Cleaning Technology Municipal Technology Waterjet Technology





## Cleaning Technology

Cleanliness without compromise

High-tech. Service. Management.



Performance redefined

Sweeping, vacuum sweeping, scrubber-drying: We develop cleaning technology products that meet the most exacting requirements. Our focus is always the same: maximum customer satisfaction. By keeping in mind the specific requirements for carrying out individual tasks when developing our products, our machines enable both efficient and flexible working and are comfortable to use. Innovative ideas, outstanding service competence and our high quality standards are the key drivers of our success. This is how a high-quality product becomes a perfect solution that meets every challenge with superior performance. Or as we call it: Cleanliness without compromise.



We develop cleaning technology that meets the increasing demands of our customers now and in the future. This is what our Scrubmaster range stands for with many different working widths, performance sizes and options available – from walk-behind to ride-on to autonomous machines!

#### Always the right solution

We are constantly developing our walk-behind and ride-on sweepers, scrubber-driers and combination machines to always have the right answer for indoor and outdoor cleaning service providers now and in the future. This also includes incorporating sustainability into the design of our cleaning machines right from the product development stage: with production using environmentally friendly, CO<sub>2</sub>-saving processes in modern plants, economical, eco-friendly use as well as recycling and disposal. With strong services ranging from consulting and financing to responsive on-site service and individual service contracts, we ensure maximum availability and optimally match our machines to the intended areas of application and needs of our customers. We offer solutions that fit exactly: to every task, to every customer, at any time.

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# **Sweepmaster** Sweepers and vacuum sweepers, walk-behind, ride-on with high dump or take-it-easy dump

- $\bullet \ \ \text{Walk-behind sweepers and vacuum sweepers with area performances of between 2,300 and up to 4,350 \ m^2/h }$
- Ride-on vacuum sweepers with area performances of up to 16,200 m<sup>2</sup>/h
- Superior cleaning performance for both in- and outdoor areas
- Powerful filter systems provide reliable dust control
- Service- and maintenance-friendly



#### Effective dust filter

The cassette filter system with large filter surface and patented R<sup>2</sup>S filter cleaning technology ensures clean exhaust air and long operating times.



#### Particularly convenient

The Take-it-Easy container system of the Sweepmaster 650 enables easy emptying with just one handle.



#### Easy changing of the cylinder

Changing the sweeping cylinder is particularly easy; no tools needed.

### A simple idea with maximum effect!

The side brush jacket Dust Stop can be retrofitted easily – no technical installation required! Unlike conventional dust control systems, Dust Stop uses no water, which means: no streaky floors! In comparison to working with naked bristles, Dust Stop minimises the danger of debris being catapulted out of the sweeping path. Sweeping close to walls or racks is possible without restrictions – and without damaging any objects.



#### Benefits:

• Allows dust-reduced sweeping

Particle size

with Dust Stop without Dust Stop

- Reduces fine dust and noise pollution
- No use of water
- Easy handling
- No additional energy consumption (rotates with the side broom)
- Dust Stop is suitable for use with Hako Sweepmasters and Scrubmasters equipped with a pre-sweep/vacuum unit

#### Two working steps in a single cleaning pass

Hako's quick-connect system allows upgrading of the Sweepmaster models 900 R and 980 R/RH with a "light debris collector" tool. Coarse dirt can be picked up manually with a gripper directly from the machine and collected in the litter bin.



#### Take-it-Easy

The two dirt hoppers can be removed separately and emptied with ease.

The hopper lifting system is particularly easy to operate and allows checking the filling level or throwing coarse pieces of debris into the hoppers at any time.



## Reliably cleaned surfaces

Thoroughly removes dirt, dust and light debris: These are the tasks carried out by the machines of Hako's Sweepmaster product line. From a manual sweeper for cleaning small areas to vacuum sweepers providing area performances of up to 4,350 m<sup>2</sup> per hour, these compact walk-behind sweepers are the right choice when it comes to cleaning workshops and exhibition- or production halls as well as for light-duty outdoor cleaning operations. In addition to battery-powered versions, the models Sweepmaster 650 and 800 are also available with petrol-powered drives. Large-capacity dirt hoppers and powerful filter systems ensure highly efficient cleaning results.



