



Nederman Norclean Line Product Catalogue

Vacuum cleaning systems
Vacuum transportation systems
Vacuum Solutions



State-of-the-art vacuum systems for tough applications wherever reliability comes first

Nederman Norclean is a globally recognized as the state-of-the-art manufacturer specialised in solutions for collecting and transporting dry or wet materials, masses and liquids. The applications are in industries working in tough environments where the demands for sturdy and reliable high performing equipment are of the outmost importance. It may be on board offshore platforms, or aboard oil tankers, in chemical industries dealing with explosive or hazardous materials, in food and pharmaceutical industries and wherever these demands are high.

Experts that guide you

Every application demands its own solution. Our mission is to help you achieve the optimum result regarding performance efficiency and payback whatever the application might be.

World-wide representation

Nederman Norclean is part of the Nederman group with more than 60 years experience of solving dust and fume extraction problems in all kinds of industries. Our global presence in more than 50 countries affords us insights into the myriad of national and international regulations and directives governing work safety, health and environmental issues. We are certified according to ISO 9001 and ISO 14001.



Norclean factory Sandefjord, Norway

Content

Applications Product Selection Guide



*Efficient and reliable high capacity vacuum units for suction and transportation of media.
Perfect for demanding operations in most industries, i.e. shipping and offshore industries.
Can handle any industrial product or material for example, liquids, dusts and granules etc.*

Air Powered Ejector Systems



ATEX approved and classified vacuum systems for use in potentially explosive atmosphere.

ATEX approved Ejector Systems



*Small and medium sized electric vacuum units in a robust design for demanding cleaning tasks.
Perfect in most types of industries for example, food processing, pharmaceuticals, powder coating, foundries, mechanical workshops and shipyards.*

Electric Vacuum Systems



A central suction system simplifies and increases the efficiency of material recovery and transportation operations. The general cleaning process of any working environment is also improved when using a central suction system.

Central Heavy Duty Systems



A wide range of accessories and equipment to make the installation complete.

Accessories



Heads, pipes, bends, hoses etc
Filters and pre-separators
Silos, trolleys, valves

Application Know-How

We have a wealth of experience from many thousands of installations in all kinds of industries with the highest demands. Thus, our Nederman Norclean design team knows how to build maximum vacuum and airflow power solutions for various customer applications. They are ready to help you too.

- Aviation
- Building, civil engineering
- Chemical
- Cleaning
- Concrete, cement,
- Electrotechnical
- Food
- Foundry
- Incinerating
- Mechanical

- Metallurgical
- Petrochemical
- Plastic, Rubber, Glass
- Power Plant
- Railway
- Shipping, Offshore
- Shotblasting
- Yards

...and many, many others



Shot blasting



Painting



Manufacturing



Food and Pharma



Shipping and offshore



Chemical



Central system











Ship Yards



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Product Selection Guide

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Air powered ejector vacuum systems

The most efficient way to convey material pneumatically – wet or dry



Air powered ejector vacuum cleaners have no moving parts, motors or pumps. They do not require electricity and provide enormous advantages for demanding operations in industry, shipping and offshore. They are used to collect any industrial product or material (liquids, dusts or granules) that can be conveyed along a suction hose.

Nederman Norclean Line offers a wide range of ejector power heads, to provide sufficient vacuum and flow characteristics. By choosing the correct ejector power head, Norclean Line is able to solve any requirement the customer might have for air driven vacuum cleaning or material transportation.

Norclean has also developed filter systems for use with these high performance ejectors. Most of the filters are automatically cleaned, either by timer or manual control systems.

ATEX approved products

The ejector system also includes a wide range of ATEX approved vacuum systems, for use in areas where explosion hazards exist. Our ATEX products supplied with PE or PUR antistatic hoses are compliant with Gas Group II C (highest class). The PVC or standard PUR hoses are only compliant with gas Group II B. The ATEX approved

products are all made of conductive and antistatic material, to comply with the ATEX directive 94/9/EC, and can be used in explosion hazardous category 2 and 3 areas.

ATEX marking: see page 35

Mandatory ATEX directives

European Directive 99/92/EC ATEX

This states that it is the responsibility of the user/employer to assess and classify the working environment as to whether there is a risk of there being explosive atmosphere, taking into account at least the following:

- *the likelihood that explosive atmospheres will occur and their persistence.*
- *the likelihood that ignition sources, including electrostatic discharges, will be present and become active and effective.*
- *the installations, substances used, processes and their possible interactions.*
- *the scale of the anticipated effects. In short, the first step is to determine whether the risk is due to gas or dust, the second step is to determine the classification zone.*

European ATEX Directive 94/9/EC

European Directive 94/9/EC/ATEX applies to the equipment manufacturers and harmonizes the technical and legal standards to which equipment for use in potentially explosive atmospheres is manufactured. Nederman Norclean offers a range of Ex approved and marked products which are manufactured according to these requirements.

Electric vacuum systems

The versatile vacuums for tough industrial cleaning applications



Electric vacuum cleaners are designed to operate in difficult industrial conditions. Most Norclean electric vacuum units can be used for collecting dust and granulated material, as well as water and non-flammable liquids.

The Norclean Line offers a range of electric power heads, to provide exactly the vacuum and flow characteristics that the application demands. The vacuum and airflow characteristics of the various models have been carefully chosen to give the best performance for each application.

All units are built from high quality electric motors and multistage turbine units. The motors have independent air cooling for increased service life. The units are waterproofed, to prevent any moisture drawn through coming into contact with any electrical parts. For heavy duty and continuous use thermal overheating control systems is available as standard. All the units are designed to bring the noise level down to well below the approved levels for use in industrial plants and establishments.

Various filter designs are available to ensure a complete solution. HEPA filters are fitted as standard on all units for use in hazardous environments.



Central heavy duty systems

The installation of a central suction system can simplify and increase the efficiency of material recovery from grinding machines etc and transportation operations of powder and similar. The general cleaning process of any working environment in all types of industrial plants is also improved. The central suction system is built around an electric vacuum unit and is available in small up to large sizes.

A tailor-made system

We solve difficult vacuuming problems for customers in most types of industries like food processing, pharmaceutical, chemical, petrochemical, foundries, engineering, metal fabrication, shipping, offshore, surface preparation and others. Our highly skilled R&D staff have calculated and designed central suction installations for cleaning operations, bulk transfer systems, collector silos, material separators, cyclones and material discharge units for a great number of satisfied customers.

Modular Design enables highly customized solutions

The norclean line system range:
System 50 / System 200 / System 300

Three decades ago, when Norclean started manufacturing the flexible modular systems, the vacuuming systems were based on 50 l and 200 l containers. Consequently the modular systems were named System 50 and System 200. The diameter of System 50 is 400 mm, and the diameter of System 200 is 600 mm. Later a larger System 300 was introduced, which has a diameter of 800 mm.

There are two factors to consider when choosing between the different systems: storage capacity and filter area. For normal cleaning tasks, System 50 is more suitable and does the job well. If larger flow or waste storage is required, System 200 is a better solution. Larger flow demands a larger filter area, and again System 200 or 300 is designed to solve the relevant application required by the customer.



Power heads



Containers



Separators



Silos



Filters



Baskets



Tools



Hoses



Trolleys and frames



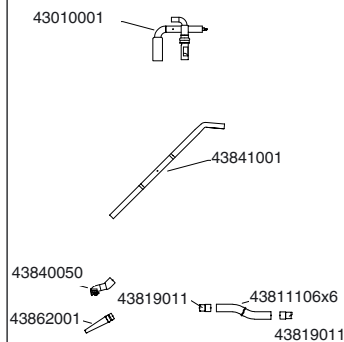
Valves and control equipment

Ab014 - Drum filler

- Simple and robust
- No filter
- Easy handling

Handy ejector-driven drum filler, an efficient remedy for collection and transport of oil, chemicals, water etc. It is placed in a bung-hole (R 2") of an empty but suitable oil drum. By connecting the unit to a compressed air hose and a suction hose, it is ready for use. Suction stops when the drum is full, due to the built-in float stop. Suitable for emptying of oil sumps, oil drums and dry suction of floors after oil spill etc.

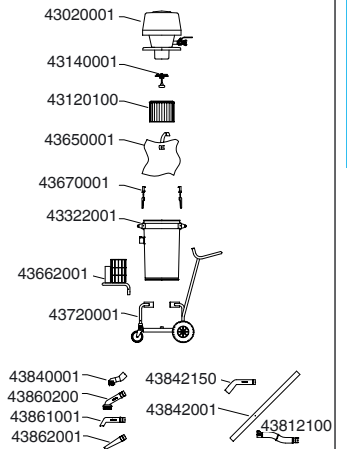
NB! Drum is not included.



Ab105 - Dry and liquid cleaning

- Simple and robust
- Disposable dust bag
- Easy handling

Air powered ejector system, with light suction equipment for cleaning floors, walls, beams, and the like. Its capacity is superior to most of the portable electrical vacuums in the market. The versatile cleaner can be used in a variety of industries and establishments. The unit can easily be adapted for liquid suction.



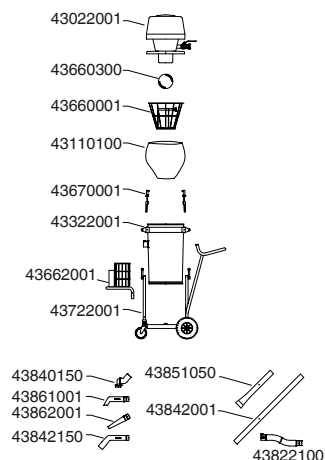
Ab115 - Liquid cleaning

- High vacuum capacity
- Easy handling
- Tippable container

A high capacity vacuum unit for suction and transportation of various nonflammable liquids like oil, chemicals, mud, cooling liquids and water, as well as metal chips, sand, and other granules.

The standard version vacuum unit can fill the container with liquids in a minute or two. Suction equipment is made for heavy duty work.

The container can be tipped for ease of emptying.



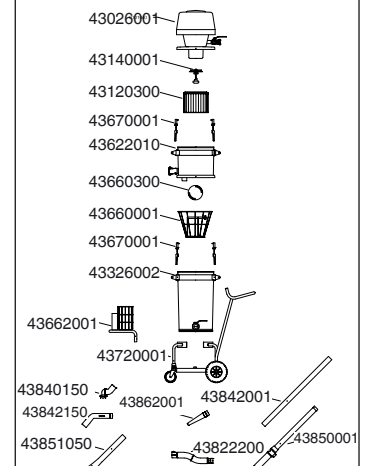
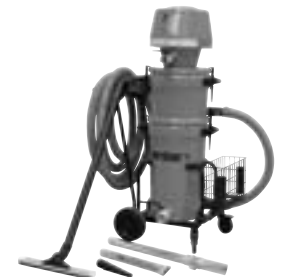
Ab139 - Liquid collection

- High vacuum capacity
- 2" BSP drain valve
- Easy handling

This heavy duty vacuum unit is excellent for suction of liquids. Can transport material over long vertical and horizontal distances. Suitable for various cleaning and liquid pick-up operations in industry.

A stainless steel container option for corrosive materials is available.

Equipped with 2" BSP drain valve for product discharge. Suitable for suction of granulates, oil, water and other liquefied products.



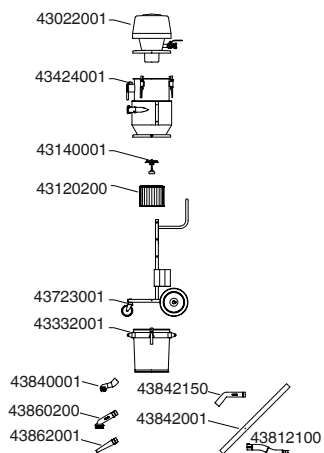
Airpowered ejector vacuum systems

Ab216 - Multi-purpose and fine dust suction

- High suction capacity
- Manual filter cleaning
- Double HEPA filter option

Fine dust problems are easily solved by this high capacity vacuum unit. Efficient cyclonic preseparation of the dust before the absolute/HEPA filter. A single container system with absolute/HEPA filter for collection of very fine dust and granulated material.

The filter cleaning process is simple and efficient. The compressed air powered ejector system creates the high vacuum and airflow needed for successful material collection and transportation. The unit can be fitted with a larger container for increased capacity.

