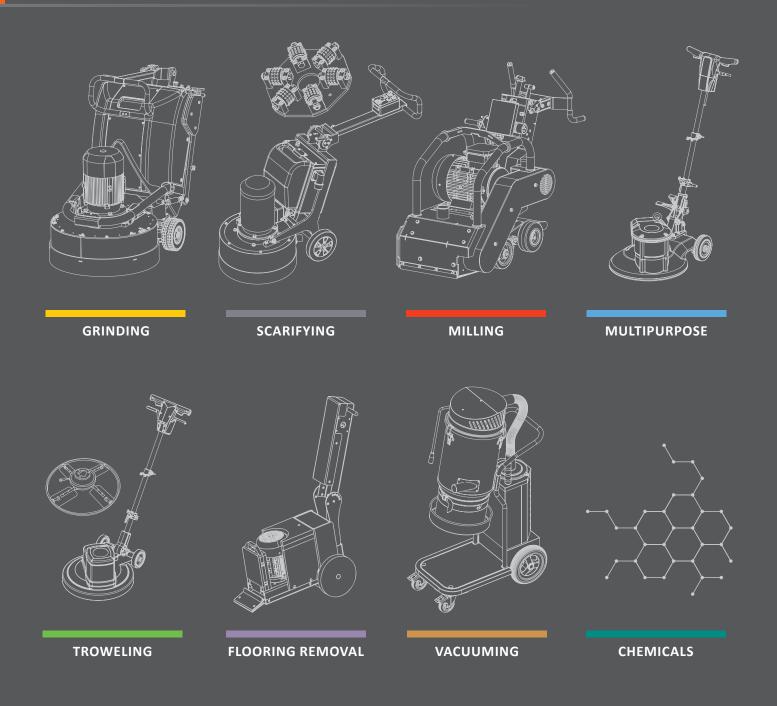
CONSTRUCTION MACHINERY CATALOGUE 2022/2023





www.schwamborn.com



Floors, walls and ceilings: always doing better

Machines, accessories and application technology for the construction industry



We have always remained true to our guiding principle, "... gaining ground with us", when designing construction machinery and tools that are always aimed at delivering precisely what our customers require. This was and still remains the basis of our success.

A few years ago, we developed the Schwamborn System in response to the changing materials in floor construction and the increasingly specific solutions required as a consequence. The idea be-

hind this is to offer the most modern technology for floor care, not only in relation to our machines, but also in terms of 'configurations' that combine tools and accessories - with the aim of making the work involved increasingly efficient, thorough and ergonomic.

The decisive factor is the configuration of machine and tool

Our range of construction machines therefore aims to meet the needs of the work or areas of application which that work involves, while also addressing the second important decision factor: i.e. the size of floor area to be worked upon.

That is why we are continuously developing our product range with our own research and development department including Made in Germany production. Great evidence of this would be our WDS 530 wall and ceiling sander, which has won several innovation awards - and now, brand new for interior demolition and structural work, its smaller sister





the WDS 250. After all, what is good for floors is also good for resource-intensive work of the kind that could previously only be done by hand: now our machines can also work well on walls and ceilings, to an unprecedented level of efficiency in terms of coverage.

The second and in our view equally important aspect of the Schwamborn System are tools and accessories that are perfectly adapted to suit each of the steps involved in these operations. As you can see from our catalogue, our product range here has grown not insubstantially, in terms of both quality and quantity – and there is a good reason for this.

Consistent further development for and with our customers

Those who, like ourselves, aspires to be customer-facing at all times, requires continuous dialogue with their customers. That is because our 'system' is dynamic, meaning that it is open at all times for further improvement. This is where our Application Technology department, which has been expanded greatly over recent years, comes into play. It has acted as an engine for innovation in our company.

That is because it incorporates continuous dialogue with our customers. This department works together with our customers to develop the perfect configuration, always being open to tackle new challenges on construction sites. All of which serves the goal of developing better and increasingly specific new solutions. You will find the current status of this in this catalogue - but as stated, the process is an openended one because we always aim to help you achieve even better results with floors (walls and ceilings).

We wish you a really good read

E. Januamboon

Eckart Schwamborn, CEO

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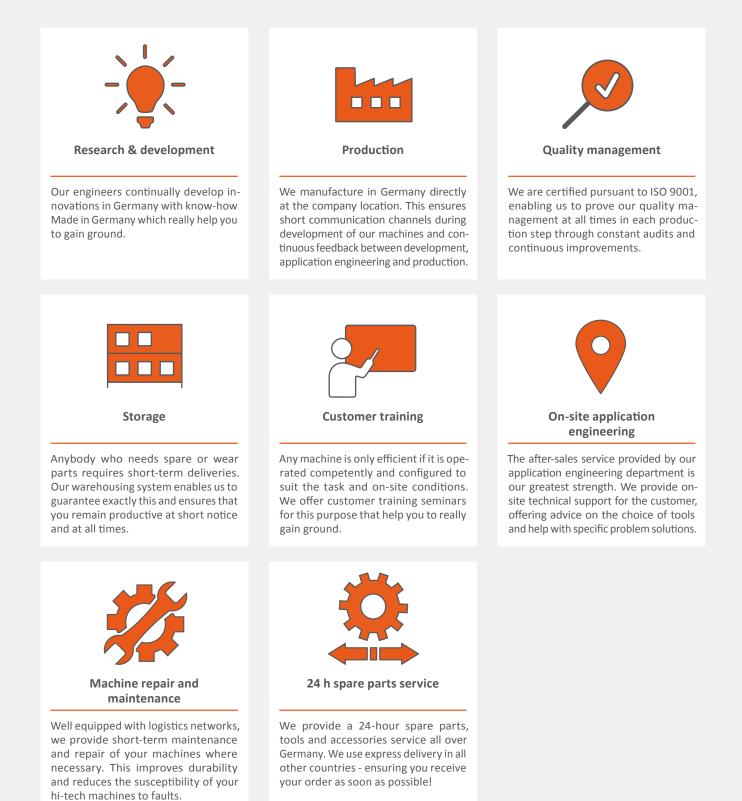
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DELIVERY AND PAYMENT TERMS

Quality Made in Germany

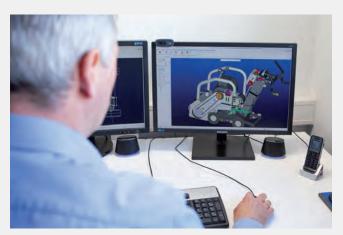
Schwamborn has been developing and manufacturing innovative products and floor solutions for more than 85 years in Germany for professional grinding, bush hammering, scarifying, cleaning, trowelling and vacuuming. Schwamborn products are highly sought after by professional users around the world. Our customers are supported on a regional and international level by experienced product and application specialists.



Always a step ahead of the rest New approaches to machining floors, walls and ceilings

Six dedicated engineers in our Research & Development department ensure that we always stay one step ahead of the field. This is where new and ever more differentiated solutions are born for our engineering excellence "Made in Germany". Ergonomic design, improved efficiency and cost-effectiveness, enhanced user-friendliness, protection of people, the environment and material and new solutions for flooring, wall and ceiling construction applications are the goals our designers strive to achieve.

This occurs in close coordination with our Application Technology division which is continually on the move in the market, gaining deep insights into our customers' applications and communicating these to our specialists. This continually results in the development of new, innovative solutions designed to address the diversity of modern materials and application methods. For example, a hydraulic drive was developed for the new WDS 530 which, in addition to ensuring adequate speed, also guarantees consistent contact pressure.



Design using the latest CAD technology



Milling depth adjustment

Central drum lowering function and depth setting



Anti-shock

Transmission mounting with ASD anti-shock device for reduced vibration



Steering handle

Simple and rapid adjustment of the steering handle



Working up to the edge

An additional protection for sensitive walls during grinding



4 x 4 Wheel drive

For uniform and straight forward machine movement



DIF-Diaflex

Automatic diamond floating device for a uniform floor finish with additional vibration reduction

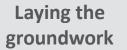


Our growing experience ...

Floor construction has become more varied. Modern grinding technology opens up entirely new, more versatile – and above all more economic – options, also in the renovation of floors, walls and ceilings. Over and above that, the requirements governing the disposal of waste materials as well as health and safety at work are all becoming more stringent. This increases the complexity of choosing the right machines as well as the most suitable tool for each of the processing operations.

Then again, this does not address the specific challenges in terms of ecology and the separation of pollutants faced for example by the demolition industry when involved in knocking down structures.

All well and good. What use are the finest of machines and tools if you need increasingly high levels of specialist expertise to use them efficiently?





Selection of machines and appropriate dust extraction

For new-builds: Substrate properties, type of use and load-bearing characteristics, surface area required, special features of interiors etc.

For renovation and restoration work: Type of substrate or coating on the floor covering, current status of the ground, purpose of the renovation, future use We recommend appropriate machines on a needs-based principle. We also examine the question of how frequently you intend to carry our floor processing work. Dust extraction is becoming a more significant factor in relation to waste disposal and to health & safety at work. Here, too, we can fall back on systematically coordinated machine adapter solutions and appropriate industrial vacuum cleaners.

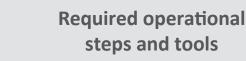


... is there to benefit you greatly

This is precisely where our Application Technology department comes into play, and it has grown in size over the last few years. Here, specialists are at work who advise on the basis of 'practical help from practical people' and who devise solutions on a joint basis with our customers.

This starts with advice on choosing the most appropriate machine, and the best possible tool for the task in hand. We can also provide personal training on-site. In many cases, this has given rise to continuous dialogue with a practical emphasis. Which hits the spot, as the growing number of followers on our LinkedIn construction blog illustrates.

The service spectrum of our application technology is rounded off by a programme of regular training courses and a hands-on approach to project service.





Long-lasting protection and care

Recommendation on the sequence of operations and the optimum selection of tools and accessories

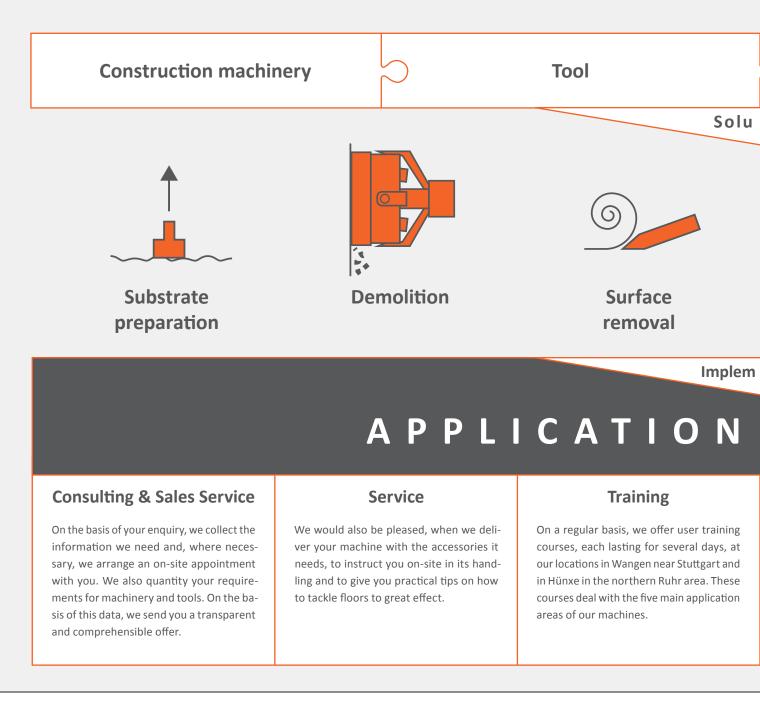
We also give recommendations, based on our initial appraisal, on the correct sequence of operational steps, and on the most appropriate tools for those steps. This enables us to help you to find the best possible configuration of machines and tools for each step in the process. Recommendation on protection, cleaning and maintenance measures

Depending on the floor covering, the long-term durability of the floor can be significantly improved by protection cleaning and maintenance. The right choice of protection and maintenance depends on the characteristics of the floor and the type of stresses and strains to which it is exposed.

To enable you to improve floors, walls and ceilings! A combination of machine and tool is the solution

Floor construction has changed considerably due to modern building materials, but above all due to the variety of machine processing capabilities. The same applies not least to our innovative grinding machine (the WDS), designed specifically for work on walls and ceilings. There is a wealth of determining factors when it comes to selecting the configuration of the machine and accessories: The size of the surface to be treated, the properties of the substrate, the intended future use as an industrial or a design floor, use in private residential properties or big retail premises to name just a few key examples.

Basically, the possible applications can be divided into the areas of 'substrate preparation' 'deconstruction' 'renovation', 'design' 'pavement removal' and 'maintenance and cleaning'. These are in turn characterised by individual processing steps that depend on the condition and future use of a structure.



We aspire to offer you a solution for every problem by using the best combination of machine, tools, vacuum cleaners & separators and chemical auxiliaries. Expertise needs to keep pace with the increasing complexity of the task profiles that occur on construction sites. In combination with a great deal of experience, this equips us with a serious level of advisory expertise, capable of satisfying the demand for consultancy support. For this reason, we have continued over the last few years to expand our Application Technology department and the services it provides. Across all media dissemination channels, we provide our globally active users with knowledge and support while systematically extending the number of specific case studies to include in our track record. System & Application Technology are therefore an expression of our focus on customer benefits, and last but not least, constitute the key to our sustained success.



On our website under News, in the trade press and in our LinkedIn profile, we publish a regular stream of specific case studies showing how our machines provided solutions to problem situations. This is gradually enabling us to build up a comprehensive knowledge database and we cordially invite our customers to use it. Short videos of current construction sites illustrate solutions based on our 'practical help from practical people'. As a platform, our LinkedIn profile also offers the opportunity to exchange ideas with one another or with our application technology. Get new inspiration and follow us on LinkedIn. For our end customers and key accounts, we are happy to provide one-to-one advice in relation to specific requirements. In special one-off cases, we can also provide rental machines if, for example, tight construction time windows make it necessary to use several machines.



Substrate preparation

A good substrate is essential

Adhesive tensile values are the benchmark for the durability, cost-effectiveness and sustainable usability of professionally prepared floors. The aim of substrate treatment is to achieve a surface with the best possible adhesive tensile strength.

Common substrate preparation processes include milling, compacting or sanding, especially in combination with a powerful dust extraction system. Depending on the properties of the substrate and its subsequent form of use, a combination of these processes may be required to obtain better results.



Demolition

Pollutant disposal and separation

The demolition industry faces major challenges. Due to ecological requirements for the separation and disposal of wall and ceiling coverings, mechanical solutions for the economic removal of these coatings (asbestos, plaster, paint, etc.) have become almost indispensable. This applies even more to the protection of operatives, who until now have for the most part needed to remove materials of this kind by hand.

With the WDS family, the demolition industry - now also with its existing excavators - can do this work mechanically to maximum effect on floor areas with precise removal of materials and optimised health protection.



Surface removal

Peeling or detaching of coatings

We complete our product portfolio for floor finishing with the new "Stripper" product line. And so we are coming ever closer to our claim of being able to offer the best possible "Made in Germany" solutions for every type of floor work.

Schwamborn floor strippers enable you to remove floor coverings and their adhesives using cutters, cutter shanks, blades or scrapers. This enables us to make short work of removing epoxy, tiles, PVC, linoleum, sports coverings, carpets and adhesive bonding. The tools for this are available, carefully matched to each type of application.

Current practical examples from the fields of application











APPLICATION TECHNOLOGY



Renovation

Old things are given a new lease of life...

Renovation work includes the stripping of adhesives, fillers, irregular floor surfaces, the removal of (roadway) markings, the milling off of coatings, renovation of screed, maintenance film renovation of coated PVC and linoleum floors, grouting of screed and epoxy resin and, last but not least, the polishing and grinding of natural stone coverings such as marble and granite.

When old things need to look like new again, Schwamborn offers machines and, above all, the right tools for almost every type of floor and wear.



Surface finishing

For novel and creative diversity

Whether polished concrete floors, industrial screeds in terrazzo look, magnesia screeds, mastic asphalt or coloured cement screeds: Designer floors are very much in vogue in modern architecture. This is how public buildings, office premises, exhibition spaces, shopping centres, industrial buildings, retail stores, restaurants or private living spaces become unique and very special kinds of architectural structures.

We can provide a coordinated system, all the from machines and matching accessories to impregnating and cleaning agents to cater for the full variety of manufacturing, finishing and cleaning processes.



Care & cleaning

A good floor needs to be cared for

Wet cleaning, shampooing, polishing, spray cleaning, crystallisation, weed removal or abrasive grinding account for the main types of floor cleaning technique. Here, too, Schwamborn strives to deliver a comprehensive solution to these problems, reflected in its wide product range of what are known as single-disc machines and its even wider range of accessories:

Brushes for cleaning and stripping, pads and diamond tools for grinding and polishing, smoothing tools, gouging tools and chemicals for cleaning, tempering and crystallising floors. Whenever you feel baffled by the array of choice, you can trust our recommendations.













A success story Our training seminars are in increasing demand

New, innovative building materials lead to changing and, no less important, architecturally attractive flooring solutions in floor construction. As a result, perfectly tailored floors can be built today for almost any application using a variety of materials and processes.

At the same time, consistently evolving machine and diamond technology and, in particular, continually growing expertise offer ever better opportunities when it comes to refurbishing and rebuilding floors. Schwamborn flooring specialists are active both nationally and internationally. They support architects, clients, building material suppliers,



Theory and practice for modern floor construction

machining and grinding firms in every respect from the recipe for building materials and installation of flooring to questions regarding the protection and care of floors.

Technical seminars for professionals and beginners

Our training seminars are a resounding success story. With increasing numbers of attendees (at two locations since autumn 2018), seminar participants have the opportunity to benefit from our expertise.

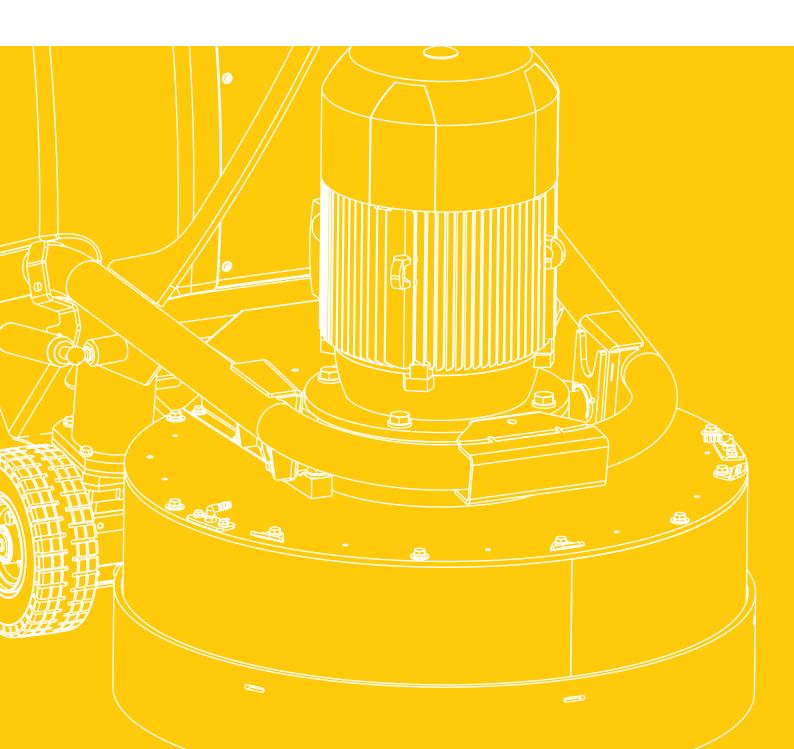
Both professionals and beginners can profit here from the decades of experience gained by our application technicians who impart theoretical know-how and application engineering to a degree that ensures that every participant gains considerable ground through valuable tips and practical exercises.

How to gain ground with us

If you are professionally involved in the construction, renovation and refurbishment of floors, our new seminar programme is just right for you. We offer training seminars ranging from 1.5 and 2.5 days in this context.



GRINDING





WDS 250

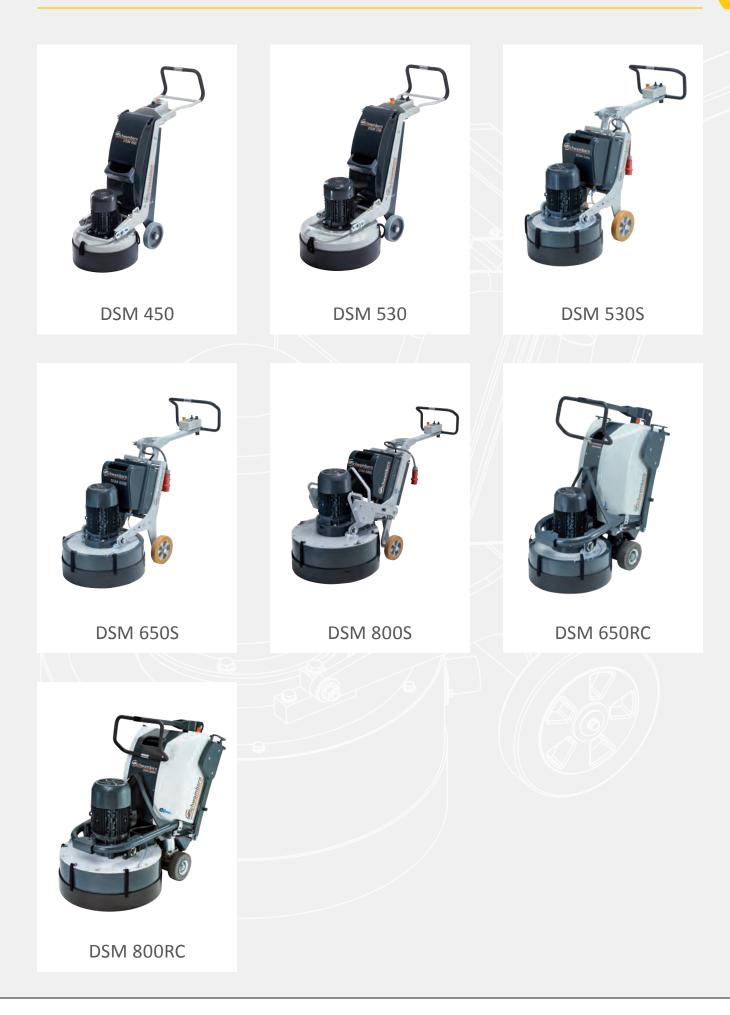


WDS 530

DSM – GRINDING



DSM – GRINDING



Professional grinding technology for walls and ceilings

With the WDS 530 and the new WDS 250, manual work becomes a thing of the past

The WDS 530 causes great excitement when it became a finalist for the 2019 Bauma Innovation Prize. This World First, which also garnered itself the Innovation Prize of the district of Göppingen, is the only machine to date with which stripping, renovation and design work - until now strictly manual operations - can be performed to perfection by machine using professional sanding technology that delivers outstanding floor coverage. It now has a 'little sister' in the form of the WDS 250, specifically designed for interiors or for working in confined spaces.

The ergonomic and economic demands placed on stripping, renovation and finishing are increasing continuously, as are disposal costs - not least for contaminated wall and ceiling coatings. The research and development department at Schwamborn has developed an innovative, user-oriented solution for this purpose - in the form of the new wall and ceiling grinding machine. We present the stand-out highlights:

Innovative, efficient and ergonomic

The WDS translates more than 50 years of experience in professional grinding technology to wall and ceiling applications. The WDS 530 and the new WDS 250 work with a hydraulic drive which can be operated not only with construction robots but - and this is very recent indeed - also with excavators. It facilitates the economical grinding and renovation of large wall, ceiling and floor surfaces with exceptional area performance. In addition, using the WDS 530 greatly simplifies work and makes it very much easier. This is even more true for the WDS 250 which has considerable manoeuvrability for use in smaller spaces and can be operated with a mini-excavator with electric drive.

