



ESSENTRA

The background features a series of overlapping triangles in red and grey, creating a sense of depth and movement. The triangles are arranged in a way that suggests a staircase or a series of steps ascending towards the right. The bottom of the image is a solid red block containing the text.

PATIENT ADHERENCE SOLUTIONS

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INTRODUCTION TO PATIENT ADHERENCE



PATIENT ADHERENCE

World Health Organization definition

- Patient adherence describes the extent to which a person's behaviour – for example, taking medication, following a diet or executing lifestyle changes – corresponds with agreed recommendations from a healthcare provider



Patient adherence can best be defined as a patient taking their medications according to the prescribed dosage, time, frequency and direction.

A growing body of evidence suggests that medication adherence programs have the potential to greatly reduce health spending and generate significant savings for taxpayers in the process.



FACTS & FIGURES

- Packaging can influence patient adherence in many ways, from the information it carries to the overall design and ease of use for the consumer. Such information should be conveyed in a way that is clear and easy to understand, and delivery of which can be enhanced by the available space to communicate these details
- Packaging has the opportunity to improve adherence from a user perspective by providing additional information and detail, to ensure patients have fuller knowledge of their treatment and thus help to avoid misunderstanding
- As pharmaceutical companies look to provide more detail on product warnings, dosage instructions, legal information and ingredients, it is clear that packaging must work to support patient adherence

- Alarming this is already a major challenge, for example, research shows that patients not taking their medicines properly costs the UK's National Health Service **£500 million** a year
- Approximately **50%** of patients with chronic diseases in developed countries do not take medicines as prescribed

In 2009, the Network for Excellence in Health Innovation cited poor adherence as one of the “drug-related problems” responsible for up to 13% of the total healthcare expenditure.

Poor medication adherence increases the likelihood of preventable disease progression, increases unnecessary hospitalisations, avoidable doctor and emergency department visits. It is estimated there are up to **\$300 billion USD** a year in costs incurred as a result of patient non-adherence.



FACTORS THAT CONTRIBUTE TO POOR PATIENT ADHERENCE

Reasons for patient non-adherence are complex and range from psychological to physical and even to miscommunication through the entire system.



BARRIERS TO GREAT OUTCOMES

TREATMENT ► **ADHERENCE** ► OUTCOMES



PATIENT

- Lack of understanding
- Lack of involvement
- Affordability
- Accessibility
- Unclear instructions



PHYSICIAN

- Complex treatments tailored to patients lives
- Lack of follow up
- Unexplained benefits and implications
- Lack of communication between medical professionals



HEALTH SYSTEM

- Fragmented / inconsistent healthcare systems
- Prohibitive drug costs / co-payments
- Information not easily available about a patient's history
- Lack of time to engage patients and understand their lifestyles

CAN PACKAGING HELP?

According to the World Health Organization, one of the factors that contributes to poor adherence is a lack of knowledge as patients often misunderstand treatment instructions.

Pharmaceutical packaging therefore plays an incredibly important role, given the information it provides that helps patients abide by the proper dosing schedule.



Over two decades of research studies support the use of modern packaging solutions, including patient prompting (also known as compliance-prompting) as a successful option for improving patient adherence.

This leverages the unique characteristics of packaging to help patients better understand how and why to take their medicine.

Scientific data clearly shows that packaging can increase patient adherence to taking medicine correctly as prescribed.

Never before have packaging and manufacturing engineers been in a better position to help their organisation through packaging decisions that drive top-line sales and positive business results, ultimately helping patients reach better health outcomes.

