



– CUSTOMER SUCCESS STORY –

**Birra Amarcord S.p.A., near Rimini, Italy.**

## A winning combination of style, creativity, and consistent quality: Birra Amarcord

*The Italian craft brewery Birra Amarcord in the Apennine mountains behind Rimini is an independent, family-run enterprise which is rooted in the region: The name is inspired by Federico Fellini's Oscar-winning film "Amarcord" about the people of Rimini and some of the film's characters give their name to a series of beers. Located off a small road, Birra Amarcord's production plant is a modern gem surrounded by trees, rocks, and sky. Despite its small size it was the first Italian beer producer to invest in Anton Paar's all-round quality assurance system combining online monitoring of the beer before bottling linked via software with reference measurements in the quality control laboratory.*

**Relevant for: beer**

## A vision supported by technology

Amarcord has been brewing craft beer since before the popularity for such beers boomed. Starting in 1997 as a brew pub, Birra Amarcord became a brewery in early 2000 with an annual sales volume of 3,000 hectoliters. In 2009 the new brewery sold 15,000 hectoliters of beer and in the years 2015 to 2018, after a 6 million Euro upgrade, the capacity rose to 60,000 hl per year. Talking with Birra Amarcord's CEO, Andrea Bagli, his vision for the coming years is clear: "Yes, we want to increase the sales and production but the quality has to stay the same or become even better."

To ensure the consistent quality of their beer, Birra Amarcord has equipped its on-site quality assurance lab with a DMA 4500 M density meter plus Alcolyzer ME and integrated color measuring module. The biologists at work in the laboratory measure around 40 to 50 samples per day to check the alcohol content, degrees Plato, extract and color, and document the beer quality. Each morning measurements are made on the DMA M setup and the calibration values are automatically communicated by Anton Paar's Davis software to the sensors of the Beer Monitor in the production line. For CEO Andrea Bagli the investment in this extensive system was justified by the benefits it brings: "Everyone at Amarcord is highly qualified and excellent at their job. It would be inefficient to have them going in and out of the brewery to open or close valves or do too much manual checking. We rely on Anton Paar's measurement technology and enjoy the advantages of automated production monitored by process sensors – and that gives the brewmaster and his crew time to work creatively."

### Andrea Bagli, CEO

*"We rely on Anton Paar's measurement technology and enjoy the advantages of automated production monitored by process sensors – and that gives the brewmaster and his crew time to work creatively."*



CEO Andrea Bagli and brewmaster Andrea Pausler in the sudhaus

## Great ideas, teamwork, and mutual respect

There are obviously powerfully creative processes at work at Birra Amarcord, resulting in such wonders as the four "Classiche" beers named after the leading ladies in Fellini's Amarcord film, each with their distinct characters, and the recently launched "street beers" including an American lager and an IPA, marketed under the brand "Bad brewer".

Brewmaster Andrea Pausler describes how he approaches the creation of a new beer recipe: "I start to think about what ingredients would work well together – and what might add a surprise." CEO Bagli interjects: "Then I come along and throw out 50 % of his ideas – actually more like 75 %!" Joking aside, there is a palpable feeling of deep respect for each person's expertise at Birra Amarcord, something which led to the breweries first contact with Anton Paar around 10 years ago. Brewmaster Pausler remembers: "When I first got here I had previously been working at a brewery in the UK. At that brewery we were using Anton Paar's portable density meter DMA 35 for checking the °Plato content. When I saw that Amarcord was still using hydrometers, I said to my boss: 'We need to get a DMA 35 in here as soon as possible!'" Andrea Bagli took his new brewmaster seriously and soon the portable density meter was in use, a second one purchased shortly after.



*A modern production plant in the Apennine mountains*

## Attention to detail

**Andrea Bagli, CEO**

*"At Amarcord ... the consistent quality and taste of the beer are what really count."*

At Birra Amarcord nothing goes unnoticed and nothing is left to chance. The whole team applies an amazing attention to detail in seemingly everything they do. From the optimization of the local spring water for each type of beer brewed, be that IPA, pilsner, or others, to the use of locally sourced hops and hop cones, over 15 different types of malted barley, and a wide range of different yeasts to be blended for new creations as required.