Until the introduction of the WDS 530, the removal of contaminated material was often only possible with manual labour and the associated low area performance and high personnel costs.

Increasingly strict regulations for the demolition of buildings and the suitability for heavy grinding work for the renovation of engineering structures such as tunnels or bridges were the main reasons for the successful market launch of the wall and ceiling grinding machine. With WDS machines, it is possible for the first time to use the very latest grinding technology with ETX grinding diamonds, bush-hammering tools or diamond pads for this work in a way that is gentle on the materials and convenient for users.



On a tracked excavator with swivel motor, the WDS 530 makes grinding possible in any and all angular positions.

Can now be used with excavators

With WDS machines, it is consistently possible to apply high and uniform contact pressure to walls and ceilings, while grinding head application is always planar thanks to the cardan technology. The machine can be equipped with a wide variety of tools, depending on the task at hand. For example, grinding diamonds for stripping and polishing walls and ceilings, as well as bush-hammering tools for substrate preparation or surface finishing.

Full flexibility in every angular position

If the WDS is operated with an excavator that has a quick coupler with swivel motor as an intermediate adapter, it delivers full flexibility when working in every angular position and on sloping surfaces. Lengthy changeover times between wall, ceiling and floor grinding are a thing of the past. This not only reduces investment costs for efficient grinding, it also increases the processing speed. Of course, use with a construction robot also remains possible.

Versatile areas for application

This makes the WDS 530 and the new WDS 250 suitable for a vast range of fields of application – making work on walls and ceilings economical and ergonomical:

Substrate preparation: Grinding and bush-hammering

Substrate preparation in new construction and renovation involving the use of sanding or bush-hammering increases the surface tensile strength. This improves the cost-effectiveness and durability of walls and ceilings. During concrete renovation, only as much material as necessary is removed. It can then be disposed of economically.

Surface finishing

New creative and economically viable finishing options are emerging in architecture, wall and ceiling construction. Similar to floor construction, concrete can now be finished over large areas and in a wide variety of ways with the many different tools available: Highly polished to shiny surfaces, or roughened with bush-hammering tools. Natural stone walls can be polished with a range of different grain sizes, delivering truly exceptional designer experiences.

Stripping for demolition and renovation work

Using the WDS - with its excellent large area performance, or in confined spaces - it is possible to remove coatings quickly, efficiently, thoroughly and safely, even if they contain pollutants such as asbestos. It is now economically viable to remove paint, plaster and large areas covered with tile adhesive.



Substance-friendly and dust-free decoating



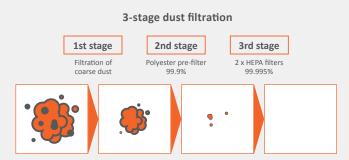
Sticking as a surface design

Not harmful to health or the environment

The targeted mechanical removal of the materials and optimised dust extraction minimises the risk of damage to health. This results in safe, cost-reduced and simplified disposal with a level of protection for operators and the environment that was previously unthinkable.

Professional dust extraction

Machining floors, walls and ceilings is a mechanical process that inevitably generates dust. This is not only hazardous to health, but also means that it is harder and harder to find workers who enjoy performing this activity. The outstanding advantages of the innovative WDS in combination with the optimised Schwamborn industrial extraction system become apparent in particular when dealing with contaminated material and performing demolition works:



Best possible protection for health

The system delivers optimum health protection with its multiple dust extraction connections, and with the option of using pre-separators and high-performance Hepa filters.

Optimised material removal

Thanks to the precisely adjustable contact pressure, only the required quantity of material is removed. This significantly reduces the quantity requiring disposal and therefore also the ever-increasing disposal costs.

Cost-effective

The cost effectiveness of these innovations is self-evident: Outstanding coverage combined with protection of the building fabric as well as unique ergonomics through use with excavators of all sizes in combination with efficient suction removal.



Health protection: Use of industrial suction devices and dust separators



There are four suction nozzles on the sanding head of the WDS, enabling suction from multiple points. An advantage with contaminated material.

WDS 250 - Manual work belongs to yesterday

For mechanical stripping, renovation and design work on walls, ceilings and floors with professional grinding technology, together with consistently high contact pressure. Ideally suited to small areas as well as to corridors and stairwells. Material removal, working methods based on sound environmental and workplace health principles.



Applications

Stripping of plaster, contaminated materials, tile cement and paint, grinding to prepare substrates, grinding of concrete and natural stone, fine grinding of natural stone.

Technical data		
Ref. No.		723000
Hydraulic operating pressure	bar	120
Hydraulic volume flow	l/min	22
Extension stroke	mm	200
Power output	kW	4
Working width	mm	250
No. of tools	mm	1 x 250
Grinding pressure wall	Ν	200 - 1000
Grinding pressure floor, max.	Ν	200 - 1400
Grinding pressure ceiling	Ν	200 - 1000
Operating weight	kg	100
Tool speed	min ⁻¹	750 – 2000
Dimensions LxWxH	cm	100 x 50 x 60
Ø Dust control	mm	1 – 2 x 50
Tool mount		ETX1
Noise level	db(A)	84
WDS 250 accessories and tools,	grinding from	page 33, bush-hammering from page

Special characteristics

ETX – Easy tool exchange Cardan mounting of grinding head Careful stripping preserves building fabric Grinding pressure, adjustable Speed control Large selection of tools Outstanding surface machining Precision removal of material Multiple dust extraction option

WDS 530 - Manual work belongs to yesterday

For mechanical stripping, renovation and design work on walls, ceilings and floors with professional grinding technology, consistently high contact pressure and outstanding surface coverage. Ergonomic, cost-efficient and health-friendly.



Applications

Stripping of plaster, contaminated materials, tile cement and paint, grinding and bush-hammering to prepare substrates, grinding of concrete and natural stone, fine grinding of natural stone.

Technical data		
Ref. No.		715860
Hydraulic operating pressure	bar	70 - 120
Hydraulic volume flow	l/min	50
Extension stroke	mm	250
Power output	kW	6
Working width	mm	530
No. of tools	mm	3 x 200
Grinding pressure wall	Ν	400 - 2300
Grinding pressure floor, max.	Ν	600 - 2300
Grinding pressure ceiling	Ν	400-1100
Operating weight	kg	230
Tool speed	min ⁻¹	400 - 1000
Dimensions LxWxH	cm	140 x 64 x 65
Ø Dust control	mm	1-4 x 70
Tool mount		ETX1 / ETX2
Noise level	db(A)	84

Special characteristicsSpeed controlETX – Easy tool exchangeLarge selection of toolsOutstanding surface machiningCardan mounting of grinding headCounter rotating toolsMultiple dust extraction optionPrecision removal of materialGrinding pressure, adjustableCareful stripping preserves building fabricSwitching from wall to ceiling

TECHNOLOGY





Wall - ceiling switchover | continuous speed adjustment

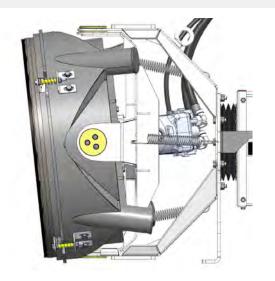
25 cm extension stroke



Setting of contact pressure and hydraulic connections



Working height depends on the length of the excavator arm



Cardan mounting for plan loops on slopes of up to 6°



Grinding of floors, e.g. retaining basins, swimming pools etc.

High-End Floor Grinding Machines

for efficient substrate preparation, renovation and design of floors

Our high-performance DSM grinders offer outstanding surface performance, superb ergonomics and a range of accessories and tools that fulfil every wish for any application.

Substrate preparation

Whether grinding or bush-hammering, depending on the floor condition, you can find the right solution with us for creating the perfect adhesive tensile strength - the goal of all substrate preparation.

Floor renovation

In the same way, you can find the right accessories for DSM grinders for renovation work on industrial or natural stone floors, from the removal or stripping of defective coatings or signs of wear to the polished end result in designer floors.

Designer floors

Whether polished floors made of concrete or screed, modern terrazzo floors, mastic asphalt or colourfully designed cement screeds with embedded decorative elements: Designer floors are very much in vogue in modern architecture. This is how public buildings, exhibition spaces, shopping centres, industrial objects, restaurants or private living spaces become unique architectural objects.

Application technology

The configuration of the machine and tools is critical - only then can perfect results be achieved along with the best possible area performance.

Optimierte Staubreduktion

In recent years our in-house Research and development department have perfected dust extraction systems for all of our machines. In our product portfolio you will find not only powerful industrial vacuum cleaners and dust separators which are perfectly tailored to the DSM grinding machines, but also and above all hose and coupling systems which make it possible to maintain ongoing operations without dust pollution even during the heaviest coating removal work in production halls or warehouses.

Ergonomics

In addition, we have placed great emphasis on ergonomic handling for all DSM products and have used innovative technology to ensure that working with our grinders is as easy as possible.

This also of course applies to our RC models with remote control – never before has such tough and physically demanding work been possible with this degree of health protection.



The Schwamborn DSM family of grinders

DSM 250

DSM 250 - Edge grinding machine for ergonomic concrete grinding

The edge grinding machine for fast, easy and back-friendly grinding of floor edges without straining the knees. The swivelling grinding head allows working in three positions: Left - right - straight. The free-floating dust guard ensures dust-free and low-vibration edge grinding.



Applications

Rimless grinding of concrete, screed, asphalt, regulate uneven floors, remove adhesives, fillers

Technical data			Equipment va	riants
Ref. No.		713564	713565	713566
Voltage	V	230	400	220
Frequency	Hz	50	50	60
Power output	kW	2.2	2.2	2.2
Working width	mm	250	250	250
Grinding pressure floor	kg	35	30	35
Operating weight	kg	56	52.5	56
Edge distance	mm	0	0	0
Tool speed	r.p.m.	1450	1450	1150
Ø-Dust control	mm	50	50	50
Dimensions LxWxH	cm	100 x 40 x100	100 x 40 x100	100 x 40 x100
Tool mount		ETX1, Velcro	ETX1, Velcro	ETX1, Velcro





Grinding to the edge



One diamond system for all floor grinders



With scarifier tool

Special characteristics		
ETX – Easy tool exchange		
Diamond floating device		
Dust and vibration-free grinding and polis-		
hing up to the edge		
Swiveling grinding head left/right		
Low in vibration		
Borderless grinding and polishing		

DSM 250S – The perfect grinding machine for borderless grinding and polishing of concrete and screed

The DSM 250S edge grinding machine. The swivelling grinding head enables borderless grinding and polishing of concrete and screeds. The DSM 250S is the perfect complement for professional substrate preparation and the production of highly polished concrete and screeds as well as terrazzo or marble. Equipped with water tank and infinitely varia-ble speed control for optimal wet grinding.



Applications

Rimless grinding of concrete, screed, asphalt, regulate uneven floors, remove adhesives, fillers, fine grinding of natural stone, cast stone, terrace

Technical data		
Ref. No.		713670
Voltage	V	230
Frequenz	Hz	50
Power output	kW	2.2
Working width	mm	250
No. of tools	mm	250
Operating weight	kg	61
Edge distance	mm	0
Tool speed	r.p.m.	740 - 1500
Ø-Dust control	mm	50
Dimensions LxWxH	cm	100 x 40 x100
Tool mount		ETX1, Velcro



Practical water tank for wet grinding



Abrasion-resistant wheels (streakfree) for clean working



Rimless grinding and polishing / pivoting grinding head

Special characteristics

Diamond floating device Swiveling grinding head left/right Stepless speed control from 740 -1500 r.p.m.

Practical water tank for wet grinding

Borderless grinding and polishing

DSM 250S Accessories and tools, Grinding from page 33, Milling from page 58



DSM 400 - Powerful floor grinder for substrate preparation and renovation

Equipped with our powerful diamond tools, the DSM 400 is ideal for smoothing uneven floors and preparing the substrate up to areas of 500 sqm. With the decoating diamonds, it effec-tively removes adhesives, fillers and coatings on concrete or concrete screed.



Applications

Grinding screeds, screed, asphalt, remove adhesives, coatings, fillers, regulate uneven floors

Technical data			Equipment variants
Ref. No.		72800	728001
Voltage	V	400	230
Frequency	Hz	50	50
Power output	kW	4	2.2
Working width	mm	400	400
No. of tools	mm	1 x 400	1 x 400
Grinding pressure floor	kg	30.5 - 53	30.5 - 53
Operating weight	kg	107.5	107.5
Edge distance	mm	10	10
Tool speed	r.p.m.	900	600
Ø-Dust control	mm	50	50
Dimensions LxWxH	cm	65 x 45 x 75	65 x 45 x 75
Tool mount		ETX1	ETX1

DSM 400 Accessories and tools, Grinding from page 33



Compact switch with integrated overload protection



ETX-Easy Tool Exchange

Special characteristics			
ETX – Easy tool exchange			
Diamond floating device			
Ergonomical handle design			
Motor overload protection			
Grinding pressure, adjustable			
Transport grip			
Dead man switch			
Suction ring with height adjustment			

DSM 450 – Grinding machine for grinding and polishing concrete floors, marble floors and terrazzo

The DSM 450 enables grinding and polishing of concrete, natural stone, marble, terrazzo, screed and asphalt, removal of adhesives and coatings as well as fillers and smooths floor unevenness efficiently and ergonomically. The new abrasion-resistant wheels leave no marks and the ergonomic guide bar makes it easier to steer and manoeuvre the machine. In addition the DSM 450 can be quickly dismantled for quick and simple transport. Available with or without water tank or speed control.



Applications

Grinding screeds, screed, asphalt, remove adhesives, coatings, fillers, regulate uneven floors, grinding and polishing concrete, screed, asphalt, cast stone, natural stone, terrace

Technical data			Equipment varia	ants	
Ref. No.		719100	719101	719102	719201
Voltage	V	230	400	230	400
Frequency	Hz	50	50	50	50
Power output	kW	2.2	2.2	2.2	2.2
Working width	mm	450	450	450	450
No. of tools	mm	3 x 160	3 x 160	3 x 160	3 x 160
Grinding pressure floor	kg	60	60	60	60
Operating weight	kg	106	103	103	103
Tool speed	r.p.m.	440 - 1150	900	900	900
Ø-Dust control	mm	50	50	50	50
Dimensions LxWxH	cm	94.5 x 47.8 x 95.7			
Tool mount		ETX1, Velcro	ETX1, Velcro	ETX1, Velcro	ETX1, Velcro
Water tank		yes	-	-	yes





Equipment variant without water tank



Different control units

Special characteristics Diamond floating device Crane hook = easier transportation Ergonomic and height-adjustable handlebar with quick release Quick to disassemble for a simple and easy transport Stepless speed control for effective work

Control unit with power display and operating hours counter

Practical water tank with dosing tap for precise wet grinding

DSM 530

DSM 530 – Professional grinding machine for bush-hammering, grinding and polishing industrial flooring

The classic for medium to large work surfaces for grinding and polishing concrete, natural stone and industrial floors. Ideally suited for holding bush-hammering tools for bush-hammering concrete, screed, asphalt and with ETX grinding diamonds for renovation work.



Applications

Grinding screeds, screed, industrial floors, asphalt, fillers, remove adhesives, coatings, regulate uneven floors, grinding and polishing concrete, screed, asphalt, cast stone, natural stone, terrace, sticking of concrete, screed and asphalt

Technical data		
Ref. No.		715501
Voltage	V	400
Frequency	Hz	50
Power output	kW	4
Working width	mm	530
No. of tools	mm	3 x 200
Grinding pressure floor	kg	106
Operating weight	kg	150
Tool speed	r.p.m.	400 - 1150
Ø-Dust control	mm	50
Dimensions LxWxH	cm	109.2 x 57.9 x 95.7
Tool mount		ETX1, Velcro

DSM 530 Accessories and tools, Grinding from page 33, bush-hammering from page 46



Suction hose connection



Dead man's switch for safe work-ing



Display with power display and operating hours counter

Special characteristics
Diamond floating device
Ergonomic and height-adjustable handle-
bar with quick release
Quick to disassemble for a simple and
easy transport
Stepless speed control for effective work
Practical water tank with dosing tap for precise wet grinding
Direction of rotation clockwise / an-
ti-clockwise rotation for a variety of ap- plications
Display with power display and operating hours counter

DSM 530S – Grinding machine with high performance for stubborn floor coatings and irregularities

In combination with our TL/TR-Pull and TL/TR-Stripp diamond tools, even the most stubborn epoxy coating doesn't stand a chance against the DSM 530S. The heavy-duty and powerful floor grinding machine impresses with a high area performance. With infinitely variable speed control, it is also perfectly suited for wet grinding of terrazzo or marble floors up to high-gloss polishing.



Applications

grinding screeds, screed, industrial floors, asphalt, sticking of concrete, screed and asphalt, large-scale renovation, remove adhesives, coatings, fillers, regulate uneven floors, grinding and polishing concrete, screed, asphalt, natural stone, terrace

Technical data		
Ref. No.		711502
Voltage	V	400
Frequency	Hz	50
Power output	kW	7.5
Working width	mm	530
No. of tools	mm	3 x 230
Grinding pressure floor	kg	165
Operating weight	kg	253
Edge distance	mm	10
Tool speed	r.p.m.	400-1200
Tank	1	15
Ø-Dust control	mm	70
Dimensions LxWxH	cm	160 x 58 x 126
Tool mount		ETX1, ETX2, Velcro

DSM 530S Accessories and tools, Grinding from page 33, bush-hammering from page 46



Terrazzo polishing



ADS: Anti-shock transmission mounting



Ergonomic handle bar

Special characteristics			
ETX – Easy tool exchange			
Diamond floating device			
Ergonomical handle design			
Motor overload protection			
Counter rotating tools			
Speed control			
Tool turning direction			
Dead man switch			
Power indicator			
For heavy duty work			
High grinding performance			
Easy to use			

DSM 650S – Grinding machine with variable grinding pressure for large concrete and screed floors

Grind and polish concrete, screed, asphalt, natural stone, terrazzo with a working width of 650 mm. The DSM 650S offers high grinding performance with variably increased grinding pressure via additional weights. The vibration-damped drive, like the special guide handle, ensures particularly ergonomic working even on irregular and uneven surfaces.





Applications

Grinding screeds, screed, industrial floors, asphalt, sticking of concrete, screed and asphalt, large-scale renovation, remove adhesives, coatings, fillers, regulate uneven floors, grinding and polishing concrete, screed, asphalt, natural stone, terrace

Technical data		
Ref. No.		712006
Voltage	V	400
Frequency	Hz	50
Power output	kW	11
Working width	mm	650
No. of tools	mm	3 x 230
Grinding pressure floor	kg	197
Operating weight	kg	291
Edge distance	mm	10
Tool speed	r.p.m.	400 - 1200
Tank	1	15
Ø-Dust control	mm	70
Dimensions LxWxH	cm	165 x 68 x 126
Tool mount		ETX1, ETX2, Velcro

DSM 650S Accessories and tools, Grinding from page 33, bush-hammering from page 46



DSM 650S

Central suctioning



Adjustable suction ring



Display with power indicator

Special characteristics
ETX – Easy tool exchange
Diamond floating device
Ergonomical handle design
Motor overload protection
Counter rotating tools
Grinding pressure, adjustable
Speed control
Tool turning direction
Dead man switch
Water tank

DSM 800S – Ideal for perfect grinding of car park surfaces and concrete in industrial halls

The DSM 800S three-disc machine is suitable for grinding very large floor areas. It is ideal for decoating and substrate preparation in car parks and industrial and production halls. If you equip the grinding discs with Superflex diamond tools, the machine will wet grind the floor until the final result is perfectly polished and crystallised.

DSM 8005



Grinding screeds, screed, industrial floors, asphalt, sticking of concrete, screed and asphalt, large-scale renovation, remove adhesives, coatings, fillers, regulate uneven floors, grinding and polishing concrete, screed, asphalt, natural stone, terrace

Technical data

iecillical uata		
Ref. No.		716003
Voltage	V	400
Frequency	Hz	50
Power output	kW	15
Working width	mm	800
No. of tools	mm	3 x 270
Grinding pressure floor	kg	240/300/200
Operating weight	kg	510
Edge distance	mm	10
Tool speed	r.p.m.	400 - 1200
Tank	1	26
Ø-Dust control	mm	70
Dimensions LxWxH	cm	220 x 84 x 101
Tool mount		ETX1, ETX2, Velcro





ETX easy tool exchange



Special wheels for grinding free of streaks

Special characteristics

•
ETX – Easy tool exchange
Diamond floating device
Ergonomical handle design
Motor overload protection
Counter rotating tools
Grinding pressure, adjustable
Speed control
Tool turning direction
Dead man switch
Power indicator
Robust in design



DSM 650RC – The manoeuvrable concrete grinder for particularly ergonomic floor grinding

In combination with Schwamborn industrial vacuums, the remote-controlled DSM 650RC is the best guarantee for dust-reduced floor grinding. With a working width of 650mm, high surface outputs from substrate preparation and renovation to the design of terrazzo floors or concrete designer floors are easily possible without tiring the worker. The DSM 650RC is particularly manoeuvrable.



Support wheel for transportation



Remote control

Applications

Grinding screeds, screed, industrial floors, asphalt, sticking of concrete, screed and asphalt, large-scale renovation, remove adhesives, coatings, fillers, regulate uneven floors, grinding and polishing concrete, screed, asphalt, natural stone, terrace

Technical data		
Ref. No.		729000
Voltage	V	400
Frequency	Hz	50-60
Power output	kW	11
Working width	mm	650
No. of tools	mm	3 x 230
Grinding pressure floor	kg	165/230/120
Operating weight	kg	450
Edge distance	mm	10
Tool speed	r.p.m.	400 - 1200
Tank	1	15
Ø-Dust control	mm	70
Dimensions LxWxH	cm	130 x 65 x 140
Tool mount		ETX1, ETX2, Velcro

DSM 650RC Accessories and tools, Grinding from page 33, bush-hammering from page 46

Special characteristics	
ETX – Easy tool exchange	Diamond floating device
Motor overload protection	Counter rotating tools
Speed control	Dead man switch
Remote control = comfortable and vi- bration-free working for the operator	Adjustable grinding pressure, thanks to additional weights
Narrow design for passing through doorways	Automatic battery charging during ope- ration = reliability
Battery power for loading and unloading = easy operation	Display with power indicator = optimum diamond selection and grinding per- formance
ETX-2 tool holder = easy tool changing system	High-performance load gearbox = maxi- mum power transmission
Automatic tool adaptation (DIF) = impro- ved grinding results on uneven floors	Anti-shock transmission mounting (ASD) = reduced machine vibration
Crane hook = easier transportation	180° turning manoeuvres with grinder overlapping = uniform grinding result

DSM 800RC - Grinding machine with maximum area performance when grinding very large concrete floors

Perfect ergonomics and area performance are guaranteed with the DSM 800RC. In combination with our ETX decoating diamonds, it is perfect for refurbishing the floors of large industrial halls. With our WR-Superflex W diamond pads, it is also ideally suited for large-area wet grinding for polishing concrete, screed, terrazzo and marble.

