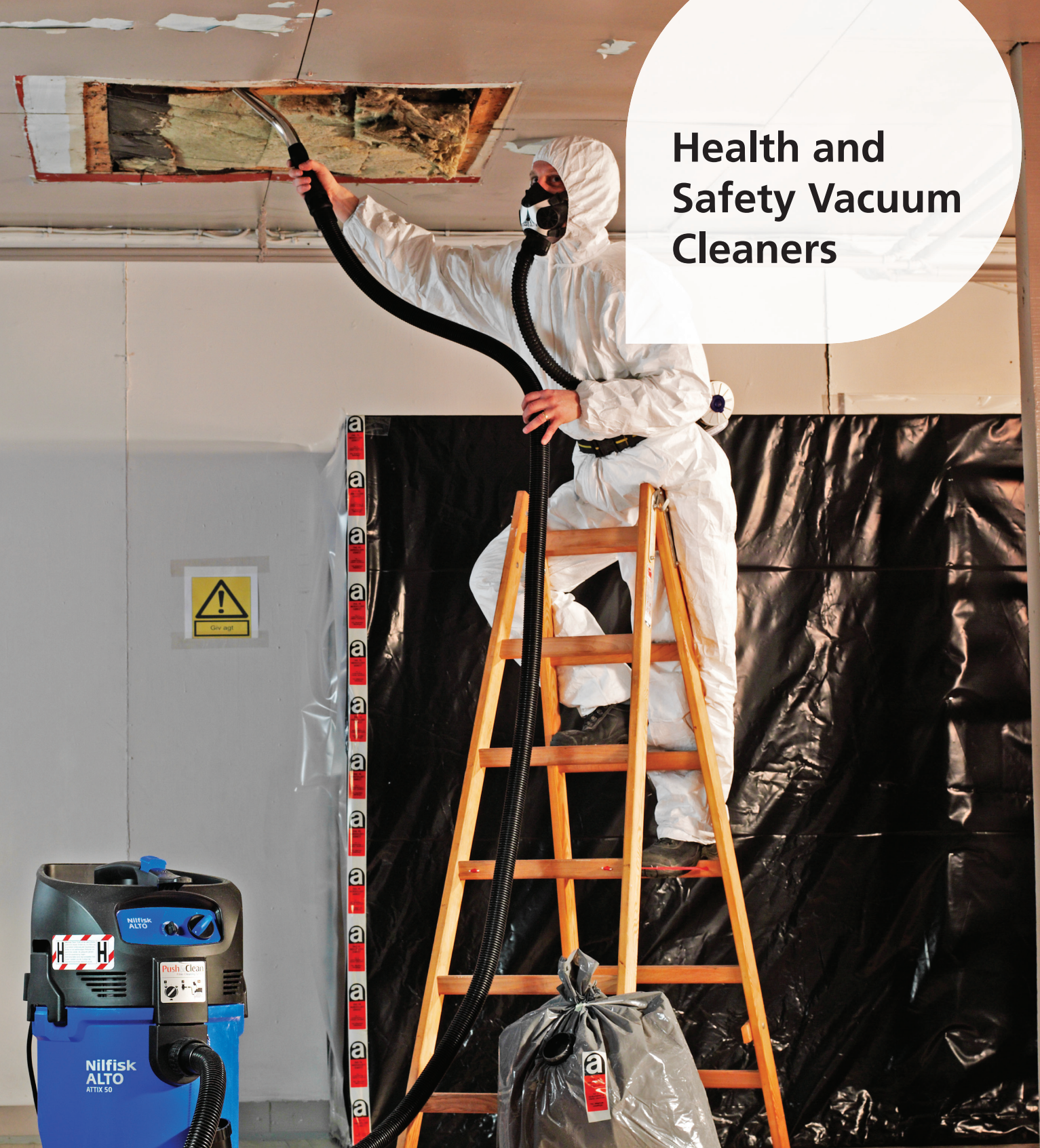


Health and Safety Vacuum Cleaners



**Nilfisk
ALTO**
works for you

Health and Safety Vacuum Product Overview

The handling of hazardous dust is a complex matter that requires innovative product development and technical expertise. As a specialist, Nilfisk-ALTO provides proven, modern solutions in each risk class for demanding cleaning tasks involving dusts with a risk to health.



