NAFFCO
FIRE FALCON 6
Airport Rescue and Fire Fighting Vehicle
An Introduction to NAFFCO

NAFFCO, National Fire Fighting Manufacturing FZCO, with its global headquarters in Dubai, is the largest fire fighting manufacturing company in the Middle East. Established in 1991, the organization has built the state-of-the-art manufacturing facility for a wide range of fire fighting equipments, from the smallest fire extinguisher to the most sophisticated fire fighting vehicle. NAFFCO is an ISO 9001:2008 certified company.

Recognized as one of the leading manufacturers of fire fighting, rescue, and safety trucks and vehicles in the Middle East, NAFFCO brings an unparalleled level of innovation, professionalism, and quality to the industry.

Delivering Excellence to Global Standards

Our various trucks and vehicles meet international standards like NFPA, EN and ICAO as well as civil defense & local authorities' standards & requirements. In addition, NAFFCO is the first company outside America to have its fire truck pumping system certified by UL to NFPA 1901 standard.

With over 20 years experience, our engineers have designed, supplied, installed, manufactured, tested and commissioned a broad range of equipment, systems and vehicles from initial concept right through to final delivery and commissioning.

Build, Train, Service & Maintain

NAFFCO manufactures all types of trucks and vehicles to customers' exact requirements and specifications and provide full servicing, maintenance and training options through a separate and dedicated maintenance department available round the clock. NAFFCO also undertakes annual and semi-annual maintenance contracts that ensure smooth running of the equipment year after year.

Fire Fighting  |  Rescue  |  Safety
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Presenting - The Fire Falcon 6

Airport Rescue Fire Fighting Vehicle by NAFFCO

NAFFCO is proud to introduce its first Airport Rescue Fire Fighting (ARFF) Vehicle – “Fire Falcon 6”.

NAFFCO is the first company outside Europe and the Americas to build such a vehicle. With this achievement, NAFFCO has completed the full range of fire fighting vehicles for all the various applications.

The NAFFCO Fire Falcon 6 ARFF Vehicle is designed to meet current and anticipated requirements of major hub international airports based on the performance criteria of NFPA 414 and ICAO standards.

Fully Fitted to Facilitate Fire Fighting

The “Fire Falcon 6” is based on a 6x6 purpose built chassis having a high performance rear mounted diesel engine, fully automatic transmission, and is designed to pump water/foam solution on the move. Designed in contemporary style, the crew cab allows crew safety and ease of operations. The vehicle carries 12,000 liters of water, 1,440 liters of foam and 225 kg of dry chemical powder.
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Exclusively Built As Airport Rescue & Fire Fighting

The basic chassis of the "Fire Falcon 6" is designed exactly for the purpose of ARFF vehicle; neither a military vehicle nor a commercial vehicle converted into an ARFF vehicle.

The chassis has specifically designed axles rather than "standard" adapted axles with real 3 m width (not offset rims) to increase the stability at the rated capacity of each.

Salient Features of

The fire fighting system of the Fire Falcon 6 consists of 12,000 liters water, 1,440 liters foam, a single stage centrifugal water pump, driven by a power divider mounted power take off, having a maximum capacity of 7,750 lit/min and a maximum outlet pressure of 17 bar, an accurate automatic foam proportioning system, with 3% and 6% admixing rates, supplying to:

- A remotely electric controlled air-aspirated roof monitor having a capacity of up to 6,000 lit/min with throw-range of 80-90 meters
- A remotely electric controlled bumper turret having an adjustable capacity of up to 1,900 lit/min with throw-range of around 60 meters
- An electric rewind hose reel connected to a 1" x 30 m hose and nozzle
- Two pre-connect side hand lines
- Five under truck protection and ground sweeping nozzles

The system has also a 225 kg dry chemical powder system complete with an electric rewind hose reel assembly fitted with 1" x 30 m hose and gun of 2.5 kg/sec capacity.

The vehicle is designed with a modular concept, takes into consideration easy access for routine maintenance, and is capable of operating at temperatures from -25° to -50° C with up to 100% humidity.
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Apart from the engine and transmission, all components of the chassis are engineered in-house, rather than assembled, to guarantee continuous supply of spare parts throughout the life of the vehicle.

The design of the chassis, cab, superstructure, and tank assembly provides low centre of gravity ensuring excellent vehicular stability.