## Sweepmaster

Walk-behind sweepers and vacuum sweepers



Sweepmaster M600

Technical data		M600
Working width with 1 SB	cm	67
Theoretical area performance	m²/h	2,300
Manual drive		manual
Working speed	km/h	4
Dirt hopper capacity	1	40
Length	cm	133-155
Width	cm	79
Height above the seat (handle bar)/overhead guard	cm	90/106
Total weight, ready for use	kg	24



Sweepmaster B500

Technical data		B500
Working width with 1 SB	cm	60
Theoretical area performance	m²/h	2,400
Manual drive		battery
Working speed	km/h	4
Dirt hopper capacity	1	40
Length	cm	80-100
Width	cm	70
Height above the seat (handle bar)/overhead guard	cm	60/120
Total weight, ready for use	kg	56



Sweepmaster 650

Technical data		650		
Working width with 1 SB	cm	70,5		
Theoretical area performance	m²/h	3,525		
Manual drive	battery/	battery/petrol		
Working speed	km/h 5			
Dirt hopper capacity	1	35		
Length	cm	120		
Width	cm	68,5		
Height above the seat (handle bar)/overhead guard	cm	71.5/100		
Total weight, ready for use	kg	105-122		



Sweepmaster 800

Technical data		800		
Working width with 1 SB	cm	87		
Theoretical area performance	m²/h	4,350		
Manual drive	battery	battery/petrol		
Working speed	km/h	5		
Dirt hopper capacity	1	50		
Length	cm	120		
Width	cm	85		
Height above the seat (handle bar)/overhead guard	cm	71.5/100		
Total weight, ready for use	kg	112-165		



#### More cleanliness, less dust

The side broom jacket Dust Stop (option) reduces the development of dust and fine particulates during dry sweeping by up to 90% in comparison to conventional side brooms.



more about Dust Stop



## Drive, sweep, vacuum

Hako's range of ride-on vacuum sweepers comprises various different models: from a compact and highly manoeuvrable machine to a universal model providing an area performance of 16,200 m² per hour. Efficient dust filter systems provide a filtering degree of 99.5 %, the optimised vacuum system binds both dust and dirt particles effectively. The comprehensive range of accessories available offers customers the right solution for almost any sweeping task in trade and industry or in commercial contract cleaning.





# Sweepmaster

Ride-on vacuum sweepers



Sweepmaster B800 R

Technical data		B800 R
Working width with 1 SB/2 SB	cm	89/110
Theoretical area performance	m²/h	5,340/6,600
Manual drive		battery
Working speed	km/h	6
Dirt hopper capacity	1	50
Length	cm	128
Width	cm	90.8-99.8
Height above the seat (handle bar)/overhead guard	cm	124
Total weight, ready for use	kg	282



Sweepmaster 900 R

Technical data		900 R		
Working width with 1 SB/2 SB	cm	95/120		
Theoretical area performance	neoretical area performance m²/h 5,700			
Manual drive	battery	/petrol		
Working speed	km/h	6		
Dirt hopper capacity	1	60		
Length	cm	150		
Width	cm	100		
Height above the seat (handle bar)/overhead guard	cm	133		
Total weight, ready for use	kg	370-460		



Sweepmaster 980 R/RH

Technical data		980 R/RH		
Working width with 1 SB/2 SB	cm	95/120		
Theoretical area performance	m²/h	5,700/7,200		
Manual drive	battery/	battery/petrol		
Working speed	km/h	6		
Dirt hopper capacity	1	60/75		
Length	cm	150		
Width	cm	100		
Height above the seat (handle bar)/overhead guard	cm	133/200		
Total weight, ready for use	kg	380-620		



Sweepmaster 1200 RH

Technical data		1200 RH
Working width with 1 SB/2 SB	cm	116/147
Theoretical area performance	m²/h	9,300-13,200
Manual drive	battery	/petrol/diesel
Working speed	km/h	8/9
Dirt hopper capacity	1	130
Length	cm	199.8
Width	cm	114.2
Height above the seat (handle bar)/overhead guard	cm	152/199.9
Total weight, ready for use	kg	763-1100