M-Class Health and Safety Vacuums

If you are working with hazardous dust classes L and M, you will find the ideal wet/dry vacuum from Nilfisk-ALTO. Approved for all hazardous and non-carcinogenic dusts with OEL values $> 0.1 \text{ mg/m}^3$

Applications include: chemical, wood processing, plastics, metal, pharmaceuticals, paper and textile industries. Also trade based businesses such as carpenters, painters and anyone who comes into contact with M-class dust.



H-Class Health and Safety Vacuums

Dusts in dust class L, M and H including Asbestos can be eliminated with this vacuum cleaner series. This includes all hazardous dusts with OEL values $< 0.1 \text{ mg/m}^3$ incorporating carcinogenic dusts and those containing germs or bacteria.

Applications include: chemical, wood processing, plastics, metal, pharmaceuticals, paper and textile industries. Also including trade based businesses such as roofers, painters and anyone who comes into contact with H-Class dust.



ATEX ZONE 22 Health and Safety Vacuums

Dusts from applications with dust class L, M and H including explosive/hazardous dust can be removed with this vacuum cleaner series. This includes all hazardous and/or explosive dusts with OEL values $< 0.1 \text{ mg/m}^3$ and/or explosive dusts, carcinogenic dusts and dust contaminated with germs or bacteria in ATEX Zone 22.

Applications include: chemical, wood processing, plastics, metal, pharmaceuticals, paper and textile industry. Also trade based businesses such as roofers, painters, bakers and anyone who works in an ATEX Zone 22 environment.



Technical features of safety vacuum cleaners



Approved for professionals

Working with hazardous dust requires the highest level of security, so that optimum protection of health is ensured. Nilfisk-ALTO safety vacuum cleaners for hazardous dusts cover dust categories M (medium) and H (high), as well as asbestos and explosive dusts classified as ATEX Zone 22. All our solutions meet the new European-wide standards EN60335-2-69 and bear all the necessary statutory test symbols. The entire product range is designed for professionals who also demand low noise, good ergonomics, durability and reliable performance.

Additional test certificates and third party approvals

In addition to the normal requirements for a certified Health and Safety vacuum cleaner, some of the requirements to be met are listed below:

- Electric working materials must correspond to the regulations of the VDE 0165 "Setup of electrical equipment in explosive areas", for example EC system drives (free from sources of ignition).
- The machine must correspond to protection class IP 54 at least.
- Working materials must be marked with the occurring surface temperatures during constant use when these temperatures exceed 80°C. In addition, surface temperature must not exceed 135°C.
- Electric motors must be protected against short circuit, overheating due to overload or phase dropout.
- Air flow out of the vacuum must be directed in such a way that settled dust cannot be whirled up – exhaust speed max. 1 m/s at 50 mm above the floor.
- Conductive machine parts (including attachments such as the suction hose and hand tube) must be electrostatically earthed.
- All ATEX machines use conductive accessories to ensure earthing through the machine and prevent static.
- Earthing resistance must not be higher than 1 MQ.
- Container casing must be made of extremely non-flammable material.
- Vacuums should be clearly marked with a warning label stating "approved for use with flammable dusts in ZONE 22".
- The vacuum should also be marked with L-, M- or H-Class, depending on which requirements apply.

Since 1997 - EN 60335-2-69, IEC 60335-2-69		Hazard Type	Disposal
Dust Class/Zone	Max. Permeability		
L	1%	Removes 99% of: • Dusts with OEL values > 1 mg/m ³	-
M	0,1%	Removes 99.9% of: • Dusts with OEL values > 0.1 mg/m ³ • Wood dust	Low dust
H	0,005%	Removes 99.995% of: • Dusts with OEL values • Carcinogenic dusts <0.1 mg/m ³ • Dusts with germs or bacteria	Dust free
Asbestos requirement	as H	• Asbestos dust	
Explosive dusts (ATEX Zone 22)	Type 22 - as dust class L, M or H, with additional requirements	• Dusts of dust explosion classes St1, St2 and St3 in ATEX Zone 22	Basic machine for ATEX Zone 22 with test M or H



These vacuums allow the inclusion of dust from dust classes L and M. These include all healthendangering, non carcinogenic dusts with OEL values > 0.1 mg/m³ and hardwood dusts.



