A QUARTERLY PUBLICATION

TASK FORCE TIPS

SPRING 2002

TASK FORCE TIPS
www.tft.com

FOAM
Fast & Simple

TFT's introduction of the PRO/pak portable foam injection and application system has significantly simplified foam-making challenges around the world. Rarely has a single product solved so many complex fire ground operational issues.

The creation of finished foam on the fire ground has long been a major challenge involving foam agents, injection systems, engine pressures, hose lays, and nozzle performance. The PRO/pak integrates all of these components into one easy-to-use package for maximum performance, reliability, and ease of use.

The PRO/pak's 2.5 gallon tank and integrated injection system function equally well with Class A foam agents at 0.01% up to 1.0%, or AFFF and AFFF-AR concentrates at 1.0%, 3.0%, or 6.0% ratios. Designed to operate effectively at pressures as low as 50 psi, the unit comes complete with a choice of three nozzles for maximum reach and penetration, wet sloppy foam, or maximum foam expansion.

The PRO/pak is ideal for just some of these following firefighting situations;

- Vapor mitigation of a flammable liquid spill using AFFF or AFFF-AR with the medium expansion tip
- Pretreatment protection of a structure using Class A foam with the low or medium expansion tip
- Quick extinguishment of deep-seated nuisance fires using Class A foam with any of the tips
- Creation of wet-lines and for use in mop-up operations using Class A foam in the wildland urban interface

With over 10,000 units delivered to fire suppression agencies worldwide, the PRO/pak has simplified the once complex task of foam application operations. For additional information on this vital firefighting tool, contact TFT customer service and request the PRO/pak video and the PRO/pak operational literature.

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WELCOME

Recently, you may have noted in some trade journal advertising or on its web site that Akron Brass has discontinued the production of its automatic series of handline nozzles. Since many of our readers use TFT automatics every day, I felt some simple straightforward comments were necessary.

It is true that the Akron Automatics have not been nearly as successful in the marketplace as those manufactured by Elkhart and Task Force Tips. It is also true that it's Akron's right to pull the series off the market anytime it chooses. This, of course, is a business decision based on profit and loss. But, in the course of making this business decision, and in an effort to re-market and re-package much older nozzle technology, a tremendous disservice is being done to the 20,000 plus fire departments in this country that stake their lives every day on the performance of automatic nozzles.

Akron Brass's recent announcement that it has discontinued the manufacture of automatic nozzles because the technology has been "surpassed" by fixed and selectable gallonage nozzles, not only is a gross misstatement of the facts; it is revisionist history to the MAX!!

All nozzles squeeze off the flow to achieve pressure. In fact, the only purpose of a nozzle is to squeeze off the flow so that pressure (velocity) is developed to project the stream (mass). The inference, in recent releases, that this is solely the function of an automatic nozzle is inaccurate and somewhat misleading. The only thing different about an automatic (Elkhart's, TFT's, or the discontinued Akron's) is that they size the orifice through a spring and/or hydraulic balance automatically throughout a range of flows and pressures.

As a TFT user, you certainly have come to realize the benefits an automatic nozzle can provide in fire streams management operations. And, if you are thoroughly familiar with the product line, you will also realize that automatic nozzles come in many operating pressure choices (55 psi, 75 psi, 100 psi) to meet different fire department requirements, as well as exceeding the exacting standards of the NFPA 1964 Standard (1998 edition).

We will continue our commitment to work with departments to help determine their fire streams management goals. We feel education is still the best selling tool we have. Meeting and exceeding your needs and expectations is our primary task. Whether you choose, fixed, selectable, or automatic nozzles, Task Force Tips, Inc. will be here offering over 400 models of high performance fire streams management equipment. Please don't be misled by marketing hype.

Regards

Stewart McMillan
President

UPCOMING SHOWS

TFT® TASK FORCE TIPS

Industrial Fire World
April 1-4, Houston, TX

Task Force Tips, Inc. will be introducing the latest in LDH hardware and new Fire Streams Management equipment. Visit with Paul Neely, TFT's Industrial Products Manager, and attend his "Fire Streams to the MAX" program.

FDIC West
May 1-3, Sacramento, CA

Stop by and visit with Dave Burns, Southwestern Regional Manager, and have him show you the newest Large Diameter Hose Hardware. Dave will be exhibiting with our distribution partner L.N. Curtis and Sons at this show.

