

PIN EXTRUDER SPECIFICATIONS

Size	3 ½ in. (89mm)	4 ½ in. (114mm)	6 in. (152mm)	8 in. (203mm)	10 in. (254mm)
Output ** (per hour)	700-1,100 lbs. (320-500 kg)	1,200-1,900 lbs. (545-860 kg)	2,000-3,000 lbs. (900-1350 kg)	3,100-5,000 lbs. (1400-2200 kg)	5,100-8,000 lbs. (2300-3600 kg)
L/D Ratio	16:1	16:1	16:1	16:1	18:1
Drive Horsepower (kw)	100 (75)	150 (115)	250 (190)	400 (300)	1000 (see note 1)
Motor Base Speed	1750	1750	1150	1150	1150
Gear Ratio*	24.73	25.35:1	24.29:1	39.04:1	26.4:1 (see note 2)
Screw Speed RPM	62	47	40	29	45
Torque HP/RPM	1.6	3.2	6.2	13.8	22
Number of Pin Rows	10	10	10	10	10
Number of Pins/Row	6	8	8	10	10
Number of Barrel Zones	2	2	2	2	2
Weight (in thousands)	8-10 lbs. (4-5 kg)	10-12 lbs. (5-5.5 kg)	15-18 lbs. (7-8 kg)	24-30 lbs. (11-14 kg)	36-42 lbs. (16-19 kg)

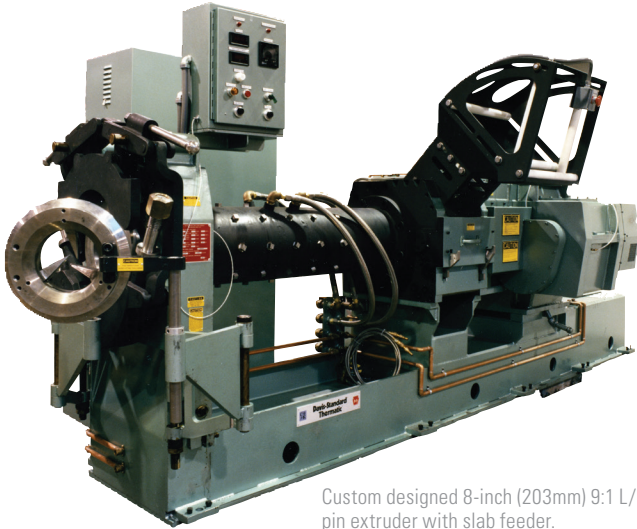
*Other ratios are available depending on application.

**Typical outputs referenced consult with Davis-Standard prior to sizing machine. Output rates depend on compound, stock temperature limitations, screw design and back pressure operation.

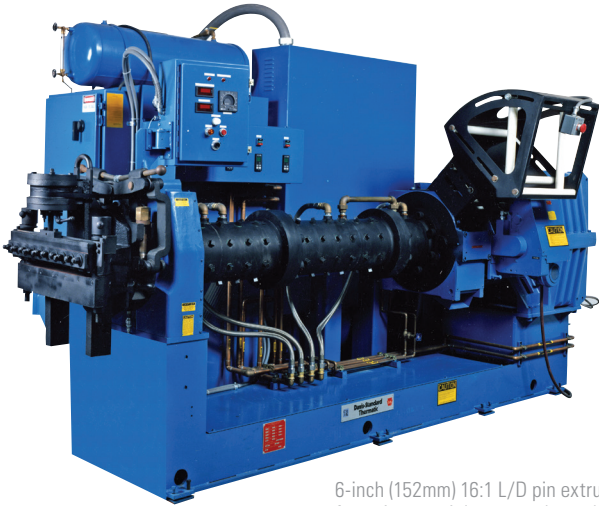
Note:

1) Standard reducer for 10" is dual input. 1000Hp would be (2) 500 Hp motors

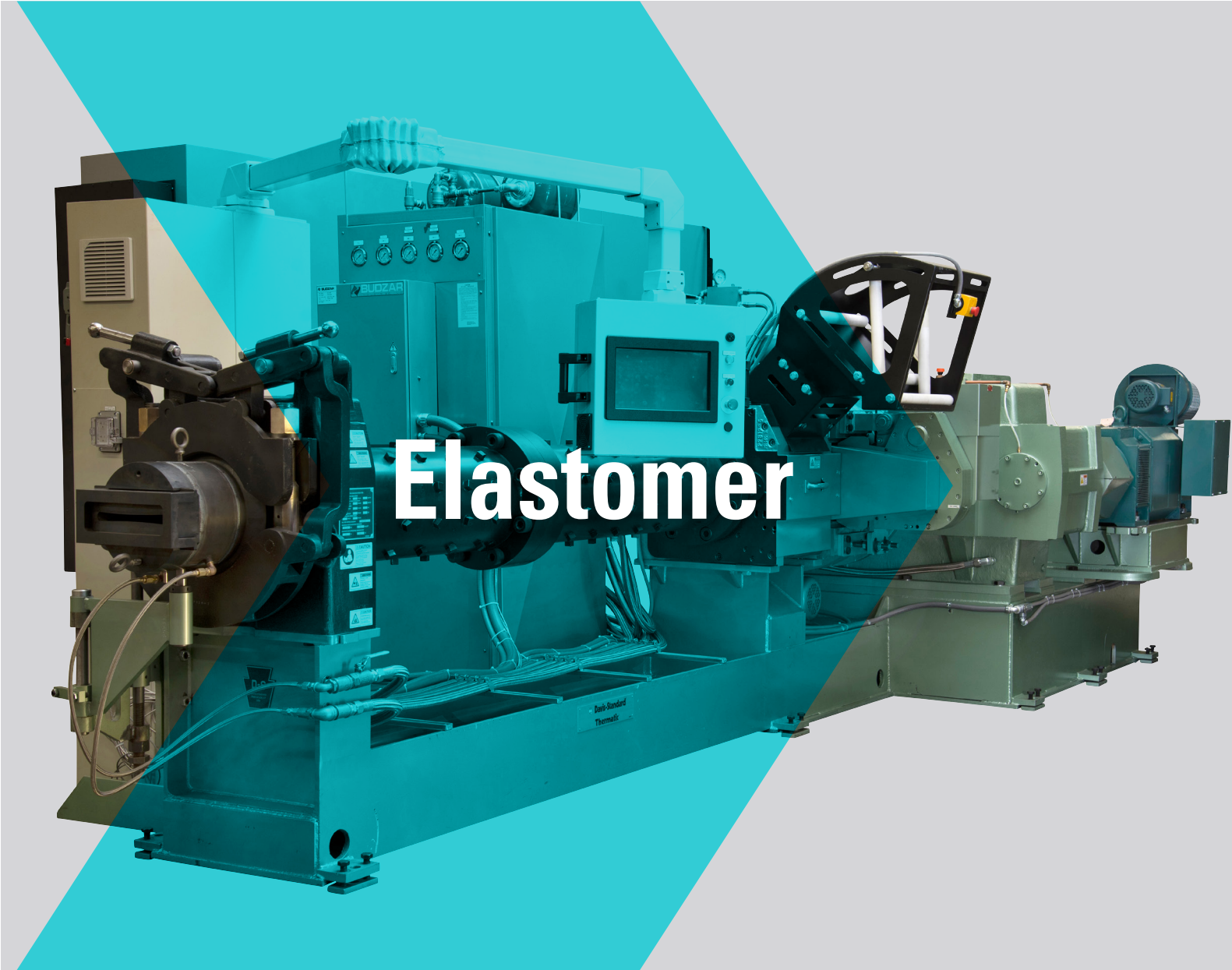
2) 8" reducer ratio 39.04:1 is with triple reduction



