

# COMPOUNDING LINE

Towards advanced manufacturing of polymeric compounds: Production unit to fabricate complex formulations or masterbatches

## CHARACTERISTICS

- TWIN-SCREW EXTRUDER FOR THE PRODUCTION OF SOLIDS
- OUTPUT: UP TO 27 kg/h
- PELLETS FROM SEVERAL mms TO LESS THAN 1 mm
- POLYETHYLENE, POLYPROPYLENE AND COPOLYMERS, POLYSTYRENE, PET, AND OTHER POLYESTERS LIKE PLA, BLENDS, THERMOPLASTIC ELASTOMERS, ETC.
- ADDITION OF FILLERS (NANO & MICRO SIZED) IN DIFFERENT CONCENTRATIONS (UP TO 80 wt.%). MASTERBATCH PRODUCTION.
- HOPPER SUITABLE TO OPERATE WITH HYGROSCOPIC-LIKE MATERIALS



## APPLICATIONS



### DEVELOPMENT OF TAILORED FORMULATIONS

- Complex polymer blends.
- Polymer composites (micro and nanofillers).
- Design of specific formulations for foaming applications.
- Experience in biopolymers and their composites.



### FABRICATION AND CHARACTERIZATION OF FORMULATIONS FOR R&D PURPOSES

- Incorporation of flame retardants, nucleating agents, reinforcing additives, etc.
- Characterization of the properties of the compound: fire behavior, additives dispersion, mechanical response, etc.



### DESIGN OF BLOWING AGENTS WITH ADVANCED FOAMABILITY

- Fabrication of blowing agent masterbatches to optimize cellular structures and maximize weight reductions.
- Ad-hoc developments adapted to the specific needs of the target product.



### SOLID MICROPELLETS FOR BEAD FOAMING APPLICATIONS

- Optimized line to generate micropellets with dimensions below 1 mm.
- Development and production of tailored formulations for bead foaming applications.

CONTACT US FOR MORE INFORMATION

[info@cellmattechnologies.com](mailto:info@cellmattechnologies.com)

[www.cellmattechnologies.com](http://www.cellmattechnologies.com)

Tel: +34 983 189 197

CELLMAT TECHNOLOGIES S.L.

Edificio Parque Científico UVA

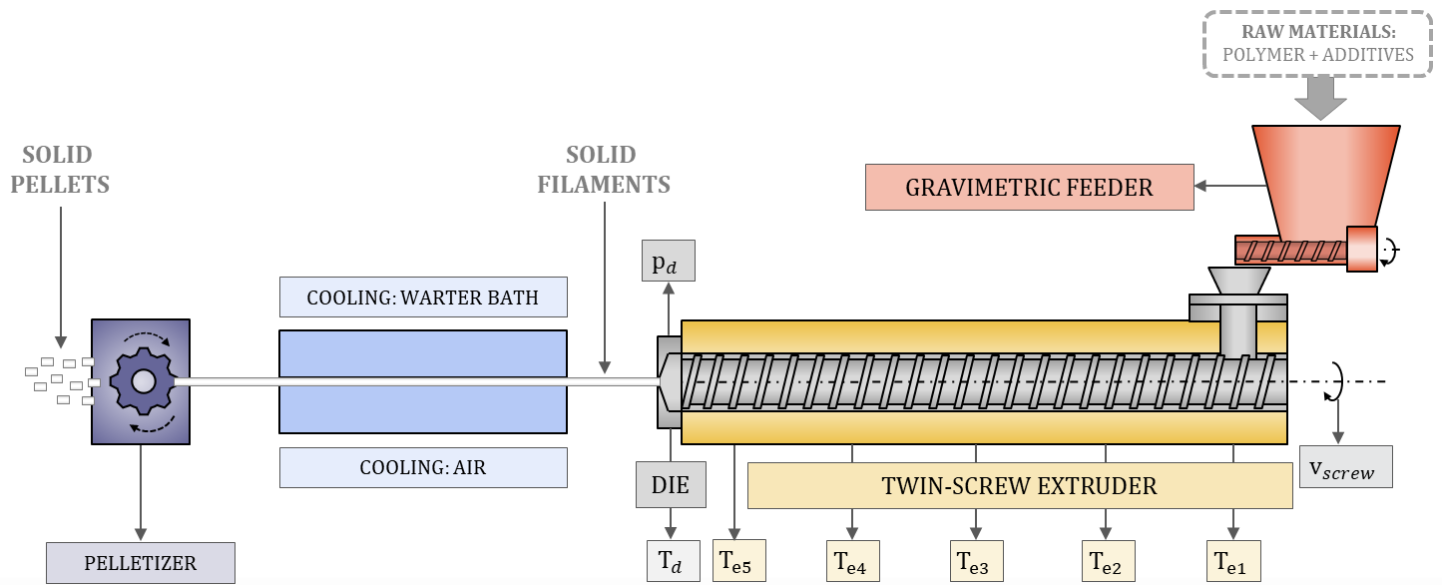
Paseo de Belén 9A

47011, Valladolid, Spain

# COMPOUNDING LINE

Towards advanced manufacturing of polymeric compounds: Production unit to fabricate complex formulations or masterbatches

## TECHNICAL SPECIFICATIONS



### CO-ROTATING TWIN-SCREW EXTRUDER

Model	ZK 25, Dr Collin
Dimensions	L/D = 36 (Screw diameter: 25 mm)
Feeding	Pellets/Hopper
Output	27 kg/h
Screw speed	800 rpm
Heating areas	5

### FEEDER

Model	DDFW-FW24phatma, Brabender
Feeder type	Gravimetric

### COOLING OPTIONS

Air	Conveyor belt with forced air
Water	Water bath

### PELLETIZER

Model	GRANULATOR, Dr Collin
-------	-----------------------

### PELLETIZER

Model	SERIES 750, Accrapak Systems Ltd
-------	----------------------------------

### DIE

Die	Strand
Number of strands	3

CONTACT US FOR MORE INFORMATION

[info@cellmattechnologies.com](mailto:info@cellmattechnologies.com)

[www.cellmattechnologies.com](http://www.cellmattechnologies.com)

Tel: +34 983 189 197

CELLMAT TECHNOLOGIES S.L.

Edificio Parque Científico UVA

Paseo de Belén 9A

47011, Valladolid, Spain