These vacuums permit picking up dusts from dust classes L, M and H. These include all healthendangering dusts with OEL values > 0.1 mg/m³, all carcinogenic dusts and dusts contaminated with germs and bacteria.



Asbestos dusts are only permitted to be picked up with vacuum cleaners conforming to dust class H.



These vacuum cleaners are approved to pick up explosive/flammable dust in ATEX Zone 22 as well as dust from dust classes L, M or H. Furthermore these vacuum cleaners are approved to be used as dust extractors.

Safety vacuum cleaner M-Class ATTIX 30, 50 & 7

When vacuuming hazardous dust class M, our M-Class certified wet/dry vacuum cleaners are the ideal solution.

All M-Class certified units are shipped with an antistatic hose to prevent static shock. An additional benefit of eliminating electrostatic energy is the prevention of build up of contamination in the suction hose.

Reduce cost with the washable PET Fleece filter element eliminating unwanted cleaning interruptions of work and to ensure consistently high suction performance and low maintenance costs.



ATTIX 30-2M PC



TECHNICAL DATA	ATTIX 30-2M PC	ATTIX 30-2M PC	ATTIX 50-2M XC	ATTIX 761-2M XC
Air Flow Rate (l/min)	3700	3200	3200	3600
Vacuum (mbar/kPa)	250/25	230/253	230/25	230/23
Power pmax (W)	1500	1150	1150	1500
Power piec (W)	1200	1000	1000	1200
Working sound level (dB(A))	59	59	59	57
Container volume (l-max)	30	30	47	70
Mains connection (V~/Hz/A)	230/1/50-60	110/1/50-60	110/1/50/25	230/1/50-60
Length x width x height (mm)	450 x 380 x 595	450 x 380 x 595	450 x 380 x 750	605 x 580 x 970
Weight (kg)	10	11	12	27
El cable (m)	7,5	7,5	7,5	7,5
FEATURES				
Filter cleaning system	Push&Clean	Push&Clean	XtremeClean	XtremeClean
Accessories and cable holder	●	●	●	●
Softstart	●	●	●	●
Anti-static system	●	●	●	●
Automatic On/Off- elec tools	●	●	●	●
Motor speed control	●	●	●	●
Tilting and removable container				●
Filter bag	● fleece	● fleece	● fleece	● fleece
STANDARD EQUIPMENT				
SUCTION HOSE	107406091 [Ø27mmx3.5m AS]	107406091 [Ø27mmx3.5m	107406091 [Ø27mmx3.5m	107406091 [Ø27mmx3.5m AS]
FILTER ELEMENT, PET, M-Class	302000490 [Ø185x140 mm]	302000490 [Ø185x140 mm]	302002842 [flat 2 pcs]	107400562 [Ø275 x 187mm]
DISPOSAL BAG 1 PCS			302000728	
TOOL ADAPTER	107404520	107404520	107404520	107404520
FLOOR NOZZLE - PLASTIC				
PART NO	107400413	TBA	107409043	302001535

Safety vacuum cleaner H-Class including Asbestos ATTIX 30, 50, 7 & 9

To make sure that you are protected and certified in the removal of H-Class dusts or those containing asbestos make the right choice, use a Nilfisk-ALTO H-Class health and safety vacuum.

All H-class machines are supplied with a filter individually tested and certified. Depending on your cleaning requirements you can choose from various product characteristics such as different container sizes, soft start, manual filter cleaning and much more.



