

Designed by Polaris 2023-05, *886-4-24517070

Recycling Made Simple



Film. Raffia. Regrind.

Simple Operation.
Easy Maintenance.

POLYSTAR

POLYSTAR MACHINERY

No. 198, Anxin 2nd Rd., Annan Dist.,
Tainan City 709, Taiwan

Tel +886-6-2730889

Fax +886-6-2730887

E-mail sales@polystarco.com

www.polystarco.com

Post-industrial

In-house recycling at its best

- 100% pellets reusability right back into your production line
- Minimal material degradation without property change
- Reduces production cost by reprocessing your own industrial waste



Application

Post-industrial waste

“Recycling has allowed us to save about 30 percent in raw material buying”

——— Andrey Habibulin, Europolimer



Blown and cast film producers

HDPE, LDPE, PP shrink, stretch film, BOPP, CPP, OPP Leftover waste of edge trim from blown film in the format of scraps (T-shirt bags cut-offs from bag making processes), complete film rolls and sheet can be efficiently recycled in a simple process. The high quality, uniformed sized recycled pellets are almost like virgin material which can be put directly back into the film production line.

Raffia & woven

In-house waste generated from the production of PP woven bags, non-woven, jumbo bags, PP raffia, PP woven sacks and tapes. The recycled PP pellets can be reused (100%) for production, in most cases in circular weaving looms and tapelines.

Rigid Regrind

Pre-crushed, heavy rigid regrind scraps such as bottles, pipes, containers and lumps in the form of granules. Applicable materials are mainly HDPE, LDPE, PP, PA, PC, PU, ABS and others.

