

PROCHECK THE HANDBOOK





















ON THE WAY TO YOUR PERFECT FLOW





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We are at your side throughout the entire life cycle

Mastering the three dimensions of product, packaging or screening media and machine technology is the basis of our expertise and the starting point for your perfect flow. With our PROcheck life-cycle approach, we add the time component and accompany you on the way to your goal. We understand it as our philosophy and it's our understanding for a functioning and successful partnership to always have your process in view and to look after it throughout its entire life cycle with our products, our services and our tools. We've developed PROcheck as an orientation for precisely this because "we are always there for you". PROcheck systematizes all instruments and actions with which you can keep an eye on the efficiency and potential of your processes at all times and optimize your success:

With PROcheck, we show you very specifically where and how you can sustainably maximize your productivity and thus your results over the entire life cycle of your plants, systems and machines.

So that you'll be also in perfect flow in the future!

We are always there for you

To accompany and inspire you on your way to your "Perfect Flow", we have developed PROcheck. Our commitment to and our understanding of this approach have a lot in common with all of our personal lives. After all, it makes sense to identify the root causes of our challenges, to focus on the right equipment, to consume intelligently and sustainably, to replace what needs to be replaced, to constantly adapt to current requirements, to combine our own experience with the know-how of experts, to implement plans and goals with uncompromising, comprehensive solutions, and to shape concepts and ideas with experience-based services.

PROcheck stands exactely for this "we are always there for you".

PROCHECK - INTRODUCTION HAVER & BOECKER



DIAGNOSTICS – INTRODUCTION HAVER & BOECKER

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DIAGNOSTICS - DEFINITION

The PROcheck Diagnostics category includes products such as Pulse (vibration measurement on screening machines), QSI (QUAT²RO® System Intelligence) with the associated products and POP – Plant Optimization Plan (plant and machine audit), with which we can primarily examine, analyse and interpret their machine and plant conditions for the customer.





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Phone: +49 (0) 2522 30-8703 E-mail: d.friemel@haverboecker.com HAVER & BOECKER Maschinenfabrik

HAVER & BOECKER NIAGARA for Processing

- Pulse Impact Test
- Pulse Vibration Analysis
- Pulse Condition Monitoring

Contact: Thiago Henrique Buoso (for Pulse CM)

Phone: +55 19 3879 9108

E-mail: tbuoso@haverniagara.com.br HAVER & BOECKER NIAGARA

Contact: Wilm Schulz (for Pulse Impact and VA)

Phone: +1 905 688 2644 1285 E-mail: w.schulz@haverniagara.ca HAVER & BOECKER NIAGARA

IBAU for Storage and Handling

- Plant Optimization Plan
- Silo Audit

Contact: Oliver Rathke
Phone: +49 (0) 40 361309-70
E-mail: orathke@lbauhamburg.de
IBAU HAMBURG

SOMMER for Mixing

- Plant Optimization Plan
- QUAT²RO® System Intelligence

Contact: Rudolf Herzog Phone: +49 (0) 211 23082-63

E-mail: rherzog@sommer-anlagenbau.com

SOMMER ANLAGENBAU

FEIGE for Filling

- Plant Optimization Plan
- QUAT²RO® System Intelligence

Contact: Jörn Czysch Phone: +49 (0) 4531 8909-423 E-mail: j.czysch@feige.com

Feige FILLING

AVENTUS for Packing Granules

- Plant Optimization Plan
- Bag Testing Equipment
- Product Testing Equipment
- System Intelligence

Contact: Sergej Tebelius Phone: +49 (0) 2581 4591-1122 E-mail: s.tebelius@aventus.global

AVENTUS

BEHN + BATES for Packing Food

- Plant Optimization Plan
- Bag Testing Equipment
- Product Testing Equipment
- QUAT²RO® System Intelligence

Contact: Jonas Komitsch Phone: +49 (0) 251 9796-268 E-mail: j.komitsch@behnbates.com BEHN + BATES

HAVER & BOECKER for Packing Powder

- Plant Optimization Plan
- Bag Testing Equipment
- Product Testing Equipment
- QUAT²RO® System Intelligence

Contact: Dennis Friemel
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HAVER & BOECKER Maschinenfabrik

NEWTEC for Palletizing and Loading

- Plant Optimization Plan
- System Intelligence

Contact: Philippe Rapp
Phone: +33 (0)3 68 33 30 07
E-mail: p.rapp@newtecbag.com
NEWTEC BAG PALLETIZING

HAVER & BOECKER Automation

- Plant Optimization Plan
- QUAT²RO® System Intelligence
- QUAT²RO® Performance

Contact: Rainer Schulze Frielinghaus Phone: +49 (0) 251 208163-50

E-mail: r.schulzefrielinghaus@haverautomation.com

HAVER AUTOMATION

PROCHECK DIAGNOSTICS

HAVER & BOECKER

SOLUTIONS AND TOPICS CLOSE TO PROCHECK DIAGNOSTICS



CONSUMABLES



■ CONSUME INTELLIGENTLY

Did you know that some processes spend more money on the annual requirement of consumables, than they spent on the original one-time investment of equipment, which requires them? Consumables are the fuel for your process. You need the right material for peak performance and success. We consult, design and even provide your consumables for every step and phase of your project. Regardless of whether you are commissioning, ramping up or you simply want to optimize your process on an ongoing basis.

