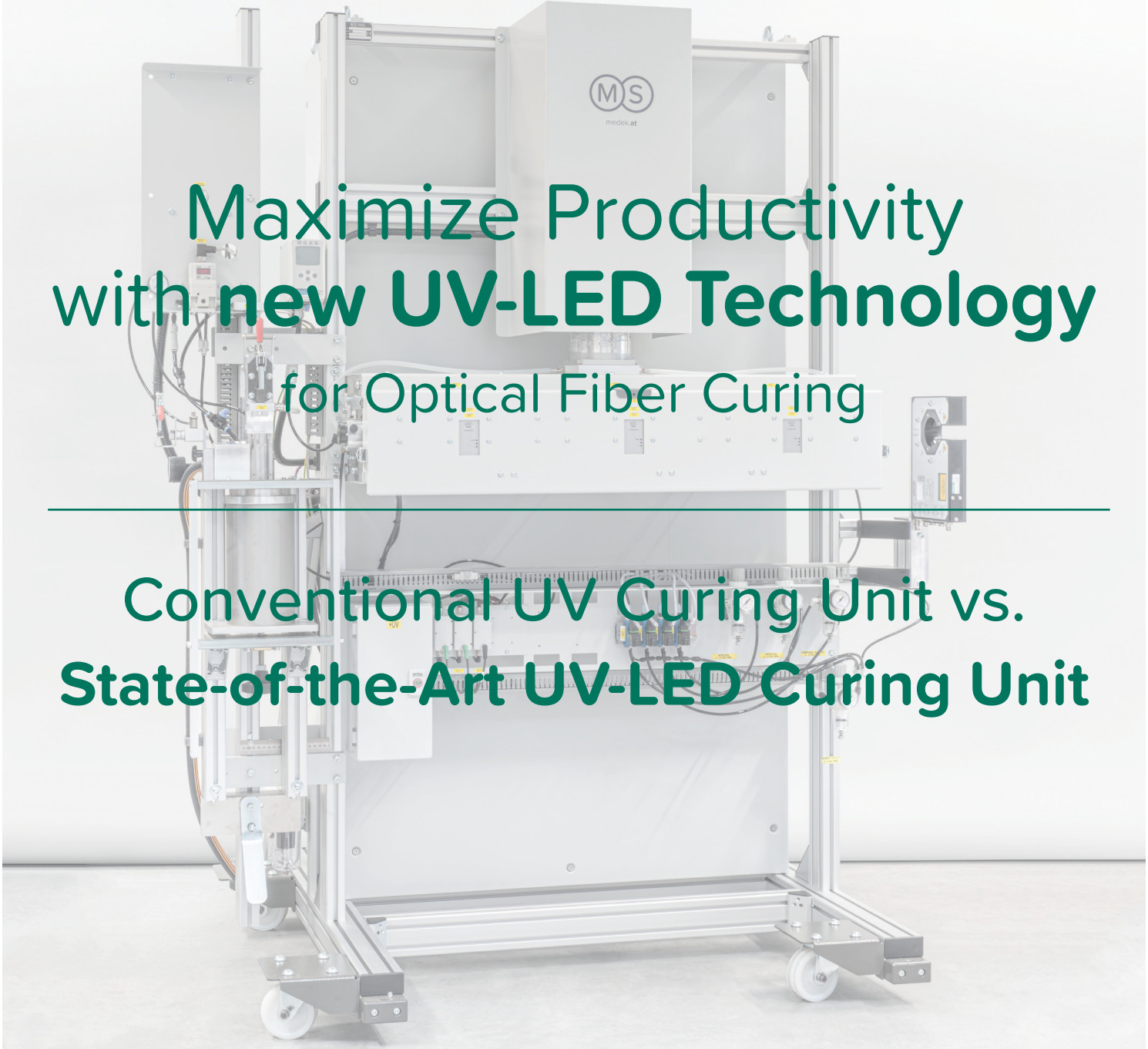
93 % LESS DOWNTIME
12 POINT REPORT



Maximize Productivity with **new UV-LED Technology**

for Optical Fiber Curing

Conventional UV Curing Unit vs. **State-of-the-Art UV-LED Curing Unit**

Medek & Schörner

medek.at

DEAR BUSINESS PARTNERS,

in the ever-evolving landscape of manufacturing, where progress is the key of success, we are thrilled to present a comprehensive report encapsulating a year-long observation of conventional optical fiber UV curing units versus our state-of-the-art optical fiber UV-LED curing unit (ULD).

The data presented in this report has been thoroughly verified, ensuring its authenticity and providing you with a clear, objective understanding of the transformative power of LED technology in optical UV curing.