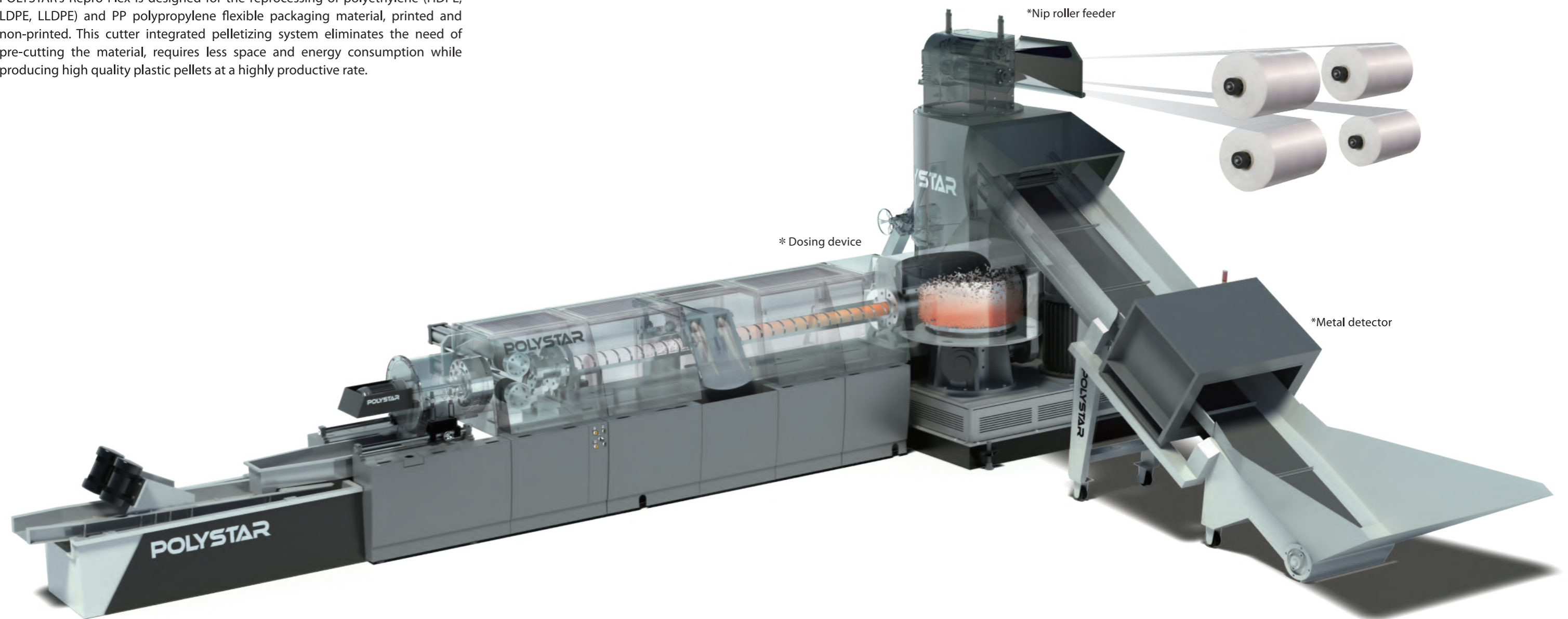


