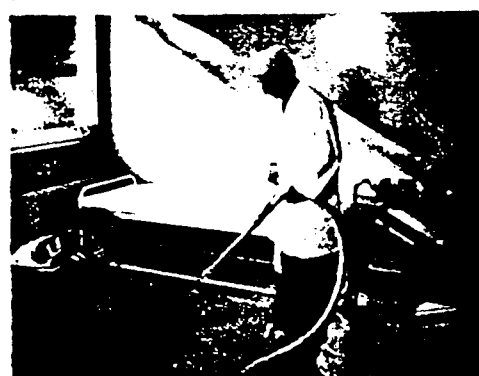


NILFISK GS 80

PLAINTIFF'S EXHIBIT

FD-1503

COMMERCIAL VACUUM CLEANERS



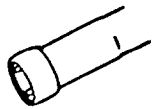
8005 1640

PRODUCED BY FORD

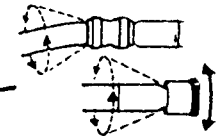
NILFISK GS 80

The Nilfisk GS 80 has just the combination of powerful suction, large tank capacity and well designed accessories that professional housekeepers have sought for years. Solid Nilfisk construction and extended motor brush life mean years of trouble free operation even in tough cleaning situations. Whisper-quiet performance makes it the logical choice for hospitals, nursing homes, office complexes, hotels and motels. And by adding optional filter components, standard cleaners become 4-stage "absolute-filtered" vacuums for clean rooms and hazardous and nuisance dust!

Curved steel wands are fitted with suction regulators. Twist-tight couplings make it easy to assemble wands, install nozzles. Chrome-plated steel wands are standard for floor cleaning. Light weight aluminum extensions are useful for overhead cleaning.



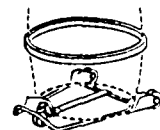
When used without paper bags, the centrifugal airflow pattern keeps the filter from clogging before the cleaner is filled. Standard filter is cotton. Specify dralon filters when acid resistance is required.



All hose-ends have swiveling ball-joint couplings. They allow the hose full freedom of movement, and prolong hose life by reducing knots and kinks that develop during heavy use.

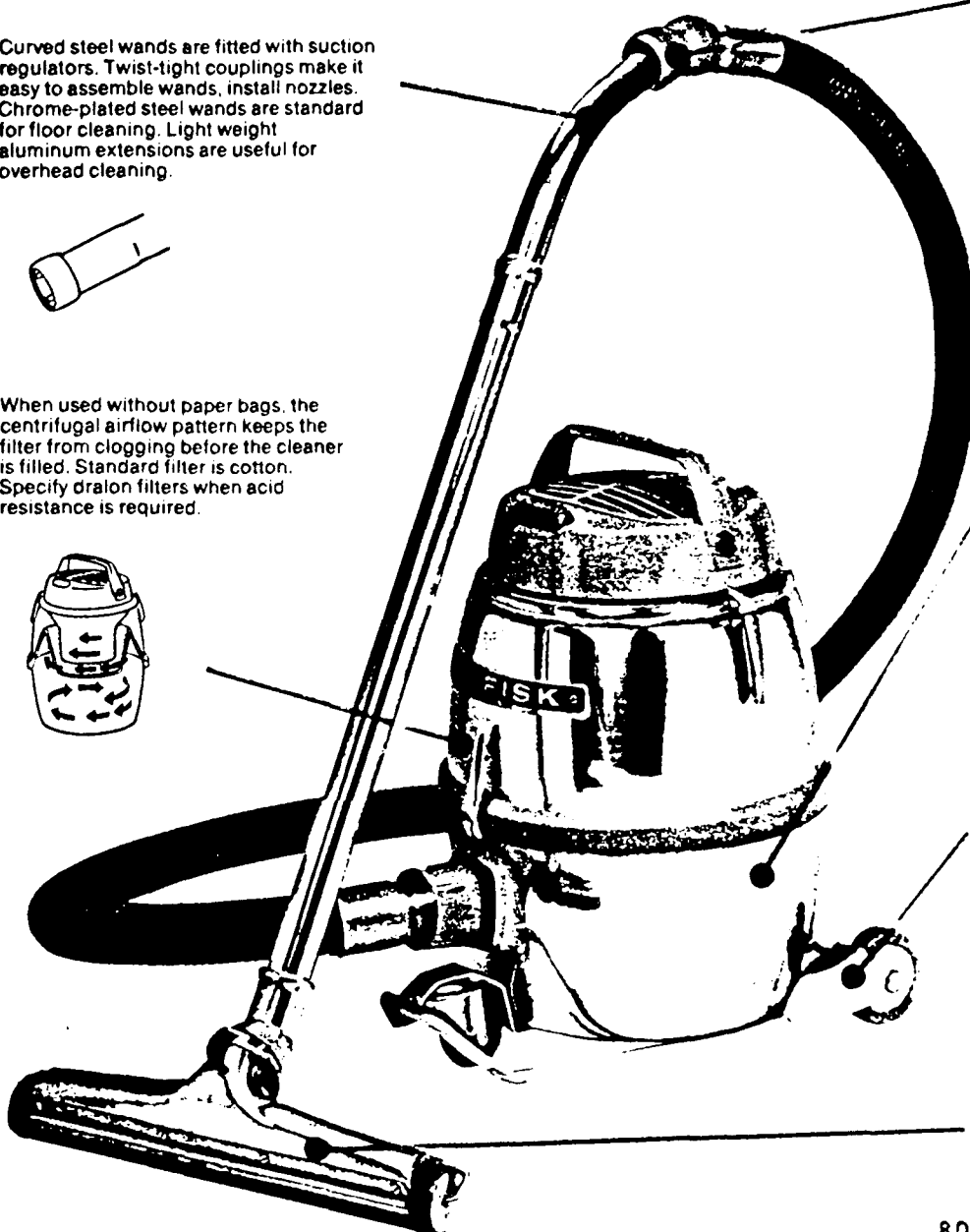


The GS 80 can be equipped with disposable paper bags for "dust-free" disposal of collected debris. Container capacity of 3 1/4 gallons dry bulk is reduced to 2 1/4 gallons when the paper bag is used.



A non-marking rubber bumper protects furniture from scratches and dents. Large trolley wheels and wide track add extra stability on rough and irregular surfaces.

Choose a floor nozzle from a large selection of job-engineered 1 1/4 inch accessories.

