

## **Elesa establish a quality manufacturing process for industrial components and address the issue of quality in today's industrial marketplace**

The quality of Standard Machine Components is imperative in the manufacturing and engineering world, as they pave the foundation in reliable equipment for the end user. However, not all companies have these key values at heart, and with poor production, comes poor quality and lower costs. The long-standing company ethic behind Elesa has always been, and will continue to be, proven, tried and tested, high quality Machine Components.



Nigel Pritchett MD at Elesa UK states “many machine components on the market aren’t tested to a level that assures a reliable service, and for this reason, we have had many new customers migrate over to Elesa looking for high quality products”.

This company ethic of quality is reflected in new products such as spoked handwheels, adjustable clamping handles, wire rope vibration dampers and flexible coolant hoses. All of which went through inhouse laboratory testing and saw high initial investment in design and functionality. To compliment product quality, Elesa maintain high stock levels for most of their product catalogue and offer free technical consultations to their customers.

Explains Nigel Pritchett “A handful of procedures and thoughts when manufacturing a new Elesa product are as follows”

Materials – use of the best materials to ensure robust longevity and user experience. Materials such as Duroplast which is a thermosetting plastic, characterised by excellent mechanical strength, high superficial hardness and good impact capability, thanks to the addition of mineral fillers, natural textile fibres and the optimum selection of the basic resin. Fortunately, technopolymers and stainless steel have a low environmental impact because of their ability to be recycled.

Manufacturing processes – in house control of quality in design, tooling, materials and finishing. The process in which Elesa manufacturers a new product is extensive, with many tests of their products showcased via their YouTube channel. An example of this approach was to cater for the medical sector, and with this, the production of SAN components was born, featuring special technopolymer containing antimicrobial silver ions that prevent the growth of unwanted microbes, bacteria and fungi.

Function – machine components must be reliable and perform well. For example, components in soft-touch thermoplastic elastomer (TPE) provides a surface with a secure and comfortable grip, even in the presence of moisture and grease. ESD components made in conductive technopolymer which prevents the accumulation of electrostatic charge between bodies with different electric potential. Standard components in self-extinguishing technopolymer certified “V0” in accordance with UL-94 V (Underwriters Laboratories).

Function is core, and this applies across all Elesa products, such as the ATEX line available in yellow to match the ATEX logo, and Elesa CLEAN line, which is another effective example of the use of colour with specific function. Having been specially designed and manufactured with a smooth surface in white material to RAL 9002. The Elesa CLEAN line allows the prompt identification of dust or dirt so making cleaning operations easier and faster, while from a psychological point of view, the smooth white finish also encourages operators and patients to have confidence in their sterility and cleanliness.

Aesthetics – the immediate value perceived behind the image of an Elesa product, and how it is represented on an application or piece of machinery. Elesa’s unique and unmistakable design style is recognised by 53 industrial design awards received by the most prestigious International Juries, including the Compasso d’Oro in Italy, the IF Design Award in Hanover, the Design Centre in Stuttgart, the Good Design Award in Japan and the Red Dot Award in Germany. Elesa have been heavily praised for their Ergostyle range, which was especially created with a contemporary, stylish design in mind to suit new uses on equipment for civil applications such as hospitals, general medical, fitness/gymnasia and office furniture.

This evolution incorporated new style and ergonomic requirements which included the need to present colour for identification and function giving rise to the Elecolors® concept range of coloured inserts.

Cost awareness – believing that while quality costs it doesn’t have to be expensive and that poor quality can actually cost more. With inhouse expertise and production control Elesa engineers are ideally placed to manage considerations of cost through optimising of design, materials and technologies.

Environmental concerns – driving change in production with a view to recycling and energy use from renewable sources.

Service – offering ex-stock supply of standard elements derived from market awareness – understanding what the market wants and responding accordingly. For example, the brand-new Visually Detectable and Metal Detectable lines for the food-processing industry in a technopolymer suitable for contact with food (FDA CFR.21 and EU 10/2011).

The blue colour by which both lines are characterised (RAL 5005 “Signal Blue” for VD and RAL 5001 “Green-Blue” for MD) is naturally absent in the environment in which these components are applied.

Availability of the Elesa design/Engineering team in the development of Custom products, from an understanding of the application and the customer need. Elesa believe that the elements of quality must be fully joined so they become part of the corporate culture – they may even be said to enter the company DNA in a way that customers can have confidence in their component supply.

Further information regarding Elesa products may be found [here](#).