



WHITEPAPERS

Medical Ventilator Application

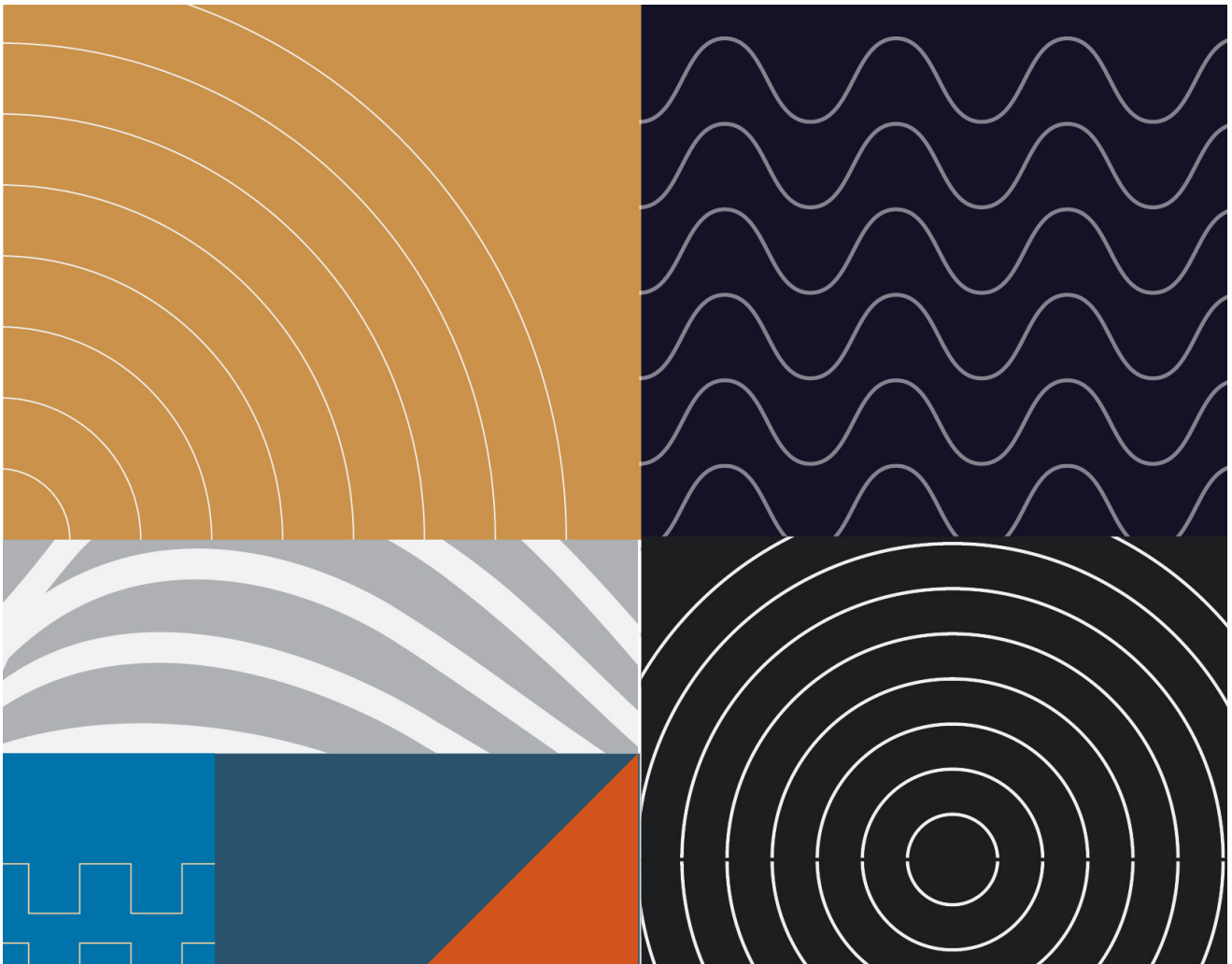


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WHAT THE CLIENT NEEDED

One of the world's premier ventilator manufacturers approached PUI Audio with a need for a high-quality, water-resistant speaker assembly that would meet IEC medical alarm standards. The manufacturer required an easy-to-mount, high-quality, paper cone speaker that met the requirements as specified by the IEC-60601-1-8 medical alarm signal standard. Additionally, to ease their manufacturing process and reduce fallout from the arduous and sensitive process of soldering to a speaker, the client identified a desire to purchase a completed assembly that would include lead wires, heat shrink, wire ties, and terminated connector. Lastly, the customer expressed an interest to have the speakers 100% sound tested just prior to shipping to them from our Ohio facility.

Let's take a look at our waterproof speakers



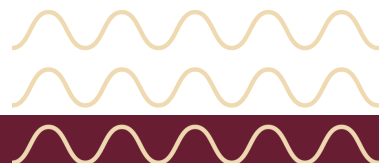
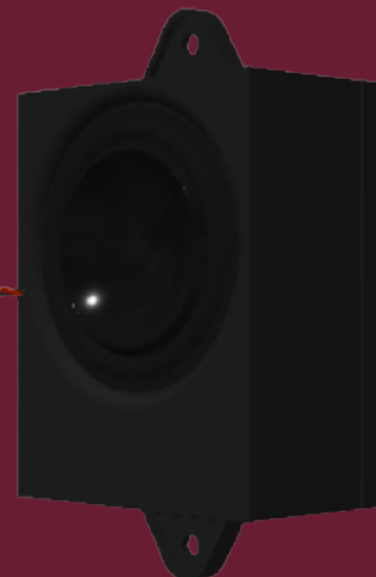
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WHAT WE DID

PUI Audio immediately sprang into action and, after a thorough evaluation of the client’s 3D design files, we suggested a speaker solution that was mechanically optimal and easily mounted into the ventilator’s housing. Using our CAD design capabilities and in-house 3D printers, we built speaker prototypes for their evaluation. Knowing the importance and application for this speaker, we offered our proprietary in-house speaker coating process to make the speaker more robust and resistant to the elements. Upon completion of the speaker design, we then worked with the client to specify lead wire type, and length, as well as select an appropriate connector so the assembly would fit specifically into their case design. An invite to our Dayton, Ohio headquarters facility was accepted, and Engineering and Quality representatives traveled to visit our facility and observe our capabilities. Upon demonstrating our speaker coating process and state-of-the-art testing capabilities, evidencing we ensure the highest quality of sound through the entire frequency spectrum, we solidified a high level of confidence in our ability to deliver the solution they needed. Once in full-scale production, each speaker would be meticulously built to specification, coated for water resistance, then 100% inspected for frequency prior to shipping to the client.

WHAT WE ARE DOING TODAY

We are actively supporting our customers now with the unprecedented increase in demand as a result of the COVID-19 coronavirus pandemic. In the process, we have increased our output capabilities with investments in capital resources and additional manpower to support the increasing demand. We are very pleased to help our client deliver ventilators to fulfill orders during this expedited and very important effort



SOLUTIONS FOR GLOBAL MARKET DEMAND

We have the breadth and depth of audio solutions to support any medical application. PUI Audio's products are specified in a wide range of medical devices and equipment including respirators, ventilators, pumps, defibrillators, vital signs monitoring, diagnostic/imaging equipment, and more. Our team of application engineers and customer service support teams strive to meet the ever-changing demands of today's world through collaboration, a strong sense of urgency and accountability, and a passion for audio. See what we can do for you today!

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