**Build Quality of the Cab**

The cab is made of high quality stainless steel with a massive glass surface that results in providing a high level of corrosion resistance. The design of the cab provides a high level of crew protection, comfortable working environment, excellent visibility, and ease of operation. Additionally, a low noise level in the cab is achieved due to rear engine configuration and good insulation.

**Load Bearing Capacity**

The "Fire Falcon 6" has a high capacity GVW (Gross Vehicle Weight) of 36 tons to allow for maximum loads of extinguishing agents and equipment. This is achieved as well by usage of light material in construction: water/foam tanks made of polypropylene and superstructure.

**The Powerful Engine of Fire Falcon 6**

The chassis is fitted with a high performance rear mounted IVECO VECTOR diesel engine having a total power of 1,023 HP, which is considered the highest and most powerful engine available in the market in the 6x6 category with over 300 HP more than any other competitor. The massive engine together with a fully automatic ALLISON transmission allows an unmatched acceleration of 0 to 80 km/h within 21 seconds and a top speed of 120 km/h – as a fully loaded vehicle (around 36 tons). It provides excellent cross-country and braking performance when operating within a temperature range of -25º to +50ºC and relative humidity up to 100%.
Custom Built by NAFFCO

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Value Added Features of Fire Falcon 6
Other features include full stainless steel exhaust, cantilever spring mounted suspensions for added high speed capacity handling, pushing fan cooling for higher engine cooling and disc brakes with special calipers to assure constant stopping.

Water/Foam Pumping on the Move
The water pump is operated through a PTO mounted torque converter which allows pumping of water or foam solution while the vehicle is moving (pump-and-roll operation) at any speed.

Huge Storage Lockers
The vehicle is also provided with large volume storage lockers on both sides of the superstructure suitable for the stowage of all fire fighting and rescue equipment as recommended by ICAO standard.
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NAFFCO Client Base and Our Locational Advantage

NAFFCO client base includes governments, oilfields, industrial, private, and public sectors throughout the Gulf and beyond. With our global headquarters and factory located at Jebel Ali Free zone Area, Dubai, UAE on a one million sq. ft. area makes it convenient to export to over 80 countries worldwide with ease.
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<table>
<thead>
<tr>
<th>CHASSIS</th>
<th>FIRE FALCON 4</th>
<th>FIRE FALCON 6</th>
<th>FIRE FALCON 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Config</td>
<td>4x4</td>
<td>6x6</td>
<td>8x8</td>
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<tr>
<td>Cabin</td>
<td>Stainless Steel (STD)</td>
<td>Stainless Steel (STD)</td>
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<td>Air Conditioning</td>
<td>Available</td>
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<td>Crew</td>
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<tr>
<td>Engine Model</td>
<td>Deutz TCD 2015 V8, Diesel</td>
<td>Iveco Vector – 8, Diesel</td>
<td>Iveco Vector – 8, Diesel</td>
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<tr>
<td>Transmission</td>
<td>Allison 4800, Fully Automatic</td>
<td>Allison M 6610/A, Fully Automatic</td>
<td>Allison M 6610/A, Fully Automatic</td>
</tr>
<tr>
<td>Steering</td>
<td>Center</td>
<td>Center</td>
<td>Center</td>
</tr>
<tr>
<td>Engine Power</td>
<td>670 HP at 1,800 rpm</td>
<td>1,022 HP at 1,800 – 2,200 rpm</td>
<td>1,022 HP at 1,800 – 2,200 rpm</td>
</tr>
<tr>
<td>Engine Torque</td>
<td>2,890 Nm at 1,400 rpm</td>
<td>4,066 Nm at 1,400 – 1,700 rpm</td>
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</tr>
</tbody>
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**PERFORMANCE**

| Acceleration | 0 – 80 km/hr within 25 sec | 0 – 80 km/hr within 21 sec | 0 – 80 km/hr within 27 sec |
| Top Speed    | 115 Km/Hr minimum          | 120 Km/Hr                  | 115 Km/Hr minimum          |
| Grade-ability| 50 % minimum               | 50 % minimum               | 50 % minimum               |
| Braking Distance | 32 – 0 Km/Hr within 11 m | 32 – 0 Km/Hr within 12 m | 32 – 0 Km/Hr within 12 m |
| Static Tilt Angle | 30 degrees minimum      | 30 degrees minimum         | 30 degrees minimum         |
| Approach Angle | 30 degrees                | 30 degrees                 | 30 degrees                 |
| Departure Angle | 30 degrees                | 30 degrees                 | 30 degrees                 |
| Inter Axle Angle | 12 degrees               | 12 degrees                 | 12 degrees                 |
| Wheel Base   | 4,830 mm                   | 5,375 mm + 1,450 mm        | 1,800mm + 3,800mm + 1,450 mm |
| Overall Length | 10,000 mm approx.      | 12,000 mm approx.           | 12,500 mm approx.           |
| Overall Width | 2,450 mm approx. (without mirrors) | 3,450 mm approx. (without mirrors) | 3,450 mm approx. (without mirrors) |
| Overall Height | 4,000 mm approx.          | 4,000 mm approx.           | 4,000 mm approx.           |

