

## More than just line control:

Developed specifically for medical tube manufacturing the SMART Control System offers much more than just line control.

Using a large Colour Touch-Screen the smart system provides the tube manufacturer with more benefits that help to stay ahead of the competition.

- Simple, Fast and Easy Operation
- Auto-Line Speed Up and Setting
- Line Protection and Diagnostics
- Password Protection and Security Settings
- Export Vital Production Data and Traceability
- Multiple Language Setting
- Ethernet Enabled for Connection to your Network
- Integrated Modem for On-Line Support



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## Working with You:

From initial technical discussions through to training and installation Boston Matthews will work closely with your team.

- Line Layouts & Services Locations
- Pre-Approval Concept Drawings & Layouts
- Pre-Delivery Testing & Acceptance
- Operator Training
- On-Site Commissioning
- After market - Dedicated Spare Parts Departments, Processing Engineers, Technical Support

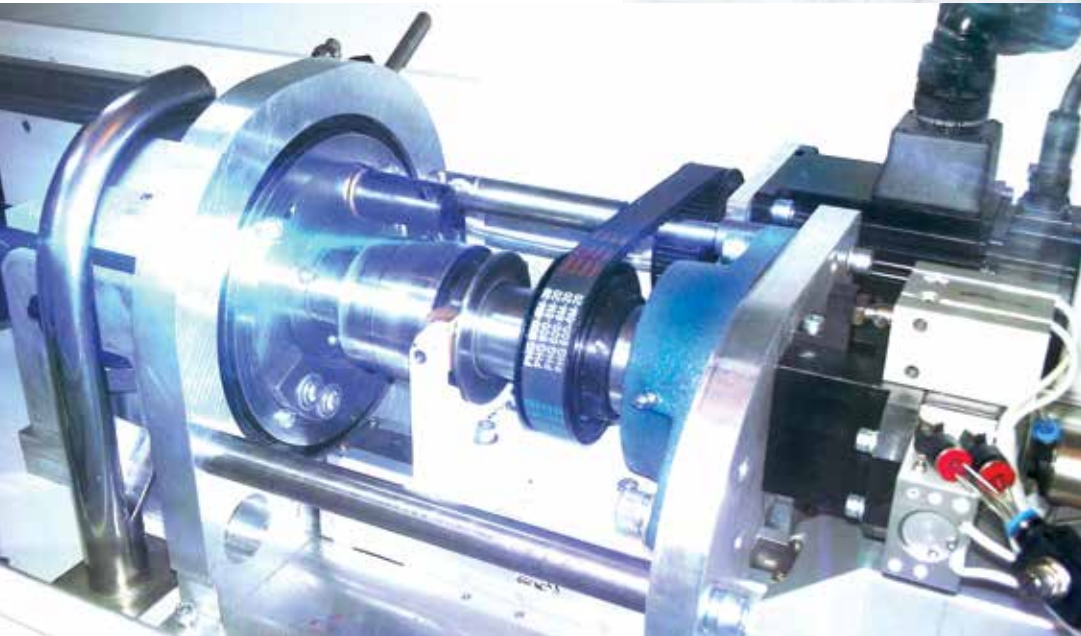


## Boston Matthews Turn-Key Extrusion Lines:

- Automotive
- Medical Devices & Life Sciences
- PEX & PB Pipe (HVAC)
- Cosmetic Squeeze Tube
- Rod & Plate
- Zippers
- Aerosol Dip Tube
- Flexible & Rigid Profiles
- Heat Shrink Tube
- I.C. Carriers
- Wire & Cable
- Microducting

## Boston Matthews Extruders & Downstream Equipment Ranges:

- Single Screw Extruders
- Co-Extruders
- High Temperature & Fluorocarbon Extruders
- Cooling & Sizing Baths
- Caterpillar Haul-Off's
- Cutters
- Saws
- Coilers
- Automatic Winders



# Medical Devices & Life Sciences



## Advanced Extrusion Technology

Boston Matthews has over 50 years extrusion line manufacturing and processing experience. It is this extensive knowledge and experience together with the latest 3D Computer Design Software and Polymer Flow Simulation Software that has enabled Boston Matthews to develop a complete range of extrusion lines especially for the production of medical devices.

Typical applications include:

- Styrene Pipette Tubes
- Single & Multi Lumen Tubing
- Burette Tubing
- Bubble 'Bump' Tubing
- FEP/PFA Canula
- PVC Clear and Frosted Tubing for Catheters etc.
- Blood Bags
- Co-Extruded Tubing (Radio Opaque)
- Polyurethane and Nylon Tubing
- Peristaltic Tubing

## An Industry that demands precision & accuracy

Boston Matthews understands that it is essential when manufacturing medical devices that precision, accuracy and consistency is guaranteed at all times.