**OUR SOLUTIONS
START WITH GREAT
COLLABORATION AND
INSIGHTFUL DESIGN**

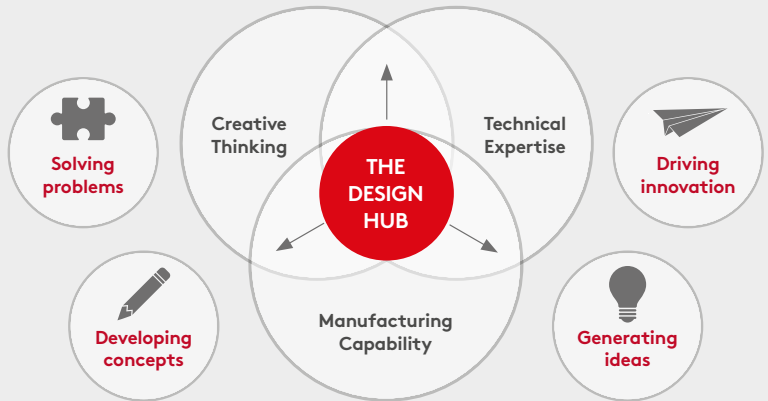


INTRODUCING THE DESIGN HUB

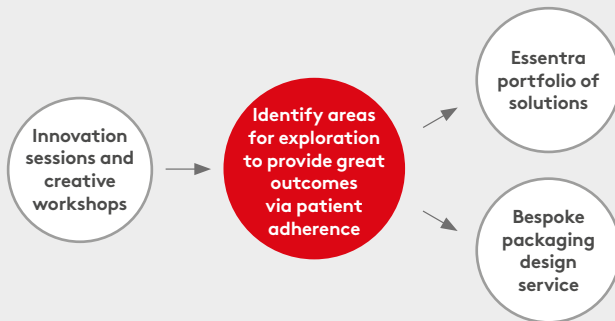
Design makes a difference

We have created a design facility that combines the creativity of blue sky thinking with the technical expertise of our development teams to manufacture and supply stand-out packaging that will improve patient outcomes. This is achieved this through considered communication structure and other design strategies.

Decorative geometric shapes consisting of two light gray triangles pointing towards each other, forming a larger triangular shape, located at the bottom left of the page.



WHAT WE HAVE DONE



You have a chance to have a free consultation regarding your packaging design strategy.

See the inside back cover to discover if you qualify.



Alan Davies
Global Design Studio Manager

WHAT WE OFFER

A rich and enjoyable creative process



Delivery of tangible results



Using industry-leading design talent and proven technical manufacturing capability, we ensure quicker time to market, fewer re-loops and deliverable results.



**Product
development**



**End-to-end
service**



**Saving time
and money**



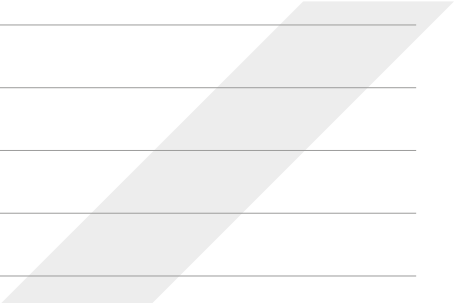
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ESSENTRA HEALTHCARE



GLOBAL, END-TO-END HEALTHCARE SOLUTIONS

We are a global provider of essential healthcare packaging and support services to customers throughout the world.



EUROPE
& AFRICA



ASIA INC.
MIDDLE EAST



Working in partnership with both customers and strategic suppliers, we are committed to innovation and meeting the rapidly changing requirements of the healthcare and pharmaceutical sector with a highly flexible, responsive and competitive approach.

We offer solutions end-to-end. Our dedicated studio design team can originate initial pack concepts and graphics, while our production capability encompasses a wide variety of carton, label and literature formats that can include authentication and serialisation in any combination.





ESSENTRA PATIENT ADHERENCE SOLUTIONS



OVERVIEW PAGE

Our packaging solutions for patient adherence include



Cartons



Printed primary packaging

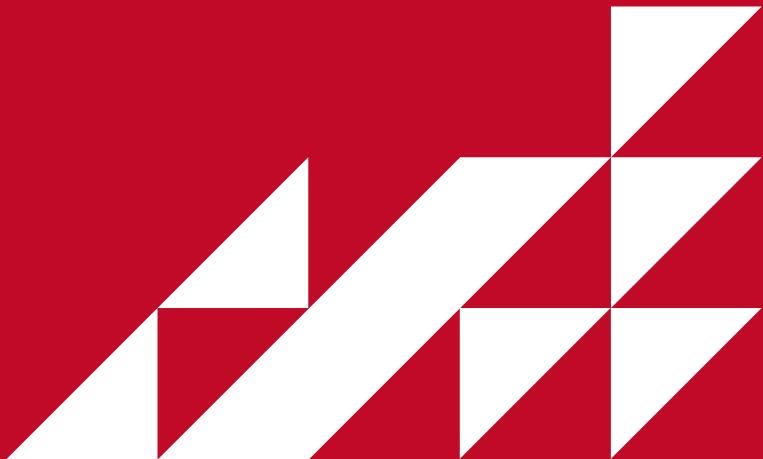


Literature



Labels

CARTONS



CARTONS – OVERVIEW

Driven by customer requirements, we use multiple material substrates including conventional and metallised board.

