

**TurboKlenz**



## You can make a **full recovery**

If your performance is suffering due to heavily contaminated compressor blades, TurboKlenz is the ultimate cleaning solution.

TurboKlenz offers powerful degreasing using high boiling solvents combined with emulsifiers for the removal of the heaviest and most stubborn soiling of gas turbine compressors. TurboKlenz has been thoroughly tested and proven highly effective.

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 TurboKlenz, and the technical specifications, are featured overleaf.

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

## Overview

TurboKlenz is a carefully balanced blend of powerful, high boiling point solvents and surface active agents. It is used to remove the heaviest oil-borne and most stubbornly baked-on fouling deposits. It is also highly effective at removing all other types of fouling, including traces of other cleaning products that are not free rinsing and have adhered themselves to the insides of the compressor.

The potent solvent action of TurboKlenz dissolves all known types of compressor fouling. The resulting solution remains stable through the use of emulsifiers thus effectively carrying the formerly solid contamination clear of the compressor.

TurboKlenz is the ultimate compressor cleaning chemical that will succeed where regular cleaners fail, whilst still complying with the stringent requirements of the OEMs. Its use is recommended for offline washing where extreme degradation of the compressor surfaces has occurred.

This product has been tried and tested under many fouling conditions and is suitable for use in industrial, aviation and marine gas turbine engines.

## Packaging & Dilution

TurboKlenz is available in 25 and 210 litre containers.

This product contains a high concentration of very strong solvents making it suitable for dilution rates up to 10:1 with demineralised or deionised water. At the typical OEMs recommended dilution ratio of 4:1 (80% water to 20% TurboKlenz) this complex high concentration of solvents makes it the most effective solvent based cleaner on the market.

## Usage

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

The length of time to spray the emulsion will vary depending upon engine size and wash skid capabilities. The original manufacturer's instructions should be followed. The volume of chemical and the wash frequency will normally follow the standard compressor wash instruction 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. Finally a dry run should be performed before resuming operation of the gas turbine.

TurboKlenz is extremely effective for off-line cleaning.

## Benefits

- Approved by the major gas turbine OEMs
- 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	1.60
Potassium	2.61
<b>TOTAL</b>	<b>4.21</b>
Calcium	0.09
Magnesium	<0.05
<b>TOTAL</b>	<b>&lt;0.15</b>
Copper	<0.01
Tin	0.24
<b>TOTAL</b>	<b>&lt;0.25</b>
Vanadium	<0.01
Lead	0.07
Sulphur	2.1
Chlorine	<0.1
	<b>Other Results</b>
Ash (%)	<0.01
PH at 25C°	7.2
Solids (> 20 micrometers)	0.0
Viscosity (SUS at 25C°)	81

## Technical Specification

Appearance	Clear Straw/Gold Coloured Liquid
Odour	Characteristic Hydrocarbon Solvent
Density at 25C°	0.92 – 0.96 Sg.
PH at 25C°	7.0 (typical)
Flash Point	<100°C
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



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