DECISIVE BASICS



 WE'RE THE EXPERTS FOR THE CRUCIAL BASICS HAVER & BOECKER INSTITUTE

Our HAVER & BOECKER Institute is the place where we bring our packing triangle to life. Here we take such a close look at your product so that we can define the ideal machine technology on the basis of the results, and then design the packaging or screening media to fit it precisely.

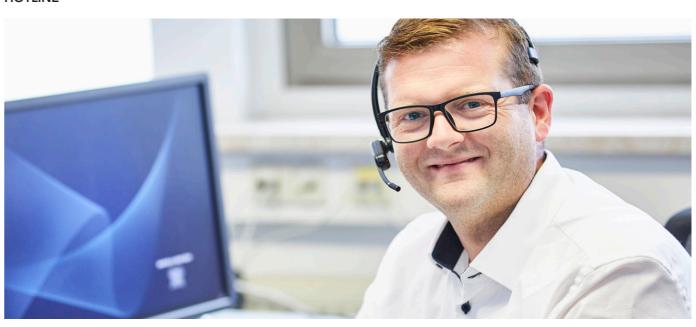
OPERATION & MAINTENANCE



■ IMPROVE THE PERFORMANCE OF YOUR PLANT: CONTINUOUSLY!

No one has as much experience in dealing with your investments as you do. Think about what could happen if you combined that experience with the perspective of the people that built it. We are convinced that by working hand-in-hand as process partners, we can achieve a level of of performance you did not think was possible when you first invested into your plant or system.

HOTLINE



■ WE WON'T LEAVE YOU OUT IN THE RAIN – TAKE US AT OUR WORD

Our HAVER & BOECKER machine technology stands for the highest quality and reliability. Some of our packing lines have been in operation for over 40 years. Nevertheless: Sometimes there's a hitch somewhere. We won't leave you out in the rain! With our 24/7 hotline, we're there for you, around the clock – 365 days a year and free of charge.

Together with you, our experts will locate the fault in your system and support you in rectifying the problem. If necessary, a qualified service technician will come to your plant as quickly as possible. Reduce downtime and breakdown costs to a minimum and restore the usual plant productivity.

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10 11 EQUIPMENT - INTRODUCTION HAVER & BOECKER

EQUIPMENT - DEFINITION

In the case of equipment, we speak of units consisting of components that fulfil a function, e.g. screening machine, bucket elevator, packing machine, palletizer and stretcher.

Components are defined mechanical, pneumatic, electrical and electronic parts that fulfil partial functions, e.g. initiator, cylinder, touch panel.





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HAVER & BOECKER NIAGARA for Processing

- N-Class and F-Class Eccentric Screens
- T-Class Concentric Screens
- XL-Class Exciter Driven Linear Screens
- L-Class Shaft / Motor Driven Linear Screens
- Scarabaeus Pelletizing Discs

Contact: Jan Lampke (for Pelletizing)

Phone: +49 (0) 3731 419 295

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HAVER & BOECKER NIAGARA

Contact: Denilson Moreno (for XL-Class)

Phone: +55 (19) 99215 4695

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HAVER & BOECKER NIAGARA

Contact: Duncan High (for T-/F- and L-Class)

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Contact: Benjamin Gurra (for N-Class)

Phone: +49 (0) 251 9793-221 E-mail: b.gurra@haverniagara.com

HAVER & BOECKER NIAGARA

IBAU for Storage and Handling

- Pneumatic Conveying and Silo Components
- Bulk Loading Components
- Dry Bulk Mixer

Contact: Oliver Rathke Phone: +49 (0) 40 361309-70 E-mail: orathke@lbauhamburg.de

IBAU HAMBURG

SOMMER for Mixing

- Coaxial and Multi-shaft mixer

Contact: Rudolf Herzog Phone: +49 (0) 211 23082-63

E-mail: rherzog@sommer-anlagenbau.com

SOMMER ANLAGENBAU

FEIGE for Filling

- ELEMENTRA® Semi-automatic Can/Drum/Pallet Fillers
- INTEGRA® Automatic Can/Drum/Pallet Fillers

Contact: Hans-Jörg Vogt Phone: +49 (0) 4531 8909-332 E-mail: h.vogt@feige.com

Feige FILLING

AVENTUS for Packing Granules

- TOPAS® High-speed FFS Packing Machines
- INTEGRA® ISF Fully Automatic Packing Machines
- ELEMENTRA® Semi-automatic Packing Machines
- PLATINUM High Speed Palletizers

Contact: Claus Ohlmeyer

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AVENTUS

BEHN + BATES for Packing Food

- ELEMENTRA® Semi-automatic Packing Machines
- INTEGRA® Fully Automatic Packing Machines
- ROTO-PACKER® High-speed Packing Machines
- TOPAS® High-speed FFS Packing Machines

