INVESTMENTS IN NEW BREWHOUSES IN SWEDISH **MICROBREWERIES**

PART TWO

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The Swedish microbrewery scene experienced a fast growth in the last decade. Several companies faced capacity problems that made it necessary to exchange their brewhouse equipment with bigger ones. As a result, several new brewhouses were/ will be installed in Sweden in 2011 and 2012. The different breweries chose different approaches to plan and to realize their investments and even different suppliers. We will meet some of the breweries during the coming issues and hear about their experiences. The second company to visit is Dugges Ale- & Porterbryggeri, situated in Landvetter close to Gothenburg.

IS IT POSSIBLE TO COMBINE BRITISH PORTER TRADITION WITH BREWING TECHNIQUE FROM CHINA?

Taste intensive ales, stouts and porters have been rediscovered by interested consumers who want to enjoy the enormous spectrum of taste and flavour that these beers can offer. Gothenburg has been the spearhead of the Swedish brewing industry for many decades with a legendary history of famous breweries and brands like Carnegie Porter. Nevertheless, there was no active brewery left in Gothenburg when the new millennium started. Mikael Dugge Engström was the man to change this and to open for a new era of top-fermented brews made in Gothenburg.

Dugges Ale- & Porterbryggeri was founded in 2003 and has been brewing with finest malt and generous amounts of hops at their first location in Mölndal until 2011. Obviously, this was a good idea as proven by several awards for the beer quality. As a result of rising sales volumes and no possibilities to expand in Mölndal, the brewery moved to a new location at Landvetter in the beginning of 2012. In order to meet the customer demand, the installed capacity of the Landvetter brewery is much bigger than the old one and almost all equipment has been replaced. This included several investments in new equipment and we

will hear about the experiences with the new brewhouse from China. The questions are asked by Uwe Leibfacher and the answers are given by Mikael Dugge Engström.

1. WHAT WERE THE REASONS FOR CHOOSING A SUPPLIER FROM CHINA?

When evaluating where to buy the equipment for the new brewery, you inspected some used brewhouses from a German manufacturer. Please tell us about the reasons for buying a new brewhouse from a Chinese supplier instead, and how did you get in contact with the supplier?

We took a close look at many European and American alternatives. The main reason why we ended up in China was the price. We got a lot more 'bang for the buck' when we ordered from China. And if your wallet has limitations, the decision is not so hard to make.

I found the supplier by using a tool called the Internet. It's very common nowadays, I've heard.

Did you have a direct contact with the manufacturer or did you negotiate via an agent?

I contacted the manufacturer directly and we had a long discussion before we ended up with an order.

Did the supplier name reference installations and was there any opportunity to visit one?

Yes, I got a few references in Scandinavia and visited a brewpub in Oslo during their installation.

Did you visit the supplier's factory? What was your impression?

I visited them two times in China. First, before I made the order, and then before shipping. The factory had a nice and clean environment and very good food. You must be very clear and specify all details when you communicate. It's easy to be misunderstood, so *I must recommend everyone who wants to buy brewery equipment* to visit the supplier wherever they are established.

2. HOW CAREFULLY WAS IT DEFINED WHAT TO BUY AND WHEN TO DELIVER?

Please tell us about the most important technical data such as number of vessels, hl per brew, brews per day, possibility for decoction mashing or not, automatic or manual control, etc.? It's a manually controlled 30 hl 4-vessel brewhouse and the capacity is six brews/24 h. But we just have 10 fermentation/ storage tanks (60 hl), so we need to buy some more tanks in order to be able to match the brewhouse capacity. We have possibilities for decoction mashing, but we don't do it.

Did you agree on a specification both regarding the technical details of the brewhouse and regarding time of delivery?

Yes, of course. We had everything in the contract, but we had problems when it came to shipping. There was a delay for several months. I was surprised because they ship equipment all over the world all the time. Now I have learned how to deal with it next time.

Did you agree on what should happen in case the specifications were not fulfilled? Are there guarantee clauses and definitions on how to control and interpret these?

Yes, all of it is written in the contract, but as you know, if you have a dispute with a supplier and you don't agree, you have to sue them and that is not an easy business even if they are in Sweden. My experience is that every time you have a new supplier, you must realise it's some kind of lottery and you must rely on your gut feeling.

Did you inspect the brewhouse at the Chinese factory under manufacture/before delivery?

Yes, as I said before, I visited the factory before shipping, but I wasn't observant enough on one detail: the false bottom plates. That proved to be a big mistake and gave us a lot of headache the first six months.







3. EXPERIENCES FROM DELIVERY AND FROM INSTALLATION

How about the number of installation personnel from the supplier and their qualifications?

Two persons from China did the installation of the brewhouse. The brewhouse was delivered as a prefab kit, so they just assembled all the parts. Some small steam pipes had to be redesigned and welded, but I had the local company Nilssons Industriservice AB to take care of that. They installed our bottling line and made all other installations at the same time. As you know, we have built an entire, new brewery.

Did you meet communication problems? And if so, how did you solve them?

The installation crew stayed for about six weeks and the first two were a big mess as we realised they didn't speak English. We had to communicate everything via their head office in China. We also engaged a Chinese woman who visited the brewery and helped us with some translations a few times.

Did the Chinese personnel assist you at the start-up?

That was the plan, but their visa expired so we had to do it on our own. But that was not a big problem. It's not rocket science, you know. We just brew beer.

Did you face any major problems at the first brews?

It was a problem that the false bottom joints were not tight, so the lautering was stuck. We brewed five times and the lautering took about six hours each time, so we gave up and asked for new plates. They sent us new ones, but we had to wait five months before they arrived. Now everything works perfectly. [Comment: The picture of the lauter tun shows the first false bottom plates that were replaced later on].

4. EXPERIENCES FROM OPERATING THE BREWHOUSE

How many brews have you done on the new brewhouse by now?

We make brew number 90 this week (week 42).



Does the brewhouse perform according to your original expectations today?

Yes, absolutely.

Was it necessary to change technical details in order to fulfil your requirements to the performance?

We have installed a regulator valve for mixing hot and cold water for mashing and changed/improved some electrical installations. The Chinese and Swedish standards are not always the same.

Did you have costs for technical changes or did the supplier finance those as guarantee issues?

The new plates were a guarantee issue, but I have not argued about the invoice from the electricians yet. Maybe I will.

5. SUMMARY AND RECOMMENDATIONS

What advice would you give to other breweries thinking about ordering a brewhouse from China?

You must specify everything very carefully. And I say everything. You must be a competent customer and have knowledge about what you order. If you don't have these competencies in-house, ask for help. Don't assume that a rose is a rose just because you think you know how a rose looks and smells.

Would you order from the same supplier again, or what would you handle in a different way?

I would definitely order from the same supplier again, and I will. We have a very good relation today and we have both learned how we think and how to communicate. They are very keen on fulfilling our requirements and to do a good job. $\[\]$



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