The brewery software provides information about all inputs and outputs in real-time and uses the values from Anton Paar's online Beer Monitor (alcohol, real & original extract and CO<sub>2</sub>) collected by the integrated Davis software. All relevant parameters are recorded and stored and calibrations done in the lab are automatically made available to the process sensors. Degrees Plato is used for excise purposes in Italy, so the measurements on every batch need to be traceable and documented. This reliable system of checks and monitoring has contributed to the brewery gaining certification from BRC Global Standards, a certificate which is required by leading Italian supermarkets in order to guarantee the high quality of the products they sell.

## Special brews

Along with the “regular” beers produced at Birra Amarcord, the brewery also pours its creativity into special brews produced each year as limited editions. These are lovingly created by Andrea Pausler and his team, often using as-yet-untried ingredients. Producing the special brews therefore contributes to the team’s know-how and brings experience with new and often surprising combinations. As brewmaster Pausler reports: “The special brews are for the brewery what Formula One is for regular car producers. We try lots of new things out and a lot of thought goes into it. Whatever works well with the special brews can be transferred to the regular production at a later date. So we are always learning – about new ingredients, new combinations, new techniques.”



*The Carbo 510 sensor monitoring CO<sub>2</sub> online and brewmaster Pausler with the DMA M-Alcolyzer setup in the lab*

## Winning combinations

One of the special brews from last year was the successful pairing of beer with wine. The IGA (Italian Grape Ale) is produced when wine must is cofermented with the beer wort to create an unusually flavored and fragrant beer, in this case with a light pink color due to the red grapes. To create this IGA, Birra Amarcord cooperated with nearby organic wine-maker Davide Bigucci at the Podere Vecciano vineyards. The experiment came to a wonderful fruition, as Andrea Bagli explains: “The must was fresh, so fresh that 3 days before the grapes had still been hanging in the sun on the hillside. It was an excellent partnership. During the grape harvest, you’re lucky if wine-makers are even answering the phone but we were on standby and as soon as the must was ready we got the call and it was delivered that day. Other breweries make IGA but it’s pretty unique to do it using fresh must directly from the vineyard.”

Wine must and beer wort are an unusual pairing which works well to make a spectacular beer. Other combinations at Birra Amarcord include the striking designs used to market the Riserva Speciale, Classiche, and AMA product lines – once again with an attention to detail that includes the naming, labels, bottle, and bottle closure.

These designs often came to life via cooperations with big names, including contemporary New York designer Milton Glaser, screenplay writer Tonino Guerra, and graffiti artist Eron.

But here Andrea Bagli is as down-to-earth as ever: “At Amarcord we do think about the design, it has to fit and make a great impression. But the product is more than just a nice-looking bottle. The consistent quality and taste of the beer are what really count.”

On the subject of consistent beer quality, Birra Amarcord and Anton Paar is a combination which works exceptionally well.



*The lovingly created beers on show.*

## Main points at a glance

**MEASURED PARAMETERS** Alcohol, °Plato, extract, and color on the DMA M-Alcolyzer setup; oxygen and CO<sub>2</sub> on the CboxQC At-line; CO<sub>2</sub>, alcohol, density, original extract, apparent extract on the online sensors, alcohol on the DMA 35 portable density meters

**SAMPLES** All types of beers

**INSTRUMENTS** DMA 4500 M plus Alcolyzer ME and integrated color module, DMA 35, CboxQC At-line carbonation and oxygen meter, Online Beer Monitor (density, sound velocity, CO<sub>2</sub> sensor and mPDS 5) and Davis software connecting the online sensors with the DMA M-Alcolyzer in the lab

**ACCURACY** 0.03 °Plato (DMA M-Alcolyzer in the laboratory)

**SAMPLE THROUGHPUT** 40 to 50 per day measured in the laboratory