Our engineering and design team constantly innovate carton solutions and continuously improve our product line to meet specific customer demand for more effective and economical packaging and printing.





PATIENT ADHERENCE BOX



Features

Simple and clear graphics to guide patient adherence processes.
Particularly useful for cross language communication

Tamper verification is provided by irreversibly damaging the carton board. It gives consumers clear and visible evidence indicating the packaging has been opened

A special range of inks that are activated by high or low temperatures to monitor storage conditions

Enables large volumes of information to be displayed in compliant font sizes to provide additional patient information.
The booklet format allows for easy navigation by patients

Structural packaging to protect content such as vials or medical devices from damage

CARTONS – OVERVIEW

- Carton designs and structural prototypes developed in-house
- Offset print process with both UV and conventional inks; UV and water-based coatings are available
- Computer-to-plate and processing technologies
- Intricate die cutting and blanking
- Specialist gluing solutions
- Printing on both sides of the board





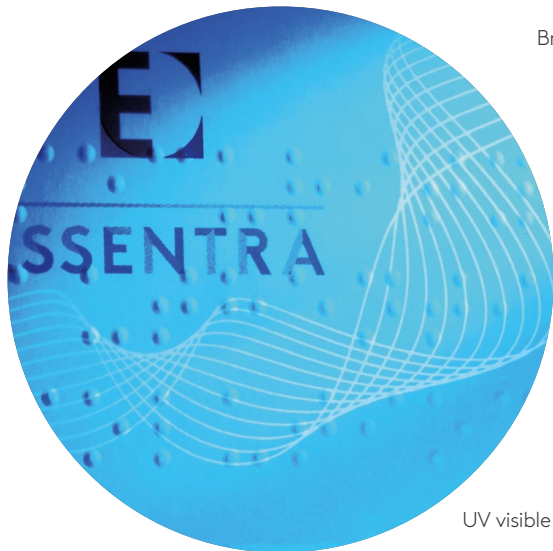
PRODUCT FEATURES AND OPTIONS

- Specialist inks and varnishes
- Hot/cold foiling
- Window-patched carton
- Cartons with Braille
- Embossing and debossing
- Micro-perforations
- Anti-theft labels
- Anti-counterfeiting and authentication technologies
- Serialisation



Microtext





Braille



UV visible inks



CARTONS – COMBOPACK

- A combination of carton and leaflet
- Suitable for packaging applications that are difficult and/or costly
- Eliminates the need for separate supply streams for carton and leaflet
- Reduced transport costs, as the combined package is produced at the same site



Benefits

Reduces production and assembly costs

No compromise to packing line speeds
or efficiency

Less pack line maintenance

Fewer SKUs



CARTONS – TAMPER EVIDENCE GLUED CARTON

Essentra's tamper-verification solution is glued by our customer at the point of product packaging, which mean cartons do not require additional tamper-evident features such as labels.

Irreversible tamper verification is created by tearing the carton or designed perforations to open.

Features

Optional re-close function

Overt and covert authentication technology available





PARENTERAL PAPER PACKS (PPP)

Designed for fragile products such as vials, bottles, ampoules and syringes, Parenteral Paper Packs (PPP) are an important environmental packaging innovation. Made of 100% recyclable carton board instead of plastics.

IMA SAFE packaging equipment is used to erect the container, tray or display box then pick 'n' place systems lock items in place inside the boxes. PPP use cheaper materials than standard, require lower manufacturing precision and are extremely stable, enabling high-speed handling.



Quality commitment

Each of our production facilities satisfies GMP compliance and customer expectation. Our global distribution, independent supply chains and high-specification manufacturing technology make for industry-leading product capability and world-class delivery.