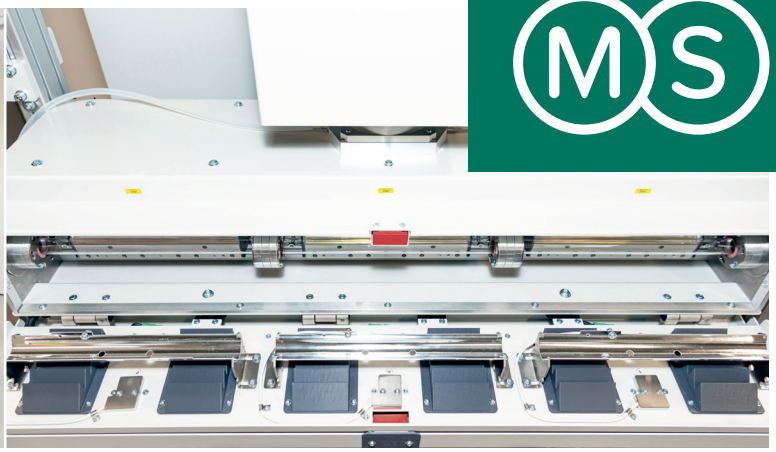
The results achieved with our UV-LED Curing Unit (ULD) are nothing short of exceptional. We observed incomparable advancements in energy efficiency, operational speed, and overall performance. Not only did the LED technology in proper combination with reflectors outshine its conventional counterpart, but it also sets new benchmarks for sustainability, lifespan and adaptability.

As we navigate through this report, we invite you to explore the facts of our findings, which illuminate not only the technical nuances, but also the strategic advantages that our UV-LED curing unit (ULD) brings to the forefront. It is our sincere hope that the insights shared here will empower you to make informed decisions, advancing your production processes into a new era of efficiency and innovation.

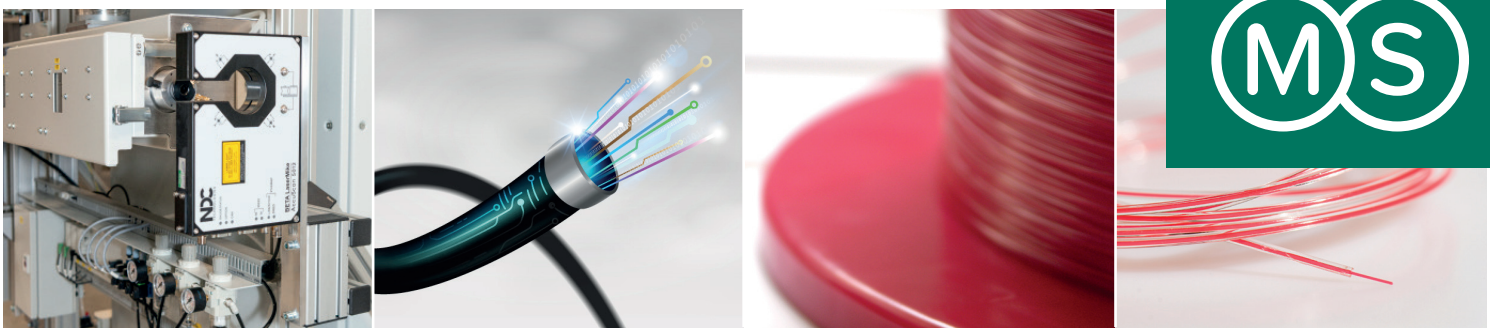
Thank you for embarking on this transformative journey with us. We are eager to share the remarkable progress we have made and excitedly anticipate the positive impact this information will have on your approach to UV-LED curing technology.

Best regards,
The Medek & Schörner Team





12 POINT OF THE UV LED CURING UNIT (ULD)



MAXIMIZING PRODUCTIVITY: ACHIEVING 93% LESS DOWNTIME

The remarkable advantage of the UV-LED curing unit (ULD) shines through its minimal maintenance effort over a 24-hour period, not only ensuring minimal downtime but also unlocking significant cost savings. Clocking in at just under 2 minutes per day, this efficiency not only translates into reduced labor costs but also substantially lowers machine hourly rates. Experience a cost-effective and seamlessly productive operation with our state-of-the-art technology.

REDUCTION OF 81 % IN ENERGY COSTS

Revolutionize your production floor with our UV-LED curing unit‘s unparalleled energy efficiency. While conventional UV curing units consume 16 kW at full speed, our cutting-edge UV-LED curing technology boasts a minimal 3 kW consumption. Not only does this represent a significant reduction in energy costs, but it also positions your operations as eco-friendly and sustainable.

CONSISTENT AND EXCELLENT PERFORMANCE STABILITY

Bid farewell to performance fluctuations with our UV-LED curing unit, ensuring a remarkable drop of less than 0.1 % per hour, compared to conventional UV units exceeding 5 %. Experience unparalleled stability, guaranteeing a consistently high-quality output. Elevate your production standards with technology that does notn‘t compromise on performance.

COOLING PRECISION: MINIMIZE AIR CONSUMPTION

Transform your cooling strategy with the UV-LED curing unit‘s precision. Where conventional units demand over 120 l/min during preparation/fiber threading, our cutting-edge LED curing technology optimizes efficiency with less than 20 l/min. Not only does this reduce air consumption, but it also improves operational precision.

