INTEGRATED rPET SOLUTIONS FROM *ONE* SUPPLIER

POLYMETRIX

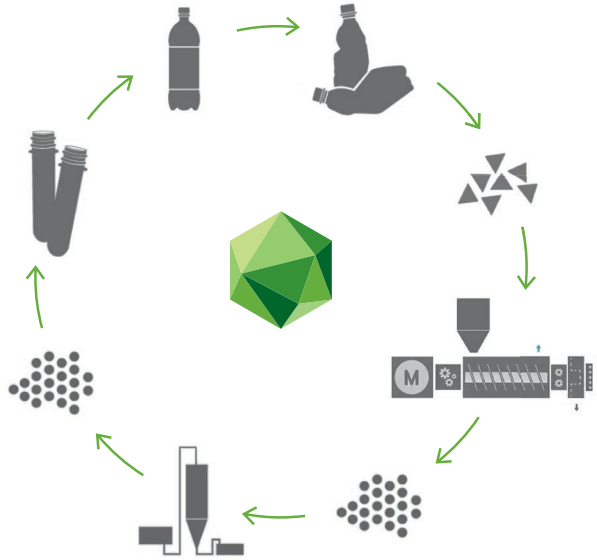
POLYMETRIX designs, supplies, installs and commissions complete industrial plants for the thermal treatment of polymers.

POLYMETRIX is the developer of the benchmark technology for mechanical rPET decontamination plants regarding product purity, IV build up and output capacity.

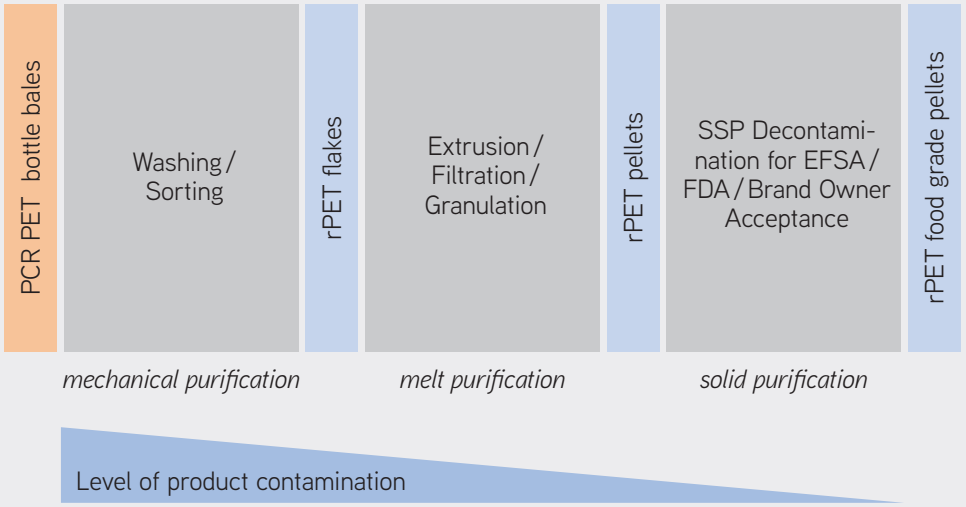
POLYMETRIX is the global market leader of vPET SSP systems with a market share of more than 75% and for rPET SSP systems with a market share of 40%.