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BEHN + BATES

HAVER & BOECKER for Packing Powder

- ELEMENTRA® Semi-automatic Packing Machines
- INTEGRA® Fully Automatic Packing Machines
- ROTO-PACKER® High-speed Packing Machines
- RADIMAT® Bag Applicator
- ADAMS® Technology
- SEAL Technology
- Components

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HAVER & BOECKER Maschinenfabrik

NEWTEC for Palletizing and Loading

- TERRAM Floor Level Palletizer
- ARCUS High Level Palletizer
- AURUM High Level Palletizer

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E-mail: k.skhairi@newtecbag.com NEWTEC BAG PALLETIZING

HAVER & BOECKER Automation

- QUAT²RO® Process Process Visualization
- QUAT²RO[®] Production Production Management
- QUAT²RO® Batch Batch Management
- QUAT²RO® Logistics Intralogistics
- QUAT²RO® Data Watching Data Statistics

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HAVER AUTOMATION

PROCHECK EQUIPMENT

HAVER & BOECKER

SOLUTIONS AND TOPICS CLOSE TO PROCHECK EQUIPMENT



DIGITAL SERVICES



■ USE THE INTELLIGENCE OF YOUR SYSTEMS

Enjoy making a system work for you instead of working for your system. Networked machines are less prone to stoppages. They automatically, effortlessly and securely provide data that can signal potential maintenance issues while enabling deep new insights into machine productivity, scrap rates and more. Use the full range of digital options for process monitoring, control, analysis and optimization.

CONSUMABLES



CONSUME INTELLIGENTLY

Did you know that some processes spend more money on the annual requirement of consumables, than they spent on the original one-time investment of equipment, which requires them? Consumables are the fuel for your process. You need the right material for peak performance and success. We consult, design and even provide your consumables for every step and phase of your project. Regardless of whether you are commissioning, ramping up or you simply want to optimize your process on an ongoing basis.

HOTLINE



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 - TAKE US AT OUR WORD

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Together with you, our experts will locate the fault in your system and support you in rectifying the problem. If necessary, a qualified service technician will come to your plant as quickly as possible. Reduce downtime and breakdown costs to a minimum and restore the usual plant productivity.

CALIBRATION



■ THE BASIS FOR YOUR WEIGHT ACCURACY

Are your bags filled to the exact weight or do you add a little extra to be on the safe side? We know you have to rely on your weighing technology. Therefore, with our manufacturer's calibration, we guarantee you a precisely defined

measuring accuracy within the permissible calibration tolerance according to legal requirements (OIML R61 or 2014/32/EU). So that you weigh according to the guidelines and don't waste your valuable product!

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16 17 CONSUMABLES – INTRODUCTION HAVER & BOECKER

CONSUMABLES – DEFINITION

Consumables according to the HAVER & BOECKER definition are products that are intended for consumption. Consumables at HAVER & BOECKER are divided into wear parts and consumables: Wear parts are products that the operator of a machine or system uses recurrently, i.e. that are "used up" as intended. Wear parts in our business include, for example, screen linings, filling spouts, bucket wheels, bag guide plates. Wearing parts are excluded from the warranty because the coverage of these goods cannot be covered within the framework of a competitive calculation. Consumable goods are products that are specifically consumed by the operators of a machine or plant. These are not the traded products of the main mass flow but auxiliary products supplied, primarily serving to pack and transport the main mass flow, such as empty bags, tubular film, empty buckets, empty drums, stretch, shrink and wrapping film and empty pallets.





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HAVER & BOECKER NIAGARA for Processing

- TYLER Engineered Screen Media

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HAVER & BOECKER NIAGARA

IBAU for Storage and Handling

- IBAU Maintance Kits

- IBAU Tools

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IBAU HAMBURG

SOMMER for Mixing

- SOMMER Tools

Contact: Rudolf Herzog Phone: +49 (0) 211 23082-63

E-mail: rherzog@sommer-anlagenbau.com

SOMMER ANLAGENBAU

FEIGE for Filling

- Cans and Drums

- FEIGE Tools

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Feige FILLING

AVENTUS for Packing Granules

- AVENTUS Tools

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AVENTUS

BEHN + BATES for Packing Food

- BEHN + BATES Tools

Contact: Alexey Klass Phone: +49 (0) 251 9796-285 E-mail: a.klass@behnbates.com

BEHN + BATES

HAVER & BOECKER for Packing Powder

- Bags and Films

- HAVER Tools

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NEWTEC for Palletizing and Loading

- Bags and Films

- Pallets, Interlayer

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E-mail: k.skhairi@newtecbag.com
NEWTEC BAG PALLETIZING

HAVER & BOECKER Automation

- HAVER Tools

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HAVER AUTOMATION

PROCHECK CONSUMABLES

HAVER & BOECKER

SOLUTIONS AND TOPICS CLOSE TO PROCHECK CONSUMABLES



ORIGINAL PARTS



■ REPLACE WHAT NEEDS REPLACING

Our HAVER & BOECKER original parts are your guarantee: the guarantee that your system will run optimally. Do not let inferior spare parts cause unplanned downtime, a breakdown or, in the worst case, even accidents.

Don't compromise; buy original parts.