Applications

grinding screeds, screed, industrial floors, asphalt, sticking of concrete, screed and asphalt, large-scale renovation, remove adhesives, coatings, fillers, regulate uneven floors, grinding and polishing concrete, screed, asphalt, natural stone, terrace

Schwamborn DSM BOORC

2 6

Support wheel for transportation



Grinding close to the edge with the remote control



Remote control

Technical data		
Ref. No.		716500
Voltage	V	400
Frequency	Hz	50 - 60
Power output	kW	15
Working width	mm	800
No. of tools	mm	3 x 270
Grinding pressure floor	kg	215/270/160
Operating weight	kg	615
Edge distance	mm	10
Tool speed	r.p.m.	400 - 1200
Tank	1	26
Ø-Dust control	mm	70
Dimensions LxWxH	cm	175 x 84 x 155
Tool mount		ETX1, ETX2, Velcro

DSM 800RC Accessories and tools, Grinding from page 33, bush-hammering from page 46

Special characteristics

Automatic tool adaptation (DIF) = im- proved grinding results on uneven floors	High-per mum po
Diamond floating device	ETX – Ea
Motor overload protection	Counter
Anti-shock transmission mounting (ASD) = reduced machine vibration	180° turi overlapp
High grinding performance	Crane ho
Remote control = comfortable and vibra- tion-free working for the operator	Display v diamono mance
Adjustable grinding pressure, thanks to additional weights	ETX-2 to system
Automatic battery charging during opera- tion = reliability	Battery p easy ope
Automatic movement independent for	و ماليد روا

Automatic movement, indeper wards motion

F) = im- even floors	High-performance load gearbox = maxi- mum power transmission
	ETX – Easy tool exchange
	Counter rotating tools
nting (ASD) =	180° turning manoeuvres with grinder overlapping = uniform grinding result
	Crane hook = easier transportation
and vibra- ator	Display with power indicator = optimum diamond selection and grinding perfor- mance
thanks to	ETX-2 tool holder = easy tool changing system
iring opera-	Battery power for loading and unloading = easy operation
ndent for-	Shuttle movement, uniform overlapping

WDS/DSM ACCESSORIES

		DSM 250	DSM 250S	DSM 400	DSM 530	DSM 530S	DSM 650S	DSM 650RC	DSM 800S	DSM 800RC	WDS 250	WDS 530
Other practica	al accessories for WDS/DSMmachines											
	Power supply cord (Ref. No. 718550) special 230V/50Hz, 20 m, 16A, Ø – 2,5 mm²											
	Power supply cord (Ref. No. 701776) 400V/50Hz, 25 m, 16A, Ø – 2,5 mm ²											
	Power supply cord (Ref. No. 707790) 400V/50Hz, 25 m, 32A, Ø – 4,0 mm ²											
	ETX carrier plate (Ref. No. 707921) with velcro carrier and foam backing, Ø 160 mm											
	ETX carrier plate (Ref. No. 707922) cpl. with velcro carrier and foam backing, Ø 180 mm											
	ETX carrier plate (Ref. No. 707924) cpl. with velcro carrier and foam backing, Ø 200 mm											
	ETX carrier plate (Ref. No. 707926) cpl. with velcro carrier and foam backing, Ø 230 mm											
	ETX carrier plater (Ref. No. 707928) cpl. with velcro carrier and foam backing, Ø 270 mm											
	Diaflex-soft (Ref. No. 711817) 3 pc. required (incl. buffers)											
	Diaflex-soft (Ref. No. 716282) 3 pc. required (incl. buffers)											
	Diaflex-soft (Ref. No. 719034) 3 pc. required (incl. buffers)											
	ETX-carrier (Ref. No. 719080) Ø 160 mm, 3 pc. required											
	ETX-carrier (Ref. No. 713042) Ø 180 mm, 3 pc. required											
	ETX-carrier (Ref. No. 713051) Ø 200 mm, 3 pc. required											
()	ETX-carrier (Ref. No. 715736) Ø 200 mm, 3 pc. required											
	ETX-2 carrier (Ref. No. 713071) Ø 230 mm, 3 pc. required											
	ETX-2 carrier (Ref. No. 713108) Ø 270 mm, 3 pc. required											

WDS/DSM ZUBEHÖR

		DSM 250	DSM 250S	DSM 400	DSM 450	DSM 530	DSM 530S	DSM 650S	DSM 650RC	DSM 800S	DSM 800RC	WDS 250	WDS 530
Other practica	al accessories for WDS/DSM machines												
	ETX-carrier D253 (Ref. No. 709482) 6 grooves, Ø 253 mm												
	Damping plate for Diaflex (Ref. No. 716285)												
	Damping plate for Diaflex (Ref. No. 711823)												
9	Damping bush for Diaflex (Ref. No. 716287)												
9	Damping bush for Diaflex (Ref. No. 711824)												
	Diamond carrier (Ref. No. 713469) Ø 250 mm for resin bond diamond, 1 pc. required												
4	Front support wheel (Ref. No. 713580) conversion kit												
W	Toolbox (Ref. No. 716490)												
	ETX tools storage plate (Ref. No. 716497) for ETX-1 diamond tools												
	ETX-2 tools storage plate (Ref. No. 716498) for ETX-2 PKD tools												
M	Mounting plate (Ref. No. 716499) diamond pads												
- A	Saddle weight (Ref. No. 708930) adjustable, 2 x 25 kg, Kit = 2x												
	Saddle weight 3 x 7,5 kg (Ref. No. 728034)												
0	Suction ring with brush cpl., high (Ref. No. 715925)												
0	Suction ring with brush cpl. (Ref. No. 715931)												

WDS/DSM ACCESSORIES

		DSM 250	DSM 250S	DSM 400	DSM 450	DSM 530	DSM 530S	DSM 650S	DSM 650RC	DSM 800S	DSM 800RC	WDS 250	WDS 530
Other practica	I accessories for WDS/DSM machines												
\bigcirc	Flex brush (Ref. No. 709483) 910 mm												
	Y-Tube (Ref. No. 723073) kpl. mit 24 Vo												
	Suction hose cpl. (Ref. No. 723074)												
Î	Adapter connection (Ref. No. 617054) G38/50												
	Adapter connection (Ref. No. 617207) G50/50												
-T	Adapter connection (Ref. No. 617266) 70/50												
Milling tools f	or WDS/DSM												
r a	Surface milling plates Kit (Ref. No. 708507)												
	Surface milling plates Kit (Ref. No. 708788) cpl.												
8.0 80.5	Surface milling plate (Ref. No. 713460) cpl. with 24 solid carbide star wheels,30 x 11,5 x 6,0 mm, 1x necessary												
C.	Surface milling plate (Ref. No. 719095) cpl. with 9 solid carbide star wheels, 30 x 11,5 x 6,0 mm, 3x necessary												

GAINING GROUND!

Schwamborn Giants – The new generation of professional diamond-tipped tools

Professional tools with diamond and PCD tips for a huge range of different applications

ETX technology, and more especially increasingly powerful grinding diamonds have greatly extended the scope for the grinding of modern floors, walls and ceilings. The requirement for the tool is established from answers to the following questions:

1) Which floor or covering needs to be processed - is the floor hard or soft, and what type of floor covering is involved?

2) What is the objective for this operation – substrate preparation, renovation or surface texturing?

3) Which application is needed for this – fine-grinding, coarse-grinding, smoothing out of irregularities or stripping / decoating?

4) Does this work involve large or small surface areas?

An American football team has many specialists for the different tasks in the game. Similarly, we have developed specific diamond tools, some completely new, the choice of which depends on the combination of answers to the questions opposite.

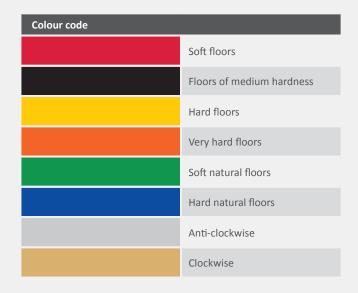
The aim here is to provide the perfect combination of machine and tool for every task associated with floor construction. This is why we have called our selection of diamond tools the 'Giants'. After all, and just as in American Football, floor construction involves successful gaining of ground – efficient, cost-effective and goal-oriented.

With the Schwamborn Giants, your next touch down is guaranteed.

Grain sizes and bonding agents

"Hard floors, soft bonding agent – soft floors, hard bonding agent" expresses the basic rule guiding Schwamborn application engineers when they advise on the choice of a diamond tool perfectly matched to the desired outcome. High quality diamond and PCD flakes are bonded into these metal tools, making them wear-resistant. These tools make it possible to grind even the hardest of floors until the desired outcome is achieved.

For substrate preparation, a uniform but coarser grinding result is applied to optimise surface resilience. When producing design floors, you can obtain optimum grinding results using the finest of grain sizes and the correct speed setting on the machine.



Classification

Our new classification is intended as a guide for you. It should not be viewed as a quality grading. Depending on the application and the surface to be machined, it may be more economical to use the equally high-quality AA+ and AA tools to deliver the same level of performance. Typically, and especially for our retail clients and rental parks, the areas to be processed tend to be smaller, measuring up to approx. 100 square metres. Our AA+ and AA tools were specifically designed for these requirements and they are significantly less expensive because they were not designed and built for use in industrial buildings or other surfaces of similar size. They are also less bulky, and this also helps to make them less expensive.



For long hard matches extending over large surface areas

Our new Giants Centre and our Giants PCD diamond tools have been designed to cater for a versatile range of applications extending over large surface areas. The Pull, Strip and Barracuda PCDs constitute a team for tackling the most challenging of conditions. They are indispensable if you need to get on top of a particularly stubborn coating or even engage in floor defence..



The professional solution for medium-sized floor areas

If you only want to gain a new first down, i.e. if you want to gain medium space, you have to choose the right formation. You should therefore use our Giants AA+ for rental parks and smaller areas - you will appreciate their perfect balance of price and performance.



If your game only lasts one quarter

If you have small areas to work on, you need effective and economical team players for short-term deployments. That is what our Giants AA are there for. Good value, effective and always ready for operation if they are needed for a brief period of service at short notice. In other words, our AA tools are therefore the cost-effective and at the same time highly capable solution for trade and rental parks.

DIAMOND TOOLS



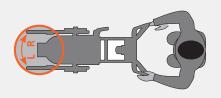
	Application	Article	Graining	RefNo.
	Soft concrete, screed, asphalt	C-SSC 20	20	713048
	Son concrete, screed, aspnan	C-SC 20	20	713000
		C-SSC 40	40	713049
	Madium hard concrete screed compart	C-GC 16	16	713004
	Medium-hard concrete, screed, cement terrazzo	C-GC 20	20	713005
	terrazzo	C-GC 40	40	713006
		C-GC 80	80	713007
		C-GC 150	150	713008
L.		C-HC 16	16	713009
GGIANTS Triple A Center	Hard concrete, micro & synthetic resin	C-HC 20	20	713010
Je l	terrazzo, coatings, paint, adhesive	C-HC 40	40	713011
Ā		C-HC 80	80	713014
le		C-HC 150	150	713012
di l		C-VSF 16	16	713020
5	Extremely hard concrete, coatings, epoxy resin	C-VSF 20	20	713020
l ₹		C-VSF 40	40	713021
1		C-VSF 80	80	713022
Ğ		C-VSF 150	150	713023
		C-VSF 300	300	713024
	Medium-hard concrete, screed, cement	C-SBC 40	40	713028
	terrazzo	C-SBC 60	60	713029
		C-SBC 120	120	713030
	Hard natural stone, granite	C-SBG 40	40	713035
		C-SBG 60	60	713036
		C-SBG 120	120	713037
	Soft concrete, screed, asphalt	G-SSC 20	20	713047
2d	Medium-hard concrete, screed, cement	G-GC 20	20	713143
na	terrazzo	G-GC 40	40	713161
GGIANTSAA+ Guards		G-GC 80	80	713164
3	Hard concrete, micro & synthetic resin	G-HC 20	20	713144
1	terrazzo, coatings, paint, adhesive	G-HC 40	40	713162
G		G-HC 80	80	713165
	Extremely hard concrete, coatings, epoxy resin	G-VSF 22	22	713166
ds	Soft concrete, screed, asphalt	TE-SSCR 20	20	713221
En	Medium-hard concrete, screed, cement	TE-GCR 20	20	713222
GGANTS AA Tight Ends	terrazzo	TE-GCR 40	40	713223
X	Hard concrete, micro & synthetic resin	TE-HCR 20	20	713224
¥	terrazzo, coatings, paint, adhesive	TE-HCR 40	40	713225
BGM	construction country painty deficitive	TE-HCR 80	80	713226
יזט	Extremely hard concrete, coatings, epoxy resin	TE-VSFR 22	22	713227

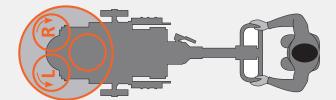
Mounting in ETX-1



	Aŗ	oplication	Article	Admission	Right-left rotation	RefNo.
	22	Removal of thick, medium-hard coatings (OS 11), adhesive, paint	TR-Pull-D	ETX-1	R	713043
ckles	V.	Removal of thick, medium-hard coatings (OS 11), adhesive, paint	TL-Pull-D	ETX-1	L	713045
ole A Tau	E E	Removal of medium-hard coatings, concrete, asphalt	TR-Stripp	ETX-1	R	713109
SGIANTS Triple A Tackles		Removal of medium-hard coatings, concrete, asphalt	TL-Stripp	EXT-1	L	713110
EG	and the	Removal of adhesive, paint, asphalt	TR-Stripp soft	ETX-1	R	713111
		Removal of adhesive, paint, asphalt	TL-Stripp soft	ETX-1	L	713147
	60	Removal of thick, medium-hard coatings (OS 11), adhesive, paint	RB-Barracuda- SR-PKD	ETX-2	R	707936
		Hard bond for removing thin, medium-hard coa- tings, fillers and cementitious adhesives	RB-Barracuda- SC-Splitt	ETX-1	R	707980
ing Backs		Medium-hard bond for removing thin, medium- hard coatings, fillers and cementitious adhesives Soft bond for removing thin, medium-hard coatings,	RB-Barracuda- GC-Splitt	ETX-1	R	707979
le A Runni		fillers and cementitious adhesives	RB-Barracuda- HC-Splitt	ETX-1	R	707978
GGIANTS Triple A Running Backs		Hard bond for removing thin, medium-hard coa- tings, fillers and cementitious adhesives	RB-Barracuda- SC-Splitt	ETX-2	R	707957
Ĩ		Medium-hard bond for removing thin, medium- hard coatings, fillers and cementitious adhesives	RB-Barracuda- GC-Splitt	ETX-2	R	707956
		Soft bond for removing thin, medium-hard coatings, fillers and cementitious adhesives	RB-Barracuda- HC-Splitt	ETX-2	R	707955

PCD tools are compatible with all DSM machines. The WDS 530 can only be used with PCD tools that rotate in a clockwise direction.





Determining the direction of rotation

DIAMOND PADS



Grain	50 100	120	200			220			400			800			150	00		35	00	
Colour			DSM 250	DSM 250S	DSM 400	DSM 450	DSM 530	DSM 530S	DSM 650S	DSM 650RC	DSM 800S	DSM 800RC	WDS 250	WDS 530	STR 500	STR 580	STR 581	STR 701	STR 702	STR 703
GIANTS	Nide Receiver		DSN	DSN	DSN	DSN	DSN	DSN	DSN	DSN	DSN	DSN	MD	MD	STR	STR	STR	STR	STR	STR
Diamantpad	s SUPERFLEX (Wet Application	on)																		
Screed, conc	rete, cement terrazzo			_		_	_			_	_	_	_	_	_	_	_	_		
	WR-WR-SUPERFLEX-W (Ref. No. 713200) Grain 50, Ø 76 mm, Wet																			
	WR-WR-SUPERFLEX-W (Ref. No. 713201) Grain 100, Ø 76 mm, Wet																			
	WR-WR-SUPERFLEX-W (Ref. No. 713202) Grain 200, Ø 76 mm, Wet																			
	WR-WR-SUPERFLEX-W (Ref. No. 713203) Grain 400, Ø 76 mm, Wet																			
Diamantpad	s WR-All Grind (Wet Applica	tion)																		
Marble, grar	nite, cement terrazzo																			
	WR-All Grind (Ref. No. 722000) Grain 50, Ø 76 mm, Wet																			
またま	WR-All Grind (Ref. No. 722001) Grain 120, Ø 76 mm, Wet																			
ALL	WR-All Grind (Ref. No. 722002) Grain 220, Ø 76 mm, Wet																			
	WR-All Grind (Ref. No. 722003) Grain 400, Ø 76 mm, Wet																			
部	WR-All Grind (Ref. No. 722004) Grain 800, Ø 76 mm, Wet																			



DIAMOND PADS







Diamond cup wheels, wet-dry (inr	ner Ø 22,23 mm)	Ref.
	for concrete, screed, terrazzo, natural stone	
wille	Turbo-Cut, M14-125, medium	713180
and the second second	Turbo-Cut, M14-125, fine	713181

WR-SUPERFLEX-W diamond p	ads, for wet grinding of: concrete, screed, terrazzo	Ref.
	125 mm	
	К 50	713214
	К 100	713215
	К 200	713216
	K 400	713217
W-F	K 800	713218
SAN	150 mm	
	К 50	713207
	К 100	713208
	К 200	713209
	K 400	713210
	K 800	713211
WR-SUPERFLEX-D diamond pa	ads, for wet grinding of: concrete, screed, terrazzo	Ref.
	125 mm	

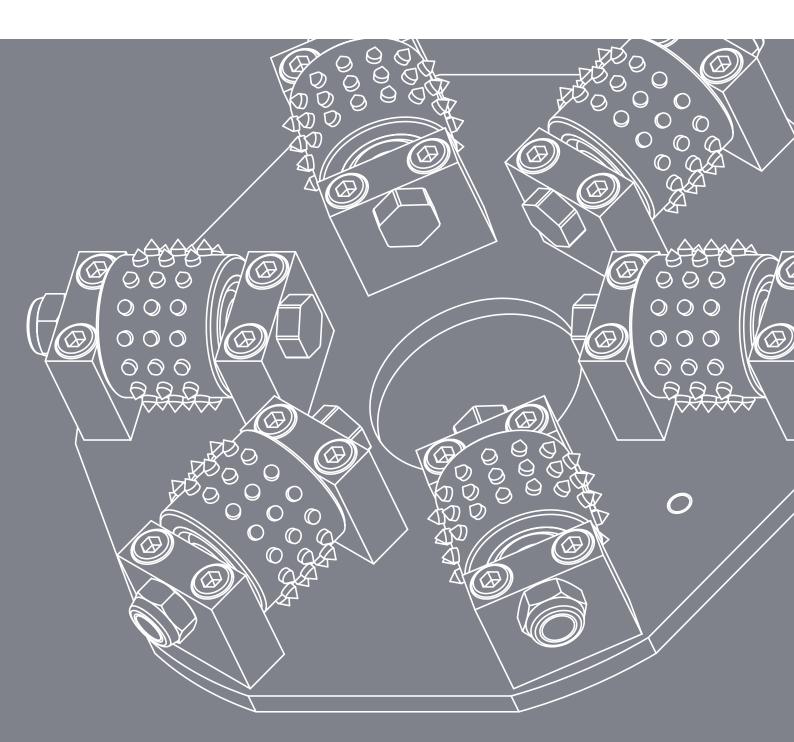
NA		
Y	К 50	718555
AL X	К 100	718556
ALL	К 200	718557
	К 400	718558
Support plate with foam rubber		Ref.



	Ref.
Support plate with foam rubber, velcro fastener M 14, Ø 125 mm	616012
Support plate with foam rubber, velcro fastener M 14, ϕ 147 mm	616021



SCARIFYING



The most dynamic form of subsurface preparation

Scarifying tools and the appropriate building machines

The tapered tips of scarifying tools break up the surface, but avoid the effects of impacting forces on the subsurface and any lasting damage to the structure. Scarifying of a surface achieves a roughness comparable with that of a shot blasted surface. This technique employs scarifying rollers, and it may be described as a dynamic form of mechanical subsurface preparation. The advantage achieved is the removal of rela-



Machine scarifying the subsurface

tively coarse material which is easy to suction and does not block any pores. In contrast to shot blasting, no "streaking" occurs and, consequently, reprocessing is unnecessary.

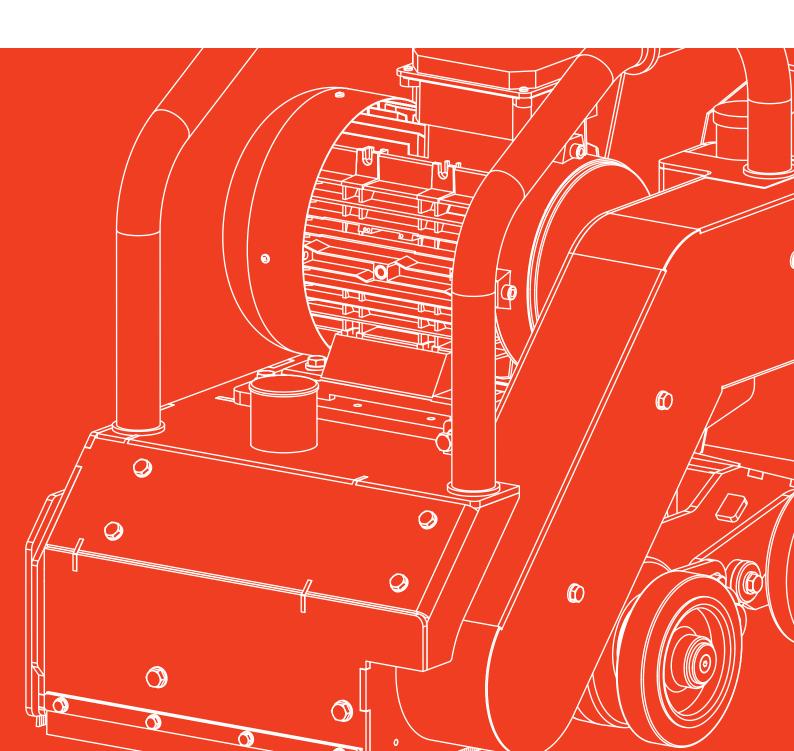
Moreover, scarifying is also increasingly employed for surface design work on concrete.



