# PHIREX AUSTRALIA





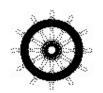
April 2005, Rev 2

PHX-3064

Fogex® Water Mist Fire Protection System Components





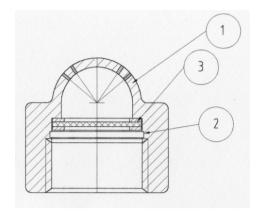






# Fogex® F11 Water Mist Nozzle





## Fogex F11 Water Mist Nozzle – Features

- Al. Bronze construction for added safety and reliability
- Single fluid design
- No internal moving or rotating parts to become blocked or seized
- Tested and passed IMO MSC/Circ 913 Local Application tests
- Approved for use as local application nozzles for protection of machinery spaces Category A by DNV, BV, ABS and Lloyd's Register
- Nozzle grid spacing 4m x 4m
- Maximum distance to fire source 10.1m and minimum distance 2.1m
- K-factor 10.0L/min/bar<sup>1/2</sup> (10.0L/min at 100 bar pressure)
- Approved working pressure of 100 bars
- Test pressure 320 bars
- Internal Stainless steel 316 filter to prevent nozzle blockage
- 3/8" BSP thread
- Two unique spraying angles for maximum penetration and coverage
- Lightweight miniscule nozzles for enhanced aesthetics
- Suitable for use in machinery spaces (marine and land), industrial hazards, combustion and gas turbine enclosures, large buildings, computer rooms, electrical rooms, transformers etc
- ISO 9001 Quality Approved merchandise
- EC Directives 96/98/EC Certified wheel marked

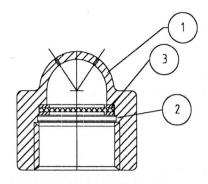


For sales & information, please contact:

## PHIREX AUSTRALIA

## Fogex F20 Water Mist Nozzle





## Fogex F20 Water Mist Nozzles - Features

- Solid Al. Bronze construction for added strength and reliability
- Multi-Orifice nozzles
- In-built Stainless steel 316 filter to prevent blockage
- Tested and passed IMO MSC/Circ. 668/728 machinery spaces tests
- Environmental tested by Factory Mutual Approvals project identifier No. 3007879, Class 5560
- Approved for use in marine vessels and off-shore applications by DNV, BV, ABS and Lloyd's Register
- Ceiling heights up to 5.0 metres
- Nozzle grid spacing 3m x 4m
- K-factor 0.64L/min/bar½ (6.4 L/min at 100 bar pressure)
- Operating approved pressure 100 110 bars
- Single fluid nozzle design
- 3/8" BSP thread
- No moving or rotating parts inside to become blocked or seized
- Suitable for protection of machinery spaces (marine and land) and industrial hazards, combustion & gas turbine enclosures etc
- ISO 9001 Quality Approved merchandise
- EC Directives 96/98/EC Certified wheel marked

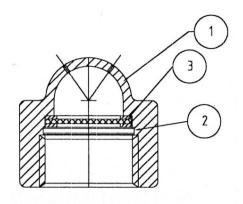


For sales & information, please contact:

### PHIREX AUSTRALIA

# Fogex® F27 Water Mist Nozzle





## Fogex F27 Water Mist Nozzle – Features

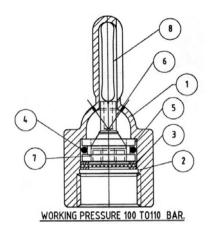
- Single fluid multi-orifice nozzle
- Internal Stainless steel 316 filter to prevent nozzle blockage
- No internal moving or rotating parts to become blocked or seized
- Solid Al. Bronze construction for added strength and reliability
- Tested to and passed IMO MSC/Circ. 668/728 machinery spaces tests
- Approved for door screen nozzles for protection of machinery spaces
- Approved working pressure 100 110 bars. Test pressure 320 bars
- Ceiling height of 5.0 metres
- Nozzles spacing 1.0 metre apart above open doorways
- Approved for use by DNV, BV, ABS and Lloyd's Register for marine vessels and off-shore platforms
- K-factor 0.53L/min/bar½ (5.3 L/min at 100 bar pressure)
- Environmental tested by Factory Mutual Approvals project identifier 3007879, Class 5560
- 3/8" BSP thread
- Suitable for protection of machinery spaces (marine and land), industrial hazards, combustion & gas turbine enclosures
- EC Directives 96/98/EC Certified wheel marked
- ISO 9001 Quality Assured merchandise

For sales & information, please contact:

