



# Metering and Heating PVC Powder for an Extrusion Process

### Question

I have two questions: 1) I need to control or increase the feed pressure of a powder to the extruder throat. Currently we have flow inconsistency issues and the feed throat design is not optimal. My thought is to use a screw feeder to accurately meter the powder to the throat of the extruder. Will this work? 2) We have seen improved outputs with preheated PVC powder as it will grab quicker on the extruder screw, so I also need some type of heating. Is this possible and who should I contact regarding equipment?

### Answer

You have asked two great questions, the first of which you answered yourself. A **screw feeder is the perfect solution** for accurately metering a dry PVC powder from a hopper to the feed throat of an extruder. The hopper of the screw feeder will store the necessary capacity to handle the demand of the extruder. The screw feeder will be designed to accurately meter and keep a constant flow of PVC powder to the feed throat of the extruder. The hopper and screw feeder must be designed together to promote mass flow so the extruder is never starved for product.

Your second question involves heating the PVC powder as it is stored and metered to the extruder. A **heating jacket on the hopper and screw feeder trough** may be able to provide enough surface area to heat the PVC powder to the desired temperature. We would need to know a little bit more about the heating requirements in order to design the proper solution for you. This application is perfect for KWS Manufacturing because of our dual expertise in bulk material flow and heat transfer. The heating jacket on the hopper and screw feeder are typically coded pressure vessels.

**KWS is the only manufacturer in the U.S. that can satisfy both requirements.**

Our strength is providing engineered solutions to our Customers. We would love to have an opportunity to help you solve this problem.



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