Sweepmaster 1500 RH

		1200 RH	Technical data		1500 RH
SB/2 SB	cm	116/147	Working width with 1 SB/2 SB	cm	127/162
ormance	m²/h	9,300-13,200	Theoretical area performance	m²/h	10,200-16,20
	battery/p	petrol/diesel	Manual drive	battery/p	petrol/diesel
	km/h	8/9	Working speed	km/h	8/10
	I	130	Dirt hopper capacity	1	250
	cm	199.8	Length	cm	223
	cm	114.2	Width	cm	133.5
t I guard	cm	152/199.9	Height above the seat (handle bar)/overhead guard	cm	159/198.5
r use	kg	763-1100	Total weight, ready for use	kg	1100-1715



#### More cleanliness, less dust

The side broom jacket Dust Stop (option) reduces the development of dust and fine particulates during dry sweeping by up to 90% in comparison to conventional side brooms.



more about Dust Stop



#### Technical benefits in every detail

Hako machines are equipped with elaborated technical features to provide maximum safety and ease-of-use. Components such as brushes and sweeping units can be changed quickly and easily. All operating displays are clearly arranged and provide detailed information on the cleaning functions and the battery status. Both the on-board chargers and batteries can be charged at any conventional power outlet.

#### **Back-friendly overall machine concept**

Scrubmaster

Hako ride-on Scrubmasters have been awarded the AGR quality label (Aktion Gesunder Rücken e.V.), making Hako the first supplier worldwide to have received this accolade for its scrubber-driers! Equipped with ergonomic details such as an individually adjustable comfort seat, clearly arranged operating elements and a height- and tilt-adjustable steering wheel, Hako ensures comfortable, fatigue-free working.

#### Scrubber-driers, walk-behind, ride-on and combi machines

- Ergonomically efficient wet cleaning. The machines provide area performances of between 1,400 and up to 14,000 m<sup>2</sup>/h
- Benefits both the environment and your budget: Hako-AquaControl for a more economical use of water and chemicals
- Innovative tank technology for long operating times
- Suitable cleaning components for every type of floor
- Service- and maintenance-friendly

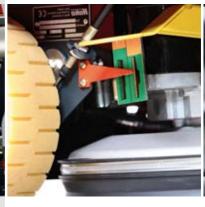


#### Intuitive, clear, direct: Pictograms on the operating

panel enable a quick overview and make it easy to select the functions – in every work situation. Another feature providing ease-of-use: the 1-button operating system activates all the cleaning functions at the push of a button.

#### Provides more safety when handling chemicals:

Depending on the quantity of water applied in the cleaning process, the on-board dosing system automatically adds just the right amount of cleaning detergents – and the system is fully integrated into the machine design.



#### Everything at a glance and within easy reach

Sufficient material thickness of the brushes and pads is essential to ensure permanently good cleaning results. The mechanical wear indicator shows the operator when it is time to change the brush or pad. Scanning the QR code gives the user full access to the entire machine data on the operating panel. Even service orders can be placed directly from the cockpit.



#### With Eco mode:

With low levels of soiling, the machines can be operated efficiently and in an environmentally friendly manner with less power to minimise noise emissions and save energy.

#### Lighting according to StVO:

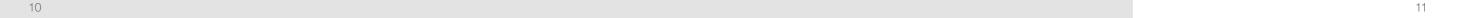
For better visibility, for example when working in outdoor areas, the Scrubmasters can be fitted with lighting equipment.

#### Everything at a glance:

The large 4.3-inch colour display shows also conveniently adjustable.



all information. The chemical dosage is





## Technology that understands

Mapping technologies allow routes to be recorded and stored during the cleaning journey. The machine can be intuitively operated and programmed via an 8-inch touchscreen. The Scrubmaster B75 i effectively increases productivity as it can autonomously perform cleaning tasks at any time of the day or night - efficiently and safely, saving time and resources.



