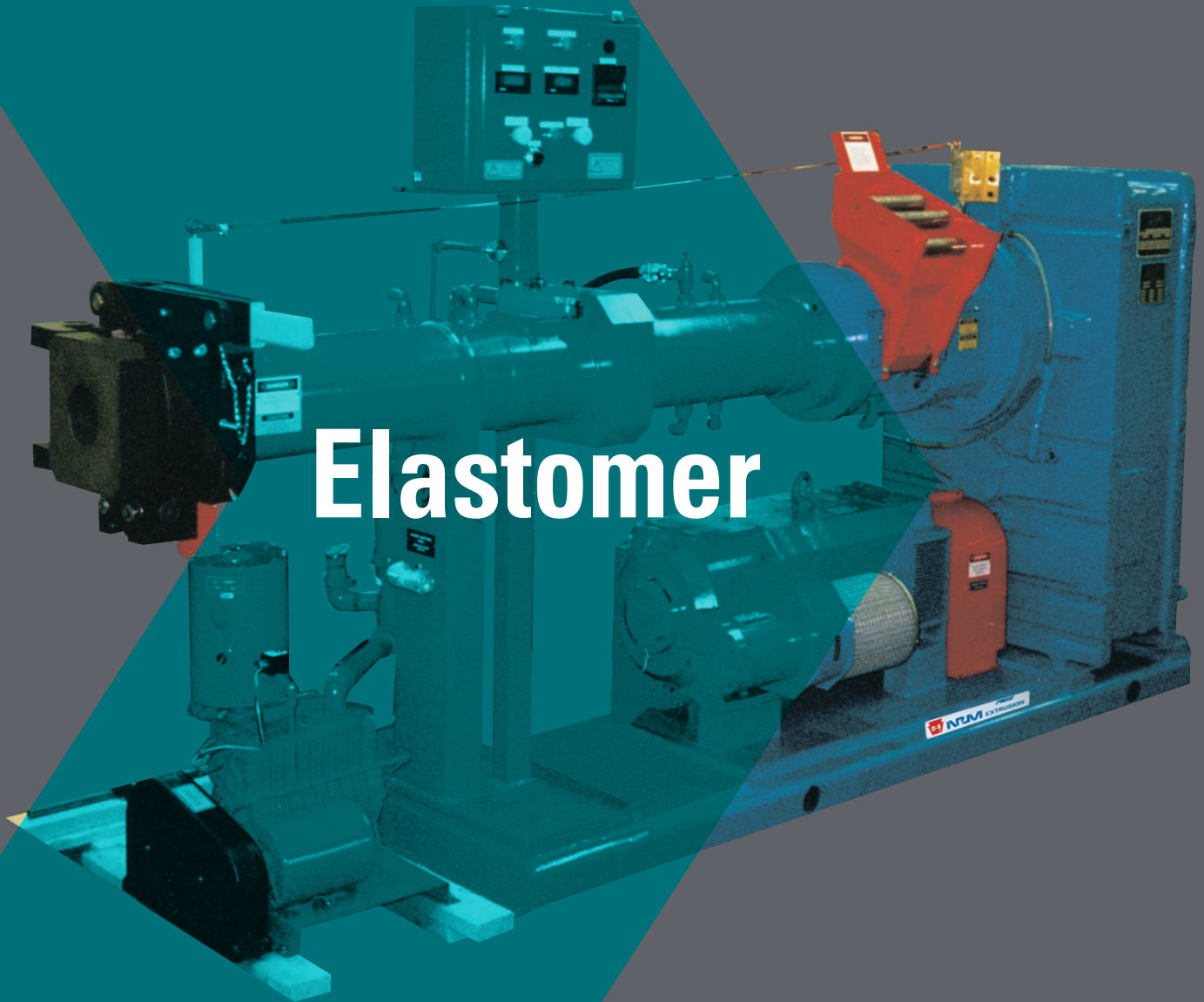




DAVIS-STANDARD®

Where your ideas take shape.