### PHIREX AUSTRALIA

# Fogex® FA20 Water Mist Nozzle





## Fogex FA20 Water Mist Nozzles - Features

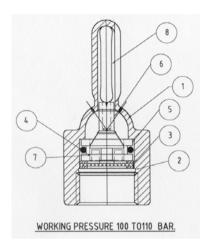
- Al. Bronze construction for added safety and reliability
- Internal Stainless steel 316 filter to prevent nozzle blockage
- Choice of glass temperature bulbs, eg 57°C, 68°C etc
- No moving or rotating internal parts to become blocked or seized
- Small size and lightweight for enhanced aesthetics
- Grid spacing 3m x 4m maximum
- Maximum ceiling height of up to 5.0 metres
- K-factor 0.64L/min/bar½ (6.4 L/min at 100 bar pressure)
- Working pressure between 100 110 bars
- Test pressure 320 bars
- Single fluid nozzle
- ISO 9001 Quality Assured merchandise
- Suitable for hotels/motels, offices, computer suites, residential dwellings, fat fryers, machinery spaces, industrial hazards, historical buildings, libraries etc
- BSP 3/8" thread

For sales & information, please contact:

## PHIREX AUSTRALIA

# Fogex® FA27 Water Mist Nozzle





## Fogex FA27 Water Mist Nozzles - Features

- Al. Bronze construction for added safety and reliability
- Internal Stainless steel 316 filter to prevent nozzle blockage
- No internal moving or rotating parts to become blocked or seized
- Small size and lightweight for enhanced aesthetics
- Choice of temperature glass bulbs, eg 57°C, 68°C etc
- Single fluid nozzle
- Maximum grid spacing 3m x 4m
- Maximum ceiling height 5.0 metres
- Working pressure of between 100 110 bars
- Test pressure 320 bars
- K-factor 0.53L/min/bar<sup>1/2</sup> (5.3 L/min at 100 bar pressure)
- ISO 9001 Quality Assured merchandise
- Suitable for hotel/ motels, offices, computer rooms, fat fryers, restaurants, machinery

spaces, industrial hazards, historical buildings, libraries, residential dwellings etc

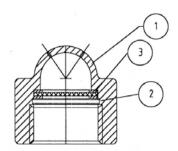
■ BSP 3/8" thread

For sales & information, please contact:

### PHIREX AUSTRALIA

## FOGEX F16 WATER MIST NOZZLE





# Fogex F16 Water Mist Nozzles - Features:-

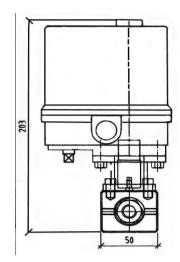
- Solid S/steel or Al. Bronze construction for added strength and reliability
- Multi-Orifice nozzles
- In-built Stainless steel 316 filter to prevent blockage
- Tested and passed FILK/KEPCO electric transformer tests
- Environmental tested by University of Korea
- Ceiling heights up to 10.0 ~ 16.0 metres
- Nozzle grid spacing 3m x 4m
- K-factor 1.34L/min/bar<sup>1/2</sup> (1.34 L/min at 80 bar pressure)
- Operating approved pressure 80 110 bars
- Single fluid nozzle design
- 3/8" BSP or NPT threads
- No moving or rotating parts inside to become blocked or seized
- Suitable for protection of machinery spaces, industrial hazards, combustion
   & gas turbine enclosures and electric transformers on land etc
- ISO 9001, JAS-ANZ, AS9001 & NZS9001 Quality Approved merchandise
- EC Council Directives 96/98/EC Certified wheel marked
- Class 1 water mist nozzle with droplet sizes MVD<sub>0.9</sub> ~65 microns
- Water mist spray droplet velocity ~8.0m/sec

For sales & information, please contact:

#### PHIREX AUSTRALIA

# Fogex® Electric Actuator Ball Valves





## Fogex electric 12/24VDC 1/4 - turn actuator ball valves Features:-

Working pressure up to 110 bars - test pressure of 600 bars

- Stainless Steel & Al. Bronze materials for added reliability and strength
- Full bore sizes not restricted bore
- 1/4-turn actuators available in 12/24VDC, or 110/220/380/440VAC
- Manual override activation capability for added reliability and safety
- Machined from solid materials and not die-cast
- Unique heavy duty design structural features
- Range of sizes from ¼" to 2" (larger sizes upon request)
- Range of seal materials, eg Ertalyte TX, Tetron B etc
- Large actuator torque strengths available from 35nM and up to 3500nM
- DNV, BV, Lloyd's & ABS plan approved for marine vessels and off-shore applications
- ISO 9001 Quality Assured merchandise
- BSPT standard threads (other threads available upon request)
- Suitable for water, oil or gas (WOG)
- Large actuators available with hand wheel for manual override operation
- Actuators with modulating controllers also available
- Manual override facilities disengage while motor is running for safety
- EC Council Directives 96/98/EC Wheel marked



