Chemical industry



## The formula for cleanliness.





## A successful combination: productivity and cleanliness.

For removing all kinds of dirt in the chemical industry, reliable and effective cleaning machines are essential. Kärcher machines are ideal for cleaning production facilities, tanks, offices and outdoor areas. As an efficient system provider, Kärcher offers a wide range of cleaning products: cleaning machines, cleaning agents and individual accessories. Easy to use, powerful and designed for the toughest jobs, innovative Kärcher machines handle all cleaning tasks quickly and efficiently.



# 1 Partner to the chemical industry

Kärcher cleaning expertise: 24-hour service, innovative products, outstanding safety systems.

### 2 In production

Machines for cleaning during production: industrial vacuum cleaners, ice blasters, high-pressure cleaners.

### 3 For special installations

Reliably clean difficult to reach areas with Kärcher tank cleaning system solutions.

### 4 For production facilities

Cleaning machines: wet/ dry vacuum cleaners, floor scrubbers/scrubber driers, sweepers/vacuum sweepers.

Page 4

Page 10

## Professional cleaning is our speciality.

The chemical industry is subject to all kinds of dirt everyday – this includes fine dusts, adhering deposits, caustic liquids, mineral oils or granulates. This dirt poses a challenge to cleaning machines. Dusts must be removed without leaving any residues, oils must be removed from smooth and rough surfaces and adhering deposits must be gently removed from production facilities.



The fact is that dirt must be removed quickly and effectively to ensure a smooth and reliable production process. Kärcher has a range of products in various performance classes for this purpose. All cleaning machines are robust, powerful and extremely versatile. As a specialist for professional cleaning solutions, Kärcher is committed to meeting the needs of the chemical industry and resolving typical problems by providing innovative system cleaning solutions.



### 1 Tailor-made solutions

2

Experienced specialists are available to assist in customising all cleaning machines to suit specific cleaning tasks. Kärcher provides an all-inclusive service, e.g. planning and installation of stationary cleaning systems.

### Always on hand with help and advice

Kärcher service technicians are available 24 hours a day in case anything needs to be replaced or repaired.

### 3 Sustainability into the future

Kärcher attaches special importance to the sustainability of all its products. Every machine is manufactured to tight tolerances to ensure maximum efficiency and reduced polluting  $CO_2$  emissions.

### 4 Safety is paramount

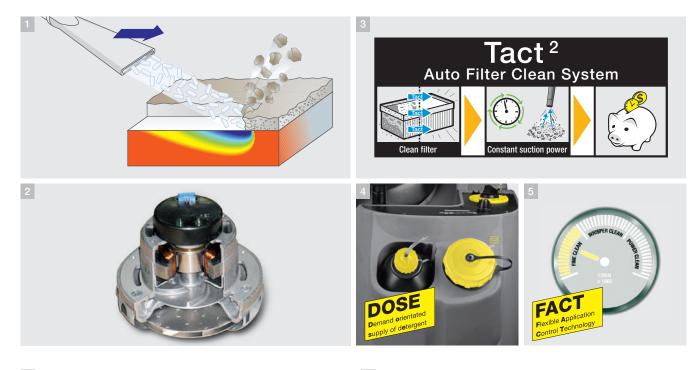
Innovative technology focusing on safety is paramount when cleaning in hazardous areas. Kärcher products are available precisely for this purpose. For example, by using an ice blaster to easily remove dirt without the use of water.

## Cleanliness is a matter of technology.

Kärcher is only satisfied when all of its newly developed technologies meet the highest demands. All series are subjected to the toughest tests in our own works laboratory and tested by highly experienced engineers for their suitability for use. Every component is tested by automotive engineering experts: sound levels are minimised in the sound laboratory and every machine undergoes an endurance test on test tracks.



Kärcher has been committed to quality for decades; this is reflected in the high standard of its products and the level of customer satisfaction. New ideas are born everyday – from the initial drawings via prototypes following exhaustive tests to production. Kärcher attaches particular importance to including the experience of its customers and employees in the development of new products. In this way, Kärcher is able to keep its promise of offering unique cleaning system solutions that are one step ahead of the competition.



