



Compounding & Extrusion

**Polymer Compounding & Extrusion**

- Color/filler and functional MB
- Engineering plastic reinforcement
- Polymer/rubber alloy
- Cable compounding
- VOC devolatilization
- Steel pipe coating
- Direct Extrusion for sheet/pipe (WPC, PVC, TPU, EVA, PVB)



Foam Extrusion

**Polymer Foam Extrusion**

- CO2 foam XPS board
- Graphite EPS beads pelletizing
- Biodegradable foam product
- PE/PP/PET foam sheet



PET Recycling & Extrusion

**PET Recycling & Extrusion**

- Bottle flakes recycling (BTB)
- BOPET film recycling
- PET fiber recycling
- Undried PET sheet
- PET straps (4 output)
- PSF/POY Direct extrusion



**Quality & Productivity**  
We not only deliver machines, but transfer values

All New Powerful ECOFEL™ series XPS Production Lines  
Graphite EPS Beads Production Lines  
Other Foam Extrusion Lines for Boards and Beads

- Higher Productivity
- Better Quality
- Lower Cost
- More Eco-friendly
- More Intelligent



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Walk The Talk



## Leading innovation

Innovation Creates Cutting-edge

Useon has been committed to providing innovative solutions for polymer foam extrusion. Optimization of screw profile; highly efficient cooling barrel structure; steam density reduction; intelligent control system. We believe that innovation creates cutting-edge. Besides a quality machine supplier, [Useon is your reliable strategic partner.](#)



## Excellent Quality and Reliability

Recognized by Fortune 500 Groups and Organizations of United Nations

The quality and reliability of ECOFEL™ has been recognized by [Fortune 500 groups](#) and leading XPS manufacturers in different regions worldwide as well as [UNIDO \(United Nations Industrial Development Organization\)](#). As a strategic partner of UNIDO to phase-out the usage of HCFCs in XPS production, Useon has been cooperating with UNIDO to implement projects worldwide.

### Features at a glance

- Huge capacity---up to 2,000kg/hr
- High compressive strength---up to 1500kpa
- Eco-friendly blowing agent
- Wealthy experiences from numerous successful cases
- Intelligent control system with big data access
- Professional service with talent pool



## Full automatic raw material handling system

A Good Start of Production Management

Continuous and even feeding is the first step to produce excellent products. All recipe changes can be done through digital setting. Incorporated with DCS intelligent control system, it can manage production and contain cost more effectively. With [integrated vacuum loading system](#), raw materials handling solution can be customized according to individual factory circumstance so that the workshop can keep clean and tidy to make a friendly work environment.

## TDS-D High Torque Twin Screw Extruder

A Guarantee for Excellent Products

Distinguishing from normal China-made compounding twin screw extruders, we adopt TDS-D series high torque twin screw extruder as primary one, which brings [specific torque up to 10.3 Nm/cm<sup>3</sup>](#). High torque twin screw extruder has many advantages which can keep the melt temperature as low as possible during processing, which can minimize the usage of flame retardants while keep the same flame retardancy level, which can keep the products' color bright and fresh, which is good for super high compressive strength boards,

Highly modularized barrels and screws as well as blowing agent injection flange allow TDS-D twin screw extruders to have wider flexibility and suitability. All CNC manufactured barrels and screws assure the precise fit so that it can provide excellent mixing and dispersion as well as optimum residence time distribution (RTD). Not only can it save additives usage, but enhance products quality.



## Innovative Cooling Single Screw Extruder

Keep Up with World-class

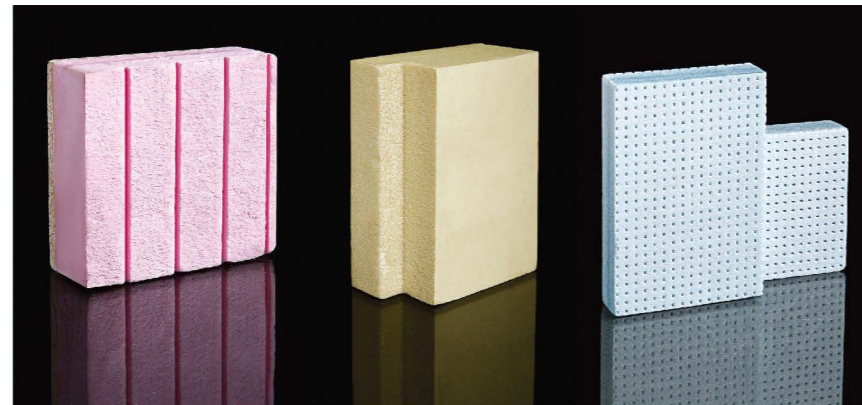
Temperature control plays a key role in foam extrusion processing. In term of cooling barrel design, the newest version of cooling single screw extruder has **increased cooling capacity by 80%** comparing with traditional design. Besides upgraded barrel design, the latest screw profile increases renewal rate of molten materials so that it assures the cooling efficiency and homogenization of materials temperature, yet **decreases the power consumption by 30%**.



