

Extruders



Brampton Engineering

Extruders for all applications

Brampton Engineering manufactures a wide range of extruders covering the majority of plastics processing applications including blown film, pipe, tubing, profile and wire coating products. Standard model smooth-bore feed throat extruders are available in screw diameters from 20 to 150mm (3/4 to 6in.) and L/D ratios of 24:1 and 30:1.

One of Brampton Engineering's major strengths is its ability to customize a system to fit the user's needs—whether the requirement is for low screw speed and high torque or high screw speed and high melt throughput. BE recognizes that each application places a different demand on the extruder.

Quality: Brampton Engineering world headquarters continues to meet the ISO 9001:2000 standard which covers design, manufacture, assembly, installation and service of our products.

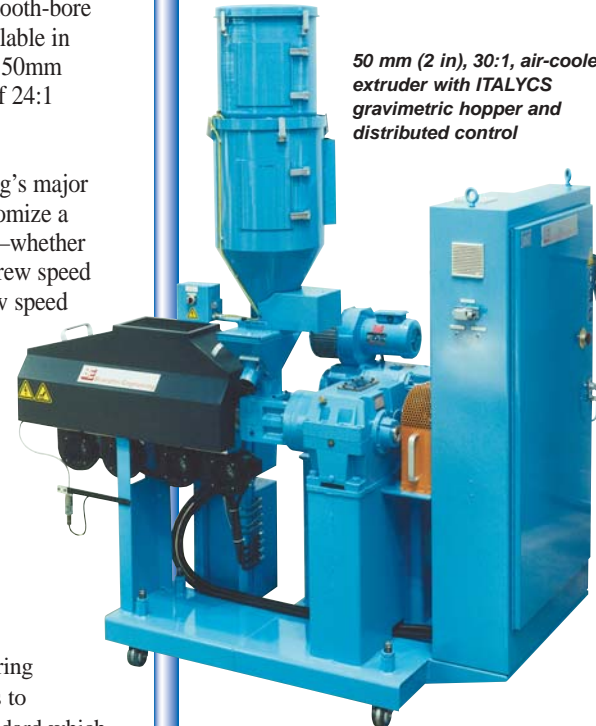
Pipe and profile extruders

Brampton's standard profile extruders are air-cooled, unitized machines. All components including the power panel, temperature control and drive transformers are mounted and pre-wired on one base for fast, easy installation. The air-cooled design with cast aluminum heaters provides accurate temperature control for quality products. Liquid-cooled extruders are also available.

Blown film extruders

Air and liquid-cooled film extruders are designed for a wide range of applications, from simple monolayer lines to sophisticated multilayer coextrusion lines incorporating computer-controlled gravimetric blender systems. These hopper systems provide optimum control of gauge thickness and layer-to-layer ratios.

Brampton Engineering's air and liquid-cooled extruders are the most economical, energy-efficient, and easy-to-service machines on the market today.



50 mm (2 in), 30:1, air-cooled extruder with ITALYCS gravimetric hopper and distributed control

Insert shows clam-shell heater cover and deep-finned cast aluminum heater

Cooling systems

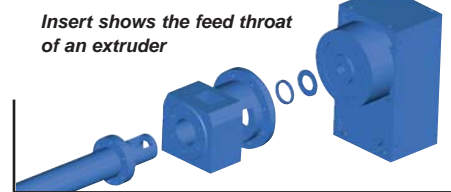
Air-cooled extruders feature

- heat/cool system with deep-finned cast aluminum heaters enclosed by insulated shrouds
- fins provide optimum heat transfer through high surface area
- aluminum heaters extend the full length of each barrel zone ensuring total zone coverage, minimizing heat/cool stress and increasing heating/cooling efficiency
- precision-machined internal diameter
- clam-shell heater covers provide easy maintenance for minimum downtime
- dual-impeller blower for each zone further maximizes air flow.