### 1 Cold blast for stubborn dirt

Where water, steam and cleaning agent cannot be used, ice blasters are the right choice. Dry ice pellets easily reach into the smallest corners for thorough cleaning results. The advantages: short production downtimes, no damage to sensitive surfaces, residue-free evaporation to  $CO_{2}$ .

### 2 Constant power

EC turbines are used successfully. They stand our due to their low wear and excellent corrosion resistance. They give up to five times longer service compared to conventional suction turbines.

### 3 Constant suction power

Tact<sup>2</sup> is a further development of the tried and tested Kärcher filter cleaning system – this is an automatic filter shake-out system for vacuum cleaners.

### 4 Effective cleaning

The DOSE system ensures precise and fully automatic cleaning agent dosage for scrubber driers. This saves costs where it counts most.

### 5 Everything under control

A feature of the FACT technology is that the scrubber drier brush speed is variably adjusted to the surface conditions. This ensures that all surfaces are thoroughly cleaned.

## The perfect choice for exceptional cleaning results.

Robust, easy to use and extremely versatile – attributes that make Kärcher machines outstanding and cleaning in production environments quick, effective and easy. Our machines are specially designed to clean without disrupting production. That is why they react flexibly to different conditions in production such as spilt liquids.





Vacuum cleaners Kärcher industrial vacuum cleaners for the toughest jobs: from compact vacuums for mobile use up to superior class large capacity vacuums.



Ice blasters Kärcher ice blasters clean effectively without water.



High-pressure cleaners Kärcher high-pressure cleaners are second to none: with cold or hot water, mobile or stationary.





### 1 Non-stop cleaning

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Kärcher industrial vacuum cleaners clean in difficult to reach areas and effortlessly pick up wet and dry dirt. These manoeuvrable and versatile machines feature the latest turbine technologies for constant high suction power.

### Clean more efficiently with high pressure

Stubborn dirt adhering to production facilities is reliably removed with excellent results: adhering solids and liquids or oils.

### 3 Remove stubborn dirt gently and effectively

Stubborn dirt in production environments such as paints, greases, oils, silicone, rubber or thermoplastic residues require a powerful cleaning action that effectively removes all dirt without damaging the surfaces of production facilities. Where water cannot be used, ice blasters are ideal for effectively removing dirt. The dry ice evaporates to carbon dioxide after cleaning without leaving any residues.



Quality with the seal of approval Certified quality for the chemical industry: the dust retention capacity complies with the standards of SLG/Germany.



Reliability as standard The high quality of Kärcher cleaning machines is reflected in their low risk of failure compared to the machines of other manufacturers.



Safe from hazardous dusts Combustible dusts of different dust explosion classes and health-endangering dusts, dust class M, are reliably removed.

## Customised tank cleaning solutions.

For more than three decades, Kärcher has enjoyed a reputation of being a provider of reliable and efficient tank cleaning system solutions. Intensively tested and improved machines ensure a fully developed, efficient and energy-saving product. Best of all: our modular systems can be tailored to suit specific requirements. The components provided are based on your requirements. Kärcher offers an all-inclusive service – from planning, construction and maintenance.



There is a special need for cleaning solutions specifically tailored to the numerous processes, materials and substances used in the chemical industry. These include special cleaning processes for paints and solvents in the paint industry through to explosion protection in accordance with ATEX 94/9. This is why Kärcher modular systems provide a free choice of all required components: from cleaning head to PLC control.

Kärcher offers customised tank cleaning systems. The all-inclusive package includes all stages – from planning to the turnkey system. Owning a Kärcher system also offers the possibility to obtain the European Cleaning Document (ECD) and assessment in accordance with the Safety and Quality Assessment System (SQAS) of the umbrella association of the European chemical industry.



### 1 Cleaning process tanks

Kärcher offers a professional, cost-efficient system for cleaning reactor tanks contaminated with silicon products: cleaning, drying, filter station. The cleaning agent is recycled and reused.