Emergency Response Training School
May 6-9, Beaumont, TX

Paul Neely, TFT's Industrial Products Manager, will be in attendance for this important training program.

Pennsylvania Fire Expo
May 17-19, Harrisburg, PA

Jim Cottrell and Chris Carson of Cottrell Associates and several TFT representatives will be attending the "largest selling show" in the fire industry. Come see the new METRO II nozzle.

NFPA Conference
May 20-22, Minneapolis, MN

Rod Carringer and Arthur Cuenca will be in attendance for this important conference and standard making program. Stop by the booth to see the latest in NFPA compliant nozzles.

New York Chiefs FIRE 2002
June 6-8, Syracuse, NY

Cottrell Associates as well as TFT factory representatives will be in attendance with several field training apparatus as well as an extensive inside display booth.

Iowa State Fire School
June 13-16, Ames, IA

Visit with Ken Kendrick, TFT's North Central Regional Manager, and take a look at all of the goodies on his new training and demonstration vehicle.

Illinois Fire Districts
June 20-22, Springfield, IL

Stop by and see Andy Plofkin, TFT's Midwestern Regional Manager, and review the new Large Diameter Hose Hardware and the new METRO II nozzle.

BLITZFIRE OSC

MAXIMUM COVERAGE/LIMITED STAFF

The Blitzfire OSC is a highly maneuverable initial attack monitor with TFT's exclusive nozzle oscillation feature. The Blitzfire OSC's low elevation angle makes it suitable for aggressive interior attack or exterior defensive operations when cooling or exposure protection is necessary. It can go anywhere a handline goes while delivering far more water with limited staff.

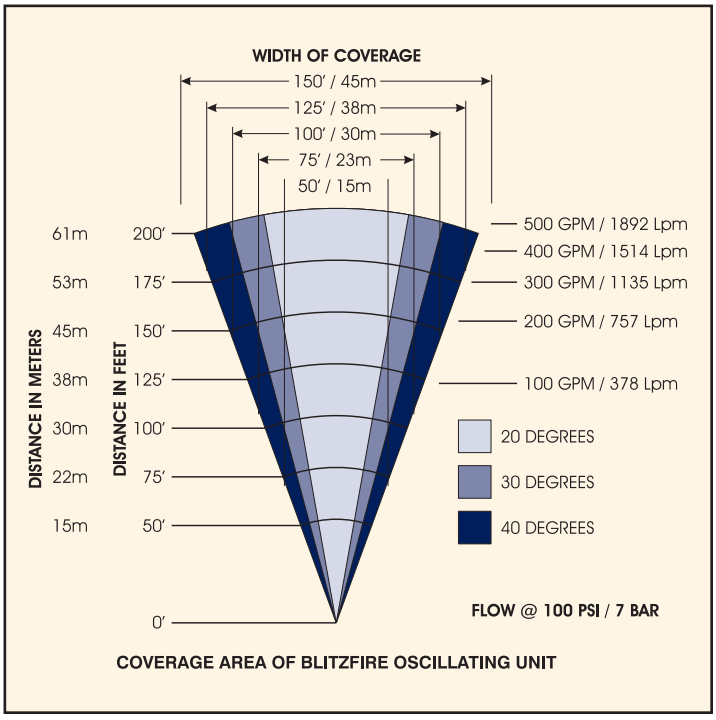
If the Blitzfire OSC starts to slide or lift, the SAFETY SHUT-OFF VALVE automatically shuts off the flow of water. This safety feature reduces the risk of injury from an out-of-control appliance. The shut-off slows near stroke end to eliminate potential water hammer.

To reset the flow, simply re-open the valve to any of six detent flow positions with the turbulence-free slide valve.

The Blitzfire OSC's unique water turbine design drives the oscillating unit in a selectable 20-, 30-, or 40-degree sweeping motion. The oscillating mechanism can be easily disengaged for manual operation. A unique up/down pivot on the hose inlet allows the monitor to have stability even on porches, stair landings, or the like. An anchor strap is included for safe operation on slick surfaces like marble floors. The main body is hardcoat-anodized aluminum with a TFT powder coat finish inside and out.

When cooling of processing or operating units is necessary, yet limited staffing will not allow the use of manned equipment, the Blitzfire OSC can provide up to 500 gpm in an unmanned operation. For hazardous locations, the oscillating feature will allow continued cooling or firefighting operations while fire brigade members remain safe. The Blitzfire OSC is the perfect appliance for high-flow, unattended operations or for an aggressive interior attack.

