

How to Clean Air-Cooled Equipment and Filters

Reduce service calls and increase the efficiency of air-cooled condensers, permanent air filters, evaporator coils, window units and other finned cooling/heating coils or equipment by selecting one of Nu-Calgon's quality coil cleaners. Nu-Calgon's line-up of cleaners are based on nearly 60 years of experience and technical expertise in coil cleaning - there is a product for any challenge.

Greasy dirt and dust in the air can collect on air conditioning and refrigeration coils. If these finned heating or cooling coils are left uncleaned, heat transfer will be reduced. In turn, compressors will have to work much harder, operating costs go up and valuable equipment could break down when it is needed most. For example, for every 2°F rise in condensing temperature that is caused by dirty coils, efficiency is reduced by 1% while power consumption is increased by 1%... a staggering price to pay for dirty coils.

In addition, clogged and dirty permanent filters restrict air flow and do not filter air, allowing dirt to contaminate rooms and stain walls around air ducts. Lastly, dirty electronic air cleaners, fouled with pollen, nicotine and other pollutants prevent them from adequately cleaning the air. Regular cleaning with Nu-Calgon products protects equipment and helps maintain peak operating efficiency.



CONDENSER COIL CLEANERS

A Look at the Products

Nu-Brite®

The #1 coil cleaner in the HVACR market. It foams and brightens, and it is an equally effective yet safer alternative to acids. It produces a high volume of foam and cleans more effectively than acids. NSF listed. Consult 3-31.

1 gallon bottle	4291-08
2.5 gallon bottle	4291-05
55 gallon drum	4291-01
18 oz. aerosol	4291-18
Clean Connect concentrate	4291-90
Ultra quart	4291-92

Foam-Brite®

Described as the ultimate foaming cleaner, Foam-Brite is the first in a new generation of condenser coil cleaners. It provides for excellent cleaning and brightening and at the same time provides for tremendous foaming to push dirt and grime out of the coil. NSF listed. Consult 3-32.

1 gallon bottle	4178-08
2.5 gallon bottle	4178-05
55 gallon drum	4178-01

Alka-Brite® Plus

A non-acid, alkaline-based product for brightening and cleaning air cooled condensers. It quickly penetrates and removes greasy soils and oxidation. Its foaming helps lift greasy soils out of the coil. NSF listed. Consult 3-35.

1 gallon bottle	4120-08
55 gallon drum	4120-01
2.5 gallon pail	4120-05
Clean Connect concentrate	4120-90

Cal-Brite® Plus

A low-pH product for cleaning evaporator coils, air-cooled condensers and other finned cooling and heating coils. It's user-friendly, based upon glycolic acid, and safe for use indoors as well as outdoors. Consult 3-34.

1 gallon bottle	4133-08
55 gallon drum	4133-01

Tri-Pow'r® HD

An outstanding general purpose coil cleaner that provides detergency, degreasing and deodorizing capabilities. Its positive emulsion technology is very effective versus grease and grime. It is non-acid and non-toxic. NSF listed. Consult 3-83.

1 gallon bottle	4371-88
55 gallon drum	4371-81
2.5 gallon pail	4371-86
19 oz. aerosol	4371-75
Clean Connect concentrate	4371-90
Ultra quart	4371-92

CalClean®

A heavy-duty liquid alkaline detergent for cleaning evaporator coils, air cooled condenser coils, metal filters, fan blades and other surfaces soiled with greasy dust and dirt. Consult Bulletin 3-33.

1 gallon bottle	4135-08
2.5 gallon pail	4135-06
55 gallon drum	4135-01



EVAPORATOR COIL CLEANERS



SPECIALTY AEROSOLS



SPECIALTY CLEANERS

Special HD CalClean®

The best cleaner available. Specifically formulated to remove tobacco tars from electronic air cleaners as well as the most stubborn deposits from air-cooled condensers and evaporator coils. Consult Bulletin 3-60.

1 gallon bottle	4143-08
2.5 gallon pail	4143-06
55 gallon drum	4143-01

TriClean 2x™

The new way to clean a condenser coil. Simply connect to hose, clean, and rinse. Metal-safe, designed for rapid emulsion of soils from the coil. Restores efficiency and is ideal for painted fin and microchannel coils. Consult 3-85.

