



Certificate of Compliance

This certificate is issued for the following:

Hydrant Under Monitor (HUM) Industrial Valve Under Monitor (IVUM) & Booster

Under Monitor Valves & Accessories
For Use with FM Approved Monitor Assemblies

Prepared for:

Task Force Tips Inc
3701 Innovation Way
Valparaiso, IN 46383-9327
United States

Manufactured at:

Task Force Tips
3701 Innovation Way
Valparaiso, IN 46383-9327
United States

FM Approvals Class: 1421

Approval Identification: 3059771

Approval Granted: June 28, 2017
Report Revised: July 10, 2017

To verify the availability of the Approved product, please refer to www.approvalguide.com

Said Approval is subject to satisfactory field performance, continuing Surveillance Audits, and strict conformity to the constructions as shown in the Approval Guide, an online resource of FM Approvals.

A handwritten signature in black ink, appearing to read "D. B. Fuller".

David Fuller
VP, Manager – Fire Protection
FM Approvals
1151 Boston-Providence Turnpike
Norwood, MA 02062 USA



Member of the FM Global Group

Monitors

FM Approved monitors are specially designed with large clear waterways to give a powerful, far-reaching stream for the protection of pulpwood piles, lumber yards or other locations where a large amount of water must be instantly available without the delay of laying hose lines.

Hydrant Under Monitor (HUM)

Product Specification

Model No	Construction Material	Rated Working Pressure		Remarks
		psi	(bar)	
Hydrant Under Monitor (HUM)	Body - Aluminum Valve - Aluminum	300	(20.6)	FM Approved for use with FM Approved monitor assemblies. Under monitor valve equipped with monitor connection and two LDH ports. One of the LDH ports may be optioned with a 2.5" gated WYE valve, as shown below.

Inlet and outlet connections are specified as part of the model number code, as detailed in the following table:

Type	Side A Inlet	Side B Outlet	Side C1 Outlet	Side C2 Outlet
ZB	A 6' ANSI 150 Aluminum	0 No adapter (fits ZCH-series Booster)	1 Storz Rigid	J 2.5' 0 Blind Plug 0 NA
		1 CODE-RPM for TFT Monitor with 'P' inlet	7 Rigid Male threads	L 3' 1 Storz Rigid J 2.5'
		2 CODE-RPM with 22.5° elbow	8 Gated Wye 2.5'NH (specify J)	N 3.5' 7 Rigid Male threads L 3'
	Side A Drain Options	3 4' ANSI 150 flange		P 4' 8 Gated Wye 2.5'NH (specify J) N 3.5'
	D Drain in Main Half Ball	4 4' ANSI 150 flange with 22.5° elbow		R 4.5' P 4'
	Z External Drain Only	Q 4.5'NH Quick Connect for Lg. Monitors		T 5' R 4.5'
		T 2.5'NH Quick Connect for Tornado		X 6' T 5'
		V Integrated Tornado (no Coupling)		

Company Name:	Task Force Tips LLC
Company Address:	2351 Industrial Dr, Valparaiso, Indiana 46383, USA
Company Website:	http://tft.com
New/Updated Product Listing:	No
Listing Country:	United States of America
Certification Type:	FM Approved
Class of Work:	1421-Monitor Nozzles

Monitors

FM Approved monitors are specially designed with large clear waterways to give a powerful, far-reaching stream for the protection of pulpwood piles, lumber yards or other locations where a large amount of water must be instantly available without the delay of laying hose lines.

Industrial Valve Under Monitor (IVUM)

Product Specification

Model No	Construction Material	Rated Working Pressure		Remarks
		psi	(bar)	
Industrial Valve Under Monitor (IVUM)	Body - Aluminum Valve - Aluminum or Stainless Steel	300	(20.6)	FM Approved for use with FM Approved monitor assemblies. Under monitor valve equipped with monitor connection.