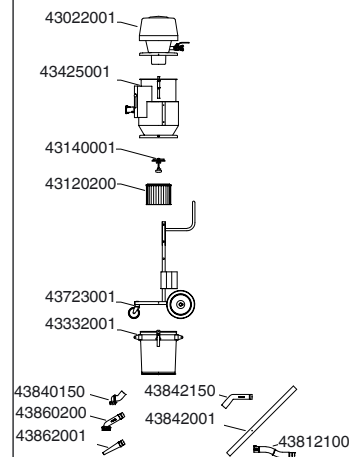


Ab221 - Multi-purpose and fine dust suction

- High suction capacity
- Easy filter cleaning system
- Double HEPA filter option

Fine dust problems are easily solved by this high capacity vacuum unit. Efficient cyclonic preseparation of the dust before the absolute/HEPA filter. The manual filter cleaning method is extremely efficient and easy. If required, the filtercleaning can be made fully automatic using timers.

The compressed air powered ejector system creates the high vacuum and airflow needed for successful material collection and transportation. The standard version can collect 47 litres of dust and granulates in a few minutes.



	Ab014	Ab105	Ab115	Ab139	Ab216	Ab221
Product number:	42101400	42110500	42111500	42113900	42121600	42122100
Vacuum producer:	NE14	NE22	NE32	NE52	NE32	NE32
Max. vacuum	mmWC 2300	2100	3100	5200	3100	3100
Max. air flow	Nm ³ /hr 132	306	342	342	342	342
Compressed air consumption	Nm ³ /min 1.0	1.0	1,6	3,0	1.6	1.6
Compressed air pressure	bar 7	7	7	7	7	7
Noise level*	dB(A) 72	72	74	76	74	74
Container practical volume:	litres -	40	40	47	47	47
Length x Width x Height:	mm 440 x 60 x 370	1140 x 550 x 1200	1140 x 550 x 1200	1140 x 550 x 1540	700 x 530 x 1550	700 x 530 x 1550
Weight:	Kg 3	50	51	62	69	73
Standard suction hose diameter:	mm 38	51	51	51	51	51
Standard suction hose length:	metres 5	6	6	10	6	6
Main filter area:	m ² -	2,38	0,35	2,38	1,56	1,56
Main filter approval category:**	-	M	-	M	H	H
Main filter type:	-	Cartridge	Bag	Cartridge	Cartridge	Cartridge
Main filter material:	-	Paper	PTFE coated polyester	PTFE coated polyester	Microfibre	Microfibre
Main filter cleaning method:	-	Manual	Manual	Manual	Reverse air jet	Reverse air jet
Standard suction hose quality:	PE	PE	IVC	PE	PE	PE

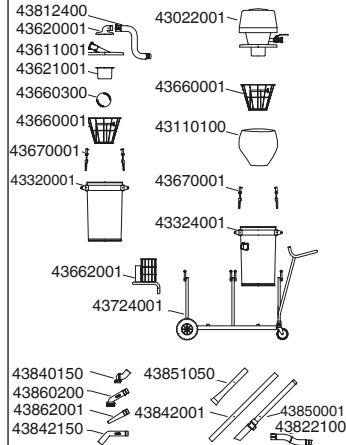
*Noise level - measured at a dist. 1m, height 1,6m **Approval category - EN 60335-2-69

Ab306 - Multi-purpose suction

- Liquid recovery
- Wet and dry suction
- Tippable container

Dual container system, with pre-separator, designed for the collection of liquids, dust, sand, and other fine granules. The system contains three separation/filtration stages that ensure optimum cleaning efficiency. The float ball prevent the first container from overfilling.

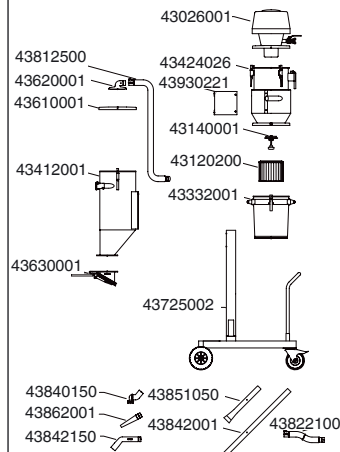
Suction equipment is strong and durable. Engineered so that the trolley mounted containers can be easily tilted to empty their materials. The trolley is equipped with large high quality wheels for ease of mobility.



Ab426 - Industrial waste and powder

- Preperation in silo
- Manual filter cleaning
- Fork lift handling

Dual container system, designed for removal of industrial waste. This powerful suction unit comes equipped with a silo and cyclonic preseparation of the dust before the absolute/HEPA filter, ensuring the efficient filtration of large quantities of dust. The filter cleaning process is simple and efficient. Special swivelling, locking wheels are sized to increase mobility, and make the handling of heavy loads especially easy. The unit is equipped with an adjustable counterweight valve for automatic discharge of waste material. The model include slots for handling by forklift.

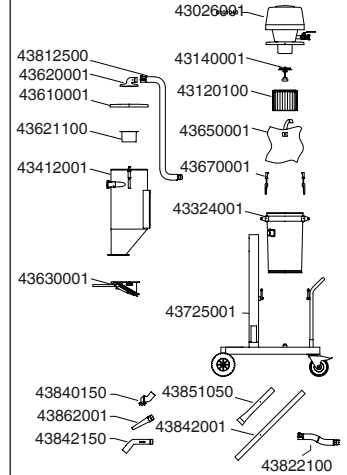


Ab405 - Dry waste suction

- Silo pre-separator with manual outlet valve
- Fork lift handling
- Sturdy trolley system with large wheels for uneven ground

Dual container system, designed for removal of industrial waste. This powerful suction unit comes equipped with a silo and filter container for the removal of industrial waste materials. Special swivelling, locking wheels are sized to increase mobility, and make the handling of heavy loads simple. The silo is designed to allow the collected material to be discharged over gratings or chutes for the central collection of materials. The unit can be equipped with an adjustable counterweight valve and holder for discharge into sacks.

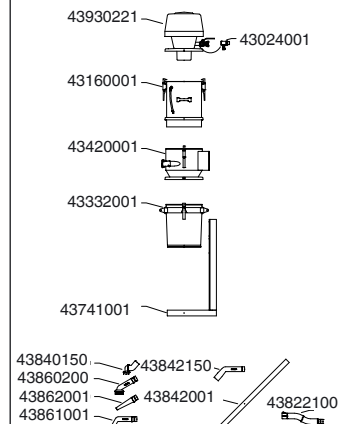
The model include slots for handling by forklift.



Ab450 - Coarse dust suction

- Efficient vacuumer requiring minimal installation area
- Efficient and self-cleaning NVF filter system
- High suction capacity

Single container system for fixed installation. Equipped with NVF filter which is automatically cleaned at each system stop. Cyclonic discharge of the material into a container of 47 litres. Can be supplied with antistatic or conductive parts to avoid sparks from static electrical discharge. Powerful vacuum unit suitable for recovery of liquids, dust and granulated material. The unit is efficient for collecting greasy chips from lathes and drilling machines in a central suction system.

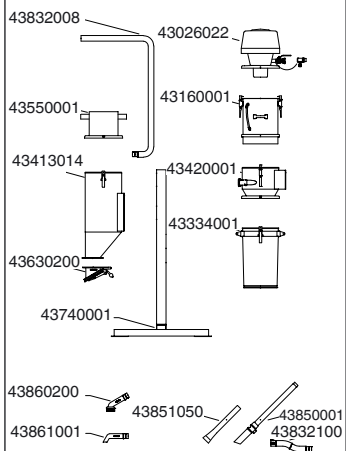
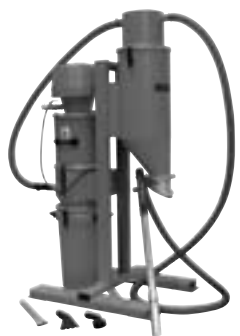


Airpowered ejector vacuum systems

Ab471 - Grit recovery and general cleaning

- Cleaning system for reusable grit
- Separate dust from reusable grit
- High vacuum and suction capacity

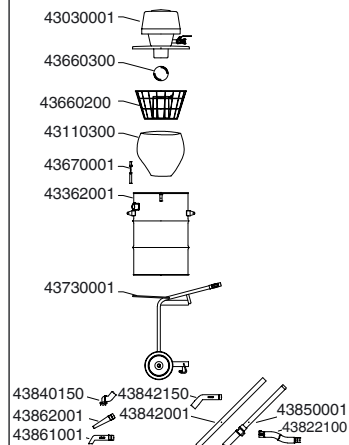
Dual container system for fixed installation with inbuilt frame. Grit and granulate discharger for splitting blasting grit from dust. Installed on silo for grit storage. Dust is discharged in the NVF filter and collected in a container. The filter is automatically cleaned at the system shut off, or can be done automatically by installation of timer control system. Heavy-duty vacuum unit for material collection over rather long distance. Suitable for collection of mixed dusty and granulated products.



Ab500 - Liquid and coarse particle suction

- High material collection capacity
- Easy handling
- High vacuum and suction capacity

Single container system, designed for the collection of coarse particles, such as chips and granules as well as liquids and sludge. The high vacuum allows transportation of material over a long distance. The container can collect and hold a large volume of material. The unit can be supplied with a bottom drain valve for quick and simple discharge of liquids.



	Ab306	Ab405	Ab426	Ab450	Ab471	Ab500
Product number:	42130600	42140500	42142600	42145000	42147100	42150000
Vacuum producer:	NE32	NE52	NE52	NE42	NE52	NE52
Max. vacuum	mmWC 3100	5200	5200	4200	5200	5200
Max. air flow	Nm ³ /hr 342	342	342	360	342	342
Compressed air consumption	Nm ³ /min 1.6	3.0	3.0	2.2	3.0	3.0
Compressed air pressure	bar 7	7	7	7	7	7
Noise level*	dB(A) 74	76	76	74	76	76
Container practical volume:	litres 40 + 50	40 + 58	47+ 58	47	67 + 89	160
Length x Width x Height:	mm 1760 x 550 x 1200	1400 x 730 x 1820	1400 x 730 x 1820	700 x 380 x 1670	1370 x 880 x 1960	925 x 850 x 1380
Weight:	Kg 69	119	119	88	165	72
Standard suction hose diameter:	mm 51	51	51	51	51	51
Standard suction hose length:	metres 6	6	6	6	6	6
Main filter area:	m ² 0,35	2.38	1,56	1.60	1.60	0.60
Main filter approval category:**	M	M	-	-	-	-
Main filter type:	Bag	Cartridge	Cartridge	NVF	NVF	Bag
Main filter material:	PTFE coated polyester Paper	Paper	Microfibre	Sintered PP	Sintered PP	PTFE coated polyester
Main filter cleaning method:	Manual	Manual	Reverse air jet	Pressurized air	Pressurized air	Manual
Standard suction hose quality:	PVC	PVC	PVC	PVC	PUR	PVC

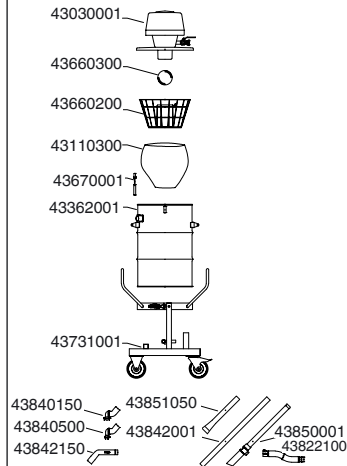
*Noise level - measured at a dist.

1m, height 1,6m **Approval category - EN 60335-2-69

Ab510 - Liquid and coarse particle suction

- High material collection capacity
- Easy material discharge by tippable container
- Fork lift handling

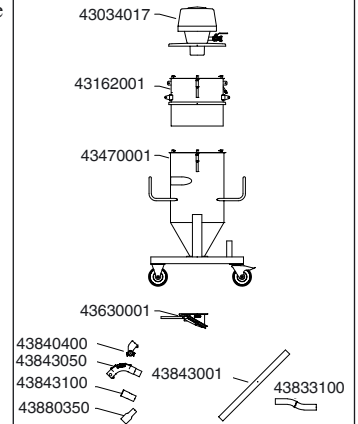
Single container system, designed for the collection of large quantities of coarse particles, such as chips and granules as well as liquids and sludge. The high vacuum allows transportation of material over long distances. Trolley mounted container easily tips to discharge its content. Including slots for fork lift handling, making the system mobile and flexible. The unit can be supplied with a bottom drain valve for quick and simple discharge of liquids.



Ab570 - Grit and granulate suction

- Silo system with large wheels and forklift slots for excellent handling
- High vacuum for suction over long horizontal and vertical distance
- Efficient self-cleaning NVF filter

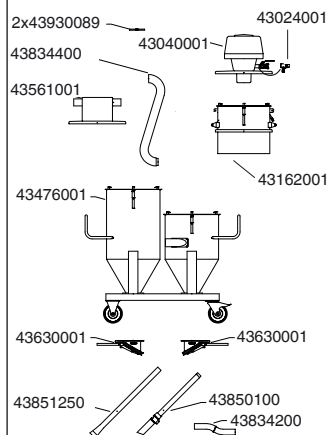
Mobile silo system with high suction capacity, designed for the collection of dusty materials and granules, such as steel grit, sand, coarse powders, etc. The silo is equipped with a manually operated discharge valve. Can be supplied with counterweight valve or pneumatic valve for automatic operations. Equipped with the efficient self-cleaning NVF filter. Including slots for fork lift handling, allowing it to be emptied into all types of containers, feeding systems or floor bin. The unit is delivered with 63 mm suction equipment.



