

SEPTEMBER 2022



REPORT

ISSUE 38

THE MAGAZINE FOR CUSTOMERS,
EMPLOYEES, AND FRIENDS



One team – one mission

**WE
SUPPORT
YOU!**

AUTOMATION

You buy the machine.
We do the rest.

DOCKLOCK ZERO-POINT CLAMPING SYSTEM

Time proven in stationary applications –
now in the HAINBUCH portfolio

CONTENT

REPORT 38 | SEPTEMBER 2022



FACTS & FIGURES

6 GERMAN LOCATIONS

11 INTERNATIONAL SUBSIDIARIES

WORLDWIDE MORE THAN **850** EMPLOYEES

OVER **1000** SPECIAL CLAMPING SOLUTIONS PER YEAR

FOUNDED IN **1951**

INDUSTRY **4.0** DIGITAL FUTURE SOLUTIONS

OVER **45** DESIGN ENGINEERS

SPANNTOP INVENTED IN **1977**

IQ CLAMPING DEVICES WITH INTELLIGENCE

LIGHTWEIGHT CLAMPING DEVICES **CFRP** MADE OF CARBON FIBER

MORE THAN **150** PATENTS

6 Automation

Building with the right support is virtually priceless – let us be the site manager for your automation project.

12 DockLock zero-point clamping system

Quick change-over systems are crucial for maximizing the efficiency of work processes: The low-maintenance DockLock zero-point clamping system – time proven on the market, now in the HAINBUCH portfolio.

18 Special solutions

Based on standard solutions but still individual & custom-tailored
What the design of customized clamping solutions has to do with kitchen planning.

24 Two clamping head services

Without the right clamping head, nothing is possible.
24 h is the magic word – for both the SK Unit and our grind-out service.

28 TESTit force gauge

Timely measurements reduce scrap and boost revenue.
But is it enough to only measure the clamping force on the workpiece?

32 Social commitment

... is a two-letter word: DO
And that is where our apprentices and students apply themselves diligently.

There for you.

Dear customers, dear employees, and dear friends,

Good support – what does that actually mean? We come back to that question again and again. From our perspective it means much more than just good product advice. We find all the »little details« to be extremely important. The challenges in every production often have to do with more than just the hardware.

We want to offer you the best possible support, to be a reliable partner and to know what is important to you. For example in automation projects, where we take charge and manage everything just like the site manager at a construction site. And also things that at first might seem trivial, but in the long run are crucial for your success. Such as when you need a clamping head with an intermediate diameter or a custom clamping head, without delay. Or offering new products – which perhaps you have missed so far – such as our DockLock zero-point clamping system, for example.



We not only want to solve the clamping task, but also to optimize your entire process. So you can be the perfect partner for your customers.

In a nutshell: We are there for you, wherever you need us. And our employees will tell you what that means.

Sincerely,
HAINBUCH Executive Board


Sylvia Rall


Gerhard Rall



WE SUPPORT YOU

One team – one mission!

Which is: To provide the best support for your project – no matter whether large or small!

We have excellent employees with specialized knowledge and a good sense of how to meet your requirements. Take advantage of our many and various services.



BUILD WITH A GOOD FEELING

... and tackle the automation of processes with the right site manager.

» **My name is Fabrizio and I have been at HAINBUCH for three years.** Although I am a sales consultant, sometimes my job reminds me of a construction site manager. My best friend recently built a house. With a garage for the family car and all kinds of odds and ends, and a hobby room in the basement, as a place for us guys to hide out once in a

while [laughs]. Sounds great, but what would he have done without his site manager, who seemed to be on duty day and night? He would have gone crazy! Would have spent too much money on things he doesn't need and wouldn't have known exactly how and where to start.





Workholding technology & automation from a single source:

- 45 years of experience in workholding technology
- 15 years of experience in automation solutions



One could count on the site manager. He had a solution for every problem, no matter how small, and also played the role of psychologist when there was a marital crisis [laughs]. The manager's incredible knowledge of house building and his good connections to the contractors gave my friend a good feeling. The site manager asked the right questions and worked out the optimal construction schedule.

The automation of production processes is no different. We ask you tons of questions, and, of course, vice versa. We examine your production processes and determine what is possible, but also what is feasible. We work out a timetable, with appropriate costs and benefits. We hold the reins, implement your project and remain at your side afterwards.

Fabrizio describes the procedure for implementation of an automation project at HAINBUCH.

1. You have an inquiry; what is your first question?

What is the problem that should be solved by means of automation? For example, where is a potential shortage of employees, where would an absence be especially critical and where are night and weekend shifts necessary?

2. What is important to you?

What additional information do you need?

For me it is very important to find out what the customer's requirements are and what the current situation looks like. I check whether one of our automation solutions is suitable or to what extent we have to change the current situation in order to be able to offer a solution. If we can help, then we look at the requirements and general conditions.

We determine what the automation has to do and what it has to accomplish. Then I have a look at the process, the workpieces, the machine and the general circumstances. It might be the case, for example, that there is no room for a robot in front of the machine. I gather as much information as possible and clarify everything, so that the inquiry can be processed quickly by our staff.



3. What's the next step? Who do you involve in the project?

If our ROBILO robot loader or our AC line are suitable candidates, then I take the inquiry to our in-house specialists. They examine the technical feasibility, obtain additional information if necessary, and clarify any remaining questions. This is followed by a machine and collision analysis.

