

HLR 100M

HVAC Load Reduction Air Cleaning Module



Improved Air Quality, Lower HVAC Costs

The HLR 100M module provides improved indoor air quality and dramatically lower HVAC costs by cleaning indoor air so that it can be safely recirculated. The HLR 100M complies with ASHRAE Standard 62.1, is easily integrated with most HVAC system designs, and delivers a significant number of LEED and WELL points. When combined with high-efficiency filters, the HLR 100M can be used to deliver safe indoor air quality for COVID-19 mitigation with less outside air. This award-winning, industry proven-technology helps owners meet their air quality, carbon reduction, and energy goals with the easiest, most cost-effective air cleaning solution on the market.



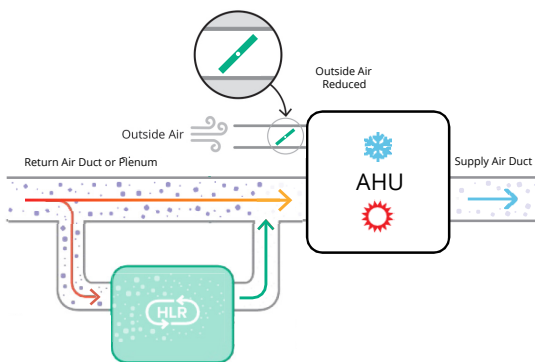
HLR 100M Module

IMPROVE AIR QUALITY	SAVE ENERGY	REDUCE COSTS	INSTALL EASILY	REDUCE CARBON	EARN LEED/WELL POINTS	NO BYPRODUCTS

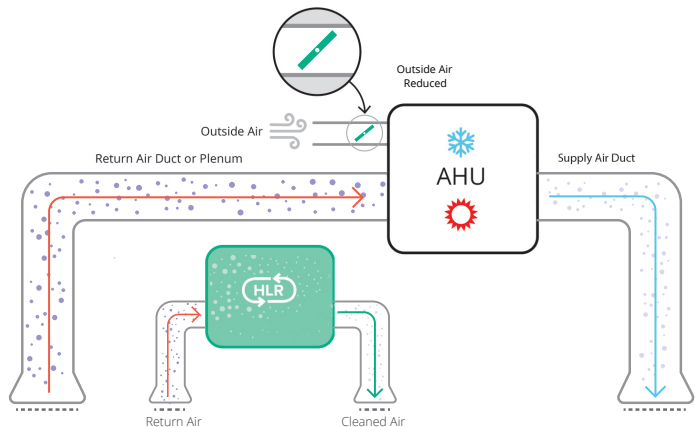
How it Works

Indoor Air Scrubbing – One or more HLR 100M modules can be installed on the return air side of a central air handling unit (AHU) or independent of the AHU. Air is drawn into the HLR 100M by internal fans, which push the air through sorbent filters that capture and remove all the contaminants of concern from the air stream. Without producing any byproducts, the HLR 100M then pushes clean air back into the return air stream or space. By cleaning recirculated air, outside air ventilation rates can be safely reduced by up to 85%, and new HVAC equipment can be downsized, using the ASHRAE Standard 62.1 IAQ Procedure.

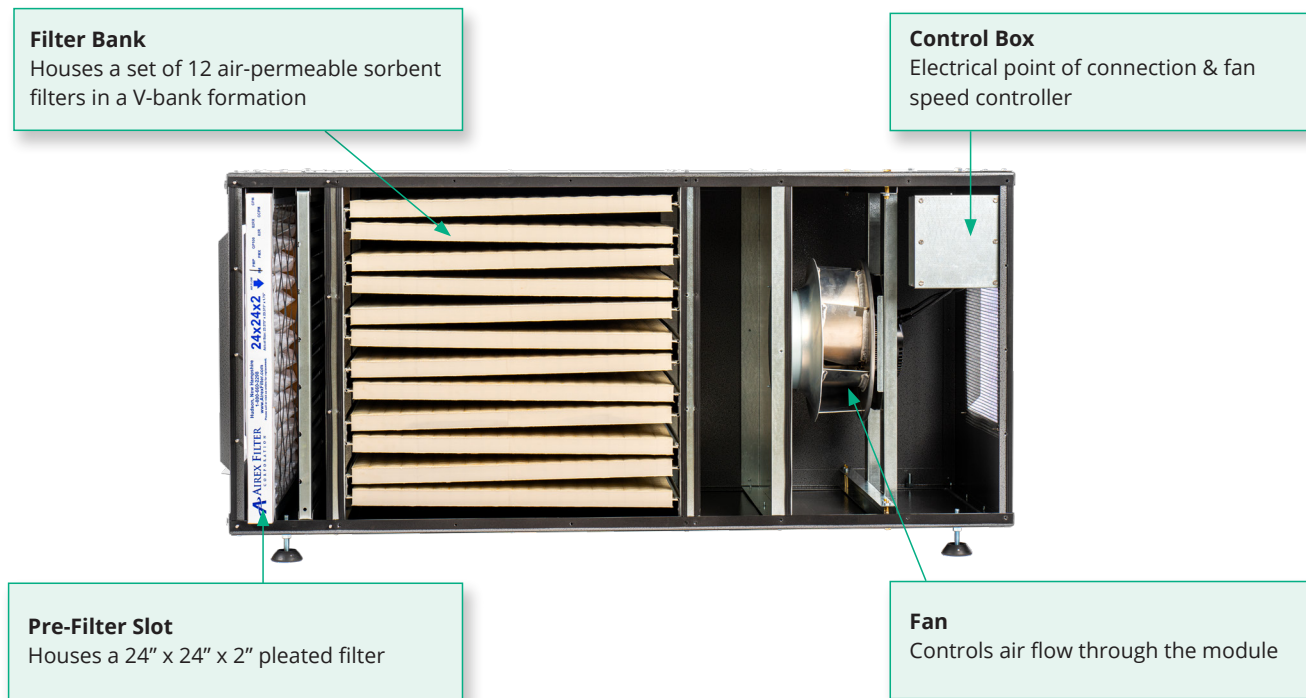
Integrated with Airside Equipment



Independent, Directly in Occupied Space



What's Inside the HLR 100M Module?



