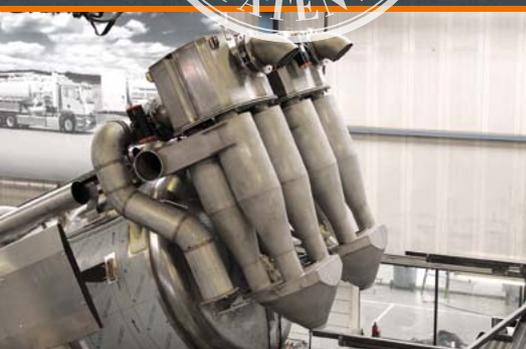




World's latest and safest technology
in industrial cleaning equipment



KOKS CYCLOVAC

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Air displacement system with cyclone separator



The KOKS CycloVac air displacement system with cyclone separator is designed for heavy industrial applications and is suitable for suctioning, displacing (option), transporting and discharging dry, wet and hazardous substances, such as various types of catalyst, (roof) gravel, powders, fly ash and sludge. Specially developed for working with hazardous and contaminated substances, the system is available in ASME, DOT 407/412 and/or ATEX (Ex) (pump system) versions and built in accordance with all applicable safety standards.

Usage

The KOKS CycloVac is the perfect air displacement system for heavy duty suction, displacement and transportation activities in the construction and (petro)chemical industries and for all general industrial applications.

Characteristics

The powerful Roots blower gives the KOKS CycloVac air displacement system a very high suction and displacement capacity, which makes it possible to process and transport large quantities of dry substances, liquids, gravel, sand, etc. in a very short time. The user benefits from significant time savings and a huge reduction in cost.

Versions

The KOKS CycloVac air displacement system can be fitted with various option kits that are appropriate for your needs, for industrial applications and/or for sewer cleaning activities.

Benefits

- Easy control.
- Suction with 4767 CFM, max. 28 inHg underpressure; blowing with 15 psi overpressure.
- Self-cleaning cyclone separation keeps the cyclones dust free at all times (patented).
- Cyclone separation instead of filter separation on behalf of:
 - lower maintenance costs.
 - less resistance (no trouble by filter pollution).
 - more user-friendly suctioning of liquids.
- Approved in accordance with ASME, DOT 407/412.
- Built to the latest environmental and safety standards.
- Optimum balance between a chassis with a short wheelbase and maximum tank capacity.
- Available as skid.
- Ergonomic and chassis-dependent construction by means of a versatile auxiliary frame and an adjustable pump angle.
- Blower is mounted in the middle of the chassis for a better load distribution.
- Light construction provides a good load distribution and offers the possibility to be assembled on a 3-axle chassis with a large loading capacity.
- High-quality, long life span and economically justified purchase price.
- By easy cleaning and exchanging the safety filters, the machine is versatile and various products can be vacuumed up one after the other, without causing pollution.



Technical characteristics



Designed and certified for:

- assembly on a 3-axle, min 400 HP chassis.
- suctioning, displacing (option), transporting and discharging dry, wet and hazardous substances, such as sludge, sand, (roof) gravel, fly ash, powders and various types of liquids.
- ASME approved.

Pressure/vacuum tank

Volume	: 3170 USG, excl. cyclone separator.
Material	: stainless steel AISI 316 grade, material no. 1.4404.
Rear door	: hydraulically opening and bolting.
Discharging	: by means of tipping (45°) or air displacement.
Loading	: by means of suctioning or through the manhole on top.
Including	: 6" suction connection with coupling as desired, provided with an 8" elbow with exchangeable Hardox wear resistant plate.
	: 6" discharge connection with coupling as desired, on the rear door (excluding quick-exchange system).
	: level detectors.

Cyclone separation system

Design	: 2x 4 cyclones for separation of material particles.
Provisions	: separator tank with a vacuum return system in combination with an air cleaning system (air shock system/air return flow) on behalf of cleaning the cyclones and filter elements.
Including	: cyclone/filter cleaning by means of a programmed 3 phase pulse time interval switch, adjustable on the control panel.
	: level detector (wet/dry) in the collecting receptacle.
	: air flow separation system in the separator tank.
Safety filter	: each cyclone is equipped with its own fine dust safety filter with a standard filter according to group E12 (EN 1822-1:2017) (class M).

Vacuum pump

Type	: Roots blower.
Air displacement	: 4767 CFM.
Max. vacuum	: 28 inHg.
Max. overpressure	: 15 psi.
Drive	: by means of a crank shaft and V-belt transmission from the fly wheel PTO.
Including	: silencers.

Dimensions

Length	: approx. 370".
Width	: approx. 9.8".
Height	: approx. 155", chassis-dependent.
Wheelbase	: approx. 17.7" (axle 1 - axle 2) + 55", chassis dependent.

