Head to Head Demo Comparison Sheet

"Compare Apples to Apples, Make the Automatic Choice"

Task Force Tips <u>Crossfire®</u> Portable/Deck Mount Monitor

The purpose of this document is to encourage you to compare TFT products head to head, apples to apples, with like models from our competitors. The section below explains the key elements we feel you should compare. The back page explains how to do this in a fair, objective manner. You may use the Crossfire® Rating Score Sheet to rate the key elements, available on our web site www.tft.com.

The TFT Crossfire® should be compared to the Akron Apollo® and Elkhart Stinger®, portable/deck mount monitors.

When conducting a head to head comparison, consider the following elements:

Key Element	Comparison Information	what to Compare
Flow Rate in Portable Mode	TFT Crossfire:1250 GPM Akron Apollo: 800-1000 GPM Elkhart Stinger: 800-1000 GPM	Will the monitor safely provide high flow when desired?
Leg Construction	TFT Crossfire: Spring Stainless Steel Akron Apollo: Cast Aluminum Elkhart Stinger: Cast Aluminum	Ease and quickness to deploy legs. Leg durability.
Rotational Lock	TFT Crossfire: Lever, Positive Engagement Akron Apollo: Knob, Friction Type Elkhart Stinger: Knob, Friction Type	Can locked position be visually verified? Is lock easy to engage and disengage? Does lock hold position in place?
Tie Down Material	TFT Crossfire: High Strength Nylon Webbing Akron Apollo: Chain Elkhart Stinger: Chain	Does the tie down clip in place securely? Is the tie down easily adjusted? Does the tie down store inside the portable base unit?
Labeling	TFT Crossfire: All Controls Clearly Marked Akron Apollo: One Control Marked Elkhart Stinger: One Control Marked	Are all controls clearly marked? Are safety warnings visibly displayed? Can you see if the top is securely locked to the base?
Safety	TFT Crossfire: Safe-Tak Portable Base Akron Apollo: None Elkhart Stinger: None	If the monitor lifts, will the flow be reduced?
Factory Support	 TFT Crossfire: 5 year warranty 24 hour repair policy Akron Apollo: 5 year warranty Elkhart Stinger: 1 year warranty 	Is the monitor backed by a long-term warranty? If needed, how quickly will your monitor be serviced, tested and returned?



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Demonstration and flow evaluation procedures and layout

Comparisons should be repeated under the same conditions, same flows, and same pressures for each monitor evaluated in order to accurately compare features. You man use the attached Crossfire Rating Score Sheet to record ratings as you make the side by side comparisons, available on our web site www.tft.com.

Preparation for Demonstration

- 1) Always compare TFT Crossfire® monitors to competitors' like models, Akron Apollo®, Elkhart Stinger®.
- 2) For each demonstration, assure the evaluation procedures and layouts are identical for each of the monitors being evaluated. Changing any of the variables will result in unfair, inaccurate and inconclusive results. These items include the hose, pumper, discharge used, pressure gauges, flow indicators or meters, valves, nozzles, pump discharge pressure, and any appliances used.
- 3) Using length and size of hose normally used by the department, predetermine the pump discharge pressure(s) to obtain the desired flow(s) for the models being evaluated.



Equipment Set Up

1) Layout the hose(s) from the pump to an area suitable to show fog pattern and straight stream, and foam application if required.

Streams from portable and deck mount monitors may reach more than 100 feet and have substantial impact. Avoid aiming stream toward any undesirable target, such as people, animals, buildings, vehicles, etc.

- 2) Unfold the legs on the portable base assuring that the legs lock into position.
- 3) Place the monitor top onto the portable base assuring that the top locks into place positively.
- 4) Attach a reliable flow indicator or meter anywhere in the hoseline(s). A properly calibrated apparatus flow meter may be used.
- 5) Attach the hose(s) to the inlet of the monitor.