ATTIX 965-0H/M SD XC



TECHNICAL DATA	ATTIX 30-0H PC	ATTIX 50-0H PC	ATTIX 50-2H XC	ATTIX 751-0H	ATTIX 965-0H/M SD XC
Air Flow Rate (l/min)	3700	3700	3700	3100	2 x 3600
Vacuum (mbar/kPa)	250/25	250/25	250/25	230/23	250/25
Power pmax (W)	1500	1500	1500	1200	2 x 1500
Power piec (W)	1200	1200	1200	1000	2 x 1200
Working sound level (dB(A))	59	59	59	57	67
Container volume (l-max)	30	47	47	70	50
Mains connection (V/~ /Hz/A)	230/1/50-60/13	230/1/50-60/16	230/1/50-60/16	230/1/50-60/16	230/1/50-60/16
Length x width x height (mm)	450 x 380 x 595	450 x 380 x 750	450 x 380 x 750	605 x 580 x 970	615 x 690 x 990
Weight (kg)	10	11	12	25	45
El cable (m)	10	7,5	7,5	7,5	10
FEATURES					
Filter cleaning system	Push&Clean	Push&Clean	XtremeClean		XtremeClean
Accessories and cable holder	●	●	●	●	●
Softstart	●	●	●	●	●
Anti-static system	●	●	●	●	●
Automatic On/Off- elec tools			●		
Motor speed control			●		
Tilting and removable container,				●	●
Asbestos approval	●	●		●	
Filter bag	● fleece	● safety	● safety	● safety	● safety
STANDARD EQUIPMENT					
UNI. HOSE W COUPLING EVA	46948 [Ø36mm x 3m]	46948 [Ø36mm x 3m]	302001682 [Ø36mmx5m]	46948 [Ø36 mm x 3 m]	
EXTEN TUBE 2x505mm ST/CR		302000529 [Ø36 mm]			
CURVED HAND TUBE ST/CR	302000528 [Ø36 mm]	302000528 [Ø36 mm]		46691 [Ø36]	
FILTER ELEMENT H-CLASS	302000658 [Ø211X140]	302000658 [Ø211X140]	107400449 (flat 2pcs)	302000658 [Ø211X140]	107400564 [Ø275X187]
INDST.FL.NOZZ.36X400MM W/BRUS.		302003666			
TOOL ADAPTER D27 QUICK SYSTEM			302000535		
DIA. TUBE NOZZLE Ø36x190 MM	5067	5067		5067	
GREY RUBBER					
PART NO.	107400418 ALSO AVAIL IN 110V (P/NO: 107400417)	107400407	107400409	302001519	302002903

Safety vacuum cleaner

ZONE 22

ATTIX 40, 7 & 9

The built-in flow sensor and the acoustic signal Check the air flow in the suction hose and make sure that this is not less than 20 m per second maintaining safety levels.

Nilfisk-ALTO offers a range of safety vacuum cleaners to pick up explosive dust and separate it from the surrounding air. If dusts are to be vacuumed which are both explosive and hazardous, these vacuums can meet the requirements for both.



ATTIX 995-0H/M SD XC TYPE 22



TECHNICAL DATA	ATTIX 40-0M PC TYPE 22	ATTIX 791-2M/B1	ATTIX 791-2M/B1	ATTIX 995-0H/M SD XC TYPE 22
Air Flow Rate (l/min)	3200	3600	3800	2 x 3200
Vacuum (mbar/kPa)	230/23	250/25	250/25	230/23
Power pmax (W)	1400	1200	1500	2 x 1400
Power piec (W)	1100	1000	1200	2 x 1100
Working sound level (dB(A))	60	59	59	67
Container volume (l-max)	37	70	70	50
Mains connection (V/~/Hz/A)	230/1/50-60/16	110/1/50-60/25	230/1/50-60/13	230/1/50-60/16
Length x width x height (mm)	450 x 440 x 750	605 x 580 x 970	605 x 580 x 970	615 x 690 x 990
Weight (kg)	13	25	25	45
El cable (m)	7,5	7,5	7,5	10
FEATURES				
Filter cleaning system	Push&Clean			XtremeClean
Accessories and cable holder	●	●	●	●
Softstart	●	●	●	●
Anti-static system	●	●	●	●
Automatic On/Off- elec tools		●	●	
Motor speed control		●	●	
Tilting and removable container		●	●	●
Filter bag	● fleece	● fleece	● fleece	● safety
STANDARD EQUIPMENT				
SUCTION HOSE	44193 [Ø36 mm x 4 m]	107404779 [Ø27 mm x 3,5 m]	107404779 [Ø27 mm x 3,5 m]	
CURVED HAND TUBE ST/CR	44188 [Ø36]			
FILTER ELEMENT, PET, M-CLASS Ø211 x 140 mm	302000490	302000490	302000490	
FILTER ELEMENT H-CLASS Ø275 x 187 mm				107400564
TOOL ADAPTER Ø27/36-24 TYPE 22		107404521	107404521	
SLANTED RUBBER NOZZLE	302000227			
MOTOR COOLING AIR FILTER	302003721	302000491	302000491	107400041
PART NO.	107400410	302001539	302001538	302002904