Benefits

Made from recyclable carton board

Product 'locked' into tray for complete stability and security

Suitable for high-speed lines

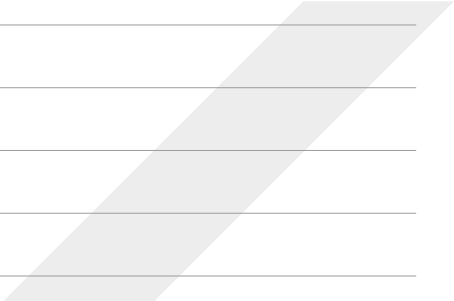
Significant cost savings versus traditional solutions

Tamper evidence by means of pre-cut label or paper foil

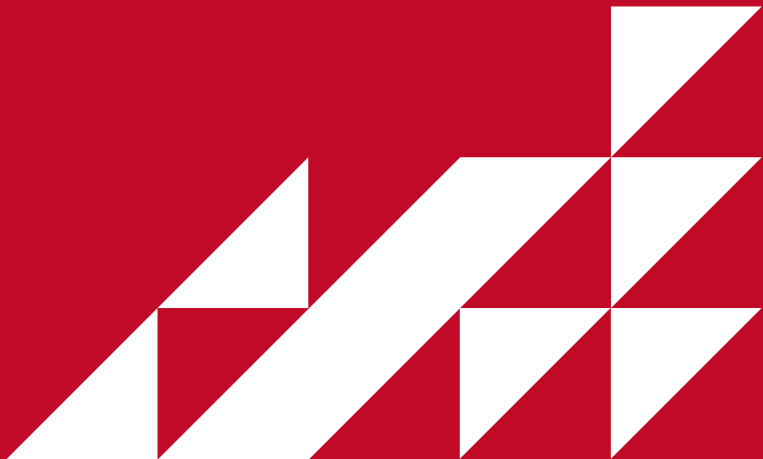
Adaptable to new product configurations

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LITERATURE



LITERATURE – OVERVIEW

Our healthcare literature come in a range of sizes and different formats: folded, flat and on-roll. Leaflets are printed on both reel and flat-sheet offset litho presses for pack insertion on high-speed lines.

Booklets can be multipage, multicolour and perfect bound in a range of sizes to suit your requirements.

We employ state-of-the-art inspection, defect detection and tracing equipment to ensure consistent quality and text matching to customers' requirements.





LITERATURE – OVERVIEW

- Flat leaflets
- Parallel/cross folded
- Glued outsert or tagsert folded leaflets
- Multi-unit, multipage, leaflet combinations such as Piggyback®
- Reel format options: simple reel; double, triple and quadruple pre-folded leaflets (PFL)
 - ideal for very high-speed cartoning lines with in-house leaflet folding
- Booklets



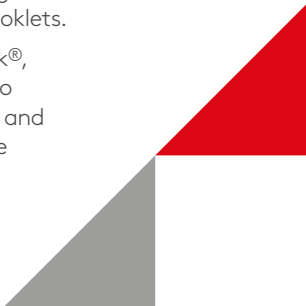


LITERATURE

We use advanced printing and folding technology to produce high-quality patient information leaflets in a wide variety of formats and finishes as folded, flat or on-roll (single, double, triple and quadruple).

Our specialist product range, made to customer specification, includes pure parallel fold, wallet parallel fold, open-edge cross fold, outserts, spotglued leaflets, tagserts and booklets.

We offer innovative leaflet formats including Piggyback[®], which are folded leaflets glued together back to back to provide maximum printing space in a compact design; and Plurium[™], a multipage folded booklet offering separate sections for different audiences and languages.



Features

Printed on web or flat sheet offset litho presses

Wide range of substrates

Single and multicolour options

Larger sizes available

In-house graphic design studio

Our solutions include folded, flat, on-roll (single, double, triple, quadruple)



BOOKLETS / LEAFLETS – PLURIUM™

Our Plurium™ products enable large volumes of information to be displayed at compliant font sizes, and are available in either flat or folded formats.

Both formats comprise up to six sheets (12 printable faces) glued at the spine, which can be colour coded to highlight different sections, languages or audiences.

The leaflet format can be supplied as pre-folded with different dimensions and page counts including parallel, cross and VIJUK-folded, tagsert or outsert using up to 50gsm stock.

The Plurium™ booklet can feature a carton board cover.