POLYMETRIX'S rPET EXPERTISE > 2 MILLION TONS PER YEAR

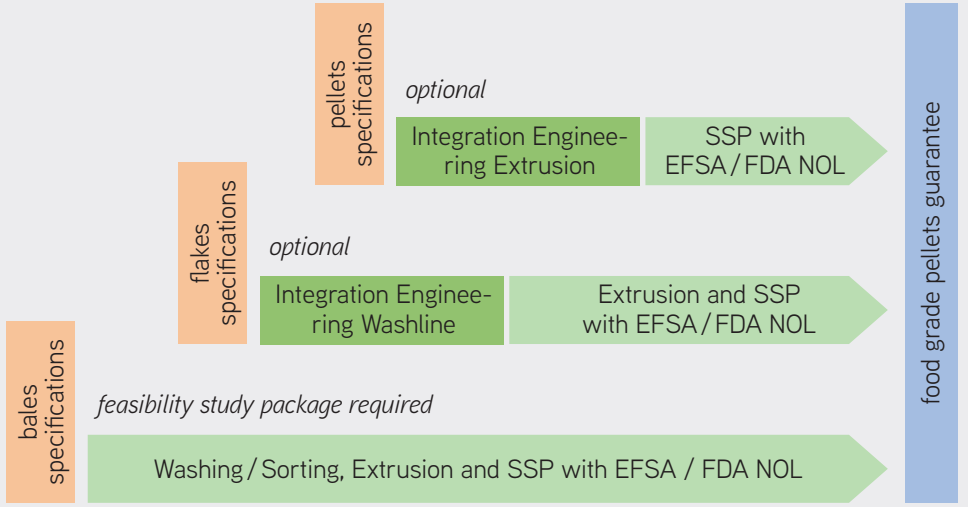
- Superior rPET quality achieved by advanced process technologies and **25 years** of experience in PET recycling.
- Proprietary SSP decontamination technology for assurance of **EFSA/FDA & brand owner food grade rPET quality**.
- Process integration knowledge covering the **full value chain of mechanical rPET** processes.
- **Low OPEX** in mechanical rPET manufacturing at **competitive CAPEX**.
- **Process and engineering know-how** for integrated systems from bales to food grade rPET.
- POLYMETRIX's scope of **supply and services** are adjusted to the client's needs, utilizing an efficient modular design concept.
- POLYMETRIX's rPET systems are **tailored for capacity, IV build-up range** and final product application (food grade, yarns, etc.).