For additional information, contact TFT Customer Service and request the new Blitzfire OSC videotape and corresponding operational literature.



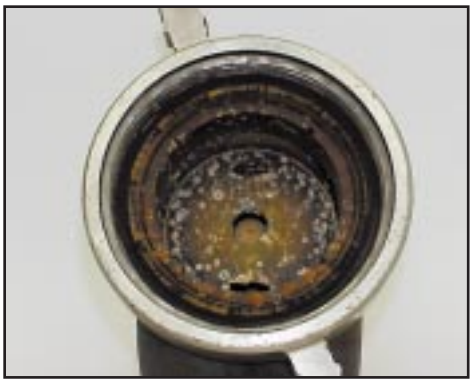
The challenge of redesigning the traditional fire apparatus piston/gate intake valve has been a nearly two-year project for TFT's LDH hardware design and manufacturing team.

Thousands of hours have been devoted to understanding the problems identified with current competitive models and finding unique solutions that address these critical operational issues.

Here are some of the key findings that were determined by end-user focus groups, internal research teams, and TFT's field managers as being key to the design and development of a new style intake valve.

CREATING THE NEW BIV (BALL INTAKE VALVE)

World Class Research & Development



Corrosion in Piston Valves

ISSUE #1
CORROSION
Even on relatively new equipment, galvanic corrosion and corrosion from aggressive mineral-laden water continue to render many valves unusable after a short period of time.

ISSUE #2
LACK OF INLET FUNCTIONALITY AND FLEXIBILITY
Using the typical fixed elbow design for an inlet, nearly all models of intake valves currently on the market can cause kinking of supply hose as it leads to the pump.

ISSUE #3
FLOW INEFFICIENCY
With apparatus pump capacities moving more commonly towards 1500 gpm and 2000 gpm, inefficient intake valves create additional friction loss and rob pumps of their peak performance.

With this valuable input, TFT's research and development group went to work designing the next generation of pump intake valves. Using information gained from the purchase of Jaffrey Fire Protection's LDH hardware line and incorporating the proven coatings technology used on other TFT products, the BIV is truly an evolution in the LDH appliance business.

TACKLING THE CORROSION ISSUE
Two separate parallel initiatives took place to solve the long-standing corrosion issues that the team identified:

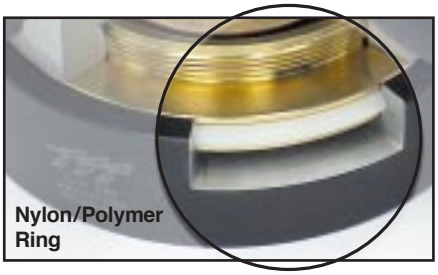
1. Provide a coating process that would protect the lightweight aluminum castings from the corrosive effects of mineral-laden water that may lay in the valves for months
2. Break the electrical conductivity within the pump and plumbing system that leads to galvanic corrosion on the attached valve.

The team's final decision for the protective coating of the aluminum castings consists of a three-step process and is designed to provide maximum corrosion-resistance under rugged fireground conditions.

Since a raw aluminum casting is very porous, the first challenge is to eliminate that porosity and fill in the small cavities that can trap and hold moisture. This is accomplished with a process that impregnates a polymer material into the casting while under a vacuum.

Next, the casting receives a hardcoat/anodizing treatment that chemically converts the outer shell to aluminum oxide. This is the same process TFT has used successfully for years on all handheld nozzles and accessories.

Finally, the casting has a polyester powder coating electrostatically bonded inside and out. This powder coat process is common not only in TFT equipment, but is also used widely in the automotive industry, home appliances, and for outdoor furniture.

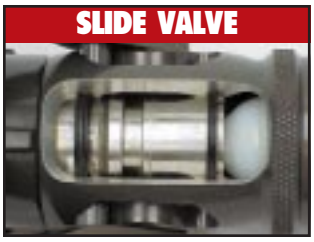


To break the electrical conductivity that exists between the dissimilar metals of the pump and valve and eliminate the associated galvanic corrosion, TFT engineers took a bold step and removed the stainless steel ball bearings in the BIV's coupling. A nylon/polymer ring was chosen to replace the bearings and short circuit the electrical conductivity between the pump and the valve. This patent pending concept also allows smooth coupling operation under all conditions and is designed to meet and exceed the new NFPA #1965 900 psi hydrostatic strength test.