Booklet / leaflet benefits

Easy navigation

Carton board cover

Permanently or temporarily fixed
inside packaging

Allows large volume of information

Works with existing
insertion technology



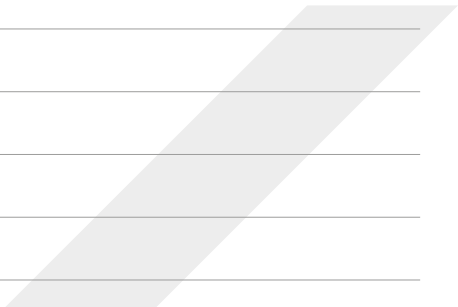
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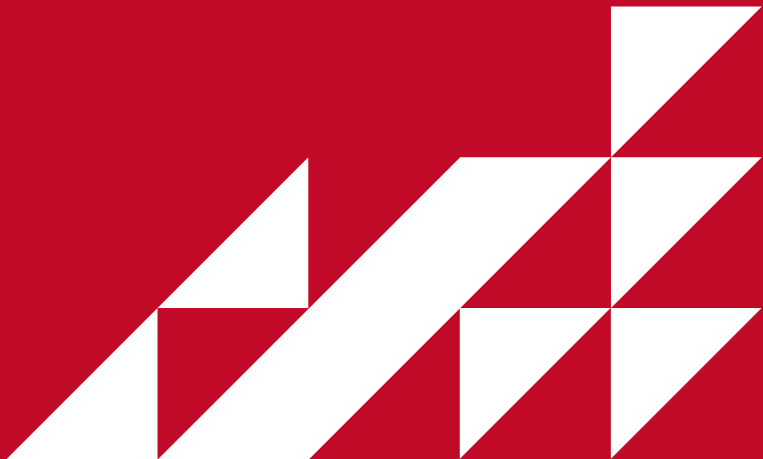
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LABELS



LABELS – OVERVIEW

Our self-adhesive healthcare label products are manufactured to specific customer requirements and supplied on a roll for automated high-speed application.

They can be produced on a wide range of substrates including plastic films, paper and laminate materials for applying to a range of different containers.

Technical support ensures the right adhesive is selected for permanence or ability to reposition and tamper evidence, while our Label Vision Systems check for label print accuracy. Our stringent systems ensure 100% control from origination to final production.





LABELS – OVERVIEW

Our solutions include

- Leaflets, booklets and syringe labels
- Peel 2 Read labels
- Peel and reseal labels
- IV hanger labels
- Clear-on-clear labels
- Braille
- Sequential back-numbering
- High-speed data replication

Security features

Holograms

Security print

Tamper evidence





THERMOCHROMIC INKS

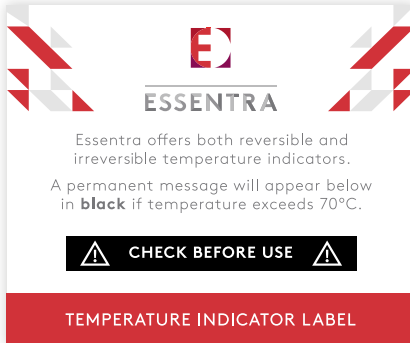
A special range of inks that are activated by high or low temperatures.

Benefits

Ability to set the temperature range for activation to suit your specific needs

Use for particular purposes to caution healthcare professionals or patients that a product has been subject to temperature extremes outside the recommended levels

THERMOCHROMIC LABEL EXAMPLE



LABELS – EXTENDED CONTENT LABEL

For healthcare packaging that must carry lots of information, Essentra has a solution. Our pressure-sensitive, multipanel extended content labels, leaflets and booklets and Peel 2 Read labels provide extra space for instructions, translations, legal text and ingredients. They offer production efficiency, helping to reduce handling and eliminate mislabelling.

Manufactured in a GMP environment designed for servicing the needs of the healthcare market, our labels can be tailored for your specific application.

Essentra designs and manufactures market-leading innovative label solutions for many international pharmaceutical, healthcare, medical device and clinical trial companies.



Benefits

Ideal for pharmaceutical product warnings and dosage instructions

Useful for clinical trials where multiple languages are needed

No need to buy additional leaflets

Suitable for product tracking

Wide selection of adhesives and face stocks

Maximises printable space without the need for increased surface area

Reseal functionality maintains aesthetic appeal

Option of a fully laminated top layer keeps the information contained protected against harsh environments or spillage

Up to 64 faces for leaflet labels although for eight or more faces we suggest a booklet label



LABELS – PEEL 2 READ LABELS

Peel 2 Read labels incorporate multiple layers providing up to seven printable faces, ensuring all information can be provided even where there is limited surface area.

User-friendly easy-peel adhesive allows access to each printed layer.