Mechanical rPET Recycling Process



Polymetrix offers rPET plant process solutions along the full value chain



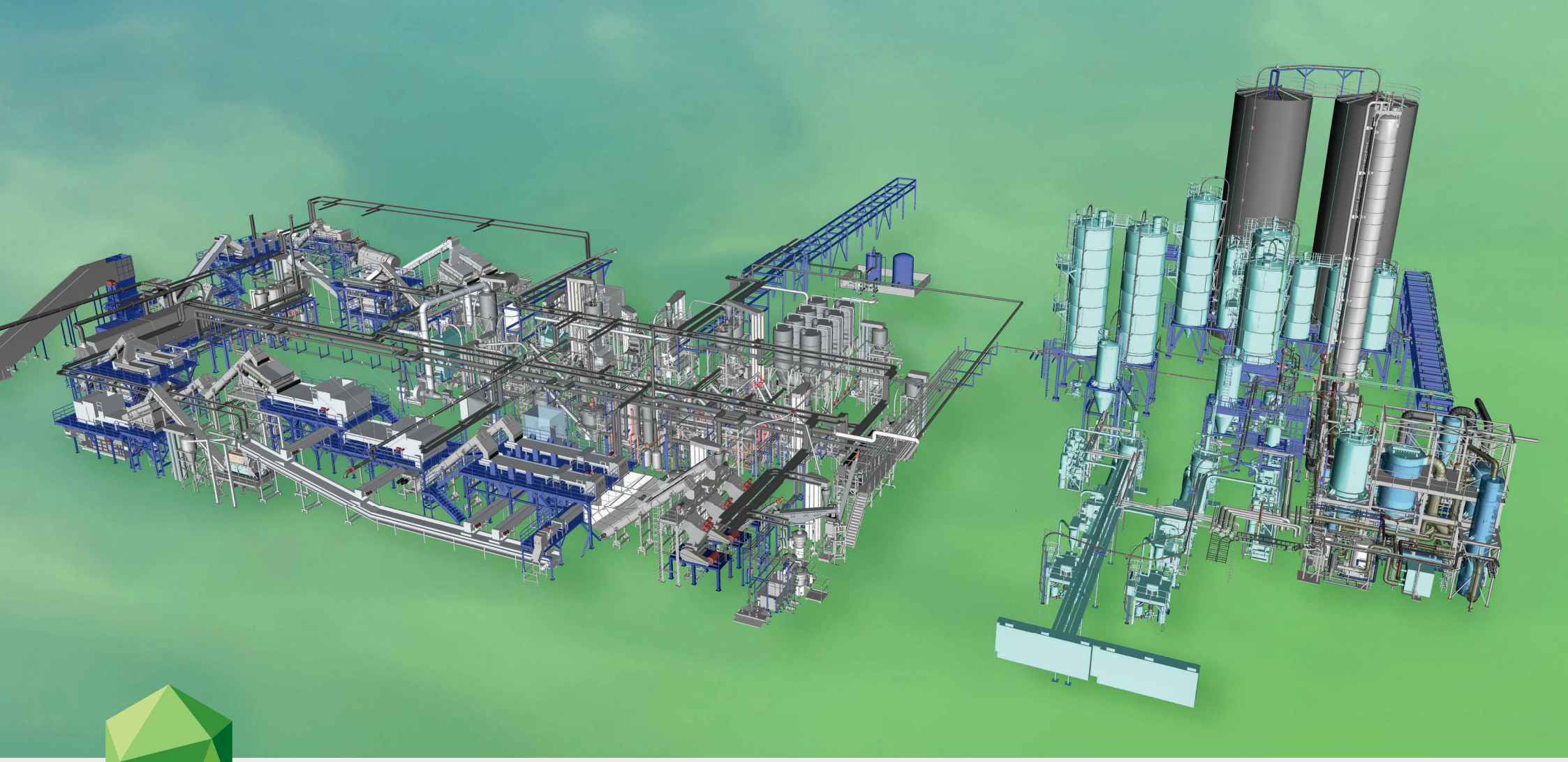
POLYMETRIX SSP DECONTAMINATION MODELS

				RM 2000 C	RM 3000 C	RM 4000 C	RM 5000 C	RM 2000 H	RM 3000 H	RM 5000 H
		Type								
		Input material		amorphous pellets				pre-crystallized pellets		
Output capacity	SSP	8'424 h/year operation [1]	t/year	18'000	30'000	42'000	50'000	25'000	42'000	65'000
		Design capacity w. feed pellets at 30°C	kg/hour	2'200	3'600	5'000	6'000	-	-	-
		Design capacity w. feed pellets at 140°C	kg/hour	-	-	-	-	3'000	5'000	7'750
	Extrusion	8'000 h/year operation [2]	t/year	18'000	30'000	42'000	50'000	25'000	42'000	65'000
		Design capacity	kg/hour	2'300	3'800	5'300	6'300	3'300	5'500	8'500
Space requirements	SSP footprint length		m	20	22	30	30	20	22	30
	SSP footprint width		m	15	15	15	15	15	15	15
	Height inside building		min. m	14	15	17	17	14	15	17
	Height of reactor top [3]		min. m	29	34	34	34	29	34	34
Expected consumption at maximum capacity	Electricity		kWh/t	136	140	131	138	87	86	85
	Nitrogen	purity 99.5 %	Nm^3/t	27	17	12	14	20	12	10
	Instrument air		Nm^3/t	6.0	4.3	3.7	3.2	4.9	3.7	3.0
	Cooling water	at 30 °C, Delta T 8K	m^3/t	4.9	5.3	4.5	5.0	4.9	4.8	5.2
	Chilled water	at 7 °C, Delta T 5K	m^3/t	1.6	1.6	1.5	1.4	1.6	1.5	1.4

[1] The continuous SSP process requires minimal maintenance and therefore can be operated min. 8'424 hours per year.

[2] The extrusion process requires regular maintenance and therefore can be operated approximately during 8'000 hours per year.

[3] The reactor is located outside of the building.



HEADQUARTER: SWITZERLAND
Polymetrix AG
Sandackerstrasse 24
9245 Oberbüren
Switzerland

Phone: +41 71 552 10 00
Email: info@polymetrix.com

www.polymetrix.com

SUBSIDIARY: PR CHINA
Mr. Mingkai Tang
Buhler (Beijing) Polymer Technology Co. Ltd.
Room 313-3541, 3rd Floor, Shanshui Building
No. 3 Guloudong Street
Miyun District, Beijing 100026
People's Republic of China

Mobile: +86 138 0109 0532
Phone: +86 10 6833 8065
Email: mingkai.tang@polymetrix.com