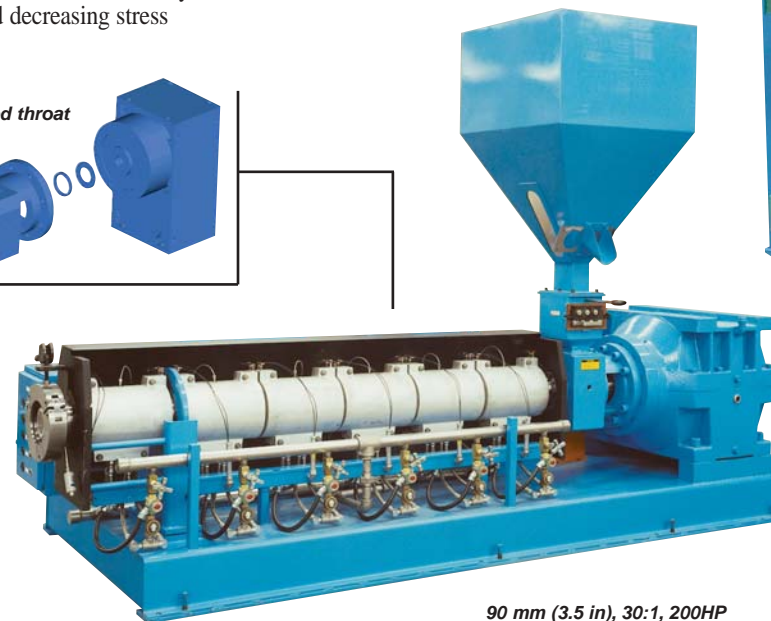
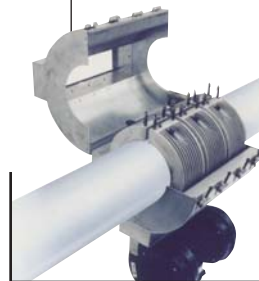
Liquid-cooled extruders feature

- stainless steel piping on the hot, closed-loop side
- stainless steel manifolds run the length of the barrel and are connected to the individual solenoid-operated flow-control valves for each heat/cool zone
- valves connected to the heaters use a flexible hose system of high temperature resistant, non-corrosive PTFE (Teflon) tubing.

By incorporating these features, Brampton Engineering's liquid-cooled extruders minimize maintenance and increase life by reducing corrosion and decreasing stress on fittings.



Insert shows the feed throat of an extruder



90 mm (3.5 in), 30:1, 200HP water-cooled extruder

Feed screws

Brampton Engineering specifically selects each screw to match a particular process to provide high extrudate quality at optimum throughput rates. BE screws feature

- custom-designed melt channel or compression screws for excellent melt temperature control and high output rates
- square cut screw shank with keyway gives solid contact without wobble.

For more information see Brampton Engineering Melt Channel Screw product sheet.

Control

- barrel temperature zone regulated by a microprocessor-based instrument for accurate temperature control
- full PID programs and alarms for common heater problems
- solid state contactors to reduce both current cycle times and maintenance
- customized control panel to fit operating position and equipment layout.

Available supervisory control packages include remotely programmable and fully integrated line control systems.

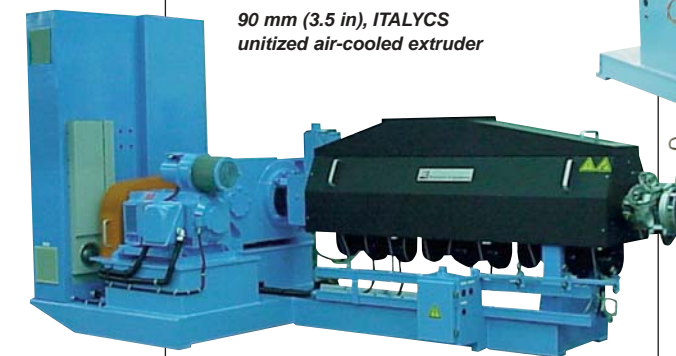
Gear boxes

- rugged design gearboxes provide horsepower and torque ratings that surpass the usual standards
- hardened and precision-ground gears feature a helical design to ensure years of non-stop production
- integrally-mounted thrust bearing assures precise alignment to ensure that the bearing achieves a long working life
- oil-circulation pump standard on some models.