Ab581 - High capacity grit recovery

- Very high airflow and high collection capacity
- Forklift handling with high mobility
- Efficient filter and grit/dust separation

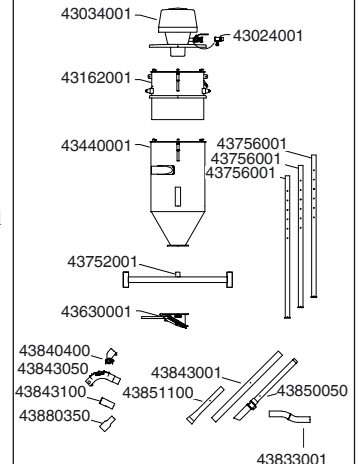
Powerful and flexible vacuum unit installed on trolley, equipped with grit/dust discharge unit on pre-separator silo. The cleaned grit can be emptied into a bucket, feed system or floor bin. The dust is trapped in the NVF filter and collected in the second stage silo. Suitable for use in blasting halls for grit recovery and cleaning of blasted hulls and steel structures. The unit is delivered with 63 mm suction equipment.



Ab600 - Granulate and coarse dust suction

- Vacuumer with silo on flexible frame system
- High vacuum for suction of heavyweight material over long distance
- Efficient self-cleaning NVF filter

Silo system with high suction capacity for fixed installations. Designed for the collection of dusty materials such as granules, steel grit and recovery of precious metals. The silo is equipped with a manual discharge valve. Can be supplied with counterweight or pneumatic valves for automatic operations. Equipped with the efficient and self-cleaning NVF filter. The unit can be fitted with automatic remote control. The unit is often used as power pack in central suction systems. The unit is delivered with 63 mm suction equipment.

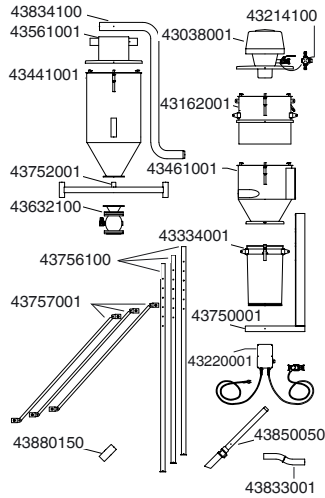


Airpowered ejector vacuum systems

Ab710 - Heavy duty recovery and cleaning system

- Extremely high vacuum for suction of heavy material over long horizontal and vertical distances
- Dust separation from collected granulates and grit
- Automatic filter cleaning and silo discharge

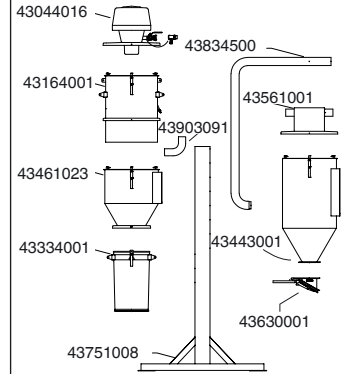
This robust and extremely powerful system is designed for the recovery of blasting shot. Equipped with automatic pneumatic pinch valve and automatic self-cleaning NVF filter. Most of the dust is separated from the blasting shot or from the collected granulates. The dust is channelled into its own container, while the blasting shot or granulated material is fed back into the blasting pot, onto conveyors or into other containers.



Ab722 - Grit recovery and cleaning system

- High vacuum and airflow
- Dust separation from grit and granulates
- Efficient self-cleaning NVF filter system

An extremely powerful vacuum unit for the collection of blasting grit and other granulated material. The combination of high vacuum and high airflow make material transport over long distance possible. Compact design, built on a frame with the possibility of transportation by forklift. Equipped with grit and dust separator. The clean grit is collected in a silo and can be re-used. The dust is trapped in a high efficient NVF filter and discharged into a dustbin.



	Ab510	Ab570	Ab581	Ab600	Ab710	Ab722
Product number:	42151000	42157000	42158100	42160000	42171000	42172200
Vacuum producer:	NE52	NE64	NE76	NE64	NE74	NE96
Max. vacuum	mmWC 5200	6800	4800	6800	7800	6800
Max. air flow	Nm ³ /hr 342	330	690	330	318	660
Compressed air consumption	Nm ³ /min 3.0	4.3	5.4	4.3	5.3	8.6
Compressed air pressure	bar 7	7	7	7	7	7
Noise level*	dB(A) 76	77	78	77	75	78
Container practical volume:	litres 160	146	230	146	67 + 220	67 + 220
Length x Width x Height:	mm 925 x 730 x 1640	1020 x 880 x 2090	1640 x 890 x 1820	1150 x 1000 x 2740	1875 x 1000 x 3025	1530 x 1000 x 2870
Weight:	Kg 103	203	290	144	271	300
Standard suction hose diameter:	mm 51	63	76	63	63	76
Standard suction hose length:	metres 6	20	6	10	10	-
Main filter area:	m ² 0.60	3.15	3.15	3.15	3.15	5.25
Main filter approval category:**	-	-	-	-	-	-
Main filter type:	Bag	NVF	NVF	NVF	NVF	NVF
Main filter material:	PTFE coated polyester	Sintered PP	Sintered PP	Sintered PP	Sintered PP	Sintered PP
Main filter cleaning method:	Manual	Pressurized air	Pressurized air	Pressurized air	Pressurized air	Pressurized air
Standard suction hose quality:	PVC	PUR	PUR	PUR	PUR	-

*Noise level - measured at a dist. 1m, height 1,6m **Approval category - EN 60335-2-69

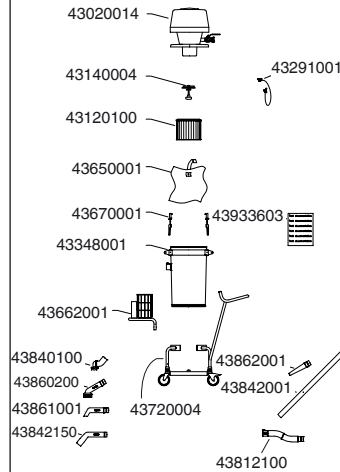


Ab105Ex - Dust and granulate cleaning

- Simple and robust
- Disposable dust bag
- ATEX approved

Air powered ejector system, with light suction equipment for cleaning floors, walls, beam constructions, and the like. Capacity superior to most of the portable electrical vacuums in the market. The versatile cleaner can be used in industries and institutions. Can be equipped with absolute/HEPA filters for suction of hazardous dust and granulates. Can easily be adapted for liquid suction.

ATEX approval; EX II 2 GD c IIC.

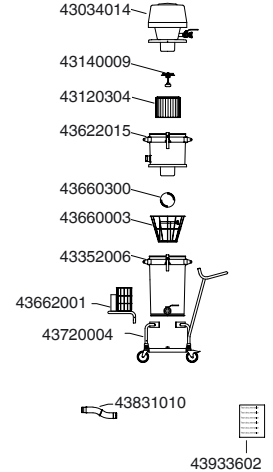


Ab140Ex - Liquid recovery

- High vacuum capacity
- Stainless steel
- ATEX approved

This heavy duty stainless steel vacuum unit is excellent for suction of hazardous and flammable liquids. Can transport material over long vertical and horizontal distances. Suitable for various cleaning and liquid pick-up operations in industry. Designed for stripping of cargo tanks and deep well sumps in shipping. Often connected to tank stripping pumps equipped with stripping pipe. Equipped with 1½” Camlock couplings for suction inlet and product discharge connections for safe emptying process. Parts in direct contact with collected liquids are made from stainless steel. All parts are antistatic and conductive to avoid static electricity loading. Suitable for suction of oil, water and other liquefied products.

ATEX approval; EX II 2 GD c, IIC.

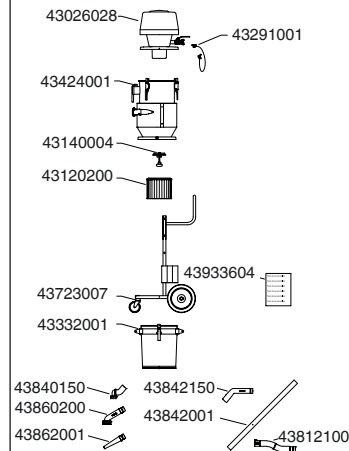


Ab216Ex - Multi-purpose and fine dust suction

- High suction capacity
- Manual filter cleaning
- ATEX approved

This norclean Ex-approved vacuum model is a very powerful unit especially developed for collection and recovery of flammable and explosive dust. Suitable for use in areas in industrial plants where flammable gases and dusts can be present, thereby causing a risk to persons and installations. All parts in the unit are conductive or antistatic to avoid static electricity discharge.

ATEX approval; EX II 2 GD c IIC.

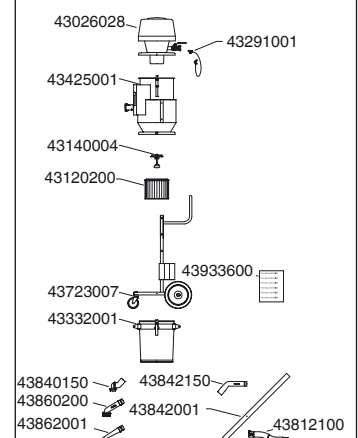


Ab221Ex - Multi-purpose and fine dust suction

- High suction capacity
- Easy filter cleaning system
- ATEX approved

This norclean Ex-approved vacuum model is a very powerful unit especially developed for collection and recovery of flammable and explosive dust. Suitable for use in most industrial plants where flammable gases and dusts can be present, thereby causing a risk to persons and installations. All parts in the unit are conductive or antistatic to avoid static electricity discharge.

ATEX approval; EX II 2 GD c IIC.



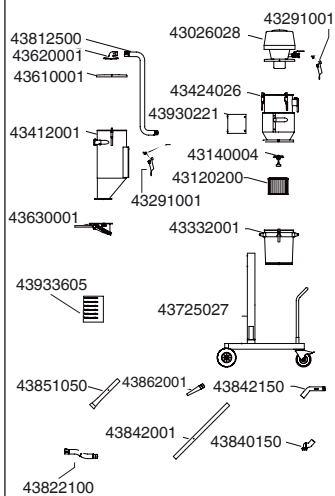


Ab426Ex - Dry waste suction

- Silo pre-separator with manual outlet valve
- Fork lift handling
- ATEX approved

Dual container system, designed for removal of industrial waste. This powerful suction unit comes equipped with a silo, filter and container. Special swivelling, lockable wheels are sized to increase mobility, and make the handling of heavy loads simple. The silo is designed to allow the collected material to be discharged over gratings or chutes for central collection. The unit can be equipped with an adjustable counterweight valve and holder for discharge into sacks. The model include slots for handling by forklift.

ATEX approval; EX II 2 GD c IIC.

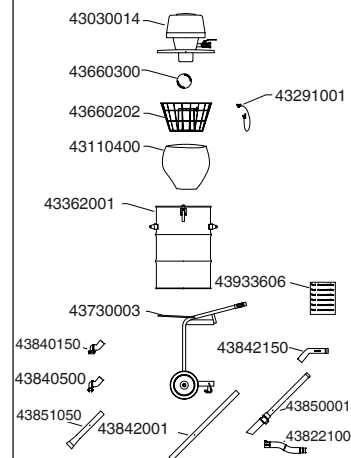


Ab500Ex - Liquid and coarse particle suction

- High material collection capacity
- Easy handling
- ATEX approved

Single container system, designed for the collection of coarse particles, such as chips and granules as well as liquids and sludge. The high vacuum allows transportation of material over long distance. The container can collect and hold a large volume of material, it can be supplied with a bottom drain valve for quick and simple discharge of liquids.

ATEX approval; EX II 2 GD c IIC.