Weights

Empty weight	: approx. 38800 lbs, chassis and version dependent.
Max. technical permissible weight	: approx. 62000 lbs (combined with a 62000 lbs 6x4 chassis), depending on the regulations in the country of destination.

Standard safety provisions

Consisting of	: rupture disc, hose rupture safety valves on behalf of the rear door and tipping cylinder, beacon light, emergency stop, tip unbolting protection, repair cross beam, catwalk, rear door clamp protection, earth reel, emergency stop reel, rear door protection, tipping protection and powder extinguisher.
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Miscellaneous

Provisions	: working light, hydraulic rear bumper and stainless steel control box/coupling box/tool box.
Body inspection	: arranged by KOKS United States.
Instruction manual	: consisting of operating/maintenance instructions, drawings and schedules.

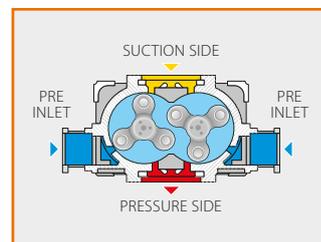
Options

KM-01	High pressure kit
KM-03	SkyTip kit
KM-04	Discharge assistance kit
KM-05	Compressor kit
KM-09	Nitrogen inert system*
KM-10	Safety filter*
KM-11	Tank material
KM-12	Positive displacement system*
KM-13	Hydraulically hinged bumper
KM-15	Bulk compressor*
KM-23	Excavation arm
KM-25	KSS kit (KOKS Safety Standard)
KM-27	DOT 407/412 kit

* to be agreed in consultation

Special options CycloVac

KC-01	Blowing cover with quick-exchange system
KC-02	Liquid cover in combination with the quick-exchange system (refer to KC-01)
KC-03	Transfer box drive
KC-04	Additional tool box on the bottom right
KC-05	Chassis pressure/vacuum tank volume



KOKS CYCLOVAC OPTIONS

OPTIONS

KM-01



High pressure kit

- compact high pressure system.

Provisions

- high pressure pump 7.9 gpm at 2900 psi.
- min. level protection.
- self-winding hose reel.

KM-01-A

- aluminium tank approx. 92.45 USG on a chassis.

KM-01-B

- stainless steel tank volume approx. 369.84 USG between the cyclones and vacuum/pump unit, in combination with a 4-axle chassis.

KM-04



Discharge assistance kit

On behalf of

- improved discharge of the (dry) substances.

KM-04-A

- vibration guiding system.
- attachment blocks.
- 4 vibrators, pneumatically operated.

KM-04-B

- shot guiding system.
- attachment blocks.
- 2 vibrators, pneumatically operated.

KM-11



Tank material

Execution

- stainless steel AISI 316 grade; material no. 1.4404.

KM-03



SkyTip kit

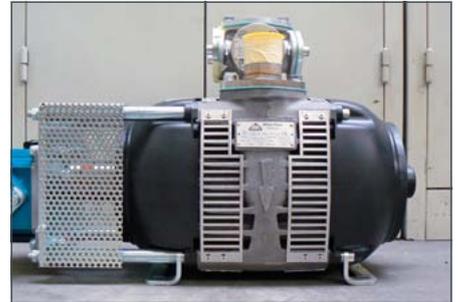
Provisions

- SkyTip system.
- tipping cross beam.
- hydraulic supports.
- additional repair cross beam.

Including

- discharge cover for discharging into big bags with DN 300 pneumatically operated valve.

KM-05



Compressor kit

M-05-A

- compressor max. 117.72 CFM.

KM-05-B

- compressor max. 206 CFM.

KM-09



Nitrogen inert system

Execution

- system connections for working under nitrogen in closed circuits.

KM-10



Safety filter

Execution

- pressure-resistant housing with stainless steel lamella filter for fine particulates.

Including

- safety filter, filter class E12 in conformity with EN 1822-1 (class M in accordance with DIN EN 60355-2 69).

Option

- filter class H 14 in conformity with EN 1822-1 (class H in accordance with DIN EN 60355-2 69).

KM-12



Positive displacement system

On behalf of

- continuously pumping liquids.

Execution

- liquid/sludge pump.
- capacity approx. 352 gpm.
- operating pressure approx. 43 psi.

KM-13



Hydraulically hinged bumper

Instead of

- manually operated bumper.

On behalf of

- easy and ergonomic bumper operation.

KM-15



Bulk compressor

Capacity

- 618 CFM; operating pressure 43.51 psi.

Drive

- from the gearbox PTO, by means of a crankshaft transmission.

Including

- bulk/discharge cover.

KM-23



Excavation arm

On behalf of

- CycloVac and MegaVac.

Execution

- diameter 8".
- completely hydraulically operated.
- hydraulically swivelling.
- hydraulically extendible/retractable till a total length of approx. 16.73".