**FIRE FIGHTING SYSTEM**

| Water Tank   | 6,000 Liters      | 12,000 Liters   | 16,000 Liters |
| Foamer Tank  | 720 Liters        | 1,440 Liters    | 1,920 Liters  |
| Water Pump   | Centrifugal, 6,000 LPM at 10 Bar | Centrifugal, 6,000 LPM at 10 Bar | Centrifugal, 6,000 LPM at 10 Bar |
| Foam Proportioning System | Automatic Around – The – Pump (0 – 6%) | Automatic Around – The – Pump (0 – 6%) | Automatic Around – The – Pump (0 – 6%) |
| Air Aspirated Remote Controlled | 1,325 – 1,900 LPM (Adjustable) | 1,325 – 1,900 LPM (Adjustable) | 1,325 – 1,900 LPM (Adjustable) |
| Throw Range up to 60m | Throw Range up to 60m | Throw Range up to 60m |
| Water/Foam Hose Reel | 1" x 30 m – Electric Rewind | 1" x 30 m – Electric Rewind | 1" x 30 m – Electric Rewind |
| Side Deliveries | 2 Nos. – 2.5" | 2 Nos. – 2.5" | 2 Nos. – 2.5" |
| Under Truck Nozzles | 5 Nos. | 5 Nos. | 5 Nos. |
| DCP System   | 225 Kg            | 225 Kg          | 225 Kg        |
| DCP Hose Reel | 1" x 30 m – Electric Rewind | 1" x 30 m – Electric Rewind | 1" x 30 m – Electric Rewind |
| Body Construction | Aluminum / Steel | Aluminum / Steel | Aluminum / Steel |
| Body Mounting | Flexible by Rubber Blocks | Flexible by Rubber Blocks | Flexible by Rubber Blocks |
| Front Lickers | Electric / Automatic Operation | Electric / Automatic Operation | Electric / Automatic Operation |
| Rear Engine Doors | Hydraulic Operation | Hydraulic Operation | Hydraulic Operation |
| Electrical System | V-MUX Control System, Programmable | V-MUX Control System, Programmable | V-MUX Control System, Programmable |
| Shutters     | Original Silver Brush Finish | Original Silver Brush Finish | Original Silver Brush Finish |

**FIRE FALCON 4**

**FIRE FALCON 6**

**FIRE FALCON 8**
Recognitions and Certifications

The mission critical firefighting equipment manufacturing industry has excellent methods of testing and established practices for strictly maintaining high quality standards.

Specifically, The NAFFCO Fire Falcon 6 Airport Rescue Fire Fighting Vehicle is designed to meet current and anticipated requirements of major hub international airports based on the performance criteria of NFPA 414 and ICAO.
Our Aim is to become your supplier of choice while focusing on value added products and services that matter most to you.

Quality System:
National Fire Fighting Manufacturing (TQED) is certified to ISO 9001 Quality System by Underwriter Laboratories Inc. Our Preventive Certification is based on comprehensive, state-of-the-art manufacturing processes, based on the latest technology. Our manufacturing processes include testing that ensure the use of raw materials conforming to relevant International Standards. Due to this process of production, products conform to the relevant International Standards and are in different quality standards.

Approvals:
NAFED has successfully achieved ISO 9001 Quality Management System certification by UL, TÜV & KIWA. Further, we have achieved Product certification from UL, FM, LPCB. BSI BS 5416:2015 on wide range of products which include Fire Extinguishers, Fire Hose Reels, Centralized Fire Pumps, Besafe Boxes for driving fire pumps, Fire hose, and other equipment. Certification for fire alarm system installations.

Engineering Capabilities:
NAFED is backed by a team of professionals who are well qualified and experienced in their respective fields to design, development, production, and project implementation. Our devotion to applied research and development program concentrations on innovations which meet customer needs.

Product Range