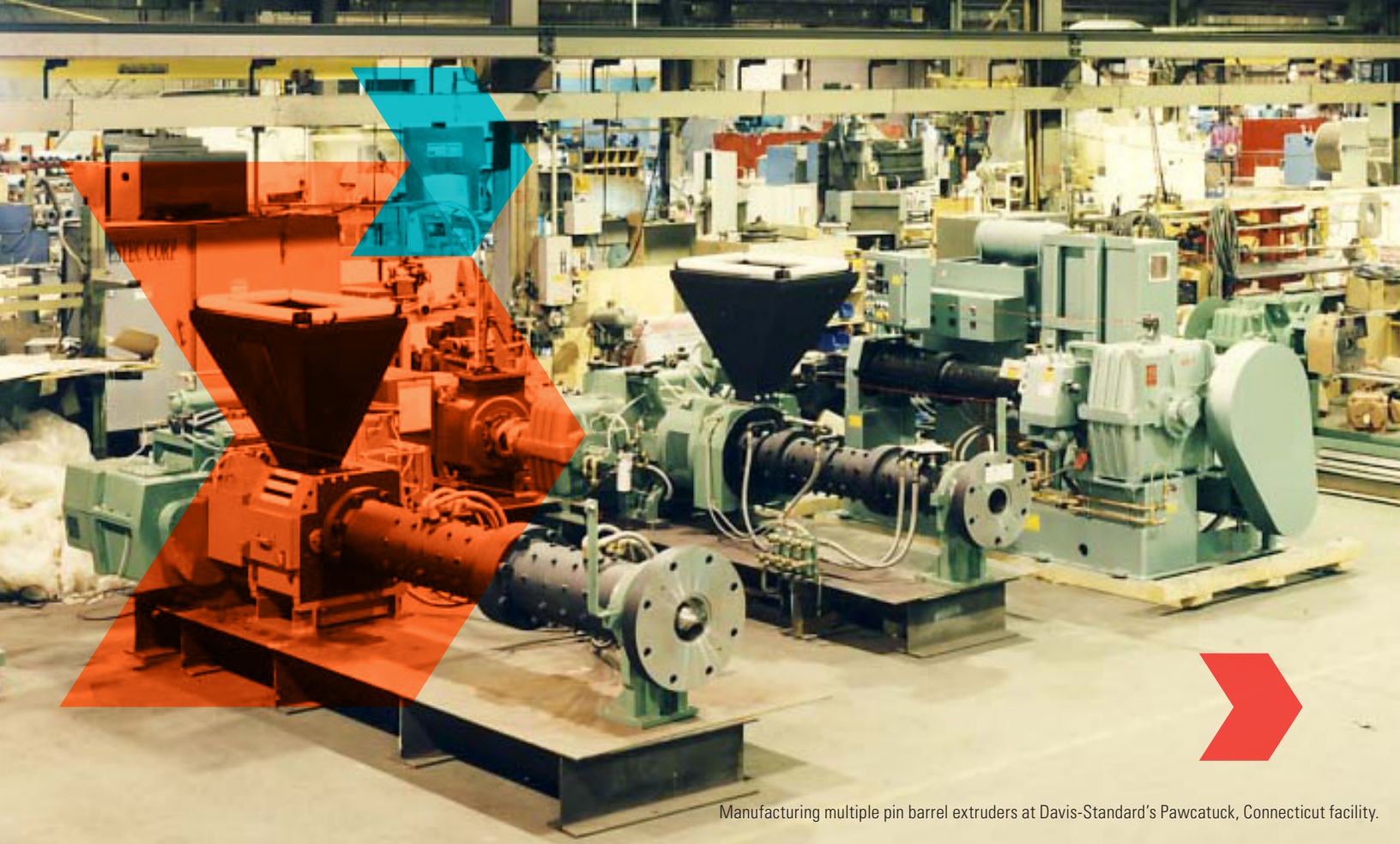
Custom designed 8-inch (203mm) 9:1 L/D pin extruder with slab feeder.



6-inch (152mm) 16:1 L/D pin extruder featuring special common base design.



