

Specialists in Gravimetric Blending & Controls



*Precision in Plastics*



[www.tsm-controls.com](http://www.tsm-controls.com)

TSM's reputation and prominence within the Plastics industry is gaining strength every year. We are now a critically important partner to some of the best known plastics producers in the world.



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From the cap of your toothpaste tube to the milk carton on your breakfast table or the plastic bag that you buy your vegetables in, you'll find that TSM has played a vital part in the manufacturing process.

For the past 36 years, we've been supplying blending and control systems that enable companies to achieve the level of precision that their production processes demand. The payoff from greater consistency is greater profit – it's as simple as that!



**Irish-based, with a global footprint.**

TSM headquarters are in Ireland, with regional offices in USA, Taiwan and China. Our clients are to be found in every corner of the globe. In fact, we have more than 10,000 installations including world leaders in plastics processing drawn from a wide variety of industry sectors and spanning a total of 60 countries.

TSM supply a range of off-the-shelf blending and ancillary systems for our clients. In an increasingly complex manufacturing world, our customers demand more and more bespoke solutions that are individually tailored to specific application requirements and focused on processing dissimilar materials and control of end product consistency.

Our level of flexibility in this regard goes beyond the purely technical, and involves a highly creative approach to solving your process problems in a manner that's completely cost-effective. In many cases, the cost of our equipment is repaid within just months as a result of the superior efficiencies which they offer.

The business is managed today by a team of professional managers including the first and second generation of the founding family. Their personal approach to service excellence is an integral part of the TSM success story.

If you are looking to improve your plant operations, reduce costs or increase throughput then TSM is the perfect partner to help you achieve these goals.

**Jim O'Callaghan - President**

# Research & Development



## Specialists in Gravimetric Blending & Controls

### Innovation is in our DNA.

Our continued success over decades is built around an absolute commitment to innovation. We have strong formal links with the academic sector to ensure that we stay at the forefront of technological development within the plastics industry, helping us to deliver newer, better and more profitable solutions for our clients. Our history is filled with innovations that help plastic producers realise high levels of productivity and profitability. For more than 35 years we have been inventing new products and services that bring unique value to your operations. That's why we continue to invest heavily in research and development today. It's also why you'll always experience the maximum benefit from a TSM solution.

Our customers demand simplicity of operation and guaranteed performance coupled with assurance that their mission critical blending systems will operate reliably for many years delivering maximum uptime with minimum downtime. Backward compatibility is a cornerstone of our R&D philosophy and guarantees that customer investments are protected over the plant lifecycle. TSM's comprehensive service offerings address these challenges by reducing costs within the business while increasing operational effectiveness. This clear strategy, marked by our significant and continuous investment in R&D, puts us a step ahead of the competition – a market position we plan to keep and build on.....

As a specialist supplier to the plastics industry we continually seek to improve your plant's productivity and efficiency.

**Our fundamental R&D priorities never change – products, systems and services for increased productivity, cost reduction and sustained customer partnerships.**

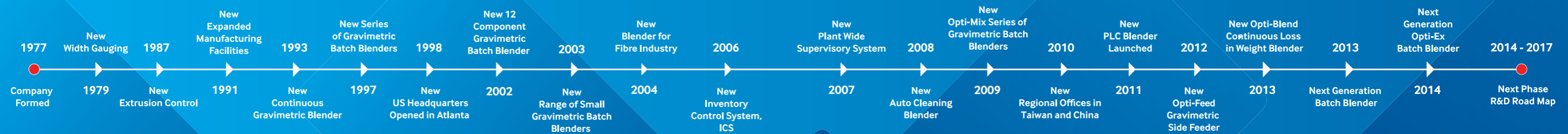
The future of our company can be summed up in a simple promise – to remain in the vanguard when it comes to design and manufacture of the most innovative, reliable and cost effective control equipment in the plastics industry.

Innovation rarely happens in isolation. At the interface between market pull and technology push, the correct mix of insight and ingenuity counts. We launch R&D projects in close cooperation with our sales team and customers. End-user input into our R&D roadmap is a critical factor in ensuring TSM has a clear understanding of the current and future challenges within the industry.



“Achieving true bottom line results needs more than just a new system. It takes people who understand your business – with in depth skills, a strong track record and proven products & solutions”.

## TSM Innovation Timeline



# Products Overview

TSM automation solutions assists plastic producers face challenges like stringent quality demands from customers and higher raw material, labour and maintenance costs. We leverage our extensive process knowledge and technological expertise to deliver the most reliable and accurate blending products in the industry.

Our Blenders and ancillary equipment are the industry's strongest and smartest providing a robust solution that work comfortably in plant environments yet deliver exceptional control and performance in all applications.