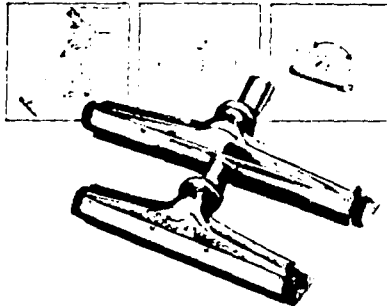


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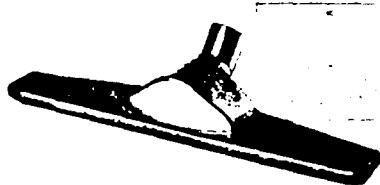
PRODUCED BY FORD

Floor and Carpet Cleaning

Wheeled floor nozzles with rubber blades thoroughly scrape even rough floors clean. Ideal for all surfaces, even carpets. Wheel height adjustable. Blades easily replaced when worn.
111422 12 inches wide
115051 16 inches wide



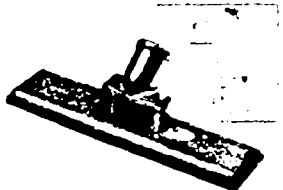
High suction, stainless steel carpet nozzle tugs hard at embedded grit. Sloping swivel design makes cleaning under furniture easy.
114762 (16 inches wide)



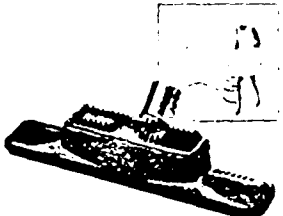
The 11 inch floor brush is made of plastic. Lightweight, it too has a swivel collar.
114267



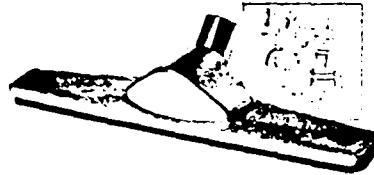
16 inch wooden floor polishing tool hugs the floor to give it a shine. A suction regulator prevents sticking on very smooth floors.
111520



Three in one floor nozzle cleans bare floors and carpets. A touch of the toe converts from one to the other. Flipped over, suction is concentrated for threads and hair. Rubber bumper protects furniture.
11450201



The 16 inch floor brush makes quick work of large bare floor areas. Worn bristles easily replaced. Swivel collar makes cleaning under furniture a breeze.
11476301



Smaller plastic carpet tool has kick-over feature for stubborn lint.
112768 (11 inches)



This nozzle can be converted for use on hard floors by adding:

Sweeping felt 112725
Polishing felt 113150



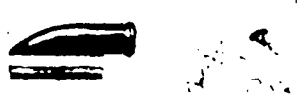
Machinery, Equipment Cleaning

Furniture nozzle for upholstery and mattresses
812348

This nozzle is also used for curtain cleaning when equipped with the insert to prevent the curtain from being sucked in. By turning the insert around it becomes an effective thread remover.
Insert — 812347



Narrow brush for cleaning clothes and for other applications, such as cleaning car interiors
111403



Soft round brush for cleaning light fittings, picture frames etc. and adjustable to any angle.
11276901



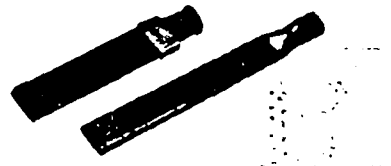
Stiff bristled round brush, 45° angle coupling
111421



Crevice nozzle for cleaning recesses in upholstered furniture. Fitted with the brush for book shelves, venetian blinds, radiators.
Nozzle 815304
Brush 115305



Insulated nozzles for dusting wiring and relays.
Wood with bristles 111405
Plastic 811412



Pliable rubber nozzles get into hard-to-reach corners, don't scratch surfaces.
811409 811410 811411



Curry combs for livestock
Bristles 106737
Teeth 106738
Aluminum pins, rubber mounted 106739



Curry comb for pets, aluminum pins mounted in rubber.
111407

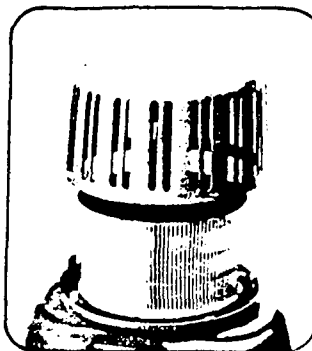


Special accessory for sucking up and momentary retention of small objects. Used, for example, in the cleaning of typesetting cases
111416



NILFISK Exhaust Filter

Install the Nilfisk High Efficiency Particulate Air (HEPA) filter when exhaust air must be "white room" clean. Designed specifically for recovery of toxic and nuisance dusts. See technical specifications below.
Exhaust filter 115650.



Specifications for exhaust filter

Filter casing	Aluminum
Filter material	Glass fiber
Filter cartridge, diameter	5 1/4"
Filter cartridge, height	3"
Filter surface area	496 sq. inches
Maximum working temperature	90°C (194°F)

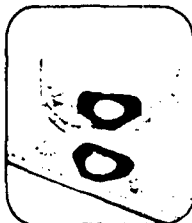
Filtration efficiency

Particle size 0.6-0.9 µm	100 %
British Standard 3928/65, sodium flame test	99.999%
DIN 24184 test aerosol 2, radioactively indicated atmospheric aerosol, particle size < 0.3 µm	99.99 %
DIN 24184 test aerosol 1, liquid paraffin cloud particle size 0.3-0.5 µm	99.97 %
US Military Standard-282, DOP test (Diocetylphthalate)	99.97 %

NILFISK Throw-away paper bags

Just slide the plastic collar over the intake opening and the bag is installed. When full, the bag slides back off for easy disposal. Large 2 1/4 gallon capacity saves frequent emptying. Saves rescattering of collected dust.

5-pack bags
815400



NILFISK ELECTRO powered brushes

The motor-driven brushes of the power nozzle groom the surface of carpets of all depths. Lint and hair are scooped up and sucked into the canister. Leave pile looking freshly groomed all over again.

Model ESB
(1 1/4 inch)

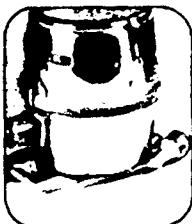
Cleaning width
8 inches

Available
220 volts only



NILFISK Heavy duty trolley

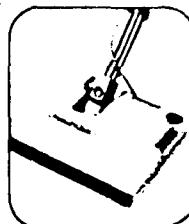
Rugged optional heavy-duty trolley glides easily over thresholds, plush carpeting.
114905



Model ETG-1N
(1 1/2 inch)

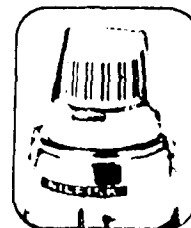
Cleaning width
12 inches

Available
220 volts only



NILFISK Noise Suppressor

When exceptionally low noise level is important, install a noise suppressor, (115760) and lower the already quiet motor noise by still another 10 dB(A).