DECISIVE BASICS



■ WE'RE THE EXPERTS FOR THE CRUCIAL BASICS – HAVER & BOECKER INSTITUTE

Our HAVER & BOECKER Institute is the place where we machine technology on bring our packing triangle to life. Here we take such a close design the packaging or look at your product so that we can define the ideal

machine technology on the basis of the results, and then design the packaging or screening media to fit it precisely.

HOTLINE



■ WE WON'T LEAVE YOU OUT IN THE RAIN – TAKE US AT OUR WORD

Our HAVER & BOECKER machine technology stands for the highest quality and reliability. Some of our packing lines have been in operation for over 40 years. Nevertheless: Sometimes there's a hitch somewhere. We won't leave you out in the rain! With our 24/7 hotline, we're there for you, around the clock – 365 days a year and free of charge.

Together with you, our experts will locate the fault in your system and support you in rectifying the problem. If necessary, a qualified service technician will come to your plant as quickly as possible. Reduce downtime and breakdown costs to a minimum and restore the usual plant productivity.

FOR OPTIMAL PACKAGING



■ BENEFIT FROM THE OPTIMAL PACKAGING MATERIAL Test and record the process-relevant properties of your packaging materials with our field-tested analysis devices and find the optimum process. If the quality of a packaging material changes or you change a packaging material completely, you can easily determine the necessary adjustments to the machine parameters – for economical packaging solutions.

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ORIGINAL PARTS – INTRODUCTION HAVER & BOECKER

ORIGINAL PARTS - DEFINITION

Spare parts are components that replace defective or worn components. Spare parts are subject to a different calculation methodology than machinery and equipment. Only spare parts tested by HAVER & BOECKER are considered original parts.





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E-mail: e.ellebracht@haverboecker.com HAVER & BOECKER Maschinenfabrik

HAVER & BOECKER NIAGARA for Processing

- NIAGARA Original Parts

Contact: Roberto Montiglio
Phone: +56 (0) 95022 1889
E-mail: rmontiglio@haverandina.cl
HAVER & BOECKER NIAGARA

IBAU for Storage and Handling

- IBAU Original Parts

Contact: Oliver Rathke Phone: +49 (0) 40 361309-70 E-mail: orathke@lbauhamburg.de IBAU HAMBURG

SOMMER for Mixing

- SOMMER Original Parts

Contact: Rudolf Herzog Phone: +49 (0) 211 23082-63

E-mail: rherzog@sommer-anlagenbau.com

SOMMER ANLAGENBAU

FEIGE for Filling

- FEIGE Original Parts

Contact: Dirk Maibohm Phone: +49 (0) 4531 8909-252 E-mail: d.maibohm@feige.com Feige FILLING

AVENTUS for Packing Granules

- AVENTUS Original Parts

Contact: Sigrid Untiet Phone: +49 (0) 2581 4591-1131 E-mail: s.untiet@aventus.global

AVENTUS

BEHN + BATES for Packing Food

- BEHN + BATES Original Parts

Contact: Jonas Komitsch
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BEHN + BATES

HAVER & BOECKER for Packing Powder

- HAVER Original Parts

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NEWTEC for Palletizing and Loading

- NEWTEC Original Parts

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HAVER & BOECKER Automation

- HAVER Original Parts

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HAVER AUTOMATION

PROCHECK ORIGINAL PARTS

HAVER & BOECKER

SOLUTIONS AND TOPICS CLOSE TO PROCHECK ORIGINAL PARTS



DIGITAL SERVICES



■ USE THE INTELLIGENCE OF YOUR SYSTEMS

Enjoy making a system work for you instead of work

Enjoy making a system work for you instead of working for your system. Networked machines are less prone to stoppages. They automatically, effortlessly and securely provide data that can signal potential maintenance issues while enabling deep new insights into machine productivity, scrap rates and more. Use the full range of digital options for process monitoring, control, analysis and optimization.

MAINTENANCE



■ PREVENTIVE INSTEAD OF REACTIVE

Unexpected plant downtimes cause you stress, annoyance and possibly even a loss of production including high costs. You can avoid this – with regular preventive maintenance of your system.

HOTLINE



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REBUILDS AND UPGRADES



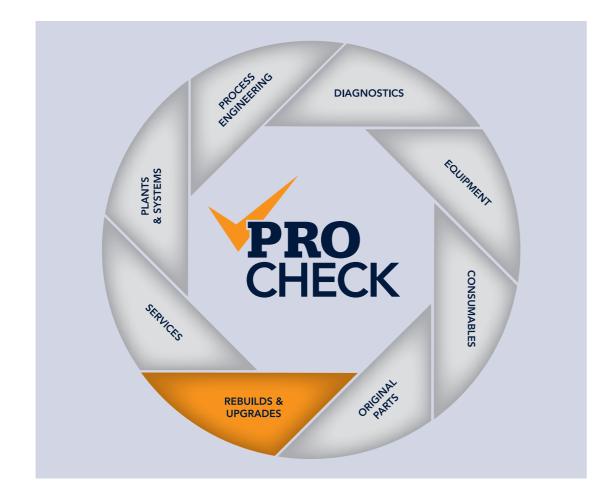
■ PROLONG THE LIFE-TIME OF YOUR EQUIPMENT Time does not stand still. Your process will age and it may even change. That does not mean that you need to invest into a new one. Why not simply prolong or better yet enhance the life of your equipment?

