

SAFEGUARDING OUR SCHOOLS

Enhancing environments for safer and improved learning.



A seamless team. A single solution.

Three market-leading experts working as one.

The COVID-19 pandemic has presented the nation's education infrastructure with a series of formidable challenges, from the mitigation of virus transmission to the improvement of interior air quality overall. Together, three divisions of Thielsch Engineering - RISE, CEC Engineering and Coldmasters - occupy a unique market position that enables us to address these needs and in turn create healthier learning environments for current and future generations of students, teachers and administrators.

Thielsch Engineering

Founded in 1981, Thielsch Engineering offers consulting, design and energy services to customers throughout the United States and internationally. Its special emphasis on environmental testing, energy supply and efficiency, and design/build services helps meet the important challenges of our time.



RISE Engineering

Efficiency Energized

A pioneer in the delivery of turnkey energy-efficiency services, RISE Engineering works with utilities and other energy program sponsors to offer energy users comprehensive efficiency services that reduce their environmental footprint and operating expenses. Our experience includes hundreds of school building projects to improve efficiency, safety, durability, and indoor air quality.



CEC Engineering

Consulting Engineers

CEC - Creative Environment Corp. - provides a wide range of clients with the highest quality MEP/FP Engineering and Design Services. We received a RI AIA R&D award in 2020 for our work authoring a technical paper used as a supplement to the RI Department of Education's Reopening Planning Template. The materials presented information and options for facilities to use as practical strategies in an effort to mitigate the spread of Covid-19.



Coldmasters

Commercial/Industrial HVACR

Coldmasters offers single source responsibility in HVAC and Refrigeration applications. Our services include repairs and retrofits, preventative maintenance, engineering services and complete installation of new equipment. We generate unique solutions to complex problems to achieve the optimal balance of health and safety, energy efficiency, reliability and life-cycle costs.

A young girl with dark curly hair is sitting at a desk in a classroom, looking up and smiling at a teacher who is standing next to her. The teacher's arm is visible, holding a pencil. The background shows other students at their desks, all in a blue-tinted environment.

KEEPING STUDENTS AND TEACHERS SAFE.

The impacts of poor indoor air quality (IAQ) in classroom environments on the ability of students to learn are undeniable. Studies indicate that IAQ has a direct effect on the working capacity of students, reducing their academic performance by as much as 30%. Concentrations of carbon dioxide which can build during class time can compromise problem-solving skills, can be detrimental to student health, and can ultimately lead to lower attendance levels.

In addition to mitigating transmission of the ongoing COVID-19 virus, our experts offer multi-faceted solutions to achieve healthier buildings and indoor environments. Wherever possible, we incorporate energy efficiency to manage operating costs.

Ensuring healthier schools.

We are uniquely equipped to assist customers in assessing their ventilation needs and achieving a healthier building and indoor environment. We also strive to uncover potential measures to provide better building controls and deliver energy savings. Ours is a multi-layered approach for reducing the risk of virus transmission while limiting operating costs.