#### Always the right system:

Equipped with a disc brush system or a cylindrical brush unit and two additional side brooms with Dust Stop for dustand fine particulates-reduced sweeping.







## Scrubmaster B75 i

Autonomous scrubber-drier

The Scrubmaster B75 i cleans learned routes autonomously, reliably and safely. The 3D camera system and certified LiDAR sensors not only enable efficient navigation, but also compliance with safety standards. Operation and learning new routes are as simple as they are intuitive. Another advantage: For quick cleaning jobs in between, the Scrubmaster B75 i can also be operated manually as a conventional walk-behind scrubber-drier – and is particularly ergonomic thanks to the extendable handle.



#### **Options for more efficiency:**

The docking station for battery charging, recovery tank emptying and solution tank filling with fresh water as well as the Clean Guard front shield for unimpeded cleaning in areas with increased coarse dirt (from 2024).

#### Autonomous - and safe!

Reliable safety sensors, 3D cameras and collision protection systems detect obstacles and ensure that the machine avoids people or objects in time. The data is also safe: In order to protect the data collected during teach-in and the cleaning journey, all EU regulations are complied with during storage and evaluation.

#### **Benefits:**

- . Autonomous driving and cleaning with innovative, image-processing technology
- Simple, intuitive route learning
- Compliance with safety standards
- With disc or cylindrical brush
- Can also be used as a conventional walk-behind scrubber-drier
- Ergonomic in manual operation
- Optionally with Hako-AntiBac® for use in hygienesensitive areas

Technical data Scrubm	aster B75 i
Working width Disc brush / cylindrical brush	65 cm
Effective squeegee width	76 cm
Theoretical area performance disc brush cylindrical brush	2,340 m²/h 1,980 m²/h
Battery	Lithium
Theoretical running time (math. calc.)	120 to 180 min*
Solution tank	751
Recovery tank	751
Total weight max.	330 kg*
Dimensions:	
Length Width (above bumper) Height at the operating handle	105 cm 74.5 cm 120 cm



For corners and edges

With its innovative Hako-Delta-Cleaning-System, the Scrubmaster B5 makes even narrow and angled areas accessible for machine-assisted cleaning - with great agility, excellent manoeuvrability and little effort on the part of the operator. The flat, delta-shaped cleaning head enables cleaning close to walls, right into corners and under superstructures with a floor clearance of as little as 120 mm. And the ergonomic, dynamic operating handle optimally supports the user in their movements.



## **Scrubmaster**

Walk-behind scrubber-driers

## The new lightness

With working widths of 33 to 43 cm and an area output of up to 1,900 m<sup>2</sup>/h, the walk-behind scrubber-driers in the smaller performance range improve the cleaning quality on small to medium-sized areas. At the same time, they are so compact, light and easily manoeuvrable that they can even reach into narrow areas. And to increase area accessibility even further, our product developers have implemented a number of brilliant features: from the innovative Hako-Delta-Cleaning-System of the Scrubmaster B5 to the adjustable operating handle of the Scrubmaster B25, which also can be folded.



Practical: the optional storage box for cleaning or other utensils and the optional







Scrubmaster B5

Technical data		B5
Working width	cm	43
Theoretical area performance	m²/h	1,300
Solution/recovery tank	I	5/5
Width squeegee	cm	-
Battery capacity	Ah	12.8
Running time	min	60
Weight	kg	21



Scrubmaster B/E8

Technical data		B/E8
Working width	cm	33
Theoretical area performance	m²/h	1,320
Number/type of brushes	1/cylino	frical brushes
Brush speed	RPM	800
Solution/recovery tank	I	8/8
Width squeegee	cm	45
Battery capacity	Ah	10/20
Running time	min	60
Weight with/without battery	kg	30.5-37.7



Scrubmaster B12

Technical data		B12	
Working width	cm	38	
Theoretical area performance	m²/h	1,500	
Number/type of brushes	1/disc	1/disc brushes	
Brush speed	RPM	130	
Solution/recovery tank	I	16/22	
Length with squeegee	cm	80	
Width without/with squeegee	cm	47	
Height	cm	-	
Total weight, ready for use	kg	80	