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REBUILDS AND UPGRADES – DEFINITION

We speak of machine conversions when we either change the character of a machine through a technical intervention, be it that functions are added or that it becomes faster, or else discontinued components are replaced and this replacement entails design changes. Machine conversions can be so serious that a complete re-commissioning may be necessary after the conversion has been completed.





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HAVER & BOECKER NIAGARA for Processing

- PERFORMANCE+ rebuilds & kits

Contact: Roberto Montiglio Phone: +56 (0) 95022 1889

E-mail: rmontiglio@haverandina.cl HAVER & BOECKER NIAGARA

IBAU for Storage and Handling

- PERFORMANCE+ rebuilds & kits SILOS

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SOMMER for Mixing

- PERFORMANCE+ rebuilds & kits

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SOMMER ANLAGENBAU

FEIGE for Filling

- PERFORMANCE+ rebuilds & kits FILLING machines

Contact: Bastian Nagel Phone: +49 (0) 4531 8909-225 E-mail: b.nagel@feige.com Feige FILLING

AVENTUS for Packing Granules

- PERFORMANCE+ rebuilds & upgrades
PACKING machines
TOPAS®
INTEGRA®

Contact: Fjiola Hoxha Phone: +49 (0) 2581 4591-1190 E-mail: f.hoxha@aventus.global

AVENTUS

BEHN + BATES for Packing Food

- PERFORMANCE+ rebuilds & kits
PACKING machines
ROTO-PACKER®
INTEGRA®
ELEMENTRA®
RADIMAT®

Contact: Jonas Komitsch Phone: +49 (0) 251 9796-268 E-mail: j.komitsch@behnbates.com

BEHN + BATES

HAVER & BOECKER for Packing Powder

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PACKING machines
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NEWTEC for Palletizing and Loading

- PERFORMANCE+ rebuilds & kits PALLETIZER

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HAVER & BOECKER Automation

- PERFORMANCE+ rebuilds & kits

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HAVER AUTOMATION

PROCHECK REBUILDS AND UPGRADES HAVER & BOECKER

SOLUTIONS AND TOPICS CLOSE TO PROCHECK REBUILDS AND UPGRADES



ORIGINAL PARTS



■ REPLACE WHAT NEEDS REPLACING

Our HAVER &BOECKER original parts are your guarantee: the guarantee that your system will run optimally. Do not let inferior spare parts cause unplanned downtime, a breakdown or, in the worst case, even accidents. Don't compromise; buy original parts.

DIGITAL SERVICES



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while enabling deep new insights into machine productivity, scrap rates and more. Use the full range of digital options for process monitoring, control, analysis and optimization.

DIAGNOSTICS

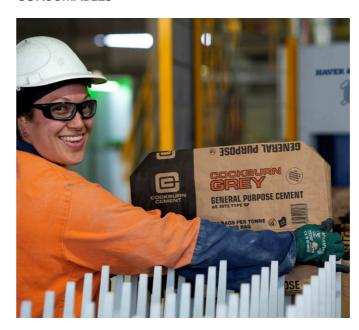


■ IDENTIFY THE ROOT CAUSES

Every good doctor knows: The key to good health is not treating symptoms, but identifying the cause. Your process is no different. Don't spend an endless amount of time and energy fighting the symptoms.

Remedy the cause with our help and with smart services, software and analytical devices. Because only healthy processes are really economical.

CONSUMABLES



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SERVICES – DEFINITION

The entire range of services provided by HAVER & BOECKER to the customer, starting with consulting, engineering and classic services through to operator models and financing.





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E-mail: v.kalthoff@haverboecker.com HAVER & BOECKER Maschinenfabrik

HAVER & BOECKER NIAGARA for Processing

- Services: Bearing Changes, Machine Commissioning & Installation, Vibrating Screen, Inspection, Training

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E-mail: rmontiglio@haverandina.cl HAVER & BOECKER NIAGARA

IBAU for Storage and Handling

- Services: Commissioning, Assistance, Support, Health & Safety, Documentation, Training & Consulting

Contact: Oliver Rathke Phone: +49 (0) 40 361309-70 E-mail: orathke@lbauhamburg.de IBAU HAMBURG

SOMMER for Mixing

- Services: Commissioning, Assistance, Support, Health & Safety, Documentation, Training & Consulting

Contact: Rudolf Herzog Phone: +49 (0) 211 23082-63

E-mail: rherzog@sommer-anlagenbau.com

SOMMER ANLAGENBAU

FEIGE for Filling

- Services: Commissioning, Assistance, Support, Health & Safety, Documentation, Training & Consulting

Contact: Sven Vogel Phone: +49 (0) 4531 8909-320 E-mail: s.vogel@feige.com Feige FILLING

AVENTUS for Packing Granules

- Services: Commissioning, Assistance, Support, Health & Safety, Documentation, Training & Consulting

Contact: Martin Heese Phone: +49 (0) 2581 4591-1133 E-mail: m.heese@aventus.global

