



DAVIS STANDARD®

Where your ideas take shape.

Extruders



MEDD Extruder (Medical Extruder Direct Drive)

Overview

Acclaimed extruder for tight-tolerance medical tubing applications, including microbore, multi-lumen and catheter tubing. This sleek and compact extruder is designed with desired features such as interchangeable barrel assembly and replaceable feed section liner for multiple materials and applications. Stainless steel surfaces and cabinet guarding for easy cleaning, direct drive motor, simplified maintenance, cable management, and operator accessibility are other key advantages for medical cleanroom applications.

Features

- Direct Drive Motor
- Linear machine movement
- Interchangeable barrel assemblies:
 - $\frac{3}{4}$ – 1-inch 24:1 L/D
 - 1 – 1 $\frac{1}{4}$ inch 24:1 L/D
 - 1 $\frac{1}{4}$ – 1 $\frac{1}{2}$ inch 24:1 L/D
- Replaceable feed section liner
- Windows® HMI
- PLC-based control system
- Stainless steel for easy cleaning
- Compact design

MEDD Extruder (Medical Extruder Direct Drive)

Permanent Magnet Synchronous Drive Motor

- Water-cooled motor
- Integral thrust bearing with L-10 life of 100,000 hours at 5,000 PSI (344 bar) head pressure
- Direct drive providing up to 175 screw RPM
- Bored-through shaft to allow for screw removal
- Motor and barrel assembly mounted on linear rails for ease of alignment to the die

Quick Change Barrel Assembly

- $\frac{3}{4}$ – 1 inch 24:1 L/D, 1 – 1 $\frac{1}{4}$ inch 24:1 L/D, and 1 $\frac{1}{4}$ – 1 $\frac{1}{2}$ inch 24:1 L/D
- Bimetallic lined bore (DS-8000* or DS-2000**)
- Replaceable feed section liner with bushing assembly
- Stainless steel round hopper assembly mounted directly to the barrel
- Water-cooled feed section
- Electrically heated air-cooled barrel zones utilizing finned cast aluminum or bronze heaters for high temperature applications
- High-capacity low-profile cooling fans

Extruder Drive Regulator

Drive control with 0.01 percent speed regulation via encoder, mounted in the control cabinet

Control Cabinet

The DS-eVUE is a PC-based, embedded Windows[®], mid-level control system, providing many of the features and flexibility of more advanced control systems in a compact, affordable package. Data and files may be linked with other popular Windows[®] programs and are readily accessible to a customer's host computer on the network or to a higher level MIS computer.

Standard Features

- Graphic overview
- Reports
- Trending
- Event log
- Data collection
- WEB interface (2 concurrent users)
- Email notifications
- FDA-21 Part 11 ready
- Electronic signatures

Hardware

Computer/HMI: The minimum basic specifications include:

- Industrial fanless panel PC
- Integral 19-inch TFT LCD with resistive touchscreen

PLC: Components and quantities are selected based upon the application and typically include:

- Allen-Bradley Control Logix PLC system

Operating Software

Microsoft Windows[®] embedded main operating system with an anti-virus program, a zip program, and a PLC interface program as required

* chromium, nickel modified boron-iron alloy

** composite of tungsten carbide particles in a corrosion resistant nickel alloy