Scarifying results achieved during subsurface preparation

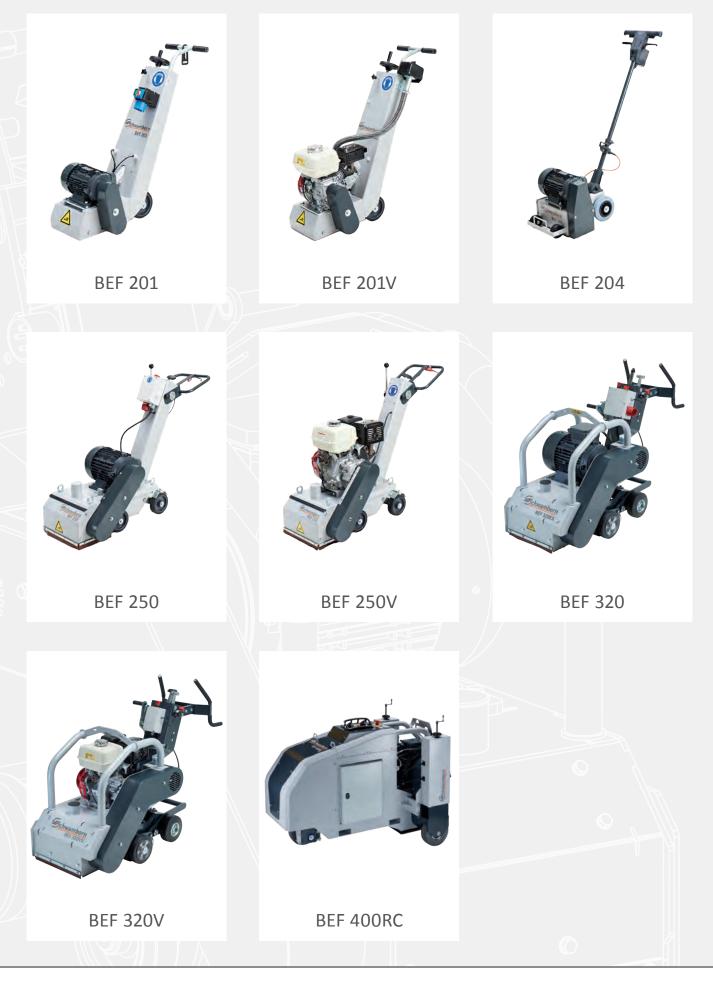
		DSM 530	DSM 530S	DSM 650S	DSM 800S	DSM 650RC	DSM 800RC	WDS 250	WDS 530
Scarifying Acc	cessories								
	Replacement scarifying roller (Ref. No. : 707969)								
F	Carrier plate (Ref. No. : 707974) Ø 200 mm, 3 pieces necessary								
	Carrier plate (Ref. No. : 707975) Ø 270 mm, 3 pieces necessary								
	Carrier plate (Ref. No. : 707976) Ø 200 mm, 3 pieces necessary								
0	ETX-2 carrier - bush hammer (Ref. No. : 707971) Ø 200 mm, 3 pc. required								
0	ETX-2 carrier - bush hammer (Ref. No. : 707970) Ø 270 mm, 3 pc. required								
	ETX-2 carrier - bush hammer (Ref. No. : 718567) Ø 200 mm, 3 pc. required								
\bigcirc	Suction ring with brush cpl. (Ref. No. : 715935)								

MILLING



Æ

BEF – MILLING



BEF milling machines for concrete and screed floors

We can offer you a wide selection of high-performance milling machines.

We can provide you with a large selection of powerful milling machines to level floor surfaces and to prepare them perfectly for further processing at a later date.

Rotary blade milling

When milling, the floor surface is removed by rotating blades. Blade-milling involves the use of blades mounted with freedom of rotational movement around a round bar, delivering very uniform surface cutting action. It is important here for the tips still to be able to make contact with the substrate. This causes the surface to flake off uniformly with a significantly finer milling pattern to that achieved with chisel milling tools. Our blade milling machines are ideally suited to the removal of surface irregularities such as protrusions, markings. They are also good for in-depth removal of concrete and screed floors.

All of our milling machines can be equipped with carbide blades or peeling blades. The choice of blade type depends on the substrate and the purpose of the job in hand. With carbide blades, the configuration defines the tasks for which the rotor can be used. For example, in the case of fine milling, more blades are fitted to the milling rotor. This tends to reduce the potential milling depth slightly. The basic advantages of milling are its depth capabilities and the facility to compensate out considerable differences in height that already exist on site or that are caused by abrasive wear.

The front-mounted milling drum guarantees uniform milling results

The exceptional milling results are supported by permanent 4 x 4 all-wheel drive, which enables even and directionally accurate milling of surfaces. The front-mounted drum has the advantage of being able to compensate for uneven ground, ensuring uniform depth removal. The low centre of gravity of the milling machines also helps them to operate quietly and to achieve a uniform milling pattern.

BEF 400RC – with remote control

Highlights of the new BEF 400RC include a working width of 400 mm, remote control, travelling drive with either cable or battery power, an exceptionally uniform milling pattern, ultimate manoeuvrability through front-wheel steering and substantially better dust extraction. The accessories and the range of tools were extended to include concrete sawing as well as 8-point carbide blade milling. This means that it is also possible to saw expansion joints with this milling machine or to prepare the ground for even greater depth removal by sawing it open deeply and evenly.

The ability to adjust the milling depth independently to right and left increases the scope of application of this milling machine. Its ergonomically designed remote control makes operation easy.





The front-mounted milling drum guarantees uniform milling results



The Schwamborn DSM family of milling machines



The new Schwamborn BEF 400RC with remote control

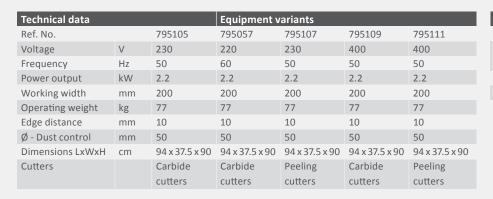
BEF 201 – Concrete milling machine for small and medium areas

Concrete and screed milling machine for small to medium sized areas with electric motor. The low centre of gravity ensures smooth running and fast, even milling results when removing uneven floors, protrusions, removing markings or milling off coatings.



Applications

Removal of uneven floors, supernatants, remove markers, milling off coatings





Special characteristics

Dust sealed drum bearing Milling housing made of cast iron, particularly heavy design Rotor bearing Motor overload protection Central drum lowering function and depth setting

BEF 201 Accessories and tools, milling from page 58

BEF 201V – Reliable, robust petrol-powered concrete milling machine for small to medium-sized areas

Concrete and screed milling machine for small to medium sized areas with combustion engine. The low centre of gravity ensures smooth running and fast, even milling results when removing uneven floors, protrusions, removing markings or milling off coatings.

hwambox

Applications

Removal of uneven floors, supernatants, remove markers, milling off coatings

Technical data			Equipment variants
Ref. No.		795113	795115
Power output	kW	3.6	3.6
Working width	mm	200	200
Operating weight	kg	76	76
Edge distance	mm	45/7	45/7
Ø - Dust control	mm	50	50
Dimensions LxWxH	cm	94 x 37.5 x 90	94 x 37.5 x 90
Cutters		Carbide cutters	Peeling cutters

Easy to use, safe in application

BEF 201V

Special characteristics
Milling, Scarifying direction forwards
Micro depth control
Edger
Drum axle
Ergonomic handle, adjustable
Dust sealed drum bearing
Milling housing made of cast iron, parti-
cularly heavy design
Rotor bearing
High-level air intake
Automatic motor shutdown when oil
level is low
Central drum lowering function and
depth setting

BEF 201V Accessories and tools, milling from page 58

BEF 204 – Lightweight screed milling machine with integrated edge milling

The BEF 204 is a lightweight screed milling machine with integrated edge milling for removing floor unevenness, protrusions, milling off coatings up to the edge with just 10 mm of border on screed floors with a dust-tight and thus maintenance-free rotor bearing.



Applications

Removal of uneven floors, supernatants, milling off coatings

Technical data		
Ref. No.		795350
Voltage	V	230
Frequency	Hz	50
Power output	kW	2.2
Working width	mm	200
Operating weight	kg	49
Edge distance	mm	10
Tool speed	min ⁻¹	1765
Ø-Dust control	mm	50
Dimensions LxWxH	cm	106 x 37.5 x 90
Cutters		Carbide cutters

BEF 204 Accessories and tools, milling from page 58



Transport grip for a simple and easy transport



Stepless height adjustment

Special characteristics

Transport grip
Ergonomic handle, adjustable
Working up to 10 mm to the edge
Dust sealed drum bearing
Central drum lowering function and
depth setting
New design of robust guide rod
Single-phase CEE-connector

BEF 250 – Robust electrically operated concrete and screed milling machine for medium areas

Equipped with the Schwamborn system, the BEF 250 ensures particularly uniform milling of concrete and screed without "copying effect". With a working width of 250 mm, the concrete milling machine is suitable for medium-sized areas and is therefore perfect for milling off coatings and the deep removal of concrete and screed.



Applications

Removal of uneven floors, supernatants, remove markers, removing road markings, milling off coatings, deep removal of concrete and screed floors

Technical data			Equipment variants
Ref. No.		707011	707013
Voltage	V	400	400
Frequency	Hz	50	50
Power output	kW	5.5	5.5
Working width	mm	250	250
Operating weight	kg	182	182
Edge distance	mm	65	65
Ø-Dust control	mm	70	70
Dimensions LxWxH	cm	135 x 50.7 x 109	135 x 50.7 x 109
Cutters		Carbide cutters	Peeling cutters

BEF 250 Accessories and tools, milling from page 58

 $\bullet \ \bullet \ \bullet$

BEF 250



Drum position in front = uniform surface finish



Mechanical brake system



Quick drum lower/lifting

Special characteristics Brake adjustable, engage/disengage Milling, Scarifying direction forwards Micro depth control Drum in front, thus no copy effect (System Schwamborn) Motor overload protection Quick drum lowering/lifting Drum with bushes, longer service life Adjustable brake system with on/off device

BEF 250V – Robust concrete and screed milling machine with combustion engine for medium areas

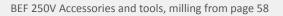
Equipped with the Schwamborn system with frontmounted milling drum, the BEF 250V ensures particularly uniform milling of concrete and screed without "copying effect". With a working width of 250 mm, the concrete milling machine is suitable for medium-sized areas and is therefore perfect for removing uneven floors, protrusions and markings.



Removal of uneven floors, supernatants, remove markers, removing road markings, milling off coatings, deep removal of concrete and screed floors

C

Technical data			Equipment variants
Ref. No.		707015	707017
Drive		Petrol	Petrol
Power output	kW	8	8
Working width	mm	250	250
Operating weight	kg	170	170
Edge distance	mm	65	65
Tank	1	6.1	6.1
Ø-Dust control	mm	76	76
Dimensions LxWxH	cm	135 x 50.7 x 109	135 x 50.7 x 109
Cutters		Carbide cutters	Peeling cutters







Drum position in front = uniform surface finish



Drum with replacement bushes = longer service life

Special characteristicsMotor overload protectionMicro depth controlDrum in front, thus no copy effect (System Schwamborn)Quick drum lowering/liftingDrum with bushes, longer service lifeBrake adjustable, engage/disengageAdjustable brake system with on/offdevice6.1 I fuel tank

BEF 320

BEF 320 – Milling machine with high milling performance even under tough operating conditions

The powerful 400 V BEF 320 floor milling machine has innovative milling technology for large areas with up to 30% power increase. Optimum blade impact performance and the uniform feed via a 4x4 all-wheel drive guarantee high milling performance even under tough operating conditions such as on concrete surfaces and coatings.

Schwamborn BEF 320EX







Foot lever for transport position = fast machine relocation





uniform surface finish

Special characteristics
Drive, infinitely variable, 4 x 4 all-wheel
drive
Drive, forward + reverse
Micro depth control
Drum in front, thus no copy effect (Sys-
tem Schwamborn)
Ergonomic handle, adjustable
Motor overload protection
Quick drum lowering/lifting
Drum with bushes, longer service life
Central drum lowering function and
depth setting
Crane hook

Applications

Technical dat

Ref. No.

Voltage

Removal of uneven floors, supernatants, remove markers, removing road markings, milling off coatings, deep removal of concrete and screed floors

Equipment variants

717006

400

Frequency	Hz	50	50
Power output	kW	11	7.5
Working width	mm	320	320
Operating weight	kg	403	380
Edge distance	mm	72	72
Ø-Dust control	mm	70	70
Dimensions LxWxH	cm	148 x 65.3 x 112	148 x 65.3 x 112
4 x 4 wheel drive		Х	Х
Speed forward/reverse	m/min	0 - 8	0 - 8
Cutters		Peeling cutters	Carbide cutters
Amperes	А	16	16

717005

400

BEF 320 Accessories and tools, milling from page 58

V

BEF 320V – Milling machine with high milling capacity also with petrol drive

With a working width of 320 mm, the petrol-driven BEF 320V milling machine with innovative milling technology is suitable for large areas. Optimum blade impact performance and smooth feed via a 4x4 all-wheel drive ensure high milling performance and high-quality milling results when milling concrete, grooving concrete surfaces, removing coatings and markings.



Removal of uneven floors, supernatants, remove markers, removing road markings, milling off coatings, deep removal of concrete and screed floors

Technical data		
Ref. No.		717012
Drive		Petrol
Power output	kW	8.7
Working width	mm	320
Operating weight	kg	344
Edge distance	mm	72
Tank	I	6.1
Ø-Dust control	mm	76
Dimensions LxWxH	cm	148 x 65.3 x 112
4 x 4 wheel drive		Х





Drum position in front = uniform surface finish



Foot lever for transport position = fast machine relocation



Handle with vibration protection = improved ergonomics

Special	charact	teristics

Milling, Scarifying direction forwards
Micro depth control
Drum axle
Drum in front, thus no copy effect (System
Schwamborn)
Quick drum lowering/lifting
Drum with bushes, longer service life
Drive, infinitely variable, 4 x 4 all-wheel drive
Drive, forward + reverse
Crane hook
Ergonomic handle, adjustable

BEF 400RC - Remote-controlled high-performance milling machines with great floor coverage capabilities

The powerful new BEF 400RC milling and sawing machine features innovative milling technology and is equipped with a powerful 15 kW motor. It is also extremely robust. With a working width of 400 mm, this milling machine is ideally suited to large surface areas. The BEF 400RC delivers excellent results by virtue of its digitally adjustable working speed, mano-euvrability and practical height adjustment. The BEF 400RC is a multifunctional machine which is ideal for the milling and sawing of concrete and screed.



Applications

Diamond-tipped saw blades can mill off coatings, remove large surface areas of thick concrete and screed floors, saw concrete, screed and other floors, smooth down irregular floors, protrusions, remove (roadway) markings and saw joints and seams.

Technical data

Ref. No.		717401
Voltage	V	400
Frequency	Hz	50
Power output	kW	15
Working width	mm	404
Working weight empty	kg	674
Working weight milling	kg	744
Working weight cutting	kg	704 - 754*
Ø-Dust control	mm	70
Dimensions LxWxH	cm	159 x 95 x 115
Dimensions LxWxH	cm	159 x 83 x 115
(wheel folded)		
Driving speed	m/min	0 - 15
Working speed	m/min	0 - 12
Cutters		Carbide cutters
DEE 400D0 A		

BEF 400RC Accessories and tools, milling from page 67



Remote control - all functions and settings are carried out here



Tool-near marking of the working width of 400mm - Easy orientation



Milling of concrete and screed

Special characteristics
Tool protection
If the motor gets overloaded, feed is interrupted
briefly
Motor starting properties are automatically adapted
to suit the type of tool
Short distances and ramps can be powered off the mains or
from a battery
Battery operation provides flexibility for transport purposes
Automatic battery charging while in operation or when
connected to the mains
Motor overload protection and detection of rotational field
* Conversion of separating discs
Milling rotor equipped with separating discs, tool,
vee-belt and pulley



	BEF 201	BEF 201V	BEF 204	BEF 250	BEF 250V	BEF 320	BEF 320V	BEF 400RC
Drums								
Drum with 4 shafts (Ref. No.: 702132) w/o equipment								
(Ref. No.: 704361) with 5-pt. tungst. carbide tipped cutters, Ø 42 x 5 mm								
Drum (Ref. No.: 704422) With peeling cutters, Ø 42 x 22 mm								
Comparison of the state of the								
Drum with 5-point carbide wheels (Ref. No.: 704552) Ø 42 x 16 mm								
Drum with 5-pt. tungst. carbide tipped cutters (Ref. No.: 704738) 42 x 6 mm, cowshed preparation								
Drum (Ref. No.: 707220) rough, without cutters, 4 shafts								
(Ref. No.: 707221) With 8-pt. tungst. carbide tipped cutters, Ø 80 x 8 mm								
Drum (Ref. No.: 707222) With peeling cutters, Ø 80 x 20 mm, 80 x 8 mm								
(Ref. No.: 717280) With 8-pt. tungst. carbide tipped cutters, Ø 80 mm								
Drum (Ref. No.: 717281) With peeling cutters, Ø 80 mm								
Drum with 6 shafts (Ref. No.: 717283) w/o equipment Ø 22 mm								

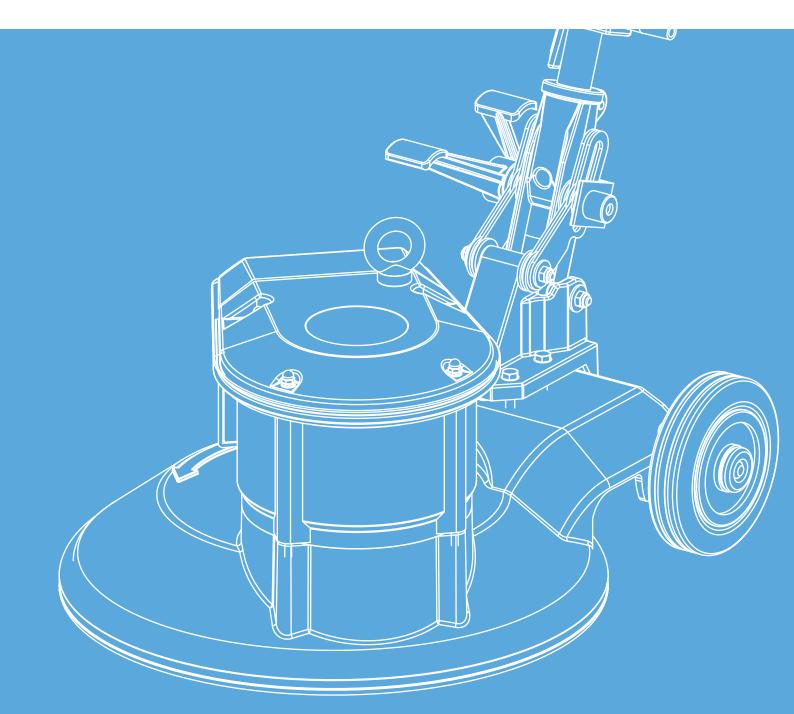
DRUM CUTTERS

		BEF 201	BEF 201V	BEF 204	BEF 250	BEF 250V	BEF 320	BEF 320V	BEF 400RC
Drum Cutters									
1	Drum shaft (Ref. No.: 702093) 4 pcs. required								
0	Washers (Ref. No.: 702659) hardened								
	8-pt. tungst. carbide tipped cutters (Ref. No.: 702660) 80 x 8 mm								
\bigcirc	5-pt. tungst. carbide tipped cutters (Ref. No.: 702674) 42 x 16 mm								
0	Washer (Ref. No.: 702678) hardened								
M	Drum shaft (Ref. No.: 707162) for drum – rough, set = 4 pieces								
	Bushes for drum (Ref. No.: 707164) rough, set = 8 pieces								
M	Drum shaft (Ref. No.: 709163) Ø 22 mm, set = 6 pcs.								
	8-pt. tungst. carbide tipped cutters (Ref. No.: 713140) ECO version, 80 x 8 mm								
\bigcirc	5-pt. tungst. carbide tipped cutters (Ref. No.: 713141) ECO version, 42 x 16 mm								
0	Washers hardened (Ref. No.: 714187) 4 mm, 10 pcs. required								
888	Bushes for drum (Ref. No.: 717344) Ø 22 mm, 12 pcs. required								
0	Washers hardened (Ref. No.: 717297) 12 mm, 94 pcs. required								
	Peeling cutter (Ref. No.: 718570) Ø 42 mm								
0	Peeling cutters (Ref. No.: 718571) Ø 80 x 20 mm								



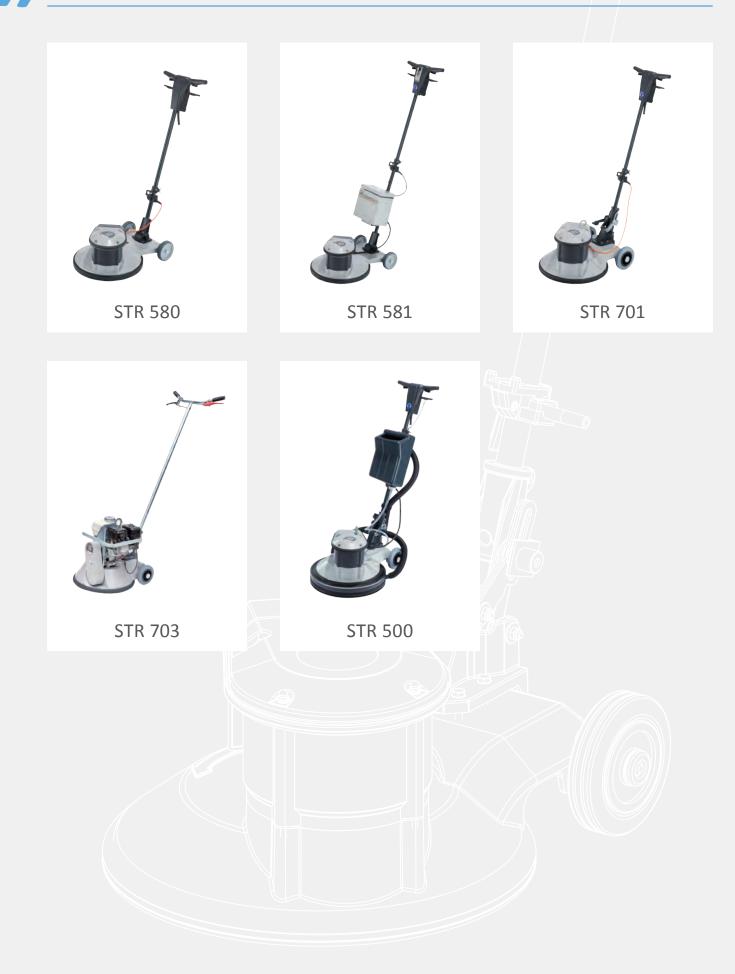
		BEF 201	BEF 201V	BEF 204	BEF 250	BEF 250V	BEF 320	BEF 320V	BEF 400RC
BEF 400RC - G	eneral								
	Power supply cord (Ref. No.: 707790) 400V/50Hz, 25 m, 32A, Ø 4,0 mm ²								
	Fast-charging battery for remote control 7,2 V (Ref. No.: 717687)								
	Brush and seal kit (Ref. No.: 709481)								
BEF 400RC - N	lilling								
	Drum 8-pt. tungst. carbide tipped cutters cpl. (Ref. No.: 717700)								
	Drum with 4 shafts (Ref. No.: 717702)								
	Drum shaft, set = 6 pcs. (Ref. No.: 709479)								
ALL	HM-socket (Ref. No.: 709480) 1 set								
	8-pt. tungst. carbide tipped cutter (Ref. No.: 702660) 80 x 8 mm								
0	Washers hardened (Ref. No.: 714187) 4 mm, 10 pcs. required								
0	Washers hardened (Ref. No.: 717297) 12 mm, 94 pcs. required								
BEF 400RC - C	utting								
-000 -000	Toolbox cutting discs (Ref. No.: 717720)								
	Drum with cutting disc cpl. (Ref. No.: 717631)								
	Diamond-cutting disc concrete (hard) (Ref. No.: 717632)								
0	Washer (Ref. No.: 717635) 4 mm								
	Drum with 4 shafts (Ref. No.: 717719)								

MULTI-PURPOSE MACHINES



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STR – MULTIPURPOSE MACHINES



The STR product line – Our all-rounders

Grinding and smoothing of screeds, crystallisation, jointing, sealing, cleaning of concrete, screeds, wooden and natural stone floors

Our STR machines are true all-rounders and are particularly suitable for customers who have many different floor finishing surfaces. Their stable and durable Made in Germany workmanship makes them the ideal problem solvers for screed layers, rental parks and maintenance cleaners.

Trowelling







Levelling



Cleaning



Grinding



Weeding



STR 580 – Multi-purpose machine for screed smoothing and grinding

The sturdy STR 580 is considered the all-rounder because of its versatility. Whether for grinding and smoothing screeds, cleaning, jointing and sealing, the multi-purpose machine is indispensable for screed construction. Equipped with a Gear drive and with overload protection for increased safety.