AVENTUS

BEHN + BATES for Packing Food

- Services: Commissioning, Assistance, Support, Health & Safety, Documentation, Training & Consulting

Contact: Jonas Komitsch Phone. +49 (0) 251 9796-268 E-mail: j.komitsch@behnbates.com

BEHN + BATES

HAVER & BOECKER for Packing Powder

- Services: Commissioning, Assistance, Support, Health & Safety, Calibration, Documentation, Training & Consulting
- Operation and Maintenance

Contact: Valentin Kalthoff Phone. +49 (0) 2522 30-454

E-mail: v.kalthoff@haverboecker.com HAVER & BOECKER Maschinenfabrik

NEWTEC for Palletizing and Loading

- Services: Commissioning, Assistance, Support, Health & Safety, Documentation, Training & Consulting

Contact: Philippe Pellegrini Phone: +33 (0)3 89 63 45 40 E-mail. p.pellegrini@newtecbag.com

NEWTEC BAG PALLETIZING

HAVER & BOECKER Automation

- Services: Commissioning, Assistance, Support, Health & Safety, Documentation, Training & Consulting

Contact: Wilhelm Reinkemeier Phone: +49 (0) 251 208163-30

E-mail: w.reinkemeier@haverautomation.com

HAVER AUTOMATION

PROCHECK SERVICES HAVER & BOECKER

SOLUTIONS AND TOPICS CLOSE TO PROCHECK SERVICES



CALIBRATION



■ A SMOOTH AND IMPROVING PROCESS IS CRUCIAL FOR YOUR SUCCESS

Are your bags filled to the exact weight or do you add a little extra to be on the safe side? We know you have to rely on your weighing technology. Therefore, with our manufacturer's calibration, we guarantee you a precisely defined

measuring accuracy within the permissible calibration tolerance according to legal requirements (OIML R61 or 2014/32/EU). So that you weigh according to the guidelines and don't waste your valuable product!

OPERATION & MAINTENANCE



IMPROVE THE PERFORMANCE OF YOUR PLANT: CONTINUOUSLY!

No one has as much experience in dealing with your investments as you do. Think about what could happen if you combined that experience with the perspective of the people that built it. We are convinced that by working hand-in-hand as process partners, we can achieve a level of of performance you did not think was possible when you first invested into your plant or system.

HOTLINE



- WE WON'T LEAVE YOU OUT IN THE RAIN
- TAKE US AT OUR WORD

Our HAVER & BOECKER machine technology stands for the highest quality and reliability. Some of our packing lines have been in operation for over 40 years. Nevertheless: Sometimes there's a hitch somewhere. We won't leave you out in the rain! With our 24/7 hotline, we're there for you, around the clock – 365 days a year and free of charge.

Together with you, our experts will locate the fault in your system and support you in rectifying the problem. If necessary, a qualified service technician will come to your plant as quickly as possible. Reduce downtime and breakdown costs to a minimum and restore the usual plant productivity.

MAINTENANCE



■ PREVENTIVE INSTEAD OF REACTIVE

Unexpected plant downtimes cause you stress, annoyance and possibly even a loss of production including high costs. You can avoid this – with regular preventive maintenance of your system.

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PLANTS AND SYSTEMS – INTRODUCTION HAVER & BOECKER

PLANTS AND SYSTEMS – DEFINITION

A plant is a project-specific linking of systems, lines, sections, equipment and components with the aim of fulfilling a holistic task, e.g. cement plant, sugar factory, import terminal.

A system is a project-specific linking of lines, sections, equipment and components with the aim of fulfilling a clearly defined process within the framework of a plant, e.g. primary crushing, packaging hall, high-bay warehouse.

A line is a combination of sections, equipment and components with the aim of fulfilling a clearly defined sub-process within the framework of a system, e.g. multi-chamber silo, packaging line.

A section is a linkage of equipment and components with the aim of fulfilling a clearly defined series of functions within the framework of a line, e.g. vertical transport, bagging, dedusting.





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HAVER & BOECKER NIAGARA for Processing

- NIAGARA Mineral Processing Plants & Systems

Contact: Joachim Hoppe
Phone: +49 (0) 251 9793-158
E-mail: j.hoppe@haverniagara.com
HAVER & BOECKER NIAGARA

IBAU for Storage and Handling

- STORAGE and HANDLING plants
- TERMINALS
- SILO systems
- MARINE BULK CARRIERS
- BULK LOADING AND UNLOADING systems: SHIP/TRAIN/TRUCK
- PNEUMATIC CONVEYING systems
- EPC-SERVICES

Contact: Christian von Ahn Phone: +49 (0) 40 361309-132 E-mail: cvahn@ibauhamburg.de IBAU HAMBURG

SOMMER for Mixing

- MIXING Plants

Contact: Rudolf Herzog Phone: +49 (0) 211 23082-63

E-mail: rherzog@sommer-anlagenbau.com

SOMMER ANLAGENBAU

FEIGE for Filling

- FILLING plants and systems

Contact: Jan Mauff Phone: +49 (0) 4531 8909-427 E-mail: j.mauff@feige.com Feige FILLING

AVENTUS for Packing Granules

- PACKING plants and systems

Contact: Martin Kölker Phone: +49 (0) 2581 4591-1147 E-mail: m.koelker@aventus.global AVENTUS

