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- info@diligent-eg.com
- 8 Block 18 ELwaha City Nasr City

www.diligent-eg.com



## Misson & Vision

# To create the mom reliable fire fighting symmetric symme

## About Us:

**Diligent** Fire Fighting Systems Inc., has continued to be the most reliable solution partner on fire safety of its partners with the best solutions in world standards since the first day.

With its partnerships and distributorships in Egypt and abroad, **Diligent** can offer a one-stop solution to the safety and relevant needs of its customers.

Customers; Fire safety solutions offer consulting, projecting, contracting, inspection, after-sales service and maintenance services. Evenos Fire Safety Systems, with its top-level authorized services, test equipment and first class system equipment; Increasing the pay-per-use and increasing competitive power.

**Diligent** With the confidence of the experienced engineer staff and field team, especially with industrial facilities, residential and office buildings, health, tourism and education buildings,

- Water Extinguishing Systems
- Foam Extinguishing Systems
- Gas Extinguishing Systems (FM200, Novec1230, Inert, CO2 etc)
- Fire Gas Detection Alarm and Detection Systems
- · Passive Fire Stop Systems

Related solutions: NFPA, BSI, EN, Egypation Fire Regulations and other relevant international standards. All system installations are made with first class products approved by FM, UL, ULC, VdS, LPCB, CE in the light of the owned distributorship owned.

Diligent Fire Safety Systems, whose main objective is to design optimal systems for customers in terms of technical suitability - cost and to provide turnkey systems in this context, adhering to international standards; Continues to be an indispensable solution partner for its customers by acting without any deviation.

Diligent continuing to sign off projects with domestic, will continue to be one of the leading companies in fire safety without losing anything from its first day excitement.







## Foam Concentrate

- Diligent 6 AFFF, a non-toxic, environment friendly, biodegradable clear liquid with no stratification or turbidity, is a fluoro-chemical foam concentrate, commonly known as AQUEOUSFILMFORMING FOAM concentrate(AFFF), which represents a major advancement in Foam technology
- Diligent Brand AFFF available in the following variants:
- Diligent BRAND DIL-LV AFFF3% c6
- Diligent BRAND DIL-LY AFFF6% c6

#### Alcoholic Resistance AQUEOUS FILM FORMING FOAM (AR-AFFF)

- Diligent 6 AR-AFFF Concentrate is formulated from special fluoro—chemical and hydro carbons surfactant, high molecular weight polymers, and solvents. When applied over polar solvents it forms a polymeric membrane to help prevent there lease of the fuel vapor. Due to high drainage time, it has a better cooling effect.
- Diligent Brand AR-AFFF available in the following variants:
- Diligent BRAND DIL-LV AR-AFFF 3/3 c6
- Diligent BRAND DIL-LV ARAFFF3/6 c6

#### 2.3) PROTEIN FOAM CONCENTRATE (FP)

- PF (PROTEIN FOAM CONCENTRATE) is made from hydrolyzed Protein Foam Compound, foam stabilizers, and a special type of anti-freeze solvents.
   & preservatives which imparts the material good performance and long storage. FOAMER BRAND PF is suitable for use on non-polar hydrocarbon-based fires.
- Diligent Brand Protein Foam available in the following variants:
- Diligent BRAND FP 3%
- Diligent BRAND FP 6%





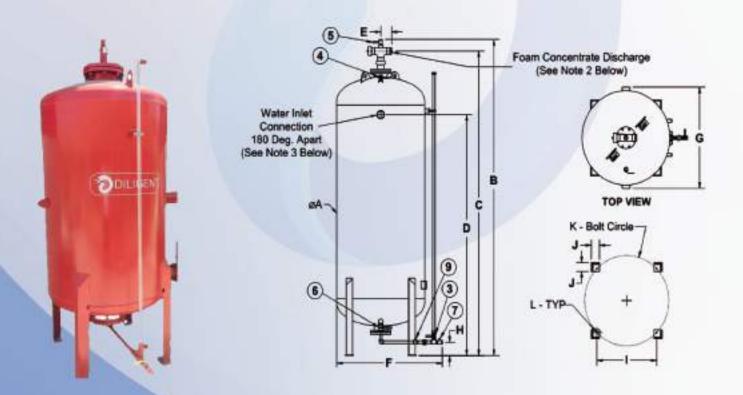






## Foam System Bladder Tanks

- DILIGENT is a manufacturer for Pre Piped Foam Bladder tank with ratio flow controller.
   Horizontal/Vertical Mounting Type According to ASMI DV-8.
- · Also can be supplied ASMI stamp
- Bladder Tank Capacity: 25 Gallons to 4500 Gallons.
- · Ratio Flow Controller size: 2" to 8"
- . To Be Used with 3% AFFF / AR-AFFF







