



# DAVIS-STANDARD®

Where your ideas take shape.

## Pipe, Profile and Tubing



## High Speed FPVC Extrusion System

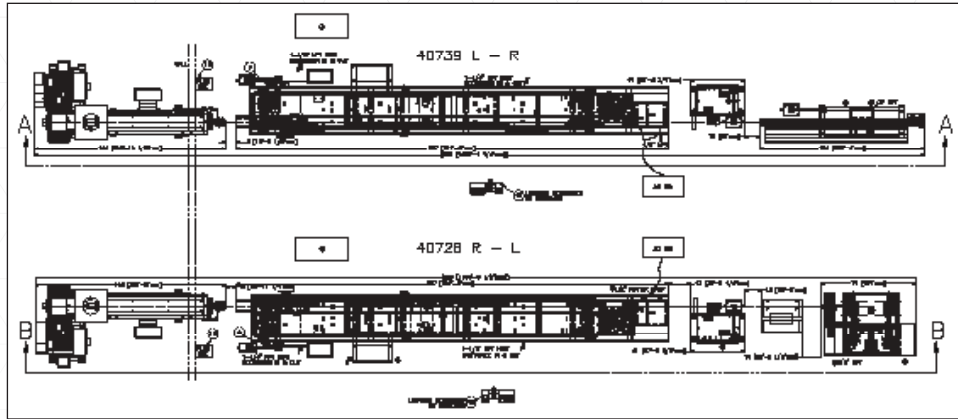
### Overview

Davis-Standard's high-speed FPVC extrusion tubing lines represent a very cost effective and efficient solution to produce medical grade FPVC tubing. Only Davis-Standard can combine ultra-high line speed with precision tubing accuracy in a single system to maximize your profits. These systems are easy to operate and maintain. The high operating speed combined with minimum product waste makes the Davis-Standard FPVC tubing system the right choice for those companies seeking to increase profits with higher production rates, reduced operating costs, and a minimum space requirement.

### Features

- Line speeds range up to 800 + fpm
- Vacuum or internal air sizing of tube diameter
- Multi-axis OD gauge trims vacuum level to automatically adjust tube diameter
- Ultrasonic gauge trims puller speed to automatically adjust wall thickness
- Servo regulated speed control on the driven multi-pass cooling trough and puller drives provides superior pulling accuracy and consistency
- Ideal for up to 1/2" OD
- Stable extruder output permits tight tolerances with ID/OD closed loop control
- PLC line control from common HMI for ease of operation
- Available with cutter and transport conveyor or auto-change winder

# High Speed Fpvc Extrusion System



Typical line layout

Option A

Option B

## Energy Efficient Extruder With PMSM

The energy efficient, narrow footprint of our extruder is engineered for your tube production and includes quiet operation and low maintenance. The permanent magnet synchronous motor eliminates the need for a gear reducer and provides quiet operation at low motor speeds and high available torque. You can expect an energy savings of approximately 10% compared to a conventional AC motor-gearcase configuration.

## Multi-Pass Cooling Tank

Multi-pass tanks accommodate tight space demands for high speed, high rate medical tubing production. High technology vacuum sizing is integrated with servo driven multi-pass sheaves within the primary cooling tank to satisfy product-specific residence times while precisely cooling and metering the product. Ideally designed for cleanroom and other space limited production areas, the multi-pass tank delivers the industry's best control over medical product sizing, ovality, tolerance, and tension for flexible tubing.

## Puller-Cutter And Conveyor (Option A)

Precisely pull and cut small diameter tubing with a puller/cutter unit designed specifically to enhance the production of microbore tubing. This combination puller/cutter is available with two styles of application specific belt pullers.

The cutter portion is mounted on stainless steel rails with linear bearings that allow the cutter to be moved front-to-back and side-to-side to increase belt life and promote ease of string-up and coiling.

The belt discharge conveyor is a rugged, low profile conveyor designed to be used when cutting flexible and semi-rigid products. The conveyors enhance the cut length tolerance and cut quality by supporting and transporting the extruded product away from the cutter bushing. The product can then be optionally ejected into a collection tray for operator removal.

## Roller-Puller And Coiler (Option B)

The roller-puller provides precision line speed control and keeps constant tension on the tube. The precise line speed controls allows for the production of high tolerance tubes at high line speeds.

Dual spindle coilers wind small flexible extrusions with little-to-no friction or winding tension. This eliminates deformities in delicate products making it ideal for extrusions such as medical tubing, small tube, filled cords and small flexible profiles.

The fully automated process transfers the product to the new reel without operator involvement or process disruption and effectively increases line speed and performance during changeover.

## DS-eVUE Extrusion Process Control System

The DS-eVUE combines full process control with affordability. DS-eVUE is engineered for controlling smaller lines with one or two extruders and offers the features and flexibility of advanced systems in a value-added, compact package. Processors can take advantage of features such as trending and recipe storage without incurring costs for additional functions not required for their processes.

## FPVC Medical Tube Specifications

Tubing ID	Tubing OD	Estimated MPM	Cpk
3mm	4mm	200	1.33
5mm	6.5mm	150	1.33
5mm	8mm	100	1.33
6mm	9mm	80	1.33
7.5mm	11mm	65	1.33