Inlet and outlet connections are specified as part of the model number code, as detailed in the following table:

Type	Side A Inlet		Side B Outlet	
ZA	A	4" ANSI 150 Aluminum	0	No adapter (fits ZCH-series Booster)
	S	4" ANSI 150 Stainless	1	CODE-RPM for TFT Monitor with 'P' inlet
			2	CODE-RPM with 22.5° elbow
	Side A Drain Options		3	4" ANSI 150 flange
	D	Drain in Half Ball	4	4" ANSI 150 flange with 22.5° elbow
	Z	External Drain Only	5	3" ANSI 150 flange
			Q	4.5"NH Quick Connect for Lg. Monitors
			T	2.5"NH Quick Connect for Tornado
			V	Integrated Tornado (no Coupling)
			X	Code-RRF for TFT Monitor with "X" inlet

Company Name:	Task Force Tips LLC
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New/Updated Product Listing:	No
Listing Country:	United States of America
Certification Type:	FM Approved
Class of Work:	1421-Monitor Nozzles

Monitors

FM Approved monitors are specially designed with large clear waterways to give a powerful, far-reaching stream for the protection of pulpwood piles, lumber yards or other locations where a large amount of water must be instantly available without the delay of laying hose lines.

Booster

Product Specification

Model No	Construction Material	Rated Working Pressure		Remarks
		psi	(bar)	
Booster	Body - Aluminum Check Valve - Aluminum	200	(13.7)	FM Approved for use with FM Approved monitor assemblies. Under monitor connection equipped with secondary inlet for boosting pressure/flow output. The secondary inlet fitted with a clapper type check valve.

Inlet and outlet connections are specified as part of the model number code, as detailed in the following table:

Type	Side A Inlet	Side C3 Relay Inlet	Side B Outlet
ZC	F 4" ANSI 150 Aluminum	1 Storz Rigid	L 3" 1 CODE-RPM for TFT Monitor with 'P' inlet
	G 3" ANSI 150 Aluminum	4 Female RL (NFS)	N 3.5" 2 CODE-RPM with 22.5° elbow
	H Integrate with HUM outlet "0"		P 4" 3 4' ANSI 150 flange
			R 4.5" 4 4' ANSI 150 flange with 22.5° elbow
			T 5" Q 4.5'NH Quick Connect for Lg. Monitors
			X 6" T 2.5'NH Quick Connect for Tornado
			V Integrated Tornado (no Coupling)

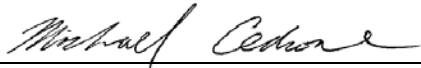
Company Name:	Task Force Tips LLC
Company Address:	2351 Industrial Dr, Valparaiso, Indiana 46383, USA
Company Website:	http://tft.com
New/Updated Product Listing:	No
Listing Country:	United States of America
Certification Type:	FM Approved
Class of Work:	1421-Monitor Nozzles

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APPROVAL REPORT

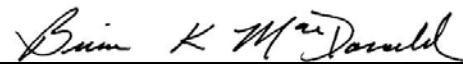
Project No: 3059771 – Reissue 1
Class: 1421, 1112, 1210
Product Name: Hydrant Under Monitor (HUM)
Industrial Valve Under Monitor (IVUM)
Booster
Product Type: Under Monitor Valves and Accessories For Use with FM
Approved Monitor Assemblies
Name of Listing Company: Task Force Tips Inc.
Address of Listing Company: 3701 Innovation Way
Valparaiso, IN 46383
USA
Customer ID: 1000010298
Customer Website: www.tft.com

Prepared by:



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David B. Fuller
VP, Manager
Fire Protection Group

June 28, 2017

Date of Approval

July 10, 2017

Date of Reissue

INTRODUCTION

1.1 Task Force Tips Inc. requested Approval of the product(s) listed in Section 1.4 for compliance with the standard(s) listed in Section 1.3.

1.2 This Report may be freely reproduced only in its entirety and without modification.

1.3 Standards

1.3.1 FM Approvals Standards

Title	Class Number	Issue Date
Approval Standard for Monitor Assembly	1421	June 2007
Approval Stanadrd for Indicating Valves (Butterfly or Ball Type)	1112	August 2006
Approval Standard for Fire Service Water Control Valves (OS&Y and NRS Type Gate Valves)	1120	April 1997
Approval Standard for Swing Check Valves	1210	June 2004

1.4 Listing

The product(s) will be listed in the Approval Guide, an online resource of FM Approvals, as shown in the *Approval Guide Listing* attachment to this report.