A quotation is not prepared until we know that the project is technically possible. In the case of automation of entire manufacturing cells, however, I introduce our customer to our subsidiary Vischer & Bolli Automation [VBA] in Lindau, Germany and explain their procedure. It is quite similar to ours.

The customer doesn't have to take care of anything, he receives a customized handling solution. VBA adapts to all circumstances. In concrete terms, that results in the following work flow: I create the requirement specification and submit it to VBA after coordination with you. VBA carries out the remaining steps. They make an appointment in order to review everything, and I will glad to accompany them.

4. How do we make the customer feel he is in good hands?

We are on site as often as necessary, which can be any where from 3 to 10 times. We also invite the customer to visit our offices. The customer should feel like he is in good hands with us. We check again to determine whether he really needs everything. Some features are nice to have, but not absolutely necessary. We don't want to sell the customer anything he doesn't need.

5. How do you dispel any remaining doubts the customer may have?

I always say: You don't have anything to worry about. We won't leave you in the lurch. When we deliver and there is a problem somewhere, then we will find a solution together. Communication is the most important thing, and it must take place at eye level.



We offer automation solutions in 3 areas:

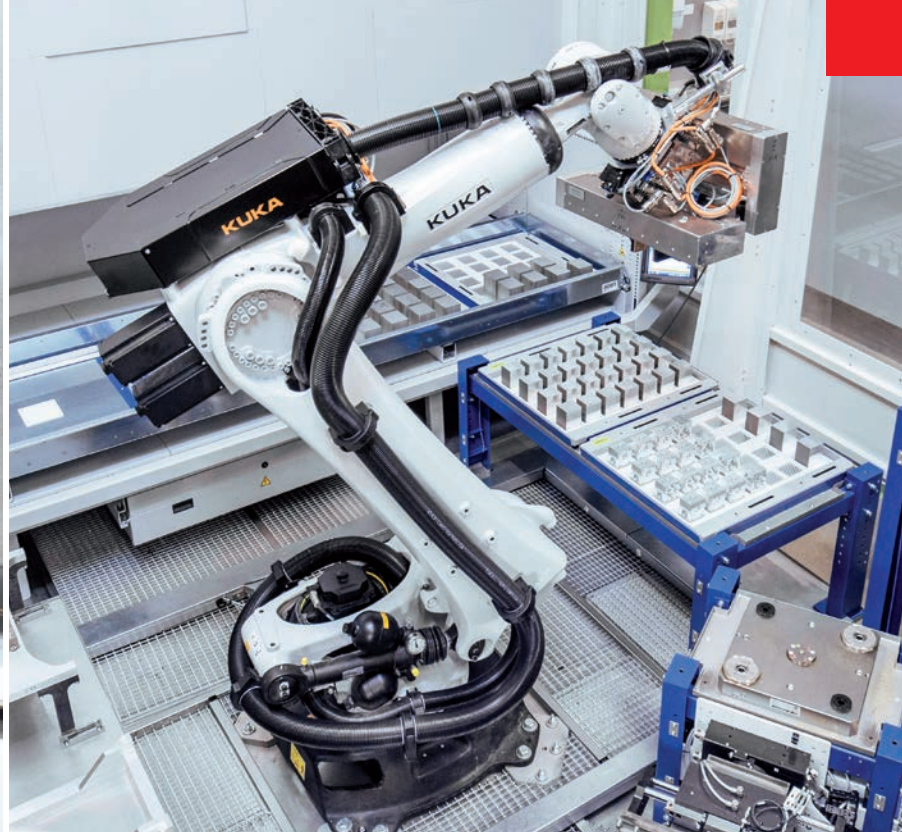
- Workpiece loading with the ROBILO robot
- Change-over of clamping heads and end-stops or entire clamping devices with the AC line
- Complete manufacturing cells, together with our subsidiary Vischer & Bolli Automation [VBA]



Automated workpiece loading



Automated clamping device change-over



Complete manufacturing cell

Marcel, Managing Director of VBA, allows a look at a »typical« work flow.

- We have two very extensive checklists that we go through with the customer. They include: machine & workpiece data, design of the clamping concept, handling of pallets & workpieces, as well as production & investment data.
- 2D and 3D data for the machines and workpieces are also important.
- In the case of larger systems we obtain a specification sheet.
- We create a concept and compare it to the specification sheet.

- This is followed by a detailed quotation for the work-holding technology and robot cell for milling, turning, grinding, etc.
- If an order is placed we start immediately with planning and implementation. To achieve this we are in constant contact with the customer, so that everything runs smoothly for assembly & commissioning.
- Once the system is connected and all interfaces are programmed, it goes without saying that the employees are also trained.