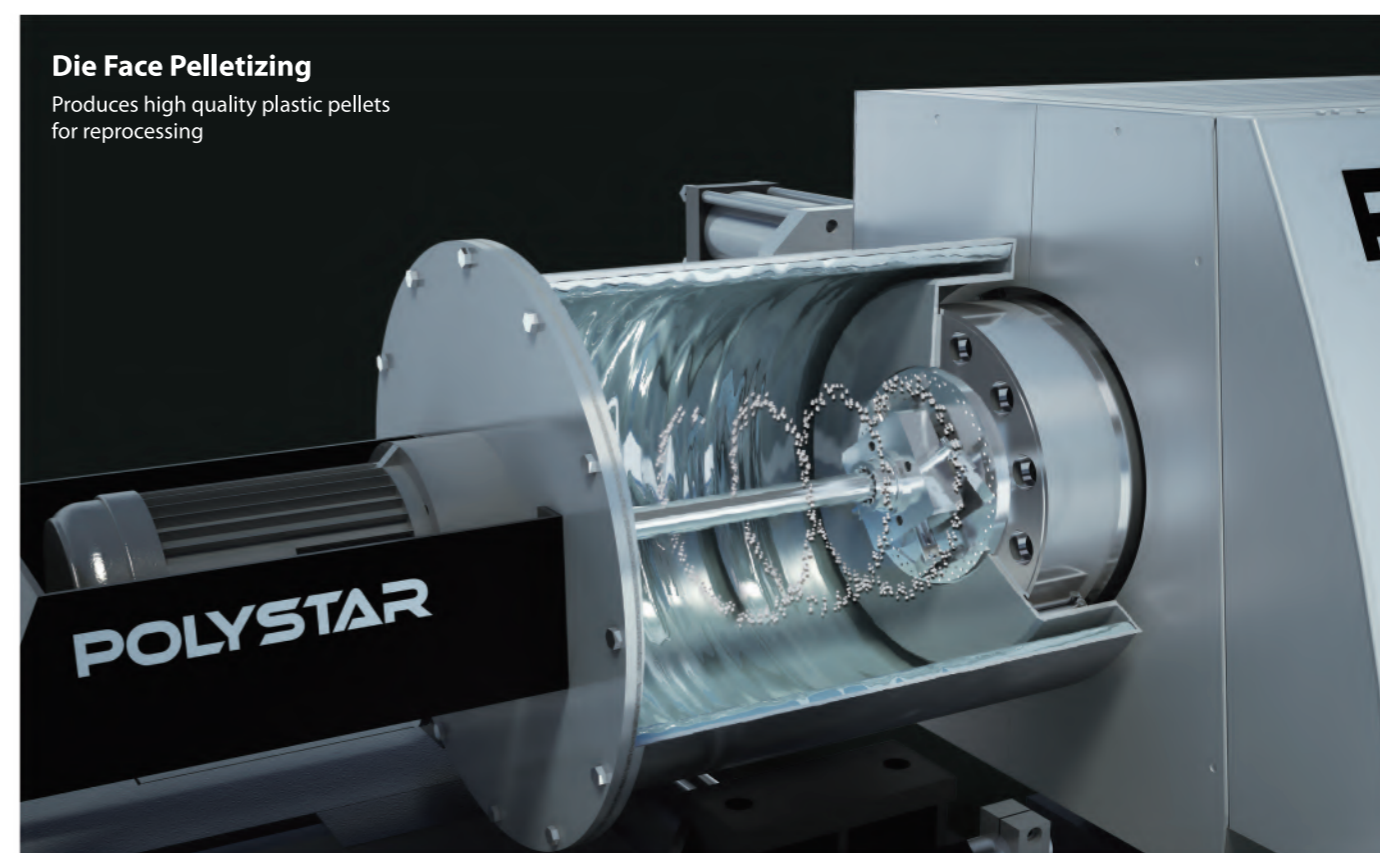
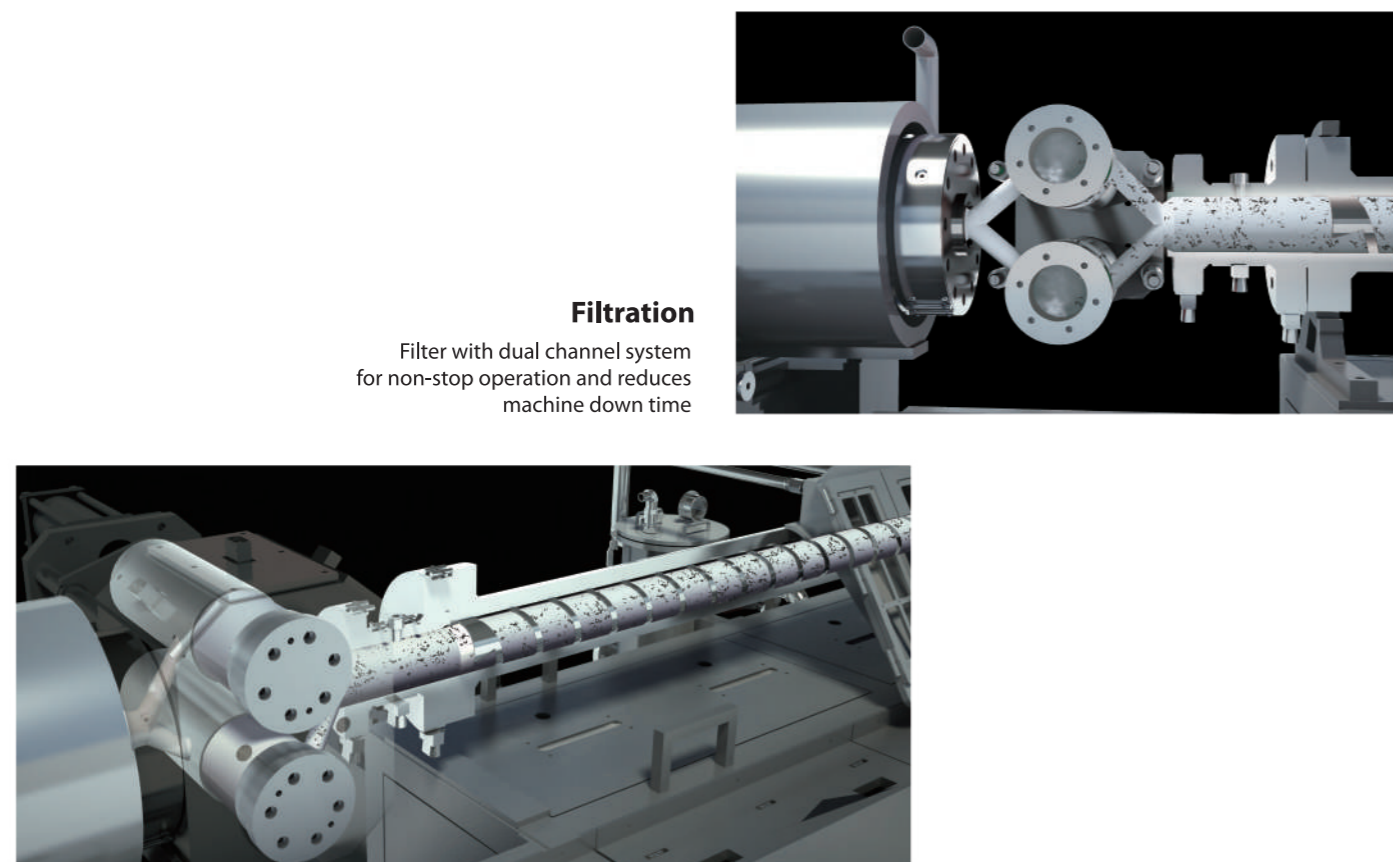