- 6) Attach a stream shaper and set of stacked tips to the outlet of the competitor's monitor using the appropriate size tip for the desired flow. Refer to a nozzle flow chart.
- 7) Attach the tie down chain or strap to a suitable anchor, directly in front of the monitor, in the direction of the stream flow. Lock the rotational lock with the monitor pointed in a safe direction.



The monitor MUST BE ANCHORED PROPERLY to help prevent unwanted sliding along the ground.

- 8) Attach the other end of tie down to the monitor and take out any slack in the tie down.
- 9) Slowly charge hoseline(s) while pump is engaged with minimal pressure.
- 10) Increase pump pressure to predetermined discharge pressure.

Evaluation Procedure

- 1) Observe pressure gauge on the monitor and use the nozzle flow chart to determine flow.
- 2) Note the distance that the majority of the water reaches.
- 3) Observe the stream, looking at how cohesive the stream is.
- 4) Unlock the rotational lock and rotate the stream back and forth within a 45 degree angle either side of the center tie down point.

Observe the ease and quickness of release.

Observe the ease of rotation when sweeping back and forth.

- 5) Lock the rotational lock and try to move the monitor top back and forth. Observe how quickly and positively it locks.
- 6) Rotate the elevation wheel.



Low nozzle elevation angles can cause portable monitors to slide or lift off the ground which can result in injury or death. Do not operate the monitor on the portable base below the elevation safety stop.

Observe the ease of movement of the hand wheel in both directions.

- 7) Slowly close the pump discharge to stop water flow.
- 8) Remove the competitor's monitor from the hoseline and replace with another competitor's monitor or with TFT Crossfire monitor and open the discharge slowly. (Be sure to set the safety valve on the TFT Crossfire monitor before flowing water to it.)
- 9) Repeat Evaluation Procedure Steps 1-7 for each of the monitors using the same pump pressures and hose lays.
- 10) You may perform the flow safety valve test (outlined below), if so desired.



Performing this test with a monitor that is not equipped with a safety valve may cause injury or damage. Do not perform this test if the monitor is not equipped with the flow safety valve.

11) After all monitors are evaluated, look at each of the monitors closely. Observe overall fit and finish for quality.

Flow Safety Valve Test

Performing this test with a monitor that is not equipped with a safety valve may cause injury or damage. Do not perform this test if the monitor is not equipped with the flow safety valve.

- 1) With the water shut off, remove any in-line gauges and flow measuring devices that are attached at the monitor before performing this test to prevent damage to them. Leave the stacked tips attached to the outlet.
- 2) Place Task Force Tips Crossfire monitor base with attached top on the end of the hose line.
- 3) Assure the monitor is tied down properly.
- 4) Put a separate $2\frac{1}{2}$ " or larger hose line with a closed nozzle attached to the end or rescue air bag under one leg (avoid placing a spike on the hose or bag). Attach at least 20 feet of air line if you are using an air bag.
- 5) Point and lock discharge straight ahead. Set elevation to 60 degrees above horizontal. Set the safety valve to the armed position (valve handle in line with the base waterway) and flow water as desired up to 500 GPM.
- 6) Charge additional hose line or air bag from at least 20 feet away until safety valve trips. Valve trip is indicated by the valve handle moving to the tripped position and the reduction in flow.
- 7) Stay clear of the monitor during this test as the monitor will move when the test is performed.
- 8) Slowly close the discharge to the monitor.

Foam Aspirating Attachment Evaluation Procedure

1) Set up the foam proportioning system to be used following manufacturer's recommendations. Several types of proportioners are available including: in-line or built-in foam eductors; around-the-pump proportioners; foam injection systems; and batch mixing. Refer to Task Force Tips Technical Bulletin LTT-102, "Using Automatic Nozzles with Foam Eductors", if using a foam eductor as the proportioning device.

2) Use a suitable foam concentrate or training foam. Follow manufacturer's recommendations and applicable fire training practices, including safe handling techniques, and environmental concerns. Proper, consistent foam proportioning will allow the ultimate performance and comparison of foam aspirating attachments.