Scrubmaster B25

Technical data		B25		
Working width	cm	43		
Theoretical area performance	m²/h	1,700-1,900		
Number/type of brushes	1/disc b	1/disc brushes		
Brush speed	RPM	210		
Solution/recovery tank	I	30/30		
Length with squeegee	cm	126.5		
Width without/with squeegee	cm	50/76		
Height	cm	109,5		
Total weight, ready for use	kg	179-190		



## Compact, fast, efficient

With a wide range of working widths, high area outputs of up to 4,200 m<sup>2</sup> per hour and numerous options for more working comfort, efficiency and hygiene, the walk-behind scrubber-driers in the larger performance range offer the right solution for every application. The comfortable operation, the optimal view of the working environment and the ergonomic design ensure perfect working conditions. Even the highest hygiene requirements can be met: for example, with the Scrubmaster B45 CLH.

#### Easy disc brush change

The automatic, tool-free brush ejection and pick-up system facilitates daily service work on the machine.



Walk-behind scrubber-driers









Scrubmaster B30

Total weight, ready for use kg 179-190

Working width

Brush speed

Number/type of brushes

Solution/recovery tank

Length with squeegee

Width without/with squeegee

cm 43

m<sup>2</sup>/h 1,700-1,900

50/76

cm 109.5



Scrubmaster B45



Scrubmaster B45 CLH



Technical data		B45	Techr
Working width	cm	43-65	Worki
Theoretical area performance	m²/h	1,700-2,900	Theor
Number/type of brushes	1-2/disc brushesl		Numb
rumbon typo or brushoo	cylindri	cylindrical brushes	
Brush speed	RPM	170-210 800	Soluti
Solution/recovery tank	I	42/42	Lengt
Length with squeegee	cm	123.5-136.5	Width
Width without/with squeegee	cm	50-67/76-95	Heigh
Height	cm	111.6	Total
Total weight, ready for use	kg	204-240	





Scrubmaster B70





Scrubmaster B90 CL

	Technical data		B90 CL
	Working width	cm	60-85
0	Theoretical area performance	m²/h	3,000-4,200
	Number/type of brushes	1-2/disc cylindrica	brushesl al brushes
	Brush speed	RPM	185/850
	Solution/recovery tank	I	85/85
	Length with squeegee	cm	164
10	Width without/with squeegee	cm	68-88/95-110
	Height	cm	115
	Total weight, ready for use	kg	415-480



Solutions for hygiene-sensitive environments: Hako-AntiBac® equips the tank with antibacterial properties, and Hako-Aqua-Control saves up to 50% water during the cleaning process.

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## "Right of way" for cleanliness

Working widths of between 55 and 123 cm. For narrow aisles in high-bay warehouses or large halls. Scrubbing and drying or sweeping and vacuuming in a single work process. An ergonomic workplace with superior operating comfort and an optimal view onto the working area. Thanks to their sophisticated technology, Hako's ride-on scrubber-driers can clean between 3,000 and 8,600 m² of floor space per hour – for a wide range of possible applications.

#### **Excellent combination**

Optionally available for the Scrubmaster models B175 R and B260 R: the pre-sweep unit collects loose dirt prior to wet-cleaning the floor to save laborious pre-cleaning. The overhead guard provides increased safety.





## Scrubmaster

Ride-on scrubber-driers



Scrubmaster B75 R

Technical data		B75 R
Working width	cm	55-65
Theoretical area performance	m²/h	3,000-3,500
Number/type of brushes	1/2/disc	brushes
Brush speed	RPM	180
Solution/recovery tank	I	75/75
Length with squeegee	cm	147
Width without/with squeegee	cm	72-76/86
Height	cm	121
Total weight, ready for use	kg	389-447



Scrubmaster B120 R

Technical data		B120 R	
Working width	cm	70-90	
Theoretical area performance	m²/h	4,800-5,800	
Number/type of brushes	2/disc brushesl cylindrical brushes		
Brush speed	RPM	210 850	
Solution/recovery tank	I	120/120	
Length with squeegee	cm	167	
Width without/with squeegee	cm	81-95/ 96-112	
Height	cm	148	
Total weight, ready for use	kg	707-738	