# So Sin Harus

بکل فخر .. صنع فہ مصر

## FIXED SYSTEM PROPORTIONING

### BLADDER TANKS AND ACCESSORIES

The Bladder Tank is an integral component of the bladder tank proportioning system, which requires no external power other than an adequate water supply. A bladder tank, with an appropriate proportioner(s), injects foam concentrate into the water supply of a fire protection system and automatically proportions over a wide range of flows and pressures.

The DILIGENT Foam bladder tank is a steel pressure vessel fitted with an internal bladder that stores foam concentrate. During operation, water supplied to the bladder tank displaces the foam concentrate and collapses the bladder until the concentrate is depleted. The bladder tank discharges foam concentrate at approximately the same pressure as the water supplied at the water inlet connection to the tank. Since the bladder tank is pressurized, the bladder should not be refilled during operation.

Frequently used in aircraft hangars, loading racks, sprinkler systems, and offshore platforms.

Compatible with all foam concentrates Easier to refill than vertical bladder tanks

Bottom foam concentrate discharge keeps feed piping full, eliminating air pockets and preventing corrosion

Better stability than vertical tanks in earthquake-prone areas

Permanently welded litting lugs for easy tank movement and positioning





## Ratio Controllers

The Ratio Controller is a modified venturi proportioning device designed to inject foam concentrate into the water supply piping. It is compatible with all types of foam fire protection systems, and proportions all types of foam concentrates over their entire flow range without manual adjustments, regardless of pressure. Ratio controllers are available in threaded (RCT), flanged (RCF), or water (RCW) style.







## Fixed System discharge device

#### Foam Champer:

Foam chambers are designed to introduce expanded foam directly onto the surface of a flammable or combustible liquid for fire extinguishment and/or vapor suppression. Classified as a Type II discharge device in accordance with NFPA Standard 11, foam chambers deliver low expansion foam directly onto the fuel surface with a minimum of foam submergence and fuel agitation. Minimizing submergence and agitation increases the effectiveness of the foam blanket, resulting in more efficient operation, and superior extinguishing capabilities. Foam chambers have the added advantage of directing all their flow directly onto the product surface regardless of weather conditions, for the most effective utilization of foam resources. Foam chambers have a long history of timely and safe control of numerous incidents

#### Foam Maker:

High back pressure foam makers are designed to make a fully aspirated foam against a back pressure of up to 40%. The PHB series of foam makers are typically installed in systems that inject aspirated foam directly into the base of a product storage tank(s) or into the product pipeline feeding a storage tank. The foam is delivered through the product directly on to the fuel surface.

#### Foam Pourer:

Foam Pourer are designed to introduce expanded foam directly onto the surface of a flammable or combustible liquid for fire extinguishment and/or vapor suppression. Classified as a Type II discharge device in accordance with NFPA Standard 11, foam Pourer deliver low expansion foam directly onto the fuel surface with a minimum of foam submergence and fuel agitation. Minimizing submergence and agitation increases the effectiveness of the foam blanket, resulting in more efficient operation, and superior extinguishing capabilities. Foam Pourer have the added advantage of directing all their flow directly onto the product surface regartless of weather conditions, for the most effective utilization of foam resources.











Fire Trace Systems



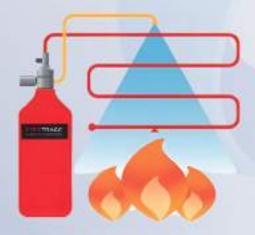
## **Diligent Fire Trace**



- Diligent fire employs a unique, proprietary detection and delivery system called Firetrace Detection Tubing.
- · Direct Release System

The Direct Release System utilizes the anti fire Detection Tubing as both the fire detection device and the fire suppressant delivery system. The portion of the tube nearest the hottest point of the fire ruptures, forming an effective discharge "nozzle". The pressure drop in the tube releases the entire contents of the cylinder through this nozzle.

