

Very High Efficiency DOAS in Washington

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Derek joined McKinstry in 2010 as an energy engineer developing ESPC projects, and has since shifted roles and moved to McKinstry's engineering design team as a mechanical engineer and currently focuses on the design of HVAC and associated control systems for design-build projects. His background in both HVAC design and energy modeling gives him a unique advantage in understanding building systems, how they use energy, anticipating interactive effects, and applying sound engineering judgment. Derek has obtained his professional engineering license in multiple states, earned LEED AP and CEM accreditations, developed and currently teaches an Energy Auditing course at Gonzaga University, and has obtained a master's degree in energy engineering.



Jordan is a mechanical engineer with a passion for energy efficiency and building sciences. He has worked as an energy engineer at Energy 350 for the past eight years delivering energy efficiency projects to utilities and providing consulting services to regional energy efficiency organizations. Prior to joining energy 350 Jordan worked as mechanical design engineer specializing in high performance HVAC system designs. Jordan is a registered Professional Engineer in Oregon and received a bachelors in Energy and Design Engineering and a masters in Sustainable Design and Construction from Stanford University.

BACKGROUND

In this episode of BUILDING HEROES, we bring on two energy engineering experts to discuss Washington State Energy Code (WSEC), the Clean Building Performance Standard (CBPS), and efficient dedicated outdoor air system (DOAS) considerations in the new 2021 ICC and WSEC code cycle. Jordan and Derek discuss the sometimes complex nature of HVAC design, and how a Very High Efficiency DOAS system might be the best option for selected small and medium commercial buildings in the state of Washington, as well as potential occupant and energy benefits achievable through this approach.

The next step in the ongoing evolution of HVAC design, very high efficiency DOAS uses the most efficient HVAC equipment and key design principles to provide cleaner and safer indoor air, enhance indoor comfort, and reduce commercial building HVAC energy use by an average of 69% (when compared to a code-minimum system).

WHERE TO LEARN MORE

To learn more about what was discussed in this episode of the Building HEROes Podcast, please use these additional resources.

- [Maximizing HVAC Efficiency and Flexibility with VHE DOAS](#)
- [BetterBricks: Very High Efficiency DOAS Solutions](#)
- [VHE DOAS System Requirements](#)
- [Connect with Derek on LinkedIn](#)
- [Learn more about McKinstry and what they do](#)
- [Energy 350 Policy, Planning, Research, & Evaluation](#)
- [More Powerful Energy Resources from BetterBricks](#)

IMPORTANT TIMESTAMPS

3m20s: Introduction

7m35s: CBPS & Code changes

12m24s: VHE DOAS approach

18m43s: Redundancy

23m40s: Cost Effectiveness against Energy Efficiency

27m30s: Finding the right equipment for the job

30m00s: Closing comments



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