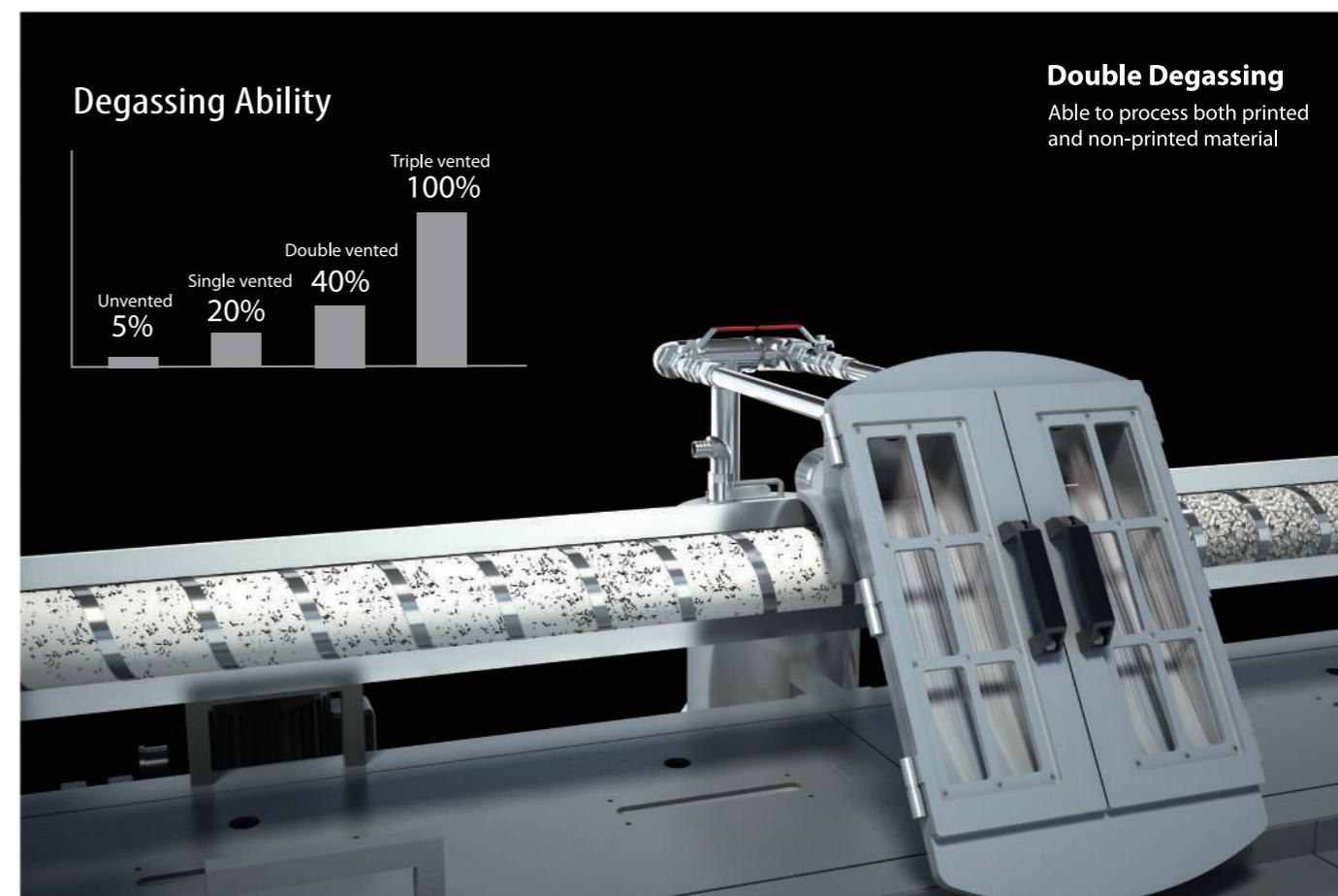
