

▶ sheet lines

SML
EXTRUSION LINES – ENGINEERED TO PERFORM ▶

▶ **FLEXIPET –
TWIN SCREW EXTRUSION**



**Extrusion lines –
engineered to perform**

One line, many options

SML's FlexiPET represents an exceptional twin-screw extruder concept that is easily adaptable to various polymers. This line is able to process virgin and regrind PET, PP and PS – material switches can be managed very quickly. FlexiPET is also versatile regarding the choice of winding systems.

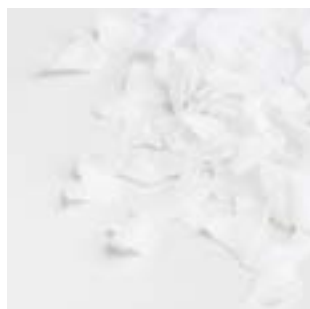
Key Features

- Designed for the highest flexibility to process different kinds of polymers and applications
- Recommended for the use of PETG and its post industrial flake stream
- Optimised to use dusty material streams
- FlexiPET lines are highly flexible in terms of useable materials and combinations
- The lowest residence time inside the extrusion unit due to conical twin screw extruders
- Reduced energy consumption
- Minimised applied shear stress

GRANULES



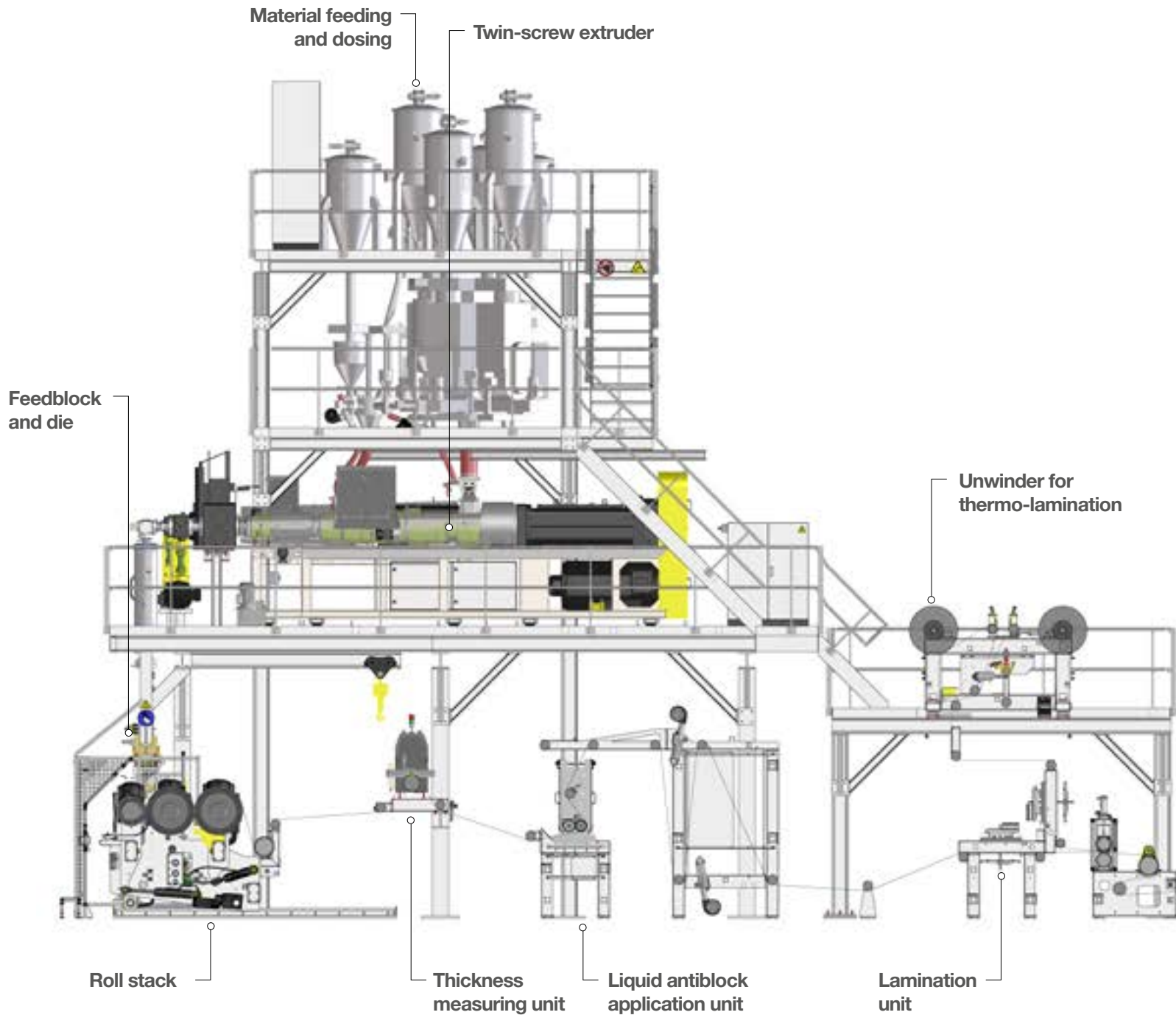
virgin material



filmflakes



bottleflakes

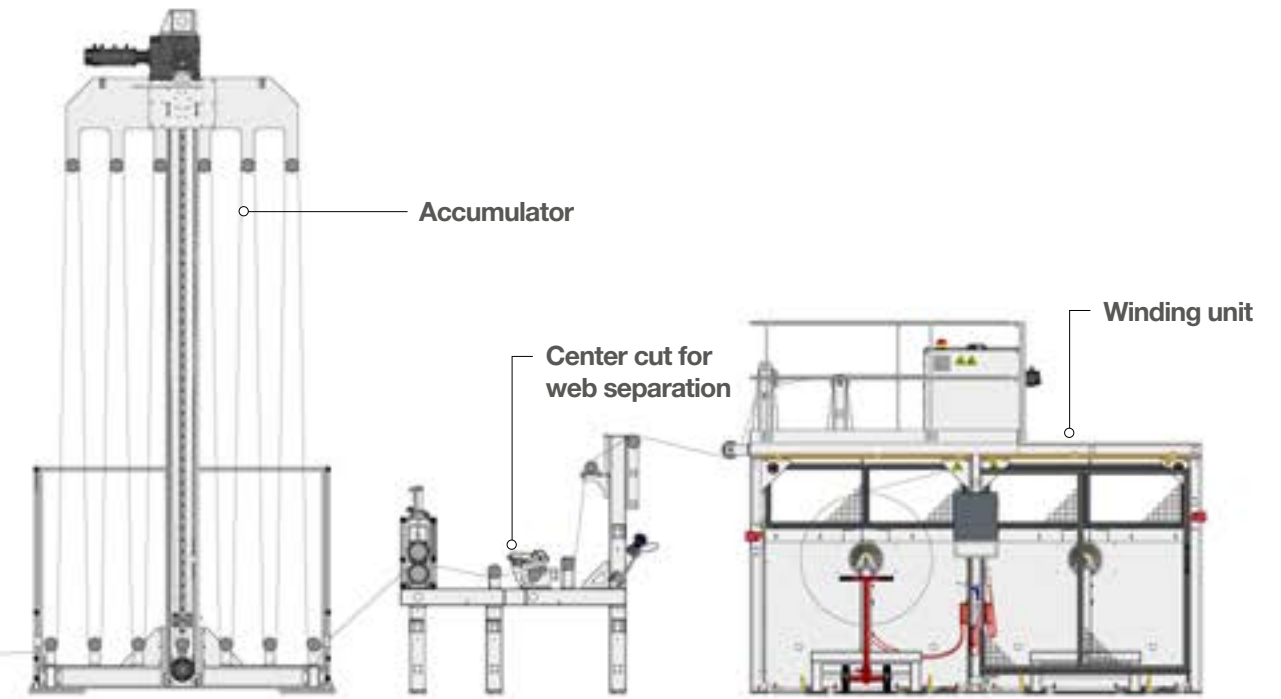


BASIC DESIGN INCLUDES

- ▶ Material dosing and conveying system for twin screw extruders (2 main + 2 side components)
- ▶ Complete extrusion unit with a conical twin screw, backflush filter, melt pump and static conical mixer
- ▶ FlexiPET 4 and below: manual die / FlexiPET 5 and up: automatic die
- ▶ Roll stack with SPG roll technology, temperature control unit, hydraulics and safety devices
- ▶ Thickness gauge
- ▶ Edge trim unit with blade knives and an edge trim mill
- ▶ Winder W501
- ▶ Automatic control system
- ▶ SML BitWise System