Applications

sanding and smoothing screeds, gouging, to seal, cleaning of concrete, screeds, wood and natural stone floors

Technical data			Equipment v	ariants
Ref. No.		107551	107751	106851
Drive		Gear, metal	Gear, metal	Gear, metal
Voltage	V	230	230	230
Frequency	Hz	50	50	50
Power input	W	1800	1800	1800
Working width	mm	420	420	420
Operating weight	kg	33,5	35	35
Tool speed	r.p.m.	144	115	144
Brush pressure	g/cm²	28	30	30
Torque	Nm	80	100	80
Guide rod length	mm	850	1200	1200
Noise level	dB(A)	58	58	58

STR 580 Accessories and tools from page 69





Special characteristics Working up to the rim DOC-Drive overload clutch Motor and drive, dust-tight and splashproof Motor overload protection Metal gear wheel

STR 581 – Reliable multi-purpose machine for smoothing synthetic resin

Equipped with an infinitely variable speed control from 57 to 171 rpm and in combination with a special smoothing blade, the STR 581 ensures particularly even smoothing of synthetic resin floors. The multi-purpose machine has a metal gear drive and motor overload protection for more safety.



Applications

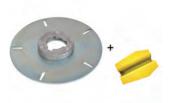
smoothing of synthetic resin floors, gouging, to seal, cleaning hard floorss

Technical data			Equipment variants
Ref. No.		795072	795073
Drive		Gear, metal	Gear, metal
Voltage	V	230	230
Frequency	Hz	50	50
Power input	W	1800	1800
Working width	mm	420	420
Operating weight	kg	41,5	40
Tool speed	r.p.m.	57-171	57-171
Brush pressure	g/cm ²	35	35
Torque	Nm	100	100
Guide rod length	mm	1200	930
Noise level	dB(A)	58	58

STR 581 Accessories and tools from page 69



Fill pores



Grinding with diamonds



With speed control

Special characteristics Working up to the rim

Stepless speed control Motor and drive, dust-tight and splashproof Motor overload protection Metal gear wheel

STR 701 – Robust multi-purpose machine for heavy work

The robust, reliable multi-purpose machine with gear transmission is equipped with a powerful 2300 W motor and has a high grinding capacity with up to 90 kg working weight. With a working width of 510 mm, the STR 701 is suitable for large areas and industrial properties. Depending on the accessories, it is ideal for grinding and renovating floors as well as for the most demanding cleaning tasks.



Applications

sanding screeds, screed, asphalt, remove adhesives, coatings, for industrial object renovation, crystallize, suitable for the most demanding cleaning tasks

Technical data			Equipment variants
Ref. No.		106251	107351
Drive		Gear, metal	Gear, metal
Voltage	V	230	230
Frequency	Hz	50	50
Power input	W	2300	2300
Working width	mm	510	510
Operating weight	kg	58,5	58,5
Tool speed	r.p.m.	156	156
Brush pressure	g/cm²	38	39
Torque	Nm	110	110
Guide rod length	mm	930	1200
Noise level	dB(A)	62	62

STR 701 Accessories and tools from page 69



STR-handle bearing



Special characteristics

For heavy duty work
High area coverage
Long service life
Heavy duty handle bearing
Motor and drive, dust-tight and splash-
proof
1500 Watt motor
Metal gear wheel

STR 703 – Compact multi-purpose machine with petrol engine and speed control

The powerful STR 703 in petrol version is extremely robust and ideal for use in places without electrical power supply. This multi-purpose machine is equipped with infinitely variable speed control and sturdy guide bar bearing. The extra powerful 3.6 kW motor also enables use under difficult conditions with various working tools, whether for grinding concrete and screed or removing weeds and coatings. control.



STR 703

Special characteristics

Multipurpose use Petrol version with 4000 Watt Stepless speed control from 0–136 r.p.m. Robust design

Applications

sanding screeds, screed, asphalt, removing coatings, for industrial object renovation, remove weeds

Technical data		
Ref. No.		795069
Drive		Petrol
Power output	kW	3.6
Working width	mm	510
Operating weight	kg	59
Tool speed	r.p.m.	0-136
Brush pressure	g/cm²	38
Torque	Nm	0-212
Guide rod length	mm	1200
Noise level	dB(A)	63

STR 703 Accessories and tools from page 69

STR 500 – Versatile grinding and polishing machine with trio planetary gear

The STR 500 is a robust, versatile grinding and polishing machine with a 4-fold increase in grinding and polishing performance. The machine offers even power transmission across the entire working width thanks to the trio planetary gear and in combination with heavy and sturdy single and triple discs. It is ideal for grinding, polishing and cleaning concrete, screed and for removing adhesives and coatings. Equipped with water tank, splash guard and suction ring.



Applications

sanding screeds, screed, remove adhesives, coatings, fillers, regulate uneven floors, polishing of concrete, screeds, wood and natural stone floors, cleaning of concrete, screeds, wood and natural stone floors

Technical data			Equipment variants
Ref. No.		107213	107215
Drive		Gear, metal	Gear, metal
Voltage	V	400	400
Frequency	Hz	50	50
Power input	W	2200	2200
Working width	mm	480	480
No. of tools	mm	3 x 150	3 x 150
Grinding pressure, max.	kg	88	88
Operating weight	kg	83-107	83-107
Tool speed	r.p.m.	72-300/145-600	72-300/145-600
Tank	1	10	10
Guide rod length	mm	930	1200
Noise level	dB(A)	62	62

STR 500 Accessories and tools from page 69



ETX diamond tools



cleaning brushes

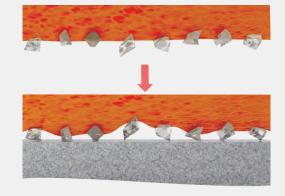
Special characteristics
Grinding and polishing is 4 times quicker
Diamond floating device
ETX – Easy tool exchange
Working close to edges
Splash guard and suction ring
Multipurpose use
Metal gear wheel

The new generation of diamond-tipped and hybrid pads

Furby pads produce gleaming floors

The latest innovation for diamond pads goes by the name of Furby pads. It makes the surface-finishing of modern design and industrial floors are great deal easier.

That is because these pads, specifically developed for the polishing of surfaces, have a revolutionary dynamic bond comprising a multitude of tiny diamonds. These not only provide a high degree of 3D freedom of movement for polishing operations, but they also get the job done quicker. This is because fine grinding with these pads only generates small amount of heat, making them the ideal choice for dry operations.



		STR 500	STR 580	STR 581	STR 701	STR 702	STR 703
Furby Pads							
	Furby Pad (Ref. No.: 722190) Ø 125 mm, blue, very fine gradation, set = 3 pcs.						
	Furby Pad (Ref. No.: 722191) ∅ 125 mm, pink, fine / medium gradation, set = 3 pcs.						
	Furby Pad (Ref. No.: 722192) Ø 125 mm, brown, medium / coarse gradation, set = 3 pcs.						
Pads							
	Steel wool pad (Ref. No.: 515700) Ø 430 mm, Set = 5 Pcs.						
0	Pad (Ref. No.: 530700) Ø 406 mm, white, Set = 5 Pcs.						
0	Pad (Ref. No.: 530800) Ø 430 mm, white, Set = 5 Pcs.						
0	Pad (Ref. No.: 608043) Ø 508 mm, white, Set = 5 Pcs.						
\mathbf{O}	Pad (Ref. No.: 530900) Ø 406 mm, red, Set = 5 Pcs.						
0	Pad (Ref. No.: 531000) Ø 430 mm, red, Set = 5 Pcs.						
0	Pad (Ref. No.: 608044) Ø 508 mm, red, Set = 5 Pcs.						



			STR 500 STR 580	STR 581 STR 701	STR 702 STR 703
Pads	Pad (Ref. No.: 531100) Ø 406 mm, blue, Set = 5 Pcs.	 	T		
0	Pad (Ref. No.: 531200) Ø 430 mm, blue, Set = 5 Pcs.		L		
0	Pad (Ref. No.: 608045) Ø 508 mm, blue, Set = 5 Pcs.		L		
\mathbf{O}	Pad (Ref. No.: 531300) Ø 406 mm, brown, Set = 5 Pcs.				
0	Pad (Ref. No.: 531400) Ø 430 mm, brown, Set = 5 Pcs.		E		
\mathbf{O}	Pad (Ref. No.: 608046) Ø 508 mm, brown, Set = 5 Pcs.				
0	Pad (Ref. No.: 532900) Ø 406 mm, Hi-Pro, Set = 5 Pcs.				
0	Pad (Ref. No.: 533100) Ø 430 mm, Hi-Pro, Set = 5 Pcs.		L		
0	Pad (Ref. No.: 534000) Ø 430 mm, black, Set = 5 Pcs.		Ī		
0	Pad (Ref. No.: 608047) Ø 508 mm, black, Set = 5 Pcs.				
Layer Strippin	g Brushes				
	Brush, 5-head, stranded wire (Ref. No.: 795176) Ø 470 mm		L		
	Brush, stranded wire (Ref. No.: 702832)		L		
	Brush, 5-head (Ref. No.: 511200) PPN/wire, Ø 540 mm				
	Replacement brush, PPN/wire (Ref. No.: 522000) Ø 160 mm		Ī		
	Brush, 5-head (Ref. No.: 511300) spring steel, Ø 540 mm				
	Replacement brush, Wire (Ref. No.: 522100) Ø 160 mm, Replacement for 511300, 5 pcs required				

MULTI-PURPOSE MACHINES ACCESSORIES

		STR 500	STR 580	STR 581	STR 701	STR 702	STR 703
Layer Strippin	g Brushes						
	Brush (Ref. No.: 514500) spring steel, Ø-430 mm, short						
	Spring steel brush (Ref. No.: 510200) short bristles, Ø-430 mm						
٢	Cast wire brush (Ref. No.: 511500) Ø 510 mm						
	Brush, 5-head, spring steel (Ref. No.: 520600) Ø 540 mm						
	Replacement brush, Spring steel, short (Ref. No.: 521800) Ø 160 mm						
	Brush, 5-head, cross wire (Ref. No.: 520800) Ø 580 mm						
	Replacement brush, Cross wire (Ref. No.: 522200) Ø 200 mm, 5 pieces necessary						
	Spring steel (Ref. No.: 795174) oblique bristles, Ø 510 mm						
	Spring steel brush, oblique bristles (Ref. No.: 702420)						
Pad Holders A	nd Carrier Plates						
	Diamond pad holder (Ref. No.: 514801) 4-head, Ø 480 mm, Ø 150 mm for diamond pads						
8	Grinding aggregate (Ref. No.: 516610) with 4 rotating satellites						
0	Drive plate (Ref. No.: 517500) rubber sponge, Ø 406 mm, cpl. with centering device						
0	Drive plate (Ref. No.: 517600) rubber sponge, Ø 430 mm, cpl. with centering device						
	Drive plate (Ref. No.: 517602) rubber sponge, Ø 480 mm, cpl. with centering device						
0	Replacement disc, rubber sponge (Ref. No.: 612023) Ø 406 mm						
0	Replacement disc, rubber sponge (Ref. No.: 612024) Ø 430 mm						



Pad Holders And Carrier Plates Image: Section Rings Velcro fastening disc for sandpaper (Ref. No.: 606666) Image: Section Rings Image: Section Rings Suction Rings	
(Ref. No.: 606666) Spare velcro fastening disc (Ref. No.: 601310) ETX-velcro shoe (Ref. No.: 713055) Ø 76 mm for diamond pads Suction Rings	
(Ref. No.: 601310) ETX-velcro shoe (Ref. No.: 713055) Ø 76 mm for diamond pads Suction Rings	
(Ref. No.: 713055) Ø 76 mm for diamond pads Suction Rings Ø 76 mm for diamond pads	
	_
Suction ring	
(Ref. No.: 612000) brush collar, for ref. no. 405401/517500/516610/	
Splash guard and suction ring with hose (Ref. No.: 612110) Ø-50 mm, for SB Trio planetary gear drive	
Suction ring (Ref. No.: 615401) hose Ø 50 mm	
Corundum Grinding Tools	
Corundum (Ref. No.: 076100) gr. 16, Ø 400 mm, for 526300, 521600	
Corundum (Ref. No.: 077500) gr. 30, Ø 400 mm, for 526400, 522900	
Grinding ring (Ref. No.: 521600) corundum, cpl., gr. 16, Ø 430 mm	
Grinding ring (Ref. No.: 526300) corundum, cpl., gr. 16, Ø 400 mm	
Grinding ring (Ref. No.: 522900) corundum, cpl., gr. 30, Ø 430 mm	
Grinding ring (Ref. No.: 526400) corundum, cpl., gr. 30, Ø 400 mm	
Metal base plate (Ref. No.: 606425) with brush top, Ø 406 mm	
Kit, corundum stones (Ref. No.: 708297) grain 20, with mounting screws	

MULTI-PURPOSE MACHINES ACCESSORIES

	STR 500	STR 580	STR 581	STR 701	STR 702	STR 703
Wood Sanders						
Sanding disc (Ref. No.: 702665) Ø 406 mm, Grain 16, Set = 5 Pcs.						
Sanding disc (Ref. No.: 702666) Ø 406 mm, Grain 30, Set = 5 Pcs.						
Sanding disc (Ref. No.: 702667) Ø 406 mm, Grain 60, Set = 5 Pcs.						
Sanding disc (Ref. No.: 702791) Ø 430 mm, Grain 12, Set = 5 Pcs.						
Sanding disc (Ref. No.: 702663) Ø 430 mm, Grain 16, Set = 5 Pcs.	I					
Sanding disc (Ref. No.: 702661) Ø 430 mm, Grain 30, Set = 5 Pcs.						
Sanding disc (Ref. No.: 702662) Ø 430 mm, Grain 60, Set = 5 Pcs.						
Sanding disc (Ref. No.: 704168) Ø 430 mm, Grain 100, Set = 5 Pcs.						
Sanding disc (Ref. No.: 702673) Ø 430 mm, Grain 150, Set = 5 Pcs.	I					
Sanding disc (Ref. No.: 706681) Ø 406 mm, Grain 60, Set = 10 Pcs.						
Sanding disc (Ref. No.: 706682) Ø 406 mm, Grain 80, Set = 10 Pcs.						
Sanding disc (Ref. No.: 706683) Ø 406 mm, Grain 100, Set = 10 Pcs.						
Sanding disc (Ref. No.: 706684) Ø 406 mm, Grain 120, Set = 10 Pcs.						
Sanding disc (Ref. No.: 706685) Ø 406 mm, Grain 150, Set = 10 Pcs.						
Sanding disc (Ref. No.: 706680) Ø 430 mm, Grain 60, Set = 10 Pcs.	I					
Sanding disc (Ref. No.: 704392) Ø 430 mm, Grain 80, Set = 10 Pcs.						
Sanding disc (Ref. No.: 704391) Ø 430 mm, Grain 100, Set = 10 Pcs.						

MULTI-PURPOSE MACHINES ACCESSORIES

		STR 500	STR 580 STR 581	STR 701 STR 702	STR 703
Wood Sander	s				
	Sanding disc (Ref. No.: 704392) ∅ 430 mm, Grain 80, Set = 10 Pcs.				
	Sanding disc (Ref. No.: 704391) Ø 430 mm, Grain 100, Set = 10 Pcs.				
	Sanding disc (Ref. No.: 702790) ∅ 430 mm, Grain 120, Set = 10 Pcs.				
	Sanding disc (Ref. No.: 704390) Ø 430 mm, Grain 150, Set = 10 Pcs.				
Wood Sander	s				
	Sanding disc (Ref. No.: 710435) Ø 150 mm, Grain 24, Set = 9 Pcs.				
	Sanding disc (Ref. No.: 710436) ∅ 150 mm, Grain 40, Set = 9 Pcs.				
	Sanding disc (Ref. No.: 710437) Ø 150 mm, Grain 60, Set = 9 Pcs.				
	Sanding disc (Ref. No.: 710438) Ø 150 mm, Grain 80, Set = 9 Pcs.				
	Sanding disc (Ref. No.: 710439) ∅ 150 mm, Grain 100, Set = 9 Pcs.				
	Sanding disc (Ref. No.: 710440) D150 K150,				
	Sanding disc (Ref. No.: 710441) D150 K220,				
Tungsten Carl	bide Tools				
	WK-Sanding disc (Ref. No.: 702668) Ø 430 mm, Grain 14, Set = 1 Pcs.				Γ
-	WK-Sanding disc (Ref. No.: 702670) Ø 430 mm, Grain 24, Set = 1 Pcs.				
-	WK-Sanding disc (Ref. No.: 702672) Ø 406 mm, Grain 14, Set = 1 Pcs.				
-	WK-Sanding disc (Ref. No.: 706106) Ø 406 mm, Grain 24, Set = 1 Pcs.				
	WK-Sanding disc (Ref. No.: 706109) Ø 500 mm, Grain 14, Set = 1 Pcs.				

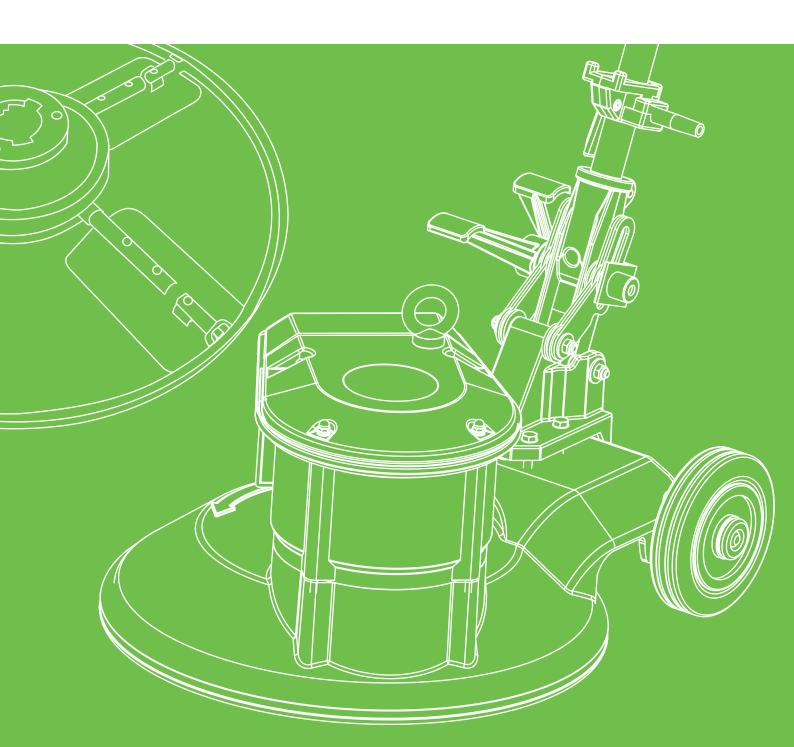
MULTI-PURPOSE MACHINES ACCESSORIES

		STR 500	STR 580	STR 581	STR 701	STR 702 STR 703	
Grouting Tool	S						
	Jointing base plate (Ref. No.: 795306) Ø 430 mm						
	Jointing base plate (Ref. No.: 795307) cpl. Ø 430 mm						
	Steel-lamella (Ref. No.: 200201) 70 x 45 x 0,4 mm						
	PVC-lamella (Ref. No.: 200110) 70 x 45 x 5 mm						
STR Grinding	Tools						
6.0	STR-5-head grinding disc (Ref. No.: 706080) Ø 450 mm without grinding tools						
	Diamond disc (Ref. No.: 708126) gr. HC 20/30, Ø 127 mm, set = 5 pcs						
	Diamond disc (Ref. No.: 708128) gr. SC 20/30, Ø 127 mm, set = 5 pcs						
	Tungsten carbide (Ref. No.: 795161) cpl., gr. 16, Ø 440 mm						
	Tungsten carbide (Ref. No.: 526800) cpl., gr. 16, Ø 460 mm						
(0)	ETX-Diamond carrier with brush top (Ref. No.: 795240) Ø 460 mm						
0	ETX-Diamond carrier with brush top (Ref. No.: 795241) Ø 410 mm						
SB-Trio Planet	ary Gear Drive						
	SB Trio planetary gear drive (Ref. No.: 612075)						
$\mathbf{\bullet}$	ETX carrier plate (Ref. No.: 612100) Ø 150 mm						
۲	Brush PPN/wire (Ref. No.: 612104) 3 pcs required						
۲	Cast steel wire brush (Ref. No.: 612105) 3 pcs required						
	Polypropylene brush, blue (Ref. No.: 612106)						



		STR 500	STR 580	STR 581	STR 701	STR 702	STR 703
SB-Trio Plane	tary Gear Drive SICA brush (Ref. No.: 612107)	Ī					
Other Cleanir	ng Accessories						
	Saddle weight (Ref. No.: 501200) 22 kg						
Ŵ	Tank (Ref. No. 615149) 10 litres, STR-handle 1200 mm						
	Tank (Ref. No. 615150) 10 litres, STR-handle 850 mm						
Ŵ	Tank (Ref. No. 615156) 10 litres, STR-handle 930 mm						
Milling Tools	for single disc machines						
	Surface milling plate (Ref. No.: 524200) cpl. Ø 430 mm						
	Surface milling plate (Ref. No.: 525700) cpl. Ø 430 mm						
	Star wheels (Ref. No.: 307900)						
	Bolts (Ref. No.: 322000)						

TROWELLING



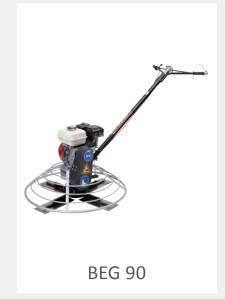
BAS/BEG – TROWELLING MACHINES



BAS 1500E



BAS 1500V





BEG 180



SMOOTHING WITH SCHWAMBORN MACHINES

The easy and effective way to achieve smooth and long-lasting concrete or design floors

Smoothing of concrete or screed floors is an important operation for anyone wishing to create flat and hard-wearing floor surfaces. Our range extends from special smoothing machines for large areas to smoothing tools and accessories for our multi-purpose machines that match the floor covering.

For smooth, flat and hard-wearing floors

Smoothing provides a flat and smooth surface and the resultant compaction force prevents cavities or delamination from occurring. This also reduces the risk of concrete spalling. Smoothing is indispensable, especially for industrial floors in production and warehouse buildings subject to heavy traffic, as well as for design floors, ranging from exposed or 'fair-faced' concrete to terrazzo.

Simplified cleaning and durability

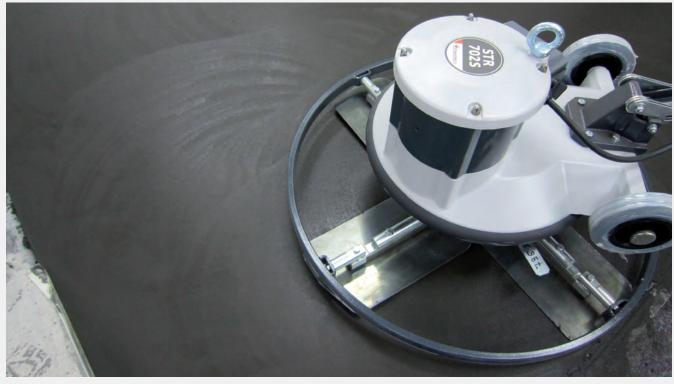
Further advantages of smoothing of surface coverings that are still setting include simplified maintenance cleaning and longevity of the floor surface. Special smoothing plates or trowels are available to suit different materials and processing instructions for industrial or design floors.



Scraping and compacting with scraper bars



Smoothing with trowels



Smoothing of design floors as preparation for grinding and surface finishing

BAS 1500E – Concrete tamper with vibration unit

For even compaction and levelling of fresh concrete surfaces. Simple and safe to use. The guide rod is individually adjustable for comfortable and fatigue-free work.