PROLONGED ENDURANCE: UNLEASHING LONGEVITY IN UV CURING COMPONENTS

Experience a paradigm shift in component lifespan with our UV-LED curing unit. While conventional units offer a lamp lifespan of 2000 h and a reflector lifespan of 6 months, our cutting-edge LED curing technology exceeds these benchmarks with an impressive lamp lifespan of over 20,000 h and a reflector lifespan exceeding 1 year. Elevate your operational endurance, minimize replacement frequency, and enjoy sustained productivity.

MAXIMIZING EFFICIENCY: SWIFT READINESS AND SEAMLESS FIBER THREADING

Revolutionize your production timeline with the UV-LED curing unit‘s swift readiness. While conventional units boast a readiness cycle of 20-40 seconds, our advanced LED curing technology accelerates the pace with an instantaneous readiness of less than 1 second. Say goodbye to waiting times and hello to seamless, uninterrupted production. Additionally, automatic fiber threading eliminates the need for toggling the radiation source on and off, ensuring a smoother and more efficient process. Elevate your production to new heights with advanced technology that adapts to your pace.





COOLING REDEFINED: EXPERIENCE MINIMAL ENVIRONMENTAL IMPACT

Step into a new era of environmentally conscious production with our UV-LED curing unit. While conventional units demand 40 m^3/min of cooling, our advanced LED curing technology requires a minimal 0.2 m^3/min. This not only significantly reduces environmental impact but also contributes to sustainable manufacturing practices.

ELEVATE EFFICIENCY WITH EXTENDED QUARTZ TUBE CLEANING CYCLES

Say goodbye to frequent interruptions with our UV-LED curing unit's extended quartz tube cleaning cycles. Conventional units necessitate cleaning every 4-5 hours, whereas our advanced LED curing technology extends this cycle to an impressive 50-100 hours. Enjoy prolonged operational continuity, minimize downtimes and maximize productivity. Additionally, bid farewell to the efforts of UV mercury lamp disposal, contributing to a cleaner and more environmentally conscious production process.

WORKSPACE EFFICIENCY

Embrace a more streamlined workspace with the UV-LED curing unit's compact design. While conventional units demand a footprint of 1500 mm, our advanced LED curing technology revolutionizes efficiency with a minimal footprint of less than 1000 mm. Optimize your floor space, enhance operational flexibility and usher in a new era of workspace efficiency.

COST-EFFICIENCY MEETS PEAK PERFORMANCE: ACHIEVE EQUAL SPEEDS AT LOWER COSTS

Unlock unparalleled cost efficiency without compromising on performance with our UV- LED curing unit. Delivering the same impressive production speed of 3000 m/min as conventional units, our advanced LED curing technology ensures equal production speed at significantly lower operational costs. Experience the perfect blend of speed and savings, setting new standards in cost-effective UV curing. Choose Medek & Schörner for a very short period of return on investment.

LED MASTERY FOR MATERIAL VAPOR, CURING OPTIMIZATION AND ATTENUATION EXCELLENCE

Embark on a journey of unparalleled efficiency with our UV-LED curing unit, offering a perfect package. Experience a notable reduction in material vapor, optimized curing for accelerated processes and enhanced optical fiber quality regarding attenuation. Streamline your production, amplify control and elevate quality – all with the power of advanced LED curing technology at your fingertips.

HYBRID EXCELLENCE: LED-OPTIMIZED DESIGN FOR HYBRID INKS

Experience the innovation of our UV-LED curing unit, uniquely designed for hybrid inks that thrive perform perfectly under LED curing, yet seamlessly adaptable to conventional systems without performance degradation – also backward compatible. This forward-thinking design ensures versatility in ink applications, providing the flexibility to embrace the future of LED technology or maintain compatibility with traditional systems, all without compromising curing performance. Redefine your ink capabilities with technology that evolves with you.

12 OVERVIEW: COMPARING CONVENTIONAL VS. UV-LED CURING UNIT UNVEILING THE FUTURE OF PRODUCTIVITY

Parameter	Conventional UV (M550)	UV-LED Curing Unit (ULD)
Production Speed	3000 m/min	3000 m/min
Energy Consumption at full speed	16 kW	3 kW
Cooling	40 m^3/min	0.2 m^3/min
Maintenance effort (24h)	30 min	< 2 min
Nitrogen	45 or 80 l/min	38 l/min
Air cooling (fiber threading)	> 120 l/min	< 20 l/min
Quartz tube cleaning interval	4-5 h	50-100 h
Performance drop	> 5 % per hour (gassing)	< 0.1 %
Machine readiness	20-40 sec	< 1 sec
Lamp lifespan	2000 h	> 20000 h

UNLEASH THE POWER OF UV-LED CURING WITH MEDEK & SCHÖRNER

Ready to revolutionize your production line and experience the unparalleled advantages of our UV-LED curing unit (ULD)?

For a personalized consultation and a deep dive into how our technology can elevate your opertions, we invite you to arrange a FREE online meeting with our dedicated Sales Team.

Booking your consultation is quick and easy. Simply send us an email at **sales@medek.at** with your preferred date and time, and we will take care of the rest.
(Further contact details: +43 2245 4694)

Elevate your production capabilities with Medek & Schörner - pioneering UV-LED curing excellence.
Medek & Schörner Team