	Ab105Ex	Ab140Ex	Ab216Ex	Ab221Ex	Ab426Ex	Ab500Ex
Product number:	42210500	42214000	42221600	42222100	42240500	42250000
Vacuum producer:	NE22	NE64	NE52	NE52	NE52	NE52
Max. vacuum	mmWC 2100	6800	5200	5200	5200	5200
Max. air flow	Nm ³ /hr 306	330	342	342	342	342
Compressed air consumption	Nm ³ /min 1.0	4.3	3.0	3.0	3.0	3.0
Compressed air pressure	bar 7	7	7	7	7	7
Noise level*	dB(A) 72	77	76	76	76	76
Container practical volume:	litres 40	67	47	47	47 + 58	160
Length x Width x Height:	mm 1140 x 550 x 1200	1140 x 550 x 1550	700 x 530 x 1550	700 x 530 x 1550	700 x 530 x 1550	925 x 730 x 1640
Weight:	Kg 50	75	69	73	160	110
Standard suction hose diameter:	mm 51	38	51	51	51	51
Standard suction hose length:	metres 6	16	6	6	6	6
Main filter area:	m ² 2.38	2.38	1.56	1.56	1.56	0.60
Main filter approval category:**	M	M	H	H	H	-
Main filter type:	Cartridge	Cartridge	Cartridge	Cartridge	Cartridge	Bag
Main filter material:	Paper	PET	Microfibre	Microfibre	Microfibre	PTFE coated polyester
Main filter cleaning method:	Manual	Manual	Reverse air jet	Reverse air jet	Manual	Manual
Standard suction hose quality:	PE	PUR	PE	PE	PVC	PVC

*Noise level - measured at a dist. 1m, height 1,6m **Approval category - EN 60335-2-69

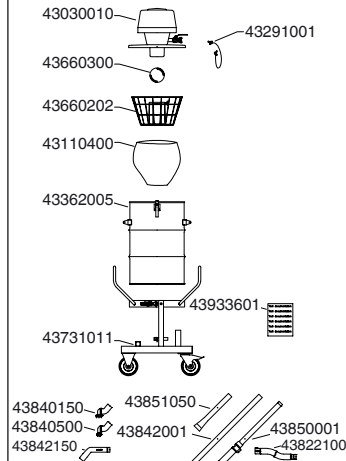


Ab510Ex - Liquid and coarse particle suction

- Forklift handling
- Easy material discharge by tippable container
- ATEX approved

This norclean Ex-approved vacuum model is a very powerful unit especially developed for collection and recovery of large quantities of flammable and explosive chips and granules as well as liquids and sludge. Suitable for use in areas in most industrial plants where flammable gases and dusts can be present, thereby causing risk to persons and installations. All parts in the unit are conductive or antistatic to avoid static discharge. The unit can be supplied with a bottom drain valve for quick and simple discharge of liquids.

ATEX approval; EX II 2 GD c IIC.

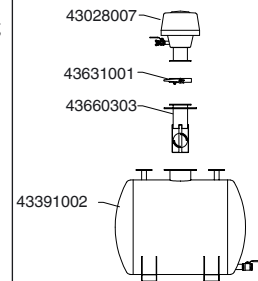


Ab950Ex - Liquid recovery

- High vacuum capacity giving high product lift
- 950 l storage capacity
- ATEX approved

This heavy duty stainless steel vacuum unit is excellent for suction of hazardous and flammable liquids. Can transport material over long vertical and horizontal distances. Suitable for various cleaning and liquid pick-up operations in industry, and for stripping of cargo tanks and deep well sumps in shipping. Normally connected to tank stripping pumps equipped with stripping pipe. Parts in direct contact with collected liquids are made from stainless steel. All parts are antistatic and conductive to avoid static electricity loading. Suitable for suction of oil, water and other liquefied products.

ATEX approval;
EX II 2 GD c IIC.



	Ab510Ex	Ab950Ex	-	-	-	-
Product number:	42251000	42295000	-	-	-	-
Vacuum producer:	NE52	NE74	-	-	-	-
Max. vacuum	mmWC	5200	7800	-	-	-
Max. air flow	Nm ³ /hr	342	318	-	-	-
Compressed air consumption	Nm ³ /min	3.0	5.3	-	-	-
Compressed air pressure	bar	7	7	-	-	-
Noise level*	dB(A)	76	75	-	-	-
Container practical volume:	litres	160	950	-	-	-
Length x Width x Height:	mm	925 x 730 x 1640	1380 x 1000 x 1800	-	-	-
Weight:	Kg	103	197	-	-	-
Standard suction hose diameter:	mm	51	-	-	-	-
Standard suction hose length:	metres	6	-	-	-	-
Main filter area:	m ²	0.60	-	-	-	-
Main filter approval category:**		-	-	-	-	-
Main filter type:	Bag	-	-	-	-	-
Main filter material:	PTFE coated polyester -	-	-	-	-	-
Main filter cleaning method:	Manual	-	-	-	-	-
Standard suction hose quality:	PVC	-	-	-	-	-

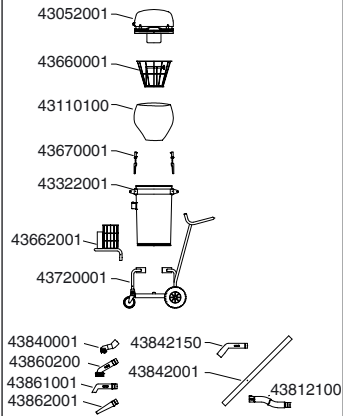
*Noise level - measured at a dist. 1m, height 1,6m **Approval category - EN 60335-2-69

Electric vacuum systems

Bb104 - Workshop cleaning

- Simple and robust
- Operated on 10 Amp fuse
- Easy handling

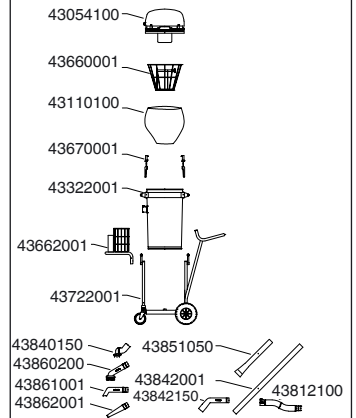
Single container system, designed for the collection of dry materials over short distances. Versatile unit for use in diverse industries and institutions. Suction equipment is light and easy to handle.



Bb114 - Industrial cleaning

- High suction power and capacity
- Easy handling
- Tippable container

Single container system, designed for the collection of dry materials over short distances. Versatile unit for use in diverse industries and institutions. Suction equipment is light and easy to handle. Tippable container for simple emptying.

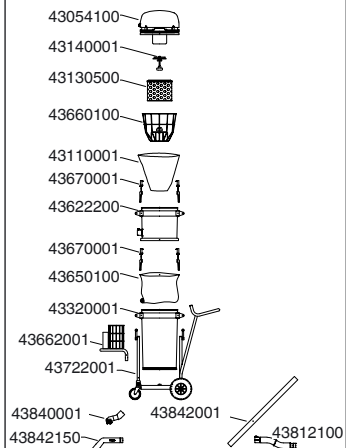


Bb116 - Health hazardous cleaning

- Double filter stage for maximum filtration, prefiltration in container
- Tippable container for simple material emptying
- High capacity gives quick powder and dust recovery

Single container system, designed for the collection of powder, granules and hazardous materials. Include two separation/filtration stages.

By installing a disposable filter bag and plastic bag in the system, both the filter bag and the dust can be collected directly into the plastic bag. Thereby contact with collected hazardous material is minimized. Suction equipment is light and easy to handle.

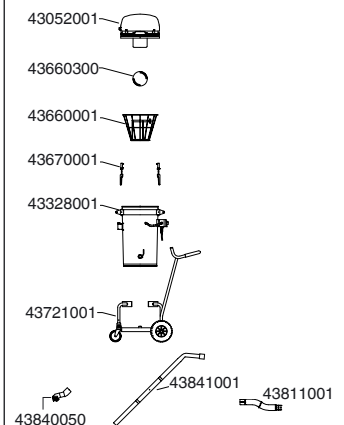


Bb181 - Liquid transportation

- Easy handling and robust
- Operated on 10 Amp fuse
- Powerful and corrosion resistant pump

High capacity vacuum system with built-in 500W pump. Efficient suction of liquids and simultaneous transportation into tanks or other collection devices. Designed to meet the demands of the toughest industrial environments.

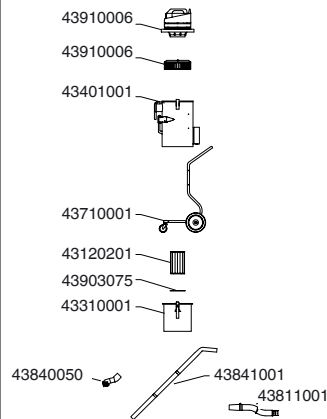
Pump data; max.capacity: 10,6m³/h, max.discharge height: 9000 mmWC.



Bb206 - Workshop cleaning

- Start/stop for handtools
- Easy handling and movability
- Operated on 10 Amp fuse

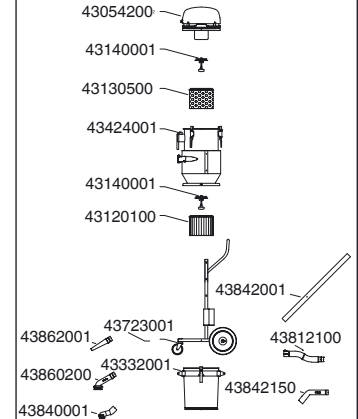
Small and handy electric single phase cleaner with high airflow for excellent material collection. The unit is equipped with a separate cooling system. Automatic start/stop for electric tools. Comes with 38 mm floor suction equipment.



Bb216 - Multi-purpose and fine dust suction

- High suction capacity
- Manual filter cleaning
- Double HEPA filter option

Fine dust problems are easily solved by this high capacity vacuum unit. Efficient cyclonic preseparation of the dust before the absolute/HEPA filter. Single container system with absolute/HEPA filter for collection of very fine dust and granulated material. The filter cleaning process is simple and efficient. The single phase multistage fan system creates high airflow for excellent material collection and transport. The unit may be equipped with a larger container.



	Bb104	Bb114	Bb116	Bb181	Bb206	Bb216
Product number:	42410400	42411400	42411600	42418100	42420601	42421601
Vacuum producer:	NEL2R	NEL3R	NEL3R	NEL2R	NEL1	NEL3RT
Max. vacuum	mmWC	2150	2150	2150	2200	2150
Max. air flow	Nm ³ /hr	312	460	460	312	460
Voltage	V	230	230	230	230	230
Power	kW	1.6	2.4	2.4	1.6	2.4
Power phase		Single	Single	Single	Single	Single
Power frequency	Hz	50	50	50	50	50
Classification		IP44	IP44	IP44	IP44	IP44
Starting method		Direct	Direct	Direct	Direct	Direct
Noise level*	dB(A)	74	75	75	74	75
Simultaneous operators:		-	-	-	-	-
Container practical volume:	litres	40	40	67	40	47
Length x Width x Height:	mm	1140 x 550 x 1060	1140 x 550 x 1060	1140 x 550 x 1390	1140 x 550 x 1060	600 x 400 x 1000
Weight:	Kg	49	45.3	59	51.8	69
Standard suction hose diameter:	mm	51	51	51	38	51.0
Standard suction hose length:	metres	6	6	6	6	5
Standard suction hose quality:		PE	PE	PE	PE	PE
Main filter area:	m ²	0.35	0.35	0.50	-	1.00
Main filter approval category:**		-	-	-	-	H
Main filter type:		Bag	Bag	Bag	-	Cartridge
Main filter material:		PTFE coated polyester	PTFE coated polyester	PTFE coated polyester	-	Microfibre
Main filter cleaning method:		Manual	Manual	Disposable	-	Reverse air jet
Control filter area:	m ²	-	-	1.56	-	0.75
Control filter approval category:		-	-	H	-	H
Control filter type:		-	-	Cartridge	-	Cartridge
Control filter material:		-	-	Microfibre	-	Microfibre
Control filter cleaning method:		-	-	Manual	-	Manual

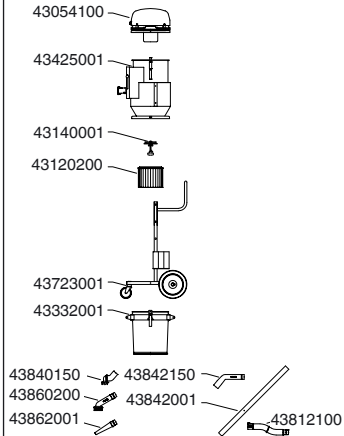
*Noise level - measured at a dist. 1m, height 1,6m **Approval category - EN 60335-2-69

Electric vacuum systems

Bb221 - Multi-purpose and fine dust suction

- High suction capacity
- Easy filter cleaning system
- Double HEPA filter option

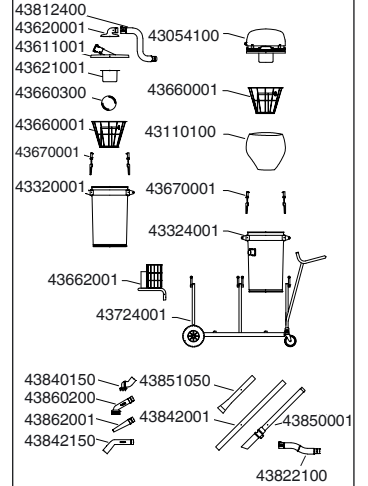
Fine dust problems are easily solved by this high capacity vacuum unit. Efficient cyclonic pre-separation of the dust before the absolute/HEPA filter. Manual filter cleaning is easy and efficient. Automatic filter clean options are available. The single phase multistage fan system creates high airflow for excellent material collection and transportation. The unit may be equipped with a larger container.