### 2 Clean large tanks easily

The SHD-R 3000 FLM mobile high-pressure cleaning unit is ideal for cleaning large tanks. It features a height and tilt adjustable telescopic boom with internal cleaning system. Shown is a customised internal cleaning head and boom in a non-standard length.

### 3 Ideal for lightweight drums

Kärcher drum cleaning stations are ideal for cleaning lightweight drums up to 750 mm diameter. Irrespective of shape. The washing station with cleaning head and recirculating tank is preassembled and ready to use.

### 4 Perfect results for standard sizes

Kärcher offers the perfect cleaning solution for IBC drums of different materials and degrees of soiling. IB containers are thoroughly cleaned at water temperatures up to 90 °C.

## Only a clean plant is a plant with a future.

Kärcher offers cleaning machines, cleaning agents and appropriate accessories for all applications: production halls, factory premises, offices and social rooms. Irrespective of whether wet residues or dry materials need to be vacuumed, production residues removed by scrubbing and vacuuming or large outside areas swept, Kärcher has a wide range of products to suit all requirements.





Wet and dry vacuum cleaners Wet/dry and dry vacuum cleaners are available in various performance classes for the reliable removal of all kinds of dirt.



Scrubber driers Walk-behind, ride-on or step-on scrubber driers effortlessly clean floors without leaving any residues.



Vacuum sweepers Versatile Kärcher vacuum sweepers remove all kinds of dirt and spilt products, salts and powders.



High sweeping efficiency The versatile vacuum sweeper: with large dirt flap and excellent sweeping results, also suitable for large areas.





### 1 Storage areas scrubbed clean as a whistle

Liquids, granulates or oils on smooth surfaces in production or storage halls are effortlessly removed. Scrubber driers combine the advantages of spray extraction and the mechanical power of brushes. This makes them perfect for cleaning large areas costefficiently.

### 2 Outdoor areas quickly swept

Hard asphalted areas, rough surfaces and even steep ramps are thoroughly cleaned. Vacuum sweepers are available for cleaning particularly large outdoor areas up to  $6,000 \text{ m}^2$ .

### 3 Excellent cleaning results on all surfaces

For daily cleaning: Kärcher vacuum cleaners clean effortlessly and thoroughly. Carpets, laminate or PVC floors are reliably cleaned with individually adaptable accessories.



Easy maintenance Easy filter replacement.



Simple control Only one control for all functions.



Clean air Efficient HEPA filters reliably retain allergens and keep the air clean.