For sales & information, please contact:

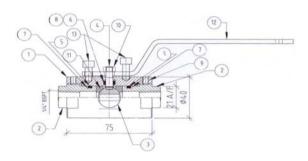
#### PHIREX AUSTRALIA

# **Fogex® Manual Ball Valves**









# Fogex Manual Ball Valves - Features

- Stainless steel & Al. Bronze construction for added reliability and strength
- Unique lockable handle for "open" or "closed" position
- Working pressure up to 110 bars test pressure 600 bars
- ISO 9001 Quality Assured merchandise
- BSPT standard threads (other threads available upon request)
- Range of seal materials, eg Ertalyte TX, Tetron B, etc
- Various sizes available, eg ¼", ½", ¾", 1", 1½", 2.0" (larger sizes available upon request)
- Fully serviceable units
- DNV, BV, Lloyd's and ABS plan approved for marine vessels and offshore applications
- Suitable for high pressure applications
- Suitable for water, oil or gas (WOG)
- Machined from solid material and not die cast for added strength
- Full bore type valves and not restricted bores ensuring no pressure loss
- EC Council Directives 96/98/EC Wheel marked

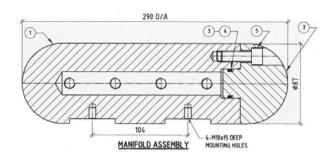


For sales & Information, please contact:

#### PHIREX AUSTRALIA

# **Fogex**<sup>®</sup> Gas Manifolds





### ■ Fogex High Pressure Nitrogen Gas Manifolds – Features

- Heavy Duty Stainless steel 316 construction
- BSPT standard threads (other threads available upon request)
- Various sizes available 4 inlets 2 outlets; 6 inlets 2 outlets; 8 inlets 2 outlets
- Fully serviceable units
- Working pressures of up to 200 bars test pressure 800 bars
- ISO 9001 Quality Assured merchandise
- DNV, BV, Lloyd's and ABS plan approved for marine vessels and offshore applications
- Suitable for high pressure skid mounted systems
- Operating temperature range -20°C to +55°C
- Suitable for water, oil or gas (WOG)
- Machined from solid material for added strength and safety
- EC Council Directives 96/98/EC Wheel marked



For sales & information, please contact:

#### PHIREX AUSTRALIA

## **Fogex Actuator Head Assembly**



## **Fogex Actuator Head Assembly** for Pressure Vessel Skid Unit

### **Features:**

- Stainless steel 316 construction complete with internal S/Steel 316 pick-up tube
- 1" NPT thread (other threads available upon request)
- 4 Ports 2 for gas inlet, one for water outlet and one for pressure gauge mounting
- Fully serviceable unit
- Suitable for fitting to high pressure steel or aluminium pressure vessels
- ISO 9001 Quality Assured merchandise
- Working pressure 200 bars, test pressure >600 bars
- Operating temperature range -25°C to + 55°C
- Machined from solid Stainless steel 316 material for added strength and reliability
- Suitable for marine, land and offshore applications
- EC Council Directives 96/98/EC Wheel marked
- Lightweight & compact size



For sales & information, please contact:

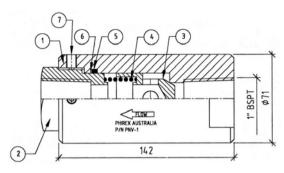
### PHIREX AUSTRALIA

78 Roberts Street, Osborne Park, 6017 Western Australia

Tel: +61+8+94443244 Fax: +61+8+94443255 E-mail: info@phirex.com.au

# **Fogex**<sup>®</sup> **Non-return Valves**





## Fogex high pressure non-return valves - Features

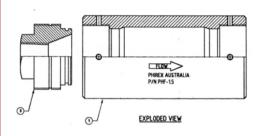
- Heavy duty design Stainless steel & Aluminium Bronze construction
- Mechanical internal sealing with Stainless steel inner spring
- Full bore size with no restrictions
- · Machined from solid material for extra strength and reliability
- Range of sizes from ½" to 2" (larger sizes upon request)
- BSPT standard threads (other threads available upon request)
- Suitable for water, oil or gas (WOG)
- ISO 9001 Quality Assured merchandise
- DNV, BV, Lloyd's & ABS plan approved for applications on marine vessels and off-shore platforms
- Mounting possible in any angle
- Working pressure of up to 150 bars test pressure 600 bars
- EC Council Directives 96/98/EC Wheel marked