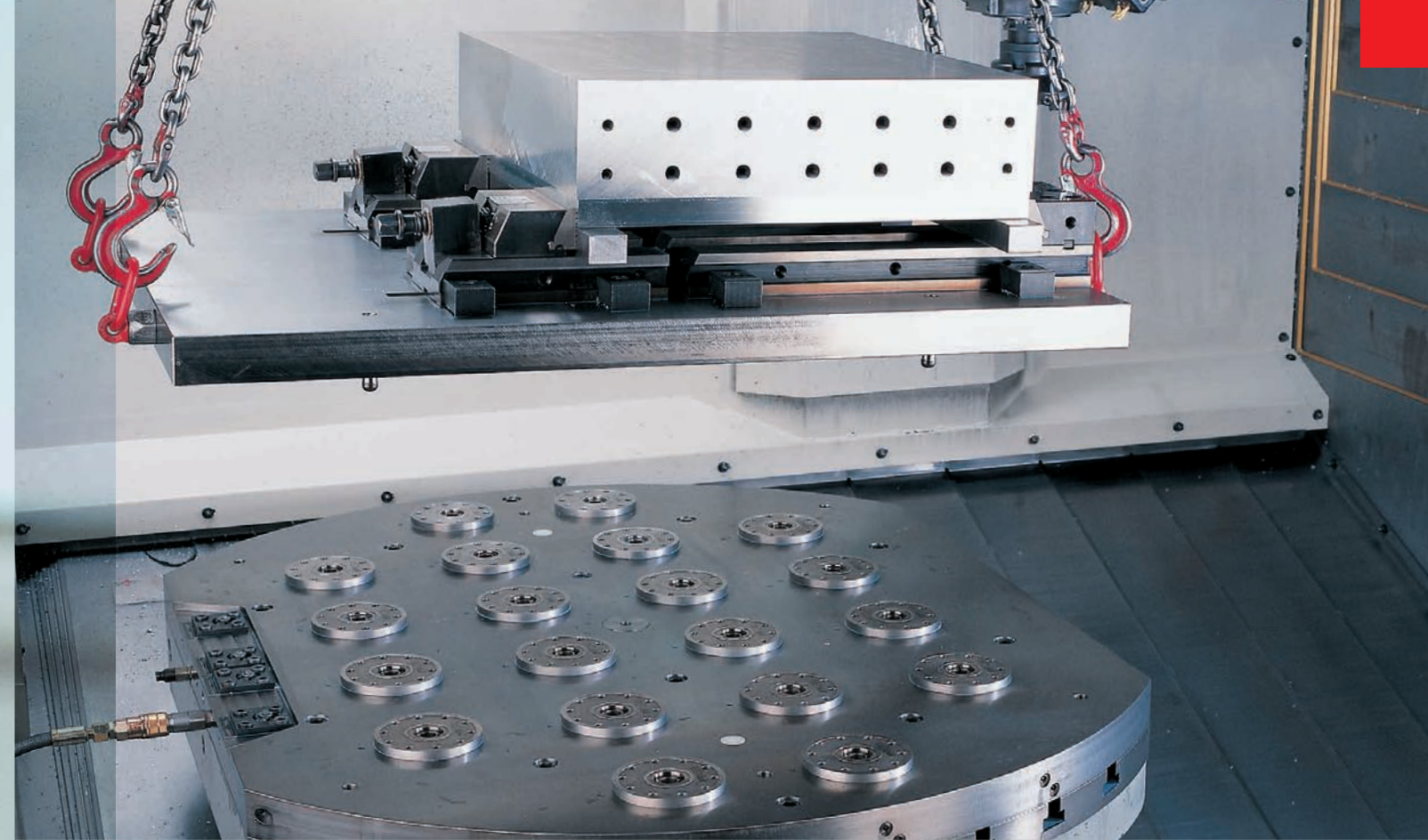
Automation of your processes by us means:
You buy the machine. We do the rest.

With much sensitivity and your goal in mind we turn your request into a successful automation project.



MAXIMIZE YOUR EFFICIENCY WITH THE LOW-MAINTENANCE ZERO-POINT CLAMPING SYSTEM

We have expanded our competences for stationary workholding solutions for you.



» **My name is Deniz and I am an old hand, having worked at HAINBUCH for more than 25 years.** What do I do? I started out as an apprentice industrial mechanic. Then I worked my way up through several positions all the way to branch factory manager. For the past 6 years I have been racing off to visit customers and make their production processes more labor-saving.

With my experience in production I am only too familiar with the problems at the machines of my customers. It's mostly about this »annoying« topic called set-up. The machine is down and no money is being earned. A disaster nowadays.