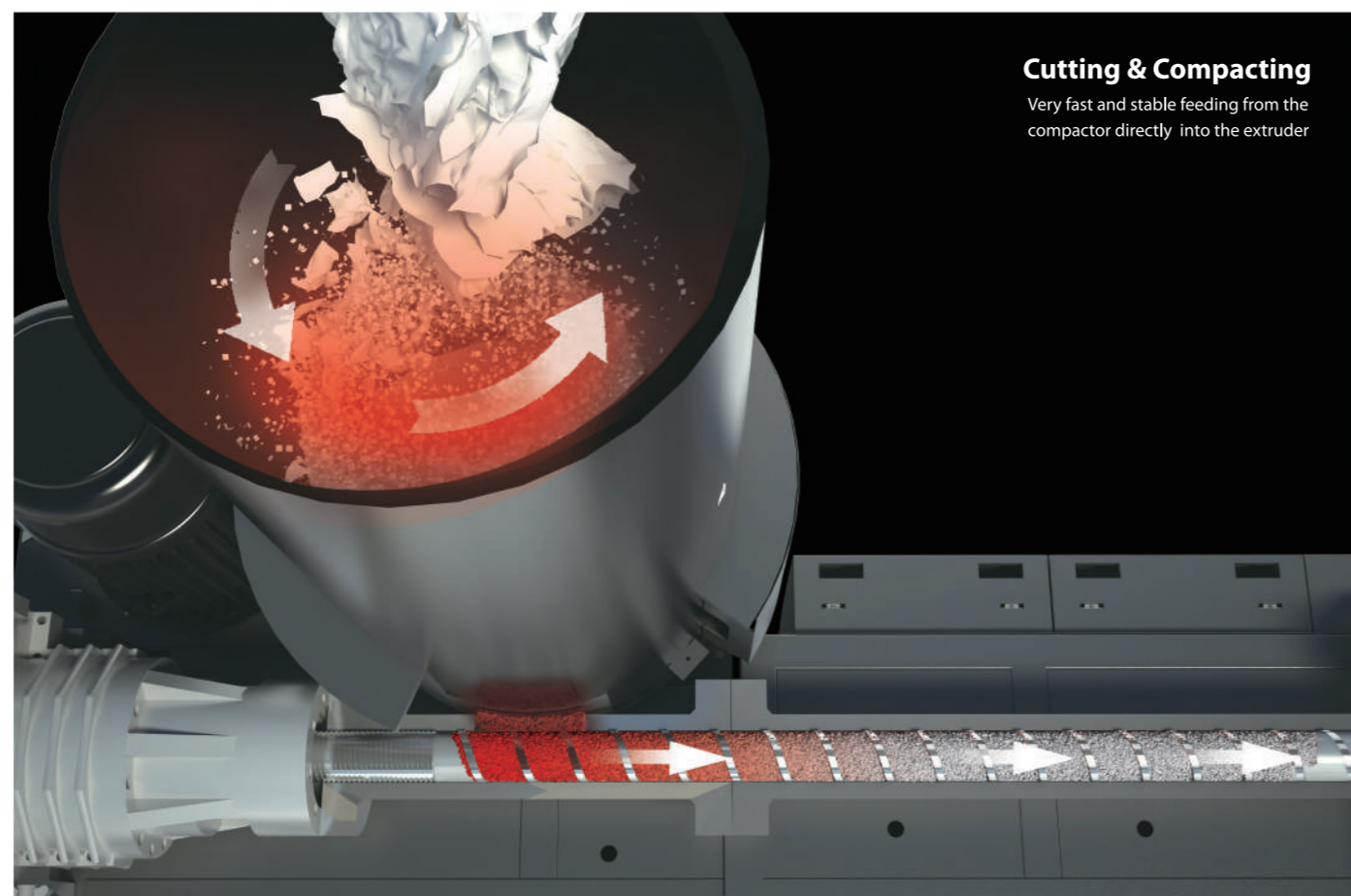
Flexible in operation

