

## Technical Information

No. FO 4714

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Status: valid

Mercury Short Arc Lamp  
for Microlithography

# HBO<sup>®</sup> 1500 W/PI

### ■ Product description

The OSRAM HBO<sup>®</sup> 1500 W/PI is a direct current mercury short arc i-line lamp designed for the manufacture of integrated circuits (microlithography). This lamp type emits a very high radiant intensity in the ultraviolet and visible wavelength range and is designed and optimized for use in ASML equipment (PAS 5500/22, /100, /100B, /TFH100).

### ■ Technical data

Order reference	HBO <sup>®</sup>	1500 W/PI
Rated lamp wattage	W	1,500
Rated lamp voltage	V	23
Rated lamp current (=)	A	65
Ignition voltage (cold)	kV <sub>S</sub>	max. 20
Radiant intensity (wave length range 365 ± 2,5nm)	mW/sr	4,850
Electrode gap e (cold)	mm	4
Lamp length (overall) l <sub>1</sub>	mm	273
Lamp length l <sub>2</sub>	mm	240
Bulb diameter d	mm	46
LCL a	mm	118
Guaranteed life	h	850

Base	<ul style="list-style-type: none"><li>• Cathode: SFc 27-10/35</li><li>• Anode: SFc 30-6/25 with cooling fins and cable connection</li></ul>
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### ■ Lamp operation

Maximum permissible base temperature	°C	200
Cooling	forced base cooling, cooling fins on anode	
Burning position	vertical, Anode (+) underneath	

### ■ Safety Instruction

Due to their high luminous efficacy, the UV radiation which they emit and the high pressure within the lamp, HBO<sup>®</sup> lamps must be operated within enclosed, purpose-built housings. When a lamp breaks, mercury is released. Particular safety regulations must be paid attention (for details please request technical information sheet no. FO 4574).

