

# **Product Description**

#### **Astramax®**

HD-LED is a breakthrough technology with vastly better performance than standard definition LED or conventional surgical lights.



#### **Product Images**

# **Full Spectrum Colour Rendition**

The surgical lighting has near perfect colour rendition across the full visible spectrum.

- Easy to distinguish small differences in tissue
- All the colours are strong and vibrant
- Reduced eye strain by making the light do the work instead of the eye

#### **Red Balance Control**

With the highest R9 red colour rendition, Astramax HD-LED provides optimum visualisation of red tissues

**Product Features** 

- Enhanced visualisation of red tissues
- Improved differentiation between tissues of similar colour
- You can adjust the light colour to match your own optical colour response

#### **Fat Beam Illumination**

Higher light flux ensures bigger illuminated fields and more light across the full width of the illuminated area.

- High light intensity across the full illuminated area for uniform vision
- Avoids visual distraction by reducing high contrast in the illuminated area
- Adjust the beam size to suit your working area to eliminate peripheral distraction

## Slim, Compact and Powerful

Ultra slim and light-weight lamp head enables smooth, fast and precise positioning during procedures. Astramax HD-LED is a compact yet powerful surgical light with an impressive 150,000 Lux output

#### **Economical Light with Long Life**

Astramax HD-LED provides exceptional performance at a competitive price with minimal running costs. Using less than 50 watts of power and with >60,000 hours of LED life which equates to more than 20 years of normal use, Astramax HD-LED continually saves money on energy and maintenance.

### **Environmentally Friendly**

HD-LED lights use up to 70% less energy than conventional medical lighting. HD-LED lights have the highest lighting performance with the smallest energy consumption.

LEDs are also mercury free, do not contain CFCs, POPs, VOCs, halogens or other harmful chemicals and are ROHS compliant.

#### **Large Illuminated Area with Shadow Control**

A large illuminated area of up to 320 mm diameter makes it easy to illuminate large areas of tissue to target the light onto the wound. By spreading the LEDs across the lighting surface, a much better distribution of light is provided from the lamphead. This enables excellent shadow control to under-light obstructions during procedures.

### **Large Movement Range**

Astramax HD-LED lamp head is mounted on multimovement arm mechanisms. The lamp has 5 rotations to allow easy positioning of the light beam from any angle.

#### Infection Control

The lamp head is sealed to IP54 to protect from ingress of dirt and fluids. The smooth surfaces of the lamp head allow for easy disinfection. The lamp head is manoeuvred using a sterilisable handle.



Images are representative of example system only - Mount styles vary depending on model Please refer to drawing layout for model appearance information

Please contact one of our Sales Team to discuss your requirements further



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# Surgical Lighting - Ceiling Mounted



Model Number	Description
AM30CJ	ASTRA MAX 30 Series Main Lamp (150kLux) Ceiling Mounted Stem
AM3030TJ	ASTRA MAX 30 Series Main Lamp (150kLux) 30 Series Satellite Lamp (150kLux) Tandem Ceiling Mounted Stem
AM3010TJ	ASTRA MAX 30 Series Main Lamp (150kLux) 10 Series Satellite Lamp (70kLux) Tandem Ceiling Mounted Stem
AM30CDTU	ASTRA MAX 30 Series Main Lamp (150kLux), Accessory Arm: 12-18kg Monitor Arm Stopped with Monitor Bracket, Tandem Ceiling Mounted Stem

#### **Technical & Performance Information:**

Unless otherwise stated: All linear dimensions in mm, angles in degrees (±5º) and weights in kg

General System	AM30CJ	AM3030TJ	AM3010TJ	AM30CDTU
Mount Type	Ceiling Stem - Swing- Spring Arm	Tandem + Swing Spring Arm		Tandem + Swing-Spring & Monitor Arm
Lamphead 1	AM30	AM30	AM30	AM30
Lamphead 2	-	AM30	AL10	*CD Monitor Arm
Weight (kg)	17.7	31.6	29.6	33.9
Conformity	CE (93/42/EEC) including amendments 2007/47/EC			
Type of luminaire (BS EN 60601-2-41)	Minor Surgical (Treatment)			
Medical Device Classification	I			
Electrical Classification	I			
Electrical conformity	BS EN 60601-1; BS EN 60601-2-41			
System Nominal Power [VA]	44VA	44VA	44VA	44VA
System Power Consumption @100% Intensity	37W	74W	54.5W	37W plus
Additional Information	-	-	-	Separate PSU Required

