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Fantastic Fluted Films MATTHEW JONES, Utah State University, NATHAN SPEIRS, King Abdullah University of Science and Technology, MOHAMMAD MANSOOR, Los Alamos National Laboratoryf, JESSE BELDEN, Naval Undersea Warfare Center, Newport, RI, TADD TRUSCOTT, Utah State University — When the rear end of a jet exits a pipe various beautiful shapes emerge. As the water flows through the pipe, the no-slip condition at the wall forms a thin boundary layer. Upon tube exit this slower moving fluid at the tube walls creates a thin tubular film, trailing behind the main water mass and connecting it to the tube exit. This film can morph into various shapes including fluted champagne glasses, bubbles, bells, jets, and crowns. We experimentally examine the regimes of this phenomenon and attempt to elucidate the physics behind how and why they occur.

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