Elastomer

NRM EXTRUSION® Rubber Extruders

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Overview

Davis-Standard's NRM Extrusion® brand is backed by years of design expertise and knowledge to meet the most demanding elastomer application requirements. Our advanced microprocessor-based process control systems, superior screw design, and NRM Extrusion manufactured transmissions result in a semi-custom line of extruders designed to increase productivity and profitability.

OPERATING PRESSURE

- 10,000 psi maximum
- Rupture disc overpressure protection at front flange: 8,500 psi nominal
- (Standard Gear Ratios) Nominal 25:1 gear ratio/ screw speed range 3 to 72 RPM
- Other gear ratios optionally available

FEEDSECTION

- Power feed roll, standard
- NRM Extrusion patented spiral undercut or offset spiral undercut

STANDARD DRIVE

- Drive on the 2 ½-inch extruder is located behind the transmission
- AC motor is mounted on the sub-base under the extruder barrel for 3 ½-inch, 4 ½-inch and 6-inch models
- Solid-state power conversion
- 100:1 speed range achieved via armature and field control at .1 percent regulation by sensorless vector control

AUTOMATIC TEMPERATURE CONTROL

- Four or five zones vertically stacked to minimize floor space requirements

STANDARD VOLTAGE

- 460 volt, 60 Hz

FEEDSCREW

- Machined from alloy steel and heat treated
- Hollow bored for heating
- Standard with flame hardened flight lands
- Hard surface flight lands optional

EXTRUDER BASE

- All welded steel base
- Transmission, cylinder support, and drive motor mounted on base

CYLINDER SUPPORT

- Rugged, fabricated steel section accommodates thermal expansion while maintaining alignment and support of die head

DRIVE TRANSMISSION

- Features heavy duty radial and thrust bearings
- Heat treated helical gears totally enclosed in a fabricated or cast housing
- Positive lubrication provided
- Thrust bearing equipped with full flow lubrication

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CYLINDER BASE

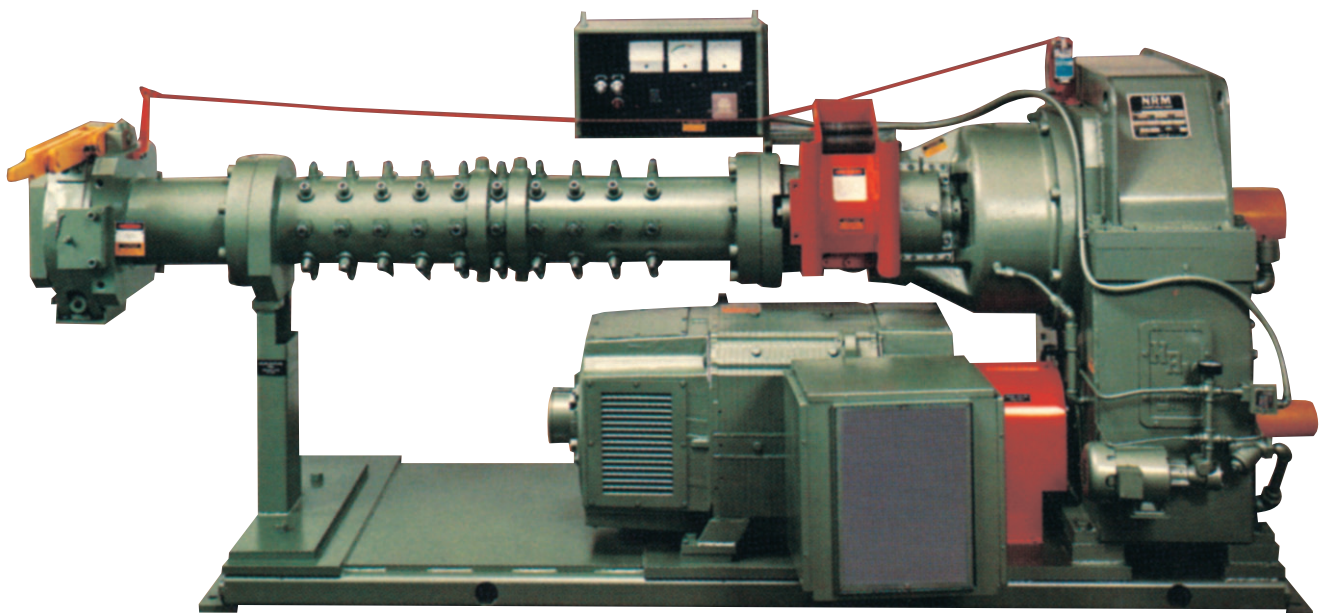
- Alloy steel cylinder liner with centrifugally cast bimetallic lining precision honed to final bore diameter
- 10,000 psi working pressure with 8,500 psi rupture disc and pressure gauge tap and plug in front flange
- Separate baffled heating/cooling chambers between inner and outer shell
- Heating/cooling chambers and high flow velocity design create efficient heat transfer