1 quart spray bottle	4372-24
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Cal-Green™

A plant-based, natural condenser cleaner that is powerful enough to remove dirt, grease, and grime but environmentally safe for use around people, plants, animals, and aquatic life. This non-foaming, non-toxic concentrate is perfect for cleaning residential or commercial systems and restores their efficiency while being environmentally responsible. Meets OEM specifications for microchannel coil cleaning. Uses only natural and renewable resources that are on the EPA's Safer Choice Program list of acceptable eco-friendly ingredients. Consult 3-89.

1 gallon bottle	4190-08
55 gallon drum	4190-01
1 quart concentrate	4190-90



Evap-Green™

A no rinse product that is perfect for numerous heating and air conditioning applications such as evaporator coils, roof top units, window units, metal filters, fan blades, and more. By using Evap-Green, a natural plant based formulation, the coil is being cleaned with the most environmentally friendly product available. It is also safe to be used around people, plants, animals, and aquatic life. Meets OEM specifications for microchannel coil cleaning. Uses only natural and renewable resources that are on the EPA's Safer Choice Program list of acceptable eco-friendly ingredients. Consult 3-90.

1 gallon bottle	4191-08
55 gallon drum	4191-01



Evap Pow'r-C®

A revolutionary "no-rinse" product formulated specifically for indoor cleaning of evaporator coils. It is metal safe and therefore ideal for "no-rinse" applications. Evap Pow'r-C is the concentrate. Use ratio is 3:1. Consult Bulletin 3-42.

1 gallon bottle	4168-08
2.5 gallon pail	4168-05
55 gallon drum	4168-01
Ultra quart	4168-92

Green Clean®

A pleasantly scented, all-purpose cleaner designed for the rapid removal of grease and other heavy soils. It can be used right out of the bottle or diluted for milder jobs. Consult 3-40.

1 quart spray bottle	4186-24
1 gallon bottle	4186-08
55 gallon drum	4186-01

Complete Care Mini-Split Kit

The Complete Care Mini Split Kit is a ready-to-use kit that includes everything you need to start cleaning and servicing mini-split systems. The kit includes (2) Tri-Pow'r® HD Aerosol cans 4371-75, (2) sets of Gel Tabs™ Mini 4185-95, (1) Clean Guard™ Maintenance Bag 4150-01, and (1) Nu-Calgon service bucket. The Complete Care Mini-Split Kit provides you with what you need to clean and service up to four mini-split systems.



Coil Protection

Cal-Shield® - Shields and protects finned cooling and heating coils. Traditional cleaning of the coil with a coil cleaner removes most to all deposits, restoring lost capacity as well as operating efficiencies. Unfortunately, the problem will return and cleaning will again be required. Use of Cal-Shield will allow the coil to operate longer periods between cleanings. Once Cal-Shield is applied to the cleaned coil, it forms a protective shield that helps the coil resist the depositing of dirt and grime since moisture "beads up" and runs off. This enables the coil to perform more efficiently for a longer period of time. If a coil is in an aggressive environment, such as salt air and food coolers, Cal-Shield will extend the coil's service life in this corrosive environment. Consult Bulletin 3-36 for more details. **DuraCoil** - A specially formulated coil and surface protectant for HVACR components. The product is an aerosol based, air-dry phenolic gray colored coating designed to extend the life of the coil or other system component in a corrosive environment. The coating is field proven - used successfully by OEMs for many years - but now available through Nu-Calgon as DuraCoil for field service when durable protective coil treatment is required to extend service life. Consult Bulletin 3-15 for more details.

Cal-Shield quart	4148-32	Duracoil 11 ounce can	4083-91
Cal-Shield gallon	4148-08		



Evap Foam® No Rinse

A high performance detergent, specifically formulated into a foaming, non-rinse product. Evap Foam is ideal for use on cooling or evaporator coils, and it may be sprayed either right side up or upside down. Consult 3-2.

18 oz. aerosol	4171-75
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Evap-Fresh™ No Rinse Evaporator Coil Cleaner and Disinfectant

A ready-to-use cleaner and disinfectant for evaporator coils. Effectively cleans as well as kills mold and bacteria. This disinfectant cleaner is perfect for air conditioners, commercial air handling units, HVAC cooling coils, refrigeration equipment and evaporator coils. EPA registered. Consult 3-38a and 3-38b.

