VIRTUAL REALITY
VERSUS
AUGMENTED REALITY
IN THE HVAC INDUSTRY

**BUILD A THEORETICAL WORLD IN REAL LIFE**
Provides a mixture of the real world and the virtual world, allowing you to interact with both.

**EASILY ACCESSIBLE**
Use in conjunction with smartphones and tablets. No additional equipment is needed.

**AN EFFECTIVE PLANNING TOOL**
Allow contractors to see the product in the actual environment, making it easy to make adjustments ahead of time, and to save costs during building.

**SEE BEFORE YOU BUY**
Understand how product will look and function in the space before it’s purchased or installed.

**ATTRACT WORKERS DURING THE LABOR SHORTAGE**
Appeal to younger talent entering the workforce.

**CURRENT APPLICATION**
Titus uses AR to highlight air distribution products in different environments to give a real-life feel to custom applications.

**GROWING RAPIDLY**
82% of developers are focusing their efforts over the next year on creating AR tools and applications for smartphones. 67% of developers think that the AR market will surpass the VR market in revenue within the next 5 years.

**CREATE AN ENTIRE NEW REALITY**
Fully immerses you into a new environment.

**HEADSET NEEDED**
Requires additional equipment, such as a headset and controllers. Isolates the user within the virtual world.

**NO TRAVEL EXPENSES**
See how HVAC systems function in a building without having to be onsite – reducing travel time and expenses.

**VISUALIZE A COMPLETE SYSTEM DESIGN**
Predict how components fit together and if there is enough space to operate and maintain the HVAC system. An accurate model saves costs during construction.

**PRACTICE OPPORTUNITY**
Learn the basics of how to design, build and install an HVAC system without depleting real materials.

**CURRENT APPLICATION**
Titus offers VR training for chilled beams and underfloor modules. Engineers verify that products function as specified, architects visualize how the equipment interacts with the overall design and contractors preview how to efficiently install the equipment.

**THE FUTURE OF AR & VR IN HVAC**
The manufacturing industry as a whole is starting to embrace AR and VR technologies. Imagine how that can translate to the HVAC industry:
- No longer thumbing through a manual to see how to fix a piece of equipment – the manual pulls up when you direct a tablet at it
- Teaching new engineers about how to install a system without leaving a classroom
- Showing a client the airflow throughout each room in their building, as well as how the air distribution system is interconnected to the entire HVAC system.

**MORE INFORMATION**
To experience AR and VR today, visit Titus at AHR 2019 in booth #B1829, contact a Titus rep or visit www.titus-hvac.com

**SOURCES**

3 The Future of AR & VR in HVAC. The manufacturing industry as a whole is starting to embrace AR and VR technologies. Imagine how that can translate to the HVAC industry: No longer thumbing through a manual to see how to fix a piece of equipment – the manual pulls up when you direct a tablet at it; Teaching new engineers about how to install a system without leaving a classroom; Showing a client the airflow throughout each room in their building, as well as how the air distribution system is interconnected to the entire HVAC system.