NILFISK Blowers

To convert the GSD motor into a powerful blower, replace the exhaust diffuser with the blower adapter (115620) and twist in the hose.



NILFISK Back Savers

Anti-Fatigue Handle

The optional anti-fatigue handle keeps both hands level, eliminates stooping to steer the wand. This great back-saver is especially helpful when cleaning large surface areas.
115710



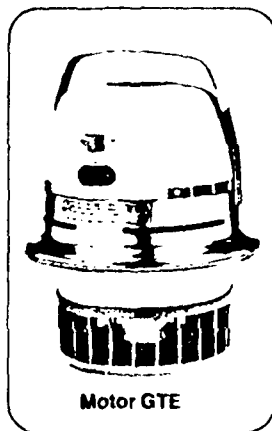
Wand Extension

Add this 8 inch extension to the standard wand length to tailor the wand for taller operators.
111825

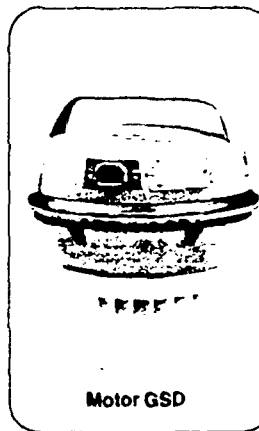


Specifications of model GS 80

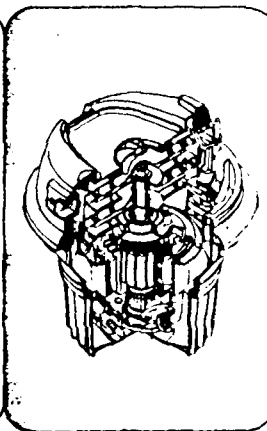
	Standard	Optional
With motor type	GSD	GTE
Used for blowing	X	
Primary cooling	X	
By-pass cooling		X
Volts	110/220	110/220
Watts consumed/amps	700/6	500/4.4
Waterlift, inches	75	59
Air flow, cubic ft./min.	86.92	72.08
Suction power, watts	200	130
Tank capacity, gallons dry bulk	3¼	3¼
Paper bag capacity	2¼	2¼
Filter area, square inches	326	326
Height, inches	16	18½
Width, inches	12	12
Weight without accessories, lbs.	13¼	14½
Filter type: Standard cotton, or optional dralon		
Cord length: Standard 23 ft. or optional 33 ft.		



Motor GTE



Motor GSD



FILTRON 6000

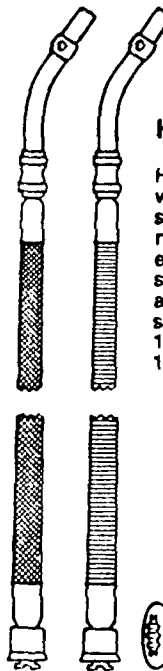
This ultra-compact cleaner is normally supplied with a model GSD motor. GTE motors are optional. Both are universal motors available in 110 or 220 volt configurations.

GSD motors generate 37.5% greater suction power. They are primary cooled motors. Vacuum air cools the motor. Each is equipped with a thermo-valve which opens when the motor overheats. Cooling air is drawn in to prevent burn-out.

GSD motors can be adopted for blowing by mounting a special blower adopter on the exhaust. "Absolute" filters (High Efficiency Particulate Air—HEPA) and noise suppressing mufflers can also be mounted.

GTE motors are by-pass motors. In the event of hose blockage, clogged filters or continuous running, an auxiliary air flow cools the motor independent of the vacuum air. GTE motors are not suited for blowing, nor for "absolute" filtration.

Hoses and Wands



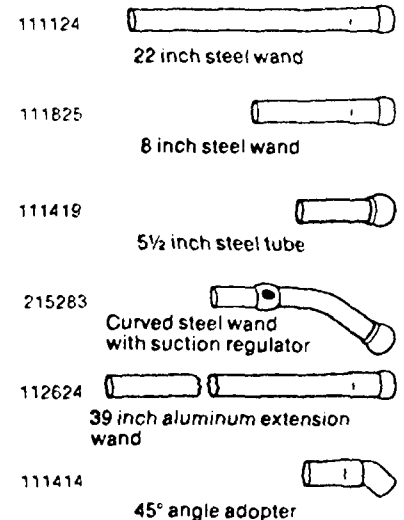
Hoses

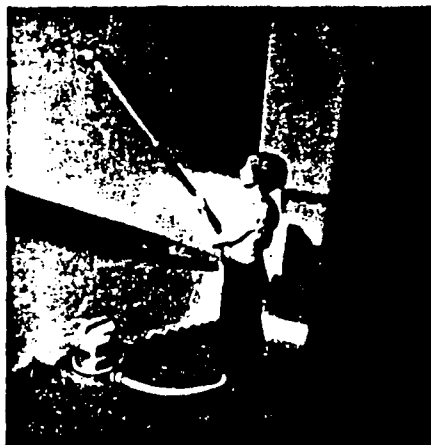
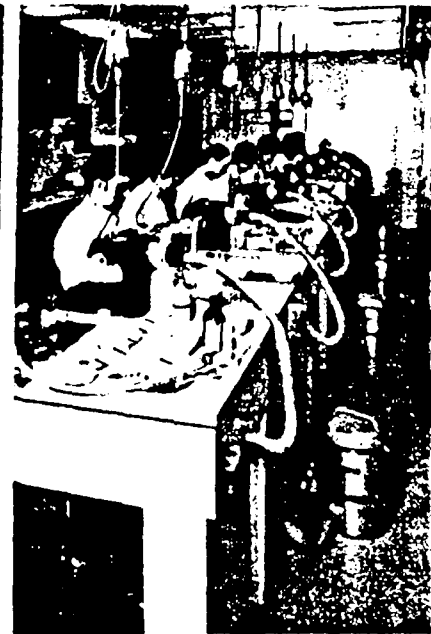
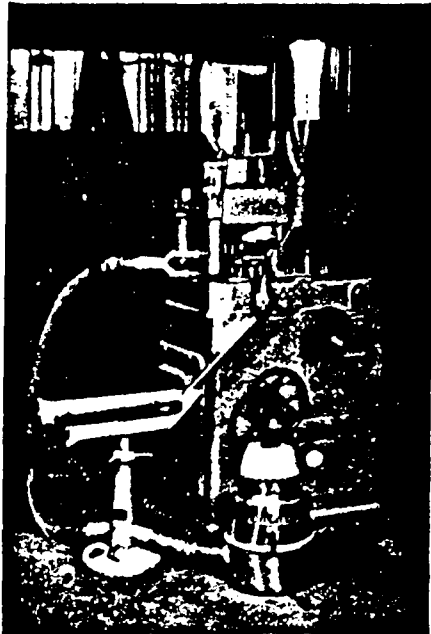
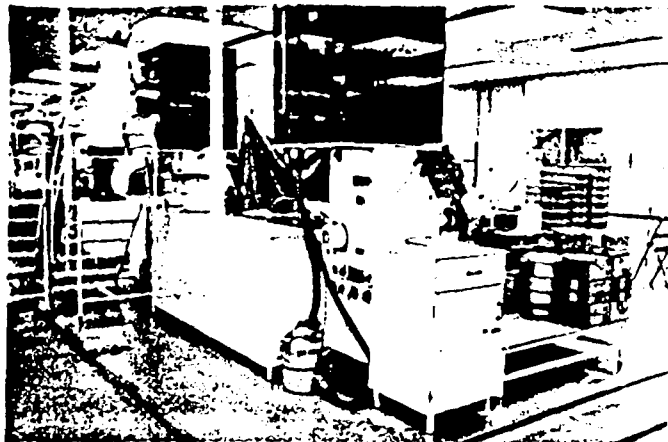
Hoses are available in light-weight nylon braid or sturdier but heavier neoprene. Both have exclusive Nilfisk ball-joint strain relieving hose-ends, and curved steel wands with suction regulators. 115440 6'6" braid hose 115435 6'6" neoprene

