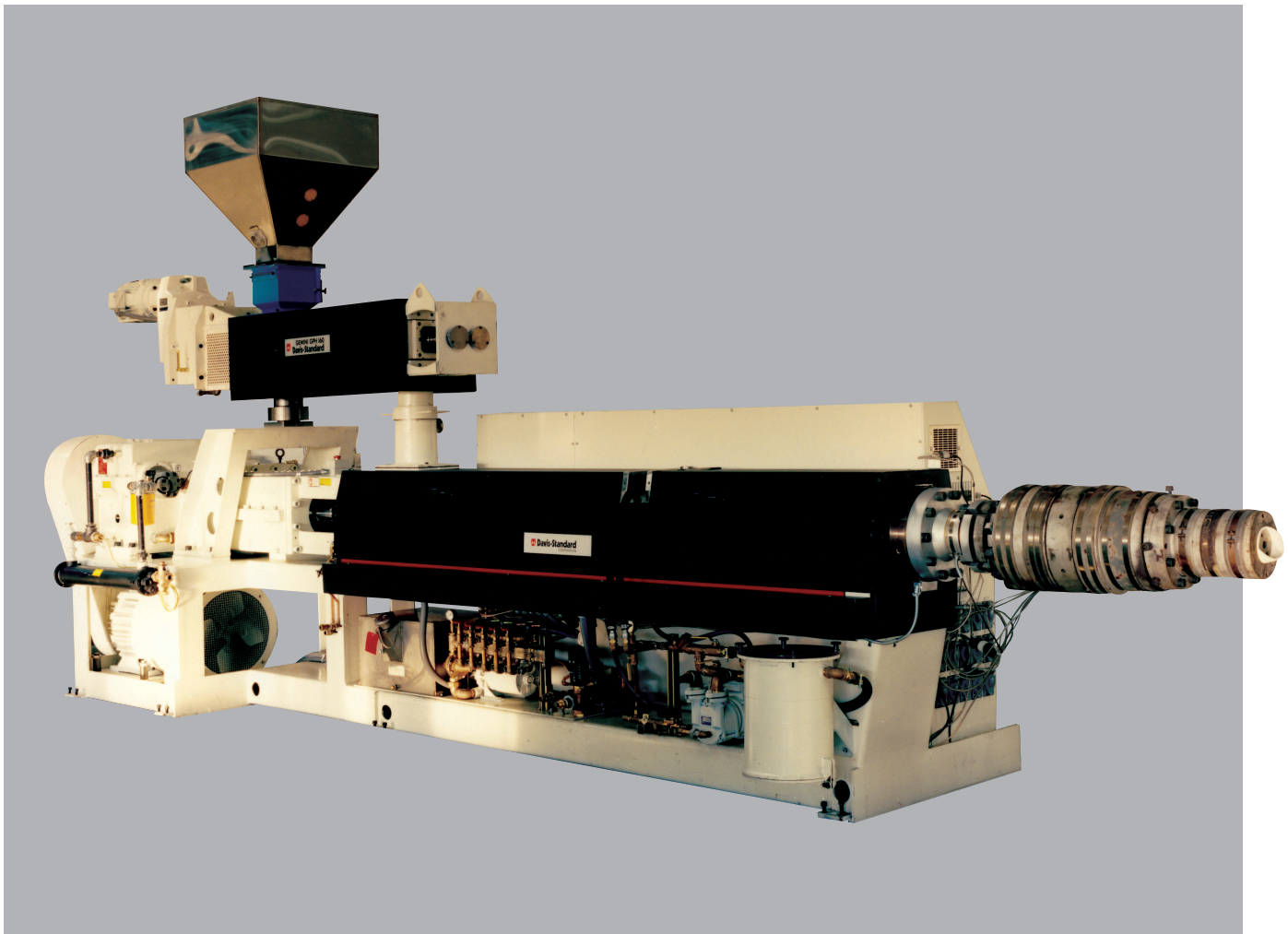




PROFILE

GEMINI® PARALLEL (GP) TWIN SCREW EXTRUDERS

Davis-Standard's Gemini® series parallel twin screw extruders GP-94 (94mm), GP-114 (114mm), and GP-140 (140mm) are designed for the global RPVC window, fence, pipe and custom profile markets in 28:1 L/D configurations, and the LDPE foam packaging market in 36:1 L/D configurations. GP extruders can process larger amounts of resin per screw revolution because of longer screws and a higher torque capacity. Many innovative features make this extruder a leader in its class.