# Material Handling

TSM has over 250 years of industry expertise in the area of conveying and handling similar and dissimilar materials TSM's fully integrated family of material handling components enable TSM to deliver complete project solutions to our clients. A full range of ancillary equipment allow site specific project and application requirements to be met from a single source.



## OPTIFEED

Gravimetric Additive Feeder



TSM's economical color and additive feeders deliver exact dosing rates utilising continuous LIW technology with precise control of the feeding speed.

## OPTIMIX

Multi Component Gravimetric Batch Blender



TSM's OPTI-MIX range of Batch Blenders offer throughputs up to 3000kg and can accommodate up to 12 material components). The OPTIMIX Range utilises patented TSM slide valve design and the patented reverse-flight auger mixing technology. This combination provides superior accuracies, blend ratios and mixing homogeneity that is not achievable by competitive systems.

## OPTIEX

Multi Component Gravimetric Batch Blender with LIW based Extrusion Control



TSM's extrusion control blenders combine in a unique way accurate gravimetric batch blending together with integrated extrusion control using LIW principle. This results in exceptional ultra fast throughput measurement and control of the extrusion process. OPTI-EX range can handle throughputs up to 1500kg/hr and a maximum of 12 components of varying bulk densities.

## OPTIBLEND

Multi Component Continuous LIW Blending



TSM's OPTI BLEND family of Continuous Blenders deliver near perfect cascade mixing with the ability to blend extremely low material percentages. Maximum accuracy dosing is achieved by weighing the entire material hopper, it's contents and auger feeder leaving only the material fed into the mass flow hopper being measured regardless of vibration or variations in material flow characteristics. The OPTI-DOSE range offer offers throughputs up to 3000kg and can accommodate up to 7 components.

## OPTIYIELD

Single Component Continuous LIW Measurement



TSM's OPTI-YIELD family of single component LIW Blenders offer precise measurement, total reliability and advanced process control options to ensure consistent end product quality with reduced material usage. Throughputs from 50kg/hr to 3000kg/hr are available.

The product portfolio is designed to suit all applications and requirements and range from standard products to highly customised, bespoke solutions.

We leverage our extensive process knowledge and technical expertise to deliver the most reliable and accurate blending products in the industry.



## Global Support Services

One of our highest priorities is ensuring that plastic producers achieve the greatest possible performance from their TSM investment. To do this, we work hard to understand your business and provide you with the products and support you need.

Our goal is to ensure you achieve the highest possible ROI on your investment with TSM. We have the resources to help your plant increase productivity in a sustainable way. Because our entire company is focussed on the needs of plastics producers we can address the specific application demands and lifecycle requirements appropriate to your investment.

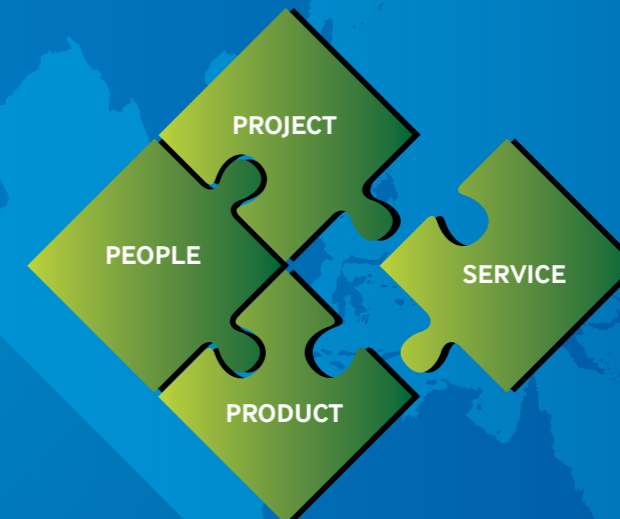
### Support for the life of your system.

TSM maintenance and field services help reduce costly downtime and maximise the performance of the blending system. Our service team is trained and certified in the latest diagnostic, repair and maintenance practises, ensuring you receive the maximum value for your maintenance investment. TSM Service portfolio offers the following value add options for our customers:

- Installation and Start Up Services
- Maintenance & Field Services
- Service Level Agreements (SLAs)
- Process Optimisation Services
- Telephone Support
- Remote Services
- Spare Parts
- Lifecycle Management
- Training/Skills Development

“TSM’s full portfolio of field services - from spare parts to installation and lifecycle management-improves equipment productivity, minimises equipment costs and extends useful life”.

Service...  
... Completes the Picture



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### Precision:

Precision in TSM's products and design ensures delivery of bottom line savings and cost optimisation.

### Innovation:

State of the art solutions are delivered to you through constant Research & Development.

### Quality:

Reliability through engineering excellence is at the core of all TSM product design.



## Contact TSM today to see how we can improve your production

#### European Office

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