Peeling and compacting fresh concrete

Technical data		
Ref. No.		795225
Voltage	V	230
Frequency	Hz	50
Working width	mm	1500
Operating weight	kg	18
Tool speed	r.p.m.	3000



On / off switch



Vibration unit

Special characteristics

Easy to use Motor and drive, dust-tight and splashproof Adjustable handle Quick to clean

BAS 1500E Accessories and tools, trowelling from page 86

BAS 1500V - Concrete tamper with petrol engine

For even compaction and levelling of fresh concrete surfaces in outdoor areas for work without power supply. Simple and safe to use. The guide rod is individually adjustable for comfortable and fatigue-free work.

Applications

Removing and compacting fresh concrete outdoors for work without power supply

Technical data		
Ref. No.		795227
Drive		Petrol
Power output	kW	0.6
Working width	mm	1500
Operating weight	kg	16
Tool speed	r.p.m.	5000
Tank	I	0.5



Powerful motor



Fixation screw for angle adjustment



Stepless speed control

Special characteristics

Easy to use Motor and drive, dust-tight and splashproof Adjustable handle Quick to clean

BAS 1500V Accessories and tools, trowelling from page 86

BEG 90 – Concrete troweling with petrol engine

For smoothing concrete and screed floors, the concrete troweling is ideally suited for surface compaction. Simple and safe to use. Robust, reliable and durable thanks to the sturdy tubular steel frame and worm gear.



Applications

Smoothing and compacting concrete

	795134
	Petrol
kW	4.8
mm	900
kg	92
1	3.6
	mm

Special characteristics

Robust steelframe Power transmission with centrifugal switch Easy to maintain Maintenance free gear box

BEG 90 Accessories and tools, trowelling from page 86



BEG 180 – Concrete troweling

Walk-behind and ride-on concrete finishing trowels for an uniform and compact concrete finish. Robust in design, reliable in operation.



Applications

Smoothing and compacting concrete

Technical data			
Ref. No.		795137	
drive		Petrol	
Power output	kW	17.6	
Working width	mm	2 x 900	
Operating weight	kg	360	
Tank	1	21	

Special characteristics

Robust steelframe Power transmission with centrifugal switch Easy to maintain Electrical starter Maintenance free gear box

STR 702S – Multi-purpose machine for heavy work with two speeds

The STR 702S is a robust, powerful multi-purpose machine with infinitely variable speed control from 78 to 156 rpm. Equipped with a powerful 2200 W motor, metal gear drive and extra strong guide bar bearing, the machine is suitable for demanding applications on the construction site, whether for grinding, cleaning, decoating or smoothing floors.



Applications

Sanding and smoothing screeds, removing coatings, for industrial object renovation, filling of floors, to seal, suitable for the most demanding cleaning tasks

Technical data			Equipment variants
Ref. No.		107212	107214
Drive		Gear, metal	Gear, metal
Voltage	V	400	400
Frequency	Hz	50	50
Power output	kW	2.2	2.2
Working width	mm	510	510
Operating weight	kg	66	65
Tool speed	r.p.m.	78-156	78-156
Brush pressure	g/cm ²	43	43
Torque	Nm	135	135
Guide rod length	mm	1200	930
Noise level	dB(A)	62	62

STR 702S Accessories and tools, trowelling from page 86



Two speed version



STR-handle bearing



Smoothing with wing float

Special characteristics

Multipurpose use Motor and drive, dust-tight and splashproof Heavy duty handle bearing Two-speed version with 78/156 r.p.m. Economical, reliable, powerful

ES 420S – Professional single-disc machine with steel gears for heavy duty work

The robust ES 420S single-disc machine is ideally suited for heavy-duty work. The metal gear drive makes the ES 420S suitable for cleaning, grinding, renovating and smoothing screeds. The machine is additionally protected by an overload protection. The single-disc machine can also be used for shampooing, scrubbing, polishing and crystallising..



Applications

Sanding and smoothing screeds, renovation of screeds and concrete floors, polishing and crystallizing, spray cleaning, shampooing, scrub, cleaning larger areas, daily basic cleaning

Technical data			Equipment v	ariants
Ref. No.		614600	614608	614611
Drive		Gear, metal	Gear, metal	Gear, metal
Voltage	V	230	230	230
Frequency	Hz	50	50	50
Power input	kW	1.6	1.6	1.6
Working width	mm	406/420	406/420	406/420
Operating weight	kg	39	39	44
Tool speed	r.p.m.	144	144	144
Brush pressure	g/cm ²	33	54	60
Torque	Nm	73	73	73
Guide rod length	mm	850	1200	850
Noise level	dB(A)	58	58	58

ES 420S Accessories and tools, trowelling from page 86



Dust control SDC 120 (optional)



Crystallization of marble floors



Carpet shampoo device

Special characteristics

DOC-Drive overload clutch For heavy duty work Metal gear drive 1200 mm handle for easier working (optional) Reliable



	BEG 90	BEG 180	ES 420S	STR 580	STR 581	STR 701	STR 702	STR 703
Smoothing Plates								
Smoothing plate (Ref. No.: 524500) Ø 580 mm, 90°								
Smoothing plate (Ref. No.: 524501) Ø 580 mm, flach								
Smoothing plate (Ref. No.: 525000) kpl. 90°, Ø-580 mm								
Smoothing plate (Ref. No.: 525001) kpl. flach, Ø-580 mm								
Smoothing plate (Ref. No.: 525100) kpl., Ø-730 mm								
Smoothing plate (Ref. No.: 353800) Ø 580 mm, 90°								
Smoothing plate (Ref. No.: 353801) Ø 580 mm, flach								
Smoothing plate (Ref. No.: 362600) Ø-730 mm								
Smoothing plate (Ref. No.: 795206) PVC, Ø 580 mm								
Smoothing plate (Ref. No.: 795207) PVC, Ø 700 mm								
Smoothing plate (Ref. No.: 702685) plastic, Ø 560 mm								
Spare PVC smoothing plate (Ref. No.: 702709) Ø 700 mm								
Smoothing plate (Ref. No.: 702701) Ø – 900 mm, 2,5 mm								

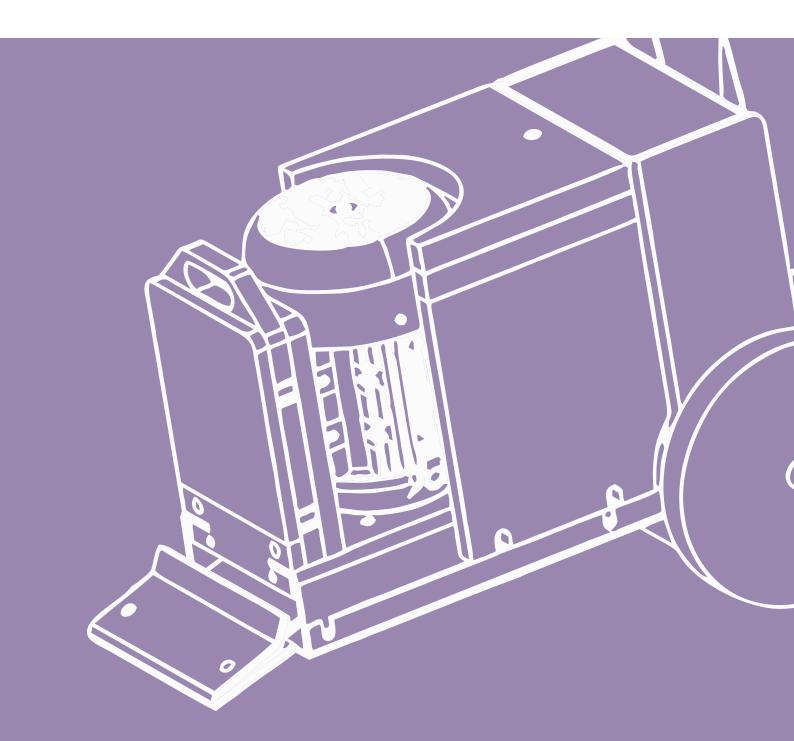
TROWELLING ACCESSORIES

			BEG 90	BEG 180	ES 420S	STR 580	STR 581	STR 701	STR 702	STR 703
Wing floats										
	Oat : 522700) ade, Ø 1050 mm									
	Oat : 525800) ., Ø 600 mm									
	oat : 525801) C blades, Ø 600 mm									
	Oat : 525802) ade, Ø 600 mm									
	Oat : 795302) C blades, Ø 830 mm									
	oat : 795303) ade, Ø 830 mm									
	oat : 795304) 'C-blade, Ø 830 mm									
	Oat : 795305) ., Ø 830 mm									



	BEG 90	BEG 180	ES 420S	STR 580	STR 581	STR 701	STR 702	STR 703
Smoothing blades								
Smoothing blade (Ref. No.: 230400) steel								
Smoothing blade (Ref. No.: 324900) steel								
Blade (Ref. No.: 701760) PVC								
Blade (Ref. No.: 701761) PVC								
Blade (Ref. No.: 701831) steel/plastic, cpl.								
Blade (Ref. No.: 701832) steel, drilled								
Blade (Ref. No.: 701858) steel/PVC, cpl.								
Steel blade (Ref. No.: 701859) For 701760								
Trowel blade (Ref. No.: 702610) For machines Ø – 900								
Other Accessories For Trowelling Floors								
Smoothing shoes (Ref. No.: 702706) 1 set, for sizes 35 to 48								

FLOOR REMOVAL



OVERVIEW COATING REMOVAL



FBS 15



FBS 40



FBS 105



FBS 190



FBS 420



FBS 1200





FBS floor strippers

We have added floor strippers to our product portfolio

Schwamborn floor strippers are floor treatment machines for removing floor coverings and their adhesives with cutters, cutter shafts, blades or scraper blades.

The product range extends from compact, robust machines for small and medium-sized areas, such as the FBS 105 or FBS 190 models, which are particularly powerful with hydraulic technology, to ride-on machines. For example, the ride-on floor stripper FBS 1200 can thoroughly remove a worn sports floor in a gym in no time at all. This is because the optimised motor technology ensures long running times for this battery-powered model.

The new solution for floor layers

We complete our product portfolio for floor finishing with the new "Stripper" product line. And so we are coming ever closer to our claim of being able to offer the best possible "Made in Germany" solutions for every type of floor work. That is because the Schwamborn system also applies to strippers. This offers the perfect combination of machine and tool for all conceivable jobs, also depending on the surfaces to be machined and the task in hand. Knife shanks are used for ceramic tiles and epoxy resin coatings. A range of different cutters and scraper blades is available for removing linoleum, sports surfaces, carpeting and adhesives. These are available in various geometries, dimensions and degrees of sharpness to suit the respective application.

Even when removing coverings, you can create great floors with the Schwamborn System!

The choice of machine depends on the size of the area to be machined and the amount of force required. This ensures the best possible efficiency in terms of robustness, area performance, processing speed and thoroughness.

Parquet saw rounds off machine portfolio

The machine portfolio is rounded off by a parquet saw. Essential for the efficient and rapid removal of strips of parquet from floors with a very firm adhesive bonding.



The Schwamborn FBS floor strippers

FBS 15 – Sturdy floor stripper for continuous operation

The powerful classic enables easier working with a standard fitted running gear. The floor stripper is excellent for removing all flooring such as carpet/ PVC and residual adhesive without damaging the underlying material. Its low weight makes the FBS 15 ideal for small to medium sized areas, especially in houses (e.g. stairs).

Includes accessories: Running gear, 2x scraper blades and 1x serrated blade.

Applications

Removal of residual adhesive, removal of glued carpets, removal of PVC

Technical data		
Ref. No.		619000
Voltage	V	230
Frequency	Hz	50
Power input	kW	2
Working width	mm	210
Operating weight	kg	14,4
Dimensions L x W x H	cm	54 x 21 x 145
Noise level	dB(A)	85



Including height-adjustable wheelset



Adjustable handles

Special characteristics

Continuous guide rod height adjustment Vibration damper in handle Large bearings for a long service life Special cast aluminium deflector Including height-adjustable wheel-set

FBS 15 Accessories and tools for surface removal from page 99

FBS 40

FBS 40 – High-performance floor stripper for small and medium-sized areas

The FBS 40 is considered a classic, as it can be used anywhere. The floor stripper is ideal for stripping glued carpet and tiles and linoleum, rubber and PVC flooring.

Includes accessories: 10x spare blades 230 x 76 x 1.6 mm and 10 m extension cable.



removal of glued carpets, removal of glued tiles, removal of linoleum, rubber and PVC flooring

	619001
V	230
Hz	50
W	750
mm	230
kg	39
cm	83 x 34 x 84
dB(A)	< 85
	Hz W mm kg cm



Transport position



Folding guide rod with adjustable angle



Including height-adjustable wheelset

Special characteristics

Quick to disassemble for a simple and easy transport Large wheels for convenient operation Adjustable blade angle Quiet operation with low vibration Folding guide rod with adjustable angle

FBS 40 Accessories and tools for surface removal from page 99

FBS 105 – Powerful floor stripper with direct hydraulic drive

Combined with a direct hydraulic drive, the powerful motor ensures a high degree of strength and extremely quiet operation. Heavily glued coverings on smaller to medium-sized areas can be removed with ease. The FBS 105 is self-propelled, with forward and reverse mode and adjustable speed. The freewheel mechanism facilitates simple handling and easy transportation.

Vambor

Including accessories: Additional weight 27 kg, 2x self-cutting U-blades, 3x spare blades and 10 m extension cable.

Applications

heavily glued coverings on smaller to medium-sized areas

Technical data

	619002
V	230
Hz	50
W	750
mm	150 - 300
kg	105 (132)
m/min	0-16
	Hz W mm kg



Freewheel mechanism for transportation



Practical storage of the wheel bolts

Special characteristics

Low in vibration Low noise emissions Continuously adjustable speed Folding guide rod with adjustable angle Extremely low maintenance, few wear parts Forward and reverse drive Freewheel mechanism for simple handling and easy transportation Direct hydraulic drive High removal rate Dismountable to 75 kg

FBS 105 Accessories and tools for surface removal from page 99

FBS 190

FBS 190 – The new top class self-propelled floor strippers

Combined with the new direct hydraulic drive, the high-torque motor ensures a maximum removal rate. The powerful, low-noise FBS 190 effortlessly tackles coverings that are difficult to remove on medium-sized to large areas. The adjustable guide rod facilitates ergonomic working and ease of handling.

Includes spare blade package and parquet blades (19 piece), incl. 10 m extension cable.



Practical tool holder

Vamborn FBS 190



Folding guide rod with adjustable angle



Continuously adjustable speed

Spe	ecial characteristics
Low	v in vibration
Low	v noise emissions
Cor	ntinuously adjustable speed
Fold	ding guide rod with adjustable angle
Ext	remely low maintenance, few wear
par	ts
For	ward and reverse drive
Fre	ewheel mechanism for simple hand-
ling	and easy transportation
Dire	ect hydraulic drive
Hig	h removal rate
Disi	mountable to 85 kg

Applications

removal of heavily glued coverings, removal of difficult to remove coverings

Technical data

	619003
V	230
Hz	50
W	1,1
mm	150 - 350
kg	190
m/min	0-23
	Hz W mm kg

FBS 190 Accessories and tools for surface removal from page 99

FBS 420 - Compact ride-on floor stripper with high removal rate

As strong as the big guys! The design tilts forwards, shifting the centre of gravity onto the tool to achieve an optimum working performance that only machines twice as large can normally handle! The FBS 420 can be used on all flooring, including ceramics, wood and epoxy. The only machine where the front plate can be positioned manually at the desired height during operation! Very quiet, making it ideal for working in offices or public buildings during office hours.

Includes comprehensive accessory package.



Applications

remove adhesives, removing coatings, removal of linoleum, rubber and PVC flooring, removal of parquet or tiles, coating and adhesive removal in the commercial sector, removal of roofing

Technical data		
Ref. No.		619004
Voltage	V	230
Frequency	Hz	50
Power output	kW	2,2
Operating weight	kg	420 (340)
Dimensions LxWxH	cm	130 x 61 x 10
Speed forward/reverse	m/min	bis zu 37

FBS 420 Accessories and tools for surface removal from page 99



Additional weight



Control panel



Robust hydraulic tank

Special characteristics
Quiet operation with low vibration
Extremely low maintenance, few wear
parts
High productivity due to zero-turn radius
No blade vibration required
Convenient handling and simple opera-
tion with new handles
Hydraulic system with double pump
Robust hydraulic tank
Adjustable cable arm for optimum cable
handling
Lifting rings for safe transportation to the
workplace
High removal rate

FBS 1200 - Most powerful battery powered ride-on floor stripper

The FBS 1200 represents a powerful new generation developed for removing numerous difficult to remove coverings, such as PVC, linoleum, carpet, tile coatings, adhesives, parquet and roofing. The robust stripper is ideally suited to extremely demanding and difficult operations. Ideal for removal of covering and adhesive in the commercial sector (e.g. Industrial facilities and sports halls, department stores and many other applications). Optimised motor technology ensures long running times.

Including accessories: Self-cutting V-blade and blade holder.



Applications

remove adhesives, removing coatings, removal of linoleum, rubber and PVC flooring, removal of parquet or tiles, coating and adhesive removal in the commercial sector, removal of roofing

Technical data		
Ref. No.		619005
Voltage	V	230
Frequency	Hz	50/60
Working width	mm	150 - 685
Operating weight	kg	1180 (800)
Dimensions LxWxH	cm	161 x 76 x 113
Speed forward/reverse	m/min	bis zu 61
Run Time	hours	8 - 12
Charging Time	hours	8 - 10

FBS 1200 Accessories and tools for surface removal from page 99



Additional weight



Control panel



Display for battery and operating hours

Special characteristics

Easy to use Robust in design Extremely low maintenance, few wear parts No blade vibration required Optimised motor technology for long running times Comfortable adjustable seat Powerful battery operation Charger integrated in machine for protection Automatic switch-off device to protect against deep discharge Minimum repair effort Superior-quality insertion tools

FBS P – Powerful parquet saw for cutting parquet flooring

With its 2400 watt motor and saw blades specially designed for it, the FBS P is the perfect solution for consistent parquet cutting. Equipped with a powerful extractor, the parquet floor saw cuts parquet and wood-based surfaces effortlessly at high speed.

Includes accessories: 5x standard saw blades for wood.





Applications

cutting parquet, cutting parquet and wooden surfaces

Technical data		
Ref. No.		619006
Voltage	V	230
Frequency	Hz	50/60
Power input	W	2400
Operating weight	kg	20
Tool speed	r.p.m.	8500
Sound power level	db(A)	95
Saw blade Ø	mm	ca. 180
Cutting depth continuously	mm	max. 50

FBS P Accessories and tools for surface removal from page 99



Dead man's handle



Saw cut position



Special characteristics
Easy to use
Rapid cutting speed
Powerful suction
Working while standing

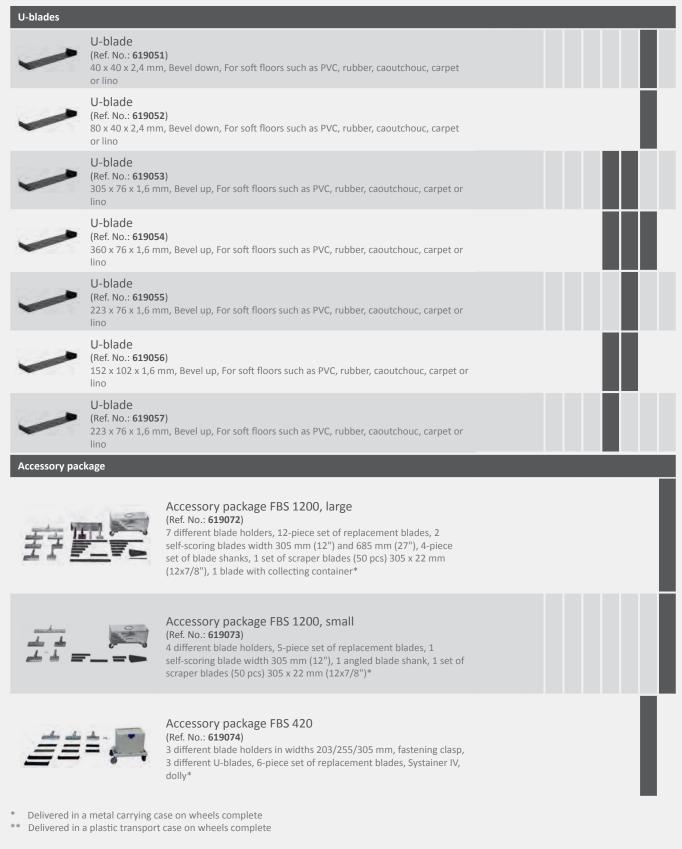
		FBS P	FBS 15	FBS 40	FBS 105	FBS 190	FBS 420	FBS 1200
Saw blades				-				
0	Standard saw blade for wood (Ref. No.: 619075) Ø-184 mm, Has 24 teeth and is an especially thin design. Cutting depth up to approx. 35 mm							
Additional we	ight							
P	Additional weight 27 kg (Ref. No.: 619076) Better wheel traction enables higher removal rates when removing heavily glued coverings							
Blade holders								
	Blade holder (Ref. No.: 619011) Width 152 mm							
	Blade holder (Ref. No.: 619012) Width 203 mm							
	Blade holder (Ref. No.: 619013) Width 254 mm							
	Blade holder (Ref. No.: 619014) Width 305 mm							
	Blade holder (Ref. No.: 619015) Width 352 mm							
	Blade holder (Ref. No.: 619016) Width 495 mm							
	Blade holder (Ref. No.: 619017) Width 686 mm							
Spare blades								
-	Spare blades - specially hardened (Ref. No.: 619022) 152 x 76 x 1,6 mm, Particularly durable, due to the special hardening. Easily sharpened							
-	Spare blades - specially hardened (Ref. No.: 619023) 203 x 76 x 1,6 mm, Particularly durable, due to the special hardening. Easily sharpened							
-	Spare blades - specially hardened (Ref. No.: 619024) 304 x 76 x 1,6 mm, For removing PVC, carpet, lino, residual coatings and adhesives							
-	Spare blades - specially hardened (Ref. No.: 619025) 355 x 76 x 1,6 mm, For removing PVC, carpet, lino, residual coatings and adhesives							
-	Spare blades - specially hardened (Ref. No.: 619026) 500 x 76 x 1,6 mm, For removing PVC, carpet, lino, residual coatings and adhesives							
-	Spare blades - specially hardened (Ref. No.: 619027) 685 x 76 x 1,6 mm, For removing PVC, carpet, lino, residual coatings and adhesives							