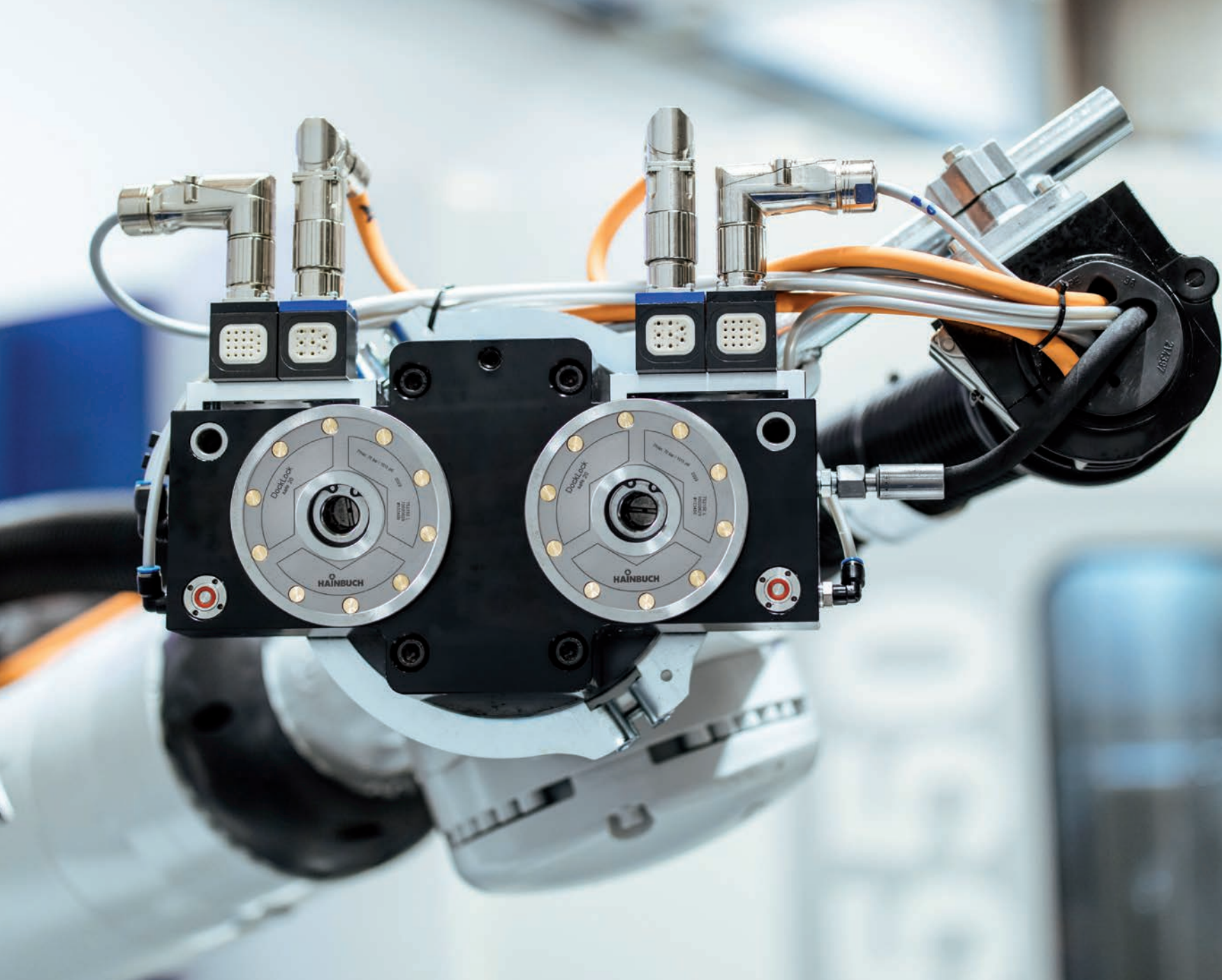
Besides, mounting of some clamping devices can be quite a »fiddly« task. What could alleviate the situation? A quick change-over or zero-point clamping system.

In the past, I was not always able to help my customers who use stationary workholding solutions out of a jam. We have been offering quick change-over and zero-point clamping systems for rotating applications for several years now. For stationary applications though, our CENTREX duo positioning and centering element was not an integral solution. This has changed with the integration of the DockLock zero-point clamping system from Vischer & Bolli Ag in our portfolio.

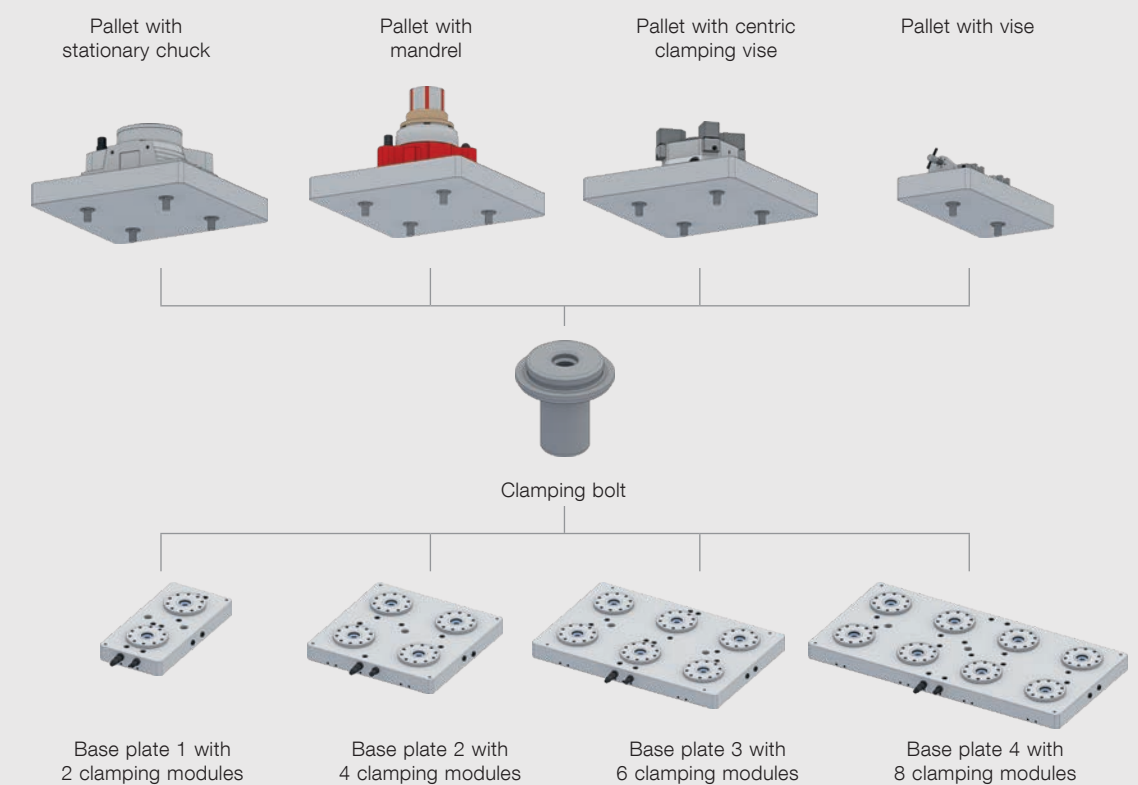
Established on the market for many years, the system has earned a reputation among the owners of machining centers. I was immediately convinced by the technology.