Bb306 - Multi-purpose suction

- Liquid recovery
- Wet and dry suction tool
- Tippable container

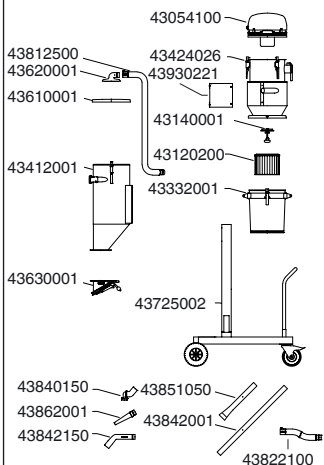
Dual container system, designed for the collection of dust, powder, sand and other fine granules. This system contains three separation/filtration stages that ensure optimum cleaning efficiency. Suction equipment is strong and durable. Engineered so that trolley mounted containers easily tip to empty. Trolley with accessory basket.



Bb426 - Industrial waste and powders

- Pre-separation in silo
- Material discharge into disposable bag
- Manual filter cleaning

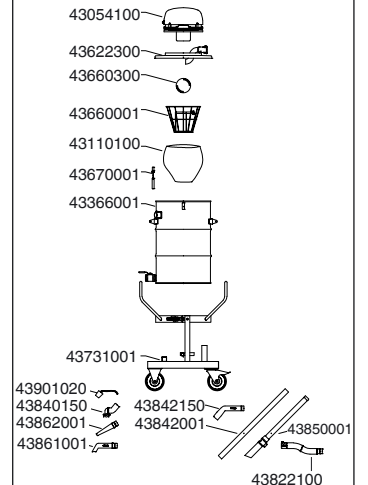
Dual container system, designed for removal of industrial waste. This powerful suction unit comes equipped with a silo and cyclonic pre-separation of the dust before the absolute/HEPA filter, ensuring the efficient filtration of large quantities of dust. The filter cleaning process is simple and efficient. Special swivelling, lockable wheels are sized to increase mobility, and make the handling of heavy loads especially easy. The unit is equipped with an adjustable counterweight valve and bag holder for discharge into bags or discharged over gratings or chutes. The model include slots for handling by forklift.



Bb515 - Liquid and coarse particle suction

- High material collection capacity
- Easy material discharge by tippable container
- Forklift handling

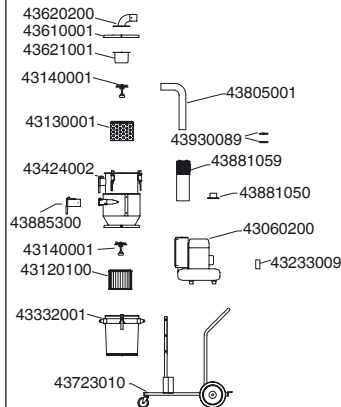
High capacity system designed to remove larger quantities of liquids or granules. Trolley mounted container easily tips to discharge its contents. A bottom drain valve is fitted for simple discharge of liquids. Designed for handling by forklift and easy tipping into container, onto conveying belts and similar. The unit comes with a bottom drain valve for quick and simple discharge of liquids.



Bb680 - Multi-purpose and fine dust suction

- Side channel blower
- Long lifespan
- High vacuum
- Low noise level

Electric vacuum unit suitable for general cleaning, suction from grinding machines, for powder transportation etc. Filter cartridge category M as standard main filter and control filter. Filters are also available in HEPA/Absolute or washable polyester version. Efficient filter cleaning by manual reverse air jet. Thermal overload fitted as standard. With 2" and 3" hose connections supplied on standard version.



Wet suction kit

In the Norclean Line range there are models designed for wet suction, normally with dual container system. Some units that are designed for suction of dry materials can easily be converted to a wet suction application.

This is done by using a wet suction kit. The filter is removed and a basket with a float ball is inserted. The float ball prevents the container from overflowing and discharge the liquid out of the exhaust. If the liquid collection is done from the side of the container, a Teflon filter could be applied. As an example, if we want to collect liquid with an Ab105, we remove the cartridge filter and the dust bag. Thereafter we add a float ball, basket and a Teflon filter as showed underneath.

Basket: 43660001



Ball: 43660300



Filter: 43110100



	Bb221	Bb306	Bb426	Bb515	Bb680	-
Product number:	42422100	42430600	42442600	42451500	42468000	-
Vacuum producer:	NEL3R	NEL3R	NEL3R	NEL3R	NEL5SC	-
Max. vacuum	mmWC 2150	2150	2150	2150	3000	-
Max. air flow	Nm ³ /hr 460	460	460	460	639	-
Voltage	V 230	230	230	230	230/400	-
Power	kW 2.4	2.4	2.4	2.4	5.5	-
Power phase	Single	Single	Single	Single	Three	-
Power frequency	Hz 50	50	50	50	50	-
Classification	IP44	IP44	IP44	IP44	IP54	-
Starting method	Direct	Direct	Direct	Direct	Man. Y/D	-
Noise level*	dB(A) 75	75	75	75	70	-
Simultaneous operators:	-	-	-	-	2	-
Container practical volume:	litres 47	40 + 50	47 + 58	160	47	-
Length x Width x Height:	mm 700 x 530 x 1350	1760 x 550 x 1060	1400 x 730 x 1820	990 x 730 x 1510	1290 x 590 x 1650	-
Weight:	Kg 69	67	119	116	135	-
Standard suction hose diameter:	mm 51	51	51	51	51 / 63 / 76	-
Standard suction hose length:	metres 6	6	6	6	-	-
Standard suction hose quality:	PE	PVC	PVC	PVC	-	-
Main filter area:	m ² 1.56	2.38	2.38	0.35	2.38	-
Main filter approval category:**	H	M	M	-	M	-
Main filter type:	Cartridge	Cartridge	Cartridge	Bag	Cartridge	-
Main filter material:	Microfibre	Paper	Paper	PTFE coated polyester	Paper	-
Main filter cleaning method:	Reverse air jet	Manual	Manual	Manual	Reverse air jet	-
Control filter area:	m ² -	-	-	-	2.38	-
Control filter approval category:	-	-	-	-	M	-
Control filter type:	-	-	-	-	Cartridge	-
Control filter material:	-	-	-	-	Paper	-
Control filter cleaning method:	-	-	-	-	Manual	-

*Noise level - measured at a dist. 1m, height 1,6m **Approval category - EN 60335-2-69

Central heavy duty systems

Cb050 - with side channel blower

Small central suction system

- Multi-purpose and fine dust suction
- Efficient filtercleaning
- Cyclonic pre separation

Electric vacuum unit suitable for fixed installation in small central suction systems. Can be used for general cleaning, suction from grinding machines, for powder transportation etc.

Filter cartridge category M fitted as standard main filter and control filter. Filters are also available in HEPA/ Absolute or washable polyester type. Efficient filter cleaning by reverse air jet. Needs compressed air at 6 bar for the filter cleaning process. Thermal overload control and false air valve fitted as standard.



Cb111 - with side channel blower

Medium central suction system

- Automatic filter cleaning
- High airflow
- Efficient filter system

Electric vacuum unit suitable for fixed installation in medium sized central suction systems. Can be used for general cleaning, suction from grinding machines, for powder transportation etc.

Sintered polyethylene main filter of "category L" installed as standard. Efficient main filter cleaning by automatic timer controlled pressurized air. Cartridge filter category M fitted as control filter. Y/D start, thermal overload control and false air valve fitted as standard. For suction and recovery of large quantities of material it is recommended to install a silo preseparating system with cyclonic material discharge.



Cb120 - with Roots pump

Large central suction system

- High airflow
- Long lifespan
- Efficient filter system

Electric vacuum unit with Roots vacuum pump. Suitable for fixed installation in medium to large central suction systems. Can be used for general cleaning, suction from grinding machines, for powder transportation etc. Sintered polyethylene main filter category L as standard. Efficient main filter cleaning by automatic PLS-controlled pressurized air. Standard filter cartridge category M is fitted as control filter. PLS, Y/D-start, thermal overload control, vacuum control and false air valve is fitted as standard. For suction and recovery of large quantities of material it is recommended to install a silo preseparating system with cyclonic material discharge.



Cb126 - with Roots pump

Large central suction system

- High airflow
- Long lifespan
- Efficient filter system

Electric vacuum unit with Roots vacuum pump, suitable for fixed installation in large central suction systems. Can be used for general cleaning, suction from grinding machines, for powder transportation etc. Filter cartridge category M fitted as standard main filter and control filter, HEPA/Absolute filters category H can be supplied. Efficient main filter cleaning by automatic PLS controlled pressurized air. PLS, Y/D-start, thermal overload control, vacuum control and false air valve fitted as standard. For suction and recovery of large quantities of material it is recommended to install a silo preseparating system with cyclonic material discharge.



		Cb050	Cb111	Cb120	Cb126	-	-
Product number:		42705000	42711100	42712000	42712600	-	-
Vacuum producer:		NEL5SC	NEL11SC	NEL30RB	NEL37RB	-	-
Max. vacuum	mmWC	3000	3000	5000	5000	-	-
Max. air flow	Nm ³ /hr	639	1098	1340	1740	-	-
Voltage	V	230/400	230/400	400	400	-	-
Power	kW	5.5	11	30	37	-	-
Power phase		Three	Three	Three	Three	-	-
Power frequency	Hz	50	50	50	50	-	-
Classification		IP54	IP54	IP54	IP54	-	-
Starting method		Man. Y/D	Y/D	Y/D	Y/D	-	-
Noise level*	dB(A)	70	67.7	79.5	81.3	-	-
Simultaneous operators:		2	2 - 4	4 - 6	5 - 8	-	-
Container practical volume:	litres	47	67	67 + 67	67 + 67	-	-
Length x Width x Height:	mm	1290 x 590 x 1650	1600 x 900 x 2050	2180 x 1350 x 2270	2180 x 1350 x 2270	-	-
Weight:	kilos	176	350	1400	1405	-	-
Standard suction hose diameter:	mm	76	102	152	152	-	-
Standard suction hose length:	metres	-	-	-	-	-	-
Standard suction hose quality:		-	-	-	-	-	-
Main filter area:	m ²	2.38	4.20	5.25	5.25	-	-
Main filter approval category:**		M	-	-	-	-	-
Main filter type:		Cartridge	Filter pack	NVF	NVF	-	-
Main filter material:		Paper	Sintered PP	Sintered PP	Sintered PP	-	-
Main filter cleaning method:		Reverse air jet	Pressurized air	Pressurized air	Pressurized air	-	-
Control filter area:	m ²	2.38	6.9	10	10	-	-
Control filter approval category:		M	M	M	M	-	-
Control filter type:		Cartridge	Cartridge	Cartridge	Cartridge	-	-
Control filter material:		Paper	Paper	Paper	Paper	-	-
Control filter cleaning method:		Manual	Manual	Manual	Manual	-	-

*Noise level - measured at a dist. 1m, height 1,6m **Approval category - EN 60335-2-69

Suction Equipment






Nederman Norclean offers a wide range of suction equipment. We operate with 3 suction systems; 38 mm, 51 mm and 63 mm. The dimensions describe the inner diameter of the hose used in the suction system. The 38 mm suction system is mainly used for light applications. It is flexible and easy to handle.










The 51 mm suction system is the most common, and with the widest equipment range.

The 63 mm suction system is mainly used in heavy duty abrasive applications, because of the low pressure drop in the hose.

Normally a vacuum unit is supplied with suction equipment included, but can be supplied with extra equipment if needed.

The PE hoses are flexible and easy to use, but not very resistant to chemicals or abrasive materials. The PVC hoses are more robust, and chemical resistant. The PUR hoses are very robust and used on abrasive materials. Norclean has a chemical resistant list that can be checked to ensure correct application use, if the user has little experience of PE/ PVC/PUR in use with their materials to be vacuumed.