Pin Barrel Rubber Extruders



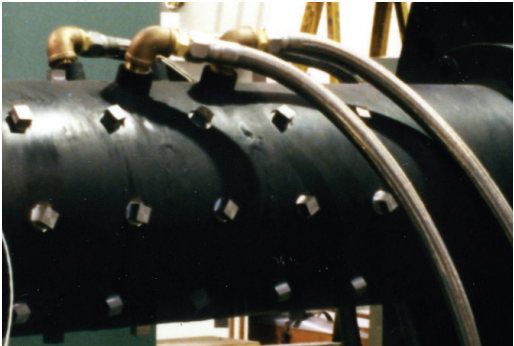
Manufacturing multiple pin barrel extruders at Davis-Standard's Pawcatuck, Connecticut facility.

Overview

Davis-Standard's pin barrel rubber extruders are technologically advanced, reliable, and built for longevity. These extruders can accommodate a wide range of rubber extrusion applications with custom designs available for unique process requirements. All extruders are equipped with the latest feedscrew and control system technology.

Features

- Barrel diameters from 2 ½ inches (65mm) to 6 inches (150mm) with L/D ratios of 10.5:1, 12:1, 16:1, 17:1 and 20:1
- Designed to house multiple rows of custom designed pins to provide necessary mixing of the compound to bring it to a homogenous mixture
- Equipped with drilled heating and cooling passages to provide maximum heat transfer efficiency with multi-zone features, replaceable liners, and two-piece pins rate at 6,000 psi
- Pins designed for ease of installation and replacement
- Equipped with unique pneumatic roller feeder to compensate for feedstrip variations
- Improved output stability



Pin Barrel

Superior Gearcase

- Versatile design for a range of capabilities.
- Built with greater rigidity, improved thermal capacity, longer life, and quiet operation.
- Horizontally mounted, double and triple reduction parallel shaft reducer with integral thrust bearing for simplicity and economy.
- Thrust shaft is mounted on pre-loaded radial bearings that compensate for heavy bull gear radial loading and maintain screw-to-barrel alignment.

Feeder Roll

- Automates feed roll regulation with minimal operator requirements.
- Feed roll rate regulated by a pneumatically controlled torque-sensing clutch driven from the main thrust shaft.
- Uniform, consistent feed rate that automatically compensates for feed strip size variations.
- Capability to improve extrusion stability and reduce problems related to size control (when used with the proper feedscrew), resulting in material savings and an increase in product capabilities.
- Dual feed roll designs available for feed stocks other than slab, strip, or pellets.

Head Clamp

- Double swing bolts for uniform, symmetrical clamping by drawing tapered flanges with the breaker plate assuring positive sealing and extrusion head alignment.
- Easy opening handle and stay-open positioning. Hinged head support.
- Hinges available mounted on the left, right, or both sides.
- Hinges enable rapid head closure and alignment.
- Heads may be swung completely to the side of the machine for preheating, cleaning, and tooling changes.

Mechanical Features And Associated Equipment (Standard)

- Gear box
- Pneumatic roller feed
- Clamp
- Hinge
- Stock screw cooling pipe and union
- Breaker plate, screens or spacer ring
- Belts, sheaves, and belt guard

- Pressure transducer and indicator with high alarm shutdown
- Maintenance manual
- Pressure alarms (hi-low)

Associated Equipment (Required)

- Extruder stock screw
- Temperature control system
- Drive system
- Extrusion heads

Optional Equipment

- Common base
- OCS, drive cabinet and motor, mounted and wired
- Completely piped
- Air pads or casters
- Pivot assembly
- Dual hinges
- Stock temperature indication
- Various roller feed ratios
- Stainless steel hopper and adapter
- Lo-Boy base design (standard 42 1/4")
- Special liners
- Optional breaker plates
- Screw removal system (manual, auto)
- Full laboratory instruments
- Jog reverse
- Precision drive regulation
- Coordinated drive
- Special paint