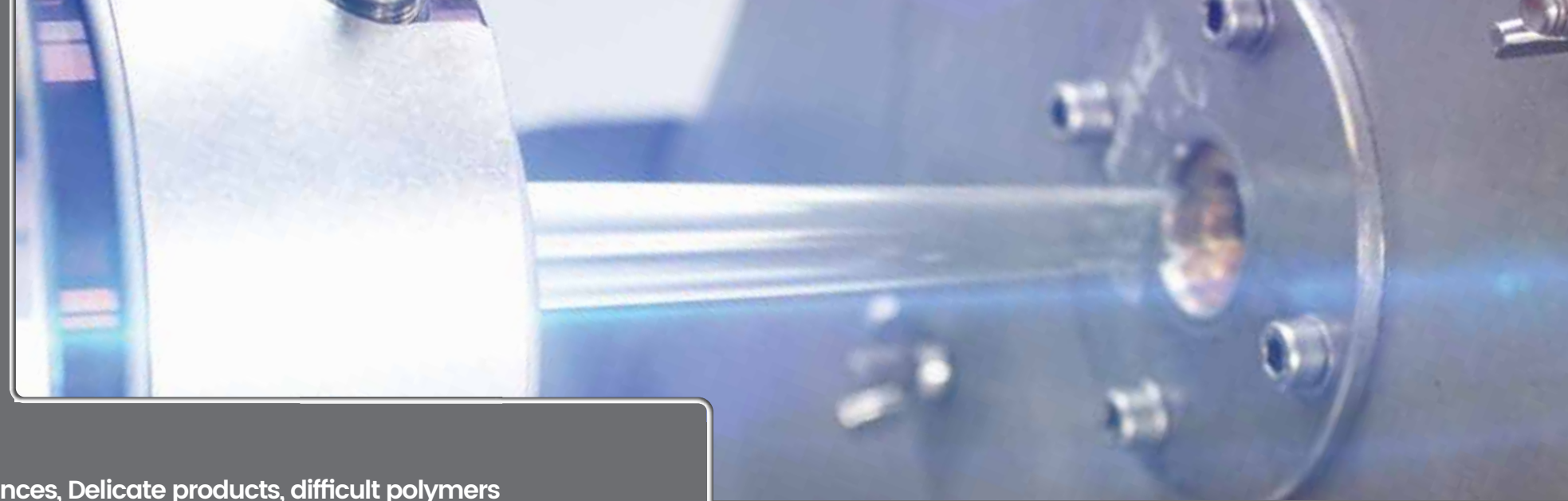
AC, Servo and PLC technology is found throughout every element of the line for complete control, consistency and accuracy at every stage of this critical production operation.

## Understanding the medical industry

Boston Matthews Medical Extrusion Lines are designed and manufactured for operation within clean-room environments.

Direct-Drive AC Technology provides brushless operation for the elimination of static and dust whilst the extensive use of stainless steel and noncorrosive components

ensures contamination is prevented. All areas of Boston Matthews Medical Extrusion Lines are easily accessible for quick and easy cleaning.



## Tight tolerances, Delicate products, difficult polymers

Boston Matthews has over 50 year's extrusion manufacturing, screw design and die head experience and has successfully developed solutions for some of the most complex applications. The ability to successfully

process fluorocarbons, complex co-extrusions and to very tight tolerances using melt-pumps has lead to Boston Matthews Medical Lines being used by the leading manufacturers throughout the world.

## Quality & Consistency is peace of mind

Many medical device manufacturing operations involve several 'post-extrusion' operations and therefore in order to ensure that production remains efficient and to meet with the demands of a fully automated production operation it is imperative that the tubes are of the highest quality and within tolerance at all times.

Boston Matthews Medical Extrusion Lines are designed to produce tubes to meet the tolerance and output demands expected of the industry.

Every operation within the Extrusion Line is undertaken using precision accuracy and control. Tube Quality Management Systems have been incorporated to ensure that tube quality is constantly monitored and maintained providing:-

- Closed Loop Laser Diameter Control
- PLC Line Control
- Wall Thickness Monitoring
- Out of Tolerance Tube Rejection Systems



## Fast, accurate cutting & winding

The individual demands of the manufacturing operation will determine how the medical tube is handled. AC Servo Cutters capable of up to 3000 cuts/min with stainless steel knives, cutter bushes and blade holders ensure accurate cut lengths.

Specialised moving head cutters have been developed for the accurate cutting of PS Pipettes.

If coils are required Boston Matthews design and manufacture a range of semi-automatic and fully-automatic coilers.

Precision traverse units for neat coils with options in length control with alarms, controllable tension dancing arms, non-contact ultrasonic tensionless winding, collapsible, stainless steel coil formers for unsupported coils are all available to meet the specific requirements of the production operation.

High speed automatic winders are also available.