Floor suction head - 63 mm system  <ul style="list-style-type: none"> • Rugged heavy duty • Antistatic • 65 mm wheel • Replacable rubber strips 	Width 500 mm 600 mm	Part no. 43840400 43840450
Suction pipe - 63 mm system 		Part no. 43843001 <ul style="list-style-type: none"> • Rugged Aluminium • Antistatic
Suction bend - 63 mm system 		Part no. 43843050 <ul style="list-style-type: none"> • Rugged Aluminium • Replacable rubber protection • Antistatic
Suction swivel - 63 mm system 		Part no. 43843100 <ul style="list-style-type: none"> • Rugged stainless steel • Antistatic
Floor suction head - 51 mm suction 	Width 400 mm 500 mm 600 mm	Part no. 43840250 43840300 43840350 <ul style="list-style-type: none"> • Heavy duty • 65 mm wheel • Replacable rubber strips • Antistatic
	Width 400 mm 500 mm 600 mm	Part no. 43840100 43840150 43840200 <ul style="list-style-type: none"> • Heavy duty • 38 mm wheel • Replacable rubber strips • Antistatic
	Width 400 mm	Part no. 43840500 <ul style="list-style-type: none"> • Heavy duty • Replacable rubber strips • Wet usage • Antistatic
	Width 400 mm	Part no. 43840550 <ul style="list-style-type: none"> • Heavy duty • Replacable brushes • Antistatic

	Width 450mm	Part no. 43840001 <ul style="list-style-type: none"> • Light Industrial usage • Adjustable 40 mm wheel • Replacable brushes and rubber strips
Suction pipe for 51 mm system 		Part no. 43999062 <ul style="list-style-type: none"> • Rugged stainless steel • Length 1 m • Antistatic
	Width 1 m	Part no. 43842001 <ul style="list-style-type: none"> • Rugged PEHD-EL material • Antistatic Different lengths on request
Suction bend for 51 mm system 		Part no. 43842150 <ul style="list-style-type: none"> • Rugged PA material • Antistatic
		Part no. 43999663 <ul style="list-style-type: none"> • Rugged stainless steel • Fits suction pipe 43842001 (PEHD-EL) • Antistatic
		Part no. 43999763 <ul style="list-style-type: none"> • Rugged stainless steel with abrasion protection • Fits suction pipe 43842001 (PEHD-EL) • Antistatic
	Width 43999063	Part no. 43999063 <ul style="list-style-type: none"> • Rugged stainless steel • Fits suction pipe 43999062 (Stainless steel) • Antistatic
Floor suction head - 38 mm suction system 	Width 370 mm	Part no. 43840050 <ul style="list-style-type: none"> • Light Industrial usage • Adjustable 40 mm wheel • Replacable brushes and rubber strips
Suction pipe w. bend - 38 mm suction 		Part no. 43841001 <ul style="list-style-type: none"> • Light and easy to handle • Antistatic

Complete suction kit for 63 mm system



- Rugged Heavy duty
- Designed for abrasive material
- Antistatic

Width	Part no.	Contain of models			
		Suction head	Pipe	Bend	Swivel
500 mm	42930000	43840400	43843001	43843050	43843100
600 mm	42930100	43840450	43843001	43843050	43843100

Complete suction kit for 51 mm system



- Heavy duty
- Designed for multi purposes
- Suction head with 38 mm wheels and rubber strips
- Antistatic

Width	Part no.	Contain of models		
		Suction head	Pipe	Bend
400 mm	42932000	43840100	43842001	43842150
500 mm	42932100	43840150	43842001	43842150
600 mm	42932200	43840200	43842001	43842150



- Heavy duty
- Designed for abrasive materials
- Suction head with 65 mm wheels and rubber strips
- Antistatic

Width	Part no.	Contain of models		
		Suction head	Pipe	Bend
400 mm	42932300	43840250	43842001	43842150



- Heavy duty
- Designed for wet suction on floors
- Suction head with rubber strips
- Antistatic

Width	Part no.	Contain of models		
		Suction head	Pipe	Bend
400 mm	42932500	43840500	43842001	43842150



- Heavy duty
- Designed for multi purposes
- Suction head with brushes
- Antistatic

Width	Part no.	Contain of models		
		Suction head	Pipe	Bend
400 mm	42932800	43840550	43842001	43842150



- Light industrial use
- Designed for multi purposes
- Adjustable wheel height
- Suction head with 40 mm wheels, brushes and stripes

Width	Part no.	Contain of models		
		Suction head	Pipe	Bend
450 mm	42934200	43840001	43842001	43842150

Complete suction kit for 38 mm systems



- Heavy duty
- Designed for wet suction on floor
- Suction head with rubber strips

Width	Part no.	Contain of models	
		Suction head	Pipe and Bend
370 mm	42935000	43840050	43841001

Gulper



- Ensure sufficient air supply
- Adjustable false air inlet
- Galvanized steel

Suction system	Length	Part no.
51 mm	910 mm	43850001
63 mm	930 mm	43850050
76 mm	930 mm	43850100

Gulper for floor cleaning



- Ensure sufficient air supply
- False air inlet
- Epoxy coated

Suction system	Length	Part no.
51 mm	910 mm	43850150
63 mm	930 mm	43850200
76 mm	930 mm	43850250

Pipe cleaning suction head



- Direct mounted on the hose
- PP
- Antistatic

Suction system	Ø Pipe	Part no.
51 mm	100 mm	43863001
51 mm	200 mm	43863100

Scraping tool



- Remove dirt stuck on any surface
- Galvanized steel

Suction system	Length	Part no.
38 mm	500 mm	43851001
51 mm	500 mm	43851050
51 mm	1000 mm	43851150
63 mm	500 mm	43851100
63 mm	1000 mm	43851200
76 mm	1000 mm	43851250

Brush for cleaning fragile surfaces



- Direct mounted on the hose
- PP
- Antistatic

Suction system	Brush	Part no.
51 mm	Hard	43860001
51 mm	Soft	43860200

Tool for cleaning profiles



- Direct mounted on the hose
- PP
- Antistatic

Suction system	Width	Part no.
51 mm	130 mm	43851050

Conical cleaning tool



- Direct mounted on the hose
- PP
- Antistatic

Suction system	Length	Part no.
51 mm	250 mm	43862001

Hose connectors



- Part no.** 43930102
- Quick connection to the vacuum cleaner
 - Male with swivel
 - Antistatic PA



- Part no.** 43930101
- Quick connect to the vacuum cleaner
 - Female
 - Antistatic PA



- End cuff for suction equipment
- Antistatic PE

Suction system	Part no.
32 mm	43819001
38 mm	43819011
51 mm	43819021

Suction hoses

Norclean suction hoses can be supplied plain, or with connectors for attaching to the unit and the various tools.



Light cleaning

- PE
- Flexible
- Antistatic
- Temperature range: -40°C to 60°C

Suction system	Length	Part no.	Connector
32 mm	20 m	43810001	None
38 mm	5 m	43811001	43930102, 43819011
38 mm	20 m	43811100	None
51 mm	6 m	43812100	43930101, 43930102
51 mm	10 m	43812200	43930101, 43930102
51 mm	20 m	43812300	None



Industrial cleaning

- PVC
- Chemical durability
- Smooth bore
- Antistatic
- Temperature range: -20°C to 70°C

Suction system	Length	Part no.	Connector
51 mm	6 m	43822100	43930101, 43930102
51 mm	10 m	43822200	43930101, 43930102
51 mm	30 m	43822300	None



Heavy duty cleaning

- PUR
- Abrasive materials
- Oil/gasoline/diesel durability
- Antistatic
- Temperature range: -40°C to 90°C

Suction system	Length	Part no.	Connector
38 mm	20 m	43831001	None
51 mm	6 m	43832100	43930101, 43930102
51 mm	10 m	43832200	43930101, 43930102
51 mm	20 m	43832300	None
63 mm	10 m	43833001	None
63 mm	20 m	43833100	None
76 mm	10 m	43834200	None
76 mm	20 m	43834300	None
102 mm	10 m	43835001	None
152 mm	10 m	43836001	None

Hose reels

Hose reels are normally used in central suction system. The reel simplifies handling of the hose and provides a safe storage place. The reel is equipped with an automatic damper and integrated micro switch for automatic start/stop of the vacuuming.



- Safe hose storage
- Strong and robust design
- Easy to operate
- Normally connected to the floor suction tool

Suction System	Hose Type	Length	Part no.	Connector
51 mm	PE	10 m	4299001	43930101

Filters

NVF Filter systems

The special Nederman Norclean NVF (Norclean Vyon Filter) filters are the most advanced selfcleaning filters available. The barshaped filter material is formed from sintered polypropylene. Compressed air (6 - 7 bar) stored in a built in air vessel is blown back through the filter candles and forces the dust from their surfaces. This cleans the filter and the vacuum system is returned to full capacity.

The NVF filter is available in a variety of sizes to fit all Nederman Norclean vacuum systems, including mobile or stationary units. The filters can also be used in combination with other vacuum systems to solve filtering problems.

Nederman Norclean offer manually or fully automatic filter cleaning systems. The NVF (Norclean Vyon Filter) is an excellent choice whenever large volumes of dust are being handled, where filter efficiency is important, and when maintenance costs are to be minimised. The filters have the following features:

- Excellent filtering characteristics
- The filter material is self supporting
- The filter are compact, and easily serviced
- Candles are washable with water
- The filter is both reliable and near maintenance-free



NVF Filter systems

During dust collection operation, we recommend a maximum filter loading of up to 200 m³/m²/h in single filter systems. When two or more filters are used in systems with adjustable sequential timer controls, the filters can be loaded up to a maximum airflow of 300 m³/m²/h during filter cleaning.

The pressure drop at airflow of 230 m³/h over clean filter is 20 mm WC. Loaded filters may have a pressure drop of 900 mm WC or more, depending on type of dust collected.

When large quantities of dusty material are collected and filtered, the use of a pre-separator system before the filter is recommended.

If the dust is hazardous, it is recommended to use the NVF filter in a pre-filtration stage, and to install a HEPA filter in a second stage for final fine dust trapping.



- NVF filter candles
- Pressurized air cleaning
- Exchangable PPF candles
- 98.54% filter efficiency
- Washable filter candles
- MAX 110 °C

Area	Part no.	System	Number of candles	Length	Max load
1,6 m ²	43160001	50	36	300 mm	480 Nm ³ /h
3,15 m ²	43162001	200	70	300 mm	945 Nm ³ /h
5,25 m ²	43164001	200	70	500 mm	1575 Nm ³ /h



Filter Candle Length	Part no.
300 mm	43906040
500 mm	43906042
O-ring	43901013
Nut	43908005

Cartridge and bag filter

Smaller suction systems use filter cartridges, filter bags or a combination. Filter bags stop larger particles, and are often used for liquid suction. Cartridge filters are supplied as standard, and HEPA versions are available. Standard cartridge filters have an efficiency of 99.97%, and the HEPA cartridge filter efficiency is 99.997%. Some vacuum systems, like the Ab/Bb 216 and 221 can be equipped with two cartridge filters. The use of a second control filter can be of environmental reason or to prevent fine powder from entering the suction head, particularly the electrical units.

Filter bags

For use in Norclean System 50/200 vacuum cleaners for suction of dry and coarse grain materials. To increase operation time for the filter, it can be used together with dust-bags for pre-separation of dust.

Filter bags



Part no. 43110001

- System 50
- Disposable multilayer paper filter
- 0.5 m² area
- Max 70 °C



- Teflon
- Re-usable
- Max 120 °C

System	Type	Area	Part no.
50	Normal	0,35 m ²	43110100
50	Antistatic	0,35 m ²	43110200
200	Normal	0,59 m ²	43110300
200	Antistatic	0,59 m ²	43110400

Cartridge filter

The cartridge filters are normally used in combination with Norclean vacuum cleaners for suction of fine particles. To increase operation time for the filter it can be used together with a dust bag or other pre-filtration systems for pre-separation of dust. The Norclean washable cartridge filter is normally used for suction of oil or emulsified liquids. Cartridge filters are normally cleaned by atmospheric systems. The cleaning is done by taking the suction hose off (or blocking of the hose), and venting the system with the venting handle. The result is an instant pressure drop over the filter, with a resultant cleaning action. The 221 model has a self cleaning lever, with the same function, but without disconnecting the hose.