Also we can support with CO2 Gas or FM200 Gas





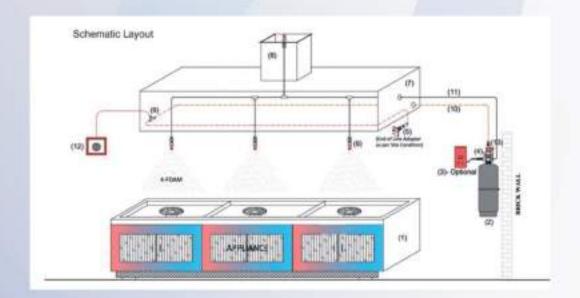
## **Wet Chemical Systems**



## Diligent WET CHEMICAL KITCHEN HOOD SYSTEM



 The Hood is covered with the pneumatic Heat Sensing Tube (HST). On coming with contact with fire, HST burst open a tapre-determined temperature. This leads to a drop of pressure which signals the indirect valve there by activating the system. The strategically placed nozzles disperses the extinguishing agent evenly over the entire cook to pare ensuring no blind spots during firefighting.







## Diligent CO2 system:



Diligent Carbon Dioxide(CO2) is one of the most effective fire extinguishing agents available on the market In non-occupied environment, you will typically find CO2 fire extinguishing system installed for fire protection. Diligent Carbon Dioxide Fire Extinguishing Total Flooding System is developed and designed in accordance with NFPA12 Standard by the innovative and creative R&D team of DILIGENT, to provide automatic, simultaneous discharge for a variety of hazards and configurations.

#### Typical Applications:

Power Generation/Transmission Metal Production and Processing

Cement Plant/Blast Furnace Indirect Coal Firing Systems Automotive

**Electronics Operations** 

Automated Storage and Retrieval Facilities







## Fire Pumb Foam Systems



Fire Lion Global – the very name implies strength and a fierce commitment to nothing but the best!

The Lion is the king of the jungle, and Fire Lion Global is the worldwide king of foam pump manufacturing. Flammable liquids and special hazards are a global concern.

Fire Lion provides the best foam pumps and foam pump systems and prides itself on exceeding customer demands from every corner and part of the world.

## UL LISTED / FM APPROVED FOAM PUMP

#### UL LISTED / FM APPROVED FOAM PUMP:

Foam pump shall be 100% Made In The USA including castings and machining and shall have the following design components and function. Foam pump manufacturer shall have an ISO certified QC program in place with current certification.

Foam pump shall have 255 Duplex Stainless-steel shafts to withstand a sea water flush and any brand of foam concentrate. Only 1 shaft seal is permitted, and shaft seal shall be capable of DRY operation for 10 minutes. Shaft seal shall be simple to repair and replace in the field. The shaft seal materials are a 316 stainless casing with a double PTFE lip that allows for hydro test pressures up to 350 psig without leakage.

Pump rotors shall be a spur or herringbone gear design using corrosion resistant materials constructed from a bronze alloy and a composite material that provides no tooth-to-tooth wear and no corrosion.

Foam pump connections shall be Groove, NPT, or ANSI 150#flange. Pump connections and end covers shall use O ring seals for leak free operation and simple field replacement.

UL & FM foam pumps shall be capable of 261 PSI (18 bar)operation as standard. Pump shall be smooth during operation across all operating RPM's and pressures.

Pump shafts shall be supported by composite bushings that are field replaceable and capable of extended operation on water or foam concentrate.

Foam pump shall not utilize replaceable casing liners, bearings, or timing gears.







## Fire Pump Systems



SPP/Diligent NON Listed Fire Fighting Pumps Packae



Developing, designing and manufacturing fire safety pump sets, Developing, designing and manufacturing drivers and controls

#### CENTRIFUGAL HORIZONTALSPLIT CASE FIRE PUMPS

#### PRESSURE RANGE

- 88 335 psi (6- 23 Bar )
- FLOW CAPACITY
- 200 gpm 8000 gpm
- MAX. WORKING PRESSURE
- 220 psi 410 psi
- FREQUENCY
- 50 60 hz

#### CENTRIFUGAL END SUCTION FIRE PUMPS

#### PRESSURE RANGE

- 60 234 psi (4.14 16.14 Bar )
- FLOW CAPACITY
- 200 gpm 1500 gpm
- MAX. WORKING PRESSURE
- 180 psi 315 psi
- FREQUENCY
- 50 60 hz







## Fire Pump Systems



SPP Fire Fighting Pumps LPCB Approved And UL/FM approved pumps

Developing, designing and manufacturing fire safety pump sets,

drivers and controls for nearly half of its 130-year history, SPP Pumps Ltd listing by the internationally recognised Loss Prevention Certification Board (LPCB).

