

# PROTECT YOURSELF *TODAY!*



# PHIREX



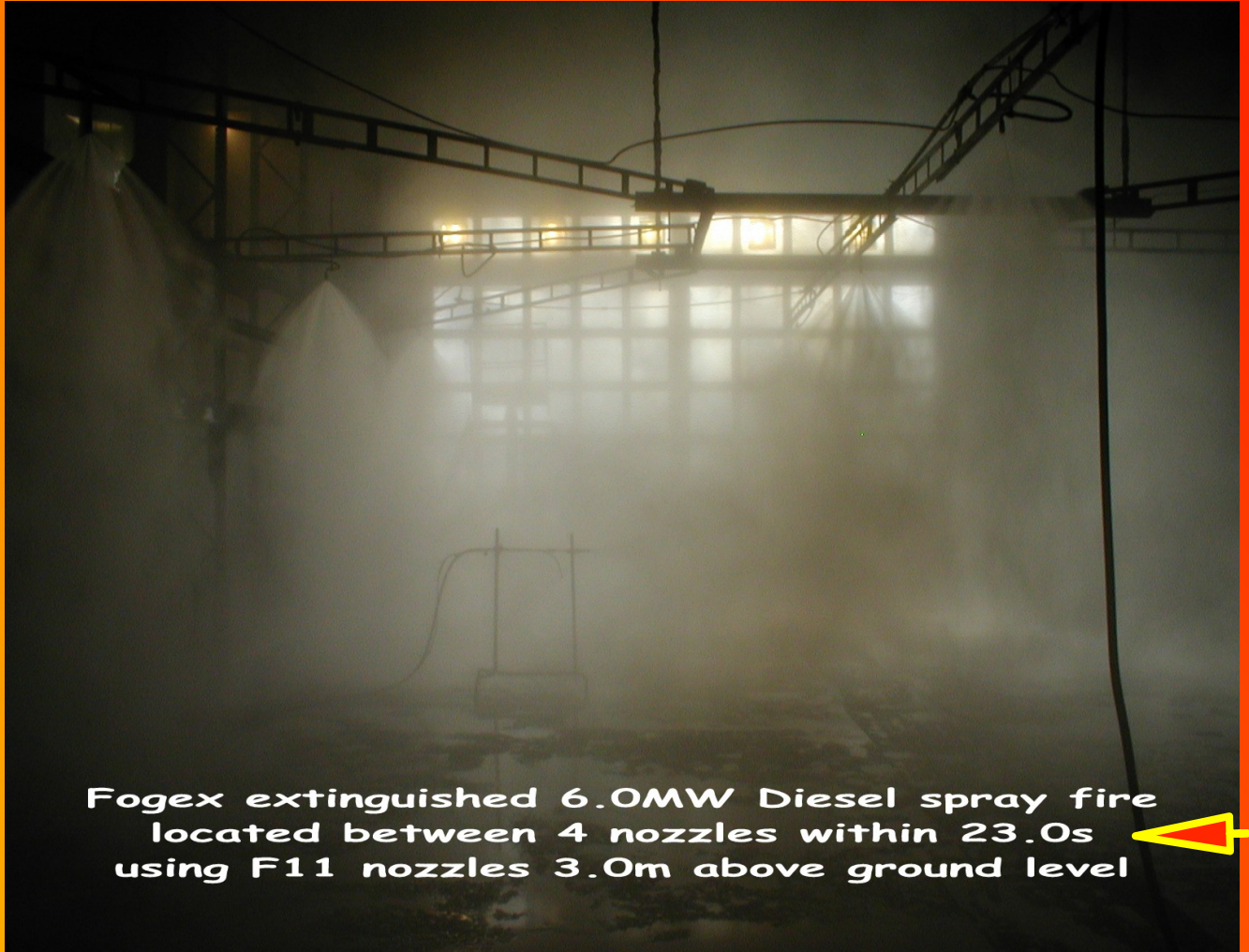
# AUSTRALIA

Certified ISO9001, JAS-ANZ, AS9001, NZS9001 and EC Council Directives 96/98/EC accreditation systems.