OTHER FEATURES

- Double reduction helical gears for transmitting power from drive to screw
- Heavyweight cylinder support minimizes deflection and enables use of heavy die heads
- Power feed roll is standard
- Quick-change hinged heads (optional)
- Barrel is internally baffled for optimum temperature control
- Replaceable barrel liners

FRONT END ARRANGEMENT OPTIONS

- Plain Flange
- Swing Bolt Type
- Kwik-Clamp



MACHINE DESIGN PARAMETERS*

Extruder Size	2 ½ inch (65mm)		3 ½ inch (90mm)			4 ½ inch (115mm)			6 inch (150mm)			
	Non-Vented	Vented	Non-Vented	Vented	Vented	Non-Vented	Vented	Vented	Non-Vented	Vented	Vented	
L/D**	12:1	17:1	17:1	12:1	17:1	17:1	12:1	17:1	17:1	12:1	17:1	17:1
Extrusion Rate*** lbs./hr (kg/hr)	100-300 (45-135)	120-360 (55-165)	70-200 (30-90)	400-800 (180-360)	480-960 (220-435)	300-600 (135-270)	900-1,400 (410-635)	1,100-1,700 (500-775)	650-1,000 (295-455)	1,500-2,400 (680-1090)	1,800-2,800 (820-1270)	1,100-1,700 (500-775)
Drive HP	25	30	30	60	75	75	125	150	150	200	250	250
Length	61 in. 1550mm	73 in. 1854mm	73 in. 1854mm	95 in. 2413mm	113 in. 2870mm	113 in. 2870mm	115 in. 2921mm	137 in. 3480mm	137 in. 3480mm	143 in. 3632mm	173 in. 4394mm	173 in. 4394mm
Width	43 in. 1092mm	43 in. 1092mm	43 in. 1092mm	32 in. 812mm	32 in. 812mm	32 in. 812mm	32 in. 812mm	32 in. 812mm	32 in. 812mm	35 in. 889mm	35 in. 889mm	35 in. 889mm
Height	50 in. 1270mm	50 in. 1270mm	50 in. 1270mm	60 in. 1524mm	60 in. 1524mm	60 in. 1524mm	61 in. 1550mm	61 in. 1550mm	61 in. 1550mm	62 in. 1575mm	62 in. 1575mm	62 in. 1575mm
Approximate Weight	5,000 lbs. 2268 kg	5,700 lbs. 2586 kg	5,700 lbs. 2586 kg	8,300 lbs. 3765 kg	9,000 lbs. 4080 kg	9,000 lbs. 4080 kg	13,300 lbs. 6033 kg	14,000 lbs. 6350 kg	14,000 lbs. 6350 kg	17,300 lbs. 7848 kg	18,000 lbs. 8165 kg	18,000 lbs. 8165 kg