

PREMIER PLASTICS INC.

FLOW RATE WITH MINIMAL VERTICAL DROP

1. Systems where fully flooded flow is necessary to maintain a desired squirt height must be designed to ensure air is purged quickly at the start of the discharge cycle. Trapped air will be at the pressure generated by the head in the Dosing tank and will act to limit flow rate. We have found that a 1" vent connection placed a few feet down the sloped section of pipe will purge air that would otherwise be trapped. At this point the effluent would have increased in speed and reverted to channel flow from fully flooded flow in the horizontal section of pipe leaving the flout. Venting the line to atmosphere reduces the 'back pressure' on the tank and allows trapped air to escape, and the transport pipe to flood quickly. This venting option can result in a 50% increase in squirt height.