
ProtoKlenz GT



Safe, clean and effective

ProtoKlenz GT is the ecologically safe solution for the effective washing of all types of gas turbine compressors.



This product has been carefully formulated to deliver optimal cleaning performance whilst still excelling in tests for toxicity, biodegradability, toxic impurities, bioaccumulation and tainting of marine life. ProtoKlenz GT is one of the most environmentally safe gas turbine compressor cleaning chemicals in the world.



Minco turbine cleaners offer outstanding performance and value, with the added benefit of safety for the operator, equipment and environment.

A full list of the benefits of using ProtoKlenz GT, and its technical specifications, are featured overleaf.

Please speak to your local agent for more information on Minco washing products.

Overview

ProtoKlenz GT is an innovative non-ionic formulation of complex and ecologically safe grease cutting surfactants, coupled with ultra low toxicity oil stabilisers. It works through a synergy of complementary chemical actions to produce dazzling results.

This product's exceptional wetting abilities reduce droplet formation on the surfaces of the compressor, encouraging reactions at the interface between the fouling and the chemical mix. This improves the technical effect of the chemicals, enhancing penetration on the surface of the dirt. This means increased desorption, solubility and dispersion, particularly of poorly soluble hydrocarbons and oils.

The dirt which is lifted from the cleaning surface then becomes locked in liquid suspension, so it cannot redeposit at the back of the compressor.

ProtoKlenz is classified as a water-based detergent and has been accredited and recognised by environmental agencies around the world. It is used offshore and onshore, where environmental considerations and discharge rules are of paramount importance, and may be discharged directly into the sea.

This product has been tried, tested and proven to eliminate all fouling conditions and is suitable for use in industrial, aviation and marine gas turbine engines.

Packaging & Dilution

ProtoKlenz GT is available in 25, 210 and 1,000 litre containers.

ProtoKlenz has a dilution rate with demineralised or deionised water between 4:1 (80% water to 20% ProtoKlenz) and 6:1 (86% water to 14% ProtoKlenz).

Usage

Dilution results in a stable solution that is suitable for use through all existing mixing skids and lance off-line systems.

The length of time to spray the solution will vary depending upon engine size and wash skid capabilities. The turbine manufacturer's instructions should be followed. The volume of chemical and the wash frequency will normally follow the standard compressor wash routine of the user.

Upon completion of the washing operation, demineralised water is injected through the mixing skid and injection nozzles to rinse the detergent from all surfaces. In the case of off-line washing a dry run should be performed before resuming operation of the gas turbine.

ProtoKlenz is effective for both on-line and off-line cleaning.

Benefits

- Approved by the major gas turbine OEMs
- Suitable for both on-line and off-line washing
- Free rinsing – leaves no residue after rinsing
- Neutral pH
- Safe – non-corrosive to all engine surfaces
- Manufactured in the UK under ISO 9001:2008
- Stable – can be pre-diluted for later use
- Low ash content
- Meets MIL and AMS specifications
- When diluted is non-flammable
- Can be used with existing washing skids
- Completely miscible with most anti-freeze agents
- Best value and results among detergent cleaners
- Removes all types of fouling
- Restores any compressor to pristine condition

Typical Results of Analysis

	Concentration (mg/kg)
Sodium	0.99
Potassium	0.66
TOTAL	1.65
Calcium	0.25
Magnesium	<0.10
TOTAL	<0.35
Copper	<0.02
Tin	0.40
TOTAL	<0.42
Vanadium	<0.02
Lead	<0.10
Sulphur	1.5
Chlorine	<0.1
Other Results	
Ash (%)	<0.005
PH at 25°C	7.2
Solids (> 20 micrometers)	0.0
Viscosity (SUS at 25°C)	50

Technical Specification

Appearance	Clear liquid
Odour	Characteristic ethereal
Density at 25°C	1.0 Sg. (typical)
PH at 25°C	7.0 (typical)
Flash Point	None to boiling
Auto Ignition	>200°C
Explosion Limits	Lower 0.17%, Upper 6%
Initial Boiling Point	100°C
Evaporation Rate	<0.18 (Butyl acetate = 1)
Water Solubility	Completely soluble and stable

