

FLEX TRIM CASE

Nr. 3 February 2008

Page 1

Danish furniture producer: 100 kilometres of profile sanding before replacing sanding brushes

A big Danish furniture producer by name *Skovby Møbelfabrik A/S* has automated 75% of the sanding process. The experiences are good, the surfaces have been improved and the lifetime of sanding materials is longer.

The customer

One of Flex Trim's customers is Skovby Møbelfabrik A/S – a family-owned furniture manufacturer with production plants on 3 addresses close to the Danish city called Aarhus, and it is one of the biggest producers in Denmark within dining room furniture.

Skovby Møbelfabrik A/S manufactures sideboards, chairs and especially function tables, where extra leafs are an integrated part of the table.

The company has experienced great and increased success on the international market, where especially the customers in England, Norway and Sweden are great buyers.

According to the company's QA Manager the production is traditional: A mix of good traditional cabinet maker machines (double-end tenoners and moulders), new CNC processing machines and robot engineering.

The task

Skovby Møbelfabrik A/S invests regularly in new machines and methods. Recently a new robot equipped sanding system was put to work. The sanding solution has been delivered by Flex Trim and a supplier of the robot technology.

The task was about minimizing the manual sanding job as much as possible. In many years the company has done the sanding by traditional hand sanding, but it is a both boring and monotonous job. Instead Skovby Møbelfabrik wanted to use the employees for more creative jobs. At the same time the new solution from Flex Trim has lifted up the quality, as the surfaces have become more uniform.

The solution

Flex Trim works out tailored solutions for the production line. In that way it is not the same solution, which has been used for respectively the aged double-end tenoner and the new robot cell. But in both cases the sanding head is rotating with the same low RPM.

If the diameter of the sanding head and the rotation speed comes together the abrasive become more flexible and sands with the whole surface. At the same time the sanding is done completely down into the bottom of the profiles and the lifetime of the abrasive becomes significant longer.

The diameter of the sanding head decides which speed to work with. It is demanded, that the abrasive must be pulled down on and above the edges of the profiles, so that a fine passage from the plane surface to the profiles is secured.

SUBJECT:

PRODUCTION IMPROVEMENTS

Minimization of
manual sanding job



The solution from Flex Trim is here installed in a robot cell.



This double-end tenoner has got a Flex Trim sanding head attached.



The material to be profile sanded are going past the rotating sanding head, which has an optimized rotation speed for the band speed through the double-end tenoner and the profile.

FLEX TRIM CASE

Nr. 3 February 2008

Page 2

What that is the optimum solution for the individual customer Flex Trim finds along the way by means of doing tests. At Skovby Møbelfabrik A/S the sanding solution from Flex Trim has been working since spring 2007 and it is has been used for sanding of a lot of different profiles besides the profiles that were dedicated for the solution.

The sanding solutions at Skovby Møbelfabrik A/S are hooked up to the already existing operations, but Flex Trim also delivers many stand-alone solutions.

Benefits for the customer

Cost savings

- Lifetime:

The long lifetime comes off on the economy. One of the supervisors at Skovby Møbelfabrik has counted how many running meters a single sanding head has sanded since it started to work in spring 2007: 85.000 running meters of profile sanding by rough sanding with grit size 120 and 145.000 running meters by fine-grade sanding with grit size 180.

Converted into costs for replacement of the actual sanding strips it is EUR 0,0019 per meter rough sanding and EUR 0,0011 per meter fine-grade sanding. "This means it is definitely worth it to invest a little more in the right sanding solution", states the QA Manager at Skovby Møbelfabrik.

- Use of existing machines:

Besides a long lifetime a profit for the customer is that the sanding heads have been installed on the factory's already existing machines. In that way Skovby Møbelfabrik has achieved the automation of it's production as requested, but at the same time saved investments in new machines.

Enhanced quality and automations

Skovby Møbelfabrik points also out the enhanced quality, which has come in the wake of the new solution. The surfaces have become more uniform, there are only few stoppages and the company has got rid of boring and expensive manual work.

Further solutions

With the good experiences Skovby Møbelfabrik now goes on with further solutions from Flex Trim. At present Flex Trim is working on an individual solution about how to do an optimum sanding between two lacquering processes at Skovby Møbelfabrik's factory.

Quality – not only on the surface

Yet again Flex Trim has proved to live up to its slogan: "Quality – not only on the surface". Besides delivery of a solution, where the result is an improved sanding result and fulfilment of the customer's wishes about an automated working process, Flex Trim has offered a high service and a fully tested, individual and optimum solution, which exactly is characteristic for Flex Trim.

SUBJECT:

PRODUCTION IMPROVEMENTS

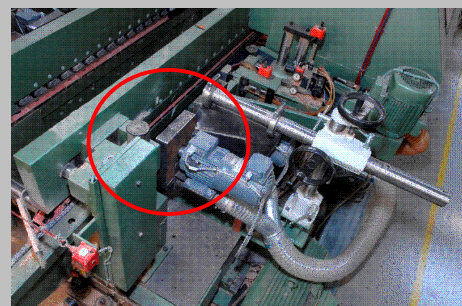
Minimization of manual sanding job



During the sanding the abrasive is being pulled down and above the edges of the profiles, so that a fine passage from the plane surface to the profiles is secured.



Here it is demonstrated how a profile is taken above the rotating sanding head.



The Flex Trim sanding head has been an integrated part of the old double-end tenoner.