And what exactly are the benefits of a zero-point clamping system?

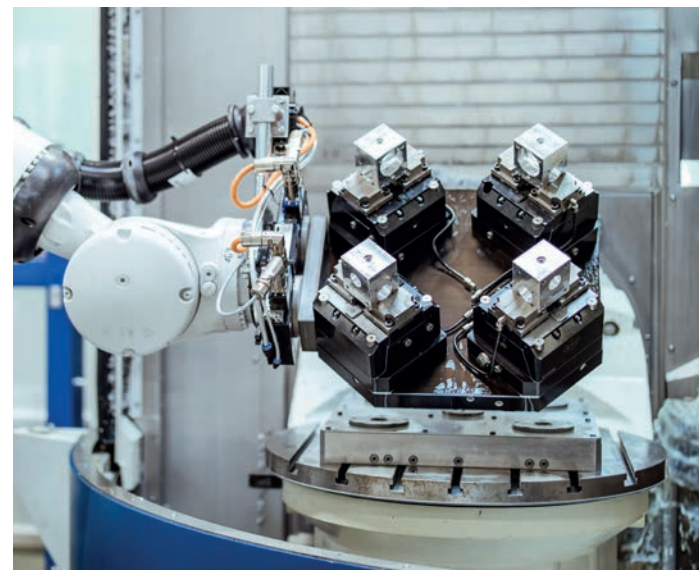
- Drastic reduction of clamping device change-over times
- Improved machine availability thanks to external set-up
- Use of the optimal clamping device for production at all times
- You only have to purchase the specific clamping device once



DockLock zero-point clamping system – the quick change-over system for stationary applications.



Now we can provide support if you want to avoid annoying set-up processes in stationary workholding, as well. To give you an initial overview, I will tell you about our family of zero-point clamping systems.



- Change the clamping device in two minutes
- Repeatability of ≤ 0.005 mm without alignment
- Continuous spring tension, with hydraulic or pneumatic release
- Designed for universal retrofitting

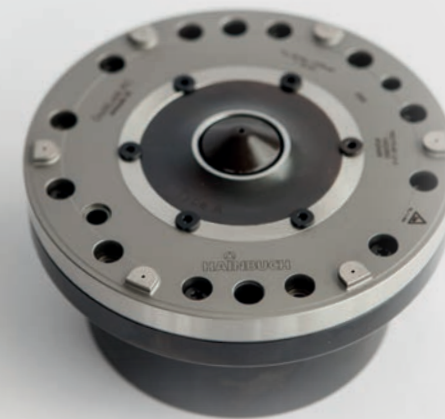


DockLock AC

- Area of application: **automated** clamping device change-over
- Different sizes with draw-in forces up to 20 kN
- Continuous spring tension, with hydraulic or pneumatic release

BENEFITS

- Suitable for robot loading
- Control and cleanliness concept ensures reliable removal of contamination
- User friendly, since there is no jamming of the clamping bolts
- Maximum draw-in and holding forces make them suitable for every application
- Can also be used as a tool change interface for robots
- Repeatability ≤ 0.005 mm without alignment



DockLock

- Area of application: **manual** clamping device change-over
- Different sizes with draw-in forces up to 30 kN
- Continuous spring tension, with hydraulic or pneumatic release

BENEFITS

- Maximum draw-in and holding forces make them suitable for every application
- User-friendly, since there is no jamming of the clamping bolts
- Fast hydraulic or pneumatic clamping release
- Repeatability ≤ 0.005 mm without alignment

Deniz

If you want to save time and money during set-up, I am »your man«. The main task of my colleagues and myself as consultants is to improve production processes.



BASED ON STANDARD SOLUTIONS BUT STILL INDIVIDUAL & CUSTOM-TAILORED

What the design of customized clamping devices has to do with kitchen planning.

» Hi, my name is Matthias, team leader in Custom Design department, and I am just finishing up the design of a customized clamping device. But that doesn't mean that I always start »from scratch« and think up crazy designs. I try to use standard solutions whenever possible. To help you understand what I mean, I have an analogy for you. It is about my new kitchen. Afterwards, you will understand what I mean.





