Greater multi-functionality

Brad Williamson, industrial vehicle expert for Ferrara, explains how the US industrial fire apparatus market is developing and how new legislation is driving industrial apparatus towards more eco-friendly design.

It is crucial for us to deliver a product that is going to exceed the needs of our clients, because if they are satisfied with the product, in the long run, they will produce sales for our company with positive referrals. The industrial fire apparatus market is relatively small in comparison to the municipal or volunteer fire service. The chief officers and purchasing officials of industrial facilities rely on each others input, not only for the jobs that they do in protecting lives and property, but also when it comes to specifying apparatus. They talk to each other often, and they look for the positive and the negative experiences that they have had with any manufacturer. That's exactly why we strive to insure our customer satisfaction in our final product. Service "after the sale" is paramount in maintaining that satisfaction level as well. One of our goals is to ultimately have our customers out there in the market promoting our products for us based on their positive experiences.

My last delivery was to Exxon Mobile, at the Olifens Plant in

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P. O. Box 16 80 • 89531 Giengen • Germany
Memminger Str. 28 • 89537 Giengen • Germany
Phone: +49 7322 951 0 • Fax +49 7322 951 464
E-Mail: export@ziegler.de • www.ziegler.de

Ferrara recently delivered a 3,000 GPM pumper to the Exxon Mobile Olifens Plant in Baytown, Texas.

Baytown Texas. It was a 3,000 GPM industrial pumper, a very nice apparatus. They incorporated many features that are becoming trends for industrial fire apparatus here in the States. For example, they were not only looking at foam applications; they were also looking for an apparatus that carried water. More and more, multi-functional roles for the response agencies are becoming prevalent in the industrial market. They are not only dealing with petrochemical emergencies, but they are also dealing with room and contents fires, brush fires, and other nuisance fires. The car on fire in the parking lot outside the confines of the plant is a great example. They don't want to have to come off the plant water system and stretch a line out for a mile and a half to be able to supply water to put out a Yugo in the parking lot that catches five other vehicles on fire. They desire in the neighbourhood of 300 to 500 gallons of water on the unit in addition to the foam concentrate tank in order to be able to do an initial attack in those types of fires.

The economy is always a concern. Most industrial apparatus purchases are multiple year projects for the administrations. I've had units that took upwards of three years from inception to delivery of the completed truck. Hopefully, the world's economic environment will improve soon. Capital outlay project postponement in the market is common because of the current economic uncertainty. However, we still see industrial facilities purchasing domestically and internationally. Typically, we design and build these trucks so that the life span of these vehicles exceeds 20 years to help departments ride through those multiple times of economic uncertainty with a more reliable apparatus. There is not a competitor out there that builds trucks with equal design and materials thickness that we have. It is a very heavy-duty apparatus and in the European market people do not understand the concept of building these trucks in the heavy-duty manner that we do. Typically they have smaller, narrower streets and they are building these trucks with much lighter gauge materials and composites. From a structural standpoint, we feel our products are constructed in a much more durable fashion.

Fuel consumption is always a major concern whether in the municipal or industrial fire market. Particularly in the industrial arena due to the duration of the incidents they commonly encounter. You might be out there for a week and half and that generally means refuelling the trucks constantly. Industrial facilities have a big concern for fuel consumption. The last thing these firefighters want is to have to cease or interrupt suppression operations to refuel a vehicle. The logistics alone in getting a resupply unit to the scene and through the spaghetti hose lays is a headache in itself. The federal emissions changes for 2010 are going to be a challenge. The current 2007 editions that we are faced with are manageable. The physical size requirements of the components that go in the emissions system and integrating those in the apparatus is easy to deal with. The 2010 emissions regulations however coming into effect on January 1, 2010, are a concern for every manufacturer and customer in both function and pricing levels. Depending on the type of emissions control process that is going to be used by the engine manufacturer could pose some major implications in design and overall size of

According to Brad Williamson, industrial responders are looking for more multi-functional vehicle concepts.

industrial apparatus. I am anxious to see how physically mounting and storing that equipment on the truck is going to pan out. A typical municipal pump enclosure is relatively narrow in width and easy to "plumb". An industrial apparatus pump enclosure could be almost twice the size, due to large diameter nature of the piping, the foam system controls, etc. This means that space is a premium. We want to make the panels as tight as we can, but also open enough that if they do have an issue on the scene, they can get in there and rectify the problem. How the overall plumbing layouts in relation to the additional emissions control devices and urea tank we are all going to have to deal with will be a challenge from a design standpoint.

The DOT regulations stipulate that the industrial vehicles are still mandated to follow the new emissions standards as well as additional OSHA requirements for fall protection on industrial apparatus. Every change that comes out, whether NFPA or federal, we are always going to find a solution, and a way to modify our product to design those features into it. It is a challenge, it is no different than new engines coming out every year in vehicles. The most important thing is to get issues addressed, and the most critical thing is to get them addressed, and make sure they don't affect the overall performance of the truck to keep the customer satisfied.

You will see a combination of high flow aerial devices, potentially 4 to 5,000 gpm on an aerial device. The technology is out there and there is going to be resurgence in these types of apparatus. Due to economic factors, to some degree, you are going to see these trucks decrease in size and capabilities to be able to respond to decreased apparatus purchasing budgets. This is not to say that engine horsepower and in pump sizes will necessarily decrease but you are going to see more multi-role apparatus construction. The MVP (Multi Vocational Pumper) is a concept that we are just introducing in which you have a multiple use vehicle configuration that addresses every discipline a firefighter can come across on daily basis to be addressed from vehicle extrication, hazmat, rope rescue, water rescue, emergency medical response, dive rescue or more in addition to the standard pumper or aerial apparatus duties. Domestically, we have different schools of thought on how rescue squads are put together in the industrial market. There could be trailer type units that a department may have in service, each with a specialised role in terms of response. A modularised concept if you will. Our goal with the MVP is to ultimately result in the Swiss Army Knife of fire apparatus. We feel that this MVP concept will easily transfer into the industrial market as well with some minor modifications. We are very interested in increasing the water way size through the deck gun as well as offering upgraded piping sizes for the flow requirements of industrial facilities. The pump that is currently in it now is capable of 2,250 GPM, although we are rating the municipal unit seen here at 2,000 GPM. Being able to take that Hale QMAX 2250 pump with a Williams Fire and Hazard Control Hot Shot II Balanced Pressure foam system or a Foam Pro Accumax system, with a smaller and modularised multifunctional apparatus package will result in a unit that we feel many industrial customers will love to have in their facilities.