

# Cooling, Calibration & Sizing



# For more than 65 years

Boston Matthews has been at the forefront of extrusion machinery technology.

## A Worldwide Organisation

Boston Matthews is a global company that supports in excess of 30,000 machines in over 70 countries.

Head Offices and manufacturing facilities are based in Worcester, England which are further supported by facilities in Coral Springs, Florida, USA and Shanghai, China.

Boston Matthews is proud to be active members in the world's leading Plastics Associations including The British Plastics Federation (BPF); The Plastic Packaging Machinery Association (PPMA); Plastics Machinery Manufacturers and Distributors Association (PMDA); Society Of The Plastics Industry (SPI); and The Shanghai Plastics Association.

## Advanced Design & Innovation:

Continued investment in the latest technology enables Boston Matthews to drive extrusion innovation for the benefit of our customers. From 3D Design to Digital Measurement Analysis.

## Precision Engineering:

Utilizing the latest manufacturing techniques combined with experienced, highly skilled engineers ensure that EVERY component part is precision manufactured and quality checked before assembly.

## Customer Support – Aftercare

Boston Matthews has dedicated Spare Parts and Customer Support Departments to ensure you are fully supported at all times.

Our team of Test Engineers, Processing Engineers and Commissioning Engineers ensure your machine or complete extrusion line operates at the optimum level before you take delivery.

We can also train your operators, install and commission in your facility and our Processing Engineers are always willing to assist, even after sign off.

## Boston Matthews Machine Range Includes...



**Extruders**



**Cooling & Sizing**



**Pulling**

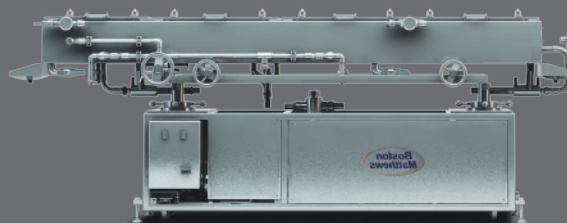


**Coiling & Winding**



**Cutting & Sawing**

## ...and Complete Lines



## Cooling Tanks

Boston Matthews Cooling Tanks provide a stable and accurate means of cooling tubes and profiles. A range of lengths is available dependent upon the product being extruded and line speed.

Features:

- Stainless steel and corrosive resistant
- Fully adjustable in 3 directions for perfect product alignment
- Available in a range of sizes to match production and environment
- Fully adjustable hold-down rollers to ensure straight “non bowed” product
- Adjustable water level for total control
- Optional calibration or profile plate holders
- Overflow catch tray at the outlet & inlet for a clean operating environment
- Easy clean down
- Optional Drop-In Vacuum Tank
- Optional Air Wipers for product drying

## Vacuum Tanks

Boston Matthews Vacuum Cooling Tanks for the accurate and consistent cooling and sizing of tubes and profiles. Complete control over the Vacuum Sizing process including vacuum level, water volume and cooling mode in each chamber ensures maximum output and consistent high quality at all times. Available in a range of sizes and with optional features to match exactly the product sizing requirements.

Features:

- Stainless steel and corrosive resistant for clean operating environment
- Fully adjustable in 3 directions for perfect product alignment
- Available in a range of sizes to match production and environment
- Fully adjustable product hold-down rollers to assist high quality extrusion
- Adjustable water level for total control
- Optional Calibration Dies including pre-cooling & high output
- Overflow catch tray at the outlet & inlet for a clean operating environment
- Easy clean down
- Toughened glass lids for maximum vacuum accuracy and production visibility to assist operators
- Optional Air Wipers for product drying