During a major renovation of our house we had to deal with the issue of the kitchen. The problem: The room has lots of nooks and crannies, the water and power connections are at awkward locations and the windows have custom dimensions. My wife and I also had a few special requests – technical gadgets. It was obvious to me that a standard kitchen like the ones in advertising flyers would not fit.



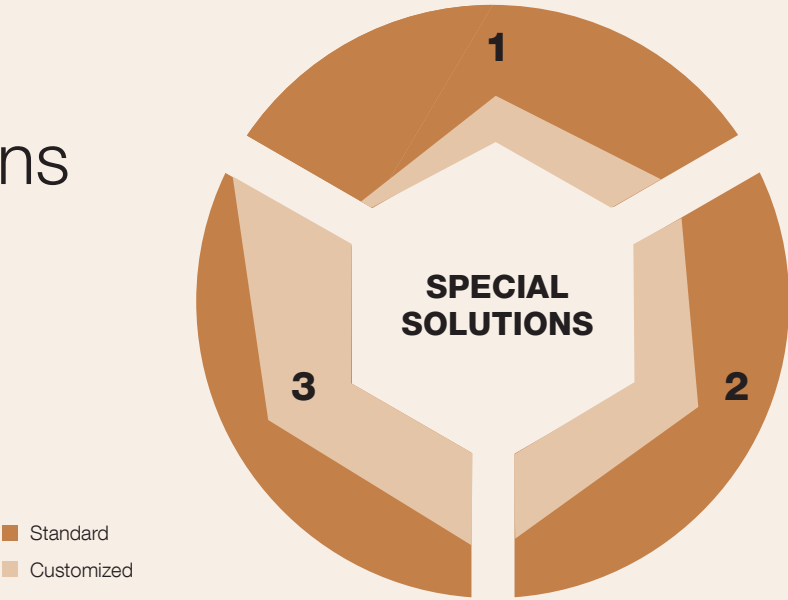
So the wheels in my head started turning. We will never get the kitchen to fit perfectly. The carpenter will have to start from scratch, not to mention the costs. Fortunately, I found an experienced kitchen designer who was able to reassure me. Because he uses standard modules, which are adapted to the particular circumstances. This keeps the costs reasonable and we still had an individual kitchen with a perfect fit. My wife and I are absolutely satisfied with the result. A wonderful place in our new home.

But back to my job: At HAINBUCH we take an approach similar to that of the kitchen designer. First we check what could work as a basis for your workpiece and your requirements from our standard program. These devices are time-proven and therefore costs can be kept reasonable. Then we adapt the basis to your requirements and your particular application, with the necessary modifications and additions.



In special cases where we really cannot use a standard clamping device as a basis, we design an entirely new one. Because creating innovations and customized clamping devices is in our blood. We have 45 design engineers who develop more than 1,000 custom solutions every year. We work in close cooperation with our R&D department. Because there might be high-tech materials or electronic systems to boost production efficiency with the clamping device. So we always make our decisions on the basis of your requirements, and what is necessary and feasible. We provide the best possible support. That is how design support works today.

Special solutions at a glance



1. Supplementary design	2. Adaptive design	3. Custom design
Basis: HAINBUCH standard clamping devices	Basis: HAINBUCH standard clamping devices	
Design of additional parts, e.g.: <ul style="list-style-type: none"> Design of special clamping elements [clamping head, bushings, jaws ...] Design of special accessories [end-stop, chip covering, counter fixture ...] Design of solution for connection of the machine [drawtube adapter, flange ...] 	Adaptations of the clamping device to your workpiece requirements: <ul style="list-style-type: none"> Media supply [air / cooling lubricant] Force reduction Optimized interference contour Balancing etc. 	Design of a new clamping device for your particular challenges





Matthias will show us how we will help you to get your individual clamping device.

PS: At this time, Technical Sales has coordinated a suitable clamping concept with the customer and has clarified all technical issues.

1. Put the idea on paper

Sales sends me the requirement specifications with all the relevant documents. I create the sketches of the clamping set-ups and the clamping situation drawings. In addition to functionality, the focus here is on practical use by the person who will use the clamping device later on.

2. Customer's approval

All required approval drawings are completed, reviewed by the customer and approved. Now I can create the production drawings. In the case of very complex components I coordinate with the responsible planners and production foremen in order to ensure optimal conditions for machining of the single components.

3. Fine tuning

It is time to create the assembly drawings, parts lists and specification of the components with dimensions, type of heat treatment and any coatings.



4. Technical documentation

This is followed by strength calculations and documentation for the components in the force flow. Risk analyses and a brief description of the functionality and installation sequence. Because technical documentation is simply always required.

5. Production

Now it's time to start production. If there are any questions, I am there to answer them.

6. Assembly & delivery

Parallel to assembly, the most important properties of the clamping devices are set up, fine tuned, measured and documented. If everything is okay in the function check, I create the inspection report for delivery. We also carry out a test clamping set-up at the customer's request. Then the customized clamping device is sent to the customer.

Matthias

I enjoy creating new clamping devices, that leave the machine operators enthusiastic. The best affirmation for me is praise from the customer.





24 h IS THE MAGIC WORD

Our fast clamping head services for you!

Why is speed such an important factor in clamping heads?

SK Unit: 24 h answering service for custom clamping heads:

SERVICE 1

Your workpiece requires a custom clamping head, because none of the standard products fit? You need a manufacturer who can immediately give you information about the feasibility, price and delivery time.

