

# HIGH LIGHT

**GRUNWALD®**  
Dosing · Filling · Packing



GRUNWALD's customer magazine no. 44 / September 2019



Editorial	2
A very special event: "D' Arge 'nab"	3 + 12
Kärntnermilch dairy: "Our milk is our life" –	
Interview with director Helmut Petschar	4 – 5
The appropriate machine solution for BIGFOOD GmbH	6 – 7
GRUNWALD-FLEXODOS delivered to BÜRGER in Ditzingen	8 – 9
Mobile dosing machine GRUNWALD-FLEXODOS	10 – 11





## EDITORIAL



## COVER

The cover picture was taken in the „Allgäuer Alpen“ not far from the German-Austrian border and the idyllic mountain lake „Schrecksee“ at the beginning of July. It was a funny moment for our employee Artur Mattern when he was met by a flock of sheep at an altitude of more than 2,000 metres right below the summit of the „Kugelhorn“ mountain on the hiking trail „Jubiläums-Wanderweg“. In the background of the picture you can see the valley of „Hinterstein“ and „Bad Hindelang“.

Publisher's imprint  
HIGHLIGHT is topical information for customers, potential customers and partners of GRUNWALD GMBH and is published three times a year.  
Editorial Dept. and Layout: Marlies Hodrius

GRUNWALD GMBH  
Pettermannstr. 9  
88239 Wangen im Allgäu/Germany  
Phone +49 7522 9705-0  
info@grunwald-wangen.de  
www.grunwald-wangen.de  
GRUNWALD GMBH at [LinkedIn.com](#)

Doesn't it seem that innovations follow each other in shorter and shorter spells? Whether it's with the innovations in cars, fashion or food tends: what is the latest trend today is rolled over by the next trend tomorrow. The change in these trends seem to come around faster and faster these days.

In the nutrition and dairy industry such rapidly changing trends are a challenge for our mechanical engineers. Using the salad industry for example, this market has become with popular with consumers and can be found in the cooling shelves in the supermarkets or delis.

The demand for machines filling products such as couscous and bulgur salads has increased considerably over the last couples of years. Salads offer many varieties of tastes, filling more and more flavours for customers, it's hard to know when this trend will change again. In this case again it is not possible to estimate reliably how long the final consumer's buying behaviour will continue.

For our customers that rely on filling, dosing and packing machines of Grunwald offer, they can have the knowledge that our machinery can adapt to the ever-changing market. We have put into practice a long time ago what others are still searching the technical solution for. Our continuous innovation to future proof our machine solutions which require a minimum of time for machine changeover and achieve enormous flexibility in daily production in order to be able to react to ever changing trends and preferences of the markets at any time.

Let's take our dosing machine GRUNWALD-FLEXODOS as an example on which we have detailed in the present Highlight magazine. More than 10 years ago this machine was still used as a stationary dosing machine for non-pumpable, free flowing products. We have now developed it further in order to follow the trend and meet the market requirements. Today the new GRUNWALD-FLEXODOS is

available as a mobile dosing machine for filling non-pumpable products and it can be integrated in a GRUNWALD filling machine with minimal effort. In exchange with the mobile dosing machine GRUNWALD-MOBIFILL even pumpable products can be filled on the same cup filling machine.

The GRUNWALD-FLEXODOS – another example of our continuous strive to keep up with new developments over the years. Our cup and bucket filling machines offer maximum flexibility; a product change is possible in only a few minutes and format change by the push of a button. The recipe management was also designed to make it as easy and convenient by being activated by the push of a button.

At the forthcoming **FachPack exhibition in Nuremberg (24 – 26 September 2019)** we will be exhibiting the dosing machines FLEXODOS and SEMIDOS as well as our rotary-type cup fillers GRUNWALD-HITPAC AKH-019R/1-lane and GRUNWALD-ROTARY 20.000/4-lane at our **stand in hall 2, stand 2-402**.