#### CENTRIFUGAL HORIZONTALSPLIT CASE FIRE PUMPS

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180 psi - 315 psi

#### FREQUENCY

50 - 60 hz







## Fire Suppression



## Clean Agent System

## PEMALL 227

PEMALL HFC-227ea provides superior fire protection in a wide range of applications from sensitive electrical equipment to industrial applications using flammable liquids.

PEMALL HFC-227ea — is formed from the elements carbon, fluorine and hydrogen (CF<sub>3</sub>CHFCF<sub>3</sub>-heptafluoropropane). The primary extinguishing mechanism of HFC-227ea is heat absorption, with a secondary chemical contribution from the thermal decomposition of PEMALL HFC-227ea in the flame.

When discharged, PEMALL HFC-227ea will suppress via discharge nozzles and effectively mix with the air through-out the protected area. PEMALL HFC-227ea is perfectly suited to protect high value assets in areas that may be normally occupied, in locations where clean-up of other agents is difficult. Its ASHRAE nomenclature the way it is designated in the NFPA 2001 clean agent is HFC-227ea.

HFC-227ea has a gas pressure of 3.91 bar at 20°C, that positively affects a fast evaporation at the nozzle and the fast distribution in the room. PEMALL HFC-227ea fire suppressant can be safely used where people are present and causes no damage or residues at sensitive electronic components. HFC-227ea absorbs the heat of the fiame and interrupts thereby the combustion reaction. So, the extinguishing effect is caused for the most part physically and for a small part chemical.











## Fire Suppression



# Clean Agent System

## PEMALL 5122

At PEMALL FK-5-1-12, we use science to improve lives. We set out to develop PEMALL FK-5-1-12\* Fire Protection Fluid with the intention to find a solution with high performance and a large margin of safety that does no harm to the environment, extinguish fire quickly without harming people or equipment and ensure continuity of business and lives!

PEMALL FK-5-1-12 Clean Agent is the new generation of clean agent fire suppressant chemicals based on sustainable technology and is the only chemical agent currently available that meets the most stringent actual and future environmental standards. The clean extinguishing agent is a clear, colorless and low odor liquid perfectly suited to protect high value assets in areas that may be normally occupied, in locations where clean-up of other agents is difficult. Its ASHRAE nomenclature the way it is designated in the NFPA 2001 and ISO 14529 clean agent standards- is FK-5-1-12.

PEMALL FK-5-1-12 Clean Agent is formed from the elements carbon, fluorine and oxygen CF<sub>3</sub>CF<sub>2</sub>C(O)CF(CF<sub>3</sub>)<sub>2</sub> – dodecafluoro-2-methylpentan-3-one. The primary extinguishing mechanism of FK-5-1-12 Clean Agent is heat absorption, with a secondary chemical contribution from the thermal decomposition of FK-5-1-12 Clean Agent in the flame. PEMALL FK-5-1-12 Clean Agent leaves no residue and is safe for use in occupied spaces.











## valves UL/FM approved









## Gala valves UL/FM approved

OS&Y Valve is a manually operated, outside screw & yoke resilient seat gate valve designed for use in fire protection systems for on/off operation only.

Maximum Working Pressure

DN50 - DN300 (2" - 12") 20.7 bar (300 psi)

Temperature Range

-10° to 120°C (14oF to 248oF)

Flange Specification

- ANSI Class 125/150 Flange
- PN16 RF Flange

Face to face according to EN558-1 series 3

-Design Standard

AWWA C515

-Coating

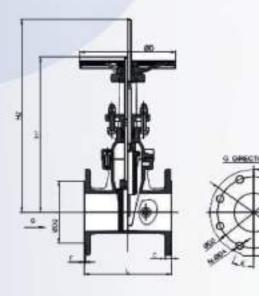
Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550

-Approvals

FM Approved

**UL** Listed















Our Fluid Management program consists of centrifugal pumps, valves and systems that start from 1 HP and could go upto 5.000 HP. No job is too big or too small for us and our services depend on the system and application requirements of our customer. Since we have limitation to in house testing pumps to 1.500 KW, higher rated products are offered with model studies, CFD Analysis and guarantee product performance by testing the pumps at site.

We have rich experience in supply of centrifugal pumps for Sea Water lift for cooling applications in the Netherlands, Dry Dock application, installations in Oil & Gas, Power Plants, Irrigation and many more critical installations.

We are trusted by our customers due to very quick deliveries of reliable products & world class service. We cherish confidence of the most demanding customers and over time have created supply references with Oil Majors, Defence sector, Power Plants, general Industries across Europe and Middle East region.

Our services, ideally chosen products and system Engineering ensure that your system operates reliably. We compete with the best in class for quality & quick response time on every installation through our network.