BEHN + BATES for Packing Food

- PACKING plants and systems

Contact: Ali Khechen Phone: +49 (0) 251 9796-278 E-mail: a.khechen@behnbates.com BEHN & BATES

HAVER & BOECKER for Packing Powder

- PACKING plants and systems

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NEWTEC for Palletizing and Loading

- BAG PALLETIZING and LOADING systems

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HAVER & BOECKER Automation

- DATA MANAGEMENT systems
- PLANT AUTOMATION systems

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HAVER AUTOMATION

PROCHECK PLANTS AND SYSTEMS HAVER & BOECKER

SOLUTIONS AND TOPICS CLOSE TO PROCHECK PLANTS AND SYSTEMS



MACHINES



■ USE THE RIGHT EQUIPMENT

In industrial processes, it is like in sports: You can only achieve peak performance if your heart function is adapted to the task at hand. The heartbeat of any process is generated by the machine technology that drives it. Do not compromise when it comes to the most important organ

of your process. Make sure that the technology you use is adapted to your product and not the other way around. The development of our technology brands is driven by precisely this conviction and by the passion to make you as successful as you want to be.

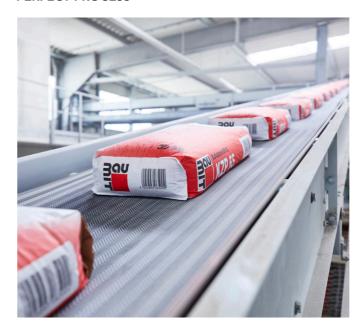
DECISIVE BASICS



 WE'RE THE EXPERTS FOR THE CRUCIAL BASICS HAVER & BOECKER INSTITUTE

Our HAVER & BOECKER Institute is the place where we bring our packing triangle to life. Here we take such a close look at your product so that we can define the ideal machine technology on the basis of the results, and then design the packaging or screening media to fit it precisely.

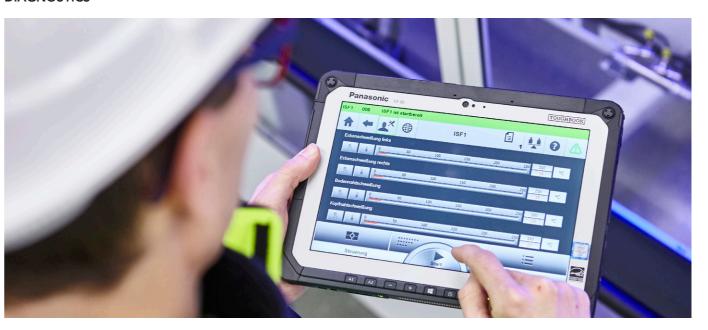
PERFECT PROCESS



■ HOW WE BRING YOUR PRODUCTS INTO THE PERFECT FLOW

When it comes to industrial processing of bulk goods and liquid products, there's always one key question: How do we ensure a steady, reliable, trouble-free, clean and efficient material flow? Whether it's selecting the optimum screening media, filling or packaging your product with the perfect filling technology and the right speed in the optimum packaging, or designing and controlling your complete product and work flow – you're always looking for the perfect flow.

DIAGNOSTICS



■ IDENTIFY THE ROOT CAUSES

Every good doctor knows: The key to good health is not treating symptoms, but identifying the cause. Your process is no different. Don't spend an endless amount of time and energy fighting the symptoms.

Remedy the cause with our help and with smart services, software and analytical devices. Because only healthy processes are really economical.

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PROCESS ENGINEERING – DEFINITION

Process-Engineering deals with all processes in which substances are changed in terms of composition, type or properties. Within production engineering, Process-Engineering deals with the production of substances (raw materials) as well as the conversion of substances with an imprecisely defined form, including classification, separation, mixing, pelletizing, bagging, filling and packaging, including the intervening stockpiling and transports. Process-Engineering is a highly interdisciplinary engineering service. In the usual scope for HAVER & BOECKER, it includes mechanical engineering, electrical engineering, electronics, pneumatics, controls, civil engineering, infrastructure, logistics and project management.





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HAVER & BOECKER NIAGARA for Processing

- NIAflow

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IBAU for Storage and Handling

- PROCESS Engineering
- CONCEPT Engineering
- DETAILED Engineering

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SOMMER for Mixing

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- DETAILED Engineering

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SOMMER ANLAGENBAU

FEIGE for Filling

- CONCEPT Engineering
- DETAILED Engineering

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AVENTUS for Packing Granules

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- DETAILED Engineering Contact: Martin Kölker

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AVENTUS

BEHN + BATES for Packing Food

- CONCEPT Engineering
- DETAILED Engineering

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BEHN + BATES

HAVER & BOECKER for Packing Powder

- CONCEPT Engineering
- DETAILED Engineering
- POP Plant Optimization Plan

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NEWTEC for Palletizing and Loading

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- DETAILED Engineering

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HAVER & BOECKER Automation

- CONCEPT Engineering
- DETAILED Engineering

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HAVER AUTOMATION

PROCHECK PROCESS ENGINEERING
HAVER & BOECKER

SOLUTIONS AND TOPICS CLOSE TO PROCHECK PROCESS ENGINEERING



CEMENT INDUSTRY



■ INNOVATIVE SOLUTIONS FOR CEMENT MANUFACTURERS

Innovative solutions for handling your cement products: From preparation to storage and packaging to transport. Supplemented by software for digitalization and automation. Their product is the most important and best-selling building material for the development of our world.