Cartridge filter



- Cartridge filter for system 50 and system 200
- Max 120 °C

NBI 43120300 has a max temp of 140°C

Height	Area	Material	Remarks	Part no.
220 mm	2,38 m ²	Paper	-	43120100
220 mm	1,56 m ²	Microfibre	HEPA	43120200
220 mm	2,38 m ²	Polyester	Washable	43120300
470 mm	5,4 m ²	Paper	-	43130201
470 mm	3,5 m ²	Microfibre	HEPA	43130702
600 mm	6,9 m ²	Paper	-	43130301
600 mm	4,5 m ²	Microfibre	HEPA	43130801
870 mm	10 m ²	Paper	-	43130401
870 mm	6,5 m ²	Microfibre	HEPA	43130901



- Cartridge filter for system 50 and system 200
- Max 70 °C
- Perforated steel plate protection

Height	Area	Material	Remarks	Part no.
220 mm	2,38 m ²	Paper	-	43130001
220 mm	2,38 m ²	Paper	wo/ bottom	43130100
220 mm	1,56 m ²	Microfibre	HEPA	43130500
220 mm	1,56 m ²	Microfibre	HEPA/Stainless	43130502
470 mm	5,4 m ²	Paper	-	43130200
470 mm	3,5 m ²	Microfibre	HEPA	43130700
600 mm	6,9 m ²	Paper	-	43130300
600 mm	4,5 m ²	Microfibre	HEPA	43130800
870 mm	10 m ²	Paper	-	43130400
870 mm	6,5 m ²	Microfibre	HEPA	43130900

Dustbag

For use together with a filter cartridge for suction of dry materials. Disposable dust bag is used for collection of hazardous material, and for filter protection.

Dustbag



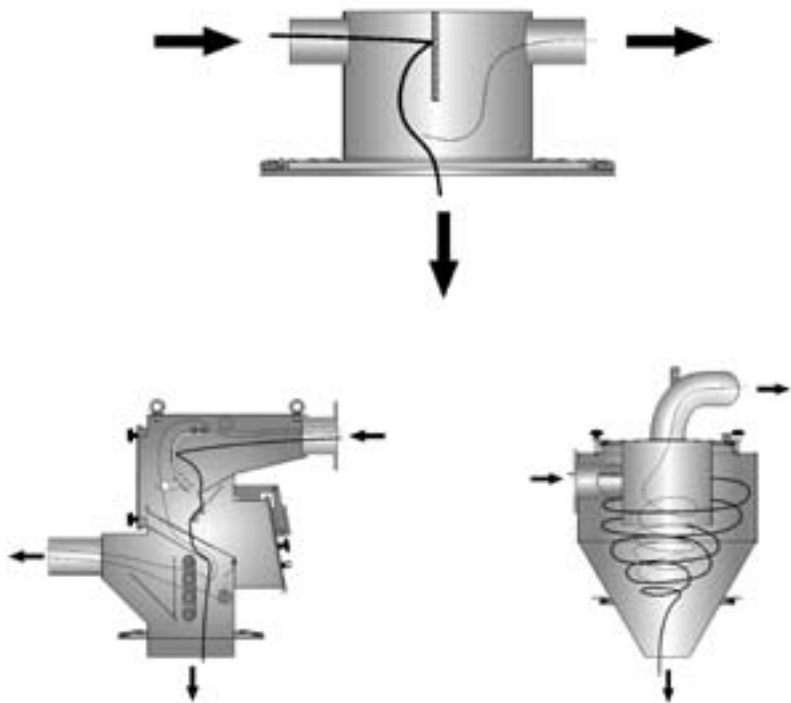
Part no. 43650001

- System 50
- Disposable
- Pack of 5
- Multilayer paper
- 30 l volume

Pre-separation and cyclones

In most vacuum collection and transport systems a pre-separation of the collected material, before the material reaches the filter is very important. The Pre-separation fulfills various customer requirements.

- Discharging most of the material into bigbags, silos or containers
- Feeding the collected material into other conveying systems
- Feeding the collected material into production machinery
- Separating dust from granulated material
- Combination of various tasks



Cyclones

Cyclones are normally used when a maximum pre-separation of collected material from the transportation airflow is required. Cyclones are normally located on silos tanks, containers etc. suitable to store the collected material and thereby function as a dead chamber under the cyclone. Normally, a filter stage shall be installed between the cyclone and the vacuum power unit.



Part no. 43510001

- System 50
- High efficient pre-separator
- 51 mm suction inlet for hose connection
- Flow range: 150 - 270 Nm³/h



Part no. 43522001

- System 200
- High efficient pre-separator
- 152/127/102 mm suction inlet
- Flow range: 500 - 800 Nm³/h

Coarse grain separators

Coarse grain separators are normally used to separate reusable material from dust. The reusable material is collected into a silo under the preseparator, while the dust is transported to the filter and dust bin. To get the best separation effect, both cyclones and coarse grain separators require constant flow in the suction system.



Part no. 43550001

- System 50
- 51 mm suction inlet for hose connection
- Flow range: 150 - 270 Nm³/h

Coarse grain separators

System	Part no.
50	42915000
200	42915500



- Simple pre-separator normally mounted on top of container
- 51 mm suction inlet for hose connection
- Flow range: 150 - 270 Nm³/h



Part no. 43562001

- System 200
- 152/127/102 mm suction inlet
- Flow range: 500 - 800 Nm³/h

Silos

Silos are structures designed for temporary storage of waste/reused material during collection, before being released into a container or big bag system. Normally mounted between a filter on top and a container/disposal system underneath. Silos with a flange on the bottom, are normally mounted with a valve for discharge of waste material.



Part no. 43412001

- 58 l System 50
- 51 mm suction inlet
- Wall mounted



Part no. 43414001

- 28 l System 50
- Mounts under another silo instead of a container



Part no. 43420001

- System 50
- 51 mm suction inlet
- Wall mounted
- Normally connected on top of a container



Part no. 43417001

- 61 l System
- 385 mm full outlet
- Pneumatic discharger
- Wall mounted



Part no. 43442001

- 146 l System 200
- 76 mm suction inlet
- Wall of frame mounted



Part no. 43450001

- 146 l System 200
- 320 mm outlet
- Pneumatic discharger
- 76/63/51 mm suction inlet
- Leg mounted



Part no. 43461001

- System 200
- 76/63/51 mm suction inlet
- Wall or frame mounted
- Normally connected on top of a container



Part no. 43470001

- 146 l System 200
- Forklift handling
- Mobile
- 76/63/51 mm suction inlet



Part no. 43480001

- 500 l System 300
- Normally mounted under a continual discharge unit or a preseparator
- 76 mm suction inlet
- Leg or frame mounted

Continual discharge silo

To be able to discharge the silo into ambient pressure during continuous vacuuming, one needs a continual discharge unit. Normally it is mounted between the filter and a System 200 or a System 300 silo.



Part no. 43485001

- For continuous collection
- Electrical control of discharge time
- 200 l System 200 or System 300

Total separator

A total separator is a unit which contains an inlet for the suction hose, cyclone and a cartridge filter. Normally used on portable systems with the vacuum producer mounted on top, and a waste container connected to the bottom.



Part no. 43424001

- System 50
- Manual reverse air cleaning
- 51 mm suction inlet



Part no. 43425001

- System 50
- Automatic reverse air cleaning
- 51 mm suction inlet

Containers

The disposal of the waste/reused material is an important part of a suction system. Nederman Norclean offer a wide range of containers with different features and benefits.



Part no. 43320001

- 67 l System 50



Part no. 43322001

- 40 l System 50
- 51 mm suction inlet



Part no. 43326001

- 40 l System 50
- 51 mm suction inlet
- 2" BSP drain valve



Part no. 43328001

- 40 l System 50
- 51 mm suction inlet
- 2" BSP drain valve
- 500W pump



Part no. 43348001

- 40 l System 50
- Stainless steel
- 51 mm suction inlet



Part no. 43360001

- 200 l System 200



Part no. 43362001

- 160 l System 200
- 51 mm suction inlet



Part no. 43366001

- 160 l System 200
- 51 mm suction inlet
- 2" BSP drain valve

Accessories

Trolleys

Portable units are normally mounted on a trolley. The Nederman Norclean range of trolleys enables the vacuum systems to fit any portable application.



Part no. 43720001

- System 50
- Industrial
- 125 mm front wheel, 225 mm rear wheel



Part no. 43722001

- System 50
- Tippable
- 125 mm front wheel, 225 mm rear wheel



Part no. 43723001

- System 50
- Heavy duty
- 125 mm front wheel, 300 mm rear wheel



Part no. 43724001

- System 50
- Double tippable
- Industrial
- 225 mm front wheel, 125 mm rear wheel



Part no. 43725001

- System 50
- Frame for silo mounting
- Heavy duty
- 300 mm front wheel, 200 mm rear wheel



Part no. 43730001

- System 200
- Industrial
- 300 mm wheel



Part no. 43731001

- Tippable system 200
- Forklift handling
- Heavy duty
- 200 mm wheel

Frames

Sometimes units are not needed to be portable, Nederman Norclean has a range of legs and frames to fit some semi portable units.



System 50
Part no. 43740001

System 200
Part no. 43751001

- Double mounting
- Forklift handling



Part no. 43752001

- System 200
- Leg mounted frame
- Easy height adjustment



- Legs for 43752001
- Holes for height adjustment

Legs	Length	Part no.
Bent	1500 mm	43755001
Straight	1500 mm	43756001
Straight	2200 mm	43756100

Control systems

The air driven ejector systems are turned on/off by the air supply valve. The Norclean line include a remote start/stop option for the air driven vacuum system. The electric vacuum systems are turned on/off by a start/stop switch. Control systems are used to empty the silo and to clean the filter, by setting the suction and discharge time.



Part no. 43210001

Hose for pneumatic remote start/stop:
Part no. 43211001
Length must be stated

- Pneumatic remote start/stop
- Hose not included



Part no. 43212001

- Pneumatic control system for ejector cleaners
- Suction time: 0 - 5 min
- Discharge time: 0 - 30 sec
- 5 m hose



Part no. 43220026

- Electrical control system for ejector cleaners
- Timer mounted direct on the pressure connection
- Suction time: 0 - 15 min
- Discharge time: 0 - 15 sec



- Electrical control system for ejector cleaners
- Suction time: 0 - 60 min
- Discharge time: 0 - 5 min

Part no.	Ejectors
43220001	NE22 - NE76
43222001	NE96

Bag Holder

Instead of using a container as the discharge unit, which has to be emptied, a bag could be used. Bags are normally not reused and comes in different sizes and with different sleeves for dust free removal.



Part no. 43640001

- Bag holder for silos with counterweight and butterfly valves
- Small volume



Part no. 43640200

- Big bag holder with counterweight discharge valve
- Big bag corner suspension
- Large volume

Valves

Valves are normally used under silos, to discharge waste/reused material from the silo into a container, big bag or other disposal units. Valves can be manually or automatic operated or controlled by a counterweight. The counterweight valve opens up by itself when the vacuum stops, and releases the material from the silo. When the vacuum starts up, the counterweight valve closes, and vacuuming can begin. If a manual or automatic valve is used, the vacuum is turned off/lost during the discharging into silo.



Part no. 43630001

- Manually controlled discharge valve
- Dry material
- 150 mm diameter



Part no. 43630100

- Automatic controlled discharge valve
- Pneumatic
- Dry material
- 150 mm diameter



Part no. 43630200

- Automatic discharge
- Adjustable counterweight valve
- Dry materials (not lightweighted)
- 150 mm diameter



Part no. 43631001

- Butterfly valve
- Wet and dry material
- 150 mm diameter
- Piping connection



- Pneumatic pinch valve
- Liquid and dry materials
- Piping connection

Diameter	Part no.
60 mm	43632001
75 mm	43632100
95 mm	43632200

Basket systems

Basket systems have two functions. The ball stops liquids from leaving the container and entering the suction head. When the container is full, the ball floats to the top and closes the suction head inlet. The suction power stops, and the user has to empty the container. The basket also stops the filter from being sucked into the suction head.



Part no. 43660300

- System 50 and 200
- Float ball
- PVC



Part no. 43660001

- System 50
- Liquid suction
- For filter 43110100 or 43110200
- For Float ball 43660300



Part no. 43660100

- System 50
- Liquid and dry suction
- Possible to mount filter bag and cartridge filter
- For filter 43110001, 43110100 or 43110200
- For 220 mm high cartridge filter



Part no. 43660200

- System 200
- Liquid suction
- For filter 43110300 or 43110400
- For float ball 43660300

Compressed air reel

Compressed air reel are normally used to power our mobile air driven vacuum cleaners. The reel stow away the compressed air source hose, and leads to a safer and more efficient working space.



- Safe storage
- Strong and robust design
- Easy to operate
- Supply air driven suction head with compressed air

Hose Diameter	Pressure	Part no.	Connector
19 mm	15 m	42990021	43909006
25 mm	10 m	42990022	43909007

Service Equipment

Service kit for air driven ejectors. Quick connectors tools to measure the pressure drop from our different ejector heads. This is a very easy way of testing which ejector head the customer have enough air available to supply.