MAKING THE VALVE MORE USER FRIENDLY
Since all current intake valves that include an elbow are rigid, hose kinking or cross threading often occurs when the supply hose comes to the pump panel from different directions. This is especially true for those fire departments that use hard suction hose while drafting from porta-tanks and dry hydrants. TFT's solution: allow the inlet elbow to swivel 360-degrees. By permitting the elbow to swivel, a supply hose or hard suction hose can come from any direction, be easily connected, and eliminate the possibility of flow-restricting kinks or cross threading. The inlet swivel has eight positive detent positions, and a pull pin that will allow full-time 360-degree swiveling, or will lock the elbow into any of the detent positions. This unique swiveling feature, a newly designed 50-250 psi pressure relief valve, and the visual valve position indicator has gathered "resounding thumbs up" comments from firefighters at over 20 field test sites around the country.

FLOW EFFICIENCY AND THE OLD JAFFREY DESIGN
TFT's stainless steel split-ball valve design, incorporated in the new BIV, was recently granted a US patent. This design, used in older Jaffrey intake valves, is especially suited for maximum flows with minimal friction loss during either a pressurized or drafting operation. Unlike competitive piston-style intake valves, the water path through the BIV has no obstacles or bends to rob your pump's flow performance. With only limited friction loss at 2000 gpm flow, the straight through flow of the new BIV offers the highest performance-to-weight ratio of any intake valve on the market today. The TFT design team capitalized and improved on years of field feedback from hundreds of Jaffrey Fire Protection customers. It is this partnership, in development with our customers, that supports TFT's passion for producing the finest in fire streams management equipment.

YOU'RE FINALLY IN CONTROL !



Since 1986, when our engineering team designed, developed, and patented the slide valve, the vast majority of automatic nozzles delivered by Task Force Tips has included this critical flow control feature. Often, long time TFT departments aren't even aware of this feature when they continue to teach the rookies **"use the nozzle all the way open or all the way closed, but don't gate it!"**

Very simply stated, the use of the slide valve in combination with an integrated automatic pressure control mechanism allows a firefighter the ability to gate down a nozzle without loosing stream quality or impact. Unlike the slide valve, a ball or spilt-ball design creates turbulence in the nozzle when gated. This leads to:

1. a very poor quality stream, and
2. instructors teaching the rookies to not gate the nozzle.

Reviewing history, TFT has integrated the slide valve into the Handline, Ultimatic, and Mid-Matic series of nozzles and now uses the same design in the popular Blitzfire portable monitor. As with any new technology or technique, it needs to be practiced and perfected on the training ground if it is to be successful in the heat of battle.

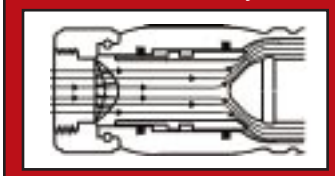
When using the slide valve, the nozzle operator must be aware to use the shutoff handle more as a throttle than as an on/off valve. This will allow the flow to be reduced without degrading the fire stream. This is especially important when crews are working on unstable footing – ice, a ladder, roof, or any position where nozzle reaction is an added risk. By throttling back on the valve and reducing the flow, the operator can choose between safe conditions and providing maximum flow.

From a fireground hydraulics standpoint, rather than calculating a desired pressure for a given flow and hose layout at the scene (nearly impossible in the urgent rush to get water on the fire), you can simply pump to a standard pump pressure.

Pump Discharge Pressures of 150 psi to 200 psi are suggested to deliver the increased flows needed for rapid knockdown in today's fire environment.

The flow control feature of the TFT automatic allows the nozzle crew to then select the flow that is necessary and appropriate for the situation. This important process allows the attack crew to determine its flow needs inside the structure, instead of a pump operator making a decision somewhere outside on the street.

SLIDE VALVE
Gated Half Way



SLIDE VALVE CONSIDERATIONS

- *Stainless Steel design eliminates "valve seat" replacements*
- *Designed to be gated for flow control*
- *Will not bind or tighten with age*
- *Will not tighten under high-pressure operations*

BALL VALVE
Gated Half Way

BALL VALVE CONSIDERATIONS

- *Designed to be used in fully open or fully closed position*
- *May tighten up with age and need seats replaced*
- *More difficult to open as pressure increases*
- *In a gated position, will create turbulence in both straight stream and fog patterns*

For additional information on the exclusive slide valve, nozzle design, and other high-performance fire streams management tips, contact Task Force Tips customer service group and request "A Firefighter's Guide to Nozzles."

