



NORWAY'S LARGEST PRODUCER OF AQUAVIT

✎ HALVOR HEUCH, PRODUCT DEVELOPMENT MANAGER AND DISTILLER, ARCUS, E-MAIL: HALVOR.HEUCH@ARCUS.NO

Brewmasters and engineers are not restricted to the brewing and soft drinks industries; they also have options in other related industries such as the manufacturing of distilled spirits and aquavit.

The ageing of Norwegian aquavit resembles that of specialty beer, as this account from Norway's largest producer of aquavit, Arcus, points out.

WHO WE ARE

Arcus AS is a private company and the former production plant of the old state owned wine monopoly (Vinmonopolet), established in 1922. As a direct consequence of this monopolisation, all private distilleries and wine merchants in Norway were forced to sell their companies to the new state owned company; the idea being that no private person should profit from selling alcohol, as this would lead to higher alcohol consumption. In the beginning, the monopoly had a somewhat limited product range, focusing mainly on wine, due to prohibition. But after 1927, Norway opened up for the sales of spirits again, and since the monopoly had taken over all the old privately owned distilleries, including stock, production equipment, ownership of all the brand names, etc., they now continued to produce and sell the newly acquired spirit brands; among them, all the old Norwegian aquavit brands.

Today, spirit has become increasingly important, more than wine, and a reason for this was the fall of the monopoly, in 1996, when it lost its sole right to import wine, fortified wine, and spirits, including technical spirits. Many of the other wine agents and international companies established their own import and distribution of wine and spirits, competing with the old wine monopoly. Up until that point, the monopoly had a high share of their own wine brands and also had a large wine filling operation with returnable bottles linked up to a deposit system. But since 1996, the share of wine imported in



bottles increased steadily. This put the returnable bottle system under pressure, with the end result being what we know today; only new glass is used. We do not have any returnable bottle deposit on wine bottles anymore, and this also resulted in Norway's only glasswork closing down.

Today, the wine monopoly only has the sole right to sell wine and spirits to the Norwegians.

Arcus has a large portfolio, and the product range includes wine from all over the world both in bottles and in bulk for our own brands. We also fill wine into 'bag-in-box', as this is a very popular package, accounting for nearly 65 per cent of all wine sold in Norway. Sizes are 2, 3, or 10 litre boxes.

Some of the old spirit brands from the earlier monopoly have been upgraded design-wise and sell well, like *Upper Ten Scotch Whisky* and *Eau de Vie*, but also Arcus' Norwegian spirit brands like *Linie Aquavit*, *Vikingfjord Vodka*, *Hammer Gin*, and *St. Hallvard* have become important. *Vikingfjord Vodka* is doing well in the United States and is approaching 100,000 cases of 9 litres each. In addition to the old brands, new brands like the *Braastad-series* of cognac have been successfully developed and show very successful sales. Over the last years, our aquavits have gained in popularity and have become very important to us, having 28 different brands on the market. New focus on Scandinavian food traditions and cooking has led to this new interest, and some of the new aquavits have been specially made →

to match these traditions. What is also interesting to notice is the new interest for more special kinds of beer. Until now, pilsner beer has been the major beer in Norway, but now people show more interest in other types of beer like ales and darker types. People also seem to think more about what type of beer to drink with the food on their plates, like they do with aquavit.

BRAND BUILDING

One of the challenges of being a monopoly was the difficulty of building international brands linking you to a particular supplier. Suppliers had to be chosen according to quality and price, and everyone was to have the option of supplying bulk to the monopoly. With the more recent focus on brand building, history and storytelling is a vital part of a brand, and it was natural for us to link ourselves to Tiffon and the Braastad family. Having a history of supplying good cognac together with being a privately owned cognac house was a perfect starting point. Sverre Braastad left Norway more than 100 years ago and established the biggest family owned cognac house in Jarnac; a cognac house that has supplied very large quantities of cognac to all the Nordic monopolies. They have their own vineyards, do their own vinification, and distil their own cognac. And what is more important, they have a good cellars and storage capacity with the right microclimate for making good cognac, and, not least, large stocks of old cognac.

As mentioned previously, spirit has become increasingly important with the flagship, *Lysholm Linie*, as the major spirit brand for export, in addition to *Vikingfjord Vodka*.

Norwegian aquavit differs from the other Nordic aquavits by being matured in sherry butts for shorter or longer periods of time, and this means that we have to accommodate approximately 9,000 oak barrels. This maturation has many similarities to cognac and Scotch whisky production; it is not just a marketing gimmick and symbolic short visit to a barrel, adjusting the aquavit later with caramel colour. In this proper maturing process, the aquavit becomes smoother, loses its aggressiveness, and becomes less spirit-like. The aquavit is subject to many chemical changes where the 'angels' get their share, a loss of two to three per cent. And *Linie Aquavit* has to make a sea journey around the world in these casks, on deck, as part of this unique maturation process, where the aquavit reaches temperatures around 50 to 60 degrees centigrade.

