



GREASE PROBLEMS IN MUNICIPAL FACILITIES

Fats, oils and grease (FOG) represent one of the largest headaches for municipal collection system workers. These hydrophobic and stable FOG substances, by their very nature, stick to and stay on collection lines, lift station surfaces and line cleaning equipment. The normal flow of collection water does nothing to remove them. In many cases, FOG build up can restrict the water flow, even to the point of causing a blockage and subsequent back-ups. Animal fat, petroleum oil, and grease soiling are problems in many different municipal situations.

THE GREASE-X SOLUTION

The best way to handle FOG problems is to treat it before it becomes a problem using a biological digester like GREASE-X BIOZYME Microbial Ecosystem. When this is not possible, FOG can be efficiently removed using GREASE-X JET Aqueous Cleaner and Degreaser. It works well on all types of food and petroleum origin fat, grease, and oil. GREASE-X JET can be used in jetting equipment to help unblock FOG choked lines. It is ideal for cleaning jetting equipment after use in lines.

In many instances, removal of grease, oil and petroleum products from surfaces can be very difficult. Previously, halogenated and petroleum solvents were used to clean oily surfaces. However, worker and regulatory concerns over hazardous wastes and exposure to flammable and carcinogenic solvents have dictated that industry find alternative cleaners free of hazardous and toxic substances. GREASE-X JET is specifically designed to provide a water-based cleaning system that penetrates surfaces and removes grease and oils without generating toxic flammable vapors.

PRODUCT DESCRIPTION

GREASE-X JET is a water-based, concentrated heavy-duty liquid cleaner, which penetrates and softens all forms of grease, fats, and oil. It emulsifies them on contact with water. GREASE-X JET contains biodegradable non-ionic surfactants, chelating agents, and water. It additionally contains a biological catalyst to enzymatically break down grease.

BENEFITS OF GREASE-X JET USAGE

- Efficiently cleans all types of animal fats, vegetable oils, petroleum greases, and heavy fats and oils from hard and porous surfaces.
- Removes greases and crankcase oil trapped in porous sidewalks, driveways, and concrete floors.
- Works equally well in either fresh or salt water.
- Safe to use on a variety of surfaces including plastics, metals, and woods.
- Water based for ease of use and safer handling than solvent-based cleaners.

APPLICATION SUGGESTIONS: GENERAL

GREASE-X JET is supplied as a concentrate and can be diluted with water to meet a wide range of cleaning needs. Suggested dilution rates for GREASE-X JET are:

	<u>GREASE-X JET Volume</u>	<u>Water Volume</u>
Heavy Degreasing	1 part	5 to 20 parts
Medium Degreasing	1 part	40 parts
Light Degreasing	1 part	100 parts
Concrete Degreasing	1 part	5 to 10 parts
Sewer jetting	1 part	100 parts

The most effective dilutions for each use are best determined by user experience. In some instances agitation, scrubbing, and increased contact time may be needed to achieve superior results.

APPLICATION SUGGESTIONS: SPECIFIC APPLICATIONS

JETTING OPERATIONS

GREASE-X JET used in jetting operations will help more completely remove accumulated FOG. GREASE-X JET wets and penetrates the grease thereby allowing the jet water stream to more completely remove the grease. For best results,

1. Mix GREASE-X JET at 1% by volume (i.e. 5 gallon GREASE-X JET per 500 gallons jetting water).
 - Fill the jetting tank with water and then add GREASE-X JET, not the reverse order.
 - This 500 gallon mixture will treat 500 feet of line up to 10 inches in diameter.
2. Spray mixture upstream, full pressure, until the next manhole is reached.
3. Turn off the spray and let sit for ten minutes to allow GREASE-X JET to penetrate the grease. For exceptionally heavy grease accumulation or exceptionally hard grease allow extra time.
4. Turn the spray back on and retrieve the hose at 2ft/sec.

DEGREASING

GREASE-X JET is a highly effective penetrating and emulsifying cleaner useful in degreasing all types of equipment and surfaces where heavy grease and oil accumulate. GREASE-X JET should be applied to the grease-coated surface and allowed to penetrate the oily or greasy film. Afterwards, wipe the surface clean with a cloth or soft brush and rinse with water.