OPTIONS

- ▶ Inline liquid antiblock application device
 - ▶ One shaft winding unit with two webs up to a certain width
 - ▶ Inline PE lamination
 - ▶ Upgrade of take-off units for optically sensitive sheets
 - ▶ Inline sheet inspection system
 - ▶ Inline edge trim recycling system (from the mill directly to bin and further to the extruder)
 - ▶ Simplified predrying of flakes in front of the main extruder
 - ▶ Predrying of virgin for coextruder
 - ▶ Optional: single screw instead of twin screw coextruder
- Extruder Combination: FlexiPET 1+2 = 60/28
FlexiPET 3-8 = 90/33



CONFIGURATION

Calander width [mm]	OUTPUT FOR PET FILM						
	net film width min. - max. [mm]	150 µm at full width ¹	300µm at full width ¹	500µm at full width ¹	800µm at full width ¹	1,200µm at full width ¹	1,800µm at full width ¹
1,050	600 - 800	590	1,180	1,210	1,110	910	760
1,200	700 - 950	700	1,400	1,440	1,320	1,080	900
1,400	830 - 1,150	850	1,700	1,740	1,600	1,300	1,090
1,650	1,000 - 1,400	1,030	2,070	2,120	1,950	1,590	1,330
1,800	1,100 - 1,550	1,230	2,290	2,350	2,160	1,760	1,480
2,000	1,230 - 1,750	1,290	2,580	2,650	2,440	1,990	1,670
2,200	1,370 - 1,950	1,440	2,880	2,960	2,700	2,200	1,860

1) Values are given in net kg/h. Configuration up to 3,000 mm on request.

Recommended for:

Typical thermoform application	+
PET	+
PP	+
PS	+
Optical film	~
PET / PE (recycled in reduced amounts)	++
PET / PE / EVOH (modifications required)	++
GAG sheet	++
Customised sheet projects	++

FLEXIPET

Extruder	MAX. EXTRUDER OUTPUT			
	PET [kg/h] max. flakes	max. pellets	PP [kg/h] flakes/pellets	PS [kg/h] flakes/pellets
ES60 ²⁾	x	200	120	140
ES75 ²⁾	x	300	170	205
ES90 ²⁾	x	450	230	275
MAS45 ²⁾	200 - 300	150	150	150
MAS55	300 - 600	300	350	250
MAS75	700 - 1,100	600	600	700
MAS90	1,200 - 1,800	1,000	1,100	800
MAS93	1,200 - 1,800	1,000	1,100	800

2) as coextruder



The bright variety of SML's technology

PET sheet products are primarily used for food and consumer goods like trays, cups, blisters and lids. In addition, pharmaceutical and medical products have become important areas of application.



▶ **Take advantage
of our global
leadership in
extrusion
technology.**

**ANALYSES
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SML - Head Office

Gewerbepark Ost 32
4846 Redlham
Austria
Phone: +43 7673 90999
E-mail: sml@sml.at
www.sml.at

SML - Machinery Far East Sdn Bhd

(1029958-P)
1201 Block B, Menara Amcorp
No.18 Jalan Persiaran Barat
46050 Petaling Jaya
Selangor Darul Ehsan,
Selangor, Malaysia
Phone: +60 3 7955 9098
E-mail: yen@sml.at

SML - Beijing Office

Unit 1410, Landmark Tower
No. 8 North Dongsanhuan Road
Chaoyang District
100004 Beijing, P.R. of China
Phone: +86 10 6590 0946
E-mail: sml@sml.bj.cn

**SML - North America
Service, Inc.**

Suite 204
85 Eastern Avenue
Gloucester MA 01930
USA
Phone: +1 978 281 0560
Mobile: +1 978 394 1553
E-mail: jom@sml.at



www.sml.at