We look forward to welcoming you on to our stand and having the opportunity to update you on the latest state of the art machine solutions to suit all our customer needs

Yours  
Ralf Müller  
and the GRUNWALD team

Photo below:  
GRUNWALD-FLEXODOS in combination with  
GRUNWALD rotary-type machine



## A very special event: "D' Arge 'nab"

### or: "We build everything – even wooden things" (part 1)

We are glad to report on a very special event on this occasion – the fun boat rally which takes place every year in July and is organised by the Lions-Club Wangen-Isny. An event which only exists in Wangen in this version! Schools, clubs and companies are challenged to go down the river Argen in self-built boats. This event is called "d' Arge 'nab". The course passes the idyllic historic centre and is watched by numerous spectators who look forward to this fun event year after year.

For the first time a Grunwald boat took part and was very successful! To tell you a secret – from coming last it reached 2nd place. What a success for our 8 apprentices and their trainer Michael Assfalk who had built this boat and took part in the race.

#### The team of "D' Arge 'nab"

It started with a spontaneous idea of a trainer and 8 enthusiastic young people hardly more

than a week before the event. So, time was short.

A topic was quickly found! The intention was to design a raft with a built-on cabin according to the slogan: "roofing ceremony on the Grunwald mountain pasture". Numerous questions arose such as how does the venue look like? How much space is there between the bridges and the water? How can the boat be transported to and entered into the water? Which size shall the boat have and last but not least material had to be obtained and construction plans had to be made.

#### Building of a boat and many ideas

First the venue was inspected and the bridges were measured. It was quickly obvious that a detachable roof was necessary! Ideas were collected and a construction plan was made. 2 wooden frame works with crossbars and 98 buckets which were connected in between

and served as floaters formed the buoyant basis of the boat.

On Monday before the event (which took place on Saturday) the planks were sawn and the construction was started. Sawing, hammering, grinding, mounting the detachable built-up and selecting the material for the roof, sealing 98 buckets with silicone ... our 8 apprentices had a lot of fun but also a lot to do and improvise! They managed to solve the problems and tasks – which unexpectedly arose during the construction – with a lot of creativity and an abundance of ideas.

During the construction phase our employees peaked in from time to time and made wild estimates on how deep the boat will be under water. Some even predicted its sinking.

To be continued on page 12 ►►►



First meeting with the concept and ideas  
From left to right: Sofie Sauter, Manuel Rast, trainer Michael Assfalk, Matthias Gsell, Nils Nothhaft, Raphael Schöllhorn, Leon Forstenhäusler, Jonas Herz  
Photo below: 3D view of the raft

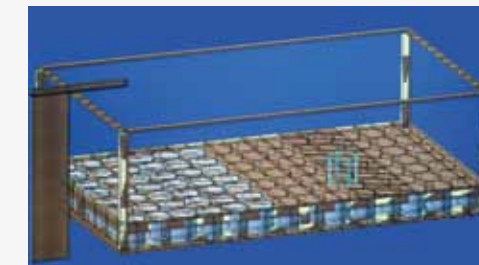


Photo on the left: Raphael and Manuel are sawing the wood to size for the subbase

Photo at the top: start of the build-up  
Photo below: Nils, Raphael, Manuel and Leon are positioning 98 buckets in the subbase







## "Our milk is our life"

8 questions addressed to the director Helmut Petschar, managing director of Kärntnermilch dairy and president of the Association of Austrian Milk Producers regarding "the future of the milk"

### INTERVIEW

Kärntnermilch dairy was established as "Oberkärntner" dairy in 1928 in Spittal an der Drau in Austria. Since the beginning – according to the current sustainability report of 2018 – Kärntnermilch has been the pioneer in terms of quality and innovation.



From the beginning it was an endeavor to further develop the organic sector. With the product line "Bio Wiesenmilch" Kärntnermilch sets even higher new standards taking into consideration not only the high quality but also the environment, energy efficiency, climate protection and especially animal welfare and species protection into the milk production. Furthermore, Kärntnermilch has introduced the strictest criteria worldwide for raw milk.

**Grunwald:** Today Kärntnermilch is considered to be the pioneer in the bio product sector. What role does milk play in your life?

**Dir. Petschar:** For me, personally, milk has had a very special significance for decades. I grew up on my parent's farm and used to help in the stable when I was very young. For many years it has been a special concern of mine to give the correct value to milk in marketing and processing.