## Blowing Agent System

Strike the Balance Between Cost and Quality

Variable physical properties of CO<sub>2</sub> make metering it a challenge. It involves temperature control, pressure control and mass flow rate control, in addition, it's a balance between processing parameters. We designed a **CO<sub>2</sub> system which can control its properties at a certain status** in order to meter it precisely. Multiple blowing agent injection system allow you to shift the products portfolio easily to cater for different market positioning. Pursuing quality and containing cost are at ease.



## All Series Auxiliaries

One Step for All

Fully automatic vacuum raw material handling system, loss-in-weight or gravimetric dosing system, surface planner and groover, double or triple knives cut-off, rotary cooling rack, four-side fine milling, auto-stacker, auto-packaging, inline recycling, central dust collection, and laboratory facilities are optional. We provide **all facilities and peripherals** as a turn-key project.

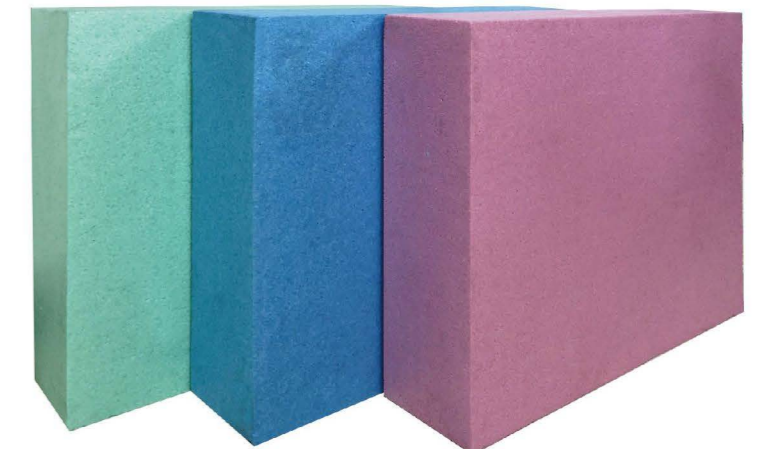
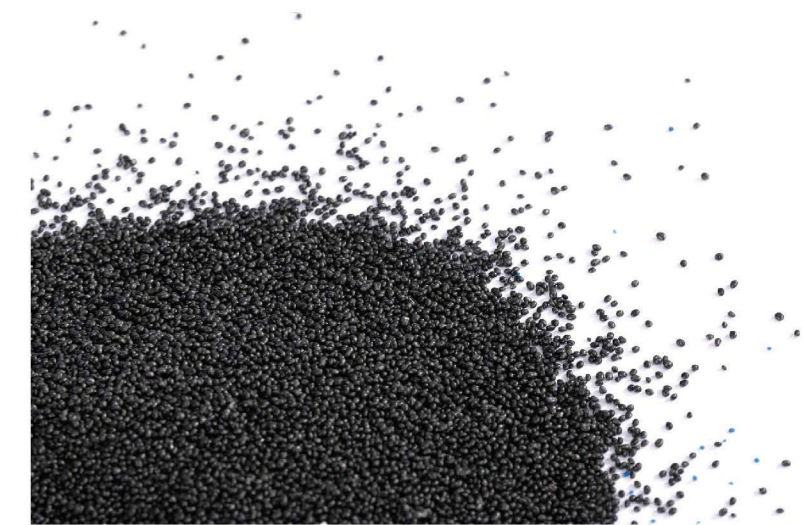


## Graphite EPS Beads Production Line

A New Member of Polystyrene Insulation Family

Graphite enriched EPS can **reduce the thermal conductivity by 20%**. Useon provide turn-key project for graphite EPS beads production factory. We are also open to discuss other possibilities of cooperation.