CONCRETE

Removal of grease, oil and petroleum products from concrete floors, transformer pads, subsurface vaults and other concrete surfaces can be extremely difficult. GREASE-X JET is specifically designed to provide a water-based cleaning system that penetrates concrete surfaces to remove grease and oils.

On concrete surfaces, GREASE-X JET can be applied directly as a concentrate or diluted 1:3 with water, depending on how long the oil or grease has been in contact with the concrete and its level of penetration. It can be poured or sprayed on the contaminated area. After the GREASE-X JET has been applied, allow

it to set for approximately 10 to 30 minutes to penetrate. Brush the surface thoroughly with a stiff brush, rinse with a high-pressure water hose and dry the surface. If necessary, repeat the process.

A variety of factors affect cleaning efficiency including porosity and whether or not the concrete was previously sealed. On porous concrete where the penetration is deep, some of the stain may not come out completely. If the concrete is no longer oily to the touch or sealing tape sticks to the surface, the concrete has been adequately cleaned and may be sealed or painted.

AUTOMOTIVE

GREASE-X JET is an excellent general purpose cleaner that rinses streak and spot free with water. Road film, road tar, insects, cinders and diesel smoke are easily removed. GREASE-X JET will not harm the finish if the GREASE-X JET solution is removed by rinsing or wiping with a water soaked sponge soon after application.

To clean and degrease automotive parts in dip tanks, use GREASE-X JET diluted 1:4 with water. The time required for grease and oil removal varies with the degree of cleaning required. In a soaking application, GREASE-X JET will penetrate and lift the paint of valve covers to bare metal in 24 hours. If only oil or grease removal is required, less exposure time is required. Agitating the dip tank solution helps speed the process. Following cleaning, parts should be rinsed with water and dried.

MACHINE SHOPS

Due to its ability to penetrate and emulsify petroleum grease, GREASE-X JET has a wide variety of uses in machine shops. It helps disperse water-soluble oils by eliminating the formation of oil curds and congealing.

The addition of GREASE-X JET to sump systems cleans the sump and pressure lines, which helps to reduce maintenance costs. As an emulsifying cleaner for sumps, add GREASE-X JET to the system and circulate for 30 minutes. While the sump is being cleaned, the same solution may be used to wash the exterior of the equipment. Through its degreasing activity, this mixture helps remove metal filings blocking pressure lines and pumps. When cleaning is finished, drain the sump and rinse with water to help remove any residual metal filings.

PRODUCT DATA

Typical Value

pH (concentrate)	approx. 11.5
pH (1% dilution)	approx. 8.9
Appearance	clear solution
Color	light yellow
Odor	sweet
Specific Gravity	approx. 1.05 (at 20°C)
Flash Point	>200°F

PACKAGING: GREASE-X JET is supplied in 5-gallon plastic pails containing 40 pounds net weight.

PRODUCT STORAGE: Store in original container.

ENVIRONMENTAL ACCEPTABILITY

- Does not contain petroleum solvents or halogenated solvents such as trichloroethylene or carbon tetrachloride.
- Environmentally friendly and biodegradable.
- Non-caustic and non-polluting.
- Non-flammable

SAFETY and COMPATABILITY

Users are advised to consult the Material Safety Data Sheet for information and guidance. Skin and eye contact should be avoided.

Diluted solutions of GREASE-X JET can be safely mixed with the majority of other products formulated for use in cleaning and sanitation. Concentrated GREASE-X JET should not be mixed with acids or cleaning products containing acids.

**For institutional and industrial use only.
Keep out of reach of children.**

IMPORTANT NOTICE TO PURCHASER:

“RootX warrants that the product conforms to its compositional description and is reasonably fit for the purpose stated on the label when used in accordance with the label instructions under normal conditions of use. There are no other express or implied warranties, whether as to merchantability, fitness for any use, or otherwise, given in respect of the product. Neither RootX nor its agents shall be liable for any damage, loss, or injury, whether the same arises directly or consequentially, by reason of any matter whatsoever relating to the use of the product, and any buyer’s or user’s exclusive remedy in any instance shall be limited to a replacement of the amount of product used to treat the service lateral or mainline at no cost.

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