

June 16, 2020

P3 Technologies Receives Patent for its Revolutionary Diffuser Technology

The U.S. Patent Office has issued P3 Technologies patent 10,683,873 for the Multiple Channel Diffuser. The multi-channel diffuser (MCD), also known as the Demski Diffuser, was invented by P3 employee Brandon Demski. The diffuser significantly increases the performance of pumps and compressors while reducing their size, weight, and power consumption.

Testing has demonstrated that the MCD improves the pressure recovery of the diffuser by up to 20%, and also significantly increases the operating range of the pump or compressor stall and surge limits compared to current diffuser technology. The MCD is also 15% smaller than current diffusers, 25% lighter, and has an order-of-magnitude lower stress.

The MCD will work with any pump or compressor that utilizes a centrifugal impeller, and can be easily incorporated into new designs or retrofit into existing designs. It is expected to result in savings of billions of dollars per year in energy costs and corresponding reductions in carbon dioxide emissions.

