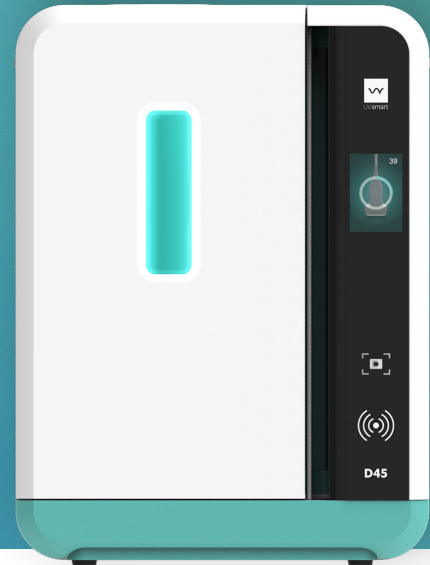




UV Smart D45

Why the D45 Uses Mercury Lamps Over LEDs for Optimal Disinfection



What is the difference?

When it comes to UV-C high-level disinfection (HLD) of medical devices, choosing the right light source is crucial. While both mercury lamps and LED lights are popular options, mercury lamps stand out for their **superior effectiveness** in healthcare settings.



Disinfection efficiency

Mercury lamps

High efficiency: 30–40% of the energy turned into UV-C light^{1,2,3}

UV-C LEDs

Moderate efficiency: 3–6% of the energy tuned into UV-C light increasing disinfection times^{1,2,3,4}



Wavelength range

Narrow, targeted UV-C range. Very effective in killing organisms^{1,2}

Broad wavelength range. 20% of total radiation emitted is UV-B, which is less effective in killing organisms.^{1,2,3}



Maintenance

Simpler to replace and maintain

May require complex maintenance procedures³



Heat production

Minimal heat production

Significant heat, requiring cooling structures^{2,3}



Cost

Lower costs due to decades of development¹

More expensive due to early-stage development¹

Conclusion

Mercury lamps offer superior disinfection benefits in healthcare settings. By utilizing this technology, the D45 enhances patient care, safety, and sustainability, while reducing costs.

References

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