At A Glance

- Increased output rate over competitive models.
- Increased torque capacity over competitive models.
- Durable design with flexible processing capabilities.
- Equipped with a control cabinet and drive motor mounted on a common base.



GEMINI® PARALLEL (GP) TWIN SCREW EXTRUDERS cont.

FEEDSCREW/BARREL

All standard GP extruders are equipped with either 28:1 L/D or 36:1 L/D suitably treated screws. The barrel is twin parallel bored and vented with bimetallic or nitrided alloy steel construction that is electrically heated and has five water or air-cooled barrel zones. The system's melt pressure transducer has a 0-10,000 psi (0-690 bar) rating. The vacuum venting system includes a covered powder trap and vacuum pump.

GEARCASE

The GP extruder features a heavy duty gearbox with carburized and ground helical gearing. The extruder's motor-driven and filtered lubrication system also includes a heat exchanger. These gearboxes have maximum torque and thrust ratings higher than other extruders in their class.

MOTOR

The extruders are equipped with an AC motor and have an adjustable mounting, drive belts, and sheaves with belt guard.

BARREL HEATING AND COOLING

A closed loop water cooling system with pump heat exchanger, stainless steel reservoir, zone needle valve, and flow indicator mounted in the base are used on the GP-114 and GP-140 models. The GP-94 uses aluminum finned heaters. Air cooling is provided by blowers. Zones are completely isolated to prevent air leakage and dual heads give thermal protection.

CONTROL SYSTEM

- Emergency STOP button located near feed throat.
- A sloped front console is mounted in front of the barrel. This contains an operator's control station located in the panel at the front end of the barrel with drive, vacuum pump on/off push-buttons, 10-turn speed potentiometers, and screw RPM indicators plus main drive percentage load meter.
- AC drive with 1/2 percent speed regulation.
- Six discrete barrel zone temperature controllers.
- MANUAL/OFF/AUTO switch for barrel cooling and heating control.
- Six discrete adapter/die zone temperature controllers.
- Six adapter/die heat receptacles with circuit breakers (230/3/60).
- Melt pressure indicator with dual alarms.
- "Drive fault" and "oil filter dirty" warning lights.
- Ventilating fan with filter.
- Main 460V circuit breaker with door interlock. Secondary 230V, three-phase circuit breaker with door interlock for die.

Extruder wired for 460V/380/3ph/60/50Hz power supply.

Die/Adapter Zones wired for 230V/3ph/60/50Hz power supply.

RPVC Output Rates*

Extruder	Product	lbs./hr	kg/hr
GP-94 (28:1 L/D)	PVC Pipe	1,300	590
	Window Profile	1,000	450
	Custom Profile	1,000	450
GP-114 (28:1 L/D)	PVC Pipe	2,200	1,000
	Vinyl Siding	2,000	900
	Window Profile	1,000	450
GP-140 (28:1 L/D)	PVC Pipe	3,000	1,360
	Vinyl Siding	2,700	1,230
	Window Profile	2,000	900

*Some of the listed outputs are achieved using a preheater feeder and some products are dual line extruded.

LDPE Output Rates*

Extruder	Product	lbs./hr	kg/hr
GP-94 (36:1 L/D)	Foam	450	200
GP-114 (36:1 L/D)	Foam	800	365
GP-140 (36:1 L/D)	Foam	1,200	550

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