1 quart	4166-24
1 gallon	4166-08
55 gallon	4166-01
18 oz. aerosol	4166-75

Nu-Solve™ NR

Ready-to-use, non-rinse condenser coil cleaner for situations with limited water availability for rinsing. Nu-Solve NR is also for other applications where it is desirable to have less diluted cleaning solution on a commercial roof or when a solvent based aerosol approach is not practical. Nu-Solve NR effectively emulsifies dirt and grime and provides a benefit of leaving a protective treatment on the aluminum for added corrosion protection, making the next cleaning easier.

1 gallon bottle	4295-08
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Blackhawk®

An expanding foam coil cleaner. Formulated to deeply penetrate the coil, it liquefies to quickly remove grease, grime, or oily soils from deep within the coil. Blackhawk's formulation is safe and problem-free for cleaning evaporator or condenser coils in an occupied building; produces no objectional fumes. It is particularly effective on coils on refrigerators, coolers, and freezers located in restaurants and other commercial establishments. NSF registered.

18 oz. aerosol	4127-75
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Nu-Blast®

A "no rinse required" condenser coil cleaner in a convenient aerosol package. Double action of high pressure blast and solvent cleaning restores design efficiency of condenser coils. Pleasant odor, non-flammable and non-conductive. Not for sale in California. Consult 3-97.

18 oz. aerosol	4290-75
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ViroGuard™

ViroGuard is an EPA registered no rinse evaporator coil cleaner and disinfectant. When used as directed, ViroGuard No Rinse Evaporator Coil Cleaner and Disinfectant is formulated to disinfect inanimate hard surfaces such as air conditioning evaporator coils and HVAC drain pans. In addition, this product deodorizes those areas which generally are hard to keep fresh smelling and other areas which are prone to odors caused by microorganisms. This product is also suitable for use for: PTACS, window units, mini-splits, refrigeration equipment, freezer evaporative coils, and ductless systems. Consult 3-156.

18 oz. aerosol	4376-75
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Select the Right Sprayer for the Cleaning Job

Coil Gun®

A different approach to coil cleaning, a "hose-end" sprayer that features 5 different mix ratio settings designed for coil cleaners. Also incorporates a quick disconnect capability. Utilizes a 2 quart capacity bottle and includes a foam wand. **Coil Gun Probe (p/n: 4774-1)** available separately.

Part Number: 4774-0

Coil Gun® Probe

For use with Nu-Calgon's popular Coil Gun (4774-0) in the cleaning of air-cooled condenser coils. The Coil Gun Probe is a time saving accessory with its 90° direction of spray that allows cleaning from inside the coil. In many cases, this can be accomplished without removing the top cover of the outdoor unit. Also, the tool provides easy access in tough to reach locations to discharge debris and emulsified grime in an outwardly direction from the coil.

Part Number: 4774-1

Clean Connect™

The Clean Connect Sprayer is a specially developed sprayer that uniquely attaches to the Nu-Brite 4x, Alka-Brite Plus 4x and Tri-Pow'r HD 4x concentrate coil cleaners. Sprayer is easy-to-use with clean and water rinse settings that sprays at 1.2GPM and 4GPM respectively. Incorporates a handy hose extension – sprayer comes with attachment to hook up to the Nu-Calgon Probe (4774-1), available separately, for 90 degree direction of spray with cleaning coils.

Part Number: 4773-0

Talon

The Talon Flexible Aerosol Wand is a specially developed, 27 inch length, reusable flexible spray wand. The Talon provides precision in tight space and tough to reach locations.

Part Number: 4776-0

Multi-Purpose Hand Sprayer

Twenty-four fluid ounce, transparent bottle with positive action spray head. Ideal for small jobs, such as window units, water coolers, etc. Bottle is calibrated in ounces and milliliters. Also, calibrated for various use dilutions.

Part Number: 4768-W3

No. 50P Poly Sprayer

Constructed with high density translucent polyethylene. The nozzle is adjustable and the flow rate is controlled by a thumb lever. It comes with a 7" polyethylene pump and has a half-gallon (3 pint) working capacity.