Simple in design

- One-step direct technology with cutting + extrusion + pelletizing
- Very easy to install, operate and perform maintenance
- Fast change between different types of material

POLYSTAR's Repro-Flex is designed for the reprocessing of polyethylene (HDPE, LDPE, LLDPE) and PP polypropylene flexible packaging material, printed and non-printed. This cutter integrated pelletizing system eliminates the need of pre-cutting the material, requires less space and energy consumption while producing high quality plastic pellets at a highly productive rate.





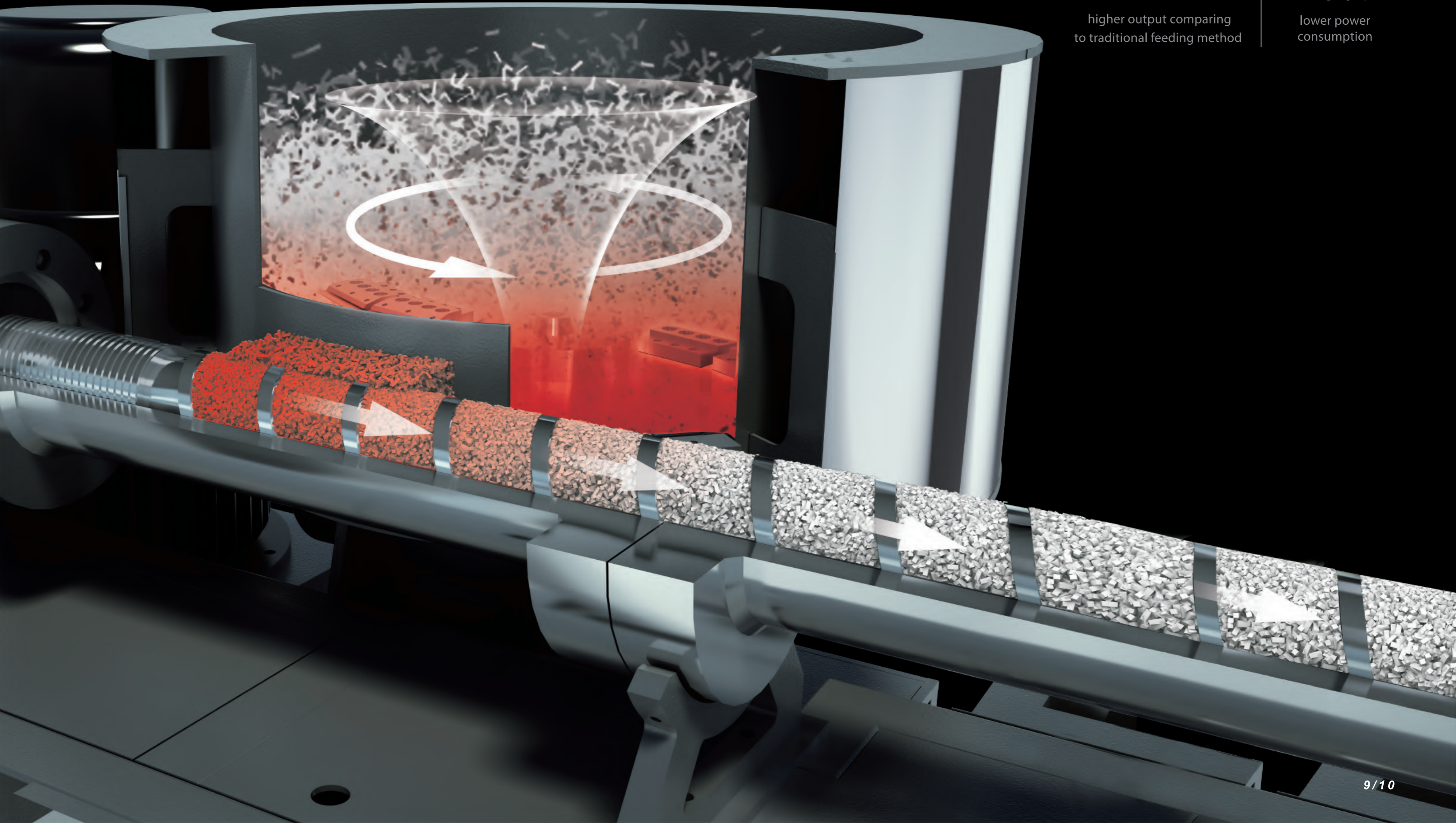
Fast · Stable · Direct

+20%

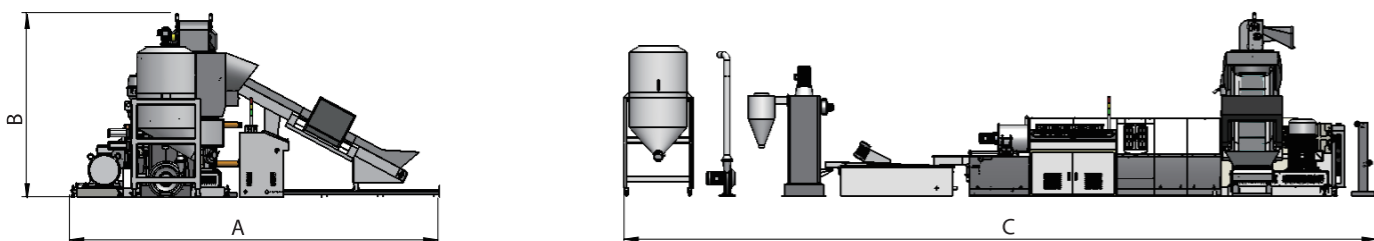
higher output comparing
to traditional feeding method