1.5 This report supersedes the original Approval report for PI 3059771, dated June 28, 2017. The report was modified to make various corrections to the product listing, as shown in Appendix I.

2 DESCRIPTION

2.1 Hydrant Under Monitor (HUM)

2.1.1 The Hydrant Under Monitor (HUM) is a valve assembly designed to be installed at the base of a monitor assembly. In addition to the monitor connection, it is also equipped with two LDH ports to supply large diameter fire hose. Two concentric half ball valves allow the monitor to be operated either independently or simultaneously with the LDH ports. The valve and valve body is of corrosion-resistant anodized aluminum construction. The rated operating pressure is 300 psi (21 bar).

2.1.2 The HUM is equipped with a 6" ANSI 150 inlet flange. Outlet connection options for the monitor port as well as the two additional LDH ports are identified in the *Approval Guide Listing* attachment to this report. One LDH port may be configured with a 2.5" Gated WYE valve.

2.1.3 All HUM models are equipped with an external automatic drain valve port directly above the valve seat, as well as one integrated with the monitor half ball. These drain valves allow the monitor and valve body to drain fully after the half ball is closed, minimizing susceptibility to corrosion and freezing water. The valve operates automatically after pressure has dropped below 5 psi (.3 bar). The main half ball valve can also be specified

with an integrated automatic drain valve which allows the standpipe to draw atmospheric air to facilitate draining, even while the main half ball is closed.

2.1.4 The HUM main valve and monitor valve are operated via manual handcranks. Both the main valve and monitor valve are equipped with painted indicators for observing valve positions.

2.1.5 The HUM is FM Approved for use with FM Approved monitor assemblies only.

2.2 Industrial Valve Under Monitor (IVUM)

2.2.1 The Industrial Valve Under Monitor (IVUM) is a valve assembly designed to be installed at the base of a monitor assembly which is configured for standpipes with 4" ANSI 150 or DN 100 PN16 flange connections. The inlet flange, half ball, and valve seat retainer are available in either anodized aluminum or stainless steel construction material. The main valve body is of corrosion-resistant anodized aluminum construction. The rated operating pressure is 300 psi (21 bar).

2.2.2 Outlet connection options for the monitor port are identified in the *Approval Guide Listing* attachment to this report.

2.2.3 All IVUM models are equipped with an external automatic drain valve port directly above the valve seat. The drain valve allows the monitor and valve body to drain fully after the half ball is closed, minimizing susceptibility to corrosion and freezing water. This drain valve operates automatically after pressure has dropped below 5 psi (.3 bar). The ball valve can also be specified with an integrated automatic drain valve which allows the standpipe to draw atmospheric air to facilitate draining, even while the main half ball is closed.

2.2.4 The IVUM valve is operated via manual handcrank. A remote controlled (RC) option is available but not included in the scope of this Approval. The valve is equipped with a painted indicator for observing valve position.

2.2.5 The IVUM is FM Approved for use with FM Approved monitor assemblies only.

2.3 Booster

2.3.1 The Booster is designed to be installed at the base of a monitor assembly and provide a secondary LDH inlet port to allow pressure to be "boosted" using a pump and/or foam concentrate to be introduced. The secondary LDH inlet is equipped with a swing check valve to allow for connections while the monitor is flowing. The body and check valve components are of corrosion-resistant anodized aluminum construction. The rated operating pressure is 200 psi (14 bar).

2.3.2 Secondary LDH port inlet connections as well as outlet connection options for the monitor port are identified in the *Approval Guide Listing* attachment to this report.

2.3.3 The Booster is FM Approved for use with FM Approved monitor assemblies only.

3 EXAMINATIONS AND TESTS

- 3.1** Samples were submitted for examination and testing. The samples were considered to be representative of the product line and were examined, tested, and compared to the manufacturer's drawings. All data is on file at FM Approvals along with other documents and correspondence applicable to this program.
- 3.2** All testing and analysis considered appropriate was conducted and verified to be in compliance with the standard(s) defined in Section 1.3.