Hose protection rings 815068 prevent external hose wear.

Wands

All wands are equipped with a friction ring for easy assembly. Chrome-plated steel wands are generally used for all-purpose cleaning; aluminum; extensions for overheads. Angle adoptions make brush angle adjustments simple.





NILFISK
— Quality Engineering
Since 1906

NILFISK OF AMERICA, INC.
201 King Manor Drive
King of Prussia, PA 19406
(215) 277-3900

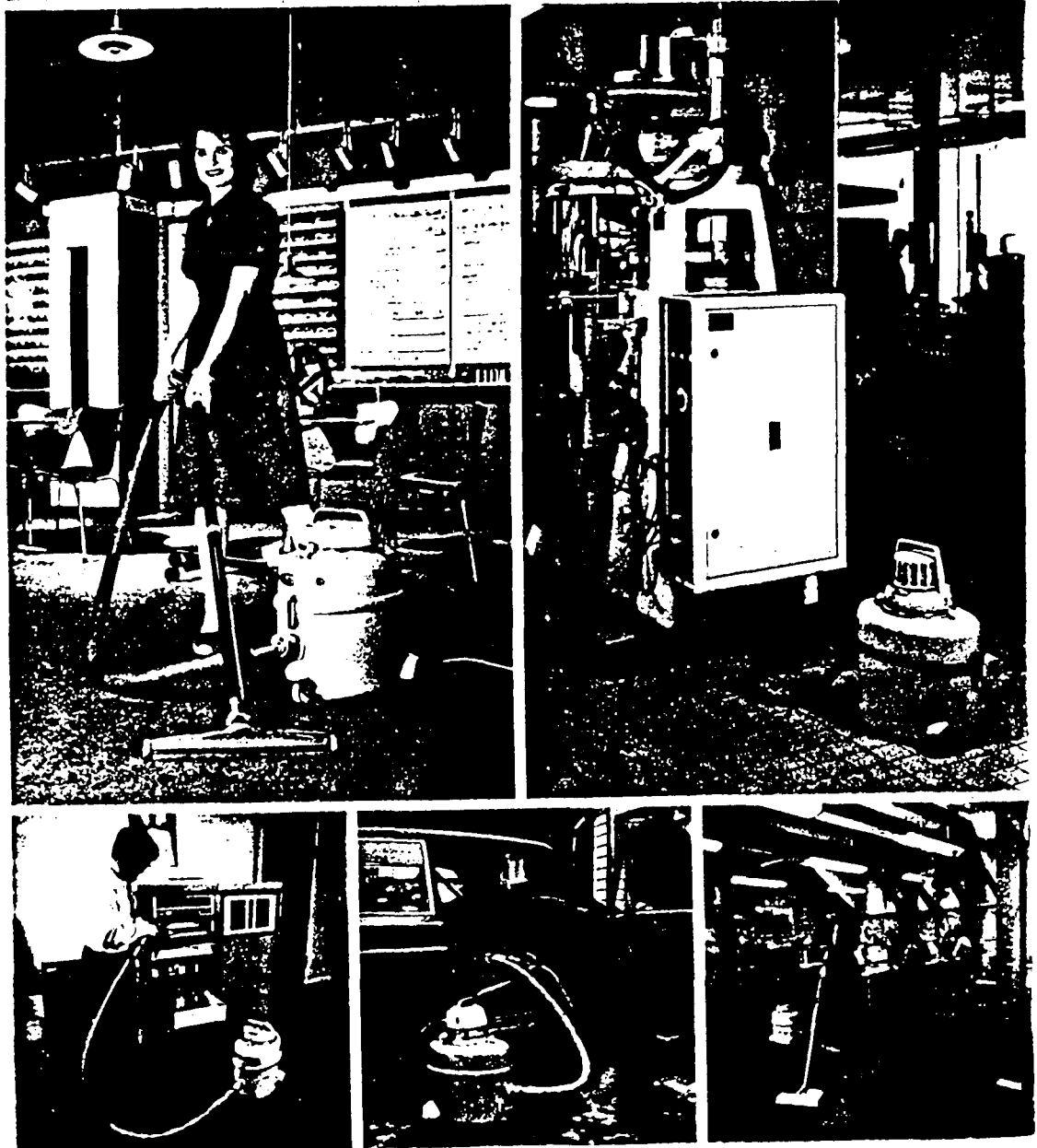
8005 1645

PRODUCED BY FORD

NILFISK

GS 81

COMMERCIAL VACUUM CLEANER



8005 1646

PRODUCED BY FORD

NILFISK GS81

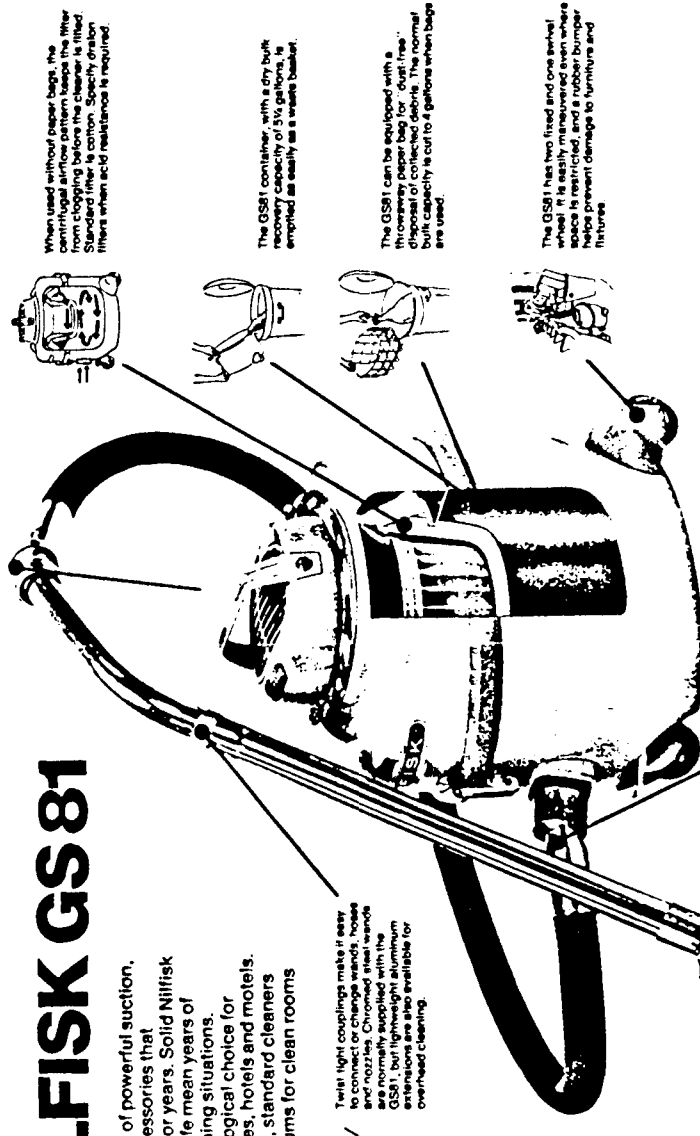
The Nilfisk GS81 has just the combination of powerful suction, large tank capacity and well designed accessories that professional cleaning staffs have sought for years. Solid Nilfisk construction and extended motor brush life mean years of trouble free operation even in tough cleaning situations. Whisper-quiet performance makes it the logical choice for hospitals, nursing homes, office complexes, hotels and motels. And by adding optional filter components, standard cleaners become 4-stage "absolute-filtered" vacuums for clean rooms and hazardous and nuisance dust!

Tight light couplings make it easy to connect. Changing motor hoses and filters. Coupled steel hoses are normally supplied with the GS81, but lightweight aluminum extensions are also available for overhead cleaning.



Easy to use attachments for maximum suction or maximum flow (30mm or 1 1/2" (38mm) configurations. This leaflet shows 1 1/2" accessories.

All hose ends have swivelling ball joint couplings. They allow the hose full freedom of movement, and prolong hose life by reducing friction and kinks that develop during heavy use.



When used without paper bags, the centrifugal action of the filter from chopping before the cleaner is fitted. Standard filter is cotton. Specify dralon filters when acid resistance is required.