Optional: oil cooling, filter, circulation system.

Plug and play

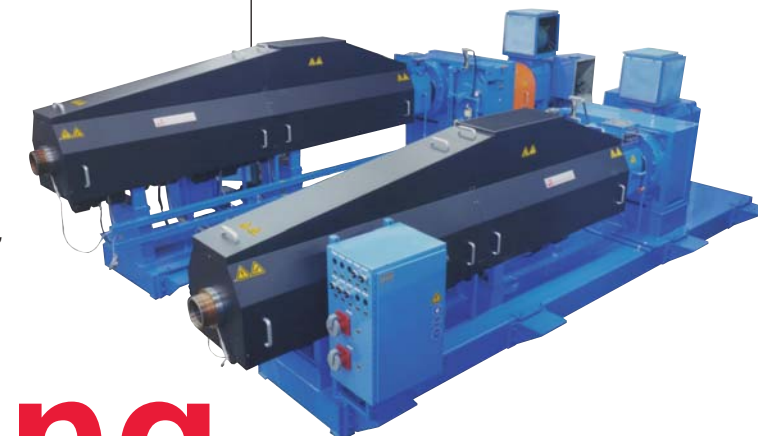
- Unique unitized construction option (available with ITALYCS) eliminates field control wiring
- each pre-wired extruder is attached as a node on the network
- each pre-wired unit is checked at Brampton prior to shipping
- installation time and costs are reduced significantly.



90 mm (3.5 in), ITALYCS unitized air-cooled extruder



65 mm (2.5 in), 24:1, water-cooled extruder for production of PVC profiles



150 mm (6 in), 30:1, L/D extruders

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Floor Plan

Extruders for all applications



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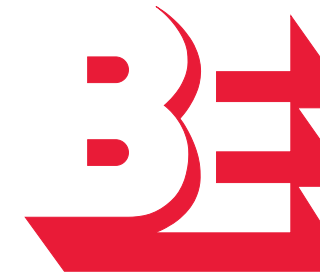
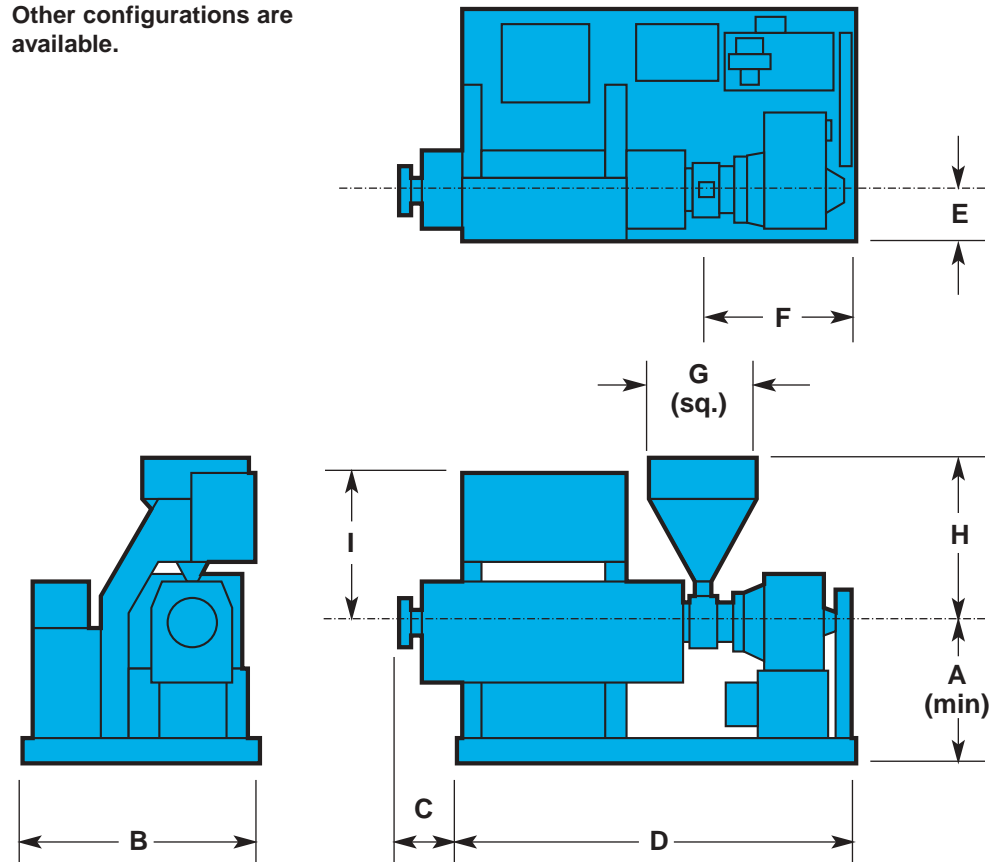
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This configuration applies to Brampton unitized extruders. Other configurations are available.