## Technical Specifications

Range			Water Cooling Tanks					All Rounder Vacuum Sizing Tanks			VB Vacuum Sizing Tanks			DV Vacuum Sizing Tanks				
Model			CT1500	CT3000	CT4000	CT5000	CT6000	ALL 3000	ALL 4000	ALL 5000	1000	1400	1600	800	1400	1480	1600	1680
Maximum Capacity		inches	2 ¼	4 ½	6	7½	9	4 ½	6	7½	2¾	4	4	4	4	8	4	8
Tank Dimensions	- Length	inches	58	120	160	200	216	120	160	200	120	165	234	94	165	165	234	234
	- Width	- Standard	inches	10	10	10	10	10	10	12	12	12	12	12	12	16	12	16
		- Option	inches	na	na	na	na	na	14	20	20	na	na	na	na	na	na	na
	- Depth	- Standard	inches	8½	8½	8½	8½	8½	8½	12	12	10	10	10	10	10	12	10
- Option		inches	na	na	na	na	na	14	14	14	na	na	na	na	na	na	na	na
Full Adjustment up & down, forward & back, side to side			Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std	Std
Number of Chambers			1	1	1	1	1	option	option	option	2	3	3	2	3	3	3	3
Water Inlets			4	4	4	4	4	4	4	4	na	na	na	na	na	na	na	na
Water Connections			na	na	na	na	na	6	6	6	na	na	na	na	na	na	na	na
Vacuum Connections			na	na	na	na	na	6	6	6	na	na	na	na	na	na	na	na
Spray Nozzles in each chamber			na	na	na	na	na	option	option	option	16 + 64	16+44+44	16+64+64	16+44	16+44+44	16+44+44	16+64+64	16+64+64
Product Support Rollers / Hold Down Rollers			1	2	3	3	4	option	option	option	1	2	2	1	2	2	2	4
Recirculation System	- option /standard		option	option	option	option	option	std	std	std	std	std	std	std	std	std	std	std
	- Water Pump	hp	½	½	¾	¾	¾	½	½	¾	1 ¼	3	3	1	¼	1 ¼	3	3
	- Capacity	gallons/min	17½	17½	17½	17½	17½	17½	17½	17½	17½	27	35	17½	26	26	35	35
	- Reservoir Tank	gallons	6 ½	6 ½	6 ½	6 ½	6 ½	6 ½	6 ½	6 ½	6 ½	12½	12½	6 ½	12½	12½	12½	12½
Pumps	- Vacuum	hp	na	na	na	na	na	na	na	na	na	na	na	3	2 x 3	2 x 3	2 x 3	2 x 3
	- Cooling	hp	na	na	na	na	na	na	na	na	¾	¾	1¼	¾	¾	¾	1¼	1¼
	- Venturi	hp	na	na	na	na	na	na	na	na	1.5	1.85	1.85	na	na	na	na	na
Drop in vacuum tank			na	na	na	na	na	option	option	option	na	na	na	na	na	na	na	na
Centerline Height	- Maximum	inches	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38
	- Minimum	inches	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
Total Installed Power			4	4	6	6	6	5	10	13	10	10	13	13	25	25	25	25
Overall Dimensions	- Length	inches	75	133	172	5400	6400	3400	4400	5400	3400	4615	6400	2830	4615	4615	6400	6400
	- Width	inches	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
	- Height	inches	43	43	43	43	43	43	43	43	46	46	46	46	46	48	48	48
Nett Weight			440	770	880	990	1212	790	880	1012	1720	1808	1940	1630	1800	1875	1940	2027

Our policy of continuing design, materials and manufacturing improvement means that some modifications to machine specifications may be included.

## Spray Tanks

High pressure spray provides all over cooling either independently or in conjunction with full flood.

Features:

- Range of tank sizes to match exact processing conditions
- Robust construction for movement free operation
- Full adjustment in all directions for precision alignment
- Simple operation and control
- Stainless steel construction with corrosion resistant fittings
- Range of options to meet with exact requirements

## Special Purpose Tanks

As well as the "standard" cooling and sizing Tanks Boston Matthews design and manufacture a wide range of "Special Purpose" Tanks. These include very product or industry specific Tanks that include such features that are of a particular specialist requirement.

These include:

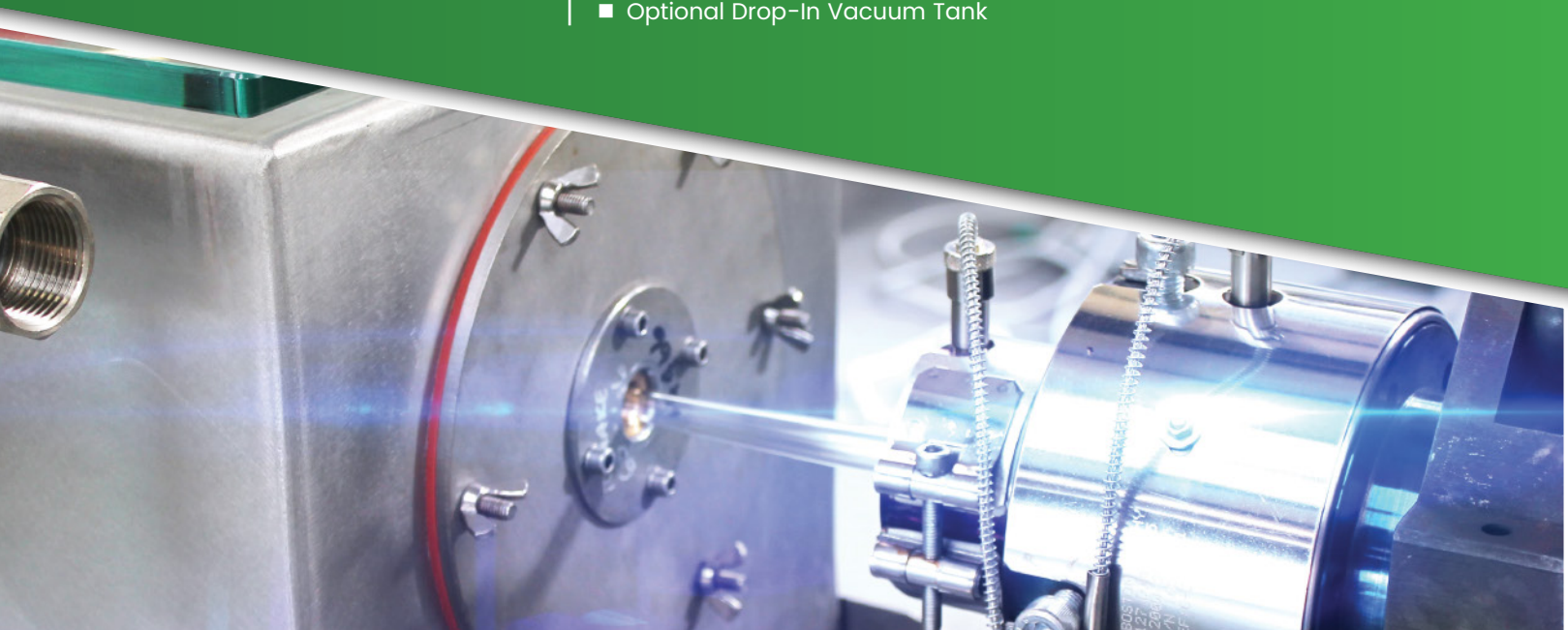
- Multi-Pass Tanks:  
Required when space is limited and an high speed extrusion process is required.
- Cable Cooling Tanks:  
Designed for the high speed environments and polymers associated with Wire & Cable production.
- Zipper Profile Tanks:  
Vertical Tanks designed specifically for the production of plastic re-sealable zippers. Forms part of the Boston Matthews Zipper Profile Extrusion Line.
- Cosmetic "Squeeze" Tube Tanks:  
Very Specialized Vacuum Cooling Tanks with tube Specialized tube calibrators, vacuum control to ensure precise, mark free tubes. Also includes post calibration section for stress tube relief.

## Universal All-Rounder Cooling Calibration Units:

A flexible and universal, quick change cooling and calibration solution. The All Rounder can be quickly converted from an Open Cooling Tank to a Profile Calibration Bath to a Vacuum Tank. Available in a range of size and customisable options to match any specific requirements.

Features:

- Stainless steel and corrosive resistant for clean operating environment
- Fully adjustable in 3 directions for perfect product alignment
- Available in a range of sizes to match production and environment
- Fully adjustable product hold-down rollers to assist high quality extrusion
- Adjustable water level for total control
- Optional Air Wipers for product drying
- Optional Profile Plate Holder
- Optional Drop-In Vacuum Tank



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## Industries served

- Medical Devices & Life Sciences
- Automotive
- HVAC (PEX Pipe & PB Pipe)
- Zippers (re-sealable packaging)
- Cosmetic Squeeze Tube (Soft Tube)
- IC Carrier Profiles
- Rod & Plate (including PEEK)
- Flexible & Rigid Profiles
- Tube & Hose
- Seals & Gaskets
- Microducting
- Wire & Cable
- Heat Shrink Tube