Blade holder		FBS P	FBS 15	FBS 40	FBS 105	FBS 190	FBS 420	FBS 1200
	Spare blades - heavy (Ref. No.: 619028) 152 x 76 x 2,4 mm, For removing PVC, carpet, lino, epoxy, coatings, tiles, parquet and much more.							
-	Spare blades - heavy (Ref. No.: 619029) 203 x 76 x 2,4 mm, For removing PVC, carpet, lino, epoxy, coatings, tiles, parquet and much more.							
-	Spare blades - heavy (Ref. No.: 619030) 304 x 76 x 2,4 mm, For removing PVC, carpet, lino, epoxy, coatings, tiles, parquet and much more.							
-	Spare blades - heavy (Ref. No.: 619031) 355 x 76 x 2,4mm, For removing PVC, carpet, lino, epoxy, coatings, tiles, parquet and much more.							
-	Spare blades - heavy (Ref. No.: 619032) 500 x 76 x 2,4 mm, For removing PVC, carpet, lino, epoxy, coatings, tiles, parquet and much more.							
-	Spare blades - heavy (Ref. No.: 619033) 685 x 76 x 2,4 mm, For removing PVC, carpet, lino, epoxy, coatings, tiles, parquet and much more.							
-	Spare blades - standard (Ref. No.: 619058) 152 x 127 x 1,6 mm, For removing PVC, carpet, lino, residual coatings and adhesives							
	Spare blades - standard (Ref. No.: 619059) 254 x 76 x 1,6 mm, For removing PVC, carpet, lino, residual coatings and adhesives							
-	Spare blades - heavy (Ref. No.: 619060) 254 x 76 x 2,4 mm, For removing PVC, carpet, lino, epoxy, coatings, tiles, parquet and much more.							
-	Spare blades - extra heavy (Ref. No.: 619061) 152 x 76 x 6,35 mm, For particularly thick coatings, ceramic tiles and parquet							
	Spare blades - extra heavy (Ref. No.: 619062) 152 x 76 x 4,5 mm, For particularly thick coatings, ceramic tiles and parquet							
-	Spare blades - specially hardened (Ref. No.: 619063) 254 x 76 x 1,6 mm, Particularly durable, due to the special hardening. Easily sharpened							
-	Spare blades - standard (Ref. No.: 619064) 145 x 102 x 1,6 mm, For removing PVC, carpet, lino, residual coatings and adhesives							
	Spare blades (Ref. No.: 619065) 230 x 76 x 1,6 mm, For removing PVC, carpet, lino, residual coatings and adhesives							

		FBS P	FBS 15	FBS 40	FBS 105	FBS 190	FBS 420	FBS 1200
Scraper blades	;		_					
1	Scraper blade (Ref. No.: 619018) 210 x 60 x 1,0 mm							
1	Scraper blade (Ref. No.: 619019) 210 x 60 x 1,4 mm							
	Scraper blade (Ref. No.: 619020) 210 x 130 x 1,0 mm							
Serrated blade			_					
	Serrated blade (Ref. No.: 619021) 210 mm, Removes floor coverings with felt-/fleece backing							
Angle blades								
-	Angle blades (Ref. No.: 619043) 200 x 78 x 1,6 mm, Mainly used for PVC, but can be used on most other applications. Supplies more of an angle when needed							
-	Angle blades (Ref. No.: 619044) 250 x 75 x 1,6 mm, Mainly used for PVC, but can be used on most other applications. Supplies more of an angle when needed							
Parquet blades	5							
A MARINE WILLING	Parquet blades (Ref. No.: 619069) 200 mm, Suitable for removal of all parquet flooring types							
	Parquet blades (Ref. No.: 619070) 200 mm, hardened, Special design suitable for removal of all parquet flooring types. Fundamentally suitable for removing tiles, thanks to hardened blade tip							
Blade shanks								
1 and 1	Straight shank shaft with carbide tip (Ref. No.: 619066) 50 x 150 mm, For ceramic tiles, thick epoxy coatings or thermo-plastic coatings. With carbide tip for extended usage							
	Straight shank shaft with carbide tip (Ref. No.: 619067) 100 x 150 mm, For ceramic tiles, thick epoxy coatings or thermo-plastic coatings. With carbide tip for extended usage							
1ª	Straight shank shaft with carbide tip (Ref. No.: 619068) 150 x 150 mm, For ceramic tiles, thick epoxy coatings or thermo-plastic coatings. With carbide tip for extended usage							
	Blade Extension (Ref. No.: 619071) Is used to reach inaccessible areas and for thick foam or parquet flooring							

		FBS P	FBS 15	FBS 40	FBS 105	FBS 190	FBS 420 FBS 1200
V-blades							
V-blade (Ref. No.: 619034) 75 x 155 x 75 x 2,4 mm, Bevel up, For removing or p	e-cutting sport coverings						
V-blade (Ref. No.: 619035) 40 x 355 x 40 x 2,4 mm, Bevel down, with special 40	mm upturn						
V-blade (Ref. No.: 619036) 40 x 355 x 40 x 2,4 mm, Bevel up, with special 40 mm	n upturn						
V-blade (Ref. No.: 619037) 40 x 205 x 40 x 2,4 mm, Bevel down, with special 40	mm upturn						
V-blade (Ref. No.: 619038) 40 x 205 x 40 x 2,4 mm, Bevel up, with special 40 mm	n upturn						
V-blade (Ref. No.: 619039) 40 x 305 x 40 x 2,4 mm, Bevel down, with special 40	mm upturn						
V-blade (Ref. No.: 619040) 40 x 305 x 40 x 2,4 mm, Bevel up, with special 40 mm	n upturn						
V-blade (Ref. No.: 619041) 40 x 505 x 40 x 2,4 mm, Bevel down, with special 40	mm upturn						
V-blade (Ref. No.: 619042) 40 x 505 x 40 x 2,4 mm, Bevel up, with special 40 mm	1 upturn						
V-blade (Ref. No.: 619045) 305 x 76 x 2,4 mm, Bevel up, with 45° angle							
V-blade (Ref. No.: 619046) 355 x 76 x 2,4 mm, Bevel up, with 45° angle							
V-blade (Ref. No.: 619047) 255 x 76 x 2,4 mm, Bevel up, with 45° angle							
V-blade (Ref. No.: 619048) 685 x 76 x 2,4 mm, Bevel up, with 45° angle							
V-blade (Ref. No.: 619049) 40 x 40 x 2,4 mm, Bevel down For removing very stubborn flooring and pre-cutting the second step	before wider blades can be used in						
V-blade (Ref. No.: 619050) 40 x 80 x 40 x 2,4 mm, Bevel down For removing very stubborn flooring and pre-cutting the second step	before wider blades can be used in						

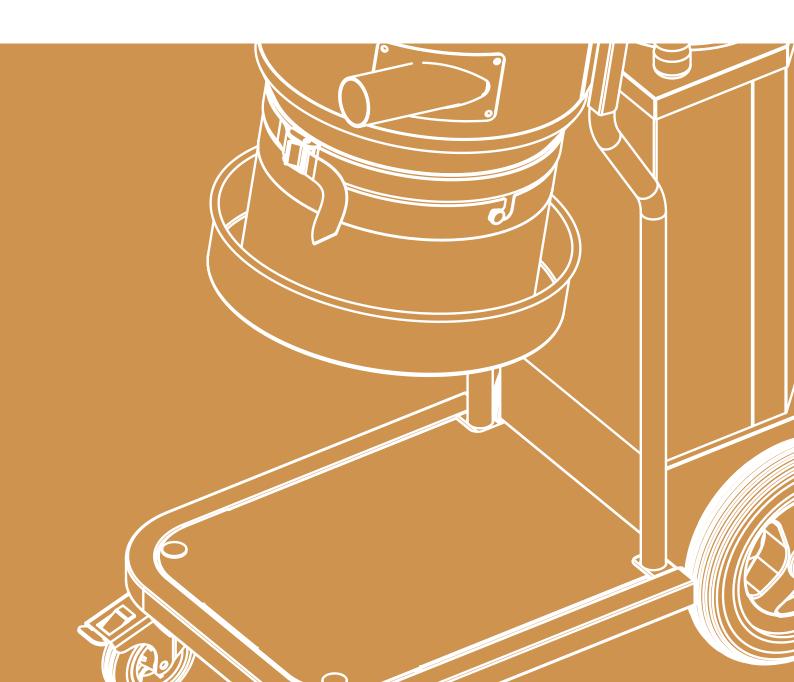
FBS P FBS 15 FBS 40 FBS 105 FBS 105 FBS 190 FBS 420 FBS 1200



MACHINE & CONSTRUCTION SITE LIGHTING

		DSM 250 / S	DSM 400 / 450	DSM 530 / S	DSM 650S / RC	DSM 800S / RC	WDS 250 / 530	BEF 201 / 204	BEF 250 / 320 / 400	STR 500 / 580 / 581	STR 701 / 702 / 703	ES 330 / 430 / 500	ES 420 / DUO / S	ES 51S	EP 430 / DUO	EU 430 / EU 510	OES 430
Machine light	ing																
	NOVA MINI (Ref. No.: 722200) Compact LED work light with SMART GRIP and 1000 lumens																
	NOVA R (Ref. No.: 722202) Battery LED universal work light with up to 2000 lumens																
	NOVA SOUND (Ref. No.: 722204) 600 lumen LED work light with integrated loudspea- ker and battery																
	NOVA I-VIEW (Ref. No.: 722205) Battery headlamp with LED		_	_		_	_		_								
P	USB-charge cable (Ref. No.: 722209)																
Ø	Mains plug 1A (Ref. No.: 722210) suitable for: (722200) NOVA MINI, (722205) NOVA I-VIEW																
<u></u>	Mains plug 2A (Ref. No.: 722211) suitable for: (722201) NOVA R, (722204) NOVA SOUND																
Building site li	ghting																
	NOVA 3K C+R (Ref. No.: 722202) 3000 lumen LED work light with DUAL SYSTEM																
	NOVA 5K C+R (Ref. No.: 722203) 5000 lumen LED work light with DUAL SYSTEM																
ILL	NOVA TRIPOD (Ref. No.: 722206) Stationary positioning of work lighting																
4	NOVA MAGNETIC BRACKET (Ref. No.: 722207) Powerful magnetic bracket for flexible positioning of the work light on any magnetic surface																
	Building site lighting KIT (Ref. No.: 722208) Includes: NOVA 5K C+R / NOVA TRIPOD / NOVA MAGNETIC BRACKET																
6	Charge cable NOVA 3K C+R (Ref. No.: 722212)																
Q,	Charge cable NOVA 5K C+R (Ref. No.: 722213)																

VACUUMS / PRE-SEPARATOR/ SLURRY VACUUM



11

STS/STA/WSA – VACUUM CLEANER/SLUDGE VACUUM



STS 130





STS 260A



STS 400

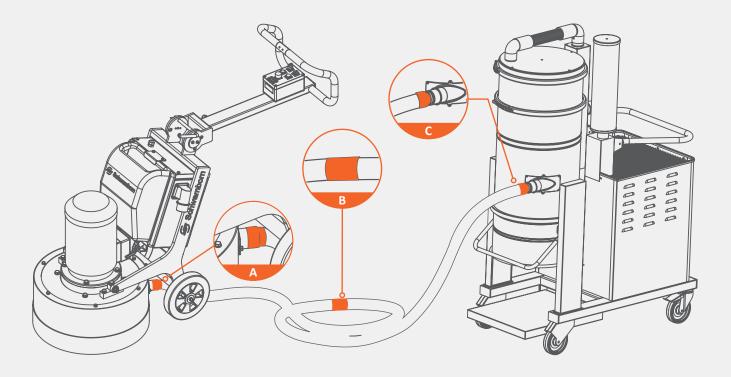


STS 750



STA 300



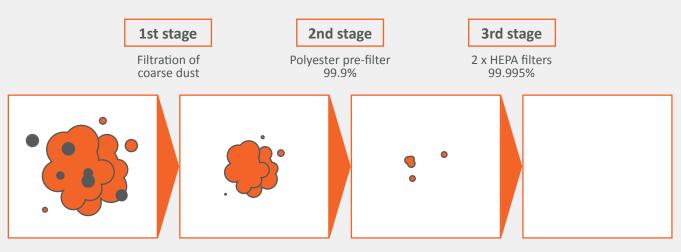


Perfected dust reduction – our new vacuuming system

Finishing of floors, walls and ceilings is a mechanical process that inevitably creates dust. The growing shortage of skilled labour and, in particular, increasing awareness of health protection have led to a considerable increase in demands for dust reduction.

Our motivation for developing this new Schwamborn vacuuming system was to provide sustainable improvements in solutions to address this. We are delighted to present our completely revised vacuuming system today, a system that is perfectly adapted to construction site conditions.

This starts with completely overhauled vacuum units and separators with a suction force previously unheard of. It continues with the goal of optimising on-site handling and connections between the construction machine (A), hoses (B) and vacuum units (C). The result is our coordinated machine adapter hose system that achieves a dust reduction of up to 99.995 %.



3-stage dust filtration



Technical data		
Ref. No.		617000
Voltage	V	230
Frequency	Hz	50/60
Power input	kW	1.2
Operating weight	kg	42
Dimensions L x W x H	cm	73 x 41 x 130
Noise level	dB(A)	78
Suction hose, antistatic	m	5
Ø – Suction outlet	mm	38
Underpressure	kPa	23
Volume flow	m³/h	170
Filter cleaning		manually
Filter class		HEPA 13

STS 130 – Industrial vacuum for the construction industry with effective filter cleaning, H-certified

The STS 130 model is equipped with a pre-filter and HEPA filter as standard. Filter cleaning through air pulse process. With 3-stage dust filtration: 1st stage for coarse dust, 2nd stage with 99.9 % via a polyester pre-filter, 3rd stage via 2x HEPA filters with 99.995 %. Dust is collected in a transparent and easily transportable plastic bag (Dustbag). Including hand tube with floor suction nozzle and rubber strip, brush strip, hose (length 5 m, hose connection Ø 38 mm, antistatic), Dustbag and cable ties.



Standard with cable tie holder



Large abrasion-resistant transportation wheels

Special characteristics

Robust in design Dust separation in Dustbag Large abrasion-resistant transportation wheels Certified according to dust class H Antistatic hoses





Technical data		
Ref. No.		617001
Voltage	V	230
Frequency	Hz	50/60
Power input	kW	2.2
Operating weight	kg	55
Dimensions L x W x H	cm	73 x 48 x 138
Noise level	dB(A)	78
Suction hose, antistatic	m	5
Ø-Suction outlet	mm	50
Underpressure	kPa	23
Volume flow	m³/h	340
Filter cleaning		manually
Filter class		HEPA 14

STS 260 – Robust industrial vacuum with H-certification

The STS 260 is ideal for construction, concrete, grinding and plaster dust. The vacuum unit is equipped as standard with a pre-filter and HEPA filter as well as a click system for attaching the suction hose. Filter cleaning through air pulse process. With 3-stage dust filtration: 1st stage for coarse dust, 2nd stage with 99.9 % via a polyester pre-filter, 3rd stage via 2x HEPA filters with 99.995%. Dust is collected in a transparent and easily transportable plastic bag (Dustbag). Including hand tube with floor suction nozzle and rubber strip, brush strip, hose (length 5 / 10 m, hose connection \emptyset 50 mm, antistatic), Dustbag and cable ties.



With click system for suction hose attachment



Dust separation in Dustbag

Special characteristics

Robust design Dust separation in Dustbag Large abrasion-resistant transportation wheels Certified according to dust class H Antistatic hoses





Technical data		
Ref. No.		617004
Voltage	V	230
Frequency	Hz	50/60
Power input	kW	2.2
Operating weight	kg	71
Dimensions L x W x H	cm	92 x 45 x 145
Noise level	dB(A)	78
Suction hose, antistatic	m	5
Ø – Suction outlet	mm	50
Underpressure	kPa	23
Volume flow	m³/h	340
Filter cleaning		automatically
Filter class		HEPA 14

STS 260A – Industrial vacuum with automatic mechanical filter cleaning with no interruption to the extraction process

The STS 260A is suitable for construction, concrete, grinding and plaster dust. The vacuum unit is H-certified and equipped with a pre-filter and HEPA filter as standard. With 3-stage dust filtration: 1st stage for coarse dust, 2nd stage with 99.9 % via a polyester pre-filter, 3rd stage via 2x HEPA filters with 99.995 %. Dust is collected in a transparent and easily transportable plastic bag (Dustbag). Including hand tube with floor suction nozzle and rubber strip, brush strip, hose (length 5 /10 m, hose connection Ø 50 mm, antistatic), Dustbag and cable ties.



Automatic mechanical filter cleaning



With click system for suction hose attachment

Special characteristics

Robust in design

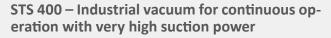
Large abrasion-resistant transportation wheels

Simple and reliable dust disposal via Dustbag

Simple hose connection with click system Automatic mechanical filter cleaning without suction interruption

Certified according to dust class H





The STS 400 is a robust, powerful vacuum unit with H-certification. Equipped with a 3000 W powerful motor, pre-filter and HEPA filter as well as large abrasion-resistant transport wheels. The STS 400 is suitable for construction, concrete, grinding and plaster dust. With 3-stage dust filtration: 1st stage for coarse dust, 2nd stage with 99.9 % via a polyester pre-filter, 3rd stage via 2 x HEPA filters with 99.995%. Dust is collected in a transparent and easily transportable plastic bag (Dustbag). Including hand tube with floor suction nozzle and rubber strip, brush strip, hose (length 5 / 10 m, hose connection \emptyset 50 / 70 mm, antistatic), Dustbag and cable ties.



Large abrasion-resistant transportation wheels



Dust separation in Dustbag

Special characterist	i
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Robust in design Large transport wheels Dust separation in Dustbag Suitable for continuous operation Simple hose connection with click system Certified according to dust class H Antistatic hoses

cs





Technical data		
Ref. No.		617003
Voltage	V	400
Frequency	Hz	50/60
Power input	kW	3.0
Operating weight	kg	110
Dimensions L x W x H	cm	45 x 92 x 143
Noise level	dB(A)	74
Suction hose, antistatic	m	5
Ø – Suction outlet	mm	50
Underpressure	kPa	32
Volume flow	m³/h	320
Filter cleaning		manually
Filter class		HEPA 14



Technical data		
Ref. No.		617002
Voltage	V	400
Frequency	Hz	50/60
Power input	kW	5,5
Operating weight	kg	212
Dimensions L x W x H	cm	115 x 65 x 170
Noise level	dB(A)	78
Suction hose, antistatic	m	5
Ø – Suction outlet	mm	50
Underpressure	kPa	32
Volume flow	m³/h	520
Filter cleaning		automatically
Filter class		HEPA 14

STS 750 – Industrial vacuum for continuous operation with very high suction power

The powerful STS 750 comes standard with automatic, mechanical, uninterrupted dust shaking. With a 5500 W powerful motor, the vacuum unit is ideally suited for demanding applications in the construction industry. With 3-stage dust filtration: 1st stage for coarse dust, 2nd stage with 99.9 % via a polyester pre-filter, 3rd stage via HEPA filter with 99.995 %. Dust is collected in a transparent and easily transportable plastic bag (Dustbag). Including hand tube with floor suction nozzle and rubber strip, brush strip, hose (length 5 / 10 m, hose connection \emptyset 50 / 70 mm, antistatic), Dustbag and cable ties.



Automatic filter cleaning without suction loss



With click system for suction hose attachment

Special characteristics

Robust in design Large transport wheels Simple and reliable dust disposal via Dustbag Simple hose connection with click system Automatic mechanical filter cleaning without suction interruption Antistatic hoses



Technical data Ref. No. 617006 Voltage V Frequency Ηz kW Power input Operating weight 46 kg Dimensions L x W x H 66 x 61 x 130 cm Noise level dB(A) Suction hose, antistatic m 2 Ø – Suction outlet 50 mm

STA 300 – Pre-separator for higher suction performance and lower filter costs

The cyclone pre-separator STA 300 improves the suction performance of the suction unit and extends the service life of the filter system. It is used for high dust levels and separates approx. 80 to 90 % of the dust before it reaches the suction unit and its filters. Including hose (length 2 m, hose connection \emptyset 50 mm, antistatic), Dustbag and cable ties.



Standard with cable tie holder for Dustbag



Dust separation in Dustbag

Special characteristics

Robust design Conserves the filter system Simple and reliable dust disposal via Dustbag High suction capacity through cyclone technology Longer working cycles Antistatic hoses



Technical data		
Ref. No.		617007
Voltage	V	
Frequency	Hz	
Power input	kW	
Operating weight	kg	65
Dimensions L x W x H	cm	75 x 61 x 154
Noise level	dB(A)	
Suction hose, antistatic	m	2
Ø – Suction outlet	mm	70

STA 550 – Pre-separator for higher suction performance and lower filter costs

The cyclone pre-separator STA 550 improves the suction performance of the suction unit and extends the service life of the filter system. It is used for high dust levels and separates approx. 80 to 90 % of the dust before it reaches the suction unit and its filters. Including hose (length 2 m, hose connection \emptyset 70 mm, antistatic), Dustbag and cable ties.



Standard with cable tie holder for Dustbag



Dust separation in Dustbag

Special characteristics

Robust in design
Conserves the filter system
Simple and reliable dust disposal via
Dustbag
High suction capacity through cyclone
technology
Longer working cycles
Antistatic hoses

WSA 700P – Sludge vacuum for professional use

The vacuum for dirty water when high performance is required for vacuuming dirty water and grinding sludge. Including hand tube with floor suction nozzle and rubber strip, hose (length 5 m).



