

# **GAS TURBINE COMPRESSOR CLEANERS**

**ZOK  
27**

**ZOK  
mx**

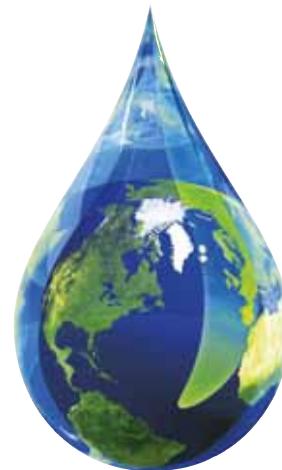
**Environmentally  
responsible  
cleaning  
solutions for all  
gas turbine  
compressors since 1980.**



**Used worldwide in these sectors**



# LESS FUEL MORE POWER FEWER EMISSIONS



Cleaning with ZOK extends the time between comprehensive overhauls, greatly improving the availability and reliability of any compressor, significantly reducing the cost of running the engine.

ZOK products are highly refined to a consistent quality, production is rigorously monitored and ZOK is accredited to recognised international standards.

All major gas turbine manufacturers approve ZOK for use on their engines in every industry sector.

ZOK products are bio-degradable and meet the demanding aquatic toxicity requirements.

Endorsed for use by the British MoD and other well known users, ZOK is a manufacturer of gas turbine compressor cleaning solutions that you can trust.



Cleaner and inhibitor  
**ZOK**  
**27**

*Cleans and protects engines  
with corrosion inhibitor in  
one operation*

**Power cleaner  
formulated to replace  
solvents**

**ZOK**  
**mx**

*Exceptional cleaning without the  
health and environmental risks  
associated with solvent cleaners.*

ZOK is an international brand used to clean all types of gas turbine compressors from small helicopters to the largest power generating engines. ZOK products are approved by almost every major gas compressor manufacturer and users of gas turbines.

**SIEMENS**  imagination at work

 **Pratt & Whitney**  
A United Technologies Company

**Solar Turbines**  
A Caterpillar Company

  
**ROLLS**  
**ROYCE**

  
**MINISTRY OF DEFENCE**

  
**DEPARTMENT OF DEFENSE**



**Cleaning Power  
For All Gas Turbines**

**ZOK  
27**

A concentrated, neutral, environmentally friendly, biodegradable, water-based detergent cleaning fluid for cleaning and corrosion inhibition of gas turbine compressors.

**ZOK  
mx**

A concentrated, water-based, non-flammable, environmentally friendly, biodegradable fluid. Specifically developed for heavy-duty cleaning of gas turbine compressors.

<b>Composition</b>	Blend of non ionic surfactants, corrosion inhibitors, organic solvents and demineralised water.	A special blend of non ionic surfactants, organic solvents and demineralised water.
<b>Appearance</b>	Clear pale straw coloured liquid with a mild, pleasant odour.	Pale straw coloured liquid with a mild, pleasant odour.
<b>Shelf Life</b>	5 years	5 years
<b>Typical values</b>		
pH	7.2 – 7.5	8.0 – 8.5
Specific Gravity	1.01	1.0
Total alkali metal	<0.5 ppm after dilution	<5 ppm after dilution
Ash	<0.01%	<0.01%
Aromatic compounds	None	None
Alkyl Phenol Ethoxylates	None	None
Hydrocarbon solvents	None	None
2-Butoxyethanol	None	None
<b>Dilution</b>	Dilute 1 to 4 with water before use (20% solution). Demineralised water (<11µS/cm conductivity) should be used for hot/on-line cleaning. Good quality drinking water (<500µS/cm conductivity) may be used for cold/off-line cleaning. Ready to use (RTU) versions of these products are available for users who do not have access to demineralised water.	
<b>Application</b>	By spray ring or lance in either starter-driver (off-line) or fired (on-line) wash as directed by the engine manufacturers, in the quantities recommended in the engine manual.  It is essential during hot wash that the cleaner should leave as little ash residue as possible to avoid blocking turbine blade cooling holes. <b>ZOK 27</b> has a maximum ash content of <0.01%, as part of the compliance with OEM specifications for compressor washing fluid.  The unique corrosion inhibitor allows engines to be left ready for an instant restart, even in salty offshore conditions.	By spray ring or lance in either starter-driver (off-line) or fired (on-line) wash as directed by the engine manufacturers, in the quantities recommended in the engine manual.  It is essential during hot wash that the cleaner should leave as little ash residue as possible to avoid blocking turbine blade cooling holes. <b>ZOK mx</b> has a maximum ash content of <0.01%, as part of the compliance with OEM specifications for compressor washing fluid.
<b>Water Rinse</b>	Not necessary unless recommended by the engine manufacturer.	Recommended.
<b>Dryout run</b>	Not necessary unless recommended by the engine manufacturer.	Recommended.
<b>Antifreeze</b>	Add antifreeze below +5°C (see zok.com for more details and recommended dilutions). Compatible with Methanol, Isopropyl Alcohol and Mono Propylene Glycol. Mono Propylene Glycol is recommended by ZOK because it is biodegradable and has the minimum impact on the environment.	



## HEALTH & SAFETY

**ZOK 27** and **ZOK mx** are not classified as toxic, hazardous or irritants.

The following precautionary advice appears in the Safety Data Sheets. Wash off all splashes. Wear rubber gloves if sustained contact is likely. Wear goggles if spraying.

## ENVIRONMENTAL

Biodegradable. Small spillage – flush away with water.

Large spillage – absorb with sand or earth and collect for disposal.

Observe national and local regulations.

## LOGISTICS

### Packaging

25 litre high density polyethylene can (USA 6.6 gallons). Gross weight 26.5kg.

210 litre L-Ring high density polyethylene drums (USA 55.5 gallons). Gross weight 220 kg.

1000 litre returnable International Bulk Container (IBC). (USA 264 gallons) Gross weight 1069 kg.

Packaging is UNII export grade.



### Shipping

No restrictions. Suitable for transport on passenger aircraft. IATA/CAO classified as non hazardous for international transport by sea/air.

### Storage

Non flammable. Store at room temperature between +4°C and 60°C. If inadvertently frozen, **ZOK 27** and **ZOK mx** can be used after thawing out.

### Tariff Code

34029090 Europe

3402.20.5100 USA

Designed and  
manufactured by  
**ZOK** in the UK



## ACCREDITATIONS

### Quality

BS EN ISO 9001:2008

### Environmental

BS EN ISO 14001:2004

### Joint Qualification System

Achilles

### Health & Safety

OHSAS 18001:2007



BUREAU  
VERITAS

Certificate 13300

**Achilles JQS**

empowered by Achilles



Qualified

Achilles Id. 25675



## ZOK International Group Ltd

Elsted, Midhurst,

West Sussex, GU29 0JT

England

Phone: +44 (0) 333 700 2727

Fax: +44 (0) 333 700 2728

Email: zok@zok.com

Website: zok.com