Part Number: 4770-0



No. 120 & 220CP Poly Sprayers

Constructed with high density translucent polyethylene. Incorporates a molded funnel top, reinforced 3 foot hose, Buna seals, and chemical-resistant wand. Utilizes a 10" polypropylene pump and an adjustable nozzle.

No. 120CP Poly Sprayer (1 gallon) 4770-20

No. 220CP Poly Sprayer (2 gallon) 4771-30

Turbo Tank 2.0 Rinsing Sprayer

The Turbo Tank Rinsing Sprayer 2.0 is a portable tool designed specifically for rinsing air cooled air conditioning coils with clean water after Nu-Calgon coil cleaner has been applied independently to the coil. The Turbo Tank can be used with Bio-Fresh CD, a bacteriostat/fungistat in select applications of indoor coils of ductless systems to aid in inhibiting future growth of microorganisms on the internal surfaces. **The Turbo Tank is not designed for use with any indoor or outdoor coil cleaner; the use of coil cleaners can damage the sprayer and will void warranty of the sprayer – this includes cleaners/disinfectants such as Nu-Calgon's Evap-Fresh.**

Part Number: 4781-00

Pump-up Poly Sprayers

Constructed with high density translucent polyethylene. It has a funnel-top for easy addition of chemical as well as emptying. It comes with a 10" polypropylene pump, extension tube with adjustable nozzle and five feet of vinyl hose.

No. 200P Poly Sprayer (2 gallon) 4771-20

No. 300P Poly Sprayer (3 gallon) 4772-0



Outdoor Coil



Indoor Coil - Copper Tube / Aluminum Fin Design



Indoor Coil - Microchannel (All Aluminum) Construction

A Look at the Equipment

Air Cooled Condenser (or Outdoor) Coils

The primary goal in cleaning air-cooled condensers is to emulsify the greasy dirt and grime so that it can be flushed away by rinsing, restoring heat transfer and air flow. A good alkaline cleaner like CalClean is a solid choice. The selection of Special HD CalClean would be recommended if the soil or grime is particularly stubborn. If high-foam cleaning and brightened aluminum fins are desired, select one of the Nu-Calgon "Brite" products (Nu-Brite, Alka-Brite Plus, Foam-Brite or Cal-Brite Plus). They will clean with the added features of foam and brightening. If hydrofluoric acid based products were previously used, select Nu-Brite, Alka-Brite Plus or Foam-Brite. They are formulated to out-foam, out-brighten and out-clean the HF-based products.

For all aluminum coils - microchannel or all aluminum tube/fin, consider OEM approved Cal-Green. However, Tri-Pow'r HD, TriClean 2x, CalClean, Special HD CalClean and Green Clean can be used.

Evaporator (or Indoor) Coils

The desired goal is the same as in cleaning air-cooled condensers; removal of greasy dirt and grime to restore designed capacities. If an acid-based product is desired, where some brightening and foaming is wanted, use Cal-Brite Plus followed by a thorough rinsing. If rinsing is not possible or desirable, a product that combines "metal-safeness" without rinsing is suitable as long as humidity-condensation is anticipated. Use Evap Pow'r-C or Evap-Green in this application. Or, select a convenient aerosol, either Evap-Foam No Rinse or Evap-Fresh No Rinse. CalClean & Tri Pow'r HD can be diluted 10:1 and also used as a "no-rinse" option.

For all aluminum coils - microchannel or all aluminum tube/fin, consider OEM approved Evap-Green. However, Evap Pow'r-C, CalClean, Evap-Fresh No Rinse, and Tri-Pow'r HD can be used.

Electronic Air Filters

When electronic air filters become coated with tobacco tars, gummy dust particles and other stubborn deposits, they are difficult to clean. More importantly they lose their ability to adequately remove these types of objectionable items from the air. Typically, wherever electronic air filters are installed the quality of the air is paramount. Most alkaline cleaners are not effective on tobacco tars and similar deposits. Special HD CalClean is specifically formulated to handle such a cleaning requirement. It contains a special blend of surface-active agents in an alkaline based cleaner, designed especially for cleaning electronic air filters, easily out performing ordinary detergents.

General Cleaning Jobs

CalClean, Tri-Pow'r HD and Green Clean can also be used effectively in many instances where there is a buildup of greasy dirt, grime or other heavy soils. These include permanent filters and other soiled, dirty or greasy surfaces; follow product instructions accordingly.