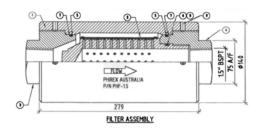


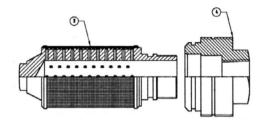
For sales & information, please contact:

#### PHIREX AUSTRALIA

# **Fogex**<sup>®</sup> in-line Water Filters









## Fogex in-line High Pressure Water Filters – Features

- Stainless steel & Al. Bronze construction and machined from solid material for added strength and reliability
- Fully serviceable units with internal removable filter cartridge
- Triple Stainless steel internal filter cartridge for added security against blockage
- Working pressure up to 150 bars test pressure of 600 bars
- Internal filter cartridge has 150 bars hydrostatic crush resistance pressure to prevent filter failure in the event of partial or full filter mesh blockage
- Various sizes available 1", 1½" and 2" (other sizes available upon request)
- BSPT standard threads (other thread types available upon request)
- ISO 9001 Quality Assured merchandise
- DNV, BV, Lloyd's and ABS plan approved for marine vessels and off-shore applications
- Suitable for high pressure applications
- Unique design features
- Can be installed on inlet or outlet side of high pressure pumps
- EC Council Directives 96/98/EC wheel marked



For sales & information, please contact:

#### PHIREX AUSTRALIA

# Fogex® High Pressure In-Line Water Filters



## **New Fogex High Pressure In-line Water Filters**

## **FEATURES:**

- √ Heavy duty design for high pressure applications
- √Triple mesh Stainless steel 316 sieve cartridge basket type
- √ 150 bar hydraulic crush resistance pressure on internal mesh cartridge
- ✓ Rated to greater than 440 bars
- √Hi-flow and high volume
- ✓ Quality Assured production to ISO 9001 Accreditation
- ✓ MED-B and MED-D QS Certificated merchandise and wheel marked (๑)



- ✓ Stainless steel 316 & Al. Bronze construction
- ✓ Range of sizes from ¼" to 3" (or larger sizes upon request)
- ✓ Range of thread types, eg BSPT, NPT etc
- √ Model and part numbers indelibly engraved
- √ Mounting in any position horizontal or vertical
- √ Flow direction arrow indicator indelibly engraved
- √Top mounting to bracket possible through mounting holes

For Sales & Service, please contact:
Phirex Australia

78 Roberts Street, Osborne Park 6017, Western Australia.

Tel: +61+8+94443244 Facsimile: +61+8+94443255 Email: info@phirex.com.au

## **Pressure Sender Switch**





### **FEATURES:**

- ✓ Heavy duty design to withstand high pressures
- ✓ Rated pressure range from 0 to 600 bars
- ✓ Plan approved by Classification Societies, eg DNV, BV, ABS & LR
- ✓ Range of settings from low pressure to high pressure
- ✓ Used to confirm system operating status (hi-pressure)
- ✓ Used also for system activation upon attaining preset low pressure setting
- √ 24VDC electrics
- √ 1/4" BSPT or NPT threads
- ✓ Quality Assured merchandise
- ✓ Other models with different pressures available upon request

For Sales & Service, please contact:

### Phirex Australia

## **New Fogex Stainless Steel Nozzles**



New Stainless Steel Fogex® Water Mist Nozzles

## **FEATURES:**

- ✓ Stainless steel construction to resist corrosion & staining
- ✓ Long lasting and service free
- ✓ Choice of thread types, eg 3/8" BSPT, NPT
- ✓ Lightweight multi-orifice water mist nozzles
- ✓ Class 1 water fog droplet sizes
- ✓ Range of flows from 5.3LPM to 25LPM at 100 bar pressure
- ✓ Internal Stainless steel 316 sieves to avoid nozzle blockage
- √ Various mist spray angles possible thanks to simplistic designs
- ✓ Suitable for machinery spaces, transformers, cable tunnels, computer rooms, switchgear rooms, capacitor bank rooms, hotels, motels, offices, residential, museums, historic buildings, food & beverage industries etc
- ✓ Quality Assured merchandise

For Sales & Service, please contact:

### Phirex Australia

## **Pressure Gauges**





Pressure Gauges for Fogex Water Mist System

## **FEATURES:**

- ✓ Quality Assured merchandise made in Germany
- ✓ Plan approved by Classification Societies, eg DNV, BV, ABS & LR
- ✓ High pressure applications 0 250 bars
- ✓ Oil filled face dial
- √ 1/4" BSPT or NPT threads
- ✓ High accuracy readings meaning greater reliability
- ✓ Sturdy Stainless steel construction
- ✓ Suitable for water, oil or gas (WOG)
- ✓ Calibrated pressure gauges in accordance with Q.A. procedures

For Sales & Service, please contact:

### Phirex Australia