and hybrid environments in mind.

BERCHTOLD is committed to guiding equipment planners, OR directors, C Suite, and clinical personnel through the complete room design process, from concept to implementation. Through our partnerships with top hospitals, we're helping develop the next generation of custom clinical solutions.



Configuration Options



EASE OF USE:

Environment Lighting

Endolite®

Endolite improves work conditions for surgeons performing endoscopy procedures in darkened rooms. The feature is integrated into the suspension and can be purposed for either green endoscopic applications or white ambient lighting.



Guidelite™

With Guidelite, OR lighting can be dimmed by the push of a button to 5% light intensity. This feature leaves just enough light for safe manipulation of instrumentation in an otherwise darkened surgical environment.



The Endolite increases the visual comfort for endoscopy or minimally invasive procedures.

Put BERCHTOLD to work for you with SUPERSUITE®.

With nearly a century of unmatched experience, BERCHTOLD has been a leader in complex clinical environments, bringing innovative products and solid design expertise to hospitals around the world. Today, the legacy continues with SUPERSUITE, a comprehensive approach to creating fully customized spaces – from critical care rooms and ORs to some of the most complex hybrid surgical suites.

Our proven SUPERSUITE methodology inspires confidence in customers who want the very best. Having installed thousands of successful rooms, we know exactly how to seamlessly integrate advanced patient technology for optimum workflow. Through our leading-edge design process utilizing ByDesign™ 3-D software and precision-engineered products, BERCHTOLD Design Consultants are ready to create an environment that truly works for you. Behind every project our experts stand with world-class support and a full array of PINNACLE Service™ plans.

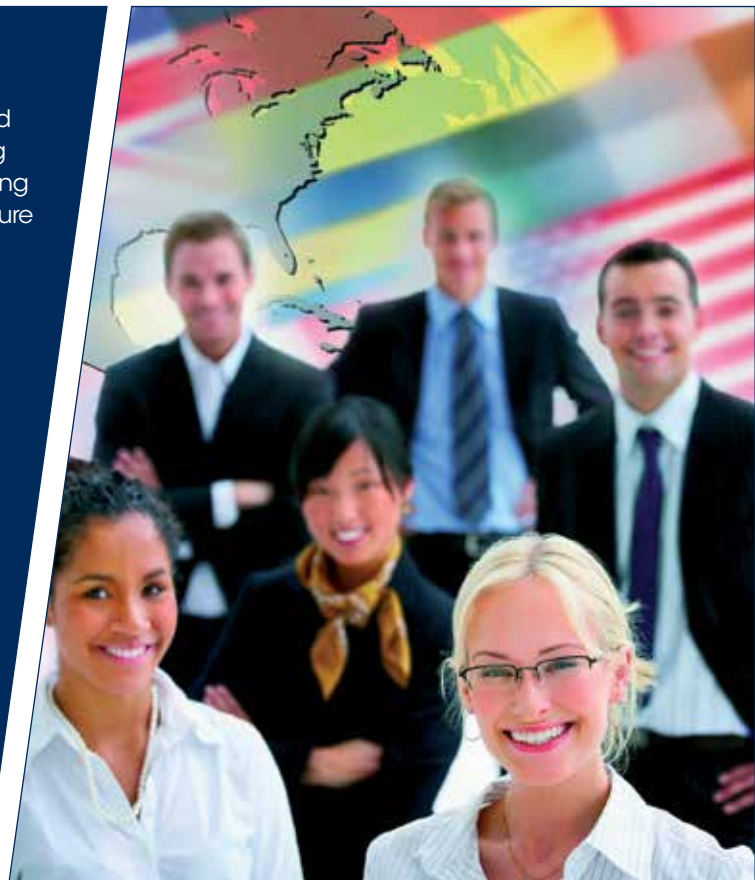


For over 90 years, BERCHTOLD has been a world leader in the design and manufacture of quality medical equipment. With our focus on improving patient outcomes, we deliver best-in-class products, experienced planning and project management and service with a personal touch. We measure our success by the quality of our customer and employee relationships.

Our products and services include:

- CHROMOPHARE® surgical and examination lights
- ChromoVision® video and camera systems
- ChromoView® monitor arms
- TELETOM® equipment management systems
- OPERON® surgical tables including a full range of accessories
- TABLEGARD® Patient Care System
- SUPERSUITE® custom clinical environments
- ByDesign™ clinical room design software
- Design, consulting, project management and customer support
- Factory-trained service and installation support
- IntegraMount™ construction mounting solution

We invite your inquiry and the next opportunity to assist in the planning, design and installation of your next clinical environment.



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