Together with you, we are very proud of this. But we all also know that we need to be more careful with this valuable product and protect it better until it is used. So that we use resources effectively and reduce emissions.

BUILDING MATERIALS, CONSTRUCTION CHEMICALS AND MINERALS



 INNOVATIVE SOLUTIONS FOR BUILDING MATERIALS, CONSTRUCTION CHEMICALS AND MINERALS MANUFACTURERS

Innovative solutions for handling your bulk building materials. From preparation to transport. Supplemented by software for digitalization and automation.

Your products are more heterogeneous than in almost any other industry. Each product, specifically adapted to the application, has special properties, for example particle size and shape, bulk density, flow behaviour, pourability, cohesiveness, hygroscopicity, corrosiveness or abrasiveness. In the end, this diversity is what makes you successful and guarantees satisfied customers and steady growth.

CHEMICAL INDUSTRY



■ INNOVATIVE SOLUTIONS FOR THE CHEMICAL INDUSTRY

Innovative bulk materials for handling your bulk chemicals: from packaging to transport. Supplemented by software for digitalization and automation.

Your industry is changing and is currently characterised by the major topics of "environmental protection and sustainability", "product development through specialisation", "new challenges in logistics" and "digitalisation".

These megatrends give rise to very specific needs for you: high safety, cleanliness and hygiene standards, targeted and careful use of resources as well as optimised logistics that are safe in all respects. Simply perfectly coordinated processes.

HAND IN HAND



■ ON THE WAY TO YOUR PERFECT FLOW

Mastering the three dimensions of product, packaging or screening media and machine technology is the basis of our expertise and the starting point for your perfect flow. With our PROcheck life-cycle approach, we add the time component and accompany you on the way to your goal.

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TAKING THE NEXT STEP WITH PLANET BLUE

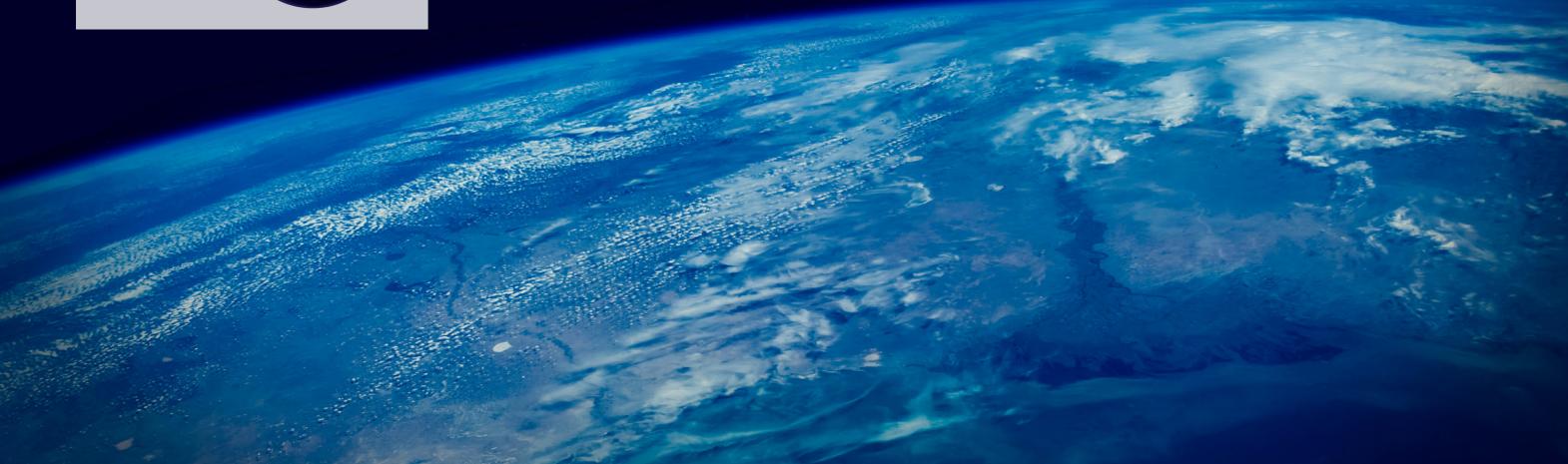
Sustainability for a livable future

Sustainability is a core value for us:

We make decisions taking into account long-term consequences for the HAVER & BOECKER family, for the entire universe of our customers and for the well-being of future generations. We follow this fundamental approach and strive with

all our technologies to improve living conditions for humanity. That's our mission!





THE TECHNOLOGY MATRIX





PERFECT FLOW

PROCESSING STORAGE MIXING FILLING PACKING PALLETIZING LOADING AUTOMATION















TECHNOLOGY MATRIX
HAVER & BOECKER

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HAVER & BOECKER OHG

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