The GS81 container, with a dry bulk recovery capacity of 5½ gallons, is emptied as easily as a waste basket.

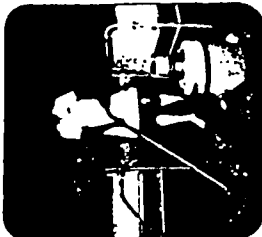
The GS81 can be equipped with a 10-gallon "dry bulk" container for disposal of collected debris. The normal built capacity is cut to 4 gallons when bags are used.

The GS81 has two fixed and one swivel wheels. It is easily maneuvered even where space is restricted, and swivel casters help prevent damage to furniture and fixtures.

NILFISK (HEPA)* Exhaust Filter

*High Efficiency Particulate Air

— this is an essential accessory where "absolutely" clean exhaust air is a must



Specifications for exhaust filter

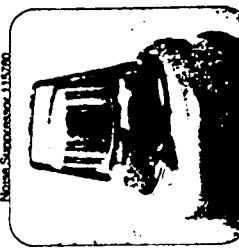
Filter casing	
Filter material	
Filter cartridge diameter	
Filter cartridge height	
Filter surface area	
Maximum working temperature	
Filtration efficiency	
Particle size 0.40 µm	
When Standard 302466, sodium flame test	
OS 21184 test series 2, radioactively indicated particles	
OS 21184 test series 1, liquid particles cloud particle	
US Military Standard-882, DOP test (Dichlorophenyl)	

NILFISK

Noise Suppressor

When an extraordinarily low noise level is required, equip the quiet GS81 motor with a noise suppressor. This reduces motor noise by another 10 dB(A).

Noise Suppressor 1150260



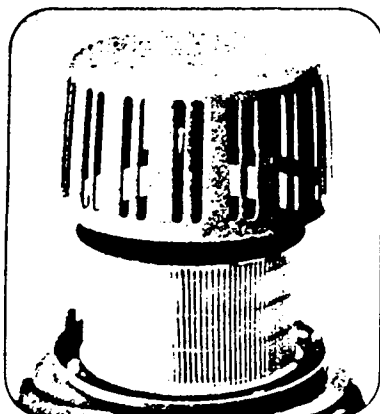
Specifications of model GS 81

	Standard	Optional
With motor type	GS81	GTE
Used for blowing	X	X
Primary cooling	X	X
By-pass cooling	X	X
Convertible to absolute filtration	X	X
Volts	110/220	110/220
Watts consumed/amps	700/6	500/4.6
Water lift, inches	75	59
Air flow, cubic ft./min.	86/82	72/68
Tank capacity, gallons dry bulk	5½	5½
Paper bag capacity	4	4
Filter area, square inches	325	325
Height, inches	19	21½
Width, inches	12½	12½
Length, inches	18½	18½
Weight without accessories, lbs	23	24
Filter type	Standard cotton, or optional dralon (synthetic)	
Cord length	Standard 23 ft. or optional 33 ft.	