Provisions

- radio control.

KM-25



KSS kit (KOKS Safety Standard)

- KOKS Safety Standard safety provisions.
- machine inspection and inspection certificate.
- KOKS Academy user training, incl. examination and training certificate.

KM-27**DOT 407/412 kit****Certification**

- DOT 407/412 approved superstructure.

Body

- designed and certified for transportation of hazardous substances in accordance with the latest DOT requirements.

Provisions

- protective/roll bars.
- pneumatic lock on the tank and valves.
- explosion pressure in accordance with the current DOT standards.
- DOT number plates.
- DOT label holders.
- fire extinguisher, 12 kg, in a plastic housing.
- double insulated wiring.
- DOT final inspection.
- project design calculation.
- pressure test.
- nitrogen connection.
- X-ray of the welded joints, both longitudinal and around the periphery.
- liquid cover.

KC-01**Blowing cover with quick-exchange system****On behalf of**

- blowing activities.

Material

- similar to the pressure/vacuum tank material.

Provisions

- quick-exchange system by means of clamps.
- venturi.
- 3 manually operated dose measuring butterfly valves.
- 6" ball valve.
- 3-way distributor valve.
- stilling bottom with various cleaning openings.
- hatch on the lower side, for easy access.

KC-02**Liquid cover in combination with the quick-exchange system (refer to KC-01)****On behalf of**

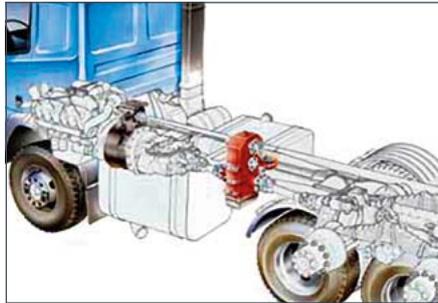
- suction activities.

Material

- similar to the pressure/vacuum tank material.

Provisions

- quick-exchange system by means of clamps.
- 6" ball valve, incl. coupling and blind cap as desired.

KC-03**Transfer box drive****Instead of**

- flywheel PTO drive.

On behalf of

- blower drive.

Advantages compared to the flywheel PTO

- less wear.
- more accurate adjustment of the blower capacity due to selecting the right gear.
- lower fuel consumption.
- lower noise level.

KC-04**Additional toolbox on the bottom right****Execution**

- unpainted stainless steel AISI 304 grade.

Dimensions

- length approx. 39.37" (depending on the available space).
- depth 19.69".
- height 23.62".

Provisions

- hinged doors with a solid lock.

KC-05**Chassis pressure/vacuum tank volume****Tank volume**

- approx. 3963 USG, instead of standard 3170 USG.

In combination with

- a 4-axle chassis (triple or conventional).

As a producer and supplier of cleaning equipment, KOKS Group has gained a reputation as a reliable partner for the industrial sector, the sewage cleaning sector, privately owned (cleaning) companies and local and provincial government. KOKS Group was founded in 1989 by Gerard Koks senior and has since grown into a dynamic company that operates globally and consists of seven specialised subsidiaries in The Netherlands, the Czech Republic and Saudi Arabia. The company also holds shares in rental organizations that operate in the Netherlands and the United Kingdom.



The second generation of the family is now in charge of day-to-day running of this family company. Rick Koks, together with approximately 300 company employees, spares no effort in ensuring that customers receive the best possible equipment, advice and service!

As a growing, innovative and healthy company, KOKS Group has gained an excellent reputation for producing cleaning equipment within the petrochemical sector and other industries. KOKS is not only a strong player in the Dutch and European markets, many customers in (Latin) America, Asia, Africa and Australia use advanced equipment from KOKS to gain a technological lead over their competitors. In addition to producing KOKS-branded industrial cleaning equipment for worldwide delivery, KOKS Group also exclusively represents a number of well-known manufacturers of equipment for railways and sewer systems in local markets, with a strong focus on the Netherlands. KOKS Group's headquarters, with all of the staff and support departments, is located in Alkmaar.



Strength calculation by means of the finite element method.

Rick Koks
CEO

"Quality, expertise and trust are 'must haves', which are seen as a matter of course nowadays. Those attributes alone are not powerful enough to differentiate us from our competitors and generate customer loyalty.

The we-centric culture that is characteristic of our family company results in commitment, creativity, the ability to innovate, flexibility, short lines of communication, openness and honesty. Through mutual support, we succeed in reacting robustly and effectively to the needs, wants and requirements of the market and offering our customers a total package. Our high quality end-product is just one aspect. The expertise and advice required to create the most suitable product and provide the support and service needed to optimise that product's use and service life are also integral parts of the package. Furthermore, intensive collaboration with our customers is also crucial and indispensable for further developments."





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