**Grunwald:** One essential statement in your sustainability report is: "We practice quality in our company every day". How does a good working day start for you?



**Dir. Petschar:** A good working day starts with a good cup of coffee with bio meadow milk and a little bit of time for the recent news.

**Grunwald:** Mr. Dir. Petschar, you are the managing director of Kärntnermilch and president of the Austrian Dairy Association. What kind of professional challenges will you be facing in the future?

**Dir. Petschar:** It is a great challenge to convince the consumers of the value of our high-quality milk and cheese products. This, in turn, offers corresponding prospects for the farmers.

**Grunwald:** Kärntnermilch aims at customers such as health-conscious families and consumers who appreciate sustainable, responsible behaviour and unique quality. Which central challenges will the Austrian milk industry have to cope with according to your opinion?

**Dir. Petschar:** We all live in a time where the value of foodstuffs is lost. The daily routine as far as foodstuffs are concerned is: "greed is groovy".

The small-scaled milk industry in mountain areas involves high cost. It is thus a central challenge to maintain the small-scale mountain milk industry and, at the same time, be competitive on the European markets with our products.

**Grunwald:** In 2018 a rotary-type GRUNWALD cup filler with double UV sterilisation was installed in your dairy. This was an ultraclean filling machine without peroxide sterilisation.

What was your motivation to purchase exactly this type of machine?

**Dir. Petschar:** During several meetings on site but also on the occasion of visits to other companies we could convince ourselves of the performance and quality of the machine.



**Grunwald:** At last three short and quick questions:

65 % of the economic space in Carinthia is cultivated by those farmers who supply Kärntnermilch with the world's best raw milk – to use your words. Have you ever had the opportunity to milk a cow yourself in the past?

**Dir. Petschar:** More than once. I grew up on my parent's farm which is now operated by my brother.

**Grunwald:** Do you still have time to think about leisure time?

**Dir. Petschar:** To a very limited extent.

**Grunwald:** With which famous personality would you like to drink a glass of your dairy's organic meadow milk?

**Dir. Petschar:** With president Putin. Then I could ask him when European and Carinthian milk products will be marketed in Moscow again.

Thank you very much Dir. Petschar for the time you dedicated for the interview. We also would like to thank you for the trust in Grunwald. We are proud to be part of Kärntnermilch's success as a partner by supplying our rotary-type cup-filling machine. We are looking forward to a further cooperation with you.

*Photos from left to right:  
Product variety of the product line "bio meadow milk"*

*Director Helmut Petschar, managing director of Kärntnermilch dairy and the president of the Association of Austrian Milk Producers*

*View into the production hall of Kärntnermilch*

*The 4-lane ultraclean machine type GRUNWALD-ROTARY 20.000UC delivered in 2018 for filling dairy products; production speed up to approx. 10,000 cups/h  
View into the ultra-modern maturing room for cheese loaves*



### Did you know this?

At the beginning, when the dairy was established in 1928, there were  
... 140 "milk taverns" where milk was filled in one's own milk churn  
... 1 type of milk, cheese and butter each

Today Kärntnermilch dairy has  
... 198 employees  
... 2,300 members of whom more than  
... 1,160 members are milk suppliers;  
... 266 of them are bio milk suppliers  
... 400 different products in their product range  
... 10 types of milk  
... almost 20 % of bio products  
... exclusively regional products  
... been benefitting from the advantage of being free of gene technology for quite a long time  
... the strictest raw milk criteria in the world  
... the fresh milk available in the milk shelf 24 hours later  
... made an investment of 6.3 million euros in a new fully-automated logistics centre

Every day  
... up to 380,000 kg of milk is delivered  
... up to 800 pallets of dairy products and cheese is delivered  
... 80,000 milk packages are sold just in Carinthia

Every year they  
... achieve a turnover of approx. 100 million euros  
... process more than 120 million kg of premium raw milk into high-quality products

Among other things Kärntnermilch intends to  
... save 35 tons of plastic material and  
... double the percentage of bio products in the future.