8005 1647

PQ

Install the Nilfisk HEPA filter when exhaust air must be "white room" clean. Designed specifically for recovery of toxic and nuisance dusts. See technical specifications below.
Exhaust Filter 115650



	Aluminum
	Glass fiber
	5 1/2"
	3"
	496 sq. inches
	90°C (194°F)
	100 %
	99.999%
spherical aerosol, particle size <0.3 µm	99.99 %
e size 0.3-0.5 µm	99.97 %
l)	99.97 %

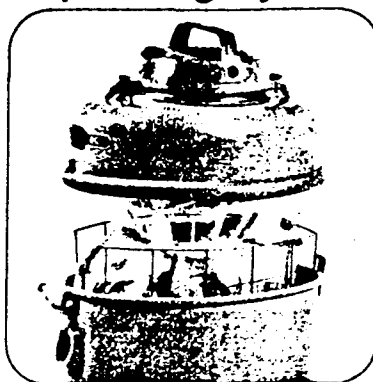
NILFISK Blowers



To use the exhaust air for blowing, simply replace the diffuser with a blower adapter. The hose fits this adapter. Blowing is used for areas impossible to reach with suction.

Blower Adapter 115620

NILFISK Paper Bag System



The GS-81 can be equipped with disposable paper bags for "dust-free" disposal of collected debris. Container capacity of 5 1/4 gallons dry bulk is reduced to 4 gallons when paper bags are installed.

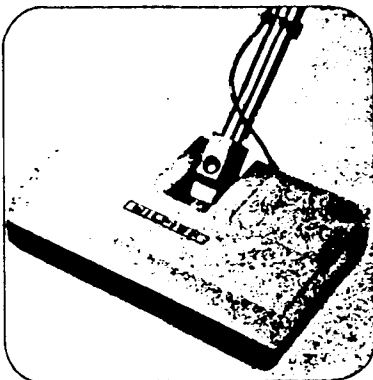
NILFISK ELECTRO powered brushes

The motor-driven brushes of the power nozzle groom the surfaces of carpets of all depths. Lint and hair are scooped up and sucked into the container. Pile is left looking freshly groomed all over again.

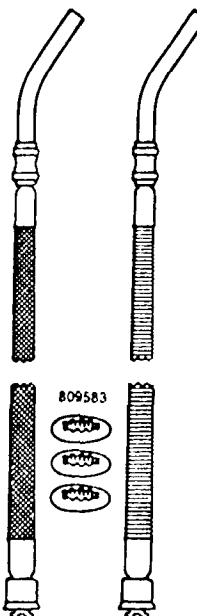
Model ETG-1N
(1 1/2 inch)

Cleaning width
12 inches

Available
220 volts only



NILFISK Hoses and Wands



Hoses

809583

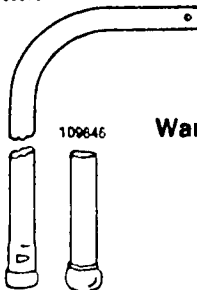
Hose
Protection
Rings
809583

Hoses are available in both braided and neoprene configurations. Both are fitted with a special container connector, a flexible wand coupler, and a curved steel wand. Each hose can be protected from wear with rubber protecting rings.

6 1/2 ft. neoprene hose	115736
6 1/2 ft. braided hose	115734
10 ft. neoprene hose	115737
10 ft. braided hose	115735

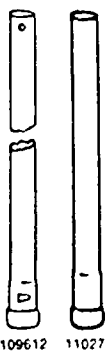
Hose extensions available.

109670



Wands

109646



109612

110272

Each wand is fitted with a friction ring for easy assembly. Two types are available: steel and painted aluminum. Steel wands are for floor cleaning; aluminum for lightweight overhead cleaning up to 20 feet from the floor.

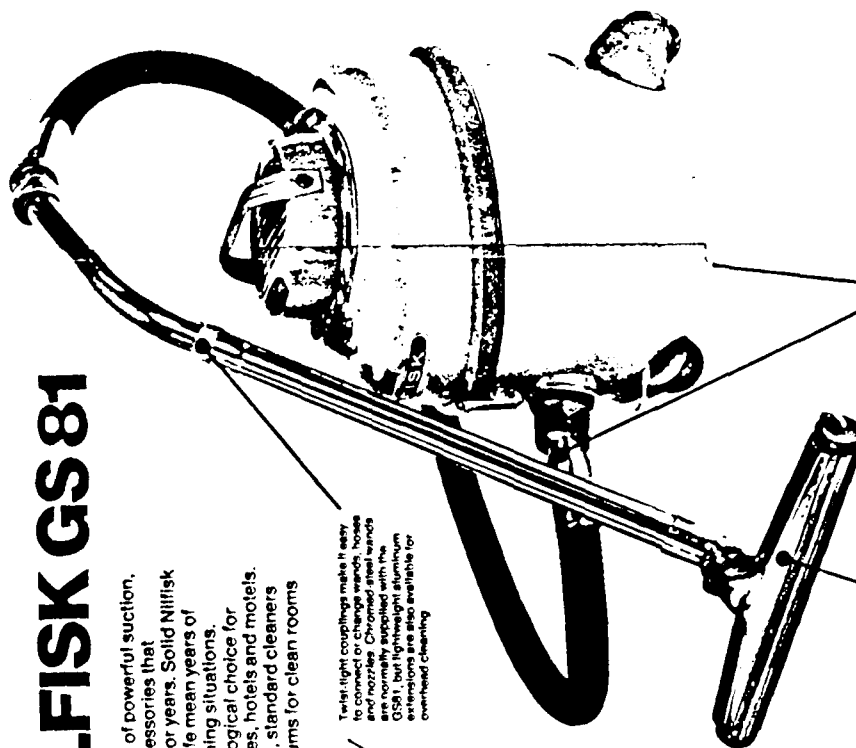
23" steel wand	110272
7 1/4" steel wand	109846
39" aluminum extension	109612
90 degree angle wand	109670

8005 1648

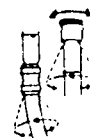
NILFISK GS81

The Nilfisk GS81 has just the combination of powerful suction, large tank capacity and well designed accessories that professional cleaning staffs have sought for years. Solid Nilfisk construction and extended motor brush life mean years of trouble free operation even in tough cleaning situations. Whisper-quiet performance makes it the logical choice for hospitals, nursing homes, office complexes, hotels and motels. And by adding optional filter components, standard cleaners become 4-stage "absolute-filtered" vacuums for clean rooms and hazardous and nuisance dust!