4 MARKING

- 4.1** The following information appears on all HUM, IVUM, and Booster products identified within this report and meets standard requirements:
- Product Name/Designation
 - Model Number
 - Serial Number
 - Manufacturer's Name/Trademark
 - Manufacturer's Contact Info
 - Rated Working Pressure in PSI and BAR
 - The FM Mark of Approval ("FM Diamond") with the words "for use with FM Approved monitor assemblies"

5 REMARKS

- 5.1** The FM Global Property Loss Prevention Data Sheets should be strictly adhered to when installing this product.
- 5.2** Installations shall comply with the latest edition of the manufacturer's instruction manuals:
- "Hydrant Under Monitor (HUM) – Instructions for Installation, Safe Operation, and Maintenance", doc # LIZ-055.
 - "IVUM and IVUM RC 4" Industrial Valve Under Monitor – Instructions for Installation, Safe Operation, and Maintenance", doc # LIZ-050.
 - "Booster Secondary LDH Inlet for Monitors – Instructions for Installation, Safe Operation, and Maintenance", doc # LIZ-060.

6 SURVEILLANCE AUDIT

The design and manufacturing facilities at the following location(s) shall be visited on a routine basis. The facility processes and quality control procedures in place have been determined to be satisfactory to manufacture product identical to that tested and Approved. A Revision Request form shall be submitted to FM Approvals for requesting to manufacture product at any additional or alternate manufacturing facilities which are not listed below. The products discussed in this Report are FM Approved only when designed and manufactured in the following facilities:

Design

Task Force Tips Inc.
3701 Innovation Way
Valparaiso, IN 46383
USA

Manufacturing

Task Force Tips Inc.
3701 Innovation Way
Valparaiso, IN 46383
USA

7 MANUFACTURER'S RESPONSIBILITIES

- 7.1** Documentation considered critical to this Approval is on file at FM Approvals and is listed in the Documentation File, Section 8, of this Report. No changes of any nature shall be made unless notice of the proposed change has been given and written authorization obtained from FM Approvals. The FM Approved Revision Request form shall be forwarded to FM Approvals as notice of proposed changes.
- 7.2** FM Approvals requires assurance that subsequent equipment produced will present the same quality and reliability as the specified samples examined. The manufacturer must maintain a quality assurance program, which includes as a minimum: incoming, in process, and final inspection and testing, equipment calibration, and drawing change control.
- 7.3** In accordance with the Master Agreement, the manufacturer shall make full and immediate disclosure to FM Approvals of all information concerning any defect in, or potential hazard of, the product or service manufactured or provided by the Customer which is Approved by, or being examined by, FM Approvals. The manufacturer shall make all necessary arrangements for the investigation of complaints / anomalies applicable to this approval and shall keep records of all complaints / anomalies including actions taken.
- 7.4** The manufacturer is responsible for control of the product marking and installation instructions for the product.
- 7.5** The manufacturer shall provide installation, operating, and maintenance manual(s) with each product.
- 7.6** The manufacturer shall conduct the following manufacturing and post production tests as part of their quality assurance program.

 - 7.6.1** The manufacturer shall test 100 percent of production HUM, IVUM, and Booster products for seat leakage to the rated working pressure. With regard to the HUM, both the main valve and monitor valve shall be tested. The test pressure shall be applied to the seat of a closed valve for a minimum of 15 seconds without any leakage occurring.
 - 7.6.2** The manufacturer shall test 100 percent of production HUM, IVUM, and Booster products for body leakage to twice the rated working pressure. The pressure shall be held for a minimum of 1 minute with no evidence of body leakage or distortion.
 - 7.6.3** The manufacturer shall perform an operation test on 100 percent of production HUM and IVUM products. All valves shall be operated through their full range of travel without evidence of sticking or binding.

8 DOCUMENTATION FILE

All documents pertinent to this Approval are on file with FM Approvals under PI 3059771, and are outlined in the “*Critical Document List*” attachment to this report.

9 CONCLUSION

The Hydrant Under Monitor (HUM), Industrial Valve Under Monitor (IVUM), and Booster products described in Section 1.4 meets FM Approvals requirements. Since a duly signed Master Agreement is on file for this manufacturer, Approval is effective the date of this report.

PROJECT DATA RECORD: 3059771

ATTACHMENTS: Approval Guide Listing
Critical Document List

Rev	Change Description	Date	Originator	Approver
1	Edits/corrections to product listing.	7/10/17	Michael Cedrone	Brian MacDonald