-10%

lower power
consumption



Model Comparison



Model	*Output(kg/hr)	Power consumption	Dimension		
			A (Length)	B (Height)	C (Width)
Repro-Flex65	80-120	40 kw	5400	2900	10200
Repro-Flex85	150-250	55 kw	6100	3100	11000
Repro-Flex100	250-400	132 kw	6400	3200	13100
Repro-Flex120	400-600	160 kw	7500	3500	15900
Repro-Flex150	600-800	250 kw	8400	3600	17000
Repro-Flex165	850-1000	320 kw	8800	3600	17500
Repro-Flex180	1000-1200	385 kw	9500	3700	18500

* Output based on clean, dry LDPE film processing, without degassing



World's Simplest Operation System

100% Customization

- Different degassing and filter options
- Minimal space requirement
- Personalized design to meet your requirement and factory layout



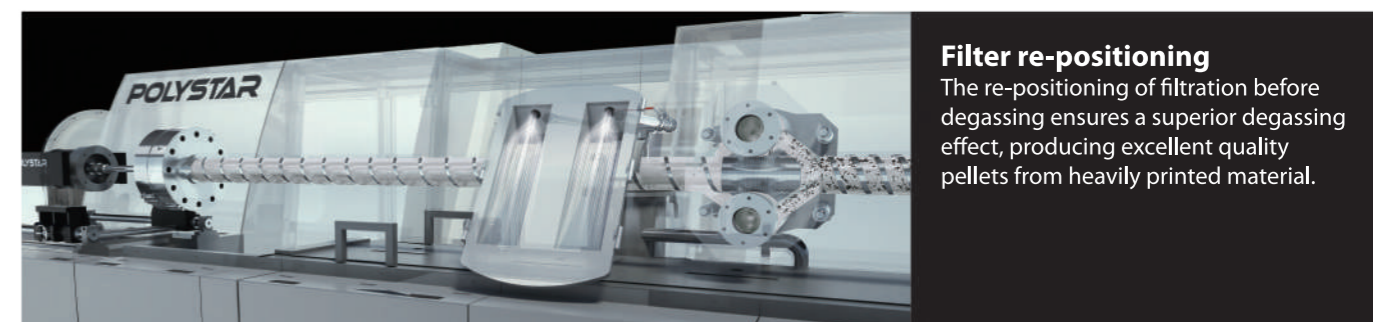
Triple degassing

In addition to the double degassing in the first extruder, the venting area (the connection between the first and second extruder) serves as a third degassing section to further remove the ink and extra humidity level from the material.



Dosing device

Color masterbatches and CaCO₃ compounds (in pellet form) can be added during the recycling process



Filter re-positioning

The re-positioning of filtration before degassing ensures a superior degassing effect, producing excellent quality pellets from heavily printed material.


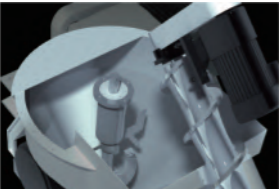


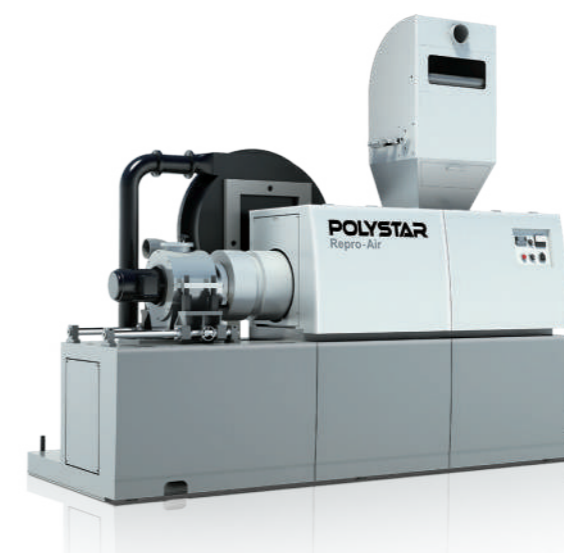
Unvented



The unvented extruder has a very short screw L/D ratio, in which the material travels in the extruder for the shortest time and distance. This results in minimal change in material property and higher output comparing to vented extruder.

