

Do casings with transfer functions really make business sense?

Value-added casings have been around for a number of years now. While they have become well established with many large-scale sausage manufacturers, there is still some reluctance among small to medium-sized firms. In this article, we examine a typical mid-sized plant producing 70 metric tons per day, and assess the quality and cost benefits of using value-added casings.

by the Kalle Group, Germany.
kalle.de

Our mid-sized manufacturer in this example produces a range of pork products that are particularly popular with consumers on account of their spice coating.

The manufacturing process consists of nine individual steps, four of which are required solely for application of the spice coating (Fig. 1).

After the sausage has been cooked and cooled, it is peeled in preparation for the coating stages. A layer of gelatine is then applied as a carrier medium, and the sausage is manually coated by pulling it through the relevant spice mixtures.

Next, the sausage is cleaned and repacked in another packaging, before being peeled for a second time and finally sliced.

100% in, 100% out? Not with a manual spice coating

The entire production process is fully automated – except for the four stages where the spice coating is applied. This manual procedure conflicts with the aim of ‘100% in, 100% out’, full automation, which is key to achieving maximum safety and efficiency in the food industry. Ideally, the filling should be fully encased at every stage from filling through to heating, cooling, slicing and packaging. The application of a spice coating is the only point after the cooking process where production staff comes into direct contact with the unpacked filling. Our sample company looked at several different ways of eliminating this risk to food safety. Despite numerous attempts, it was unable to find a mechanised means of applying the spice coating – the right equipment is simply not available.

Eventually, the company found the ideal solution: the new NaloPro Spice shirred value-added casing from Kalle. The interior of this casing is pre-coated with the selected spice mixture, which is automatically transferred to the filling during the cooking process. It is no longer necessary to peel the sausage, apply the gelatine and spice coating, clean the coated sausage and then repack it in another packaging.

Key benefits include a significant reduction in manual workload and a faster production process – with zero investment in additional equipment. Value-added casings can be used with standard filling and clipping machines in exactly the same way as conventional casings.

Less processing, lower costs

The benefits in terms of hygiene and food safety are obvious. But what impact do value-added casings have on our sample company’s overheads? After all, value-added casings are considerably more expensive than conventional products that have no transfer function. Fig. 2 provides a comparison of production costs before and after the introduction of value-added casings. With a daily output of 70,000kg of cased products, the cost of production with conventional sausage casings was €47,657. With value-added casings, the cost for the same volume was €42,085.

In short, the company is now saving €5,572 a day. With annual production of 14,000 tonnes, that amounts to a saving of around €1.1 million a year.

The majority of that saving is due to lower processing costs, which value-added casings reduce to almost zero. Added to that are the savings in spices and gelatine,

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Fig. 1. Value-added casings eliminate four stages in the production process, resulting in significant cost savings.

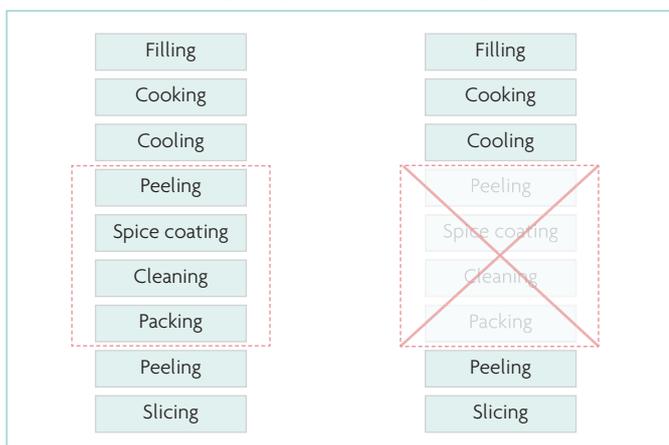
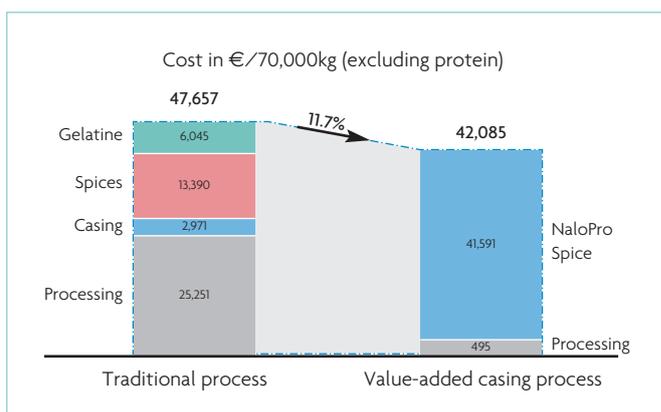


Fig. 2. Using value-added casings, the manufacturing costs in our sample company fell by 12%. This reflects the average potential saving across the industry.



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which are already included in each casing. Thus, despite costing more than conventional products, the NaloPro Spice casing has a clear cost advantage of 11.7%. It also has one other benefit not included in the cost analysis: since the sausage is only peeled once rather than twice during production, less filling is lost in the process.

Spices, colouring, aroma, flavour: consistent quality standards

In addition to applying spices, value-added casings can be used to transfer colour, aroma and flavour components to the

surface of the filling. In other words, these casings fulfil all the functions of the traditional smoke house. The smoking process can therefore be eliminated in its entirety. Although the low water-vapour barrier restricts the storability of cooked meat products, the drying losses which occur during the cooking process undoubtedly have a positive effect in terms of the taste of the finished product and ensuring the desired colour.

Apart from cost savings and product safety, a major benefit of value-added casings for many manufacturers is standardisation, the ability to ensure that every product meets the same high standards with regard to both flavour and



NaloPro Spice sausages.

colour. Even when the same type of product is produced at multiple locations, the manufacturer can guarantee that each sausage has exactly the same appearance, flavour and aroma. This is a key selling point for manufacturers who supply global food-retailing brands.

When products are coated manually, the coating can vary significantly from one employee or location to the next.

Value-added casings are fully customisable

Of course, standardisation does not mean homogeneity. Kalle is able to provide value-added casings with customer-specific aromas and spice mixtures. Manufacturers can thus continue to create their own flavour blends to set themselves apart from competitors.

In addition, Kalle has already established a wide range of ready-to-use value-added casings. Its clean-label casings, for example, cater for more discerning and health-conscious consumers.

By using natural smoke types and plant-based colouring agents, it is possible to create attractive products with no unwanted ingredients. The casings are suitable not only for the classic round-slice form, but also for shaping in metal moulds.

They can also be used for D-shaped products, which are not produced in a metal press.

Instead, the casing is simply under-filled, and the 'D' shape is formed during the cooking process.

Value-added casings are an attractive and easy to implement solution for all manufacturers who want to reduce their overheads and increase product safety.

There is no need for investment in special plant and equipment, and the quality and cost benefits are immediate. ■