## Non-stop packing material and product changes

The appropriate machine solution is needed in order to react in a market-orientated and target-orientated way with new products at any time

The Bigfood Group develops, produces and markets various, tasty products for well-known food service companies and retail businesses. In addition to their focus on large-scale consumers they have also successfully introduced their products to the retail business. Their product portfolio ranges from dressings, juices and cheese to vegan products and wholesome snacks.

The company group comprises of Bigfood Produktions GmbH, Hamburger Käselager GmbH, The Go Foods Company, RAWLUTION and the vegan sector with the brand bedda.

The production site in Zarrentin was certified in accordance with the strict guidelines of the IFS higher level and was also bio-certified.



The brand name "Optimahl" exclusively stands for fresh and selected raw materials. 95 % of them are of European Union origin. All products are produced without notifiable additives.

"Variety in application and innovation on the market are the criterion for all products" (optimahl.com/philosophie)

Whoever wants to offer products individually and follow market trends needs reliable, maximum flexible filling technology in order to react on the customers' wishes and the market specifically and at any time. Smooth production proceedings and maximum economy of time in product change play an important role. A flexible production requires numerous product changes and cleanings during a work day. Here innovations in mechanical engineering are necessary in order to reach a flexible and cost-saving production.

### Product diversity "Optimahl"

Bigfood supply "customised solutions for consumers" with their product range "Optimahl". At their production site in Zarrentin an enormous variety of fresh – or how they call it – "optimahl" dressings and dips are produced. In order to offer this product diversity with the desired "optimahl" variations and in accordance with market requirements flexible production is needed.

Bigfood found the appropriate innovation for filling a multitude of different products in different cups in daily production with

our unbeatable duo: our rotary-type cup filling machine and our mobile dosing system MOBIFILL.



The combination of these machines has been sold all over the world successfully for many years and also shows its strength with this application, the filling of a large number of different, fresh products such as

- Sauces,
- Dips,
- Dressings,
- Mustard cream,
- Spreads,
- Pestos and
- Chutneys



### Filling technology for "Optimahl" products

The 4-lane rotary-type cup filler GRUNWALD-ROTARY 6.000 in combination with the dosing machine GRUNWALD-MOBIFILL is characterised by really easy operation, high machine availability and above all unequalled format flexibility. The high machine availability is achieved by the integral, coordinated machine solution and guarantees a production output of up to 12,000 cups/h. The filling station is designed for a filling volume of 25 ml – 250 ml.

### The unbeatable duo

This machine combination of a rotary-type filling machine with mobile dosing system consists of two mobile dosing systems type MOBIFILL. This virtually allows for a product change on the fly. For this purpose the dosing system used last is disconnected from the rotary-type machine without much effort and is moved to cleaning position. The next, already prepared and filled dosing system MOBIFILL is connected to the rotary-type machine with the same easy and quick way. Already two to three minutes later the next type of product can be filled.



Another advantage is that all product-specific parameters of the filler are stored in the cup filling machine. Thus several dosing systems can be used rotationally and the time-consuming re-adjustment or setting of values is no longer required.

The MOBIFILL technology allows for a really rapid product change without tools within a realistic time of minimum 3 minutes – regardless of filling liquid or pasty products.

### Everything in twin packs

The technical highlights of this rotary-type machine stand for the success of this machine solution. Cup slats for two different cup sizes are stationary mounted on the rotary table. The double advance technology activates them alternately in accordance with the packing materials handled.

The stations mounted twice are the logical continuation of the high flexibility of this cup filler.

1. double cup setter
2. double seal lid magazine
3. sealing station designed to combine for both cup sizes



Two round plastic cup sizes with a diameter of 53 mm and 75 mm and with different heights are handled on the machine. If product is filled in cups of different heights and shapes only the packing materials need to be exchanged; a format changeover will not be necessary.

### Advantages:

1. Format changeover in case of different cup diameters by the push of a button
2. Format changeover also for cups of different heights by the push of a button

In summary this rotary-type machine guarantees enormous flexibility due to its technical sophistication. In combination with our mobile additional equipment our customers can now take advantage of a wide range of possibilities in order to carry out the daily production in an ideal, rapid, flexible and reliable way.