High-Rise Challenges Low-Tech Solutions

The challenges of water flow delivery in high-rise operations and low-pressure long lay situations are often insurmountable by even the best-prepared fire suppression agencies. Whether it is working from an under-pressurized standpipe on the thirty-first floor stairwell or stretching line to the third floor of a newly constructed motel, the ability of your department to provide needed fire flows at low operating pressures will determine if the incident shows up in the win or the loss column.

A review of weight versus performance must be undertaken to fully understand the value of pre-bundled hose bags, or hose packs that are carried for this sort of assignment. The following questions should be asked when determining which equipment will provide you the best overall performance:

- What target flows are you trying to achieve? Will you be dealing only with room and contents fires or high hazard occupancies? (For a simple tool to help determine your needed fire flows per sq. ft., ask for a copy of the popular TFT Slide Chart.)
- What operating pressures under flow conditions (not static pressure) can you expect from a standpipe connection? Is it from an internal pressurized system or being pumped from the street?
- How much hose will you need to carry to reach your worst-case target? What connections will need to be made to extend your attack lines should you need to advance further?
- What size and style of hose will be chosen? (Look for minimum weight, minimum friction loss, and maximum resistance to kinking at your target flows.)
- When you have determined the hose and equipment you will include in your hose bundle or bag, can it be easily carried by a firefighter wearing an SCBA?

After years of research and investigation into high-rise operations and in an effort at providing the best performing nozzle package for these specialized operations, Task Force Tips Inc. has developed the METRO II tip and the VITG integral smooth bore shut-off.

The METRO II is based on the time-tested design of the TFT handline and incorporates our unique full-filled power fog pattern, large flush without shutting down, and the rugged durability that has made the Task Force Tips, Inc. handline nozzle the preferred choice since 1983. The unique concept of the METRO II is that it is delivered with flow/pressure baffles that can be easily installed and changed. So, instead of trying to figure out which competitive model you need to order to get the right flow and pressure combination, the METRO II is delivered with seven of the most desired streams. Here are the combinations that come with the nozzle:

The METRO II tip is delivered with the 250 gpm @ 50 psi baffle installed at the factory.

Additional baffles included with the METRO II tip include:

- 185 gpm @75 psi
- 200 gpm @ 75 psi
- 250 gpm @ 75 psi
- 175 gpm @ 100 psi
- 250 gpm @ 100 psi
- 325 gpm @ 100 psi

Combined with the VITG (Valve Integral Tip) integrated smoothbore shut-off, the flow and pressure combinations of the METRO II package are endless and will meet any requirement your customers may have. The VITG series is delivered with four tips that can be easily inserted or changed in the valve. Here are the combinations of smoothbore tips and their associated flows.

7/8"	– 169 gpm @ 55 psi
1 5/16"	– 194 gpm @ 55 psi
1"	– 220 gpm @ 55 psi
1 1/8"	– 279 gpm @ 55 psi

ASK THE EXPERT

Mike Grcich
Service Manager
800-348-2686

For a copy of the newest nozzle and fire streams training tape, contact TFT Customer Service and ask for the "Buckets to Blitz Attack Tape."

Q: Does TFT offer colored pistol grips for its nozzles?

A: All TFT nozzles delivered after 03/01/01 have the ability to have colored pistol grips added. For nozzles manufactured before this date, contact TFT's service department for availability. The kits will include your choice of colored grip, nozzle spacer kit, mounting screw with washer, and Loctite. When a nozzle is ordered with a pistol grip, it will be shipped from TFT with a black grip and the offer to provide a free colored grip of your choice when the warranty card is filled out and mailed in, or if the warranty information is filled out on-line at www.tft.com. Kits can also be ordered for adding a colored grip to a non-grip model. (Available colors: red, orange, yellow, green, blue, white, and black.)

Q: Does TFT offer colored handle covers for its nozzles?

A: Colored handle covers for the TFT Mid-Force and Mid-Matic series of nozzles are available at no charge when the warranty card is filled out and mailed in, or filled out and submitted on-line. The following colors are available and for a nominal fee, can be custom laser engraved with your department or apparatus information: red, orange, yellow, green, blue, white, and black. For additional information on this option, contact the TFT service department.

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