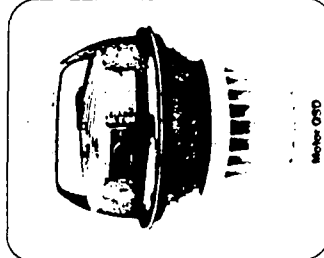
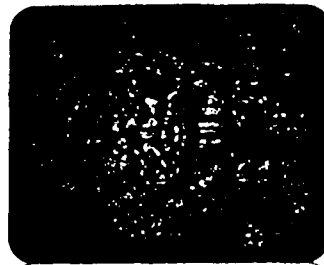
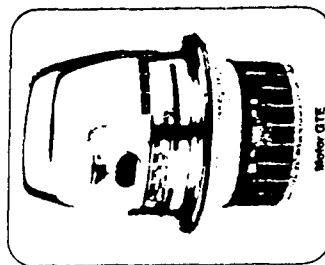
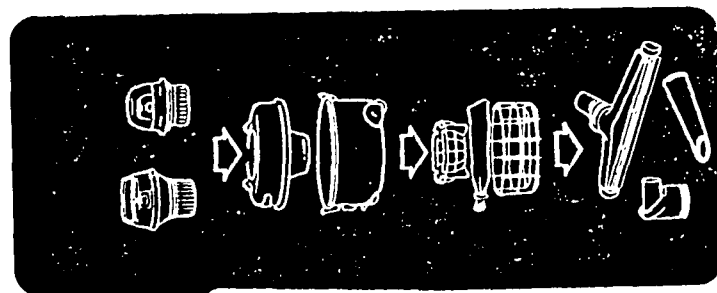
Twist-tight couplings make it easy to connect or change wands, hoses and nozzles. Chromed steel wands are normally supplied with the GS81, but specialty stainless steel versions are also available for overhead cleaning.



All hose ends have twist-tight couplings. They allow quick hose changes without the need for tools. This reduces noise and vibration during heavy cleaning.



Easy to use attachments for maximum suction power are available in either 1 1/2" (38mm) or 1 1/4" (32mm) configurations. This feature allows 1 1/2" accessories.



NILFISK GS81

The compact cleaner is normally supplied with a model GSD motor. GTE motors are optional. Both are universal motors available in 110 or 220 volt configurations.

GSD motors generate 37.5% greater suction power. They are primary cooled motors. Vacuum air cools the motor. Each is equipped with a thermo-valve which opens when the motor overheats. Cooling air is drawn in to prevent burn-out.

GSD motors can be adapted for blowing by mounting a special blower adapter on the exhaust. "Absolute" filters (High Efficiency Particulate Air—HEPA) and noise suppressing mufflers can also be mounted.

GTE motors are by-pass motors. In the event of hose blockage, clogged filters or continuous running, an auxiliary air flow cools the motor independent of the vacuum air. GTE motors are not suited for blowing, nor for "absolute" filtration.

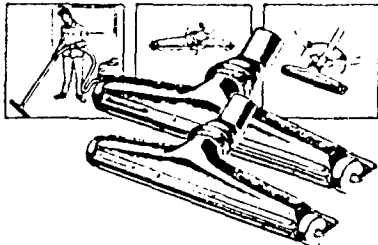
8005 1649

PQ

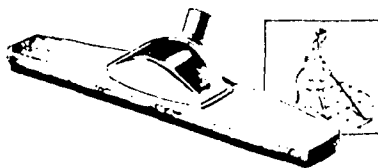
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Cleaning Floors

Wheeled floor nozzles will clean hard or soft surfaces easily and efficiently. A simple ratchet movement allows height adjustments to suit the application. Available in two widths, both with replaceable rubber blades.
110352 (12 inches)
109473 (16 inches)

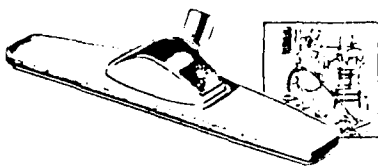


The 16 inch floor brush makes quick work of large bare floor areas. Worn bristles easily replaced. Swivel collar makes cleaning under furniture a breeze.
11476101



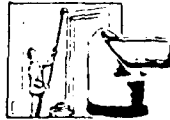
Cleaning carpets

High suction, stainless steel carpet nozzle tugs hard at embedded grit. Sloping swivel design makes cleaning under furniture easy.
114760 (16 inches)



Cleaning Machinery and Equipment

The right nozzle for quick overhead cleaning of frames, ledges and light fittings is the Nilfisk adjustable round brush with swivel head.
109502 (3 inches)



Round fixed brush with 45° coupling for more demanding cleaning jobs, such as shelving and machinery.
109890 (4 inches)



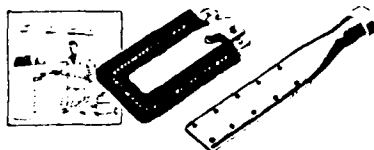
Soft, plastic nozzle gets into hard-to-reach areas. Doesn't scratch surfaces.
809562 (8 inches)



Aluminum furniture nozzle for deep suction cleaning of heavy upholstery and mattresses.
709453 (6 inches)



The steel crevice nozzle cleans deep into upholstery recesses and other inaccessible places. Fitted with the brush, this nozzle becomes a handy cleaning tool for shelves, radiators, and venetian blinds.
Crevice Nozzle 109495
Brush 109496

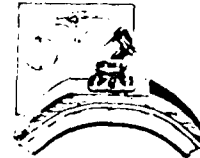


Cleaning Pipes, Walls and Girders

All overhead nozzles are fitted with swivel joints so that they can be adjusted to the right angle for optimum suction.



These special nozzles with either bristles or serrated edges are used for cleaning pipes, and can be supplied for five different pipe diameters.



Attachments with bristles are used for sticky dust



Attachments with serrated edges are used for loose dust

With Bristles

113474 (4 inches Ø)
113475 (8 inches Ø)
113476 (12 inches Ø)
113477 (16 inches Ø)
113478 (24 inches Ø)

With Serrated Edges

113479
113480
113481
113482
113483



Corrugated pipes up to 6½ inches in diameter are cleaned by this wooden nozzle.
113484 (6½" Ø)

Nozzles with bristles or serrated edges are used for cleaning walls, ceilings and rafters, and can be supplied in three different lengths



With bristles



With serrated edges

113468 (6 inches)
113469 (9 inches)
113470 (12 inches)

113471 (6 inches)
113472 (9 inches)
113473 (12 inches)



90° angle brush for cleaning girders
113485 (4 inches)

NILFISK

—Quality Engineering
Since 1906

NILFISK OF AMERICA, INC.
201 King Manor Drive
King of Prussia, PA 19406
(215) 277-3900

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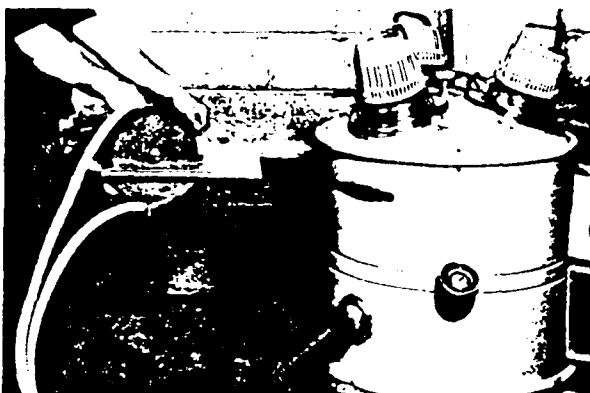
NEW!

