

CASE STUDY

Project: Isover, new drum type

Place: Billesholm, Sweden

Product(s): Roto-Sieve RS 3024-51

Date: 2006-09-12

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Background

In 2004 we delivered a Roto-Sieve 3024-51 with a perforation of 1.0 mm to Saint-Gobain Isover in Billesholm. At the time we did not know that it was a new type of fibre that was going to be separated in this line. The fibres were very small so most of them passed through the perforation in the drum.

In 2005 we got the question to deliver a unit for a similar line in France. We told them about the problems in Billesholm but they insisted upon a solution. We started thinking about the possibilities and agreed that we should use the drum screen at Billesholm as a test unit.

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Process description

The line is for manufacturing loose glass fibre wool, which is sprayed out in buildings as isolation. In the process a lot of water is used and the very small fibres has to be removed before using the water again (or at least most of them). Instead of a standard drum with perforated steel plates, we use a support drum with very big holes covered with a 400 micron screen cloth. We started with 600 micron but still some fibres passed the cloth. 400 microns is fine enough to catch most of the fibres and still keep quite a large flow capacity.

Since it is not possible to use a brush for keeping the perforation open it's replaced by a spraying pipe with 18 nozzles instead of the standard pipe with 4 nozzles. The 18 nozzles are needed to get a full coverage of the drum surface.

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Advantages

By using a screen cloth instead of perforated steel plates in this application a high degree of solids removal is reach at the same time as a large flow capacity is kept due to the fact that the open area is very much higher.

Since there is no fat or grease in this type of effluent, an effective spray pipe is enough for replacement of the brush.

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Conclusions

Working together with Isover developing the new type of sieve drum has given us an opportunity to offer a product that is prepared to meet the higher demands of solid separation. For Isover installations around the globe as well as other applications not yet brought to our attention.

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