Photos on the left:

- Examples of the product series "Optimahl"
- Machine acceptance test in Wangen, attended by the responsible persons from Bigfood Group: From left to right: Marco Mumm, Christoph Trunzer (Grunwald), Thomas Löhmann, Bastian Nimtz, Ralf Stelzer

Photos on the right:

(row at the top, from left to right):

- Double cup setter
- Double seal lid magazine

(row at the bottom, from left to right):

- Sealing station designed to combine both cup sizes
- View on the rotary table of the 4-lane rotary-type machine with the alternately positioned cup slats for two different cup sizes

## CONTACT

If you are interested in this rotary-type filling machine and in receiving further information or if you are looking for a solution for your filling application please do not hesitate to contact us.

For further information please contact  
**Christoph Trunzer**  
 Phone +49 7522 9705-250  
[christoph.trunzer@grunwald-wangen.de](mailto:christoph.trunzer@grunwald-wangen.de)



## NEW BUSINESS



When Richard Bürger founded the company in Stuttgart Feuerbach in 1934 in order to produce mayonnaise and salads no one could even foresee the success story of this family business. After 80 years, this family-owned enterprise produces approx. 350 tons of food products every day. Meanwhile BÜRGER have been family-owned for 3 generations.

In the meantime more than 900 employees in the different departments are involved in the production process for Swabian specialties at the two production sites in Ditzingen and Crailsheim.

The most important product is still the product "Maultaschen" (pasta squares filled with meat and spinach). They produce approx. 2.5 million of them every day. A coincidence, but if all of them were positioned one after the other this would result in the distance between the two production sites Ditzingen and Crailsheim (approx. 110 kilometres).  
www.buerger.de



## Comeback of the year!

### GRUNWALD-FLEXODOS – for even more applications!

The delicatessen salad industry is an industrial sector which launched many new trend products on the market in the past years. In addition to mayonnaise-based, pumpable salads a diverse selection of products such as

- couscous salad,
- bulgur salad,
- flaked tuna salad
- as well as traditional products

found their way onto the supermarket shelves. These products have one thing in common: **they are not pumpable and therefore cannot be filled with a standard piston filler.**

#### The delicate classic

The product range of Bürger in Ditzingen is comprised of a popular and traditional but non-pumpable specialty: the ox-muzzle salad. This is a typical delicatessen salad which could even be called legendary and which has always appealed to consumers.

The problem that is needed to be considered with regard to filling the ox-muzzle salad in fully-automatic operation is that the weigh-accurate filling of meat products with chunks is not that easy. In addition this delicatessen salad is not pumpable.

#### Way out of this dilemma

Upon receipt of this enquiry GRUNWALD was aware of the fact that only the GRUNWALD-FLEXODOS would be the ideal solution for this filling application. The FLEXODOS filler had been developed by GRUNWALD more than 10 years ago for filling non-pumpable products.

At that time it seemed as if GRUNWALD was ahead of their time with this development. The need for the fully-automatic filling of non-pumpable products which could have been filled on this special filling machine was limited.

#### Comeback of the FLEXODOS

Today, more than 10 years later, the market and the customers' requirements changed. The requirements for filling non-pumpable products increased. It is time for a comeback of the FLEXODOS.

The development engineers reworked this filling machine from the design point of view, updated it technically and facilitated its handling.

The result was a show-piece of a cup filling machine. The cup filler GRUNWALD-ROTARY 12.000 with two mobile fillers. The combination of technically high-quality machines for filling

- non-pumpable ox-muzzle salad
- as well as further non-pumpable products
- pumpable, mayonnaise-based meat salad
- sauces and
- soups



*Photos on the left, left side  
The mobile bulk filler is based on the principle of volumetric filling. This functional principle guarantees the careful treatment of products which are non-pumpable.*

*Photo on the left, right side:  
GRUNWALD-FLEXODOS with tilted hopper for the ergonomic cleaning without platform.*

*Photo on the right:  
On the left of the photo: GRUNWALD-FLEXODOS for non-pumpable, free-flowing products in stand-by position:  
The mobile piston filler type MOBIFILL for pumpable products is connected to the dock-in station of the cup filling machine GRUNWALD-ROTARY 12.000*

At the same time product changeover times and changeover times on the machine are very short as the new mobile FLEXODOS filler can be installed easily. It is just moved into the dock-in station of the cup filling machine, is locked and then connected to the cup filling machine – and then production can be started. This gains an enormous amount of time, especially when small batches are produced.