Part no. 43290001



- Pressure inlet measurement
- Available air measurement
- Vacuum measurement
- Service tools

Technical data - air powered ejectors

Product number:	Vacuum producer:	Compressed air consumption Nm ³ /min	Max. vacuum		Max. air flow Noise level*		Standard suction hose diameter: mm	Necessary hose dimension for compressed air line								
			mmWC	-kPa	Nm ³ /hr	dB(A)		12mm ½"	20mm ¾"	25mm 1"	32mm 1-¼"	38mm 1-½"	51mm 2"	63mm 2-½"		
43020001	NE22	1.0	2100	22	306	73.5	51	1 - 8	9 - 58	59 - 200	201+					
43022001	NE32	1.6	3100	32	342	73.5	51		2 - 22	23 - 69	70 - 110	111+				
43024001	NE42	2.2	4200	42	360	73.5	51		1 - 8	9 - 41	42 - 100	101+				
43026001	NE52	3.0	5200	52	342	75.5	51		1 - 6	7 - 29	30 - 70	71 - 160	161+			
43032001	NE56	2.7	2500	25	564	73.5	76		1 - 7	8 - 39	40 - 90	91 - 190	191+			
43034001	NE64	4.3	6800	68	330	77.0	63			1 - 21	22 - 41	42 - 102	103+			
43036001	NE66	4.1	3800	38	630	76.5	76			1 - 25	26 - 47	48 - 150	151+			
43038001	NE74	5.3	7800	78	318	75.0	63			1 - 15	16 - 31	32 - 63	64+			
43040001	NE76	5.4	4800	48	690	78.0	76			1 - 14	15 - 30	31 - 71	72+			
43044001	NE96	8.6	6800	68	660	78.0	76			1 - 4	5 - 11	12 - 32	33 - 125	126+		

*Noise level - distance: 1 m - height: 1.6 m

(Air pressure 7 bar)

Distance from compressor (metres)

Technical data - electric power heads

Product number:	Vacuum producer:	Power kW	Voltage 50/60Hz	Power phase	Max. vacuum		Max. air flow Nm ³ /hr	Noise level* dB(A)	Standard suction hose diameter: mm
					mmWC	kPa			
43052001	NEL2R	1.6	230	One	2150	21.5	310	74	51
43052002	NEL2	1.6	110	One	2150	21.5	310	74	51
43054100	NEL3R	2.4	230	One	2150	21.5	460	75	51
43054200	NEL3RT	2.4	230	One	2150	21.5	460	75	51
43054300	NEL3	2.4	110	One	2150	21.5	460	75	51

*Noise level - distance: 3 m - height: 1 m

NEL 2R has two motors and all NEL 3 R/RT has three motors.

Technical data - electric heavy duty units

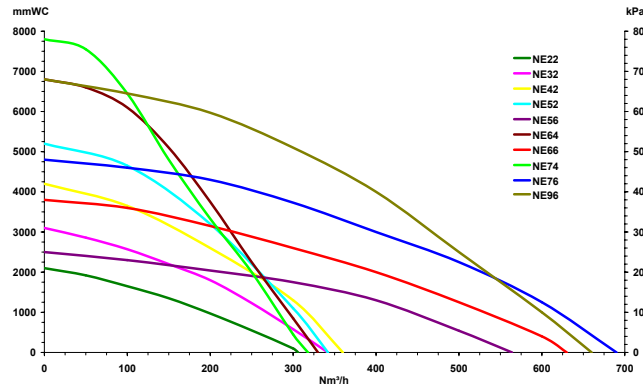
Product number:	Vacuum producer:	Power kW	Voltage 50Hz	Power phase	Max. vacuum		Max. air flow Nm ³ /hr	Noise level* dB(A)	Standard suction hose diameter: mm	IP	Starting method	Simultaneous operators:
					mmWC	kPa						
43060001	NEL3SC	3	230/400	Three	3000	30	315	72.0	51	IP54	Direct	1
43060100	NEL5.5SC	5.5	230	Three	3000	30	639	78.0	76	IP54	Man.Y/D	2
43060200	NEL5.5SC	5.5	400	Three	3000	30	639	78.0	76	IP54	Man.Y/D	2
43060300	NEL11SC	11	230	Three	3000	30	1098	67.7	102	IP54	Aut.Y/D	2 - 4
43060400	NEL11SC	11	400	Three	3000	30	1098	67.7	102	IP54	Aut.Y/D	2 - 4
43080100	NEL22RB	22	400	Three	5000	40	1340	78.8	152	IP54	Aut.Y/D	3 - 5
43082100	NEL30RB	30	400	Three	5000	50	1740	79.5	152	IP54	Aut.Y/D	4 - 6
43084001	NEL37RB	37	400	Three	5000	50	2130	81.3	152	IP54	Aut.Y/D	5 - 8

*Noise level - distance: 1 m - height: 1.6 m

Filter classification

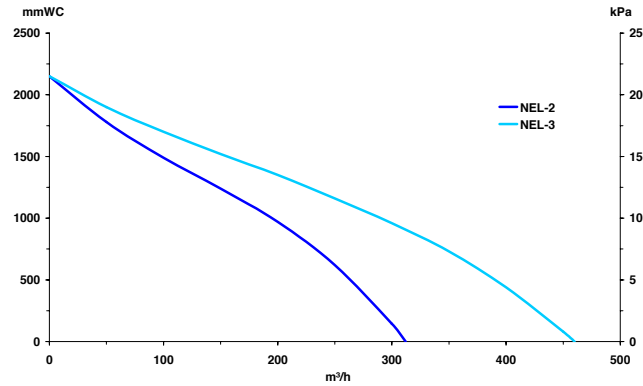
EN 60335-2-69		BIA		Area of application of the filter material	Tested average throughflow nonclean filter fabrics	nonclean product code nos
Category	Maximum appr. level of material throughflow	Category	Maximum appr. level of material throughflow			
		U	<5.0%	Discharge of dust with MAK-values >1 mg/m ³	1.46%	0503012 0503025 0503035
L	<1.0%			Discharge of dust with MAK-values >1 mg/m ³		
M	<0.1%	G	<0.5%	Discharge of dust with MAK-values <0.1 mg/m ³		
		C	<0.1%	Discharge of dust with MAK-values <0.1 mg/m ³ and carcinogenic dust according to §15a "GefStofV"	0.03%	0502009 0502010 0502011 0502015 0502016 0502017 0502031
H	<0.005%	K1	<0.05%	Discharge of carcinogenic dust and especially very carcinogenic dust according to §15a of "GefStofV"	<0.003	0502020 0502022 0502025 0502026 0502027
		K2		Patogenic dust in addition to above K1		

Air powered ejectors

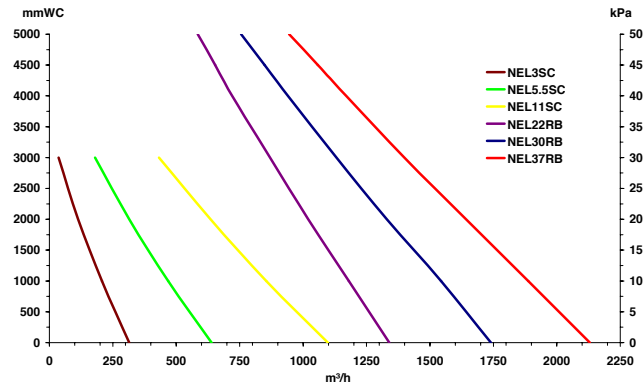


All performance data are based on 7 bar supply air pressure

Electric power heads



Electric heavy duty units

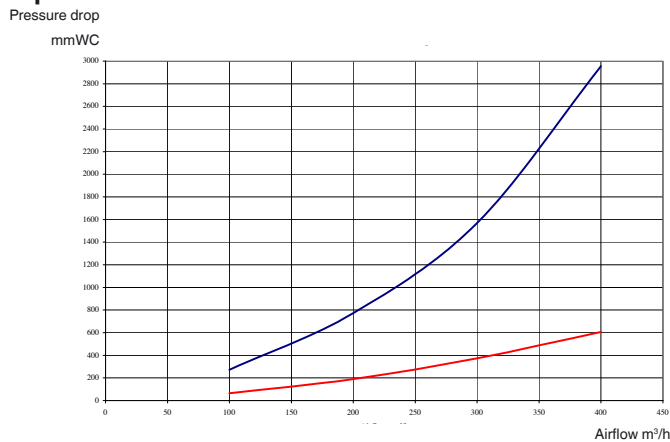


Total pressure loss - example

Blue: grit separator 43550001, 10 m straight hose ø51 mm and cartridge filter 43130001 (used).

Red: grit separator 43560001, 10 m straight hose ø63 mm and cartridge filter 43130001 (new).

These two theoretical examples show the total pressure loss of two typical cases. The results will vary with material weight, amount, shape, temperature, moisture, size, length of hose, tools to be used, amount of bends and hose roughness of the hose. The hose is representing roughly 70-90% of the total pressure loss!



SUCTION DATA REGISTRATION SHEET

Company:		Postal code:	
Street:		P.O.B.:	
Town:		E-mail:	
Telephone:		Direct line:	
Contact person:		Telefax:	

MATERIAL SPECIFICATION

Type of material:			
Quantity in t/h:	Bulk weight in kg/m ³ :	Specif. weight in kg/m ³ :	
Particle size distribution:			
	largest	Average	smallest
Particle size in μm:	μm	μm	μm
Quantity in % of total:	%	%	%

HAZARD INFORMATION

Dust explosive:	Chemical aggressive:
Explosive surrounding:	Hygroscopic:
Health hazardous:	Free flowing:

TEMPERATURES IN °C

Material temp.:	Suction spot temp.:	Installation location temp.:
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POWER SOURCE AVAILABLE AND REQUIRED

Electricity				Compressed air at site	
VAC	A	Direct	?/Δ	Bar	m ³ /min

NOISE LEVEL

Maximum in dB(A):	at distance in meters:	at height in meters:
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SUCTION FREQUENCY

Continuous:	Intermittent hours/day:
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OPERATION CONDITIONS/ HOSE AND PIPELINE INFORMATION

Simultaneously working operators:	with tools and hose diameters in mm:		
Pipe sections from most distant suction point to vacuum unit	Horizontal	Down	Up
1 st section in meters: :			
2 nd section in meters: :			
3 rd section in meters: :			
4 th section in meters: :			
5 th section in meters: :			
6 th section in meters: :			
7 th section in meters: :			
8 th section in meters: :			
9 th section in meters: :			
10 th section in meters: :			
11 th section in meters: :			
12 th section in meters: :			
13 th section in meters: :			
14 th section in meters: :			
Maximum hose length in meters: :			

ATEX marking

Norclean Line ATEX approved products are normally classified as:



II 2 GD c IIC 60°C (T6)

Equipment Group

I-Mining - II - Non-Mining

Equipment Category

Category	Gas Zone	Dust Zone
1	0	20
2	1	21
3	2	22

Classification zones for GAS

Zone 0: An area where an explosive atmosphere is continually present or present for long periods of time, for example inside liquid fuel tanks.

Zone 1: An area where an explosive atmosphere is present in normal operation but not continually, for example refuelling areas.

Zone 2: An area where an explosive atmosphere is not likely to occur in normal operation and if it does occur it will exist only for a short time, for example storage areas of solvent in sealed drums.

Classification zones for DUST

Zone 20: Place in which an explosive atmosphere in the form of a cloud of combustible dust in air is present continuously, or for long periods of time or frequently.

Zone 21: Place in which an explosive atmosphere in the form of a cloud of combustible dust in air is likely to occur in normal operation occasionally.

Zone 22: Place in which an explosive atmosphere in the form of a cloud of combustible dust in air is not likely to occur in normal operation but if it does occur, will persist for a short period only.

Type of explosive atmosphere

G - Gas, vapour and mist - **D** - Dust

Protection method

c - Protection by constructional safety (c) prEN 13463-5: Non-electrical equipment for use in potentially explosive atmospheres

Gas/Dust group

II B Gas group B

II C Gas group C

B-Ethylen (<60μJ Ignition Energy)

C-Hydrogen and Acetylene (<20μJ Ignition Energy)

Dust Temperature Classification

60°C - Maximum Surface Temperature

Gas Temperature Classification

T6 - 85°C Maximum Surface Temperature

Norclean line ATEX products supplied with PE or PUR antistatic hoses are compliant with Gas Group II C (highest class). The PVC or standard PUR hoses are only compliant with gas Group II B.

The ATEX approved Norclean Line range are all made of conductive and antistatic material, to comply with the ATEX directive 94/9/EC, and can be used in explosion hazardous category 2 and 3 areas.

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