## MONOBLOC (FPES-C)

FEMTURES	Entit Suction, Monothic, Volute Consing, Proceeding World Services
ON	30 75 00 mm
FLOW	ii to 200 M <sup>2</sup> /Hour
HOME	NO 102 103 10
LIGURO TEMP.	89°C
SPECO.	2000 fuer



## WATER NORM PUMPS (EPES)

requoes	End Suction, Gots Pub Dut, Velues Colonia Hooloof, Notif Device En 718
ON .	DO TO 300 rive.
rion	3 to 3000 M neon.
нот	0.00.000.00
LIQUID TOWN	20170
SPEED.	2500 (101)



#### VERTICAL INLINE (FEG)

FERCURES	WITCH HING BOCK PUR DVI, VILLED CHANG HINGAY YOR DRIGHT
DN .	ne to ten sen
CLOW	5.fu 500 M*/Hour
Hews	a to see n
DODIE TOWN	esto
nmen	eson fami









## END SUCTION (FCN)

PROTUPES:	End Suction, Back Published, Voters Coloring, Radiolly Split George 190 Street
13%	160 to 1600 mm
FLOW	5 to 1400 M*/mosr
ныма	to facilities
DOMO TEMP	290°C
sessio	Jessio Tyres



## SPLIT CASE PUMP (DELTA)

rismines	Axially splif, single or obside solute solute. Enclared Impoler:
1294	50 To 1200 mm
ECOW	30.10 IB.000 M²/mour
HEAD	% to 180 m
DOUBTEMP	ios*c
98660 ·	esoo fan



#### MULTISTAGE PUMP (FMS)

PERFURES	Food only right color colorys, Midfollogic Hirty section, (actional Type:
SM.	90.005.00.000
CTON	15 to 500 M*/How
HEAD	No. 10 SAICH ES
DOUBLEMP:	es/c
tokaro .	2500 fpm









### END SUCTION PUMP (ES)

PEATURESAX	End suction, Mixed Flaur, Semi Open, Enclos Impeller; ISSCK multout, volute casing	
DN	250 to 600 mm	
rlow	400 to 6 000 M³/Hour	
HEAD	es m	
LIQUID TEMP.	so't:	
SPEED	1490 Fpm	



## VERTICAL TURBINE (FVT)

PEATURES	Vertical Suspended, Diffuser, Single Stage/ Multistage, Non-Pullout/ Pullout Design 50 To 2800 mm	
ON		
PLOW	20 to 70,000 w//row	
нело	upto 300 m	
Liquio TEMP	85°C	
NPERG	2900 pm	





# **VALVES**





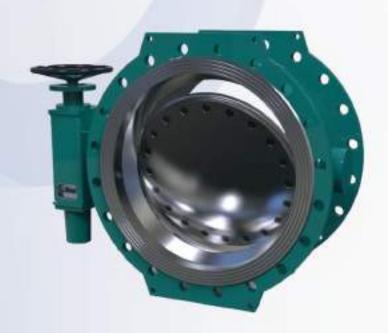
# Industry.

We have a wide range of valves with the design, a large stock available for immediate delivery. We cater to requirements from Water, Oil & Gas, Petrochemical and General

Our products are exported globally from Netherlands.

Our broad range of products includes:

- )Butterfly Valves
- ) Globe Valves
- ) Gate Valves
- ) Ball Valves
- Check Valves





# **VALVES**





# Industry.

## **BALL VALVE**

Trunnion Mounted ball Valve, 3/2 place, FB/RR, Flunged ande	
30 NB 10 600 MS	
#150 , #300, #600	
Hand liever, timor ticox, Actuator	
Cast Steel, Stainless Steel (special on request)	
PTFE, Cleston, Nglon, Metar soul.	



## **GATE VALVE**

energens.	Bolled Bornet, Pressure Seal Dornet, Date formula 6, Yoke, Manual Operated, Chair Meast Operated / Motarback, Position (ORCHO? Unit Teatched State) (Connet! Extended State)
SIZE PANNE	2046 to 320049
PRESSURE PATINO	#250 . #300, #600, #600, #200, #2500
Time	ALAPI True material acudable
MATERIAL.	Cast Steet, stantess Steet tuescur on resucció
WAT WITHIN	PTPS, Devices, Naplan, Methol succes