SHIELDED HAND-TOOL SYSTEMS

End release of asbestos dust from Asbestos/Cement sheet cutting

Medical science has proven that asbestos dust causes lung disease. In Asbestos/Cement sheet form, asbestos is bound into the sheet, and does not become airborne in normal use. During fabrication of A/C sheet, however, asbestos fibers are released by the cutting tools themselves. Tool operators and co-workers are then exposed to a serious health hazard. Dust control at the source, is the only sure way to reduce risk of exposure.

Now, for the first time, Nilfisk, world leader in portable toxic dust control equipment, introduces Shielded Hand-Tool Systems. Not just vacuum cleaners. Not just enclosed tools. But totally integrated systems.

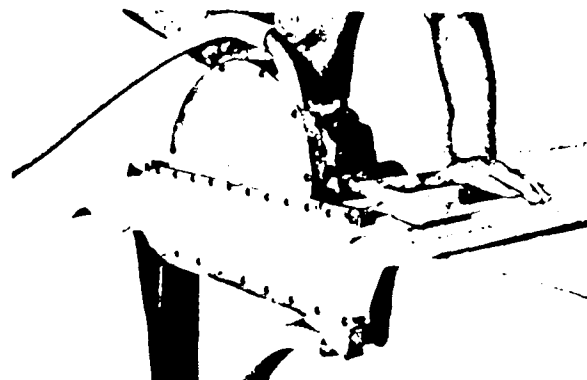


Circular Saw for Flat Sheets

Each Nilfisk Shielded Hand-Tool System consists of a HEPA-filtered* vacuum dust collector and a safely enclosed hand-tool. Vacuum static pressure and airflow have been carefully combined to overcome the unusually high escape velocity of asbestos fibers. Circular saws for flat and corrugated sheets are equipped with Nilfisk model GA-73 vacuum dust collectors. Shielded jig saws and drills have model GA-71 vacuums.

ALL SYSTEMS CONSISTENTLY MEET OR EXCEED OSHA ASBESTOS DUST CONTROL STANDARDS.

The flat-sheet circular saw will cut A/C sheets up to 60mm (2½") thick. Corrugated-sheet circular saws will safely cut corrugated sheets of standard US configuration (1½"-1¾" in definition). Both use commercially available silicon carbide or diamond blades. The jig saw will cut flat A/C sheet up to 20mm (¾") thick.



Circular Saw for Corrugated Sheets

The drill shield housing is spring-loaded and will compress to allow the bit to penetrate the sheet being drilled. This insures safe removal of asbestos fibers and cement dust from the hole.

Harmful dust created by the blade or bit is whisked away safely and hygienically into the vacuum dust collector.

Four separate filter stages are built into the GA-71 dust collector. Asbestos and other dust is captured in a disposable paper bag which must be placed in a heavy plastic liner and marked according to OSHA requirements.

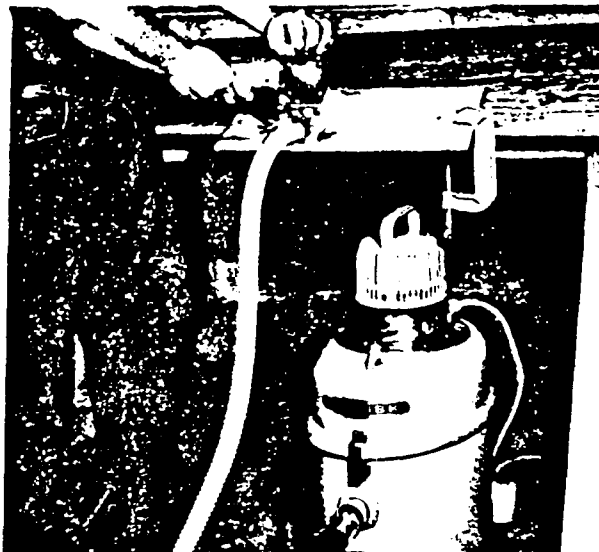
Three separate filter stages are incorporated into the GA-73. Fibers and debris are captured in a heavy plastic liner, ready for proper marking and disposal.

ALL THIS TIME, THE TOOL OPERATOR HAS BEEN SAFE FROM ASBESTOS DUST EXPOSURE.

*HEPA: High Efficiency Particulate Air (99.97% retention at 0.3 microns)

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Shielded Jig Saw



Shielded Hand Drill

Nilfisk vacuum cleaners are tried and tested. For years they have been in regular use in asbestos processing facilities. Users meet OSHA asbestos dust standards. Nilfisk cleaners are tested and approved by the Asbestosis Research Council.

Disconnect the cleaner from the Shielded Hand-Tool for other dry cleanup chores around the job site.

The Nilfisk Shielded Hand-Tool System you select will contain the following:

Description	Sheet Saw	Corrugated Saw	Jig Saw	Drill
Nilfisk Model GA-73 Vacuum Cleaner (18 gal. cap.)	X	X		
Steel Container Frame (#017101)	X	X		
Container Polyliners, 5 mil (#017102)	X	X		
Microfilter(s) (#613274)	X	X	X	X
HEPA Filter(s) (#115120)	X	X	X	X
10 ft. Neoprene Hose Complete, 2 Inch ID (#106298)	X	X		
Manometer (Optional Dust Gauge #215173)	X	X		
Hose Connection Kit (Double Take-off #017471)	X	X		
* Shielded Circular Saw — Flat Sheet (#017470)	X			
* Shielded Circular Saw — Corrugated Sheet (#017490)		X		
Nilfisk Model GA-71 Vacuum Cleaner (5 gal. cap.)			X	X
Disposable Paper Bag Assembly (#114714)			X	X
10 ft. Neoprene Hose Complete, 1 1/4 Inch ID (#111513)			X	X
Hose Connector Kit (Single Take-off #017451)			X	X
* Shielded Jig Saw (#017450)			X	
** Drill Shield (#017430)				X

* Includes heavy-duty saw

** Does not include heavy-duty drill

Other vacuum attachments available for traditional cleanup applications

Nilfisk of America, Inc.
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