Broadly Applicable

The HLR 100M is a small indoor HLR module that integrates with a wide range of central or zone-based HVAC systems found in offices, schools, conditioned warehouses and distribution centers, and other commercial building types that fall under ASHRAE Standard 62.1. Given its small size, flexible orientations, and simple installation, the HLR 100M is ideally suited for existing building retrofits and new construction.



Office Spaces



Conditioned Warehouses



K-12 Schools



Higher Education

Proven, Award Winning HLR Technology®

Hundreds of HLR modules have been specified and installed around the world by leading consulting engineers and HVAC contractors. Air cleaning efficiency has been validated by ASHRAE 145.2 testing, and energy savings have been field validated by multiple utilities who have provided incentives for installing HLR modules as well as by the U.S. Department of Energy. Unlike many other air cleaning technologies, independent lab tests show that HLR modules do not produce any byproducts. In 2021, the HLR 100M was voted HVAC Product of the Year by the readers of Consulting-Specifying Engineer magazine.



100M Module Specifications

GENERAL SPECS

Installation	Mechanical Room or Air Plenum
Construction	Single wall, Powder-coated Galvanized Steel
Sorbent Filters per Set	12
Typical Airflow	1,000 CFM
Static Pressure Increase	None
Sound Pressure Level	68.5 dBA at 1 m, 1,000 CFM, ducted
Maximum Allowed External Static Pressure	1.25" WG / 310 Pa
Maintenance	Two-year Filter Replacement 3 to 6-month Pre-Filter Replacement*
Operating Life	20+ years with scheduled maintenance

COMMUNICATIONS

Fan Speed	0-10 VDC
Start/Stop	24 VAC/DC

POWER

Voltage (VAC)	Frequency (HZ)	MCA	MOCP	Power Consumption
208 V	60 Hz	3.60 A	15 A	550 W
277 V	60 Hz	3.15 A	15 A	550 W
230 V	50 Hz	3.28 A	15 A	550 W

WEIGHTS

Module Shipping Weight	150 lbs	68 kg
Filter Shipping Weight	198 lbs	90 kg
Installation/Operating Weight	348 lbs	158 kg

DIMENSIONS (Front View)

Length	58.2" / 1,478 mm
Height	24.9" / 631 mm
Depth	25.8" / 654 mm (Allow Additional 36" Clearance for Filter Service)
Inlet Duct	17.88" x 17.88" w/ 1.0" flange 454 mm x 454 mm w/ 25 mm
Outlet Duct	11.88" x 11.88" w/ 1.0" flange 302 mm x 302 mm w/ 25 mm

CERTIFICATIONS

HLR Module Safety	UL 60335-2-40:2017 Ed.2 CSA C22.2#236:2015 ed.5
Filter Bank and Filters	UL 900:2015 Ed.8
Air Cleaning Efficiency	ASHRAE 145.2
Compliant under ASHRAE 62.1 and IMC 403.2	

ASHRAE Standard Compliance

Standard 62.1 for Ventilation and Acceptable Indoor Air Quality

All of enVerid's HLR products are fully compliant under ASHRAE Standard 62.1. By using ASHRAE's performance-based Indoor Air Quality Procedure (IAQP) rather than the prescriptive Ventilation Rate Procedure (VRP), engineers can calculate a minimum ventilation rate that optimizes indoor air quality and energy efficiency. Introduced in 1981, IAQP determines outdoor air intake rates based on an analysis of contaminant sources and air cleaning capacity to stay below recommended contaminant concentration limits. Tools developed by enVerid's in-house engineering team, including enVerid's online IAQP Calculator, streamline the application of IAQP for engineers.

Standard 145.2 for Assessing the Performance of Gas-Phase Air Cleaning Systems

HLR technology is one of the only air cleaning technologies to have undergone independent lab tests for cleaning efficiency using ASHRAE Standard 145.2. Independent labs have conducted ASHRAE 145.2 single-pass efficiency testing for all the contaminants of concern required to maintain acceptable indoor air quality in buildings.

* The Pre-Filter replacement frequency varies based on building conditions. enVerid recommends changing it on the same schedule as other building filters.

enverid.com · 1.617.795.4000 · info@enverid.com

Energy Savings. Air Quality.

enVerid Systems, the leading provider of sustainable indoor air quality (IAQ) solutions, helps buildings achieve air quality goals, save money, and reduce energy consumption and carbon emissions. Its flagship HVAC Load Reduction® (HLR) modules are award-winning air cleaners that deliver up to 40% HVAC energy savings and superior indoor air quality in new and existing buildings. For new HVAC systems, HLR modules also enable immediate capital cost savings. At the core of all HLR modules is enVerid Sorbent Ventilation Technology™ (SVT™), uniquely designed to capture gaseous contaminants that degrade indoor environmental quality. enVerid's HEPA air filtration products remove particulate and microorganism contamination, including viruses, from indoor air without the significant cost of upgrading mechanical systems and increasing mechanical ventilation rates. enVerid's products are deployed in commercial, academic, and government buildings globally. Its air cleaning products are ASHRAE Standard 62.1, LEED® and WELL compliant and eligible for utility rebates. For more information, please visit enverid.com.