Scrubmaster B175 R

Technical data		B175 R	
Working width	cm	85-108	
Theoretical area performance	m²/h	5,950-7,560	
Number/type of brushes	2/disc brushesl cylindrical brushes		
Brush speed	RPM	2101850	
Solution/recovery tank	I	175/175	
Length with squeegee	cm	189	
Width without/with squeegee	cm	94-112/ 113-129	
Height	cm	145/208	
Total weight, ready for use	kg	1,000-1040	



Scrubmaster B260 R

Technical data		B260 R
Working width	cm	108-123
Theoretical area performance	m²/h	7,560-8,610
Number/type of brushes		sc brushesl ical brushes
Brush speed	RPM	2101640
Solution/recovery tank	1	260/260
Length with squeegee	cm	202
Width without/with squeegee	cm	115-129/129
Height without/with FSD	cm	149/209
Total weight, ready for use	ka	1.350-1.410

#### Different brush units for every type of floor

Our product programme offers the right brush unit for every type of floor: from a cylindrical brush unit with additional pre-sweep function for coarsely structured floors to disc brush units for smooth or medium structured floors, plus a wide range of brushes and pads, including microfibre.



www.agr-ev.de

Hako's ride-on scrubber-driers Scrubmaster have been designed as mobile, ergonomic workplaces. They are the first ride-on scrubber-driers worldwide to have been awarded the AGR (Aktion Gesunder Rücken e.V.) quality label for their back-friendly overall machine concept.





## Scrubmaster B400 R Series

Full flexibility for very large areas

The new Scrubmaster B400 R Series ensures long, uninterrupted working and a high area performance of up to 14,000 m $^2$ /h: thanks to the 400-litre solution and recovery tank as well as the maximised battery capacity provided by the optional battery changing system. Equipped with a 3-disc-brush unit, which is available in working widths of 123 cm or 155 cm, and many extras as a standard, this new machine series is ready for any major cleaning task.



Scrubmaster B400 RH
Vacuum sweeper & scrubber-drier
combi machine with high dump



Scrubmaster B400 RM

Vacuum sweeper & scrubber-drier combi machine for manual emptying with Take-it-Easy system



Scrubmaster B400 R
Scrubber-drier

## Configurable in every detail

The demands put on professional cleaning technology products are just as individual as their application areas. Each of our Scrubmaster B400 R Series models can therefore be upgraded with a wide range of individual extras and tools – for more efficiency, flexibility and safety at work.





Scrubmaster		B400 R/RM/RH	B400 R/RM/RH
West're the control		1230	1550
Working width scrubbing	cm	123	155
Squeegee width	cm	136	166
Theoretical area performance	m²/h	11,000	14,000
Max. climbing capacity in cleaning mode without/with X-AC	%	6/15	6/15
Working speed	km/h	8-9	8-9
Brush system/number of brushes		disc brushes /3	disc brushes /3
Brush pressure	kg	55/75/95	80/110/140
Solution and recovery tank capacity	I	400	400
Take-it-Easy system/ manual emptying* High dump**	I	2 x 44 150	2 x 44 150
Nominal voltage	V	36	36
Total output	kW	14,7	16
Battery capacity max.	Ah	540/810	540/810
Length with squeegee	cm	202/281/281	202/281/281
Width without/with squeegee	cm	130/136	160/166
Height without/ with overhead guard	cm	150/212	150/212
Weight, ready to use, without driver	kg	2.110/2.260/ 2.420	2.130/2.280/ 2.440
Noise level at the operator's ear	dB(A)	68/74/74	68/74/74

\* Scrubmaster B400 RM \*\* Scrubmaster B400 RH

#### X-AC front and rear drive

#### **Excellent performance also on inclines**

Scrubmaster ride-on scrubber-driers can be equipped with an electronically modulating X-AC front and rear drive, which provides improved traction in cleaning mode. Our X-AC variants can effortlessly clean ramps and inclines without any loss of performance. This enables cleaning not only of level floors but also of ascending and descending surfaces in a single cleaning pass, which saves both time and costs.