4 TYPES of One-step, Integrated Systems For Different Recycling Needs!

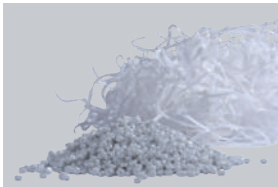



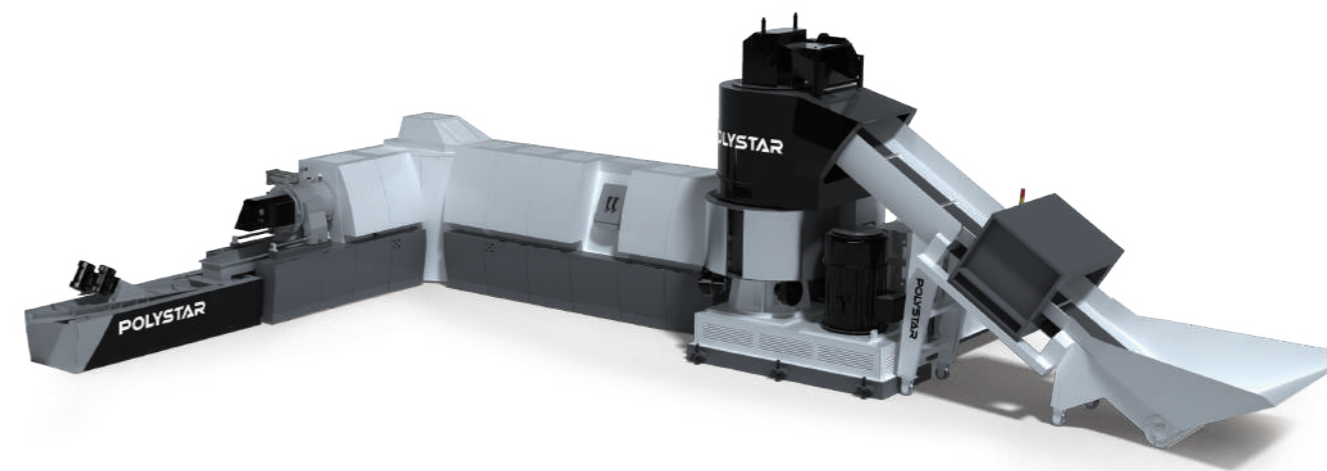
Repro-Direct					
Directly Process	Integration Type	Production	100 ~ 1000 kg / hr	Pelletizing Type	Water (die face)
Rigid regrind (pre-crushed hard plastic)	Direct hopper feeding	Filter	Two- channel	Degassing	1 or 2 ventilations
		Material Type	HDPE, LDPE, PP, ABS, PS, PC		
		Advantage & Applications	Less power consumption and processing steps		
		Can Also Process	Pre-shredded rigid regrind from PE and PP pipes, shampoo and milk bottles and powder		


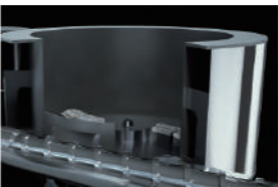


Repro-Air					
Directly Process	Integration Type	Production	40 ~ 60 kg / hr	Pelletizing Type	Air pelletizing
In-House Film On-Roll	Nip-Roll feeder	Filter	Fan type	Degassing	Non ventilation
		Material Type	HDPE, LDPE		
		Advantage & Applications	Space saving, compact type for clean, post-industrial film recycling		
		Can Also Process	Non-printed / slightly printed film on-roll and T-shirt bag cut-off		



Repro-One					
Directly Process	Integration Type	Production	150 ~ 500 kg / hr	Pelletizing Type	Water (die face)
Raffia & Rigid plastic	Single Shaft Shredder	Filter	Two- channel	Degassing	1 or 2 ventilations
		Material Type	HDPE, LDPE, LLDPE, PP, PC, PU, BOPP, BOPP+PET, CPP		
		Advantage & Applications	Can process rigid material directly with the powerful shredder		
		Can Also Process	Film on-roll, Lumps		



Repro-Print					
Directly Process	Integration Type	Production	100 ~ 1200 kg / hr	Pelletizing Type	Water (die face)
Film (printed & unprinted)	Cutter-Compactor	Filter	Two- channel	Degassing	3 ventilations
		Material Type	HDPE, LDPE, LLDPE, PP, PC, PU, BOPP, BOPP+PET, CPP		
		Advantage & Applications	The cutting-compacting process is ideal for light-weight material, especially film waste		
		Can Also Process	washed film flakes, film on-roll, pre-crushed raffia / woven, p re-crushed regrind from injection and blow molded		