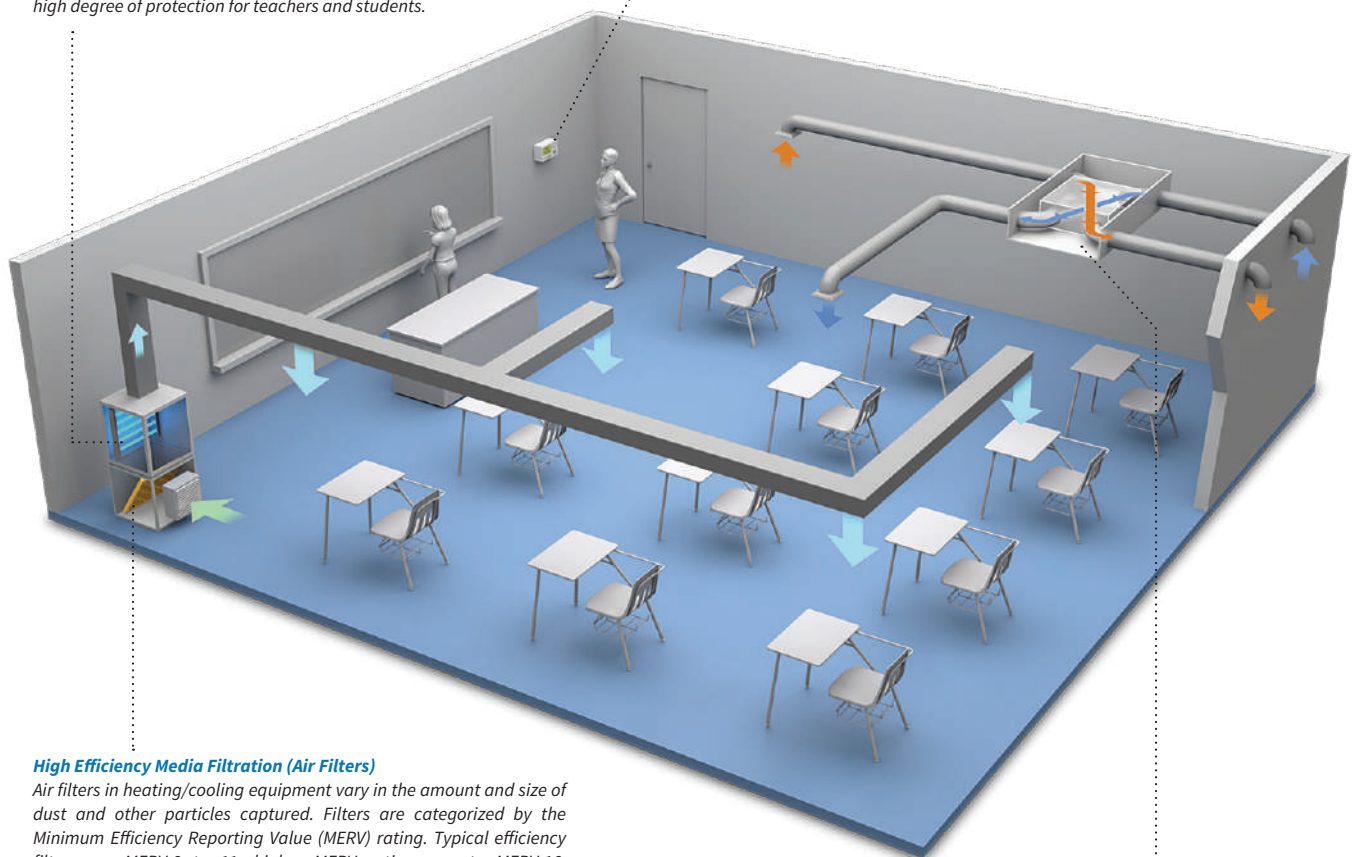
UV Lights

UV-C ultraviolet radiant energy is a proven technology that's been used as an air, water, and surface disinfecting treatment since the early 1900s. UV-C energy breaks the RNA/DNA strand of a virus or bacteria, preventing it from spreading. The most common UV-C lamps are a traditional mercury vapor lamp and the newer technology of LED lamps. Our air treatment options for occupied rooms include UV-C lamps installed inside HVAC equipment or ductwork, and UV lights within rooms positioned upward to face the ceiling. Both provide a high degree of protection for teachers and students.



CO2 and Ventilation

People inhale air made up of a mixture of gasses including around 350 parts per million (ppm) of carbon dioxide (CO2). When that breath is exhaled it has 35,000 ppm of CO2. CO2 levels build up quickly in a closed room, such as a classroom, and will cause people to have a headache, difficulty concentrating, and to feel drowsy. Outdoor air is brought in with heating-cooling equipment and ERVs to dilute/reduce the amount of CO2. We recommend controlling the CO2 levels by installing a wall sensor that can communicate with the ventilation systems to keep the CO2 levels in a healthy range.