Only approx. three minutes are required to exchange the fillers. Due to the fact that all product contact parts are removed at the same time as the mobile filler and the second separately cleaned filler is then connected, the machine will already be free of allergen and ready for production after 3 minutes.

The GRUNWALD-FLEXODOS perfectly completes the product range of mobile fillers. It can be connected to rotary-type and inline GRUNWALD machines either as a single filler or alternately with other fillers.

The Bürger project with its technical requirements for the careful treatment and filling of their ox-muzzle salad was the spark for the further development of the FLEXODOS! A nearly tailor made job for GRUNWALD.

At this point we would like to thank all persons responsible at Bürger for the confidence in our performance and our development work.



## MASCHINENDETAILS

## CONTACT

If you are interested in this rotary-type filling machine and in receiving further information or if you are looking for a solution for your filling application please do not hesitate to contact us.

For further information please contact  
**Stefan Sacher**  
Phone +49 7522 9705-260  
[stefan.sacher@grunwald-wangen.de](mailto:stefan.sacher@grunwald-wangen.de)

## GRUNWALD-FLEXODOS

### The dosing machine for non-pumpable products



The GRUNWALD-FLEXODOS is equipped with up-to-date electronics and the latest technology. The number of elements was reduced to a minimum so that this mobile dosing machine can also be cleaned quickly and without much effort. Its compact design and thus the low space requirements is another important advantage.

#### Options for use

The mobile bulk filler is based on the **volumetric dosing principle**. This functional principle thus also guarantees a weight-accurate and gentle filling of products which are non-pumpable.

Like all mobile GRUNWALD dosing machines this new FLEXODOS can also be installed without much effort. It is just pushed into the dock-in station of the cup filling machine, locked and connected to the cup filling machine – and production can be started immediately.

#### Function

The products are fed from the filled hopper to the filling chamber via the product feeding auger. The cup which had been denested in the cup ring of the cup filling machine is lifted. After the volumetric measuring the product in the filling chamber is pushed into the lifted cup. This guarantees ideal product distribution in the cup.

The great advantage of the combination of our cup filling machines and mobile FLEXODOS is the **easy changeover** of the cup filling machine and **the product change which can be carried out within less than 5 minutes**. The mobile dosing machine can be connected and disconnected without much effort and without tools. If two mobile dosing machines are used the filling machine will be free of allergen in less than 5 minutes due to the exchange of the complete filler.

The FLEXODOS can be cleaned independently of the machine and outside the production room. These are advantages which guarantee a high degree of flexibility and a smooth, time-saving continuation of production!

#### Flexibility in use

Frequent product and format changes for product diversity in daily production as well as high machine availability and easy operation of the filling machine are one of the most important criteria of the food industry for investments in new filling and packing machines.

For this purpose GRUNWALD offers an ideal solution for the individual requirements of each customer: the combination of GRUNWALD cup filling machines with the mobile filling technology of the GRUNWALD-MOBIFILL and the GRUNWALD-FLEXODOS!

The enormous advantage of this exceedingly high flexibility in use is that **both mobile dosing machines are interchangeable 1:1!** This means the same dock-in station can be used for both dosing machines – without modification and without complex technical installations. Hence, GRUNWALD cup filling machines are suitable for filling both pumpable and non-pumpable products. This high flexibility in use offers an enormous extension of the product diversity and is an important investment criterion for many customers.

#### Products

The new GRUNWALD-FLEXODOS is used for the simple and reliable filling of a broad range of **non-pumpable products**. Examples of such products are:

- Trend products  
e. g. bulgur, couscous, quinoa

- Delicatessen salads  
e.g. pasta, carrot, bean, lentils, herring, tuna, Greek salad
- Vegetables of all kinds  
e.g. peas, beans, lentils, corn, grated carrots
- Side dishes for ready-meals  
e. g. rice products with different admixtures, potato pieces.