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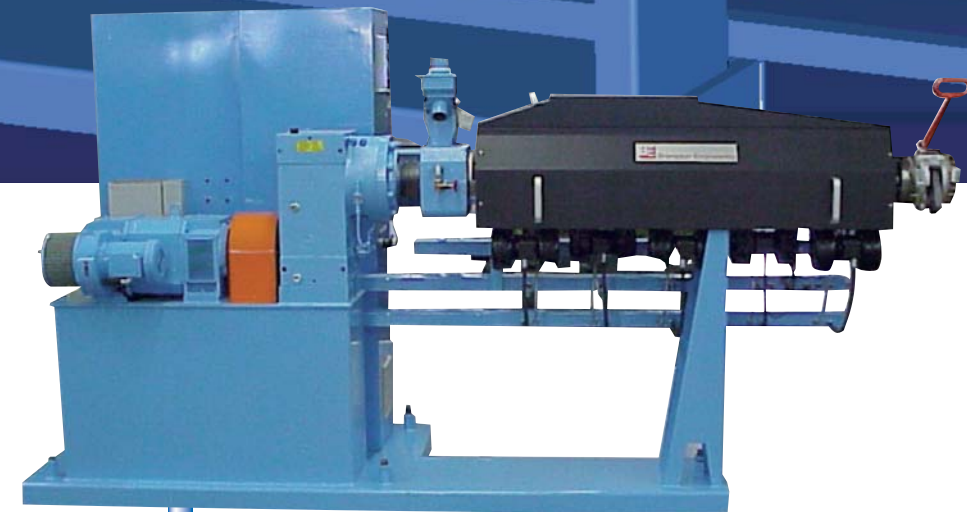
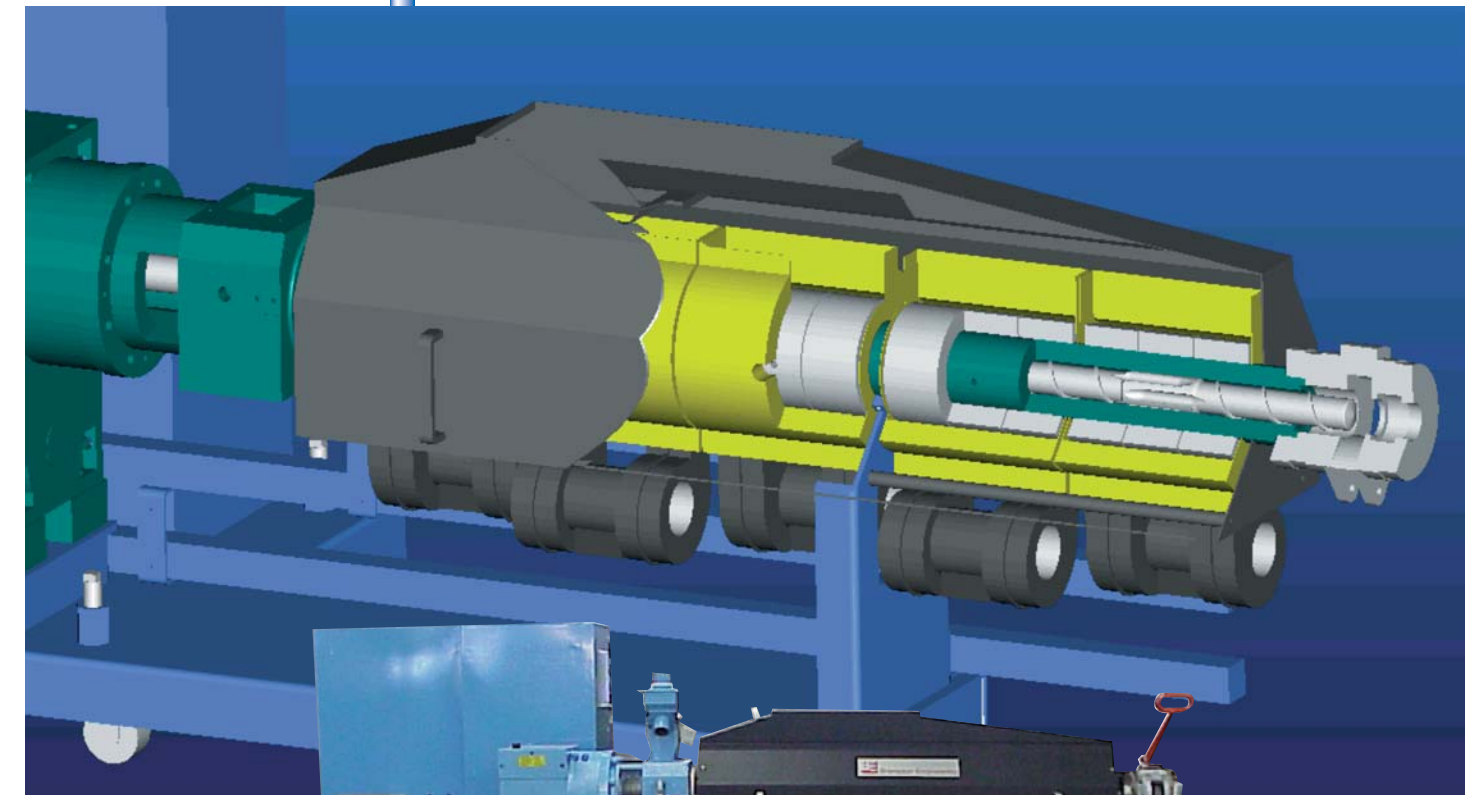