24 h grind-out service for clamping heads to an intermediate diameter:

SERVICE 2

Your customer has an urgent order. Actually not a problem, because you are flexible and could integrate the order in your production planning. A standard clamping head would normally work, if it weren't for the »odd« workpiece diameter. There's not enough time to wait for a customized clamping head. The solution: Have a standard clamping head ground out to an intermediate diameter.

SERVICE 1

24 h answering service for custom clamping heads

You find out immediately whether or not we can manufacture your required clamping head. Also what it will cost and when it can be delivered. For this purpose, we established the special SK Unit [clamping head unit for customized clamping heads]. The team sits together and is in direct communication with Production.

Okay, let's grab someone from the team, namely **Paul**. He is the first point of contact; all inquiries and orders are sent to his desk. He explains how the 24-hour service works.

Paul, when you receive an inquiry for a custom clamping head, what is the first thing you do?

I check whether the clamping head has to be custom designed.

And if it has to be designed?

I tap my colleague's shoulder and give him the workpiece drawing. Therefore it is really good that we are all in the same office. Within a few minutes I usually know whether the inquiry is feasible. If so, I clarify the production time with my planner, create the quotation and send it to the customer.

The customer is happy with the quotation and places an order; what happens next?

I dispatch the order, create a requirement specification and push everything over to the next desk, where our design engineer is sitting. Once he has designed the clamping head, he sends the approval drawing to the customer.

We have the approval, who takes care of the rest?

Our planner consults with our production foreman, dispatches the order and the colleagues in Production can get started. When the custom clamping head is finished, the package is sent to the customer.

What have we achieved with the SK Unit? That you ...

- have your quotation / order confirmation within 24 hours or a reply whether the request is feasible or not.
- can use your clamping head sooner thanks to short throughput times.
- can call to receive immediate information on the production status.



SK Unit hotline:
Phone: +49 7144.907-907 or sk-unit@hainbuch.de



24 h* grind-out service for clamping heads

Did you know? Even in case of a clamping head diameter, which does not correspond to the standard clamping diameters on stock, you don't necessarily need a custom clamping head. If you need a clamping head with the size of Ø 56.3 mm, for example, our grind-out service can take care of that. With this service, you receive your clamping head within 24 hours, at a reasonable price.

Our grind-out service offers the following:

- Grinding of stock items to intermediate diameters in tenths range.
- For all clamping heads up to size 100 [except with F and Z serration] possible.
- Orders for clamping heads received by 10 AM from within Germany are dispatched the same day.

One more tip:

Worn out clamping heads can be reconditioned.

Our clamping heads are real workhorses and they are designed for a long service life. But it sometimes happens that the bore is no longer perfect or the rubber is damaged. In such cases, you don't need a new clamping head. You can have your used clamping head re-vulcanized and the bores evened out. That saves you money, is good for the environment, and your clamping head is like new.

Grind-out service hotline:
Phone: +49 7144.907-333 or sales@hainbuch.de

* in Germany



Examples of customized clamping heads



Paul

I know from my days as a machine operator how important a fast response to an inquiry for a custom clamping head is – which is why I like my job so much.



TESTit – key advantages:

- Clamping force measurement for O.D. and I.D. clamping
- Measurement of draw-in force of tool holders [HSK, SK], zero-point clamping systems and quick change-over systems
- Axial force measurement during service calls / machine maintenance
- Two units, connected via plug & play:
 - IT module – needed only 1x
 - TEST module – for diverse measuring applications
- Can be used for rotating and stationary applications
- Software for visualization and archiving



Timely measurements reduce scrap and boost revenue

We think ahead and provide you with support in your measuring processes.

Are you tired of having workpieces end up in the scrap bin or producing parts that do not meet your standard of quality? Do you find it disturbing not to discover that something went wrong until the quality control? We can understand your annoyance with such situations. The market is extremely competitive. To be at the forefront requires reliable, precise and productive processes. Not to mention high-quality parts at a low price.

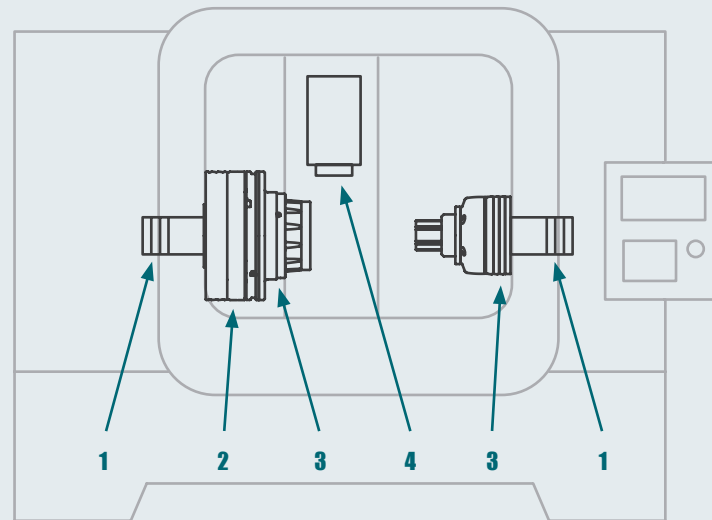
What could be a possible cause for inferior quality or scrap?