Technical data		
Ref. No.		617005
Voltage	V	230
Frequency	Hz	50/60
Power output	kW	2
Operating weight	kg	32
Dimensions LxWxH	cm	60 x 56 x 107
Noise Level	dB(A)	78
Suction hose, antistatic	m	5
Pump	W	750
Pump capacity	l/min	400



Swivel-mounted collection container for easy emptying of waste water



Pump with float switch



Waste water drain cock

Special characteristics

Overflow protection Swivel-mounted collection container for easy emptying of waste water Pump with float switch Waste water drain cock

ACCESSORIES FOR VACUUMS

SS 200P	STS 130	STS 260	STS 260A	STS 400	STS 750	STA 550
Accessories for Vacuums						
Hepa Filter (Ref. No.: 617049)						
Pre-filter (Ref. No.: 617021)						
Pre-filter (Ref. No.: 617061)						
Pre-filter (Ref. No.: 617395)						
Pre-filter (Ref. No.: 617218)						
Floor suction nozzle (Ref. No.: 617202)						
Floor suction nozzle (Ref. No.: 617206)						
Floor suction nozzle (Ref. No.: 617348)						
Rubber blades (Ref. No.: 617203)						
Brush blades (Ref. No.: 617204)						
Dustbag (Ref. No.: 615240)						
Hose, antistatic (Ref. No.: 617199) Ø 38 mm, 5 m						
Hose, antistatic (Ref. No.: 617208) Ø 50 mm, 5 m						
Hose, antistatic (Ref. No.: 617212) Ø 50 mm, 10 m						
Hose, antistatic (Ref. No.: 617213) Ø 70 mm, 5 m						
Hose, antistatic (Ref. No.: 617214) Ø 70 mm, 10 m						
Hose, antistatic (Ref. No.: 617215) Ø 50 mm, 2 m						

ADAPTER SYSTEM

Hose, antistatic (Ref. No.: 617216) 9 70 mm, 2 m Hose (Ref. No.: 617345) 5 m Mose (Ref. No.: 617345) 5 m Kit CEE test plug (Ref. No.: 722199) Adapter connection for the optimal connection between machine and vacuum cleaner Quick coupling nozzle 60-50 (Ref. No.: 617070) Quick coupling nozzle 60-70 (Ref. No.: 617279) Quick coupling nozzle 60-70 (Ref. No.: 617070) Quick coupling nozzle 60-70 (Ref. No.: 61708) Quick coupling nozzle 60-70 (Ref. No.: 61709) Adapter connection G38/50 (Ref. No.: 61709) Adapter connection G50/50 (Ref. No.: 61726) Adapter connection G70/70 (Ref. No.: 61726) Adapter connection G50/76 (Ref. No.: 61726) Adapter connection G50/76 (Ref. No.: 61726) Adapter connection G50/76 Adapter connection G50/76
Image: Ref. No.: 617345) Sm Kit CEE test plug Ref. No.: 722139) Adapters and connections for the optimal connection between machine and vacuum cleaner Image: Ref. No.: 617070 Quick coupling nozzle 60-50 Ref. No.: 617279) Quick coupling nozzle 60-70 Image: Ref. No.: 617279) Adapter connection G38/38 Ref. No.: 617289 Adapter connection G38/50 Ref. No.: 617050 Image: Ref. No.: 617207) Adapter connection G50/50 Ref. No.: 617207) Adapter connection G50/70 Ref. No.: 617207) Adapter connection G50/70 Ref. No.: 617207)
(Ref. No.: 722199) Adapters and connections for the optimal connection between machine and vacuum cleaner Quick coupling nozzle 60-50 (Ref. No.: 617070) Quick coupling nozzle 60-70 (Ref. No.: 617279) Adapter connection G38/38 (Ref. No.: 617198) Adapter connection G38/50 (Ref. No.: 617054) Adapter connection G50/50 (Ref. No.: 617207) Adapter connection G70/70 (Ref. No.: 617268) Adapter connection G50/76 Adapter connection G50/76
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(Ref. No.: 617268) Adapter connection G50/76 (Ref. No.: 617267)
(Ref. No.: 617267)
Adapter connection G70/76
(Ref. No.: 617269)
Hose connector G38/G38 (Ref. No.: 617272)
Hose connector G50/G50 (Ref. No.: 617270)
Hose connector G70/G70 (Ref. No.: 617271)
Adapter connection 50/70 (Ref. No.: 617274)
Adapter connection 76/70 (Ref. No.: 617276) 5TS 5TS 40 75

GX/Y G = thread, X = suction-pad connection, Y = machine connection

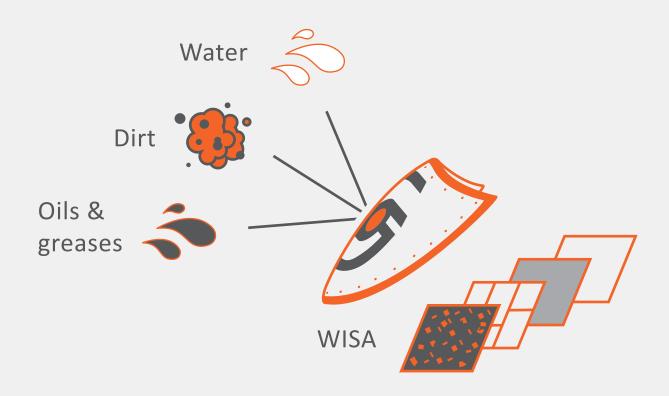


VACUUM-MACHINE COMBINATIONS

		WSA 700P	STS 130	STS 260	STS 260A	STS 400	STS 750	STA 300	STA 550
Grinding and milling machines	Suction outlet								
DSM 250	Ø 50 mm								
DSM 400	Ø 50 mm								
DSM 450	Ø 50 mm								
DSM 530	Ø 50 mm								
DSM 530S	Ø 70 mm			\times	\times				
DSM 650S / RC	Ø 70 mm			Х	X				
DSM 800S / RC	Ø 70 mm			\times	\times				
WDS 250	Ø 70 mm								
WDS 530	Ø 50 mm			Х	\times				
BEF 201 / V	Ø 50 mm								
BEF 204	Ø 70 mm								
BEF 250 / V	Ø 70 mm			Х	Х				
BEF 320 / V	Ø 70 mm			Х	\times				
BEF 400RC	Ø 70 mm								
recommended possible	ig imes possible only with adapter c	onneo	ction	50/70	(Ref.I	No.: 6	17274	1)	

CHEMISTRY





The variety of contemporary floors continues to grow. Artificial stone/terrazzo, screeds, granite, gneiss, quartzite, sandstone, travertine, marble, limestone, slate and both natural and artificial stones are only the most important modern flooring types.

The material used or process employed means that these can be extremely absorbent or polished and finely ground.

Depending on the quality and use of floors, different primers and waterproofing media are required to provide the best possible protection and achieve simplified cleaning and care. Through the Protect range of chemicals, our new WISA stain protection system meets precisely these requirements. It provides water, silane, acrylic polymer, fluoropolymer or hydrogen-based chemical agents perfectly adapted to every application.



PROTECTION





Protect W | 10L

A water-based impregnating agent with fluoropolymers that renders surfaces water and oil repellent. Cleaning of floors is considerably facilitated, and oily and greasy dirt is significantly reduced and can be removed with greater ease.

Protect I | 10L

A special solvent-based impregnating agent based on silane which achieves a surface exceptionally repellent to water and oil. It is ideal for polished and unpolished cement-bound flooring, industrial artificial stone/terrazzo and screeds and on granite, gneiss, quartzite, sandstone, travertine, marble, limestone, slate and artificial stones.

Special characteristics	
Solvent-free and odourless	
Counteracts the penetration of dirt	
Vapour diffusion is harmless	
Facilitates cleaning	

Special characteristics

Absorbs less water, with the surface remaining breathable Counteracts the penetration of dirt Increased degree of wear on floor



Protect S | 10L

Ideal for excessively absorbent, cement-bound flooring materials when a dense surface is desired. The primer penetrates into the surface, thus reducing the ingress of liquids and other dirt.



Protect A | 10L

A solvent-based impregnate for terrazzo, natural and artificial stone, polished and fine-ground concrete floors as well as for all hard-material and magnesite screeds. The impregnation is highly grease, oil, water and dirt repellent.

Special characteristics

High-filling capacity For highly absorbent floors Fast-drying Protection against oils and greases

Special characteristics
Facilitates cleaning
No impact on floor sheen
Colourless



Pro Clean | 10L

A highly effective basic alkaline cleaner for professional removal of oil and grease soiling, residual floor care products, light wax films and general dirt. Stubborn dirt deposits on industrial floors, cement screeds, terrazzo, artificial and natural stone and fine stoneware tiles are removed speedily and without difficulty as a result.



Betonhart Li | 10L

Special characteristics

High depth of penetration

Prevents flooring dust formation

Enhanced sheen

With its extremely high lithium content, Betonhart Li achieves considerably improved concrete properties with regard to abrasion resistance, surface hardness, chemical resistance and impact strength. Lithium silicate penetrates the concrete, creating an insoluble calcium silicate hydrate. This makes concrete surfaces denser and harder, with the penetration of liquids and other dirt being marginally reduced.

Absorbs less water, with the surface remaining breathable

Special characteristics

Mild odour, free of alkalis and solvents

Aids removal of cement residue on polished surfaces

Perfectly suited to final construction cleaning

Detaches and disintegrates oils, greases, old care agent films, wax and polish layers

TEMPERING



Commendeer Color

Betonhart H | 10L

Betonhart H is a ready-to-use or dilutable single-component product which has a consolidating and solidifying effect on the concrete surface and integrated basic stain protection. Cavities (pores/capillaries) are filled, leading to spontaneous densification of the surfaces of cementitious materials. The result is densification and consolidation, leading to dirt repellency. In addition, dust is effectively bonded and abrasion protection improved.

Special characteristics

Integrated basic protection

Absorbs less water, with the surface remaining breathable Prevents flooring dust formation

Betonhart | 10L

A liquid silicate-based impregnating agent that penetrates the floor, leading to densification of cement-bound industrial screeds and concrete floors.

Betonhart improves surface hardness, abrasion resistance, water repellency and dust bonding as a result and provides better protection against light soilings.

Special characteristics

Improved abrasion resistance Water repellency Ideal impact resistance Prevents flooring dust formation



Crystallization agent | 10L

The crystallization agent ensures a lasting and resistant sheen that seals and protects the floor. It is ideal for natural stone, marble and terrazzo floors.



Marmolin

A crystallising agent for marble, artificial stone and terrazzo. it is particularly suitable for the high-gloss polishing of matt stone floors as well as grinding and polishing synthetic resin diamonds from a grit of 400. Marmolin creates a natural high gloss, is free from wax contents and does not form layers. It is a wet crystallisation agent and is suitable for the polishing of old stone floors as well as for use immediately after wet polishing with diamond tools.







PROTECT stone soap | 10L

PROTECT stone soap soap is a slightly alkaline cleaning and care agent for calcareous stone floors, marble, terrazzo, artificial stone, designer floors, screeds and concrete surfaces. The stone soap forms a thin protective layer, rendering the surface water and dirt repellent.

Scarf paste | 10L

Scarf paste enables clean stripping of formwork from the concrete surface without damage to delicate areas. This release agent prevents concrete residue from adhering to the formwork, preserving the formwork and minimising its cleaning requirements.

Special characteristics

- Not layer forming
- Water repellency
- Pleasant smell during processing
- Easy to handle or Easy to process

To be used for initial care and maintenance cleaners



Chemistry



Protect W (Ref. No.: 722242)

A water-based impregnating agent with fluoropolymers that renders surfaces water and oil repellent, 10 l



Protect I (Ref. No.: 722243)

Solvent-based impregnation for significant water and oil repellent surfaces, 10 l



Protect S (Ref. No.: 722244)

A watery primer based on an acrylic-copolymer with a water-repellent effect, 10 l



Protect A (Ref. No.: **722245**)

Solvent-based impregnation for polished and honed natural and artificial stone, 10 l



Pro-Clean

(Ref. No.: **722240**) The highly effective alkaline basic cleaner for a versatile application, 10 I



Betonhart LI (Ref. No.: **722241**)

Leads to significant improvements of concrete properties, 10 l



Betonhart H (Ref. No.: 722246)

With a strengthening and compressing effect on the concrete surface, 10 |



Betonhart (Ref. No.: 713235) Impregnation for the compaction of cement bonded industrial screed and concrete floor, 20 l (25 kg)



Crystallization agent (Ref. No.: 515900) A durable and resistant polish, 5 I



Marmolin (Ref. No.: 608811) For polishing natural stone, marble, terrazzo, 5 kg



Marmolin (Ref. No.: **608812**) For polishing natural stone, marble, terrazzo, 25 kg



PROTECT stone soap (Ref. No.: **706897**) A slightly alkaline cleaning and maintenance agent for any floors, 5 I

(Ref. No.: 702650) Scarf paste enables clean stripping of formwork from the concrete surface without damage to delicate areas, 10 l

Scarf paste

Мор



Starter kit mop (Ref. No.: **718615**) Telescopic handle, mop holder and 10x microfibre cloth



Mop microfiber cloth 10 pack (Ref. No.: **718614**) 10x microfiber cloth

1. Validity of the terms

- (1) All c All our quotations, deliveries and services are implemented exclusively on the basis of these terms, even if not specifically mentioned during contractual negotiations. They apply to all contracts with contractors, legal representatives of public corporations and separate estates under public law (hereinafter known as the purchaser). They are also applicable for all future business rela-tions, deliveries and services concerning the purchaser, even if in future they are not expressly mentioned or agreed again. Our terms are deemed to be applicable at the latest on acceptance
- The purchaser's own business terms do not apply, even if we have not disputed these and still undertake the business. This is also true for those clauses in the purchaser's terms, which touch
- If the purchaser is not contained in our terms, which are a charge on us in spite of the law. If the purchaser is not in agreement with this method of working, he must at once make this fact clear in a special letter. In such a case we reserve the right to decline the contract, without it being possible to make any claims whatsoever against us.

2. Quotations and delivery terms

- (1) Our quotations are not binding, unless something different is specifically laid down. A binding Our quotations are not binding, unless something different is specifically laid down. A binding contract as a result of an order placed by the purchaser acquires legal validity only on receipt of our written confirmation of the contract or through the acceptance by the purchaser of the object supplied or of the service we provided (whichever takes place first). Oral agreements are binding on us only when we have confirmed them in writing. Our delivery or service provided takes place ex works, unless agreed otherwise.
- The deciding factor relating to the condition of the object or service provided by us is the infor-(4)
- Unless expressly agreed otherwise, we provide no kind of guarantee, in particular neither a guarantee as to condition nor as to shelf life. Information relating to an object or service provided (5) does not constitute consent to the acceptance of liability concerning procurement.

3. Threat to the solvency of the purchaser

3: Interaction the purchaser if we are obliged to undertake work in advance, we can decline the work incumbent upon us if it becomes clear to us, only after concluding the contract, that our claim is endangered by the lack of solvency on the part of the purchaser and indeed until compensation is effectuated or security provided to this effect. We can set the purchaser an appropriate period of time, in which the latter, at his discretion, either has to effectuate the compensation contemporaneously with our concise or provide society. Should this paried evelop works our open and the paries of the with our service or provide security. Should this period expire without this being done we can withdraw from the contract.

. Delivery time

- A delivery period or period for accomplishing a service commences when the contract becomes fully effective, i.e. normally with the receipt of our contract confirmation, unless otherwise agreed in an individual case. (1)
- (2)
- In an individual case. The delivery period or period for accomplishing a service is extended by the time, during which the purchaser for his part does not fulfil or not fulfil properly his required obligation to co-operate or his obligation to make a payment in advance. If, before delivery of the object to be supplied, the purchaser requires another version of the same article, differing in any respect, the term of the delivery period will be interrupted until agreement is reached thereon and extended appropriately if, because of the alteration, it is no longer possible or reasonable for us to adhere to the previous delivery period or period for percomplicition a convict. (3)
- If, following conclusion of the contract, we are prevented from fulfilling our delivery or providing accomplishing a service. If, following conclusion of the contract, we are prevented from fulfilling our delivery or providing a service because of the occurrence of unforeseeable, exceptional circumstances, which we could not avert in spite of carrying out the care necessary in accordance with the circumstances of the individual instance, the delivery period or period for accomplishing a service will be extended appropriately inspire a these circumstances lead to delays. This is particularly applicable if we can perpenditude in care of the contract of concentration of the previous contract of the concentration of the concentratio prove that, in spite of careful selection of our suppliers and in spite of concluding the necessary contracts concerning appropriate terms, we were not supplied on time by our suppliers. We can invoke this clause only if we have notified the purchaser immediately of the occurrence of these circumstances.
- circumstances.
 (5) Should the delay referred to in Section 4 last longer than 1 month, both parties are entitled to withdraw from the part of the contract, which has not yet been fulfilled.
 (6) Claims against us for damages on account of delays in delivery or performance of services or for non-fulfilled deliveries or provision of services, our legal representatives or agents. This exclusion of liability does not apply with respect to damage arising from injury to life, limb or health or which is based on an infringement of an important contractual delivery or performance of a service. In the case, however, of an unintentional infringement of an important contractual bilgition (so-called cardinal obligation) or of one which is not due to pross negligence. (cardinal obligation) or of one which is not due to gross negligence, liability is limited to typical contractual and foreseeable damage, if no damage has arisen as a result of injury to life, limb or health and we have also not provided any guarantee for punctual delivery or performance of a ervice.
- Section 6 applies with respect to claims for reimbursement of expenses in accordance with § 284 of the Civil Code. (7)

- (1) All prices, unless expressly agreed otherwise, are net prices in Euro plus the legal Value Added Tax we have to pay at the time in question.
 (2) Unless otherwise agreed, deliveries of goods with a contractual value smaller than 50 € will be undertaken only for cash on delivery, plus a processing surcharge of 15 €.
- (3) For goods we agree to accept back we charge a re-stocking fee of 15%.

- . Payment terms
- (1) Invoices for repairs are payable immediately without discount.
 (2) Unless otherwise agreed, other payments by the purchaser for deliveries and services are to be made without any deduction within 30 days of the date of the invoice; payments made within 10 days of the date of the invoice are entitled to a discount of 2%. The deciding factor is the receipt of the relevant sum in our account. If the purchaser pays by instalments, the discount as a whole is applicable only if all instalments take place within the discount period. Unless otherwise agreed, our field representatives are not entitled to collect payments.
- The purchaser is entitled to offset payments with counter-claims only if the counter-claim, which is to be offset, is established as being undisputed or legally effective. The same applies to esta-(4)blishing a right of lien.
- Unless expressly agreed otherwise, we reserve the right to decline bills of exchange or cheques. If the purchaser pays by means of a bill or a cheque, without there being an agreement to this effect, and we accept this, this is done only because it is payment of a debt, so that a payment takes place only when it is effectively cleared. All costs in connection with the discounting of bills (5) or cheques are charged to the purchaser. We are not responsible for the punctual presentation of bills or cheques.
- Should payment periods be exceeded, default interest will be charged at a rate of 8% p.a. plus (6) basic interest of the European Central Bank

7. Retention of title

- The good supplied remain our property until full payment has been made for all claims arising out of the business relationship with the purchaser existing at the time of the transfer of liability, including all secondary claims. This applies, however, only to claims, which arise on account of or as a result of the validity of these business terms.
 For payments by cheque or bill of exchange retention of title ceases only with the redemption of these by the purchaser as drawee and the reimbursement of possible discounting and collection
- charges.(3) The purchaser is responsible for handling goods, which are still subject to our retention of title

(reserved goods), carefully and for carrying out possible service-, maintenance- and repair work necessary to maintain their value. He is liable for the loss of and all damage to the reserved goods, even if he is not at fault.

- He may neither pledge, hire out or loan the reserved goods nor dispose of them, except as authorised in accordance with Section 7. If the purchaser does not fulfil his obligations concerning the proper treatment of the reserved goods, although we have provided him with an appropriate period to remedy the matter, we (4)

- goods, although we have provided him with an appropriate period to remeay the matter, we can also reposses them. If we make use of our right to repossess the reserved goods, rescission of the contract occurs only if we have expressly stated this in writing. We are entitled to charge the purchaser an appropriate amount for our expenditure in connection with a repossession, for which he is responsible. If the reserved goods are attached or claimed in any manner by a third party we are to be notified by the sending of copies of all documents (e.g. distraint document) in the possession of the pur-chaser. The purchaser is specifically obliged to draw attention to our property. All costs incurred by us in resisting an unjustified action against us are to be reimbursed by the purchaser, insofar as they are not to be borne by the third party and the purchaser is responsible for the action. If the purchaser is a retailer he can dispose of the reserved goods as part of a normal business transaction in this case claims arising from the disposal of the reserved goods will already have
- (8) If the purchaser is a retailer ne can dispose of the reserved goods as part of a normal business transaction; in this case claims arising from the disposal of the reserved goods will already have been assigned to us as security for the claims secured through the retention of title for the amount of the invoiced value of the reserved goods agreed with us, without requiring a further declaration. The purchaser is empowered to collect claims for us arising out of the resale of the reserved goods. We can annul the collection authority at any time, if the purchaser gets into arrears with his payment obligations towards us or becomes unable to pay or the opening of insolvency proceedings against his estate is demanded. As long as an annulment of the collection authority has not been taken by us, we ourselves will not collect the claim. If the value of the securities, to which we are entitled by reason of this clause, exceeds the value
- (9) of our secured claims together with subsidiary claims by more than 155%, we will release the excess securities. All other rights of the purchaser to request a release should the amount of the security become excessive remain unaffected.

Purchaser's rights with respect to defects

- (1) If we are responsible for delivering a newly manufactured article or providing a service and if the If we are responsible for delivering a newly manufactured article or providing a service and if the object being delivered or the service being provided exhibits a defect at the time at which the risk passes, we are responsible, at our discretion, for repairing the defect or (as part of a sales' agreement) supplying a fault-free article or (as part of a work contract) providing a new service. The expenditure necessary for the purpose of the appropriate rectification work, in particular the costs of transportation, route, work and materials are to be borne by us. If the rectification work, for which we are responsible in accordance with Section 1, fails, the purchaser can withdraw from the contract or reduce the compensation due to us through a statement. Insofar as nothing else occurs subsequently and we have not fraudulently concealed the defect or have provided a guarantee for the condition of the article or of the service, further claims on the oart of the purchaser reagrding a defect, on whatever legal errounds, are excluded.
- claims on the part of the purchaser regarding a defect, on whatever legal grounds, are excluded. Claims for compensation as a result of a defect remain in existence in the following cases, in spite of the exclusion of liability contained in Section 2: for damage arising from injury to life, limb and health, which are caused by a culpable infringement
- of duty on the part of ourselves, our legal representatives or agents, for other damage arising from a grossly negligent or malicious infringement of duty on the part
- of ourselves, of one of our legal representatives or agents,
- in the case of liability on the basis of the product liability law. Claims for compensation for simple negligence on our part are, incidentally, also not excluded, insofar as an infringement of an important contractual obligation (so-called cardinal obligation) (4) has brought about the damage. In this case, however, for an instance of simple negligence only contractually typical, foreseeable damage can be required to be replaced by us, unless an incident described in Section 3 has occurred at the same time.
- Claims on the part of the purchaser for defects on account of an insignificant decrease in the value or the serviceableness of the object supplied or in the service provided are not acceptable, subject to the provision in Section 7. We are not liable for penalties, which the purchaser has agreed with third parties.
- (7)
- agreed with third parties. If the object supplied is a second-hand one, all rights of the purchaser regarding the existence of a material defect are excluded, subject to the provision in Section 7. The exclusions of liability in Section 5 and Section 6 do not apply if we have maliciously covered up the defect or have provided a guarantee as to the condition of the article or the service provided, as well as in the case of claims for compensation in the instances listed in Sections 3 and 4. The aforementioned regulations concerning the exclusion or continuance in force of claims for
- (8) compensation apply similarly to possible claims on the part of the purchaser for reimbursement of pointless expenditure in accordance with § 437 No. 3 of the Civil Code or § 634 No. 4 of the Civil Code together with § 284 of the Civil Code.
- Claims on the part of the purchaser for restitution lapse after one year from the delivery of the object supplied in the case of a sales' contract or, in the case of a work contract, from the acceptance of the service provided. This does not apply
- if an incident listed in § 438 Section 1 No. 2 of the Civil Code or in § 634 Section 1 No. 2 of the if the defect was maliciously concealed by us or if we have provided a guarantee as to the condition
- of the object supplied or of the service provided. (10) The rights of the purchaser to reduction and rescission, arising from § 437 No. 2 or § 634 No. 3 of the Civil Code, are excluded if the claim for restitution is invalid by lapse of time, taking into account particularly the regulations contained in Section 9, and we refer to this fact. He can, however, refuse payment of the purchase price or payment for the service provided insofar as he would be entitled to do so by reason of the rescission or right to reduction.
- (11) Peremptory rights on the part of the purchaser, such as the purchaser's rights as a contractor to recourse in accordance with § 478 of the Civil Code are not excluded or limited by these clauses.
 (12) If we prove that a complaint by the purchaser was unjustified, the purchaser has to reimburse us the costs incurred, including the costs of the investigation and return transportation.

- 9. Other exclusion of liability In all other cases, i.e. not dealt with in Item 4, Section 6 and Item 9, we are liable for compensation In other cases, i.e. not dealt with in item 4, Section 6 and item 9, we are liable for compensation only if it is a matter of a grossly negligent or premeditated infringement of duty on the part of ourselves, our legal representatives or agents. This exclusion of liability does not apply: for damage caused by injury to life, limb and health insofar as an infringement of an important contractual obligation (so-called cardinal obligation) has brought about the damage. in the case of liability on the basis of the product liability law.

- . Place of fulfilment and court of jurisdiction The place of fulfilment and place of performance is Wangen-Göppingen (Germany), unless agreed otherwise
- The exclusive court of jurisdiction for all disputes arising directly or indirectly out of the contrac-tual relationship, including action on a cheque or bill of exchange, is the competent court for our headquarters. Should we appear as plaintiff or petitioner we are also entitled to appeal to the competent court for the purchaser's headquarters instead of to the former.

11. Applicable law

- The contractual relationship is subject exclusively to German law. Should one of the aforementioned clauses be or become invalid at law, the validity of the remaining clauses is not thereby affected.

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