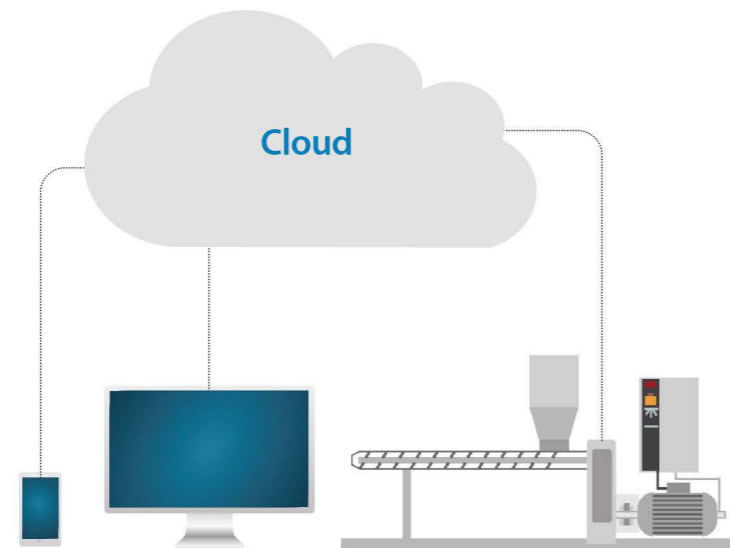
Tired of white EPS packaging materials? ECOFEL™ can produce EPS beads in any color.



## DCS Intelligent Control System

### A Prelude to Industry 4.0

Pulling data from recipe management and operation history, then optimize parameters from big data. Extracting data from maintenance record and alarm history, remote analysis and technical support can be done through such notifications. DCS intelligent control system helps you manage your production and maintain your equipment more effectively. Powerful industry PC leads your XPS production into [Big Data era](#).



## Wealthy Experience in International Projects

### The Confidence of Success

From small-medium enterprises to Fortune 500 groups, from National EPA (Environment Protection Agency) to UNIDO (United Nations Industrial Development Organization), huge number of projects let us profoundly understand clients' rigorous demands in safety, reliability and humanization design. [Such expertise become a critical part to implement projects successfully.](#)

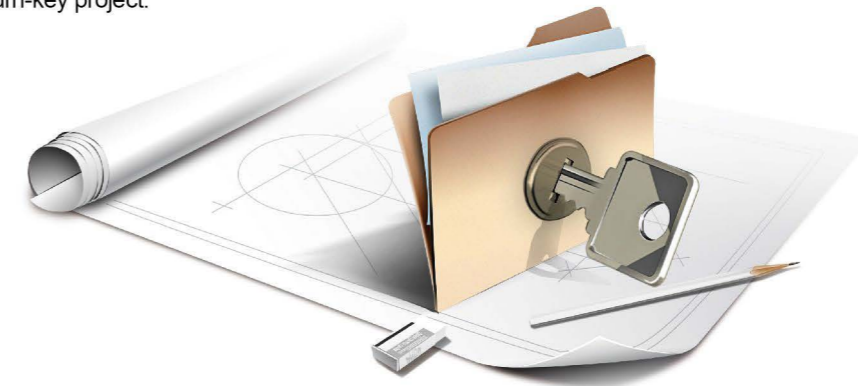
## ECOFEL™ Series XPS Production Lines

| Model         | Output           | Transformer required |
|---------------|------------------|----------------------|
| TDS75-TDD150  | 200-450kg/hr     | 300KVA               |
| TDS85-TDD200  | 400-700kg/hr     | 400KVA               |
| TDS95-TDD250  | 600-1,000kg/hr   | 500KVA               |
| TDS110-TDD300 | 800-1,200kg/hr   | 600KVA               |
| TDS135-TDD400 | 1,500-2,000kg/hr | 800KVA               |

## Turk-key Projects

### You Make Decision We Do the Rest

For XPS project, selecting a high-quality equipment is just the first step to success. Our professional team not only provides fine equipment, we provide [various and rounded services](#). It covers workshop design consulting, warehouse logistic management, recipe management, operation and maintenance training etc. We have our own international talent pool. We are ready to be at your proposal. We do turn-key project.



## Laboratory facilities

### They Are Yours Too

To facilitate research and development, trial new recipe and new processing, our laboratory facilities are yours too. [We welcome you to discover all possibilities](#) of polymer foam products together. We provide various laboratory equipment and tailor-made foam extrusion equipment to universities, institutes and enterprise.