## X-AC front and rear drive variants











X-AC	B175 R	B260 R	B400 RH	B400 RM	B400 R
Disc brush 900 mm	•				
Disc brush 900 mm + pre-sweep/vacuum unit	•				
Cylindrical brush + side broom	•				
Cylindrical brush + pre-sweep/vacuum unit	•				
Disc brush 1080 mm HD					
Cylindrical brush + side broom		•			
Cylindrical brush + pre-sweep/vacuum unit		•			
Disc brush 1230			•	•	•
Disc brush 1550			•	•	•



## Hako cleaning detergents

Perfectly matched, optimally dosed

Hako cleaning agents are particularly low-foaming and optimally suited for use in Hako cleaning machines. For every surface, every application and every degree of soiling, we offer the perfectly matched cleaning agent that is gentle on both the environment and people's health. As concentrates, they are also extremely economical by saving considerable amounts of water. With Hako cleaning agents, the cleaning result not only looks good, it also smells good: thanks to fresh or neutral fragrances that ensure a pleasant indoor climate.

## Resource-saving features



#### Hako-AntiBac®

The antibacterial tank feature ensures reduced fungal and bacterial develodour development and the consumption of disinfectants for tank cleaning.



#### **Hako-AquaControl**

Thanks to the intelligent brush system with water retention device. opment and reduces both Hako-AquaControl saves up to 50% water during operation.



#### Hako Eco mode

With low levels of soiling, the machine can be operated with less power to minimise working noise and to save energy.



#### Hako-LessChem

Saves cleaning detergents and protects the environment: prevents incorrect dosing and ensures reliably good cleaning results with only small amounts of chemicals used – thanks to Hako's dosing and filling systems.

**Quick-Connect-System** 









#### System-based application diversity!

Hako's quick-connect system makes cleaning processes in certain environments even more efficient. It allows uncomplicated upgrading of vacuum sweepers and scrubber-driers with pre-cleaning tools and tools for special applications to carry out several working steps in a single cleaning pass.

#### Cleaning and disinfecting with Hako

Selected Hako machines can also be equipped with tools for special applications installed at the rear of the machine to carry out various different cleaning tasks including surface disinfection or effortlessly removing oils spills and tyre marks.

		Sweepmaster				
	B75 R	B120 R	B175 R	B260 R	B400 R	980 R/RH
Quick-Connect-System			•	•	•	•
Pre-sweep/vacuum unit			•	•		
Tool "broom"			•	•	•	
Tool "mop"			•	•	•	
Tool "light debris collector"			•	•	•	•
Tool "spray bar"	•	•	•	•		
Tool B5 holder			•	•	•	•



Flexible co-driver: with a special holder, the Scrubmaster B5 can be easily taken to the next job site.





## Single-disc & polishing machines

Hako offers a comprehensive range of single-disc- and polishing machines that ensure brilliant results on hard floors. Machines of different size and performance classes are available to provide fast and efficient cleaning of all types of hard floors, supplemented by a wide range of floor care products and accessories.



Cleanserv PE53/1100

## Cleanserv

## Wet and dry vacuums

Whether for pre-cleaning, main cleaning or post-cleaning: Good suction solutions offer reliable performance with maximum economy. Thanks to their superior product quality and sophisticated technology, Hako vacuum cleaners are guaranteed to provide exactly that kind of reliable high performance. The robust, stable workmanship and intuitive operation ensure mobility as well as flexibility and versatility. Units for every requirement as well as many practical functions, accessories and extras make the Hako vacuum range a versatile solution portfolio for optimum cleaning results.



