3) Assure the foam proportioning system is working properly and flow foam from the nozzle without the aspirating attachment. Observe the consistency and quantity of finished foam without the aspirating attachment.

4) Shut the nozzle slowly and attach the appropriate aspirating attachment for the nozzle being evaluated. (*Some aspirating attachments are to be used in the straight stream position only.*) Open the discharge and observe the consistency and quantity of the finished foam. Observe the reach of the foam stream.

5) Remove the competitor's nozzle and replace with another competitor's nozzle or with the TFT Master nozzle and open the discharge.

6) Repeat Foam Aspirating Attachment Evaluation Procedure Steps 3-6 for each of the nozzles and foam aspirating attachments.

7) After evaluating all nozzles and aspirating attachments, flush the foam proportioner or system and the nozzles and attachments with plenty of clear water per manufacturer's instructions.

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Crossfire Rating Score Sheet	Poor — Best	Poor ──→ Best	Poor — Best
Flow Rate in Portable Mode a) Which monitor flows more?	TFT Crossfirea)12345	Akron Apollo a) 1 2 3 4 5	Elkhart Stinger a) 1 2 3 4 5
Leg Construction/Deployment a) Ease and quickness to deploy legs? b) Durability of leg construction?	TFT Crossfire a) 1 2 3 4 5 b) 1 2 3 4 5	Akron Apollo a) 1 2 3 4 5 b) 1 2 3 4 5	Elkhart Stinger a) 1 2 3 4 5 b) 1 2 3 4 5
Rotational Lock a) Can locked position be visually verified? b) Is lock easy to engage and disengage? c) Does lock hold position in place?	TFT Crossfire a) 1 2 3 4 5 b) 1 2 3 4 5 c) 1 2 3 4 5	Akron Apollo a) 1 2 3 4 5 a) 1 2 3 4 5 b) 1 2 3 4 5 c) 1 2 3 4 5	Elkhart Stinger a) 1 2 3 4 5 b) 1 2 3 4 5 c) 1 2 3 4 5
 Tie Down Material a) Can the tie down clip in place securely? b) Is the tie down easily adjusted? c) Does the tie down store inside the portable base unit? 	TFT Crossfire a) 1 2 3 4 5 a) 1 2 3 4 5 b) 1 2 3 4 5 c) 1 2 3 4 5	Akron Apollo a) 1 2 3 4 5 b) 1 2 3 4 5 c) 1 2 3 4 5	Elkhart Stinger a) 1 2 3 4 5 b) 1 2 3 4 5 c) 1 2 3 4 5
 Control Labeling a) Are the handwheel, elevation stop, leg locks and top lock clearly marked for ease of use? b) Are safety warnings visibly displayed? c) Can you see if monitor top is secured to the base? 	TFT Crossfire 3 4 5 5 3 4 5 <	Akron Apollo a) 1 2 3 4 5 b) 1 2 3 4 5 c) 1 2 3 4 5 c) 1 2 3 4 5	Elkhart Stinger a) 1 2 3 4 5 b) 1 2 3 4 5 c) 1 2 3 4 5 c) 1 2 3 4 5
Safety Valve a) Does the portable base have the safety valve? No=0 Yes=5	TFT Crossfire a) 0 5	Akron Apollo a) 0 5	Elkhart Stinger a) 0 5
Factory Support a) Is the monitor backed by a long-term warranty? b) If needed, how quickly will your monitor be serviced, tested and returned?	TFT Crossfire a) 1 2 3 4 5 b) 1 2 3 4 5	Akron Apollo a) 1 2 3 4 5 b) 1 2 3 4 5	Elkhart Stinger a) 1 2 3 4 5 b) 1 2 3 4 5
Score Totals 14 (poorest) 75 (best) (add the score in each column for overall rating)	TFT Crossfire	Akron Apollo	Elkhart Stinger
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