## The right solution for all cleaning tasks.

	Cleaning machines	Industrial, dry and v	wet/dry vacuum cl	eaners	Ice blasters and high	n-pressure cleaners
Application						
Cleaning in production		ATEX zone 22: NT 75/1 Me Ec H Z22 IV 60/27-1 M B1 IV 60/30 M B1 IV 100/40 M B1 IV 100/55 M B1 IV 100/75 M B1 Hazardous dusts (Dust class H): NT 35/1 Tact H NT 45/1 Tact H NT 45/1 Tact H IV 100/55 H B1	NT 70/2 NT 70/2 Tc NT 70/3 NT 70/3 Me Tc NT 72/2 Eco Tc IVC 60/30 Ap IV 60/24-2 W IV 60/36-3 W IV 60/30 IV 100/40 IV 100/45 IV 100/75 Fine dust:	Large quantities of fine dust: NT 65/2 Tact <sup>2</sup> NT 65/2 Tact <sup>2</sup> Tc NT 75/2 Tact <sup>2</sup> Me IVC 60/24-2 Tact <sup>2</sup> IVC 60/30 Tact <sup>2</sup> Continuous operation (single-phase): IVL 120/27-1 IV 60/27-1 M B1 Continuous operation (three-phase):	HD 13/12-4 ST-H HDC Classic/ Standard/Advanced HDS 12/18-4 S/SX HD 10/23-4 SX Plus HD 13/18-4 S Plus HD 13/18-4 SX Plus HD 10/23-4 S HD 10/25-4 S	Accessories Easy-/Inno foam kit FRV 30 FR 30 or 50
Cleaning pro- duction facilities		Liquids: IVL 50/24-2 IVL 120/27-1 IVL 120/30 Dirt and moisture: NT 27/1 Advanced NT 27/1 Me Advanced NT 48/1 NT 70/1	NT 361 Eco NT 65/2 Eco NT 65/2 Eco Tc NT 35/1 Tact NT 35/1 Tact Tact Tact NT 45/1 Tact Te NT 45/1 Tact Te NT 45/1 Tact Te NT 55/1 Tact NT 55/1 Tact NT 55/1 Tact	IVC 60/30 Ap IVC 60/30 Tact <sup>2</sup> IV 60/30 Tact <sup>2</sup> IV 60/30 M B1 IV 100/40 M B1 IV 100/40 M B1 IV 100/55 M B1 IV 100/55 H B1 IV 100/75 M B1 IV 100/75 M B1 IVL 120/30 <b>Larger tank capacity:</b> all IV 100 and IVL 120	HD 13/12-4 ST-H HDC Classic/ Standard/Advanced HDS 12/18-4 S/SX HD 10/25-4 S DE 4002 HDS 17/60 De Tr1 HDS 13/80 De Tr1 HD 19/100 De Tr1 HD 7/250 De Tr1 IB 7/40 IB 15/80	Accessories Easy-/Inno foam kit FRV 30 FR 30 or 50
Cleaning storage areas		NT 65/2 Eco NT 35/1 Tact NT 45/1 Tact NT 70/1, NT 70/2 NT 70/3 NT 70/2 Tc NT 70/3 Me Tc			HD 13/12-4 ST-H HDC Classic/ Standard/Advanced HDS 12/18-4 S/SX HD 9/20-4 M HD 10/25-4 S	Accessories Easy-/Inno foam kit FR 30 or 50
Office cleaning		T 7/1 T 10/1 Professional T 12/1 T 17/1 DE 4002				
External cleaning		NT 55/1 Tact NT 75/2 Tact <sup>2</sup> Me Tc NT 70/2 (Me) Tc			HDS 12/18-4 S/SX HD 10/25-4 S	
Special installations						

Scrubbers and scrubber driers	Sweepers and vacuum sweepers	System solutions	Cleaning agents
		PC 100 M2 Bio TSC/RCI systems PC 100 M1 Bio PC 60/130 T	Kärcher offers a range of cleaning agents for cleaning in production and for produc- tion facilities, for use in recommended machines. The choice of cleaning agent depends on the type and degree of soiling. We will be happy to assist in the selection of suitable cleaning agents on request.
BD 17/5 C BDS 43/150 C BR 30/4 C BRS 40/1000 C BR 40/10 C BR 40/25 C Ep BR 45/40 C Ep B 40 C/W B 60 W B 80 W B 80/120 B 90 R B 140 R BR 100/250 R Bp Pack BR 120/250 R I Bp Pack	KM 70/20 C KM 70/30 C Bp Pack Advanced KM 75/40 W Bp Pack KM 90/60 R Bp Pack KM 100/100 R (Lpg/Bat)		
B 80/120 B 90 R B 140 R BR 100/250 R Bp Pack BR 120/250 R I Bp Pack	KM 70/20 C KM 70/30 C Bp Pack Advanced KM 75/40 W Bp Pack KM 90/60 R Bp Pack KM 100/100 R (Lpg/Bat)		RM 750 RM 69 ASF RM 755 ASF RM 776 RM 740 RM 752
BR 30/4 C BR 40/10 C BR 40/25 C Ep BRC 30/15 C BRC 45/45 C	KM 35/5 C KM 75/40 W P Carpet		RM 746   RM 780   RM 730   RM 743   RM 720   RM 722   RM 768 iCapsol   RM 764
	KM 70/20 C KM 70/30 C Bp Pack Advanced KM 75/40 W (Bp Pack/P) KM 90/60 R (Bp Pack/P) KM 100/100 R (Lpg/D/P/Bat) KM 120/150 R (Lpg/D/P/Bat) MC 50		RM 750
		Modular systems:   HDI 38/12   SHD-R 3000   HWE 4000   HKF 50   HKS 100   HKF 200	RM 31 RM 25

### Kärcher service - you can count on us.

If the word service is a promise and not a slip of the tongue, trust is the basis. Because you must be able to rely on your professional cleaning machines at all times. Day after day. Night after night. Everywhere. This is our aim. And we do our best to ensure this. Reliable cleaning machines and cleaning agents. Advanced technologies. Competent advice and training. And much more. In a word: Kärcher service. A name you can trust. And a service that gives you security. That's our promise.