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Technical data Cleanserv		S10 Eco	S11 Eco	S13 Eco	S30 Pro	S45 Pro	S80 Pro
Application options		dry	dry	dry	wet/dry	wet/dry	wet/dry
Nominal voltage	V/Hz	230/50	230/50	230/50	230/50	230/50	230/50
Nominal output	W	700	700	700	1,300	1,300	2,600
Vacuum	mbar	210	210	210	260	260	300
Air flow rate	l/sec	38	38	38	70	70	2x70
Bypass motor		no	no	yes	yes	yes	yes
Sound pressure level	dbA	64	60	49-54	68	70	74
Gross hopper capacity	1	10	11	13	30	45	80
Weight without accessories	kg	4.2	4.2	5.5	7.8	13.5	20.6
Cable length	m	8	10	12	7.5	10	10
Suction hose length	m	2	2	2.5	2.5	3	3
Nominal width accessories	mm	32	32	32	38	38	38

#### Comprehensive accessories

A wide range of different brushes, pads and pad holders are available for every application. Changing the pads is particularly easy, no tools needed (centre lock).

#### **Optimal working height**

The handle bar is infinitely adjustable to ensure the optimal working height for every user.

Technical data Cleanser	v	SD43/180 SD43/450		SD43/2 Speed	PE3/1100
Nominal voltage	V/Hz	230/50	230/50	230/50	230/50
Nominal output	W	1.200	1.500	1.200-1.500	1.320
Brush speed	U/min	180	450	190-380	1.100
Working width	cm	43	43	43	53
Weight with brush	kg	35	39	35,5	46
Cable length	m	12	12	12	20
Underclearance	mm	125/330	125/330	125/330	130/320

#### **Cleanserv C34**

#### Compact carpet cleaning machine

The compact walk-behind carpet cleaner Cleanserv C34 is a genuine powerhouse. Equipped with extremely efficient technology, this machine is ideal for cleaning small to medium-sized areas fast and reliably. Its cylindrical brush system allows working on almost all textile floors. Two squeegees providing a high suction performance ensure that only a minimum of residual moisture remains on the floor. After a short drying time, the cleaned area can be used again.







# Hako-Fleet-Management

## Optimising resources

The larger the number of machines in your fleet, the more important it is to have a good overview of all relevant key figures. Hako-Fleet-Management records all important commercial and service data as well as operating states and locations while working, which are displayed clearly and transparently in the web portal – directly for the entire fleet at the touch of a button. On your PC, smartphone or tablet. In real time, 24/7. For more transparency, efficiency and sustainability in operation.



#### Live on board

View all relevant operational information and track the exact location of your machines online.





#### Hako-Fleet-Management – here's why!

- Cost transparency and control
- High machine availability
- Avoidance of machine damage
- Performance records
- Efficiency analysis
- Optimised organisation of your fleet management



#### Always quickly on site:

competent service technicians with fully equipped service vehicles carry out service work promptly and efficiently.

#### Overnight delivery:

excellent spare parts logistics with overnight delivery of original spare parts.

#### Service via scan:

full access to all machine details and data as well as digital service requests – simply by scanning the QR code.

### For maximum availability

To ensure that our machines perform optimally at all times, we offer customised and scalable services along the entire product life cycle.

- Right from the start: with solution-oriented advice directly on site as well as attractive financing and rental options.
- After purchase: with smooth procurement and provision including user training
- During use: with individual service contracts and services as well as 24/7 support for fast and professional troubleshooting, high efficiency and permanent machine availability.
- At the end of the product's life: with take-back and recycling as well as machine upgrades



#### For a clean future

Cleanliness is more than just an excellent cleaning result. In fact, it starts long before that: with the development of the products, every idea that makes our machines even more resource-saving and efficient and keeps the environmental impact as low as possible throughout the entire, long product life. That is why we are constantly driving our research and development further in the direction of efficiency-increasing and even more environmentally friendly measures, as well as important future topics such as digitalised processes and autonomous driving. So that cleanliness is not only visible, but becomes an exciting experience!



Hako: Your strong partner also in the field of Municipal Technology and Waterjet technology

We offer a comprehensive solution programme in the professional outdoor cleaning segment: from flexible, highly manoeuvrable city sweepers and compact, multifunctional implement carriers and transporters for all-season use to efficient waterjet technology for industrial and commercial application.

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Partner of the Engineering Industry Sustainability Initiative Blue Competence is an initiative of VDMA (www.vdma.org). By engaging in this partnership, we are committed to comply with the twelve sustainability principles applied in the field of mechanical and system engineering (www.bluecompetence.net/about).