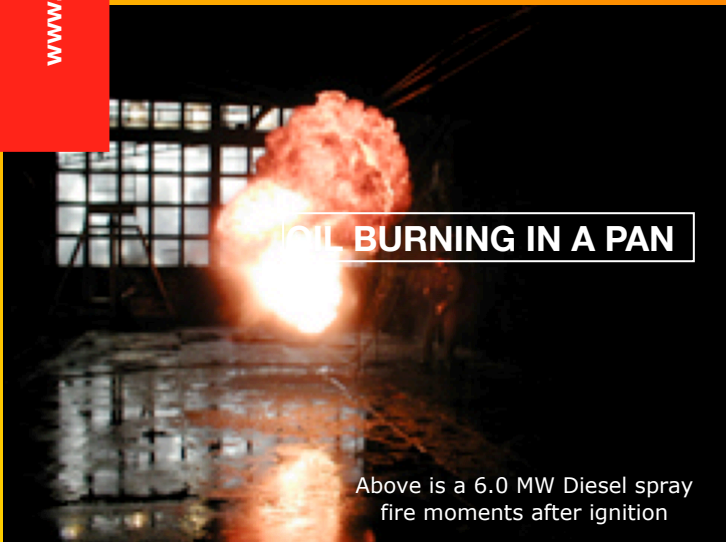
## FOGEX WATER MIST FIRE PROTECTION SYSTEMS

Ma'Aref Technologie (Pvt) Ltd.

www.MaArefTech.com



Fogex extinguished 6.0MW Diesel spray fire located between 4 nozzles within 23.0s using F11 nozzles 3.0m above ground level



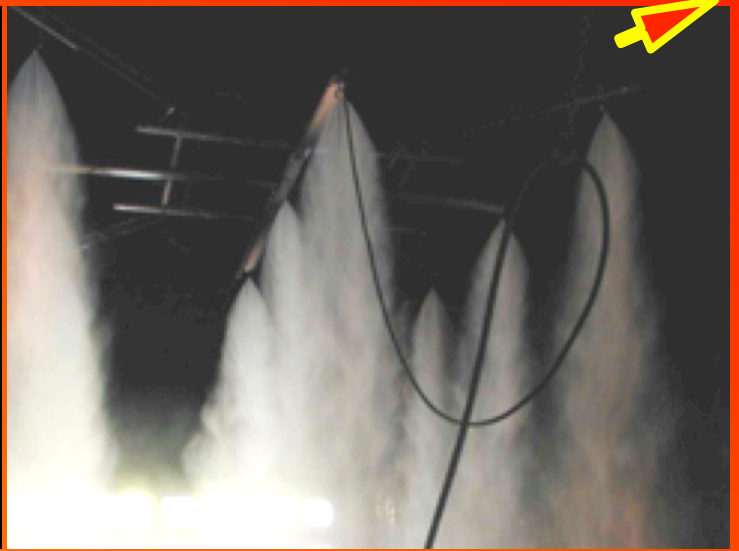
Above is a 6.0 MW Diesel spray fire moments after ignition



Above is 6.0MW Diesel spray fire approx. 3 seconds after Fogex has been activated.



Above is 6.0MW Diesel spray fire getting extinguished within 12 seconds from Fogex system activation.



Above is a Fogex cold discharge test revealing very fine mist droplets with nozzles positioned at 8.0m above ground level.

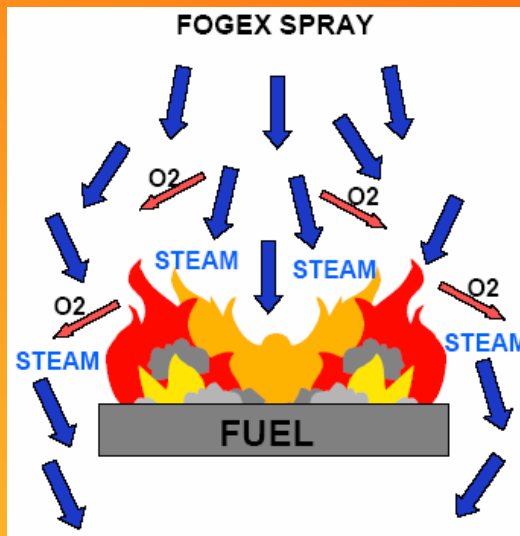
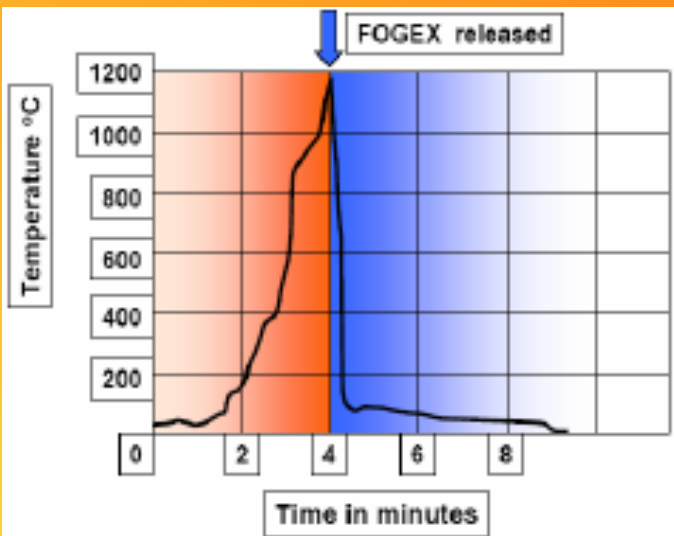
### WITNESSING OF TESTS

All fire testing in done in accordance with IMO Guidelines has been witnessed by Lloyd's Register of Shipping, Det Norske Veritas, American Bureau of Shipping, Bureau of Veritas and Factory Mutual.