Benefits

Increases printable faces without compromise to design

- 2 ply = 3 printable faces
- 3 ply = 5 printable faces
- 4 ply = 7 printable faces

Option to incorporate a finger lift to further aid access to each layer

Re-seal functionality maintains aesthetic appeal

Multiple print colours possible on all faces

Available in a variety of shapes and sizes



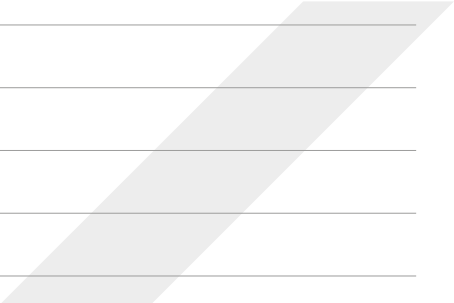
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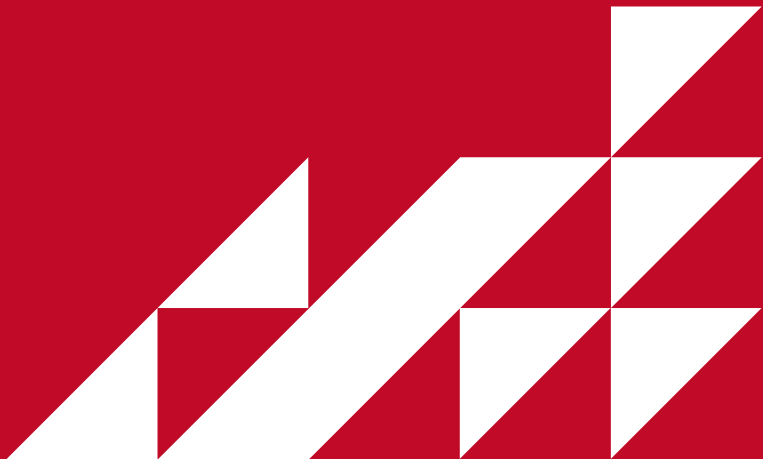
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PRIMARY PACKAGING SOLUTIONS



PRIMARY PACKAGING – OVERVIEW

Essentra's printed decoration solutions for blister foils and Cold Form material meet pharmaceutical quality requirements and high-efficiency packing demands for primary packaging.

The multisite platform provides the highest levels of conversion flexibility with reduced minimum order volumes (as low as 5kg) and quick turnaround times together with supply and contingency planning reassurance for our clients.

A portfolio of base material, from multiple established suppliers, is available to deliver the required product protection and ease of opening as well as conforming to regulation. Experienced technical support is available to deliver a tailored solution across a number of platforms.



Printed foil options include
push-through, peel-push,
tear-open, peelable and
child-resistant formats



- Flexographic print
- In-house graphic design service
- Anti-counterfeiting options
- Regulatory and pharma
GMP compliant produced in
a clean room environment
(ISO 14644-1 Class ISO 8)
- Ink specification enables us to
print on the polyamide surface
of Cold Form material

Medical paper

Medical Paper Kraft

Printed blister foil and Cold Form

Standard 20-micron foil

Standard 25-micron foil

Peel-off foil

Child-proof foil

Printed Cold Form



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ABOUT ESSENTRA



WE ARE ESSENTRA

We are global manufacturers and distributors of vital component parts for hundreds of markets and thousands of products. We're proud of what we do and believe that even the smallest products have a big part to play.

GLOBAL REACH WITH A LOCAL TOUCH

As a global player we bring together the best products, ideas and distribution in one unrivalled package for your business.

Whether you have a global or local perspective, our combined reach and collective insight creates solutions designed specifically for you.





LITTLE THINGS MAKE A BIG IMPACT

Essentra provides the small yet vital components that are everywhere. These little things make the world go round. And we help it to go round smoother, smarter and faster. By being better made. By getting there on time. By solving complex problems.





We're a FTSE 250 company, with a global reach and a local understanding. Thousands of customers in healthcare, food & drink, transport and heavy industries rely on our solutions every day.



Our three
geographic
regions span

33

countries

C.8,000

employees

49

principal
manufacturing
facilities

4

R&D
centres

70⁺

year heritage

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**Scratch to reveal if you have
won a consultation with
our Global Design Hub**

YOU ARE A WINNER

Contact
thedesignhub@essentra.com



Discover more at
WWW.ESENTRA.COM

CONTACT US

Avebury House, 201–249 Avebury Boulevard,
Milton Keynes, MK9 1AU United Kingdom

Phone: +44 (0)1908 359100

Email: enquiries@essentra.com

V2 May 2017