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4.6.8 Cola, approximated as pure water at 20Â°C, is to fill a 0.2-L container through a 5-mm-diameter tube. Estimate the minimum filling time if the tube flow is to remain laminar. For what cola (water) temperature would this minimum time be 1 min? At sections A and B, $p_A = 186 \text{ kPa}$, $V_A = 3.2 \text{ m/s}$, $z_A = 24.5 \text{ m}$, while $p_B = 260 \text{ kPa}$, $V_B = 3.2 \text{ m/s}$, and $z_B = 9.1 \text{ m}$. Which way is the flow going? What is the head loss? Solution: Guess that the flow is from A to B and write the steady flow energy equation: $p_A/\rho + V_A^2/2 + z_A = p_B/\rho + V_B^2/2 + z_B + h_f$, or: $186000/\rho + 3.2^2/2 + 24.5 = 260000/\rho + 3.2^2/2 + 9.1 + h_f$, $\rho = 9790 \text{ kg/m}^3$ or: $43.50 = 35.66 + h_f$, solve: $h_f = +7.84 \text{ m}$ Yes, flow. We express our gratitude to Rector of Krasnoyarsk State Agrarian University, Professor Natalya I Pyzhikova who was the co-chairs of the Programme Committee of AGRITECH-2019 for the organisation of the Conference and preparation of the papers for this Volume. AGRITECH Conference Committee highly appreciate the contribution of the Director of the Institute of Economics and Management of Krasnoyarsk State Agrarian University Zinaida Shaporova for cooperation in organisation of AGRITECH-2019. Variations of flow-field configuration in a two-shock internal-compression inlet subjected to external electric and magnetic fields have been investigated. Under external fields the flow is decelerated due to Lorentz force and Joule heating action. This results in a decrease of Mach number and increase of the shock intersection angle. American Institute of Aeronautics & Astronautics or Published with Permission of Author(s) and/or Author(s) 1 Sponsoring Organization. 1) 15,0 28,1 41,1 54,2 87,3 80,4 93,4 106,5 2). Recommended publications.