



TECHNOFIL - POLYSTEEL . EXTRUSION LINE TECHNOLOGY



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THE EXCLUSIVE SIMA TECHNOLOGY APPLIED TO INSTALLATIONS FOR THE PRODUCTION OF HIGH TENACITY MONOFILAMENTS FOR: ROPES, NETS, INDUSTRIAL WEB AND INDUSTRIAL APPLICATIONS

Technofil/Technopolysteel extrusion lines are the most advanced technological solution in the field of PP, HDPE, PA, PET monofilament production and it is designed for the manufacturing of twisted ropes, braided ropes, fishing nets, woven nets, industrial web, cables and , last but not the least, fiber concrete reinforcement.

HOPPER FEEDING – EXTRUSION – SPINNING: THE BIRTH OF THE PRODUCT

- Gravimetric dosing system and mixing of the raw materials and additives during the feeding process
- Homogeneity and plastification optimized without over heating during the extrusion process thanks to the use of specifically studied extrusion screws profile
- Denier constancy during the process
- Large capacity stainless quenching tank capable of maintaining homogeneous water temperature
- Adjustable internal basket for processing different denier monofilaments
- Automatic adjustment of the water tank from a central command post

MOLECULAR ORIENTATION OF THE PRODUCT

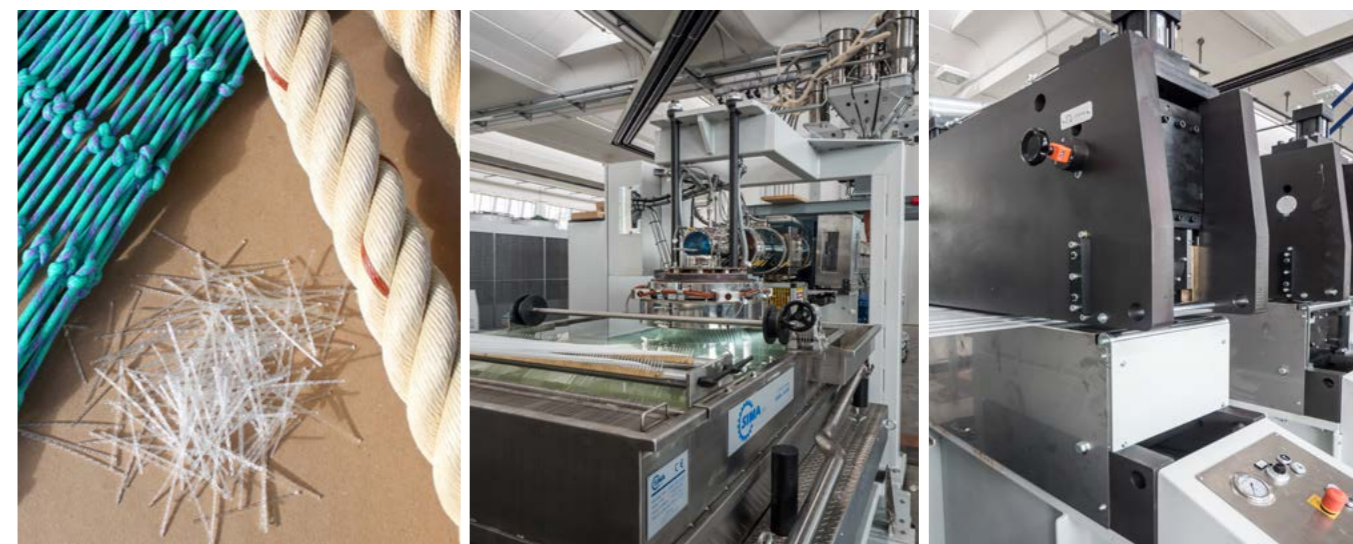
- The godets are capable of supporting up to 5.500 kilograms draw power
- Roll diameters of 318 mm engineered from specific materials to minimize slippage
- Increased surface thermal exchange, easy threading of the line, high production speed at low roll revolutions
- Completely insulated ovens with direct air passage
- Automatic temperature control up to 250°C (tolerance +/- 1°C) and air flow up to 32 meters per second controlled through inverters
- Air dispersion to the outside reduced to a minimum, thanks to the aerodynamic study of the air flow
- Controlled overflow water stretching oven

STABILIZATION PROCESS OF THE PRODUCT

Thanks to performing annealing process, elimination of the internal tension are granted which help to obtain a uniformly oriented product, free of localized memories.

HEAVY DUTY EMBOSSING UNITS for POLYSTEEL

- The two embossing unit apply to the filaments a high degree of softness and pliability
- They are open on the operator side to facilitate threading
- They are equipped with central hydraulic unit which guarantees a pressure between the rolls of 120 bars (normal force of pressure 700 Kilograms)
- They are equipped with micrometric adjustments actuated also while the machine is in motion



PRODUCT (*)	Ø [mm]	HDPE [den.]	PP [den.]	HDPE [Kg/h]	PP [Kg/h]	Monofil. n°	Tenacity HDPE [gr/den]	Tenacity PP [gr/den]
TECHNO FIL 800/75	0,15	150	145	38	42	240	7,0	6,5
"	0,25	420	400	86	94	220	6,5	6,0
"	0,40	1.085	1.020	130	160	180	6,5	5,5
TECHNO FIL 1000/100	0,15	150	145	48	52	300	7,0	6,5
"	0,25	420	400	110	120	280	6,5	6,0
"	0,40	1.085	1.020	200	210	240	6,5	5,5
TECHNO FIL 1400/115	0,15	150	145	65	70	420	7,0	6,5
"	0,25	420	400	150	165	392	6,5	6,0
"	0,40	1.085	1.020	80	290	336	6,5	5,5

PRODUCT (*)	Count [den.]	Polysteel [Kg/h]	Monofil. n°	Tenacity [gr/den]	Tenacity [MpA]
POLYSTEEL 800/75	750	126	180	8,5	700
"	3.000	150	80	8,0	660
"	4.500	150	60	7,0	580
POLYSTEEL 1000/100	750	160	230	8,5	700
"	3.000	240	120	8,0	660
"	4.500	240	90	7,0	580
POLYSTEEL 1200/115	750	190	270	8,5	700
"	3.000	300	150	8,0	660
"	4.500	300	120	7,0	580

(*) Suggested PP with MFI 1,8 ÷ 3 & HDPE with MFI ~ 0,9