LINIE AQUAVIT

Last year, we celebrated the fact that 200 years ago the 'linie-effect' on aquavit was discovered. And it all started with the Napoleonic wars and the battle at Copenhagen, in 1801, when

Lord Nelson attacked the Danish-Norwegian fleet in order to prevent Napoleon from getting control of it. Supplies to Norway were restricted during this war, and when Lord Nelson sailed back to Great Britain, the ship, *Thronthiems Prøve*, set sails from Norway, in 1805, after having been filled with goods, such as stockfish, clip fish, salted herrings, all kinds of cured meat and several barrels of aquavit bound for the markets in the Far East. When they reached the market in Batavia, today's Indonesia, they did not manage to exchange the spirits for other goods. The main reason was that the local arrack was of a much higher quality than the potato spirit they brought with them. On their return to Trondheim, arriving in 1807, they checked if the aquavit still was of an acceptable quality after the long journey. And to their complete surprise, the aquavit had changed into a smooth, mellow spirit of a much better quality than the one they took aboard two years ago.

Catharina Lysholm, a member of a well-known family in Trondheim and the discoverer of this effect, kept this a secret until another family member, Jørgen B. Lysholm, returned



from his studies in Germany. He established his distillery in Trondheim, in 1821, and installed the 'Pistorian' still, which in effect was the forerunner of the patent still, designed by Heinrich Lebrecht Pistorius. His business concept became export of clip fish and maturation of *Linie Aquavit*. And with this new way of making aquavit, all the other aquavit producers realised that barrel maturation was a great sales advantage, and some of the aquavits launched into the market had a barrel maturation of as many as 20 and 30 years.

PRODUCTION FACILITY

When the Hasle plant was built, two architects, Juell and Scheen, were responsible for the construction, which was finished in 1934. They split the task between them. One of them took care of the technical aspects of production, such as the flow of raw materials, blending, marrying, bottling, and warehousing, while the other was responsible for the construction itself and, not least, the aesthetics. These two gentlemen travelled around Europe and the United States,



studying modern building techniques and architecture.

When entering the old part of the plant, one of the major characteristics of the building is quickly given away. That is all the steel girders, five metres apart, which support the five floors with all the tanks and wooden vats. In case of a fire or an explosion, the walls would blow out and disappear, while all the floors with the tanks would be left intact and held up by these steel girders. Today, these girders restrict a good utilisation of all the space available, but they are not too troublesome for storage of our wooden barrels. Usually, for the cognac and whisky storage, most of the warehouses are left unheated and with a natural high humidity. Since we have them indoors, we need both a system to keep the humidity up during heating periods in winter, and a ventilation system to reduce the amount of alcohol vapour in the air, due to the people working on these premises. With the ageing period being from a little under a year up to 12 years, we need to have access to the barrels regularly, so compact stacking is not an option.

RAW MATERIALS AND POTATO SPIRIT

When the plant was built, all the potato spirit from our rectification plant at Hamar and also most of the imported spirits came by rail. Some spirits were imported in barrels and all the sherry came in 500 litre sherry butts. A railway line led to a receiving hall and here the goods would be pumped to the fifth floor, where most of the spirits were stored. A tank gallery could accommodate most of the imported spirits with a storage capacity of approximately 1 million litres. In those days, it was common to have contact with lots of suppliers of whisky and cognac/brandy and do the last blending of own brands in our own house. You do not need to go further than 20 years back in time to find as much as 10 different suppliers of various qualities of Scotch whisky going into one brand. Logistics were a nightmare at certain times. Today, this way of operating is →





history with a new focus on reducing stock of raw materials. More modern sophisticated logistics systems, with 'just in time' as the objective, reduce costs, but unfortunately they can often lead to serious delays, as the temptation of having too short ideal lead times for transport does not always take factors such as bad weather, quality problems with a received shipment, and other unforeseen difficulties into account. The old system had the big immediate disadvantage of having ten full tanks with an initial volume of 25,000 litres, which was gradually being used for making the brand. After blending, a marrying would follow for a period of three to six months in large 7,000 litre French oak vats. We still use these vats and it is an impressive sight. Many blenders are strongly in favour of this method, particularly when you have blended many different qualities and reduced the cask strength down to drinking strength. For most grape spirit blends, the practise of adding a 'top dressing', i.e. adding percentages of higher qualities of distillates to give the blend a boost, has been continued. Having finished these processes, you cannot immediately bottle these blends without giving them some time to settle together and recover smoothness.

IMPORT OF SHERRY IN CASKS

In the beginning, all the imported sherry came in 500 litre butts and not in the more modern 25,000 litre containers. This was a large advantage, since our coopers could choose the absolutely best sherry butts for our own aquavit production and return the less suitable ones to Spain. Today, finding the same quality butts poses a very big challenge. We have our own coopers and we have also done an upgrading of the cooperage. One of the most important investments was a hydraulic hoop driver. It was evident that if we did not modernise our cooperage, we would have no coopers left. To tighten casks is no small job and is physically very heavy. After that investment, we noticed that



we also reduced the number of leaking barrels considerably. And we are dependent on having new recruitment and training of coopers, as these are key personnel, in order to have a good stock of barrels in good shape.

