

G01.14

## **Some New Observations Regarding Solid Conveying in Extruders**

\*Gregory A. Campbell, J. Baird

*Chemical Engineering Department, Clarkson University, USA*

We have built a new Solids Conveying measurement device. We have measured the torque, thrust and heat flux under differing back pressure conditions for a number of resins including polyethylene, polypropylene, and polystyrene. Unlike previously reported devices this device allows us to examine high modulus pellets. The experimental data for the several resins will be compared. One of the unexpected results is the vast difference in characteristics of polyethylene and the other resins.