All fire for Factory Mutual test protocols for machinery spaces, industrial hazards and combustion & gas turbine enclosures has been witnessed by FMRC.

### REGULATIONS MET & STANDARDS ACHIEVED

NFP750 Water Mist Standards, 2010 edition.  
 FM Class 5560 standards  
 IMO 1165 and IMO668/728  
 NORSOK Standards  
 IEC Standards  
 NFPA20 standards



And there is **NO** Water Damage!

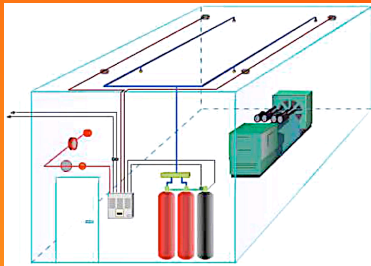
## Benefits of Using FOGEX & MISTEX

- Safe to people & environment
- No decomposition product (HF or HCL gas) which is hazardous to people & equipment
- Safe to electrical & electronic equipment
- **Minimal water usage (<10% of sprinkler)**
- **Effective & rapid in fire extinguishment**
- Tested and Approved fire fighting technology
- No future phased-out or regulated date
- Low clean up & Low refilling cost
- **Minimal maintenance cost**
- Long equipment life span

- **Small water storage tank compare to sprinkler**
- **Pipe sizes are extremely small between 12mm – 32mm (OD), making retro-fitting more convenient**
- **Smoke scrubbing effect (remove smoke)**  
Binding of smoke particles by mist droplets
- Washing out of gases (eg. HCL) via huge reaction surface
- **Less contamination by smoke**
- Fire extinguishing effect not affected by ventilation (with door & window opened) **3-dimensional fire fighting technology.**



**TAIWAN AIR FORCE F-16 HANGARS PROTECTED WITH PHIREX**



NAVAL FIGHTING/  
SUPPORT  
PLATFORMS



FOGEX@WATER MIST  
FIRE PROTECTION  
SYSTEM FOR  
COMBUSTION & GAS  
TURBINES

**FOGEX & MISTEX**

- OFF-SHORE & ON-SHORE DRILLING PLATFORMS**
- OUTDOORS ELECTRIC TRANSFORMERS & SUB-STATIONS
- CHEMICAL DISPENSE CABINETS
- WAFER FAB PLANTS / CLEAN ROOMS
- AIRCRAFT HANGARS / F-16 AIRCRAFT HANGARS**
- FLAMMABLE STORAGES (POL, ETC.)**
- SERVER ROOMS / DATA CENTERS**
- OFFICES, RESIDENCES, **U/G PARKING LOTS**
- IN-DUCT PROTECTION
- PAINT KITCHENS / PAINT BOOTHS**
- MACHINERY SPACES / ENGINE ROOMS**
- CARGO PUMP ROOMS
- ENGINE TEST CELLS**
- ELECTRIC CABLE TUNNELS**
- ELECTRIC SWITCH GEAR ROOMS**
- COMPUTER ROOMS**
- WAREHOUSES**
- HOSPITALS, LABORATORIES
- HOTELS, MESSES, BOARDING HOUSES
- MILITARY / NAVAL APPLICATIONS**
- HIGH-RISE BUILDINGS**
- ESCALATOR ROOMS & RAIL SUB-STATIONS
- RAILWAY LOCOMOTIVE CARRIAGES
- STANDBY POWER GENERATORS / POWER PACKS**
- COAL MINING - CONVEYER BELTS, ETC.
- ARCHIVES, MUSEUMS & LIBRARIES



MISTEX WATER MIST  
FIRE PROTECTION  
SYSTEM 1.6 KM  
ELECTRIC CABLE  
TUNNEL PROJECT,  
NORWAY

WATER MIST FOR UNDERGROUND  
CABLE & VEHICULAR TUNNELS

Fogex suppressing a 1.0 cu. m wood  
crib fire inside theatre building with  
Fogex F11 nozzles 9.0 metres height  
above ground level



COAL MINING  
CONVEYER  
BELT  
WATER-MIST  
PROTECTION