#### Result

On balance the new GRUNWALD-FLEXODOS bulk filler in 1- or 2-lane design convinces of its ideal handling and excellent production speed.

Its enormous flexibility and functionality but above all the unparalleled short production changeover times are the special features of this mobile dosing machine.



### DETAILS ON THE MACHINE

#### GRUNWALD-FLEXODOS

The reliable bulk filler for accurate filling of

- non-pumpable products,  
• dry products,  
• free-flowing products.

Design: 1- or 2-lane  
Speed: Up to approx. 42 cycles/min and lane, depending on the product

*Photo on the left (top left):  
Mobile dosing machine GRUNWALD-FLEXODOS in  
2-lane version  
(at the bottom): product example*

*Photo on the right:  
View in and on the dosing chamber of the  
2-lane GRUNWALD-FLEXODOS during the filling of  
grated carrots*

### CONTACT

If you are interested in receiving further information or if you are looking for a solution for your filling application please do not hesitate to contact us.

For further information please contact:  
**GRUNWALD GMBH**  
Pettermannstr. 9  
88239 Wangen im Allgäu/Germany  
Phone +49 7522 9705-0  
[info@grunwald-wangen.de](mailto:info@grunwald-wangen.de)





# A very special event: "D' Arge 'nab"

## or: "We build everything – even wooden things" (part 2)

### The test phase and a boat without a captain

On Thursday the most important part – the floating body – was built! According to the slogan "better safe than sorry" our apprentices packed their boat on a trailer and made the endurance and swim test in a nearby pond. To everybody's delight the boat swam excellently!

On Friday evening before the event – on the occasion of the Grunwald summer party – the idea to make a bet arose. The young people bet that all those who were involved in the construction would sing the Grunwald anthem on the music stage. If so, Ralf Müller would be invited to take part in the fun boat trip. No sooner said than done they entered the stage on Saturday morning at 1.30 a.m. and sang. From then on, the apprentices crew had one more man on board: their captain Ralf Müller!

### "D' Arge 'nab"

No words are necessary to describe the event and the race. The pictures on this page are self-evident to give proof of the fun it was. In the boat there was the crew of 10 as well as a manual fire hose. Many decades ago, it was actually used to extinguish fire. On this special warm day in July it was used by the apprentices to splash the visitors with fresh water from the Argen and refresh them.

### Congratulations on this success

It was really fantastic what our apprentices developed and worked out together within a few days. We are glad that they were rewarded with the 2nd place at the very first participation. On this occasion we would like to congratulate our committed and fantastic team. Of course, we hope for a repetition in July 2020 when it's time again for "D' Arge 'nab" (down the river!).

### Details and facts on the project

- 8 trainees are working inter-divisionally
- 1 common project
- 7 working days for collecting ideas, construction, build-up, test
- 7 days having fun together
- ½ working day for "maiden voyage"
- ½ working day for build-up and decoration for the presentation of the boat on the occasion of the summer party

### Details on the fun boat

- Size: 2 x 4 metres
- Tare weight: 280 kg
- Space for 9 persons and 1 captain
- Detachable roof of the Alp cottage
- Table / retainers for the bench
- Driven by 4 paddles
- 98 buckets sealed with silicone and fit in the subbase of the boat



Photo at the top: The subbase was loaded on the trailer, let's get ready for the swimming test.  
Photo below: The test was passed successfully! The boat is capable of carrying all 9 persons! Raphael, Leon, Nils, Maximilian, Sofie, Manuel, Jonas, Markus and Matthias still have dry feet.



Photo at the top: Captain and boat builders are waiting for the start; in the photo: Ralf Müller and Sofie Sauter  
Photo below: finally the boat trip starts! Let's get paddling!



Photo at the top: During the boat trip our apprentices splash the audience with fresh water from the river Argen.  
Photo below: they are satisfied with the second place (from left to right): Nils, Manuel, Jonas, Maximilian, Raphael, Leon, Sofie.

