

Investing in efficient edge processing

What has been termed the optical “zero joint” has become established as the new edge processing quality standard in the furniture and interior fittings sector, with attention increasingly drawn away from joint quality and towards the quality of edge finish processing.

Today’s modern edge processing places equal emphasis on quality aspirations and production costs, alongside durable machine engineering and operating possibilities.

Quality aspiration and production costs

The costs of edge processing are calculated not only on the basis of depreciation of investment outlay and the price of spare parts, but also largely of the costs which can be incurred due to the need to finish process furniture components after edge processing. Reducing the cost of finish processing is an ever present challenge for HOMAG, and the achievement of this aim involves the use of high-grade machine components.

Self-evident costs for the user are the outlay on machines and technology purchased by a furniture producer from the machine manufacturer. Less obvious are the costs expended on unnecessary finish processing, as many smaller firms still fail to keep account of this factor. As a result, less attention is paid to aspects such as these when taking a decision to invest in more efficient edge processing than is possibly the case in other sectors of industry such as automotive engineering.

Durable machine engineering and operating possibilities

Importance is attached to the reproducibility of good quality. Depending on the length of time machine components are in daily use, they need to be adjusted

accordingly. High-quality machine components, for instance, permit continuous application over longer periods of time without compromising quality. No readjustment processes are necessary.

Another decisive factor is the necessary frequency of adjustments such as profile changes during edge processing operations. If the frequency is relatively high and if operating convenience is a requirement, then this process should be automated. Also important here is the type of automation. If automated infinitely variable adjustment is performed using motors, steps must be taken to ensure that the motors are fitted with a servo control. Simple servo or step motors are offered in the marketplace which have no sensor-based monitoring of the bearing position. Often, inaccuracies can occur after a short time which require readjustment. The need for readjustments points towards poor quality reproduction accuracy, and also takes up valuable working which in turn affects negatively on production costs.

If all these correlating factors are taken into account, a future-proof investment decision can be made which will have a lasting beneficial impact on production costs and quality.

Zero joint for woodworking shops too – airTec

Nowadays, the quality expectations imposed on woodworking shop production are just as high as for industrial manufacturers. This realization prompted BRANDT and HOMAG to go a step further and provide zero joint technology for woodworking shops too. Both **airTec** systems enjoy widespread use by different producing companies. In this case, the function layer on the edge is reactivated by means of compressed hot air, creating a jointless result. The systems were developed to precisely tie in with the needs of woodworking shops, calling for a lower level of investment while offering the same high standard of quality as laser technology.

Since 2012, BRANDT has supplied its **airTec** unit with a feed rate of 15 m/min.

The **airTec** unit can be used on all BRANDT 1400 to 1800 series machines. It works as a dual solution in combination with the standard gluing section, which allows every conceivable customer requirement to be addressed. Using ultra-modern components and innovative designs, BRANDT as the market leader in this field has delivered a number of unique selling propositions. Over 40 of these units are now working on customer premises in 15 different countries.

HOMAG developed its own system, which was on show for the first time at the HOMAG Treff 2013. Developed internally, the HOMAG **airTec** method achieves feed rates of up to 20 m/min by using hot air. Among its many benefits is the surprisingly low use of resources. Energy and air consumption are up to 40% lower per workpiece processed than with the hot air systems available on the market to date. This unit can also be used continuously without any reduction of the edge pull-off force and without the machine environment becoming overheated.

Pictures courtesy of: HOMAG Holzbearbeitungssysteme GmbH



Fig. 1: Example of a servo axis, shown here adjusting an infeed fence



Fig. 2: Simple machine operation at the power**T**ouch monitor with the same look and feel as a smartphone

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