High Efficiency Media Filtration (Air Filters)

Air filters in heating/cooling equipment vary in the amount and size of dust and other particles captured. Filters are categorized by the Minimum Efficiency Reporting Value (MERV) rating. Typical efficiency filters are MERV-8 to 11; higher MERV ratings, up to MERV-16, correspond to better filtration, but will be thicker and will have more resistance to the air flow, which will increase the energy used at the fan. We'll evaluate your air filters with a view toward maximizing filtration and minimizing run cost.



Energy Recovery Ventilators (ERV)

Occupied buildings are required to bring in fresh air (ventilation) from outdoors. The temperature and humidity of outdoor air being brought into a building will be the same as the outdoor temperature and humidity, so in the winter it requires a lot of energy to heat/humidify the air, and in the summer it requires a lot of energy to cool/dehumidify the air. Energy Recovery Ventilators (ERV), Heat Recovery Units (HRV), and Dedicated Outdoor Air Units (DOAS) are three technologies that are used for this exchange of temperature and humidity. Our expert technicians can evaluate, recommend, and update your systems to ensure peak efficiency.

Make your schools safer and healthier - starting now.
Contact us at (877) 784-3711, or visit: www.thielsch.com/k12

GETTING TO YES. The ease of procurement.

In both Rhode Island and Massachusetts, contracting mechanisms are in place that enable communities to get right to work - and award projects without having to go through the time-consuming process of soliciting proposals.

IN RHODE ISLAND

RI MPA 508 Master Purchase Agreement

Thielsch's role as an approved MPA 508 service provider by the Division of State Purchases allows state and local agencies in the state to work directly with our firm on an expedited procurement basis. Under this MPA, we have completed projects addressing mechanical and electrical systems, lighting, and other building solutions. We were selected under this effort when it was first developed, and the term of the MPA was recently extended through June 2022.

IN MASSACHUSETTS

Chapter 25a MA Green Communities

The MA Green Communities Act (GCA) allows state and local agencies to contract directly with utility-approved vendors for implementation of projects valued at up to \$100K per project. Thielsch has completed work for over 75 cities and towns since the Act's passage, making us one of the most active service providers in the state.



Our turnkey approach guides you through:

Instrumented Building Analytics To fully evaluate your building's IAQ needs, our experienced engineering staff is equipped with a full range of diagnostic tools to measure and monitor building air flows and ventilation systems. Our project teams use this data to identify strategies to achieve healthful balances, reduce ongoing maintenance and operating costs, and optimize comfort.

Expert Design Our professional engineering team uses "best practices" gleaned from leading health authorities in the world to design and specify virus mitigation/ventilation plans for your buildings. Since there is no "one size fits all" solution, they take a multi-layered approach to reduce opportunities for virus transmission and achieve healthy air exchanges rates for your classrooms and offices.

Cost-effective Implementation Our project management and installation services ensure that your project proceeds smoothly. We develop installation schedules for our in-house licensed trades that minimally impact a facility's operations during construction. Our prequalified status and longstanding relationships with the major energy incentive program sponsors in the region help assure timely submittals and approvals that help reduce your out-of-pocket costs.



A continuous record of accomplishment.

The divisions of Thielsch Engineering are proud to have been recognized repeatedly for our commitment, innovation and results. We consider each of these awards a testament to the value we hold the highest - delivering complete customer satisfaction, every time.

nationalgrid

2020 Top Customer Service Award ★★★★★



AIA

Rhode Island 2020 AIA RI R&D Award



Thielsch Engineering, Inc. is a professional engineering firm that provides a complete range of testing, consulting, design, and energy services. Our multi-disciplined engineering and technical staff specializes in building and condition assessment, failure analysis, engineering design, and process optimization, and are experts in implementing solutions for any type of engineering challenge.



Coldmasters

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