#### We're there for you, wherever you need us.

Kärcher stands for top performance - not only when it comes to products, but also service. As the world's largest manufacturer of cleaning machines, we are there for our customers all around the world and at more than 50,000 service and sales points. This enables us to provide a hassle-free service. Kärcher – your reliable partner.

### 1 Planning

Kärcher also provides sound advice on specific projects and planning. We precisely calculate the resources required and the ideal machine features and configuration.

### 2 Hotline\*

Friendly. Competent. Solution-oriented. Kärcher hotline staff are familiar with all products, accessories and cleaning agents and can provide sound advice and assistance by telephone.

### 3 Service contracts

Consistent top performance: with our service contracts you can be assured that your Kärcher products will operate reliably at all times, thanks to regular inspection and maintenance or an allinclusive full service package.

### 4 Application advice

We provide application advice to ensure that you always have the most efficient solution. Area, staff and schedule are the decisive factors in determining the products that best suit your needs.



### 5 Global presence

Kärcher guarantees you personal service. Our global service and sales network ensures that you always have a competent contact partner locally, for all enquiries regarding service, advice or sales.

### 6 Technical training

Get the most out of your equipment: with our local technical training courses, we can show your employees how to use innovative Kärcher products to clean every type of facility optimally.

### 7 We come to you

Our Service Management System saves us time and costs and ensures that we reach you as quickly as possible. With regular service calls as part of the full service package, and always whenever you need us.

### 8 Extended warranty

Our extended warranty or machinery breakdown insurance will give you peace of mind and ensure that your Kärcher products have optimal cover.

### 9 Leasing

Control your cash flow and remain productive with low leasing fees instead of major investments. Including a maintenance contract if required.

### 10 Rental machines

Stay as flexible as the market – with Kärcher rental machines you always have the equipment you really need, when you actually need it. Contact us to discuss your options.

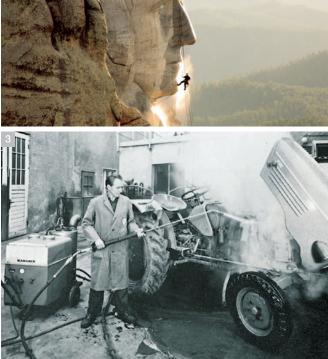
### 11 Refurbished machines

Machines in top condition at very attractive terms. A new machine is not always cost-effective. Refurbished Kärcher machines are a cost-effective alternative for your project planning.

## Enthusiasm. Innovation. Success.

Since its beginnings more than 75 years ago, as a value-oriented family business, Kärcher has become a world brand with three strong attributes: top performance, innovation and quality. Today, the Kärcher brand enjoys the reputation of being a global leader and resource-conserving supplier of professional cleaning systems and is synonymous with reliable products, optimal user value and ongoing commitment to the environment, culture and sport.





### 1 Seattle's highest building: the Space Needle

A Kärcher team pressure-washed the structure up to a height of 184 m. The job took eight weeks, working only at night.

### 2 A facelift for the heads of state

Clean again: In 2005 Kärcher cleaned the National Memorial on Mount Rushmore.

### 3 Innovative right from the start

In 1950, Kärcher developed the first hot water high-pressure cleaner in Europe for professional cleaning.



### 4 Clean environment

Kärcher works on environmental protection every day, with new products, technologies and investments in production facilities.

### 5 In-house research and development

Kärcher develops high-performance cleaning devices, accessories and special cleaning and care products.

### 6 Internationally represented

We are there for our customers all around the world.

### 7 Commitment to sports

Clean performance on the pitch. For several years, Kärcher has supported German and international football as a partner.



## makes a difference

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