Guidance on hazardous dust for employers and companies



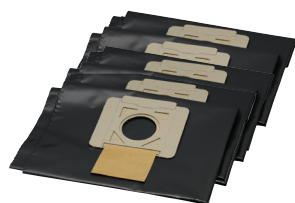
Scan with your mobile device to read guidance on dust from The HSE

- The employer has legal duties under the ATEX 137 Directive to conduct a risk analysis on his processes (which include cleaning!) and to then select ATEX approved equipment intended for use in high risk areas.
- The employer also has duties under the Dangerous Substances and Explosive Atmospheres Regulations 2002 that specifically include implementing control measures and providing equipment which reduce the quantity of dangerous dusts and prevent explosive atmospheres.
- If the Occupational Exposure Limit (OEL) is exceeded then the health of the worker is threatened and the employer may well be in breach of the law if not complying with the current EH40 requirement. Employers are advised to keep up to date copies of EH40 plus any EH40 supplements.
- ATEX Certified vacuums must be maintained in a regular cycle as defined by the ATEX Directive. As manufacturers, we have defined each cycle as being every 10,000 hours of operation or two years of use. The maintenance is mandatory in order to preserve the declaration of conformity of the machine.

And finally... Find the right accessory for your application

Nilfisk-ALTO has developed a full range of accessories, so that you can equip your machine so that it fits your needs. Our complete range can be found in our main catalogue.

Our accessories for safety vacuum cleaners comply with the standards and regulations. For ATEX Zone 22 applications "conductive" special accessories must be used.



Disposal bag
VPE 5 piece



Filter Element
Filter element with high filtration efficiency ensures a pleasant air.



Pipe cleaning nozzles
For external cleaning of pipes with a diameter 70-120 mm and tubes with a Ø 120-200 mm



Suction hose - Ø 36 mm
• Antistatic, Ø 32 mm, 5 m, with tool adapter



Industry Set
6 parts Ø 50 mm inc: Suction hose 4 m, curved 1m anodized aluminum extension tube, Industrial floor nozzle - aluminum, Replacement rubber lips, Special plastic crevice nozzle, Coarse dirt nozzle - aluminum



Floor Tool
Aluminium 450 mm, Ø 36 mm rubber lips and height adjustable wheels for wet cleaning; Application: wet cleaning, dry-sucking, textile floors



For more information please visit www.nilfisk-alto.co.uk www.nilfisk-alto.ie

The Nilfisk-ALTO brand is owned by Nilfisk A/S, one of the world's leading manufacturers and suppliers of professional cleaning equipment.

With global company headquarters in Denmark, the company has developed professional cleaning equipment for over 100 years.

Nilfisk A/S has production facilities in North America, South America, Europe, and China, and has an extensive network of sales entities in 45 countries and is represented in more than 100 countries around the world.

The company currently has around 5250 employees worldwide, with global sales of approx. Euro 881 million in 2013.

We supply high quality pressure washers, vacuum cleaners and floor care equipment to agriculture, automotive and industrial companies, cleaning contractors and private consumers.

We are committed to the highest level of Corporate Responsibility. We develop cleaning solutions that provide our customers with cleaning efficiency whilst using less energy, less water and less detergent, so that our customers can focus on getting the job done.

The Nilfisk-ALTO brand focuses on innovation and growth. We believe in developing and maintaining long lasting relationships with our customers, suppliers and employees.

**green
meets
clean**

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**Nilfisk
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