The answer is provided by our service technician Benjamin. For 14 years he has been providing customer support in assembly, commissioning, maintenance and reconditioning of clamping devices – which makes him a troubleshooting expert.

So Benjamin, what do you think?

It could be due to incorrect clamping and draw-in force, or a dirty/dry clamping device. Both directly affect the machining process. If the clamping force is too high, that can cause workpiece deformations. But insufficient clamping force, which often occurs in jaw chucks due to inertia loss, is not good, either. In the worst case, this can result in workpiece loss. Chips in the clamping device or insufficient lubrication likewise have a negative effect on the clamping and draw-in force.

Measurements with TESTit at a glance.



1

Drawtube



TEST module
ZB / ZR

Force measurement at
the drawtube during
maintenance

2

Draw-in force
measurement
for quick change-over
systems

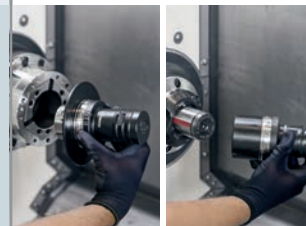


TEST module
centroteX S / AC

Measurement of the draw-in
force for centroteX etc.

3

Clamping force
measurement
for clamping devices



TEST module
AS / IS

Measurement of O.D.
and I.D clamping

4

Holding force
measurement
for tool holding fixtures



TEST module
HSK / SK / Capto

Measurement of the
HTS holder

Workpiece
in 1A
quality

I see such problems with the machines all the time. There is a solution for preventing problems in the machining process: regular measurements. Most people think this refers only to the clamping force. But there are more forces that are relevant. They include the holding force in tool holders or the draw-in force of quick change-over and zero-point clamping systems.

But don't worry: all of these forces can be measured with our one for all TESTit force gauge. It even measures the contamination and lubrication condition. A fantastic tool that gives you the certainty of always producing high-quality parts.

And the cost? It is affordable! Because you don't need a separate force gauge for each type of measurement. TESTit consists of two parts: the basic module namely IT module, and the measuring units namely TEST modules. You only



need one IT module – regardless of what you want to measure. For different measuring applications there are TEST modules that you can easily connect to the IT module via plug & play.

You don't want to invest in a force gauge, but still want to optimize your process and reduce scrap? Then I will be glad to bring the measuring equipment to your facilities for on-site support.

Benjamin

As a service technician I know how to get the most out of the machine and minimize scrap. I enjoy helping customers to achieve just that.





SOCIAL COMMITMENT IS A 2-LETTER WORD: DO

When providing support we do not think »only« of our customers and partners, but also of our fellow human beings and the environment.

We talked to Sandra, our training director, about social commitment among apprentices and students.

Sandra, why is social commitment important during the apprenticeship/degree program?

It helps our apprentices and students to acquire social skills that will help them not only during their training, but also later on, throughout their careers. Volunteer work means collecting new knowledge, contributing one's own strengths, developing social competence and taking on responsibility. That is just as important as acquiring technical and business skills.

At our company, volunteer work is an integral part of the apprenticeship or degree program. That helps to develop personality and strengthens character. Apprentices and students should broaden their horizons and do good deeds. Because there are people in Germany and elsewhere in the world who are not so fortunate. People who experience disasters, illnesses, homelessness or lack of food and water. We should be grateful for what we have.

Social responsibility is also an important part of the HAINBUCH corporate culture and is integral to our identity. Management, the employees and also the training team have always been committed to social projects.

What caused this to be emphasized even more during training?

At the end of 2019 we started our apprenticeship account on Instagram. Someone came up with the idea for the advent calendar, in connection with a gift campaign for socially disadvantaged children. The apprentices and students conducted detailed research on social facilities and learned about various possibilities. That was what got things started. We said, why do something only at Christmas, and not throughout the year.

What is planned next?

My training team is very dedicated. They were so excited about the cake and cookie sale last year that they asked if they could organize a sale for a good cause more often. Neither I nor Management can say no. So there will be a sale of homemade waffles for the staff. Where the proceeds will go is not decided yet. Another idea is to help out for a day at the food bank. That will give them the chance to knuckle down, and they will be excused from work. It remains to be seen if the idea can become reality. I think it would be great.

The proceeds from the cake sale were used to support the **Marbach youth fire department**. The fire engine »Willi 1« was getting along in years and urgently needed a few repairs.





Construction of a traffic signal with automatic visitor detection via **light barrier for the Corona test center** Schiller in Marbach Germany.



Sandra

It is nice to see how my apprentices and students are ready and willing to help others and never fail to take the initiative.



Fund-raising campaign for donations in kind to the **society for the prevention of cruelty toward animals in Ludwigsburg Germany**. They also organized a cookie sale, in order to purchase a few needed items from the pet store.

IMPRINT

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p. 33, 35 HAINBUCH GmbH

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Although the masculine form is used throughout, this is only to make the text easier to read and is not meant to exclude the feminine gender or others.

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WE NEED YOU!

It does not work without you.

We need super employees if we want to provide fantastic support.

If you know what you can do and want, and have understood what we stand for, then join our team. It makes no difference whether you have just finished an apprenticeship or degree, or whether you already have a few years of work experience. We also welcome people coming from a different background – the main thing is the right attitude.

Apply so you can soon be part of the »We support you« team!