Table of Models and Dimensions for Blown Film Extruders

Model	Screw ø mm (in)	L/D	HP Max	mm (in)									
				A	B	C	D	E	F	G	H	I	
200	50 (2)	24 30	30	610 (24)	1370 (54)	390 (15 1/4)	1500 1810	(59 1/2) (71 1/2)	230 (9 1/8)	710 (27 7/8)	560 (22)	1000 (39 3/4)	1270 (50)
250	65 (2 1/2)	24 30	75	610 (24)	1370 (54)	65 (2 1/2)	2400 2770	(96) (109)	300 (12)	850 (33 3/4)	630 (25)	960 (38)	1270 (50)
350	90 (3 1/2)	24 30	150	670 (26 1/2)	1680 (66)	390 (15 1/2)	2945 3320	(116) (130 3/8)	380 (15)	1170 (46)	810 (32)	1170 (46 1/4)	1370 (54)
450	120 (4 1/2)	24 30	250	760 (29 7/8)	1930 (76)	560 (22)	3660 4380	(144) (172 1/4)	460 (18)	1380 (54 1/2)	1020 (40)	1545 (60 3/4)	1680 (66)
600	150 (6)	30 Direct coupled 30	500	875 (34 5/8)	1870 (74)	640 (25 1/4)	5050 5230	(198 3/4) (206)	531 (21)	1020 (40)	1020 (40)	1600 (63 1/4)	1680 (66)

Dimensions shown: mm (in), subject to change without notice.

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