Mount Type	Ceiling Stem - Swing- Spring Arm	Tandem + Swing Spring Arm	Tandem + Swing-Spring & Monitor Arm
Number of arms	1 - swing-spring arm	2 - swing-spring arms	1 - swing-spring arm & 1 horizontal/spring arm
Ceiling Height range (mm) [max ceiling height with cavity spacer]	2539-3359 [4359]	2716-3536 [4536]	2716-3536 [4536]
Mounting Height [Wall Bracket only]	N/A	N/A	N/A
Weight of Mount (including suspension arms)	12.7	21.6	26.9
Arm 1 Lengths Horizontal/Suspension Arm [Total Radius] (mm)	800/750 [1550]	901/750 [1650]	901/750 [1650]
Arm 1 Lateral Rotation of Horizontal about Central Stem Spindle (±5°)	360°	360°	360°
Arm 1 Lateral Rotation of Spring Arm about Horizontal Spindle (±5°)	360°	360°	360°
Arm 2 Lengths Horizontal/Suspension Arm [Total Radius] (mm)	-	901/750 [1650]	850/914(1764)
Arm 2 Lateral Rotation of Horizontal about Central Stem Spindle (±5°)	-	230°	Stopped
Arm 2 Lateral Rotation of Spring Arm about Horizontal Spindle (±5°)	-	360°	Stopped
Suspension Arm Angle max vertical adjustment up (±5°)	45°	45°	Arm 1: 45° / Arm 2: 45°
Suspension Arm Angle max vertical adjustment down (±5°)	45°	45°	Arm 1: 45° / Arm 2: 50°
Power Supply Unit Type	50W 24V DC	150W 24V DC	150W 24V
Supply Voltage	100 - 240V AC 50/60Hz	100 - 240V AC 50/60Hz	100 - 240V AC 50/60Hz

*Arm Code	Description	
CD	Spring Arm for Monitor Max Load 12-18kg, Unwired – Stopped	

See following page for Lamphead Data

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Lamphead Photometric Data **	AM30	AL10
Central Illuminance @ 1 metre (Lux max ±10%)	150,000	70,000 (8 Steps)
Field diameter D10 @ 1 meter (mm)	90 to 320 (Variable)	180
Field diameter D50 @ 1 meter (mm)	90-160	80
Field size mm	-	250
Nominal working distance from lamphead m	1	1
Colour rendition Ra (Av R1-R8)	≥95	≥95
Colour rendition R9 (red)	≥95	≥95
Colour temperature (ºK)	4300º K	See Adjustable Colour
Adjustable Colour (Red Balance) (ºK)	3100º to 5000º K	3500º to 5000º K (6 Steps)
Number & Type of lights per Lamphead	39 HD-LED®	13 HD-LED®
LED life (hours)	>60,000	>50,000
Comfort Halo @ 1m (mm)	N/A	N/A
Radiant Energy	3.31mW/m² per lux	3.31mW/m² per lux
Solid state focusing control	Control via Handle	
Intensity control	Control on Keypad	
Shadow-less light technique	Multiple LED elements	
Electronically Dimmable Light Intensity Range	5-100%	
Depth of Illumination (without refocusing) L1/L2@60% (mm)	-	-
Depth of Illumination (without refocusing) L1/L2 @20% (mm)	500	-

Lamphead General, Mechanical & Electrical Data **	AM30	AL10	
Removable Sterilisable Handle	Yes (Sterilis	Yes (Sterilisable at 137°C)	
Anti-microbial Surfaces	,	Yes	
Light On/Off switch location	Keypad or	Keypad on lamp head	
Ingress Protection Rating	li li	P54	
Lamphead Diameter (mm) Approx	480	296	
Lamphead Weight (kg) Approx	5	3	
Lamphead Pitch (°)	290°	330°	
Lamphead Roll (°)	Unlimited 360°	Unlimited 360°	
Lamphead Yaw (°)	N/A	N/A	
Power Supply Unit Requirements	50W 24V DC	50W 24V DC	
Power (VA)	44VA	<32VA	
Power Consumption @Nominal Intensity [@100% Intensity]	22.15W [37W]	8.5W [17.5W]	

<sup>\*\*</sup>Data per lamphead

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