

PS Foam Sheet Systems

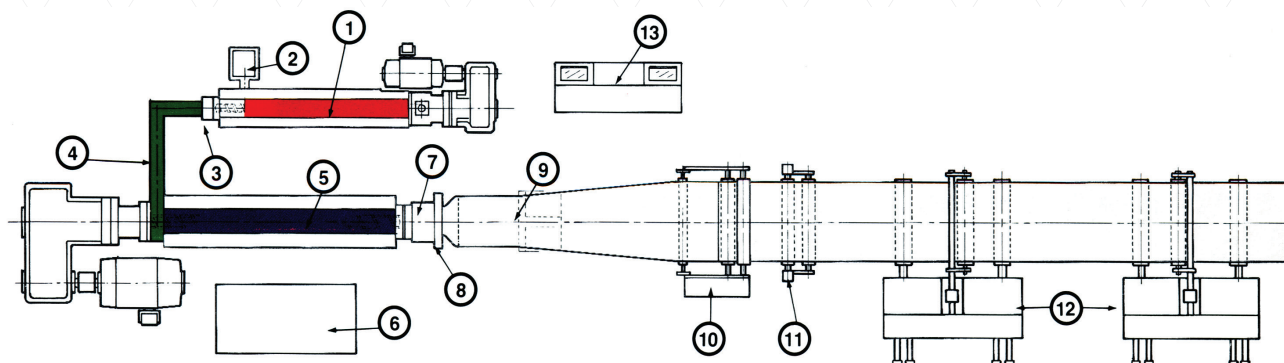
Overview

Davis-Standard supplies PS foam sheet systems for thermoformed and flexible packaging applications. These systems are available with tandem single screw extruders with gas injection or with twin screw extruders with gas injection. We also supply PS and PE winding equipment for flexible sheet applications.

Features

- Hydrocarbon and atmospheric blowing agents as well as multi-gas and/or bleeding systems.
- Monolayer and coextrusion annular foam dies in spider and spiderless designs with “on the fly” gap adjustment.
- Sizing mandrels with single, dual or multiple slitting arrangements.
- S-wrap pull rolls for single and dual sheet arrangements.

PS Foam Sheet Systems



(1) Primary Extruders

- Single or twin screw Thermatic® series extruders
- Patented screw designs for foam
- Dual T/C temperature control

(2) Gas Injection Systems

- Hydrocarbon & atmospheric blowing agents
- Mass flow meter flow control
- Dual gas blending systems

(3) Screen Changers

- Slide plate and continuous styles available

(4) Melt Transfer Pipe

- Built for 10,000 psi (689 bar) operation
- Spherical joints for thermal expansion

(5) Cooling Extruders

- Thermatic® series extruders
- Self starting polymer sealing system
- Spiral wrap barrels for extra cooling
- Dual pass heater coolers
- Low torque high output screws

(6) Closed Loop Cooling System

- Two closed loop temperature control systems
- Designed for 100° F (38° C) plant cooling water

(7) Annular Foam Die

- Spider & spiderless designs
- "On the fly" gap adjustment
- Monolayer & coextrusion available

(8) Air & Water Cooling Rings

- Internal & external air rings
- Compressed air & blower type available
- Water rings available for product flatness

(9) Sizing Mandrel

- Cast or machined aluminum construction
- Single, dual or triple slitting arrangements

(10) S-Wrap Pull Roll

- Single & dual sheet arrangements
- Cantilevered designs available
- Tension control loop coordinated with winder

(11) Web Guide Systems

- Optional driven & manual edge guide systems

(12) Winders

- Dual cantilevered design or pneumatic push-offs
- Surface winder designs for PE foams
- Accumulators for high output lines

(13) Process Controls

- Epic III™ and Mesa III process control systems
- Allen-Bradley PLC or Siemens control systems
- Complete line integration with touch screen computer
- Recipe storage & production reporting & troubleshooting
- Discrete controls available on request

TANDEM EXTRUDER SIZES AND NOMINAL OUTPUT FOR PS FOAM

Extruder Sizes	kg/hr	lb/hr
2 ½ - 3 ½ in.	125 - 150	275 - 330
3 ½ - 4 ½ in.	225 - 275	500 - 600
100 - 130mm	250 - 320	550 - 700
120 - 165mm	500 - 600	1,100 - 1,300
130 - 165mm	550 - 650	1,200 - 1,450
6 - 8 in.	600 - 750	1,300 - 1,650
165 - 225mm	680 - 900	1,500 - 2,000
8 - 10 in.	900 - 1,000	2,000 - 2,200
8 - 12 in.	1,100 - 1,350	2,400 - 3,000
250 - 400mm	1,400 - 1,600	3,100 - 3,600