VOLUME CONTROL

Another challenge in the old days was to monitor the correct amount of spirit received, especially when it arrived in winter. To receive cognac at minus 15 degrees centigrade was a challenge. The old method of using a dipstick and measuring the level the in tank, from the manhole to the surface of the liquid, was inaccurate and could easily give rise to discussions with suppliers. They had filled the container at ambient temperature, but cold temperatures really shrink the volume. Many good desks have been ruined by strong spirits collected in sample bottles when cold, which would later overflow, when the bottles reached room temperature, and thus spill the strong spirits on to the desk. But being a good customer helped, of course, and some years back, when the new receiving hall was built at Hasle, all measurements of volume, weight, alcohol strength, temperature compensation, →



etc. was automated and this took out all the discussions and guesswork of receiving goods.

NORWEGIAN AQUAVIT

As mentioned earlier, *Linie Aquavit* has become very popular and is the most famous aquavit, being a symbol of the national drink. And Norwegians drink aquavit as an accompaniment to Norwegian food, often along with beer. The need for aquavit is a result of eating a lot of preserved food. This preservation



includes drying, curing, fermenting, smoking, and salting; these processes generate strong flavours that go well with the taste of aquavit. Aquavit is also good for digestion, containing lots of essential oils. Instead of a glass of cognac, we also use older aquavits to complement the cup of coffee following a meal. Aquavit is made from a rectified alcohol and does not contain fusel oils. These oils can often give a troublesome next day, and cognac and other pot still distilled spirits have lots of them. In Scandinavian countries, the process of making aquavit is fairly similar, although Swedish and Danish aquavits contain more herbs and spices. We use less herbs and spices, in order for the flavours created by ageing in sherry casks to come through. Whereas Swedish and Danish aquavits, in general, are bottled unaged, all Norwegian aquavits are aged in sherry casks. A longer period of time in oak casks mellows the aquavit and adds an additional range of characteristics, like vanilla, aromatic aldehydes, and tannins from the wood, all combined with the left over Oloroso sherry. Over 90 per cent of the aquavit drunk in Norway is aged. This is also why Norwegians drink their aquavit at room temperature in proper glasses, like cognac, and not in the traditional small shot glasses, often from the freezer.

In order to fully enjoy all the nuances, Arcus has, together with Georg Riedel, developed the optimal glass for drinking the barrel matured Norwegian aquavit. I think few people normally drink their cognac or malt whisky ice cold or from the freezer. And Norwegian aquavit contains many of the same aromas you find in cognac and whisky.

While consumption of aquavit has increased in Norway, so has the range of choice. In 1986, there were not that many brands available in Norway, whereas Arcus, Norway's largest producer of aquavit, offers almost 30 brands today.

Gilde Juleakevitt, our biggest brand in Norway, and the classic, *Gammel Opland*, are also very popular, and seasonality continues throughout the year with a milder *Løitens Summer aquavit* and another special aquavit, *Fru Lysholm*, which is mild in taste, having women in mind.

There is also increasing interest in choosing different aquavits to accompany specific types of food. *Bacalao Aquavit* goes with clip fish dishes, *Lutefisk Aquavit* goes with dried stock fish rehydrated in caustic, *Rakefisk Aquavit* goes with anaerobically fermented trout, and *God Gamal Smaladram* goes with cured and smoked sheep's head and ribs. Here, we are talking about the new food trend – 'Scandinavian Cooking'.

BUILDING A NEW PLANT AT GJELLERÅSEN

When the Arcus plant was built, nearly 80 years ago, we were situated in the countryside close to Oslo. This is no longer the case, and the main reason for moving out of Oslo is to improve our company's efficiency and competitiveness. The site is next to Ringnes, our largest brewery in Norway, and this gives our distribution company, Vectura, more effective operations. Today, the layout of the old plant seriously constricts these modernisations.

Another challenge with our present plant is the ability to handle growth, and the new plant will be constructed with more flexible building designs that will ease step-by-step extensions. Today, we also expect a large reduction in the cost of running an old plant covering 94,000 m² compared to the new plant, which should be closer to 55,000 m². With our present location, we would also see an increased need for maintenance in the years to come, since it is such an old building. The new production location will provide much better work processes and, if all goes according to the plan, we will move into the new plant in 2011. ☺

DRESSCODE GLASS

Innovative glass design that fulfils both brand-oriented and functional criteria: by RASTAL.

EVENT
tumbler



More than just glassware.

RASTAL GmbH & Co. KG
Rastal-Str. 1 · 56203 Höhr-Grenzhausen
Tel. +49 (0) 26 24/16-0 · Fax +49 (0) 26 24/16-103
rastal@rastal.com · www.rastal.com

Local contact for Sweden: SCANGOTHIA
GÖTEBORG

Scangothia AB · Box 5035 · 426 05 V, Frölunda
Tel. 031-29 79 11 · Fax 031-29 08 82
info@scangothia.se