# **VALVES**

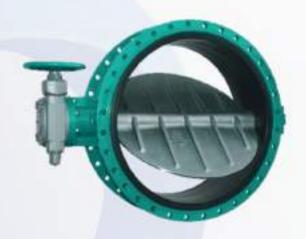




# Industry.

#### BUTTERFLY WALVES

1929 Honge	40 NS fulfod NS
Primare Aning	40 NO 10 SIO NO-PSIO (mox) + SIO NO-PNIO (mox)
Temperature Pange Operator	25- Deg C to 200 Deg C (Depending on material)
Omrator	Preservitic Actuator/ Circotroid Actuator
DOUBLE CODENTRAL	DE NO TO 2000 NO
Promuen Hotels	PNO. (Md 10)
	-usto 200 Deg C. Preometic Actuator / Existrical Actuator



#### DUAL PLATE CHECK WALVE

(NPN)-mater/Lugged/Flanged ends, Saving Loader Soft Stat, Metal Sold/ Cast Fort, Stat Budy

Sin Harqu	NAME OF STOCKER
Promises fluiding	98D 986 9880
700	ALAN TO PUBLIC MADE:
Last this IPCV Material in 10 PM is	NO NEETS AND NEETS
	CHECK WILVES

Site Horse	School to McRinell
Proposition failing	area, apon about their price service
### T	All per trus watering positions





## Mechanical Power Transmission





# COUPLINGS

We supply wide range of high quality couplings for various industrial application.

We have support manufacturing for the transmission products for supplier to industrial customers and have more than 400,000 coupling supplied globally.

We offer following products to the end users, service companies and stockists...

Universal Joints Standard Gear Couplings Flexible Disc Couplings Pin & Bush Couplings







## Mechanical Power Transmission





# COUPLINGS

## PCRB COUPLING

Achieves low vibratory loads in the drive-line components by selection of optimum stiffness characteristics



#### PCT-H COUPLING

Used in high temperature blind assembly, in marine applications, rail tractions, etc.



#### PCPM COUPLING

These couplings gives protection and avoids failure of the drive line under high transient torques & ensures continuous operation.





## POWER GENERATION





## **GENERATING SETS**

We help you find The Right Product for your Power Needs.

FPX can offer a wide range of diesel generator sets for a superior power solution through its performance, flexible range of features and ease of serviceability in the field. Our standard product range starts from 5 kVA to 2000 kVA with various variants and component supplies possible as per special needs.





## WATER TREATMENT





# WATER TREATMENT

We have more than 20 years of experience in the technology of Drinking Water, Waste Water and Process Water. We offer Water Treatment Solutions and have affordable, personalised solutions in Water Filtration and Water Treatment. We develop and produce equipment for various applications and as per the specific needs of our customers. We have established dedicated and repeat customers and have references over the year in the field of Water Filtration, Wastewater, Process Water and Consumption Water. We have supply references in Western Europe, Middle East, Eastern Europe and CIS countries.

Following technologies can be offered:

- Reverse osmosis
- Ultrafiltration





# CERTIFICATIONS

150 9001

150 14001

ISO 45001

CE

**ATEX** 









## REFRANCE LIST

#### ITEM SUPPLY

PROJECT NAME

500 GPM UL/FM PUMP SET

BLADDER TANK & FOAM CONCENTRATE

BLADDER TANK & FOAM CONCENTRATE

FOAM CONCENTRATE

BLADDER TANK & FOAM CONCENTRATE

BLADDER TANK & FOAM CONCENTRATE

BLADDER TANK & FOAM CONCENTRATE

FIRE HOSE CABNITE

750 GPM UL/FM PUMP SET

OS&Y GATE VALVES

FOAM CONCENTRATE & INTERNAL BLADDER

FOAM CONCENTRATE

BLADDER TANK & FOAM CONCENTRATE

FOAM CONCENTRATE & STORAGE TANK

BLADDER TANK & FOAM CONCENTRATE

BLADDER TANK & FOAM CONCENTRATE

BLADDER TANK & FOAM CONCENTRATE

OS&Y GATE VALVES

FOAM MAKER & FOAM POURER

China Plastic Industry Corporation

Balsam Factory in 10th of Ramadan

Hisn Textile Factory

El Alamein Airport

West Delta Project

Burj Al Arab Factory Project

Aswan train station

Mansoura Liver Institute

Nile School, 6th of October

Military Police Headquarters in Haik Step

Cabsi Paints

Civil Protection in Abu Hamad

Talat Mostafa Group

Watnia Gasoline Company

Alexandria Chemical Factory

Sewedy University TKH

Sewedy Factory at Ain Sokhna

Beban solar energy project

Suez hospital











